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## Allegheny York's purpose is to perform as America's Industrial Seal Superstore!

While America's industrial base faces a global trend by OEM's to reduce inventory, AY continues to expand its strategic commitment to building one of the largest inventories of industrial hydraulic and pneumatic seals in the US. AY is a national leader in on-demand sealing solutions. This catalog is a resource of more than 300 different products and 23,500 line items we stock and supply with a 97+% fill rate.

- Established in 1972 we offer decades of distribution & manufacturing experience for industrial sealing applications
- \$2,000,000 of on-site hydraulic & pneumatic seal inventory at our headquarters near York, Pennsylvania
- 37,000 line items in stock with 90,000 part numbers of standard, custom and legacy seals in our system
- Over 2,000 replacement seal kits for more than 65 industrial hydraulic equipment manufacturers

**Our technical support team can identify and supply the seals that ensure production from your cylinders without delay. If we don't carry it, we'll manufacture it.**

- Specialist in supporting Legacy and Large Bore cylinders in seal identification, substitution, & manufacturing
- In-house engineering technical support for seal identification, design, cost reduction solutions, & troubleshooting
- RAM Sprint MVP- Coordinate Measuring Machine ensures precise quality inspection & reverse engineering
- On-Site Machine Tooling Capabilities
  - CNC router, CNC mill, (4) CNC lathes, (2) manual mills & lathes
  - 4 state-of-the-art, Sumitomo electronic injection molding machines
  - 9 Panstone compression molding machines with up to 42" capability

**Allegheny York's bottom line is helping our clients remain productive and profitable for the seals and gaskets they require:**

- **Hydraulic repair shops** use our warehouse and inventory as if we're their own. Our online store provides instant price and availability. A call to tech support can help identify seals, or order custom seals made the same day.
- **Seal distributors** rely on AlleghenyYork.com to provide instant price/availability to their customers. They leverage our buying power to avoid expensive line minimums from manufacturers for wholesale pricing.
- **OEMs** value the quality of American-made seal manufacturing. We provide competitive tooling charges, and produce small, medium, and large size runs, with flexibility to suit customer needs for production and spare parts.
- **Industrial Maintenance Departments** call when equipment breaks, and they need expertise and parts that day. Their purchasing departments call when they encounter long lead times and inflated prices from OEMs. We can assemble a replacement part or kit, from off the shelf components or reengineer the part you require.

*As America's Industrial Seal Superstore, our team is committed to innovating our business to ensure we provide relentless reliability for solving nearly any industrial sealing need. Give us a call to learn if we can help you or create an account at [AlleghenyYork.com](http://AlleghenyYork.com) and start saving today.*

Phone 800-258-3851

Email: [Sales@AlleghenyYork.com](mailto:Sales@AlleghenyYork.com)

[AlleghenyYork.com](http://AlleghenyYork.com)

## SHIPPING POLICY

Allegheny York processes and ships same day, Monday through Friday. We offer multiple shipping services for your convenience including Fed Ex (air & ground) UPS (air & ground), and USPS.

Shipping times are not guaranteed for receipt through any of our shipping partners. Please take holiday shipping delays into consideration. Shipping updates and holiday shipment information can be found on our shipping partner's websites.

USPS Fed-Ex UPS

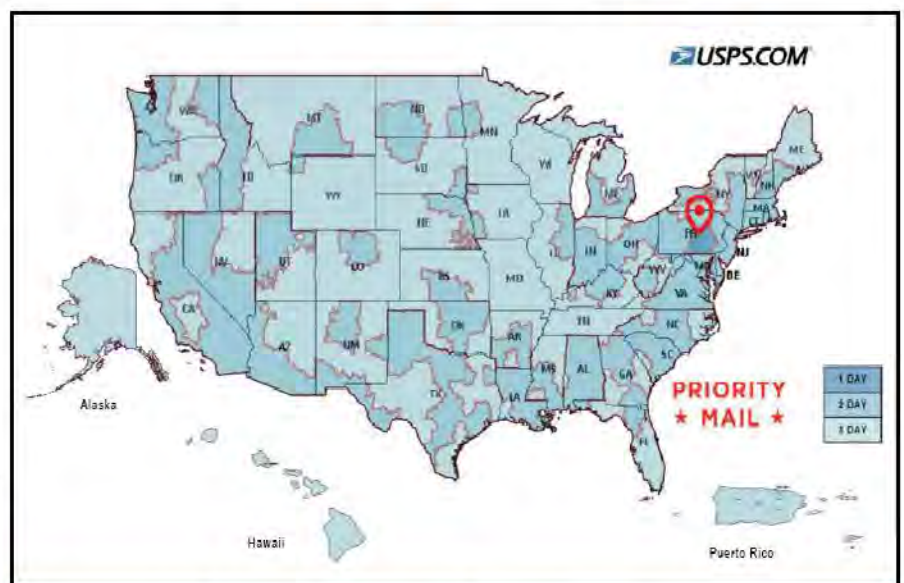
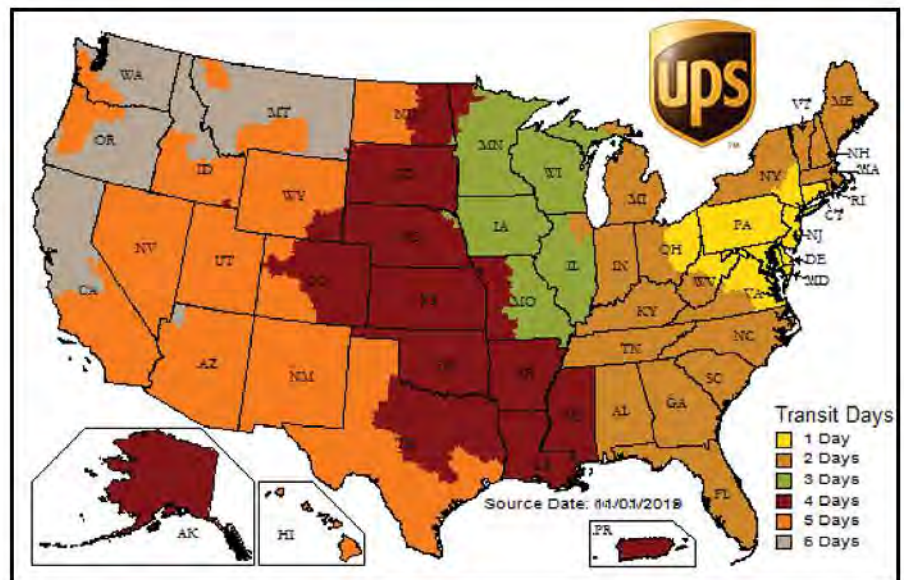
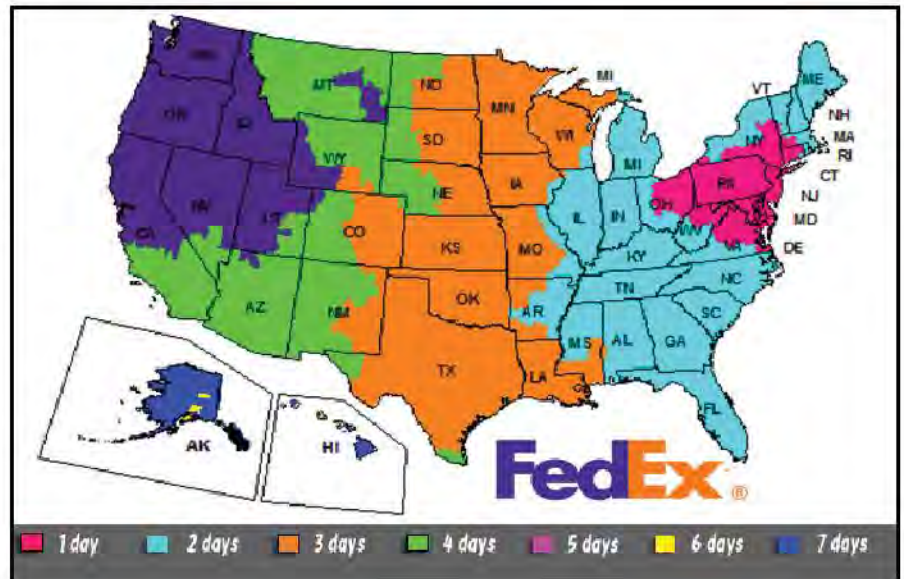
Shipping charges are contingent upon size & weight and will be configured and confirmed at time of shipping. Every effort is made to ensure your order will arrive intact and in a timely manner. Please inspect your order upon arrival and resolve any damage incurred during shipping with the respective carrier.

We offer discounted shipping rates if you ship on our carrier account.

### IN THE NEIGHBORHOOD?

ORDERS CAN ALSO BE PICKED UP  
AT OUR FACILITY  
FROM 8:30AM TO 5:00PM AT OUR  
ON-SITE SALES COUNTER!  
3995 North George St. Ext.  
Manchester, PA 17345

(Id'ing parts will incur a \$2.50 charge / part)



**Buy or Check Stock Online! ALLEGHENYORK.COM Email us at Sales@alleghenyork.com**

Fed Ex Ground cutoff - 3:30 pm Express 4:30 pm EST / UPS cutoff - Ground 5:00 pm - Next day 5:15 pm EST / USPS Cutoff 3:30 pm EST

## OPENING AN ACCOUNT WITH ALLEGHENY YORK

1. Request a credit application by phone, fax, or e-mail at [sales@alleghenyork.com](mailto:sales@alleghenyork.com).
2. Complete our form and return it to us. Please allow processing time of 1 to 2 weeks for credit accounts.
3. We will advise you by mail or phone of your credit limit, discount, and your account number.  
Additional information may be obtained from our sales correspondents.

## ORDERING FROM ALLEGHENY YORK

Order Online: [www.alleghenyork.com](http://www.alleghenyork.com)  
Email: [sales@alleghenyork.com](mailto:sales@alleghenyork.com)  
Phone: 1-800-258-3851 International Phone: 717-266-6617  
24 hour Fax: 1-888-496-7526 International Fax: 717-266-6371



[www.alleghenyork.com](http://www.alleghenyork.com)

### **Online ordering is quick and easy.**

1. Create a user name and password on the web site, then...
2. Contact a sales correspondent to activate your account.  
Order, check stock, pricing, account balance and order history  
at your convenience 24/7, 365 days a year.

**Address:** Allegheny York, 3995 N. George St. Ext., Manchester, PA 17345 -9202 USA

Customer Service Call Center Hours of Operation: Monday to Friday 7:30 AM to 5:30 PM E.S.T.

On-Site Sales Counter Hours of Operation: Monday to Friday 8:30 AM to 5:00 PM E.S.T.

Please refer to page 3 for shipping carrier cut-off times.

## MINIMUM ORDER

Order Minimum ..... \$15.00 Net (U.S. Dollars)  
Line Minimum ..... \$ 2.00 Net (U.S. Dollars)  
Drop Ship Charge ..... \$10.00 Net (U.S. Dollars)  
Blind Drop Charge ..... \$15.00 Net (U.S. Dollars)

**Get the Allegheny York  
BARCODE SCANNER APP**  
*The easiest way to RE-ORDER*



*i-Phone*



*Android*

## QUOTATIONS FOR NON-CATALOG ITEMS

We stock thousands of seals not included in our catalog and we add to our seal inventory every day. In fact, Allegheny York is known throughout the industry for stocking many hard-to-find seals. If we don't have it in stock, we'll be happy to help you find what you need, often overnight. Special seals requiring tooling are available in as little as 4 weeks. Contact our sales office for details.

## RETURNS

Before any item can be returned, a **Return Material Authorization (RMA)** number must be obtained from our sales correspondents. This must appear on all packages near the address label. Returned packages not having an RMA number will be refused and returned to sender. Parts returned are subject to a 20% restocking charge, must be in resalable condition, and arrive at our facility within 30 days of purchase. Kits returned must be complete and in the original sealed package. Special items (non-catalog) may not be returned. Machined items are not returnable. Please return all items to:

ALLEGHENY YORK  
3995 North George Street Ext.  
Manchester, PA, USA 17345-9202



## **CREDIT POLICY**

Our payment terms for all open accounts are **1% 10 net 30 days**. Outstanding accounts reaching 45 days past due from the invoice date will automatically be changed to a C.O.D. account until the cumulative past due amounts are paid. Accounts reaching 60 days past due from the invoice date will automatically be changed to a credit hold status until the cumulative amount is received. Notification will be sent if an account status has changed and if orders are being suspended. To expedite your order we also accept the following credit cards for payment: Visa®, MasterCard®, American Express®, and Discover®. If paying by credit or debit, a \$50 hold will be placed on your transaction. The hold is removed once the shipping charges are calculated, and the transaction is complete.

## **PATENT NOTICE**

Allegheny York supplies seals from major manufacturers such as Parker Seal®, Grover Piston Ring®, Hallite® Seals®, Konsep®, Sepco®, Parker Packing®, Garlock®, J.M. Clipper®, etc. No attempt has been made to determine the patent status of the various seals and methods of using the same which are illustrated or described in this publication. Inclusion in this publication of any design or method which may be patented is not to be construed as promoting or sanctioning unauthorized use.

## **WARRANTY**

All goods sold hereunder are warranted to be free from defects in material and workmanship. These express warranties are in lieu of and exclude all other warranties, expressed or implied. Allegheny York recommends that all designs be tested in prototype prior to production due to the many variables involved in sealing. Our liability for breach of any and all warranties is limited to refunding our invoice price of the products, or at our option, replacement of the material free of charge, including transportation charges, but not on the cost of installation. The sale of our products under any other warranty or guarantee, expressed or implied, is not authorized by the company. All technical advice services and recommendations rendered by Allegheny York personnel are gratis. They are based on technical data which the seller believes to be reliable, and are intended to be used by persons having skill and know-how, at their own discretion and risk.

The information in this publication is based on the best sources and pricing available at time of publication and is furnished for informational use only. Allegheny York has attempted to make it both accurate and useful, and is subject to change without notice based on material costs and/or fluctuation of currency exchange rates. Also, it is impossible to predict future pricing, or to test packings and sealing devices under all the conditions to which they might be exposed in the field. It is important, therefore, that packing and sealing devices be tested under conditions that duplicate the service conditions before the seal design is finalized.

## **NOTICE**

Allegheny York assumes no responsibility for typographical errors, results obtained, damages or losses incurred from their use by buyer in whole or in part. Equipment manufacturers' part numbers are used for reference purposes only. We do not imply that any part shown is the product of these manufacturers. Trademarks are the property of their respective owners.

### **NOTE: \$50.00 FEE FOR RETURNED CHECKS**

Disclaimer: All material references, pressures and dimensions are provided as is and as guidelines. It is the responsibility of the consumer or user of this or any other information, procedures, processes and products contained herein to verify said information for their own use.

# Custom Made Seals on Demand

Allegheny York manufactures wipers, rod and piston seals, backup rings, bearings, and guide rings to meet any demand. Using advanced rapid prototyping technology, parts can be made from over 100 profiles (Pages 8 - 9) for possible same-day delivery using AY's extensive inventory of materials (Page 7). AY's Engineering team will design the part to fit the application and supply a drawing and quotation for customer approval prior to machining.

**Size Capabilities:**                      Inch                                      Metric

5/16" I.D. to 23-1/2" O.D. / 8 mm I.D. to 600mm O.D.

**Information needed to make a custom part:**

Part Profile: Determine the type of seal needed (Rod Seal, Piston Seal, Wiper, Back-up, etc...) Then, use the Profile Selection Chart on pages 8-9 to select the specific profile. Contact AY's Engineering Department for custom profiles and alternatives.

Dimensions: Customer should provide the metal dimensions of the groove in either standard or metric if possible. Seal measurements are also acceptable.

Material: Select material on page 7. The Engineering Department may suggest alternatives based on the customer's application.

Operating Conditions: Customer should provide as much information as possible about temperature, pressure, speed, chemical contact, and any other operating conditions where the part will be used. Issues with the current seal is also useful information.



**Online Quote Request Form**

- Temperature                      Max/Min.                      \_\_\_\_\_
- Application                                      \_\_\_\_\_
- Media    \_\_\_\_\_
- Pressure                                      Max/Min.                      \_\_\_\_\_
- Speed    Max/Min.                      \_\_\_\_\_



**Larger Quantity items:**

Allegheny York has the capability of injection molding or compression molding in larger quantities at lower prices. Contact the Engineering department for more information.

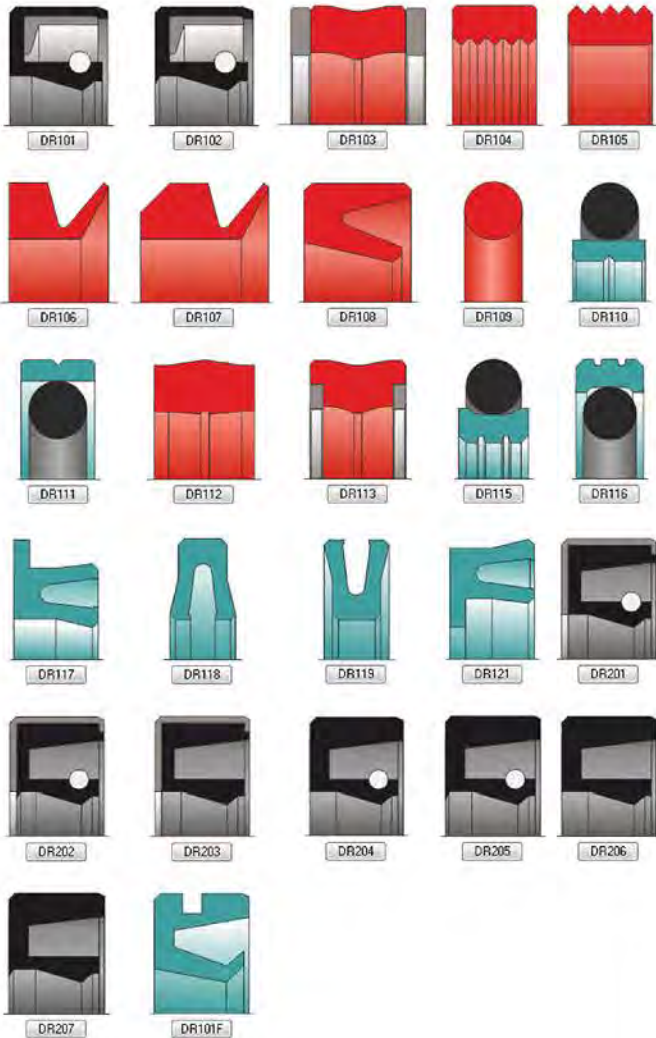


# Material Selection Guide

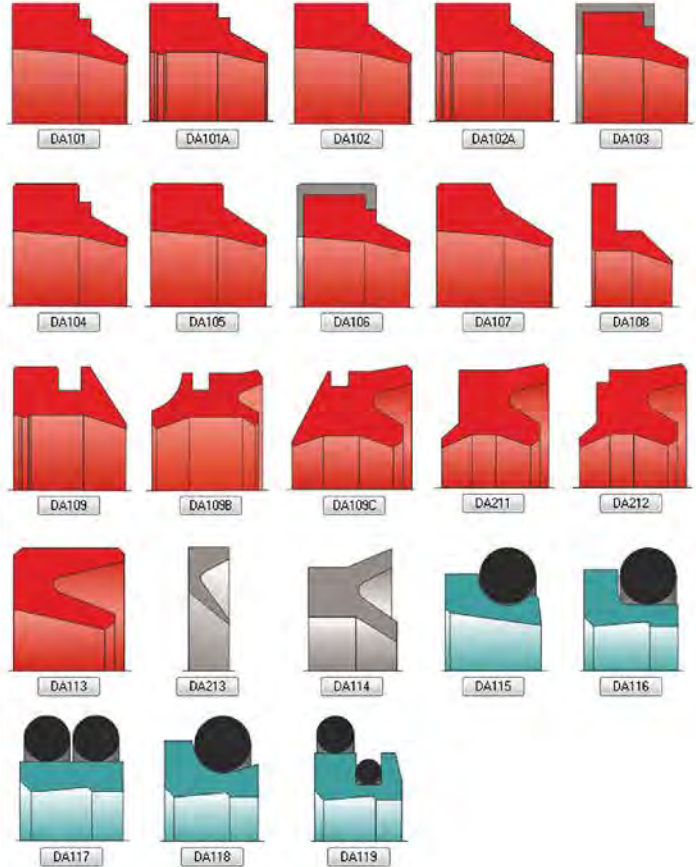
Material Code	Material Description	Other Names	Standard Color
01	Other Urethanes	PU, Polyurethane	Black, Blue, Red
02	Water Resistant Urethane	H-PU, Water PU	Red
03	NBR Rubber	NBR, Nitrile, Buna	Black
04	Highly Saturated Nitrile	HNBR, HSN	Green, Black
05	KTW EPDM	EPDM, Ethylene Propylene	Black
06	Silicone	Silicone	Natural, Clear, Blue
07	FKM	Fluorocarbon, Viton <sup>®</sup> , FPM	Brown, Black, Green
08	Delrin <sup>®</sup> / POM	POM, Acetal	White
09	Nylon	PA, Poly Amid	Natural, Black, Grey
10	Virgin PTFE	TFE, Polytetrafluoroethylene, Teflon <sup>®</sup>	White
11	15% / 5% Glass-Moly Filled PTFE	15/5 GMTFE	Gray
12	40% Bronze Filled PTFE	40% B-TFE	Brown
13	60% Bronze Filled PTFE	60% B-TFE	Brown
14	25% Carbon Graphite Filled PTFE	25% CG-TFE	Black
15	15% Graphite Filled PTFE	15% G-TFE	Black
16	25% Carbon Only PTFE	25% Carbon Only	Black
17	15% Glass Filled PTFE	15% GL-TFE	White
18	Low temp NBR	TNBR	Black
19	FDA-EPDM	Ethylene Propylene	Black, White
20	FDA - FKM	Fluorocarbon	Brown
22	25% Glass Filled TFE	25% G-TFE	Natural, White, Blue
23	Hytre <sup>®</sup> 40d (90A shore)	Polyester	Black
25	Hytre <sup>®</sup> 63d	Polyester	Blue, White, Natural
26	Hytre <sup>®</sup> 72d	Polyester	Blue, Orange, Natural
27	Hytre <sup>®</sup> 55d	Polyester, Polymyte <sup>®</sup>	Orange, Blue
28	Nylon 33% Glass Filled	33%GL-PA	Black
29	Carboxylated Nitrile	X-NBR	Black
30	Nylon 40% Mineral Filled	40%M-PA	White
33	Aluminum	Aluminum	Silver
34	Phenolic	Phenolic	Brown Fiber
35	Springs	Garter, Meander, spring-locks	Stainless Steel
36	Low Temp Urethane	PU, Polyurethane	Blue
38	Urethane 55 durometer	PU, Polyurethane	Yellow
39	Urethane 72 durometer	PU, Polyurethane	
40	Aqua Blue Virgin PTFE	PTFE	Aqua Blue
41	UHMW	Low Density Polyethylene	White
42	20% Polyamide/TFE (Rulon J)	Rulon J	Brown, Gold
43	Delrin <sup>®</sup> 500AF	Teflon <sup>®</sup> Filled Acetal, POM	Brown
44	AFLAS	AFLAS	Black
45	PVDF	Polyvinylidene Fluoride	Natural
46	SAE 660 Bronze	Bronze	Bronze
48	PEEK	Polyetheretherkeytone	Light Brown
49	85 Duro Neoprene	Chloroprene	Black
50	Mineral Filled PTFE		Off White
51	FDA NBR	Nitrile, Buna	White

# Custom Seal Profiles

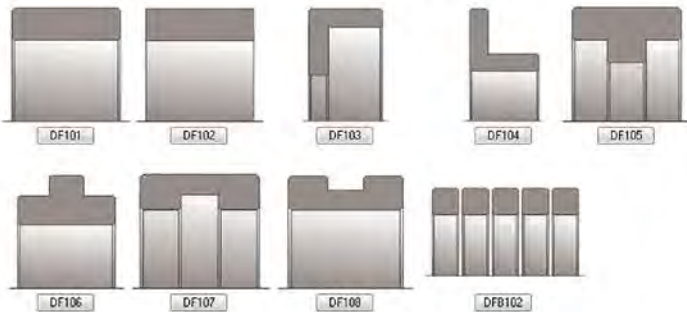
## Rotary Shaft Seals



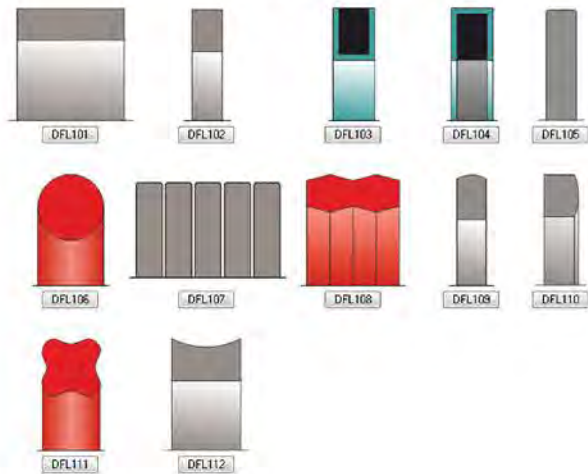
## Wipers



## Guide Rings



## Gaskets

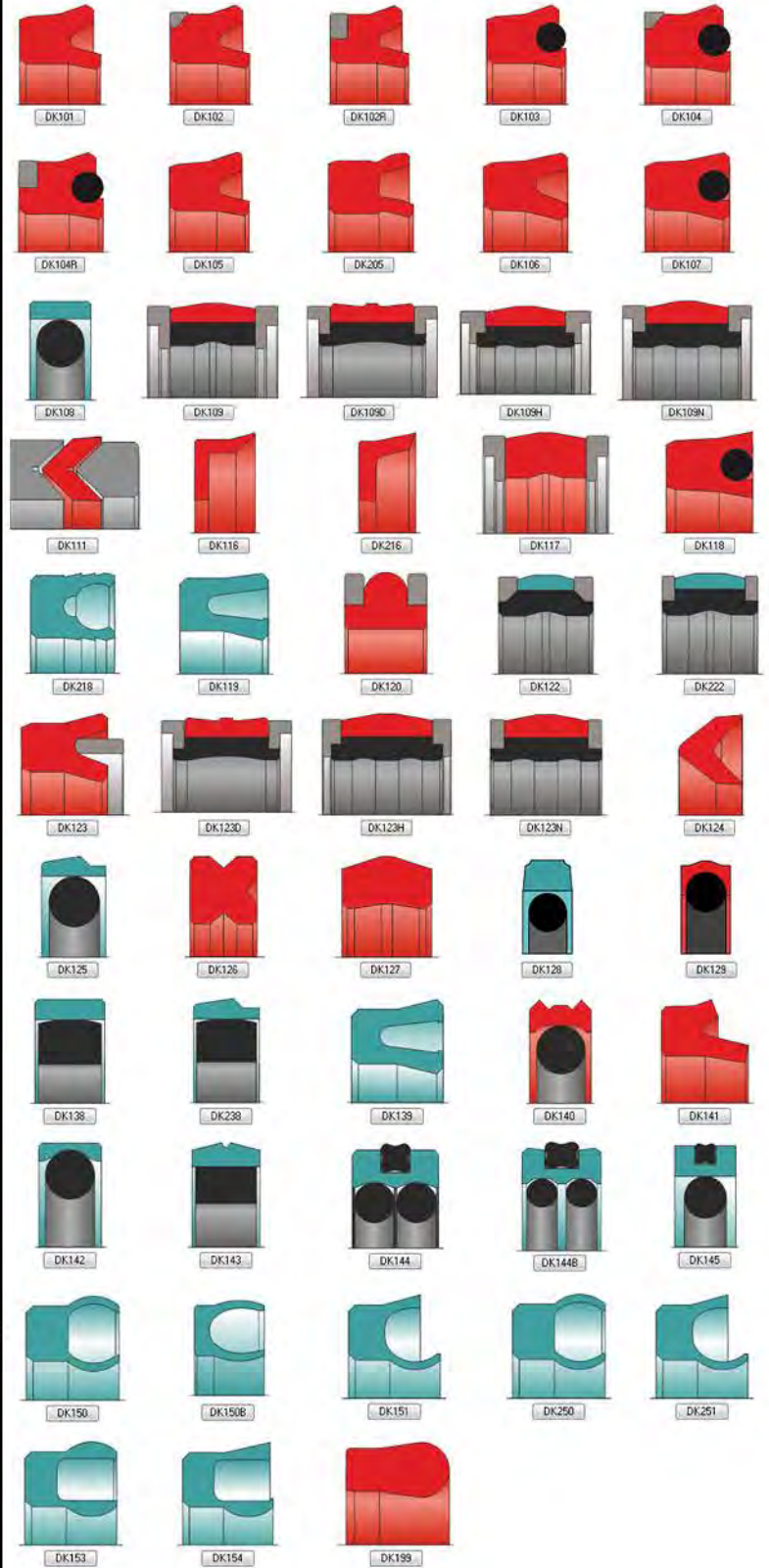
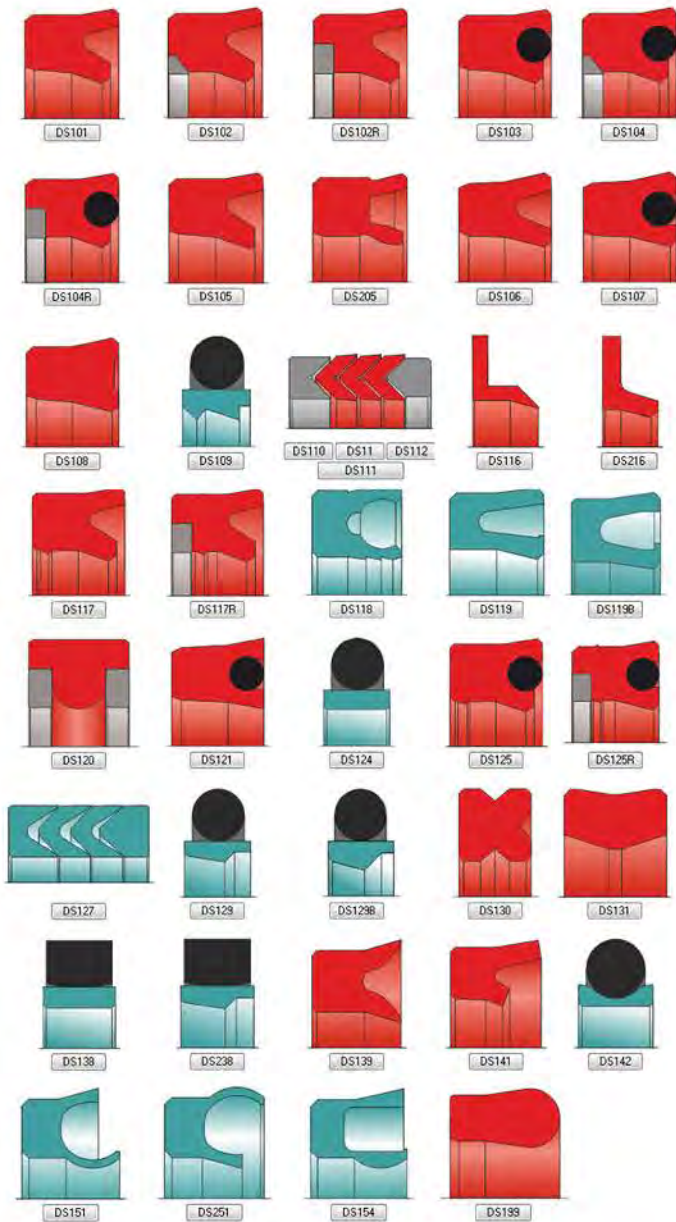




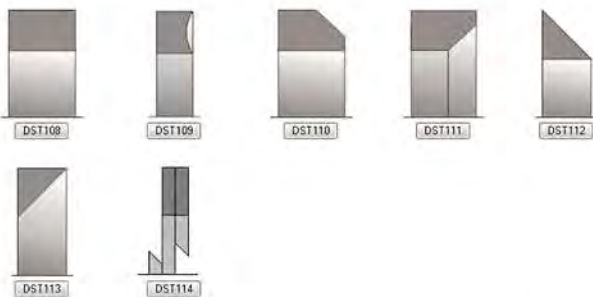
# Custom Seal Profiles





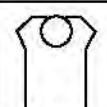

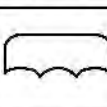



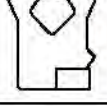









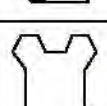



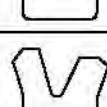



## Rod Seals








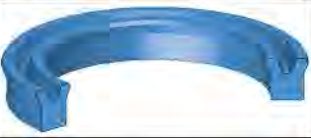












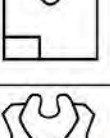

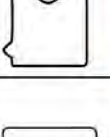



## Piston Seals





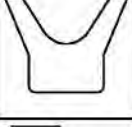

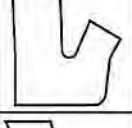



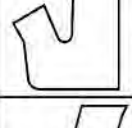

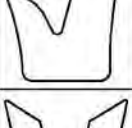

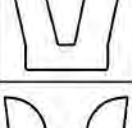

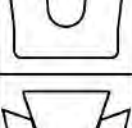

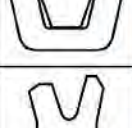

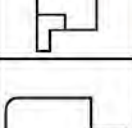

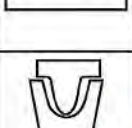

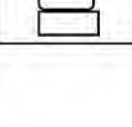
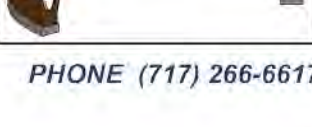


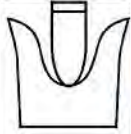



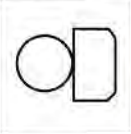

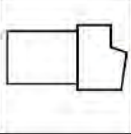

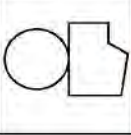

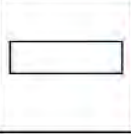

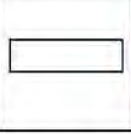

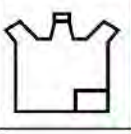

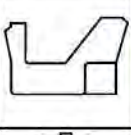

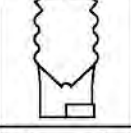

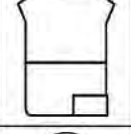



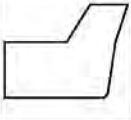

## Back-Up Rings


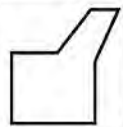

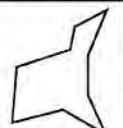











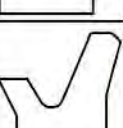








Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch		Metric
							Page		
			Standard Loaded Lip Seals	Urethane Seal; NBR Energizer	-65°F / 200°F	0 / 5,000	39		
			Deep Loaded Lip Seals	Urethane Seal; NBR Energizer	-65°F / 200°F	0 / 5,000	45		
			Type B Loaded Lip Seals	Urethane Seal; NBR Energizer	-65°F / 200°F	0 / 5,000	50		
<b>-PR</b>			PIP Rings	Urethane	-60°F / 200°F	0 / 5,000	57		
<b>DZ</b>			Twin Lip Urethane DZ <sup>®</sup> Seals	Urethane NBR	-40°F / 200°F	0 / 5,000	58		
<b>BD</b>			Loaded Lip Seals with I.D. Backup Ring	Urethane Seal; NBR Energizer; POM Backup	-50°F / 230°F	0 / 10,000	59	60	
<b>BS</b>			Rod U-Cups	Urethane	-50°F / 230°F	0 / 6,000	62	65	
<b>BSLL</b>			Loaded Lip Rod U-Cups	Urethane Seal; NBR Energizer	-50°F / 230°F	0 / 6,000	69		
<b>BT</b>			Rod U-Cups	Parker <sup>®</sup> 4300 Urethane	-65°F / 275°F	0 / 5,000	69		
<b>UNRR</b>			Ribbed Rod U-Cups	Urethane	-60°F / 200°F	0 / 5,000	70	70	
<b>MA35</b>			Symmetrical Rod Seals	Urethane	-20°F / 212°F	< 5,500		71	
<b>UNR</b>			Rod U-Cups	Urethane	-65°F / 200°F	0 / 5,000	72		
<b>MA30</b>			Rod U-Cups	Urethane	-40°F / 230°F	0 / 5,800		73	
<b>MA24</b>			Rod U-Cups	NBR	-20°F / 220°F	0 / 2,175		76	

	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch		Metric	
<b>U-Cups</b>	<b>BS-B</b>			Rod U-Cups w/Backup Ring	Urethane Seal; POM Backup	-22°F / 212°F	0 / 5,800	Page		77	77
	<b>MA30B</b>			Rod U-Cups w/ Backup	Urethane Seal; Nylon Backup	-40°F / 230°F	0 / 7,000				77
	<b>US</b>			Symmetrical U-Cups	Urethane	-65°F / 200°F	0 / 5,000	<b>78</b>			
	<b>MA25</b>			Symmetrical U-Cups	Urethane	-50°F / 212°F	0 / 5,800				<b>80</b>
	<b>MA21</b>			Symmetrical U-Cups	NBR	-20°F / 220°F	0 / 2,175				<b>85</b>
	<b>MA22</b>			Symmetrical U-Cups	NBR	-20°F / 220°F	0 / 2,175				<b>86</b>
	<b>UNP</b>			Piston U-Cups	Urethane	-65°F / 200°F	0 / 5,000	<b>87</b>			
	<b>UNP-AN</b>			Piston U-Cups	Urethane	-65°F / 200°F	0 / 5,000	<b>88</b>			
	<b>MA28</b>			Piston U-Cups	Urethane	-40°F / 230°F	0 / 5,000				<b>89</b>
	<b>MA20</b>			2pc. Piston U-Cups	NBR/ Nylon	-22°F / 212°F	0 / 3,045				<b>91</b>
	<b>OUY</b>			Piston U-Cups	NBR / POM	-20°F / 220°F	0 / 4,000				<b>91</b>
	<b>BP</b>			Loaded Lip Piston Seals	Urethane Seal; NBR Energizer	-50°F / 230°F	0 / 6,000	<b>92</b>			
	<b>MNR</b>			Retaining Rings	Nylon	-50°F / 230°F	0 / 6,000	<b>92</b>			



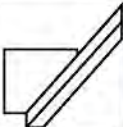

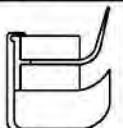

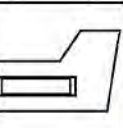

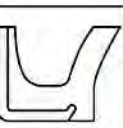







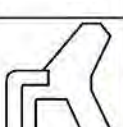

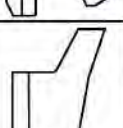







Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch		Metric
							Page		
<b>MA23</b>			Piston U-Cups	NBR	-20°F / 220°F	0 / 2,175		<b>93</b>	
<b>8400</b>			Symmetrical U-Cups	NBR FKM	-40°F / 250°F -15°F / 400°F	0 - 800; 2,500 with back- ups		<b>94</b>	
<b>6226</b>			Symmetrical U-Cups	NBR	-40°F / 250°F	0 / 1,000		<b>96</b>	
<b>C1</b>			Rod U-Cups	NBR	-65°F / 220°F	0 / 2,350		<b>97</b>	
<b>MURH</b>			Rod U-Cups	NBR	-22°F / 212°F	0 / 1,160		<b>99</b>	
<b>C2</b>			Piston U-Cups	NBR	-65°F / 220°F	0 / 2,350		<b>100</b>	
<b>MUPH</b>			Piston U-Cups	NBR	-22°F / 212°F	0 / 1,160		<b>101</b>	
<b>UCH</b>			Rod or Piston U-Cups	NBR	-25°F / 225°F	0 / 2,200		<b>102</b>	
<b>UCF</b>			Rod or Piston U-Cups	Cotton Duck Reinforced NBR Seal	-20°F / 200°F	0 / 3,500		<b>103</b>	
<b>UCL</b>			Rod or Piston U-Cups with Filler	Leather Seal; NBR Filler	-50°F / 275°F	0 / 5,000		<b>104</b>	
<b>RSE</b>			Piston U-Cups with Backup Ring	Urethane Seal; POM Bearing	-22°F / 230°F	0 / 5,800		<b>105</b>	
<b>AR</b>			AR Retaining Rings	Plastic	-22°F / 230°F	0 / 5,800		<b>105</b>	
<b>W1</b>			Pressure Washer Pump Seals	Fabric / NBR Seal; POM Energizer; Backup (with "B" suffix)	-22°F / 175°F	≤ 3,600		<b>106</b>	

	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch	Metric	
<b>U-Cups</b>	<b>W2 / W3</b>			Pressure Washer Pump Seals	Fabric / NBR Seal; POM Energizer	-22°F / 175°F	≤ 1,100			
								Page		
										<b>106</b>
	<b>TR</b>			Rod T-Seals	NBR T-Seal; Moly-Filled Nylon Backups	-40°F / 225°F	0 / 5,000		<b>107</b>	
	<b>AS7</b>			AS7 Series Double-Acting Rod Seal	BTFE Seal; NBR Expander	-40°F / 225°F	0 / 5,000			<b>109</b>
				CAT® Stepped Rod Buffer Rings	BTFE Seal; NBR Expander	-40°F / 225°F	0 / 5,000		<b>109</b>	
	<b>AS2</b>			Stepped Rod Buffer Rings	BTFE Seal; NBR Expander	-40°F / 225°F	0 / 5,000		<b>110</b>	<b>111</b>
				Rectangular Rod Buffer Rings	Urethane	-40°F / 225°F	0 / 5,000		<b>113</b>	
	<b>MBRU</b>			Rectangular Rod Buffer Rings	Urethane	-40°F / 225°F	0 / 5,000			<b>114</b>
	<b>BU-</b>			Rod Buffer Rings w/ Backup	Urethane Seal; POM Backup	-30°F / 230°F	0 / 7,200			<b>115</b>
	<b>MBR CBR / CTB</b>			U-Cup Type Rod Buffer Rings	Urethane Seal; POM Backup	-22°F / 230°F	0 / 5,800		<b>116</b>	<b>116</b>
	<b>SM</b>			Ribbed 3 Piece Rod Seals	Urethane + Hytrel® Header; NBR Seal; POM Backup	-22°F / 248°F	0 / 10,000			<b>117</b>
	<b>MD</b>			Rod Squeeze Seals	Fabric-Reinforced NBR Base; POM Backup; NBR Seal	-22°F / 248°F	0 / 6,000			<b>118</b>
<b>S8</b>			Rod Squeeze Seals	Fabric-Reinforced NBR Base; Bonded NBR Expander	-22°F / 212°F	0 / 3,200			<b>119</b>	
<b>Wipers</b>	<b>940</b>			AN Wipers	Urethane or Hytrel®	-65°F / 200°F		<b>120</b>		
					FKM	-15°F / 400°F				





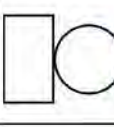

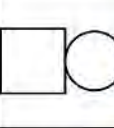

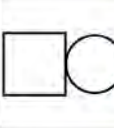

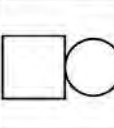

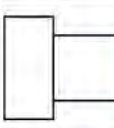

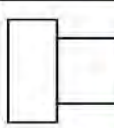

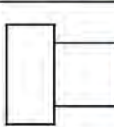

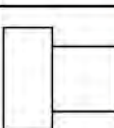







Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Page	
							Inch	Metric
U			Universal Wipers	Urethane or Hytrel®	-65°F / 200°F		122	
				FKM	-15°F / 400°F			
U			Wiper Cord	NBR	-40°F / 250°F		124	
K			Wiper Cord	NBR	-40°F / 250°F		124	
U - R			Rod Wipers w/ Ribbed Heel	Urethane	-40°F / 230°F		125	
842			Rod Wipers	Urethane	-50°F / 230°F		126	126
			Non-Standard AN - Type Rod Wipers	Urethane	-65°F / 200°F		127	
			Replacement Rod Wipers for Enerpac®	Urethane	-65°F / 200°F		127	
			Non-Standard U - Type Rod Wipers	Urethane	-65°F / 200°F		127	
A40			Rod Wipers	Urethane or NBR	-40°F / 230°F			128
A37			Rod Wipers	Urethane	-40°F / 230°F			133
A39			Rod Wipers	NBR	-40°F / 250°F			133
33			Rectangular Base Rod Wipers	NBR	-22°F / 212°F		134	
NW			Rod Wipers	Moly-filled Nylon	-22°F / 248°F		135	135

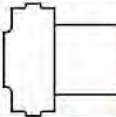

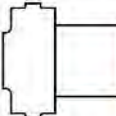

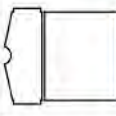





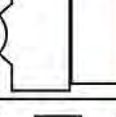



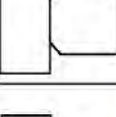





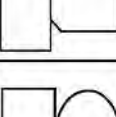

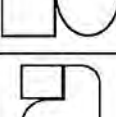

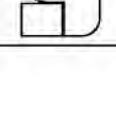
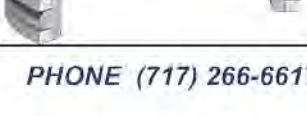
Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch		Metric
							Page		
<b>K</b>			Double Lip Rod Wipers	Urethane	-65°F / 200°F		<b>136</b>		
<b>KB / KBM</b>			Rod Wipers	Urethane	-65°F / 212°F		<b>137</b>	<b>137</b>	
<b>7580</b>			Double Lip Rod Wipers	NBR	-65°F / 200°F		<b>138</b>		
<b>H</b>			Double Lip Rod Wipers	Urethane	-65°F / 200°F		<b>139</b>		
<b>2537</b>			Special High Lip Rod Wipers	Urethane	-65°F / 200°F		<b>140</b>		
<b>8600</b>			Double Lip Rod Wipers	NBR	-40°F / 250°F		<b>141</b>		
				FKM	-15°F / 400°F				
<b>SDR</b>			Double Lip Rod Wipers	NBR	-40°F / 250°F				<b>142</b>
<b>AY</b>			Double Lip Rod Wipers	Urethane	-40°F / 230°F				<b>143</b>
<b>OD</b>			O.D. Lip Rod Wipers	Urethane	-65°F / 200°F		<b>144</b>	<b>144</b>	
<b>ASC</b>			Rod Wipers	NBR or Urethane	-40°F / 250°F		<b>145</b>		
<b>A41</b>			Rod Wipers	NBR or Urethane	-40°F / 230°F				<b>146</b>
<b>DA17</b>			Rod Wipers	NBR or Urethane	-40°F / 230°F				<b>147</b>
<b>DA24</b>			Rod Wipers	Urethane	-40°F / 230°F				<b>148</b>



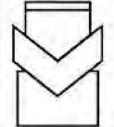

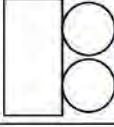

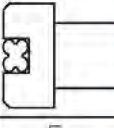

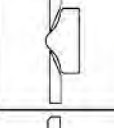

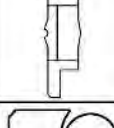



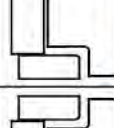

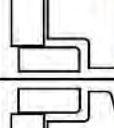

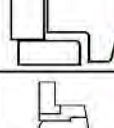

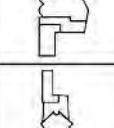

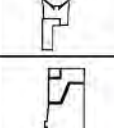
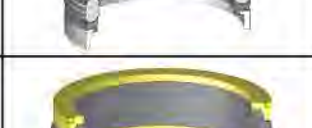
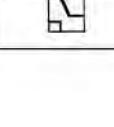

**Wipers**





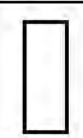
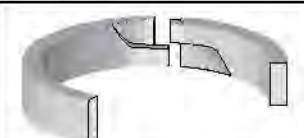
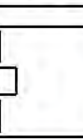


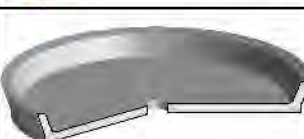

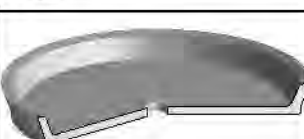



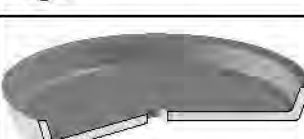



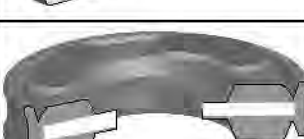

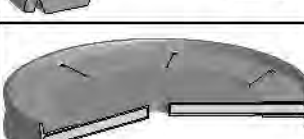
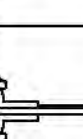
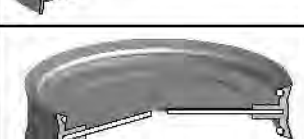
Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Page	
							Inch	Metric
<b>ORK</b>			Rod Wipers	Urethane	-65°F / 200°F		<b>148</b>	
<b>S34</b>			Seal-Guard® Rod Scrapers	Bronze Scraper, NBR Ring	-40°F / 250°F		<b>149</b>	
<b>504</b>			SC Rod Scrapers	Brass Scraper; NBR Wiper; Steel Shell	-40°F / 250°F		<b>150</b>	
<b>MS28776</b>			Metal Rod Scrapers	Copper Alloy Wiper Ring	-65°F / 500°F		<b>151</b>	
<b>ME</b>			Metal Encased Rod Wipers	Steel Shell; Polyurethane or NBR Wiper	PU: -40°F / 212°F; NBR: -40°F / 250°F		<b>153</b>	
			CAT® Type, Double Lip Wipers	Steel Shell; Urethane Wiper	-65°F / 220°F		<b>156</b>	
<b>AMJ</b>			Metal Encased Rod Wipers	Steel Shell; Urethane Wiper	-40°F / 230°F			<b>157</b>
<b>AM47</b>			Metal Encased Pin Wipers	Steel Shell; NBR Wiper	-40°F / 230°F			<b>159</b>
<b>AMH</b>			Metal Encased Rod Wipers	Steel Shell; Urethane or NBR Wiper	-40°F / 230°F			<b>160</b>
<b>AM43</b>			Metal Encased Rod Wipers	Steel Shell; NBR Wiper	-40°F / 250°F			<b>161</b>
<b>AM44</b>			Metal Encased Rod Wipers	Steel Shell; Urethane Wiper	-40°F / 230°F			<b>163</b>
<b>AM46</b>			Double Metal Can Pin Wipers	Steel Shell; NBR Wiper	-40°F / 230°F			<b>165</b>
<b>AM48</b>			Double Metal Can Pin Wipers	Steel Shell; Urethane Wiper	-40°F / 230°F			<b>166</b>

























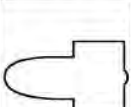





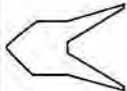

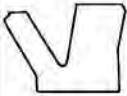



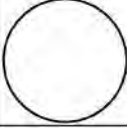

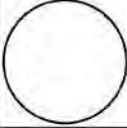

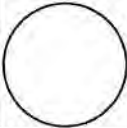

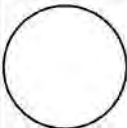

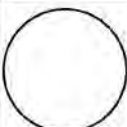

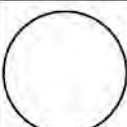

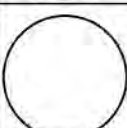

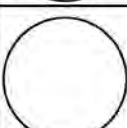

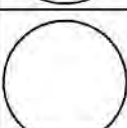

	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch	Metric
<b>Wipers</b>	<b>TW100</b>			Rod Excluders	BTFE Wiper; NBR Energizer	-40°F / 225°F		Page 167	
	<b>TW500</b>			Rod Excluders	BTFE Wiper; NBR Energizer	-40°F / 225°F		169	
<b>Piston Seals</b>	<b>AS700</b>			2pc. Rectangular Piston Seals	Glass-Filled PTFE Seal; NBR Energizer	-40°F / 225°F	0 / 5,000	<b>171</b>	
	<b>AS800</b>			2pc. Square Piston Seals	Glass-Filled PTFE Seal; NBR Energizer	-40°F / 225°F	0 / 5,000	<b>172</b>	
	<b>AS800-B</b>			2pc. Square Piston Seals	BTFE Seal; NBR Energizer	-40°F / 225°F	0 / 5,000	<b>174</b>	
	<b>AS800-P</b>			2pc. Square Piston Seals	Polyurethane Seal; NBR Energizer	-65°F / 220°F	0 / 5,000	<b>175</b>	
	<b>AS900</b>			2pc. Rectangular Piston Seals	Glass-Filled PTFE Seal; NBR Energizer	-40°F / 225°F	0 / 5,000	<b>176</b>	
	<b>AS900-B</b>			2pc. Rectangular Piston Seals	BTFE Seal; NBR Energizer	-40°F / 225°F	0 / 5,000	<b>177</b>	
	<b>AS9</b>			2pc. Rectangular Piston Seals	Glass- or Bronze-Filled PTFE Seal; NBR Energizer	-40°F / 225°F	0 / 5,000	<b>178</b>	
	<b>AS980</b>			2pc. Rectangular Piston Seals	MGTFE Seal; NBR Expander	-40°F / 225°F	0 / 5,000	<b>179</b>	
	<b>AS2</b>			2pc. Piston Step Seals	BTFE Seal; NBR Expander	-40°F / 225°F	0 / 5,000	<b>180</b>	<b>180</b>
	<b>AS7</b>			2pc. Piston Seals	BTFE Seal; NBR Expander	-40°F / 225°F	0 / 5,000	<b>181</b>	<b>182</b>
<b>TSP</b>			2pc. Piston Seals	BTFE Seal; NBR Expander	-40°F / 225°F	0 / 5,000		<b>183</b>	

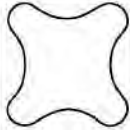









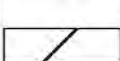
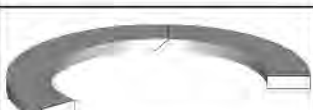
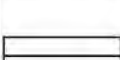
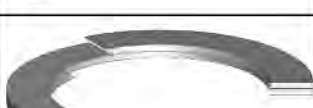




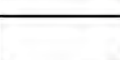



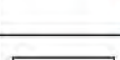

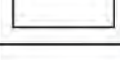

Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Page	
							Inch	Metric
<b>AS600</b>			2pc. Piston Seals	Hytrej <sup>®</sup> Seal; NBR Expander	-40°F / 225°F	0 / 5,000	<b>184</b>	
<b>AS5/AS6</b>			2pc. Piston Seals	Urethane Seal; NBR Expander	-40°F / 230°F	0 / 5,000		<b>185</b>
<b>AS4</b>			2pc. Piston Seals	Urethane Seal; NBR Expander	-40°F / 230°F	0 / 5,000		<b>186</b>
<b>CP</b>			2pc. Piston Seals	Urethane Seal; NBR Expander	-65°F / 220°F	0 / 5,000	<b>187</b>	
<b>PSP</b>			2pc. Piston Seals	Urethane Seal; NBR Expander	-65°F / 220°F	0 / 5,000	<b>188</b>	
<b>PSP -A</b>			2pc. Piston Seals	Urethane Seal; NBR Expander	-65°F / 220°F	0 / 5,000	<b>188</b>	
<b>NO</b>			2pc. Piston Seals w/ Backups	Fabric-Reinforced NBR	-22°F / 212°F	0 / 7,000		<b>189</b>
<b>714</b>			2pc. Piston Seals	Glass-Filled Polyamide Seal; NBR Energizer	-40°F / 250°F	0 / 10,000	<b>190</b>	
<b>AS990</b>			2pc. Piston Seals	BTFE Seal; NBR Expander	-40°F / 225°F	0 / 5,000		<b>190</b>
<b>914</b>			2pc. ChemCast <sup>®</sup> Piston Seals	Moly/Glass-Filled Nylon Seal; NBR Energizer	-40°F / 250°F	0 / 10,000	<b>191</b>	
<b>OK</b>			2pc. Piston Seals	Glass-Filled Polyamide Seal; NBR Energizer	-40°F / 250°F	0 / 10,000	<b>192</b>	
			Cat <sup>®</sup> 2pc. Step-Cut Piston Seals	Glass-Filled Polyamide Seal; NBR Energizer	-40°F / 250°F	0 / 10,000	<b>193</b>	<b>194</b>
<b>TP</b>			3pc. Piston T Seals	NBR Seal; Moly-Filled Nylon Backups	-40°F / 225°F	0 / 5,000	<b>195</b>	

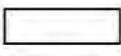

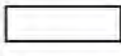







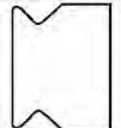

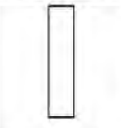

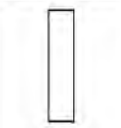









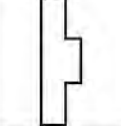

Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch		Metric		
<b>Piston Seals</b>	TPS/TPT			3pc. Wide Base T Seals	NBR Seal; Moly-Filled Nylon Backups	-40°F / 225°F	0 / 5,000	Page		197	
	M4			3pc. Piston Seals	Fabric + NBR Female and Center Ring; Thermoplastic Male	-22°F / 212°F	0 / 7,200				198
	AS880			3pc. Piston Seals	Glass-Filled PTFE Seal; NBR Expander	-40°F / 225°F	0 / 3,000			199	
	ASQ			3pc. Piston Seals	BTFE Seal; NBR Expander; Quad-Ring	-40°F / 225°F	0 / 5,000			200	200
	DS / DSM			3pc. Delta Seals	NBR Seal; Thermoplastic Guide Rings	Min Oils: -20°F / 220°F HFA/HBF: 40°F / 140°F HFC: -20°F / 140°F	0 / 2,100			201	201
	MDL			3pc. Piston Seals	Fabric-Reinforced Seal; Thermoplastic Backups	Min Oils: -20°F / 220°F HFA/HBF: -40°F / 140°F HFC: -20°F / 140°F	0 / 5,800				202
	ASQ5			4pc. Piston Seals	BTFE Seal; NBR O-Rings; NBR Energizer	-40°F / 225°F	0 / 5,000			203	203
	4PT			4pc. CAT®-Type Piston Seals	MGTFE Ring; POM B/U; NBR Seal	-40°F / 225°F	0 / 6,000			204	
	4PE / 4PV			4pc. Piston Seals	MGTFE Ring; POM B/U; NBR Seal	-40°F / 225°F	0 / 6,000			205	
	4PMM			4pc. Piston Seals	MGTFE Ring; POM B/U; NBR Seal	-40°F / 225°F	0 / 6,000				206
	DAS			5pc. Piston Seals	NBR Seal; Polyester Elastomer Backups; Thermoplastic Guide Rings	-22°F / 212°F	0 / 5,800			207	209
	DSM			5pc. Piston Seals	NBR Seal; Polyester Elastomer Backups; Thermoplastic Guide Rings	-22°F / 212°F	0 / 10,000				212
	MHM			5pc. Piston Seals	NBR; Urethane; POM	-22°F / 212°F	0 / 5,000				213

	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Page	
								Inch	Metric
<b>Piston Seals</b>	<b>GD1KK</b>			6pc. Piston Seals	BTFE Seal; NBR Expander; Nylon Bearings; POM Backups	-40°F / 225°F	0 / 4,350		<b>214</b>
	<b>12-</b>			Uni-Ring Seals	Urethane Seal; Molybdenum Disulfide Impregnated Outer Seal	-40°F / 195°F	0 / 5,000	<b>215</b>	
	<b>PR</b>			Piston Rings	Cast Iron	Consult Technical Service	0 / 10,000	<b>216</b>	
	<b>UP</b>			Unitized Pistons	Steel, Nylon, PTFE, and NBR	-40°F / 230°F	0 / 5,000	<b>222</b>	<b>222</b>
<b>Piston Cups</b>	<b>DR</b>			Piston Cups	Fabric Reinforced NBR	-40°F / 250°F	0 / 3,000	<b>223</b>	
	<b>SC</b>			Piston Cups	Homogeneous NBR	-40°F / 250°F	0 / 800	<b>225</b>	
	<b>MIL</b>			Piston Cups for Miller® Cylinders	NBR	-40°F / 250°F	0 / 800	<b>227</b>	
	<b>CS</b>			Piston Cups	Urethane	-65°F / 200°F	0 / 5,000	<b>228</b>	
	<b>CT</b>			Thin Wall Piston Cups	Urethane	-65°F / 200°F	0 / 1,500	<b>230</b>	
	<b>DP</b>			Double Acting Piston Cups w/ Cushion	Elastomeric NBR Seal; Aluminum Plate	-22°F / 221°F	≤ 174		<b>231</b>
	<b>DK</b>			Double Acting Piston Cups	NBR Seal; Metal Support Disc	-20°F / 175°F	0 / 235	<b>232</b>	<b>233</b>
	<b>TDH</b>			Double Acting Piston Cups	NBR Seal; Steel Plate	-20°F / 212°F	0 / 580		<b>234</b>















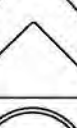



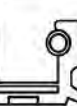

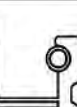


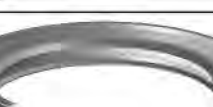


	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch	Metric
Piston Cups	BMP			Piston Cups w/ Cushion	Urethane	-50°F / 180°F	0 / 230	Page	
								235	
Rotary/Swivel Seals	AS2			2pc. Rod Rotary Seals	CGTFE Seal; NBR Energizer	-40°F / 225°F	0 / 4,350	236	238
	MSS			Rod Rotary Seals	Urethane	-5°F / 250°F	0 / 5,000		237
	AS2			2pc. Piston Rotary Seals	CGTFE Seal; NBR Energizer	-5°F / 250°F	0 / 4,350	240	241
	V			V Style Axial Face Seal	NBR	-40°F / 221°F	≤ 4		242
	EL			Rod Seal / Wiper Combination	NBR or Urethane	NBR: -15°F / 175°F PU: -30°F / 175°F	≤ 230		243
Pneumatic Seals	EM			Rod Seal / Wiper Combination	Urethane	-30°F / 175°F	≤ 225		244
	PDU			Rod Seal / Wiper Combination	NBR	-20°F / 220°F	≤ 224		245
	E9			Rod Seal / Wiper Combination	Metal Vulcanized Elastometric NBR	-20°F / 220°F	≤ 224		246
	E8			Rod Seal / Wiper Combination	NBR Seal; Plastic Wiper	-30°F / 176°F			247
	EU			Rod Seal / Wiper Combination	Urethane	0°F / 176°F			247
	PSD			Piston Seals	NBR	-20°F / 220°F	≤ 168		248
	PPD			Piston Seals	NBR	-20°F / 220°F	≤ 168		248

	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Page	
								Inch	Metric
<b>Pneumatic Seals</b>	<b>PZ</b>			Piston Seals	NBR	-5°F / 212°F	≤ 175		<b>249</b>
	<b>KSP</b>			Piston Seals	NBR	-20°F / 220°F	0 - 145		<b>249</b>
	<b>Z8</b>			Piston U-Cups	NBR or Urethane	NBR: 22°F / 220°F PU: -22°F / 175°F	NBR: ≤ 175 PU: ≤ 230		<b>250</b>
	<b>E4</b>			Piston U-Cups	NBR or Urethane	NBR: 22°F / 220°F PU: -22°F / 175°F	NBR: ≤ 175 PU: ≤ 230		<b>250</b>
<b>O-Rings</b>				O-Ring Size and Installation Chart				<b>251</b>	
				O-Ring Size Comparison Chart				<b>257</b>	<b>257</b>
				O-Rings For Boss Fittings (Sizing)				<b>285</b>	
	<b>2-</b>			Standard O-Ring Pricing	N70, N90 V75 FKM	-40°F / 240°F -15°F / 400°F		<b>286</b>	
	<b>3-</b>			O-Rings For Boss Fittings (Pricing)	N70, N90 V75 FKM	-40°F / 240°F -15°F / 400°F		<b>288</b>	
				O-Ring Cord Stock	70 Durometer NBR	-40°F / 240°F		<b>288</b>	<b>288</b>
	<b>M</b>			Metric O-Rings	70 Durometer NBR	-40°F / 240°F			<b>289</b>
	<b>M</b>			Metric O-Rings	90 Durometer NBR	-40°F / 240°F			<b>295</b>
	<b>M</b>			Metric O-Rings	V75 FKM	-15°F / 400°F			<b>296</b>





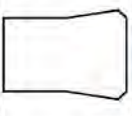



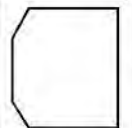

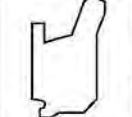







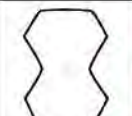

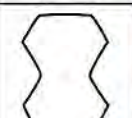



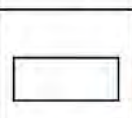

	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch	Metric
<b>O-Rings</b>	4			Quad Rings	70 Durometer NBR	-40°F / 240°F		Page	
	-			Square Cut Ring	70 Durometer NBR	-40°F / 240°F		<b>297</b>	
<b>Backup Rings</b>				Backup Ring Interchange Guide				<b>302</b>	
	8-			Contoured Backup Rings	90 Durometer NBR	-40°F / 240°F		<b>306</b>	
	MS27595			Solid Backups	PTFE	-100°F / 500°F		<b>308</b>	
	MS28774			Split Backups	PTFE	-100°F / 500°F		<b>309</b>	
	MS28782			Spiral Backups	PTFE	-100°F / 500°F		<b>310</b>	
	MS28783			Spiral Backups	PTFE	-100°F / 500°F		<b>310</b>	
	BU-T			Backup Rings for U-Cups	PTFE	-100°F / 500°F		<b>311</b>	
	BU-N			Backup Rings for U-Cups	Nylon	-65°F / 225°F		<b>311</b>	
	8700			Backup Rings	Hytrel®	-40°F / 275°F		<b>312</b>	
	-MB			Modular Backup Rings	Urethane	-65° / 200°F		<b>313</b>	
	MBH			Backup Rings	Hytrel®	-40°F / 275°F			<b>315</b>







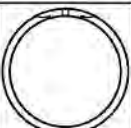

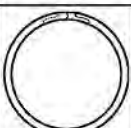



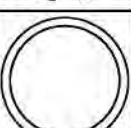



	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Page	
								Inch	Metric
<b>Backup Rings</b>	<b>MBT</b>			Solid Backups	PTFE	-100°F / 500°F			<b>316</b>
	<b>MBN</b>			Backup Rings	Nylon	-65° / 225°F			<b>317</b>
<b>Bearings/Wearbands</b>	<b>MDU</b>			Rod Bushings	Bronze-Alloy with PTFE Lining	-325° / 535°F			<b>318</b>
	<b>PSBU</b>			Piston Seal Backup Rings	Nylon	-65° / 220°F	0 / 7,500		<b>320</b>
	<b>NRB</b>			Rod Bearings	Nylon	-40° / 275°F			<b>321</b>
	<b>FCB</b>			Female Center Bearings	Glass-Filled Nylon	-40° / 275°F			<b>322 322</b>
				Wearband Formulas					<b>323 323</b>
	<b>WB</b>			Wearbands	Glass-Filled Nylon or Phenolic	-40° / 275°F			<b>324</b>
	<b>MWB</b>			Wearbands	Glass-Filled Nylon or Phenolic	-40° / 275°F			<b>330</b>
	<b>KZT</b>			Wearbands	BTFE	-50° / 400°F			<b>336</b>
	<b>WBTAPE</b>			Wearband Tape	BTFE	-50° / 400°F			<b>337 337</b>
	<b>WBTAPE-P</b>			Wearband Tape	Poly Resin	-40° / 250°F			<b>338 338</b>
	<b>WBT / F1</b>			T Shaped Wearbands	Glass-Reinforced Nylon	-40° / 275°F			<b>339 339</b>













	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Inch		Metric	
Bearings / Wearbands	GEZ			Spherical Bearing	Steel			Page		340	340
	D27			Case® Style Wearband / Wiper Combo	Nylon	-40° / 275°F		340			
Vee Packings	VS / MVS			Vee Packing Sets	Hytrel® and Fabric/NBR Seals; Nylon Adapter	-40° / 225°F	Consult Technical Service	341	343		
	VP			Vee Packing Components	Fabric/ NBR, Hytrel® and Nylon	-40° / 225°F	Consult Technical Service	344	349		
	6225			Vee Packing	NBR	-40° / 225°F	Consult Technical Service	350			
	VP			Vee Packing	NBR	-40° / 225°F	Consult Technical Service	351	351		
	6225			Vee Packing	PTFE	-100° / 400°F	Consult Technical Service	352			
	VP			Vee Packing	PTFE	-100° / 400°F	Consult Technical Service	353			
	SSR			Wave / Compression Springs	Steel			354			
Oil Seals				Oil Seal Information				355			
				Standard Oil Seals	NBR or FKM Lip; Metal Shell	-40° / 250°F		356			
	MOS			Metric Oil Seals	NBR or FKM Lip; Metal Shell	-40° / 250°F				360	
Cushion, Flange, Face and Head Seals	600			Stat-O-Seals®	NBR Seal; Metal Retainer	-65° / 225°F		365			

**Cushion, Flange, Face and Head Seals**

Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Page	
							Inch	Metric
7500			Thread Seals	NBR Seal; Metal Retainer			366	
400			Bonded Seals	NBR Seal; Metal Retainer			367	368
OV			Split Flange Seals	Urethane	40° / 212°F	0 / 7200	368	
SFS			Universal Split Flange Seals	Urethane	-40° / 212°F	0 / 6000	369	
1P3			Cat® D-Ring Split Flange Seals	NBR			369	
PP			Cushion Seals	NBR or PU	NBR: -5° / 175°F PU: -30° / 175°F	NBR: ≤ 165 PU: ≤ 225		370
MRT			Cushion Seals	Nylon or Phenolic	Nylon: -60° / 200°F Phenolic: -60° / 250°F	0 / 5,000		371
V6			Cushion Seals	Urethane	-20° / 175°F	≤ 225		371
99			Replacement End Cap Seals for Hydroline® and Miller®	PTFE	-100° / 500°F			372
HS			Head Seals	Urethane	-30° / 230°F	0 / 8,700		374
DR			Head Seals	Urethane	-30° / 230°F	0 / 8700		374
3869			Fluid Connector Seals	NBR	-20° / 220°F			375
BU - VEG			Backup Gasket For Head Seals	Vegetable Fiber	Up To 250°F			375

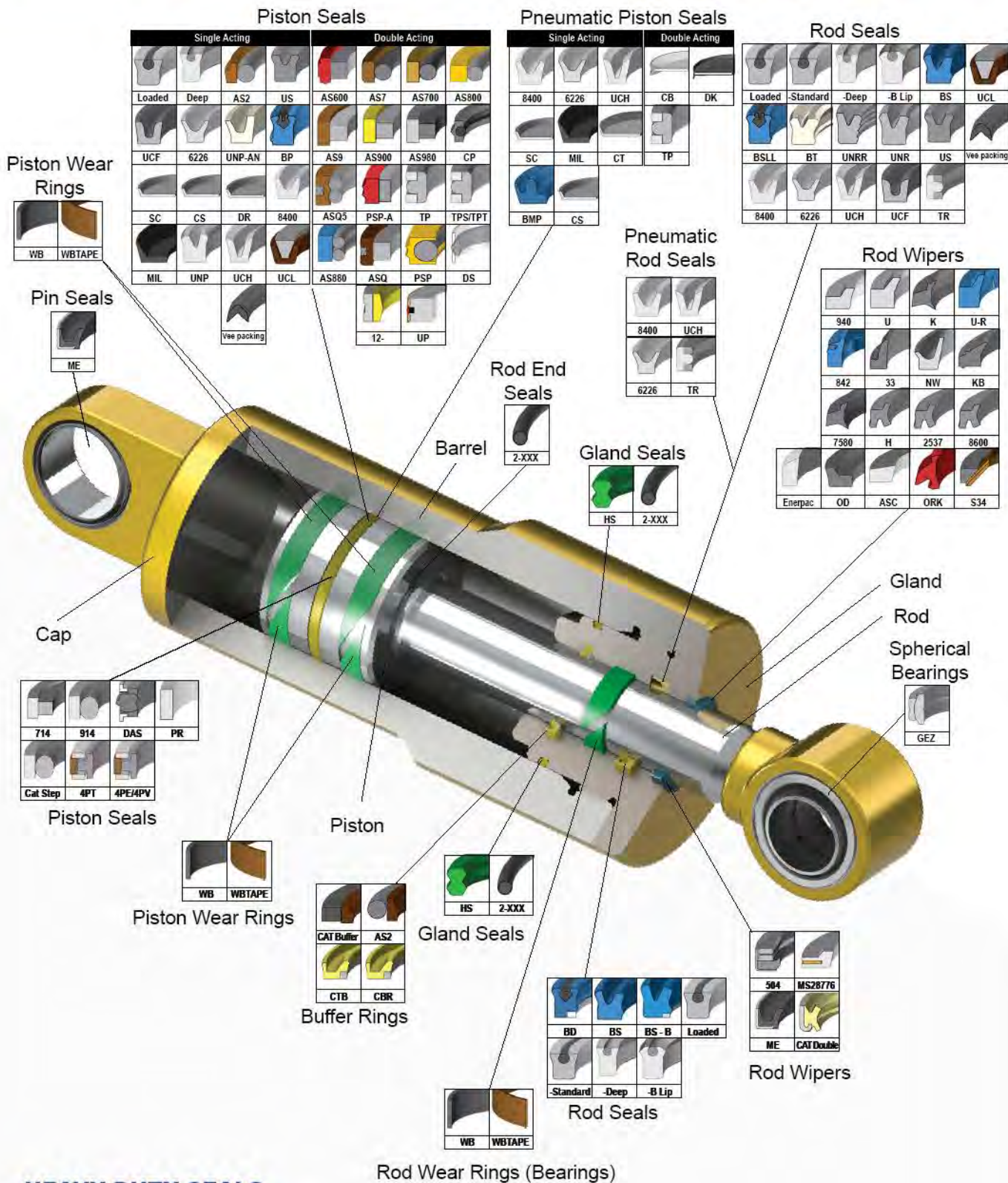
	Prefix/Suf.	Profile	Product Image	Description	Material	Temp.	PSI	Page	
								Inch	Metric
<b>Retaining Rings</b>	1300			Internal Tru <sup>®</sup> -Arc Type Retaining Rings	Steel			376	377
	1400			External Tru <sup>®</sup> -Arc Type Retaining Rings	Steel			378	379
	HLR			Hook Lock Retainers	Steel			379	
	RR/UR			Internal Spiral Retaining Rings	Steel			380	
	RS/US			External Spiral Retaining Rings	Steel			382	
	RSI			Internal Round Section Retaining Rings	Spring Steel			384	
	RSE			External Round Section Retaining Rings	Spring Steel			384	
<b>Accessories &amp; Supplies</b>				Accessories & Supplies				385	385

Fill Pattern Reference Chart	
	<b>Urethane</b>
	<b>Hytrell<sup>®</sup></b>
	<b>Homogeneous NBR</b>
	<b>Fabric Reinforced NBR</b>
	<b>Nylon</b>
	<b>TFE</b>
	<b>Leather</b>
	<b>Brass</b>
	<b>Steel</b>
	<b>Phenolic</b>

<b>Telescopic Cylinders</b>	Commercial <sup>®</sup> / Parker <sup>®</sup>	Replacement Parts + Kits for Commercial <sup>®</sup> / Parker <sup>®</sup> Telescopic Cylinders	391	
	Custom Hoist <sup>®</sup>	Replacement Parts + Kits for Custom Hoist <sup>®</sup> Telescopic Cylinders	393	
	Hyco <sup>®</sup>	Replacement Parts + Kits for Hyco <sup>®</sup> Telescopic Cylinders	396	
	Hyva <sup>®</sup>	Replacement Parts + Kits for Hyva <sup>®</sup> Telescopic Cylinders		401
	Ward <sup>®</sup>	Replacement Parts + Kits for Ward <sup>®</sup> Telescopic Cylinders	402	
	Galion <sup>®</sup>	Replacement Parts + Kits for Galion <sup>®</sup> Telescopic Cylinders	403	
	Perfection <sup>®</sup>	Replacement Parts + Kits for Perfection <sup>®</sup> Telescopic Cylinders	404	

**INCH**

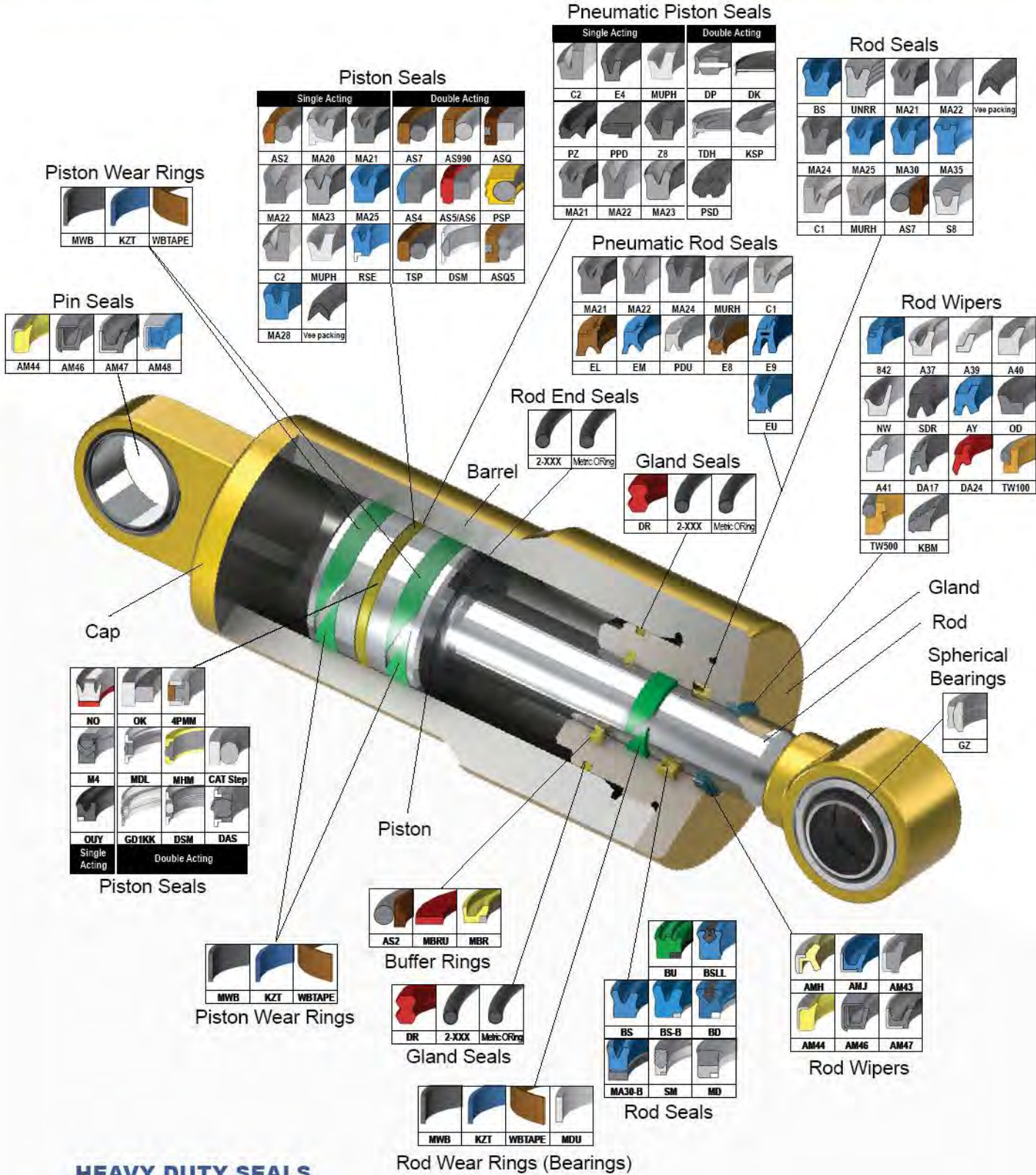
**LIGHT TO MEDIUM DUTY SEALS**  
Less than 5000 PSI



**HEAVY DUTY SEALS**  
Greater than 5000 PSI

**METRIC**

**LIGHT TO MEDIUM DUTY SEALS**  
Less than 5000 PSI



**HEAVY DUTY SEALS**  
Greater than 5000 PSI

**Quick Reference Guide**

## 2 Piece Piston Seal Identification Inch Sizes

Step 1: Identify Groove Width / Height  
Step 2: Identify Bore Diameter  
Step 3: Identify Gland Depth

Groove Width/ Height	Groove Width / Height Range		Bore Diameter Range	Gland Depth	Seal Ht	2 PC. Piston Seal (Please refer to Piston Seal pages for Specific Tolerances)
0.083	0.081	0.085	0.500 - 1.500	0.130	0.070	AS800 TFE (Square Seal, Round Energizer)
0.083	0.081	0.085	1.000-1.500	0.130	0.070	AS800-P Polyurethane (Square Seal, Round Energizer)
0.094	0.092	0.096	1.000-1.625	0.107	0.088	AS700 TFE (Rectangular Seal, Round Energizer)
0.122	0.120	0.124	1.562-1.938	0.195	0.109	AS800 TFE (Square Seal, Round Energizer)
0.122	0.120	0.124	1.625-1.875	0.195	0.109	AS800-P Polyurethane (Square Seal, Round Energizer)
0.125	0.125	0.127	1.00	0.149	0.116	AS2 BTFE Step-cut (Round Energizer)
0.125	0.125	0.130	1.000-2.750	0.155	0.121	AS600 Hytrel (Square Energizer)
0.125	0.125	0.129	1.000-3.250	0.149	0.116	AS7 (AS732E) Series BTFE (Round Energizer)
0.125	0.125	0.130	1.000-2.750	0.155	0.121	AS900 Glass-Filled TFE (Rectangular Seal, Square Energizer)
0.125	0.125	0.130	1.500-2.500	0.155	0.121	AS900-B BTFE (Rectangular Seal, Square Energizer)
0.126	0.124	0.128	1.750-2.500	0.138	0.120	AS700 TFE (Rectangular Seal, Round Energizer)
0.127	0.127	0.132	1.50	0.188	0.125	AS980 TFE (Rectangular Seal, Square Energizer)
0.130	0.128	0.132	2.000-5.750	0.197	0.115	AS800 TFE (Square Seal, Round Energizer)
0.130	0.128	0.132	2.500-5.500	0.197	0.115	AS800-B BTFE (Square Seal, Round Energizer)
0.130	0.128	0.132	2.000-5.500	0.197	0.115	AS800-P Polyurethane (Square Seal, Round Energizer)
0.157	0.155	0.159	2.750-5.750	0.201	0.150	AS700 TFE (Rectangular Seal, Round Energizer)
0.159	0.157	0.161	5.775-16.000	0.259	0.143	AS800 TFE (Square Seal, Round Energizer)
0.159	0.157	0.161	5.750-12.000	0.259	0.143	AS800-B BTFE (Square Seal, Round Energizer)
0.159	0.157	0.161	5.750-8.500	0.259	0.143	AS800-P Polyurethane (Square Seal, Round Energizer)
0.165	0.165	0.169	1.750-5.000	0.212	0.160	AS7 (AS736E) Series BTFE (Round Energizer)
0.187	0.187	0.192	1.000-1.750	0.121	0.150	PSP (Round Energizer)
0.187	0.187	0.192	1.000-1.750	0.121	0.165	PSP-A Style (Rectangular Energizer)
0.190	0.190	0.195	2.000-3.750	0.188 0.188 0.270	0.188	AS980 TFE (Rectangular Seal, Square Energizer)
0.192	0.192	0.197	2.500-4.000	0.185	0.187	Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)
0.248	0.248	0.252	3.000-8.000	0.308	0.241	AS7 (AS740E) Series BTFE (Round Energizer)
0.250	0.250	0.252	4.00	0.308	0.232	AS2 BTFE Step-cut (Round Energizer)
0.250	0.250	0.252	6.00	0.308	0.232	AS2 BTFE Step-cut (Round Energizer)
0.250	0.250	0.255	2.50	0.278	0.245	AS9 (AS930E) Series TFE (Rectangular Seal, Square Energizer)
0.252	0.252	0.257	4.000-4.750	0.333	0.250	AS980 TFE (Rectangular Seal, Square Energizer)
0.252	0.252	0.257	4.250-4.750	0.33	0.238	Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)
0.275	0.275	0.280	1.50	0.121	0.255	PSP-A Style (Rectangular Energizer)
0.278	0.278	0.283	3.000-5.000	0.278	0.274	AS600 Hytrel (Square Energizer)
0.278	0.278	0.283	3.000-5.125	0.278	0.274	AS900 Glass-Filled TFE (Rectangular Seal, Square Energizer)
0.278	0.278	0.283	3.000-5.000	0.278	0.274	AS900-B BTFE (Rectangular Seal, Square Energizer)

**Quick Reference Guide**

## 2 Piece Piston Seal Identification

### Inch Sizes (cont.)

Step 1: Identify Groove Width / Height)  
 Step 2: Identify Bore Diameter  
 Step 3: Identify Gland Depth

Groove Width/ Height	Groove Width / Height Range	Bore Diameter Range	Gland Depth	Seal Ht	2 PC. Piston Seal (Please refer to Piston Seal pages for Specific Tolerances)
0.281	0.281 0.286	2.000-5.002	0.185	0.255	PSP (Round Energizer)
0.281	0.281 0.286	2.000-5.000	0.185	0.260	PSP-A Style (Rectangular Energizer)
0.282	0.282 0.287	2.000-6.250	0.269	0.274	714 Nylon (Rectangular Seal, Square Energizer)
0.282	0.277 0.282	2.000-5.000	0.279	0.274	914 ChemCast® (Rectangular Seal, Oval Energizer)
0.282	0.282 0.287	1.500-2.375	0.278	0.278	AS9 (AS940E) Series TFE (Rectangular Seal, Square Energizer)
0.282	0.282 0.287	2.500-2.750	0.278	0.272	AS9 (AS940E) Series TFE (Rectangular Seal, Square Energizer)
0.282	0.282 0.287	8.000- 12.000	0.354	0.272	AS9 (AS950E) Series TFE (Rectangular Seal, Square Energizer)
0.294	0.292 0.296	6.00	0.347	0.287	AS700 TFE (Rectangular Seal, Round Energizer)
0.312	0.312 0.317	3.50	0.225	0.305	714 Nylon (Rectangular Seal, Square Energizer)
0.312	0.307 0.312	2.000-4.500	0.298	0.304	914 ChemCast® (Rectangular Seal, Oval Energizer)
0.312	0.312 0.317	4.000-4.500	0.278	0.307	AS9 (AS930E) Series TFE (Rectangular Seal, Square Energizer)
0.318	0.318 0.322	5.375-18.000	0.415	0.312	AS7 (AS742E) Series BTFE (Round Energizer)
0.375	0.375 0.380	5.250-8.500	0.387	0.367	AS600 Hytrel (Square Energizer)
0.375	0.375 0.380	9.000-10.000	0.445	0.367	AS600 Hytrel (Square Energizer)
0.375	0.375 0.380	4.000-5.000	0.387	0.367	AS9 (AS930E) Series TFE (Rectangular Seal, Square Energizer)
0.375	0.375 0.380	3.50	0.387	0.367	AS9 (AS960E) Series TFE (Rectangular Seal, Square Energizer)
0.375	0.375 0.380	5.250-8.500	0.387	0.367	AS900 Glass-Filled TFE (Rectangular Seal, Square Energizer)
0.375	0.375 0.380	9.000-14.000	0.445	0.367	AS900 Glass-Filled TFE (Rectangular Seal, Square Energizer)
0.375	0.375 0.380	5.250-8.500	0.387	0.367	AS900-B BTFE (Rectangular Seal, Square Energizer)
0.375	0.375 0.380	9.000-16.000	0.445	0.367	AS900-B BTFE (Rectangular Seal, Square Energizer)
0.375	0.375 0.380	5.002-10.000	0.237	0.320	PSP (Round Energizer)
0.375	0.375 0.380	5.500-8.000	0.236	0.355	PSP-A Style (Rectangular Energizer)
0.377	0.377 0.382	5.250-6.000	0.38	0.368	714 Nylon (Rectangular Seal, Square Energizer)
0.377	0.372 0.377	5.000-11.995	0.389	0.368	914 ChemCast® (Rectangular Seal, Oval Energizer)
0.379	0.379 0.384	5.000-9.250	0.382	0.375	AS980 TFE (Rectangular Seal, Square Energizer)
0.382	0.382 0.387	5.250-9.500	0.395		Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)
0.410	0.410 0.415	2.000-4.500	0.185	0.376	PSP-A Style (Rectangular Energizer)
0.440	0.440 0.445	10.250-10.500	0.563	0.438	AS980 TFE (Rectangular Seal, Square Energizer)
0.500	0.500 0.505	7.000-20.000	0.531	0.490	AS9 (AS970E) Series TFE (Rectangular Seal, Square Energizer)
0.502	0.502 0.507	4.50	0.33	0.495	Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)
0.538	0.538 0.543	5.000-7.000	0.236	0.508	PSP-A Style (Rectangular Energizer)
0.632	0.632 0.637	4.750-8.500	0.33	0.629	Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)
0.692	0.692 0.697	10.000-12.500	0.56	0.680	Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)

**Quick Reference Guide**

# 2 Piece Piston Seal Identification

## Metric Sizes

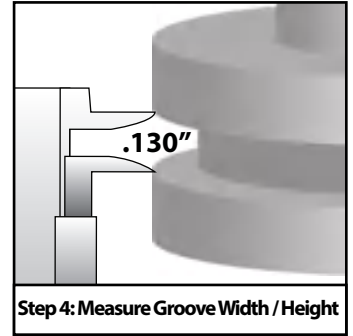
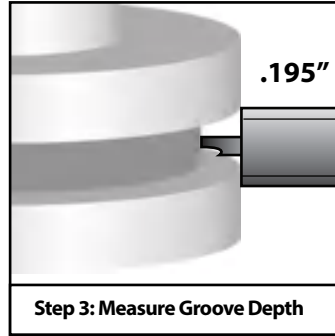
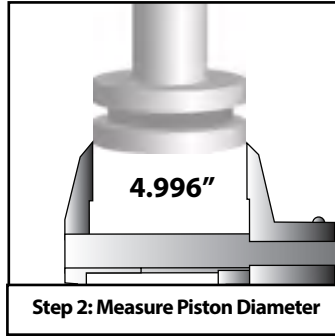
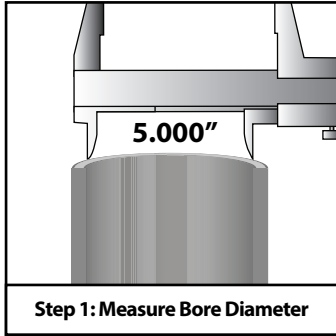
Step 1: Identify Groove Width / Height  
 Step 2: Identify Bore Diameter  
 Step 3: Identify Gland Depth

Groove Width/ Height	Groove Width / Height Range		Bore Diameter Range	Gland Depth	Seal Ht	2 Piece Piston Seal
	(Please refer to Piston Seal pages for Specific Tolerances)					
2.2	2.2	2.4	16	2.5	2.0	AS2 (AS228E) BTFE Step-cut (Round Energizer)
2.2	2.2	2.4	16-20	2.45	2.0	AS7 (AS728E) Series BTFE (Round Energizer)
3.2	3.2	3.4	28	3.8	3.0	AS2 (AS232E) BTFE Step-cut (Round Energizer)
3.2	3.2	3.4	16-40	3.75	3.0	AS7 (AS732E) Series BTFE (Round Energizer)
3.2	3.2	3.4	22-40	3.75	3.0	AS5 (AS532E) Urethane (Square Energizer)
3.2	3.2	3.4	15-35	3.75	3.0	AS6 (AS632E) Urethane (Square Energizer)
4.2	4.2	4.4	30-55	5.5	4.0	AS2 (AS236E) BTFE Step-cut (Round Energizer)
4.2	4.2	4.4	25-100	5.5	4.0	AS7 (AS736E) Series BTFE (Round Energizer)
4.2	4.2	4.4	25-75	5.5	4.0	AS5 (AS536E) Urethane (Square Energizer)
4.2	4.2	4.4	40-80	5.5	4.0	AS6 (AS636E) Urethane (Square Energizer)
4.2	4.2	4.4	40-70	5.5	4.0	OK Nylon (Rectangular Seal, Rectangular Energizer)
5	5	5.2	63	5	4.8	PSP Urethane (Square Energizer)
6.3	6.3	6.5	125-190	7.8	6.0	AS2 (AS240E) BTFE Step-cut (Round Energizer)
6.3	6.3	6.5	63-110	7.8	6.0	AS2 (AS240E) BTFE Step-cut (Round Energizer)
6.3	6.3	6.5	50-200	7.8	6.0	AS7 (AS740E) Series BTFE (Round Energizer)
6.3	6.3	6.5	90-120	7	6.0	AS990 BTFE (Rectangular Seal, Round Energizer)
6.3	6.3	6.5	40-85	7.75	6.0	AS5 (AS540E) Urethane (Square Energizer)
6.3	6.3	6.5	50-140	7.75	6.0	AS6 (AS640E) Urethane (Square Energizer)
6.3	6.3	6.5	40-100	6.5	6.0	PSP Urethane (Square Energizer)
6.3	6.3	6.5	50-125	7.75	6.0	OK Nylon (Rectangular Seal, Rectangular Energizer)
7.0	7.0	7.2	70	9.15	6.8	OK Nylon (Rectangular Seal, Rectangular Energizer)
7.24	7.24	7.44	100-130	7.125	7	Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)
7.5	7.5	7.7	60-100	6.5	7.3	TSP BTFE (Round Energizer)
7.5	7.5	7.7	130-150	8	7.3	PSP Urethane (Square Energizer)
8.1	8.1	8.3	120	10.5	7.9	AS2 (AS242E) BTFE Step-cut (Round Energizer)
8.1	8.1	8.3	200-600	12	7.9	AS2 (AS242E) BTFE Step-cut (Round Energizer)
8.1	8.1	8.3	80-530	10.5	7.9	AS7 (AS742E) Series BTFE (Round Energizer)
8.1	8.1	8.3	120-250	10.5	7.9	AS6 (AS642E) Urethane (Square Energizer)
8.1	8.1	8.3	80-115	10.5	7.9	PSP Urethane (Square Energizer)
8.1	8.100	8.3	80-280	10.5	7.9	OK Nylon (Rectangular Seal, Rectangular Energizer)
8.13	8.130	8.33	140	10.435	7.9	Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)
9.5	9.5	9.7	530	14	9.3	AS7 (AS744E) Series BTFE (Round Energizer)
9.5	9.5	9.7	125-225	9.5	9.3	AS990 BTFE (Rectangular Seal, Round Energizer)
9.5	9.5	9.7	40-63	7.5	9.3	NO Fabric Rubber w/ Backup
9.5	9.500	9.700	330	14	9.3	OK Nylon (Rectangular Seal, Rectangular Energizer)
9.63	9.630	9.830	140-220	9.69	9.4	Cat® Nylon Step-Cut (Rectangular Seal, Oval Energizer)
10.5	10.5	10.7	80-150	10.5	10.3	PSP Urethane (Square Energizer)
11.2	11.2	11.4	80-100	7.5	11.0	NO Fabric Rubber w/ Backup
11.5	11.5	11.7	250-300	11.75	11.3	AS990 BTFE (Rectangular Seal, Round Energizer)
12.5	12.5	12.7	200	12.5	12.3	PSP Urethane (Square Energizer)
12.5	12.5	12.7	70-115	10	12.3	NO Fabric Rubber w/ Backup
13.0	13.0	13.2	120	10	12.8	NO Fabric Rubber w/ Backup
15.5	15.5	15.7	115-140	12.5	15.3	NO Fabric Rubber w/ Backup
17.0	17.0	17.2	130-150	12.5	16.8	NO Fabric Rubber w/ Backup
19.0	19.0	19.2	220	15	18.8	NO Fabric Rubber w/ Backup



# Proper Piston Seal Groove Measurement

Example Part # : AS800E-80P for 5.00" Bore



**Calculate:**

**Diametrical Clearance = .004"**

$$\text{Bore Diameter (5.00") - Piston Diameter (4.996")} \\ 5.00" - 4.996" = .004"$$

**Radial Gap = .002"**

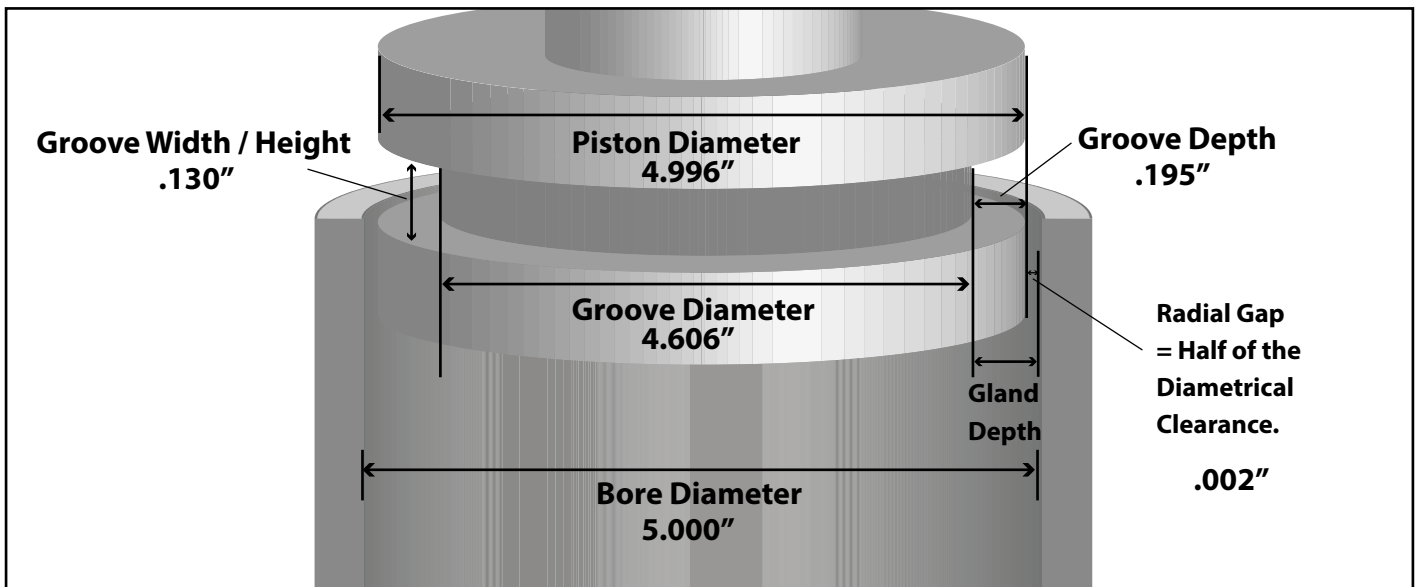
$$\text{Divide Diametrical Clearance (.004") by 2} \\ .004" / 2 = .002"$$

**Gland Depth = .197"**

$$\text{Radial Gap (.002") + Groove Depth (.195")} \\ .002" + .195" = .197"$$

**Groove Diameter = 4.606"**

$$\text{Piston Diameter (4.996") - Groove Depth x 2 (.195" x 2 = .390")} \\ 4.996" - .390" = 4.606"$$



## Measuring Tips

- **Multipiece Piston Seal**

Groove Width / Height will be larger than actual seal. Can range from 2-13%.

- **U-Cup Piston Seals**

































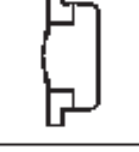
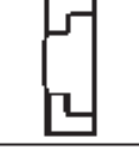













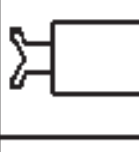

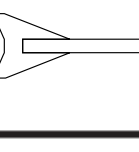








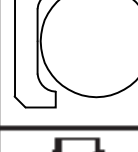




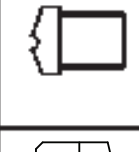







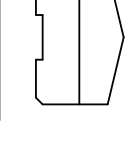
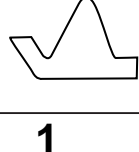
Groove Width / Height should be at least 10% larger than seal.

- **Failure to account for the radial gap between piston and bore will lead to reduced seal performance.**



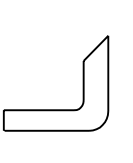

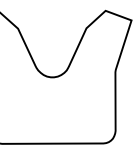

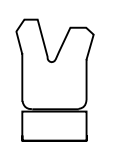

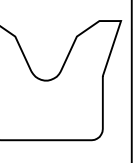
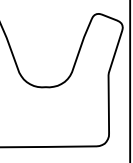


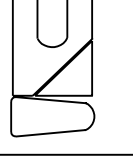

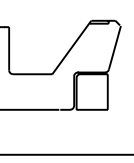
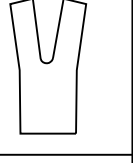
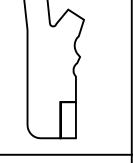
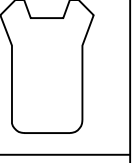
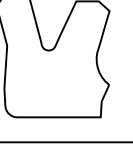
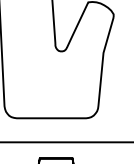
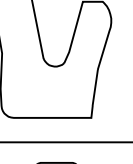
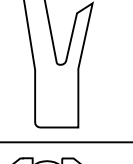
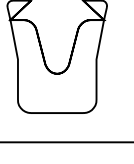
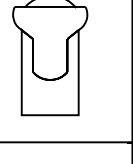
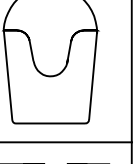
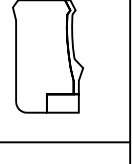
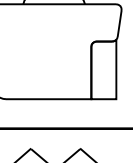
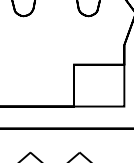
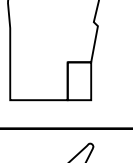
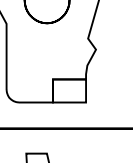
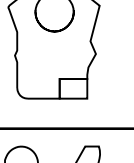
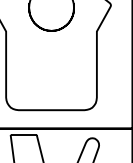
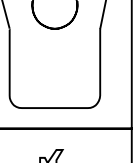
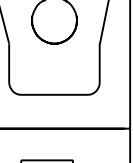
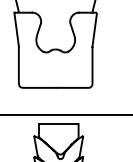
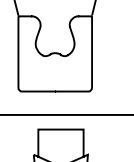
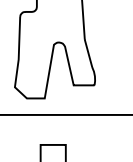
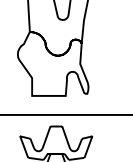
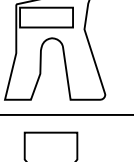
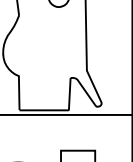
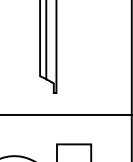
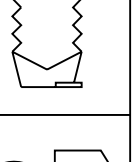
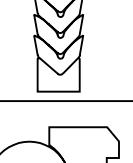
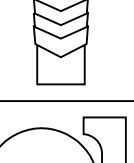
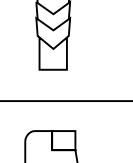
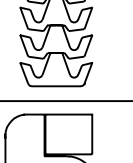
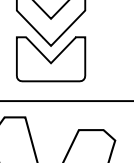

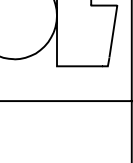
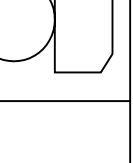
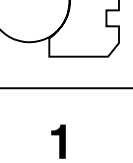
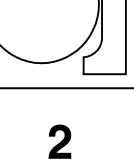
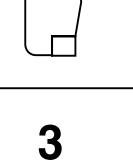
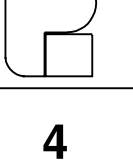

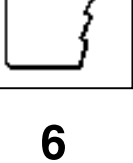
# Profile Reference Charts

## Piston Seals

<b>PA</b>								
<b>PB</b>								
<b>PC</b>								
<b>PD</b>								
<b>PE</b>								
<b>PF</b>								
<b>PG</b>								
<b>PH</b>								
<b>PJ</b>								
<b>PK</b>								
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>

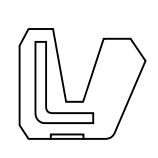
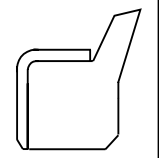
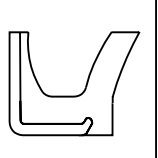
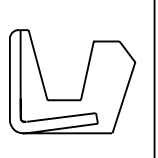
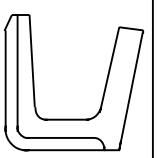
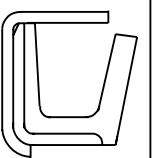
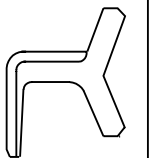
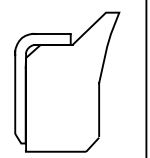
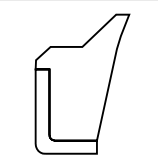

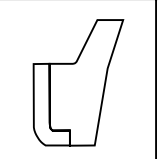
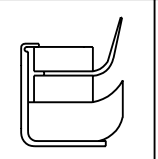
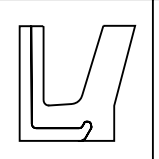
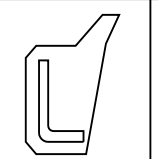
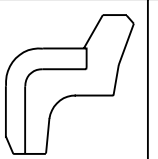
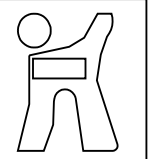
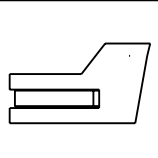
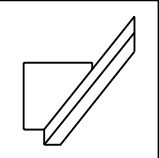
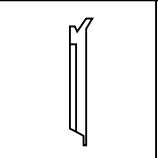
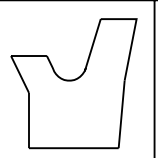
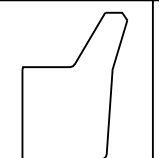
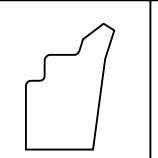
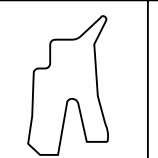
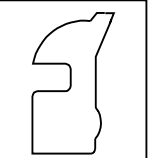
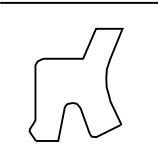
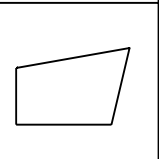
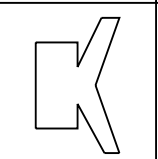
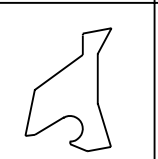
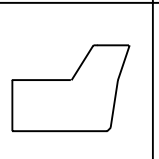
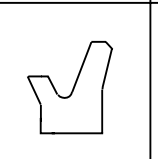
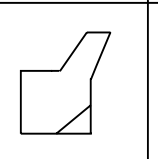
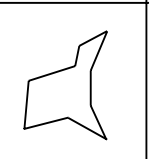
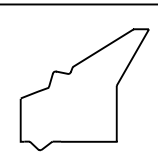
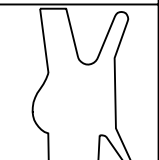
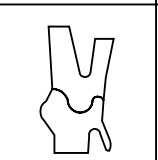
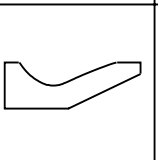
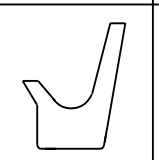
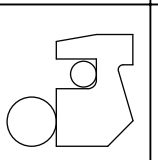
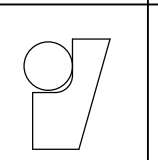
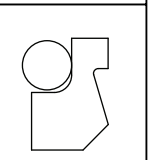
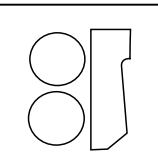
# Profile Reference Charts

## Rod Seals

<b>RA</b>								
<b>RB</b>								
<b>RC</b>								
<b>RD</b>								
<b>RE</b>								
<b>RF</b>								
<b>RG</b>								
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>

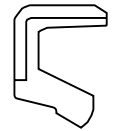
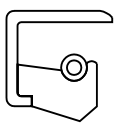




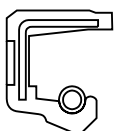



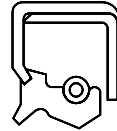
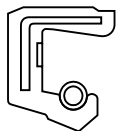

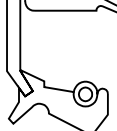
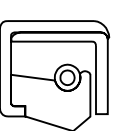
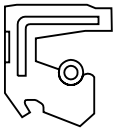
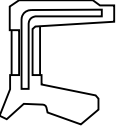
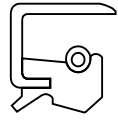

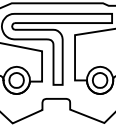
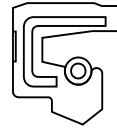

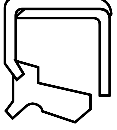
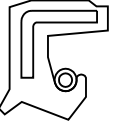
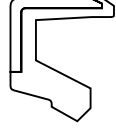


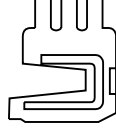
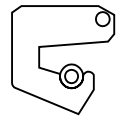

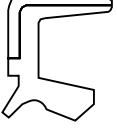
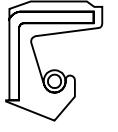
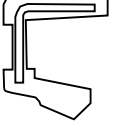

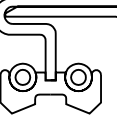
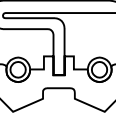
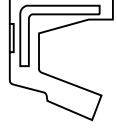
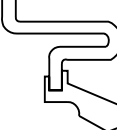
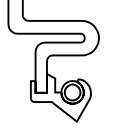
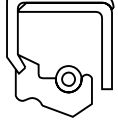
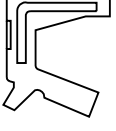

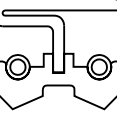
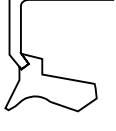
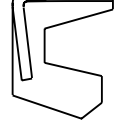
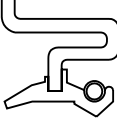
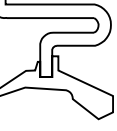
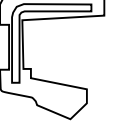
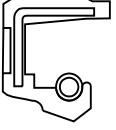

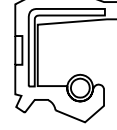


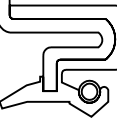

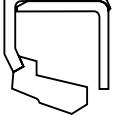
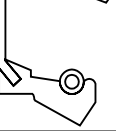
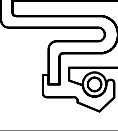
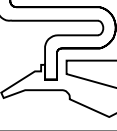
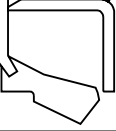
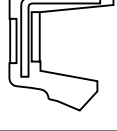
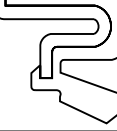
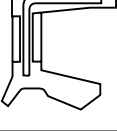
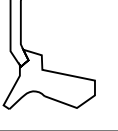
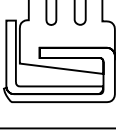
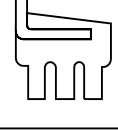
# Profile Reference Charts

## Wipers

<b>WA</b>								
<b>WB</b>								
<b>WC</b>								
<b>WD</b>								
<b>WE</b>								
<b>WF</b>								
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>

# Profile Reference Charts

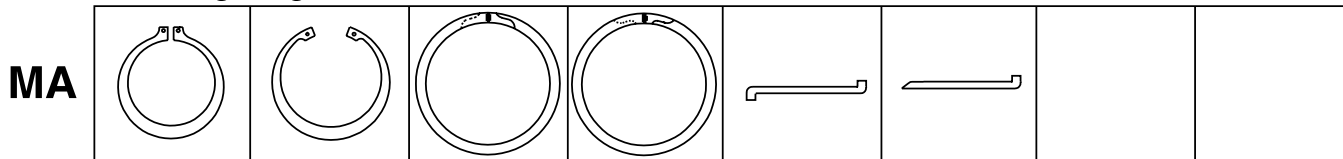
## Oil Seals

<b>OA</b>								
<b>OB</b>								
<b>OC</b>								
<b>OD</b>								
<b>OE</b>								
<b>OF</b>								
<b>OG</b>								
<b>OH</b>								
<b>OJ</b>								
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>

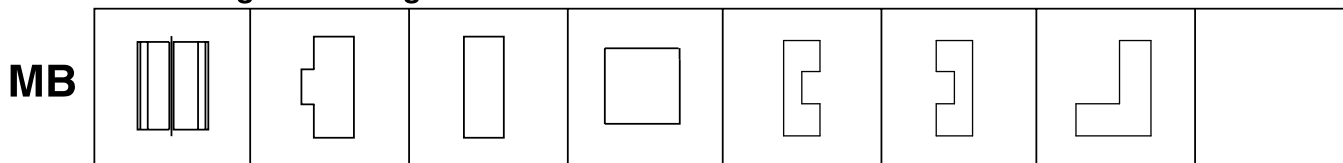
# Profile Reference Charts

## Miscellaneous

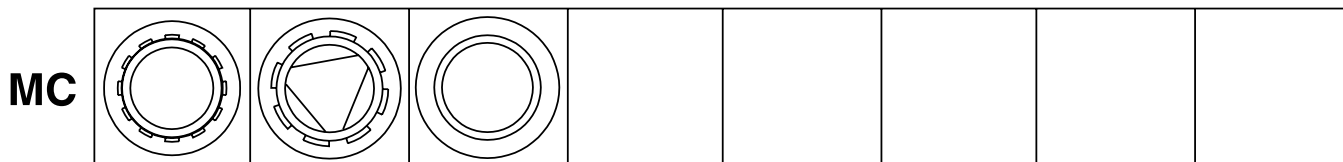
### Retaining Rings



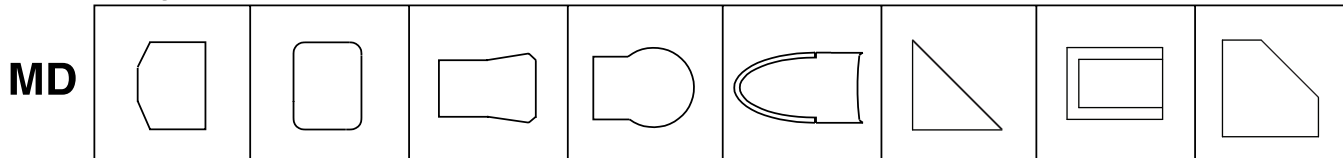
### Guide Rings & Bearings



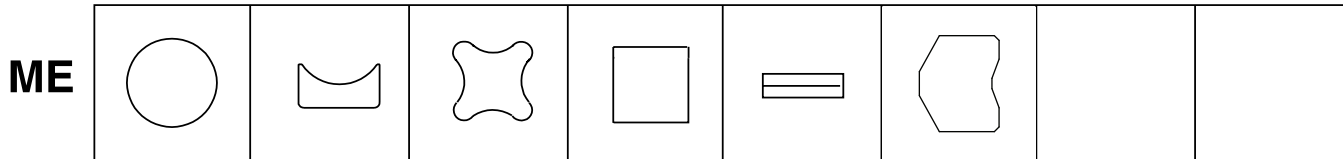
### Fastener Seals



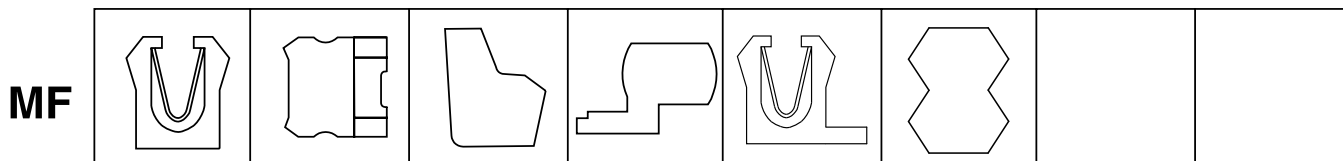
### Flange Seals



### O-Rings & Backups



### Miscellaneous

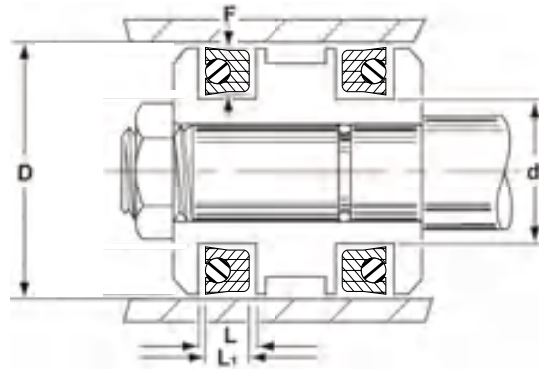


1      2      3      4      5      6      7      8

# Standard Loaded Lip Seals - Inch



**ALTERNATIVE SEALS:**  
 Rod: US, 8400, 6226,  
 BLS, UNRR, UNR, BS,  
 BD, BT, BSLL  
 Piston: US, 8400, 6226,  
 UNP, BP



Standard Loaded Lip Seals can be used as rod or piston seals and are basically square in configuration. They are manufactured from high quality, 90 durometer polyurethane. They are also available in other materials; consult sales office for price and availability.

Temperature: -65°F to 200°F      Pressure: 0 to 5,000 PSI

EXAMPLE: 12502000		
Cross Section	Inside Diameter	Height
125	02000	HT = CS
1/8"	2"	1/8"

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
12500062	0.062	0.312	0.125	0.138	\$4.75
12500093	0.093	0.343	0.125	0.138	\$8.30
12500125	0.125	0.375	0.125	0.138	\$4.75
12500140	0.140	0.390	0.125	0.138	\$7.05
12500187	0.187	0.437	0.125	0.138	\$4.75
12500250	0.250	0.500	0.125	0.138	\$4.75
12500312	0.312	0.562	0.125	0.138	\$5.11
12500359	0.359	0.609	0.125	0.138	\$8.30
12500375	0.375	0.625	0.125	0.138	\$5.20
12500437	0.437	0.687	0.125	0.138	\$5.20
12500500	0.500	0.750	0.125	0.138	\$4.92
12500531	0.531	0.781	0.125	0.138	\$8.30
12500562	0.562	0.812	0.125	0.138	\$4.94
12500625	0.625	0.875	0.125	0.138	\$4.94
12500687	0.687	0.937	0.125	0.138	\$5.40
12500750	0.750	1.000	0.125	0.138	\$5.09
12500812	0.812	1.062	0.125	0.138	\$5.32
12500875	0.875	1.125	0.125	0.138	\$5.32
12500906	0.906	1.156	0.125	0.138	\$9.38
12500937	0.937	1.187	0.125	0.138	\$5.58
12501000	1.000	1.250	0.125	0.138	\$5.58
12501062	1.062	1.312	0.125	0.138	\$9.95
12501125	1.125	1.375	0.125	0.138	\$5.84
12501187	1.187	1.437	0.125	0.138	\$5.83
12501250	1.250	1.500	0.125	0.138	\$5.83
12501312	1.312	1.562	0.125	0.138	\$7.67
12501375	1.375	1.625	0.125	0.138	\$6.55
12501437	1.437	1.687	0.125	0.138	\$9.98
12501500	1.500	1.750	0.125	0.138	\$6.49
12501562	1.562	1.812	0.125	0.138	\$12.30

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
12501625	1.625	1.875	0.125	0.138	\$6.93
12501750	1.750	2.000	0.125	0.138	\$6.93
12501875	1.875	2.125	0.125	0.138	\$7.37
12502000	2.000	2.250	0.125	0.138	\$7.08
12502125	2.125	2.375	0.125	0.138	\$10.39
12502250	2.250	2.500	0.125	0.138	\$7.92
12502375	2.375	2.625	0.125	0.138	\$7.92
12502500	2.500	2.750	0.125	0.138	\$8.05
12502625	2.625	2.875	0.125	0.138	\$14.06
12502750	2.750	3.000	0.125	0.138	\$8.76
12502875	2.875	3.125	0.125	0.138	\$9.93
12503000	3.000	3.250	0.125	0.138	\$9.48
12503250	3.250	3.500	0.125	0.138	\$13.04
12503500	3.500	3.750	0.125	0.138	\$11.30
12503750	3.750	4.000	0.125	0.138	\$13.38
12503875	3.875	4.125	0.125	0.138	\$14.44
12504000	4.000	4.250	0.125	0.138	\$15.90
12504250	4.250	4.500	0.125	0.138	\$15.96
12504375	4.375	4.625	0.125	0.138	\$16.15
12504500	4.500	4.750	0.125	0.138	\$16.16
12504750	4.750	5.000	0.125	0.138	\$17.58
12505000	5.000	5.250	0.125	0.138	\$29.73
12505750	5.750	6.000	0.125	0.138	\$35.75
<b>5/32" CROSS SECTION ("F")</b>					
15600437	0.437	0.750	0.156	0.172	\$8.20
15600750	0.750	1.062	0.156	0.172	\$8.30
15600937	0.937	1.250	0.156	0.172	\$9.35
15601000	1.000	1.312	0.156	0.172	\$6.46
15601125	1.125	1.437	0.156	0.172	\$6.57
15601187	1.187	1.500	0.156	0.172	\$6.69

**Standard Loaded Lip Seals - Inch, cont'd.**

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/32" CROSS SECTION ("F")</b>					
15601250	1.250	1.562	0.156	0.172	\$7.79
15601375	1.375	1.687	0.156	0.172	\$8.35
15601500	1.500	1.812	0.156	0.172	\$9.19
<b>3/16" CROSS SECTION ("F")</b>					
18700187	0.187	0.562	0.187	0.206	\$8.18
18700250	0.250	0.625	0.187	0.206	\$8.90
18700312	0.312	0.687	0.187	0.206	\$9.05
18700375	0.375	0.750	0.187	0.206	\$4.92
18700437	0.437	0.812	0.187	0.206	\$5.15
18700500	0.500	0.875	0.187	0.206	\$5.16
18700562	0.562	0.937	0.187	0.206	\$9.95
18700625	0.625	1.000	0.187	0.206	\$5.25
18700656	0.656	1.031	0.187	0.206	\$15.54
18700687	0.687	1.062	0.187	0.206	\$5.47
18700750	0.750	1.125	0.187	0.206	\$5.54
18700812	0.812	1.187	0.187	0.206	\$5.63
18700875	0.875	1.250	0.187	0.206	\$6.00
18700937	0.937	1.312	0.187	0.206	\$6.29
18701000	1.000	1.375	0.187	0.206	\$6.30
18701062	1.062	1.437	0.187	0.206	\$6.29
18701125	1.125	1.500	0.187	0.206	\$6.37
18701187	1.187	1.562	0.187	0.206	\$6.62
18701250	1.250	1.625	0.187	0.206	\$6.67
18701312	1.312	1.687	0.187	0.206	\$10.08
18701375	1.375	1.750	0.187	0.206	\$6.89
18701437	1.437	1.812	0.187	0.206	\$7.41
18701500	1.500	1.875	0.187	0.206	\$7.00
18701562	1.562	1.937	0.187	0.206	\$14.94
18701625	1.625	2.000	0.187	0.206	\$7.39
18701687	1.687	2.062	0.187	0.206	\$7.88
18701750	1.750	2.125	0.187	0.206	\$7.54
18701812	1.812	2.187	0.187	0.206	\$12.91
18701875	1.875	2.250	0.187	0.206	\$7.90
18701937	1.937	2.312	0.187	0.206	\$17.48
18702000	2.000	2.375	0.187	0.206	\$7.95
18702125	2.125	2.500	0.187	0.206	\$8.10
18702250	2.250	2.625	0.187	0.206	\$8.64
18702375	2.375	2.750	0.187	0.206	\$9.45
18702500	2.500	2.875	0.187	0.206	\$8.97
18702625	2.625	3.000	0.187	0.206	\$9.17
18702750	2.750	3.125	0.187	0.206	\$10.30
18702875	2.875	3.250	0.187	0.206	\$9.72
18703000	3.000	3.375	0.187	0.206	\$10.30
18703125	3.125	3.500	0.187	0.206	\$10.81
18703250	3.250	3.625	0.187	0.206	\$11.60
18703375	3.375	3.750	0.187	0.206	\$12.28

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
18703500	3.500	3.875	0.187	0.206	\$13.05
18703625	3.625	4.000	0.187	0.206	\$13.16
18703750	3.750	4.125	0.187	0.206	\$14.11
18703875	3.875	4.250	0.187	0.206	\$19.80
18704000	4.000	4.375	0.187	0.206	\$17.34
18704125	4.125	4.500	0.187	0.206	\$17.28
18704250	4.250	4.625	0.187	0.206	\$17.31
18704375	4.375	4.750	0.187	0.206	\$17.31
18704500	4.500	4.875	0.187	0.206	\$18.22
18704625	4.625	5.000	0.187	0.206	\$18.43
18704750	4.750	5.125	0.187	0.206	\$18.77
18704875	4.875	5.250	0.187	0.206	\$21.25
18705125	5.125	5.500	0.187	0.206	\$31.66
18705250	5.250	5.625	0.187	0.206	\$32.32
18705687	5.687	6.062	0.187	0.206	\$35.74
18705875	5.875	6.250	0.187	0.206	\$37.04
18706000	6.000	6.375	0.187	0.206	\$32.20
<b>7/32" CROSS SECTION ("F")</b>					
21800312	0.312	0.750	0.218	0.240	\$12.75
21800750	0.750	1.187	0.218	0.240	\$13.38
21801750	1.750	2.187	0.218	0.240	\$16.30
21802062	2.062	2.500	0.218	0.240	\$19.27
21802500	2.500	2.937	0.218	0.240	\$16.57
21802562	2.562	3.000	0.218	0.240	\$17.72
21802812	2.812	3.250	0.218	0.240	\$15.70
21803000	3.000	3.437	0.218	0.240	\$18.11
<b>1/4" CROSS SECTION ("F")</b>					
25000250	0.250	0.750	0.250	0.275	\$6.75
25000312	0.312	0.812	0.250	0.275	\$6.75
25000375	0.375	0.875	0.250	0.275	\$6.77
25000437	0.437	0.937	0.250	0.275	\$6.77
25000500	0.500	1.000	0.250	0.275	\$6.77
25000562	0.562	1.062	0.250	0.275	\$6.77
25000625	0.625	1.125	0.250	0.275	\$6.77
25000687	0.687	1.187	0.250	0.275	\$6.77
25000750	0.750	1.250	0.250	0.275	\$6.77
25000812	0.812	1.312	0.250	0.275	\$6.77
25000875	0.875	1.375	0.250	0.275	\$6.77
25000937	0.937	1.437	0.250	0.275	\$6.77
25001000	1.000	1.500	0.250	0.275	\$6.77
25001062	1.062	1.562	0.250	0.275	\$10.76
25001125	1.125	1.625	0.250	0.275	\$6.77
25001187	1.187	1.687	0.250	0.275	\$7.27
25001250	1.250	1.750	0.250	0.275	\$7.27
25001312	1.312	1.812	0.250	0.275	\$7.68
25001375	1.375	1.875	0.250	0.275	\$7.94



**Standard Loaded Lip Seals - Inch, cont'd.**

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
25001437	1.437	1.937	0.250	0.275	\$8.12
25001500	1.500	2.000	0.250	0.275	\$8.12
25001625	1.625	2.125	0.250	0.275	\$8.89
25001750	1.750	2.250	0.250	0.275	\$9.27
25001875	1.875	2.375	0.250	0.275	\$9.81
25002000	2.000	2.500	0.250	0.275	\$9.95
25002125	2.125	2.625	0.250	0.275	\$10.90
25002250	2.250	2.750	0.250	0.275	\$11.27
25002375	2.375	2.875	0.250	0.275	\$11.95
25002500	2.500	3.000	0.250	0.275	\$12.00
25002625	2.625	3.125	0.250	0.275	\$13.41
25002750	2.750	3.250	0.250	0.275	\$13.03
25002875	2.875	3.375	0.250	0.275	\$16.81
25003000	3.000	3.500	0.250	0.275	\$13.94
25003125	3.125	3.625	0.250	0.275	\$15.22
25003250	3.250	3.750	0.250	0.275	\$15.64
25003375	3.375	3.875	0.250	0.275	\$18.18
25003500	3.500	4.000	0.250	0.275	\$16.62
25003625	3.625	4.125	0.250	0.275	\$17.24
25003750	3.750	4.250	0.250	0.275	\$18.65
25003875	3.875	4.375	0.250	0.275	\$18.70
25004000	4.000	4.500	0.250	0.275	\$18.03
25004125	4.125	4.625	0.250	0.275	\$20.62
25004250	4.250	4.750	0.250	0.275	\$20.09
25004375	4.375	4.875	0.250	0.275	\$24.35
25004500	4.500	5.000	0.250	0.275	\$20.34
25004625	4.625	5.125	0.250	0.275	\$24.12
25004750	4.750	5.250	0.250	0.275	\$21.07
25004875	4.875	5.375	0.250	0.275	\$22.64
25005000	5.000	5.500	0.250	0.275	\$22.38
25005125	5.125	5.625	0.250	0.275	\$23.07
25005250	5.250	5.750	0.250	0.275	\$23.10
25005375	5.375	5.875	0.250	0.275	\$24.35
25005500	5.500	6.000	0.250	0.275	\$24.63
25005625	5.625	6.125	0.250	0.275	\$40.42
25005750	5.750	6.250	0.250	0.275	\$26.99
25005875	5.875	6.375	0.250	0.275	\$42.71
25006000	6.000	6.500	0.250	0.275	\$27.58
25006250	6.250	6.750	0.250	0.275	\$27.74
25006500	6.500	7.000	0.250	0.275	\$28.98
25006750	6.750	7.250	0.250	0.275	\$29.59
25007000	7.000	7.500	0.250	0.275	\$30.76
25007125	7.125	7.625	0.250	0.275	\$47.69
25007250	7.250	7.750	0.250	0.275	\$30.73
25007500	7.500	8.000	0.250	0.275	\$32.85
25007750	7.750	8.250	0.250	0.275	\$32.85

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
25008000	8.000	8.500	0.250	0.275	\$39.48
25008250	8.250	8.750	0.250	0.275	\$60.35
25008500	8.500	9.000	0.250	0.275	\$40.31
25008750	8.750	9.250	0.250	0.275	\$62.57
25009000	9.000	9.500	0.250	0.275	\$51.05
25009250	9.250	9.750	0.250	0.275	\$64.83
25009500	9.500	10.000	0.250	0.275	\$38.58
25009750	9.750	10.250	0.250	0.275	\$50.87
25010000	10.000	10.500	0.250	0.275	\$49.97
25010500	10.500	11.000	0.250	0.275	\$78.54
25010750	10.750	11.250	0.250	0.275	\$82.33
25010875	10.875	11.375	0.250	0.275	\$87.35
25011000	11.000	11.500	0.250	0.275	\$86.98
25011250	11.250	11.750	0.250	0.275	\$87.26
25011500	11.500	12.000	0.250	0.275	\$59.98
25012000	12.000	12.500	0.250	0.275	\$93.74
25013000	13.000	13.500	0.250	0.275	\$123.95
25013500	13.500	14.000	0.250	0.275	\$102.56
25014000	14.000	14.500	0.250	0.275	\$132.48
25024000	24.000	24.500	0.250	0.275	\$390.27
<b>9/32" CROSS SECTION ("F")</b>					
28104437	4.437	5.000	0.281	0.309	\$40.81
28105000	5.000	5.562	0.281	0.309	\$44.97
28105437	5.437	6.000	0.281	0.309	\$31.83
28106437	6.437	7.000	0.281	0.309	\$55.24
<b>5/16" CROSS SECTION ("F")</b>					
31200375	0.375	1.000	0.312	0.343	\$7.33
31200500	0.500	1.125	0.312	0.343	\$8.70
31200625	0.625	1.250	0.312	0.343	\$9.12
31200687	0.687	1.312	0.312	0.343	\$11.55
31200750	0.750	1.375	0.312	0.343	\$7.77
31200875	0.875	1.500	0.312	0.343	\$8.01
31201000	1.000	1.625	0.312	0.343	\$8.20
31201062	1.062	1.687	0.312	0.343	\$12.70
31201125	1.125	1.750	0.312	0.343	\$12.82
31201187	1.187	1.812	0.312	0.343	\$8.36
31201250	1.250	1.875	0.312	0.343	\$9.49
31201312	1.312	1.937	0.312	0.343	\$12.95
31201375	1.375	2.000	0.312	0.343	\$9.14
31201500	1.500	2.125	0.312	0.343	\$9.33
31201625	1.625	2.250	0.312	0.343	\$10.42
31201750	1.750	2.375	0.312	0.343	\$10.97
31201875	1.875	2.500	0.312	0.343	\$11.32
31201937	1.937	2.562	0.312	0.343	\$20.40
31202000	2.000	2.625	0.312	0.343	\$12.40
31202125	2.125	2.750	0.312	0.343	\$20.57

## Standard Loaded Lip Seals - Inch, cont'd.

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/16" CROSS SECTION ("F")</b>					
31202250	2.250	2.875	0.312	0.343	\$13.02
31202375	2.375	3.000	0.312	0.343	\$13.70
31202500	2.500	3.125	0.312	0.343	\$14.34
31202625	2.625	3.250	0.312	0.343	\$15.54
31202750	2.750	3.375	0.312	0.343	\$15.51
31202875	2.875	3.500	0.312	0.343	\$16.73
31203000	3.000	3.625	0.312	0.343	\$20.89
31203125	3.125	3.750	0.312	0.343	\$21.81
31203250	3.250	3.875	0.312	0.343	\$19.62
31203375	3.375	4.000	0.312	0.343	\$19.71
31203500	3.500	4.125	0.312	0.343	\$20.35
31203625	3.625	4.250	0.312	0.343	\$20.36
31203750	3.750	4.375	0.312	0.343	\$20.53
31203875	3.875	4.500	0.312	0.343	\$21.24
31204000	4.000	4.625	0.312	0.343	\$22.81
31204125	4.125	4.750	0.312	0.343	\$22.89
31204250	4.250	4.875	0.312	0.343	\$23.27
31204375	4.375	5.000	0.312	0.343	\$23.94
31204500	4.500	5.125	0.312	0.343	\$24.54
31204750	4.750	5.375	0.312	0.343	\$25.80
31204875	4.875	5.500	0.312	0.343	\$26.48
31205000	5.000	5.625	0.312	0.343	\$28.03
31205250	5.250	5.875	0.312	0.343	\$28.11
31205375	5.375	6.000	0.312	0.343	\$29.11
31205500	5.500	6.125	0.312	0.343	\$29.91
31205750	5.750	6.375	0.312	0.343	\$42.46
31205875	5.875	6.500	0.312	0.343	\$37.95
31206000	6.000	6.625	0.312	0.343	\$32.10
31206125	6.125	6.750	0.312	0.343	\$36.25
31206250	6.250	6.875	0.312	0.343	\$34.02
31206375	6.375	7.000	0.312	0.343	\$34.88
31206500	6.500	7.125	0.312	0.343	\$35.43
31206625	6.625	7.250	0.312	0.343	\$35.78
31206750	6.750	7.375	0.312	0.343	\$45.33
31207000	7.000	7.625	0.312	0.343	\$43.45
31207250	7.250	7.875	0.312	0.343	\$38.80
31207375	7.375	8.000	0.312	0.343	\$39.80
31207500	7.500	8.125	0.312	0.343	\$45.61
31207750	7.750	8.375	0.312	0.343	\$47.27
31208000	8.000	8.625	0.312	0.343	\$49.85
31208250	8.250	8.875	0.312	0.343	\$52.84
31208500	8.500	9.125	0.312	0.343	\$56.28
31208875	8.875	9.500	0.312	0.343	\$79.66
<b>11/32" CROSS SECTION ("F")</b>					
34309312	9.312	10.000	0.343	0.377	\$80.70

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/8" CROSS SECTION ("F")</b>					
37500500	0.500	1.250	0.375	0.413	\$9.44
37500625	0.625	1.375	0.375	0.413	\$14.55
37500875	0.875	1.625	0.375	0.413	\$10.45
37501000	1.000	1.750	0.375	0.413	\$10.92
37501125	1.125	1.875	0.375	0.413	\$11.24
37501250	1.250	2.000	0.375	0.413	\$11.58
37501312	1.312	2.062	0.375	0.413	\$20.02
37501375	1.375	2.125	0.375	0.413	\$12.68
37501500	1.500	2.250	0.375	0.413	\$12.77
37501562	1.562	2.312	0.375	0.413	\$13.55
37501625	1.625	2.375	0.375	0.413	\$16.61
37501750	1.750	2.500	0.375	0.413	\$14.62
37501875	1.875	2.625	0.375	0.413	\$19.80
37502000	2.000	2.750	0.375	0.413	\$17.93
37502062	2.062	2.812	0.375	0.413	\$32.54
37502125	2.125	2.875	0.375	0.413	\$17.04
37502250	2.250	3.000	0.375	0.413	\$20.15
37502375	2.375	3.125	0.375	0.413	\$19.84
37502500	2.500	3.250	0.375	0.413	\$20.31
37502625	2.625	3.375	0.375	0.413	\$20.40
37502750	2.750	3.500	0.375	0.413	\$21.35
37502875	2.875	3.625	0.375	0.413	\$30.51
37502937	2.937	3.687	0.375	0.413	\$26.54
37503000	3.000	3.750	0.375	0.413	\$24.36
37503125	3.125	3.875	0.375	0.413	\$39.66
37503250	3.250	4.000	0.375	0.413	\$25.17
37503375	3.375	4.125	0.375	0.413	\$26.91
37503500	3.500	4.250	0.375	0.413	\$26.61
37503625	3.625	4.375	0.375	0.413	\$27.57
37503750	3.750	4.500	0.375	0.413	\$27.89
37503875	3.875	4.625	0.375	0.413	\$28.95
37504000	4.000	4.750	0.375	0.413	\$30.08
37504125	4.125	4.875	0.375	0.413	\$31.08
37504250	4.250	5.000	0.375	0.413	\$31.59
37504375	4.375	5.125	0.375	0.413	\$39.36
37504500	4.500	5.250	0.375	0.413	\$36.72
37504625	4.625	5.375	0.375	0.413	\$37.46
37504750	4.750	5.500	0.375	0.413	\$38.44
37504875	4.875	5.625	0.375	0.413	\$50.99
37505000	5.000	5.750	0.375	0.413	\$38.86
37505125	5.125	5.875	0.375	0.413	\$53.98
37505250	5.250	6.000	0.375	0.413	\$38.65
37505375	5.375	6.125	0.375	0.413	\$39.80
37505500	5.500	6.250	0.375	0.413	\$40.18
37505625	5.625	6.375	0.375	0.413	\$65.50
37505750	5.750	6.500	0.375	0.413	\$44.53

**Standard Loaded Lip Seals - Inch, cont'd.**

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/8" CROSS SECTION ("F")</b>					
37506000	6.000	6.750	0.375	0.413	\$45.37
37506250	6.250	7.000	0.375	0.413	\$43.54
37506500	6.500	7.250	0.375	0.413	\$45.45
37506750	6.750	7.500	0.375	0.413	\$50.36
37507000	7.000	7.750	0.375	0.413	\$50.75
37507250	7.250	8.000	0.375	0.413	\$51.18
37507500	7.500	8.250	0.375	0.413	\$59.61
37507625	7.625	8.375	0.375	0.413	\$82.12
37507750	7.750	8.500	0.375	0.413	\$69.18
37508000	8.000	8.750	0.375	0.413	\$65.19
37508250	8.250	9.000	0.375	0.413	\$61.51
37508500	8.500	9.250	0.375	0.413	\$90.18
37508750	8.750	9.500	0.375	0.413	\$102.33
37509000	9.000	9.750	0.375	0.413	\$78.78
37509250	9.250	10.000	0.375	0.413	\$62.56
37509500	9.500	10.250	0.375	0.413	\$75.72
37509750	9.750	10.500	0.375	0.413	\$106.31
37510000	10.000	10.750	0.375	0.413	\$116.82
37510250	10.250	11.000	0.375	0.413	\$116.96
37510500	10.500	11.250	0.375	0.413	\$118.50
37510750	10.750	11.500	0.375	0.413	\$119.56
37511000	11.000	11.750	0.375	0.413	\$122.58
37511250	11.250	12.000	0.375	0.413	\$99.53
37511500	11.500	12.250	0.375	0.413	\$127.79
37511750	11.750	12.500	0.375	0.413	\$130.04
37512000	12.000	12.750	0.375	0.413	\$132.30
37512250	12.250	13.000	0.375	0.413	\$115.50
37512750	12.750	13.500	0.375	0.413	\$152.57
37513000	13.000	13.750	0.375	0.413	\$153.87
37513250	13.250	14.000	0.375	0.413	\$105.63
37513500	13.500	14.250	0.375	0.413	\$176.61
37513750	13.750	14.500	0.375	0.413	\$181.87
37514000	14.000	14.750	0.375	0.413	\$183.32
37514500	14.500	15.250	0.375	0.413	\$189.04
37514750	14.750	15.500	0.375	0.413	\$193.48
37515000	15.000	15.750	0.375	0.413	\$194.64
37515500	15.500	16.250	0.375	0.413	\$196.44
37515750	15.750	16.500	0.375	0.413	\$199.90
37516250	16.250	17.000	0.375	0.413	\$204.34
37517250	17.250	18.000	0.375	0.413	\$206.84
37523000	23.000	23.750	0.375	0.413	\$482.81
<b>7/16" CROSS SECTION ("F")</b>					
43701000	1.000	1.875	0.437	0.481	\$21.01
43701250	1.250	2.125	0.437	0.481	\$22.21
43701375	1.375	2.250	0.437	0.481	\$24.09
43701437	1.437	2.312	0.437	0.481	\$24.63

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>7/16" CROSS SECTION ("F")</b>					
43701500	1.500	2.375	0.437	0.481	\$25.21
43701750	1.750	2.625	0.437	0.481	\$35.10
43701875	1.875	2.750	0.437	0.481	\$38.51
43702000	2.000	2.875	0.437	0.481	\$33.75
43702125	2.125	3.000	0.437	0.481	\$34.72
43702875	2.875	3.750	0.437	0.481	\$36.76
43703000	3.000	3.875	0.437	0.481	\$41.60
43703125	3.125	4.000	0.437	0.481	\$30.19
43704000	4.000	4.875	0.437	0.481	\$45.87
43704750	4.750	5.625	0.437	0.481	\$45.37
43705125	5.125	6.000	0.437	0.481	\$60.97
<b>1/2" CROSS SECTION ("F")</b>					
50001000	1.000	2.000	0.500	0.550	\$14.18
50001250	1.250	2.250	0.500	0.550	\$20.78
50001312	1.312	2.312	0.500	0.550	\$38.00
50001375	1.375	2.375	0.500	0.550	\$30.07
50001500	1.500	2.500	0.500	0.550	\$18.82
50001750	1.750	2.750	0.500	0.550	\$26.40
50001875	1.875	2.875	0.500	0.550	\$30.95
50002000	2.000	3.000	0.500	0.550	\$24.55
50002250	2.250	3.250	0.500	0.550	\$30.12
50002375	2.375	3.375	0.500	0.550	\$43.21
50002500	2.500	3.500	0.500	0.550	\$28.97
50002750	2.750	3.750	0.500	0.550	\$42.30
50003000	3.000	4.000	0.500	0.550	\$32.40
50003250	3.250	4.250	0.500	0.550	\$33.79
50003500	3.500	4.500	0.500	0.550	\$39.12
50003750	3.750	4.750	0.500	0.550	\$49.50
50004000	4.000	5.000	0.500	0.550	\$38.21
50004125	4.125	5.125	0.500	0.550	\$68.31
50004250	4.250	5.250	0.500	0.550	\$43.69
50004375	4.375	5.375	0.500	0.550	\$71.74
50004500	4.500	5.500	0.500	0.550	\$46.48
50004750	4.750	5.750	0.500	0.550	\$46.52
50005000	5.000	6.000	0.500	0.550	\$51.95
50005125	5.125	6.125	0.500	0.550	\$81.72
50005250	5.250	6.250	0.500	0.550	\$50.85
50005375	5.375	6.375	0.500	0.550	\$85.23
50005500	5.500	6.500	0.500	0.550	\$51.65
50005750	5.750	6.750	0.500	0.550	\$53.11
50006000	6.000	7.000	0.500	0.550	\$59.89
50006250	6.250	7.250	0.500	0.550	\$56.78
50006500	6.500	7.500	0.500	0.550	\$58.56
50006750	6.750	7.750	0.500	0.550	\$104.23
50007000	7.000	8.000	0.500	0.550	\$63.36
50007250	7.250	8.250	0.500	0.550	\$66.40

**Standard Loaded Lip Seals - Inch, cont'd.**

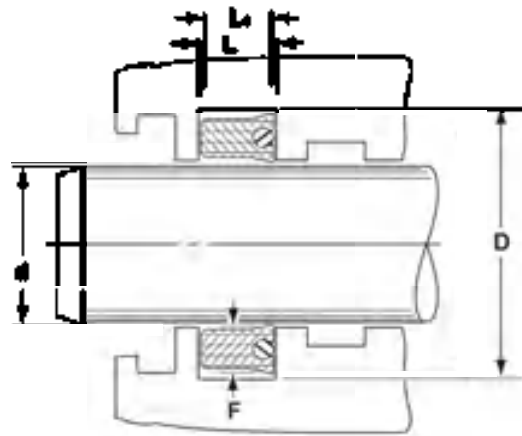
Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/2" CROSS SECTION ("F")</b>					
50007375	7.375	8.375	0.500	0.550	\$98.23
50007500	7.500	8.500	0.500	0.550	\$69.75
50007750	7.750	8.750	0.500	0.550	\$114.58
50008000	8.000	9.000	0.500	0.550	\$70.68
50008125	8.125	9.125	0.500	0.550	\$117.30
50008250	8.250	9.250	0.500	0.550	\$123.28
50008500	8.500	9.500	0.500	0.550	\$119.42
50008750	8.750	9.750	0.500	0.550	\$111.36
50009000	9.000	10.000	0.500	0.550	\$76.29
50009500	9.500	10.500	0.500	0.550	\$129.06
50009750	9.750	10.750	0.500	0.550	\$141.15
50010750	10.750	11.750	0.500	0.550	\$145.30
50011000	11.000	12.000	0.500	0.550	\$96.70
50011500	11.500	12.500	0.500	0.550	\$153.47
50011750	11.750	12.750	0.500	0.550	\$160.42
50012000	12.000	13.000	0.500	0.550	\$126.67
50012750	12.750	13.750	0.500	0.550	\$182.14
50013000	13.000	14.000	0.500	0.550	\$129.39
50014000	14.000	15.000	0.500	0.550	\$203.18
50014500	14.500	15.500	0.500	0.550	\$212.81
50015000	15.000	16.000	0.500	0.550	\$167.09
50016000	16.000	17.000	0.500	0.550	\$239.40
50017000	17.000	18.000	0.500	0.550	\$248.26
50019000	19.000	20.000	0.500	0.550	\$274.78
50020000	20.000	21.000	0.500	0.550	\$289.28
50021000	21.000	22.000	0.500	0.550	\$329.40
50036000	36.000	37.000	0.500	0.550	\$1,409.02
<b>9/16" CROSS SECTION ("F")</b>					
56205500	5.500	6.625	0.562	0.618	\$92.24
<b>5/8" CROSS SECTION ("F")</b>					
62501250	1.250	2.500	0.625	0.688	\$21.75
62502000	2.000	3.250	0.625	0.688	\$49.68
62502500	2.500	3.750	0.625	0.688	\$35.30
62502750	2.750	4.000	0.625	0.688	\$35.59
62503000	3.000	4.250	0.625	0.688	\$35.81
62503250	3.250	4.500	0.625	0.688	\$41.29
62503375	3.375	4.625	0.625	0.688	\$66.33
62503500	3.500	4.750	0.625	0.688	\$50.64
62503750	3.750	5.000	0.625	0.688	\$47.23
62504000	4.000	5.250	0.625	0.688	\$55.26
62504250	4.250	5.500	0.625	0.688	\$61.59
62504500	4.500	5.750	0.625	0.688	\$89.82
62505000	5.000	6.250	0.625	0.688	\$69.54
62505500	5.500	6.750	0.625	0.688	\$76.27
62505750	5.750	7.000	0.625	0.688	\$71.17
62506000	6.000	7.250	0.625	0.688	\$81.09

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/8" CROSS SECTION ("F")</b>					
62506250	6.250	7.500	0.625	0.688	\$105.96
62506500	6.500	7.750	0.625	0.688	\$135.55
62506750	6.750	8.000	0.625	0.688	\$138.89
62507000	7.000	8.250	0.625	0.688	\$139.94
62507750	7.750	9.000	0.625	0.688	\$150.61
62508000	8.000	9.250	0.625	0.688	\$136.15
62508250	8.250	9.500	0.625	0.688	\$155.11
62508500	8.500	9.750	0.625	0.688	\$152.88
62508625	8.625	9.875	0.625	0.688	\$161.16
62509000	9.000	10.250	0.625	0.688	\$125.30
62509250	9.250	10.500	0.625	0.688	\$171.83
62509750	9.750	11.000	0.625	0.688	\$129.09
62510000	10.000	11.250	0.625	0.688	\$182.72
62510500	10.500	11.750	0.625	0.688	\$283.28
62511000	11.000	12.250	0.625	0.688	\$200.27
62512000	12.000	13.250	0.625	0.688	\$178.90
62513000	13.000	14.250	0.625	0.688	\$255.39
62516750	16.750	18.000	0.625	0.688	\$318.34
62520000	20.000	21.250	0.625	0.688	\$366.51
62524750	24.750	26.000	0.625	0.688	\$954.39
<b>3/4" CROSS SECTION ("F")</b>					
75003500	3.500	5.000	0.750	0.825	\$80.94
75004000	4.000	5.500	0.750	0.825	\$99.85
75005000	5.000	6.500	0.750	0.825	\$119.90
75006000	6.000	7.500	0.750	0.825	\$123.03
75006500	6.500	7.250	0.750	0.825	\$126.54
75007000	7.000	8.500	0.750	0.825	\$139.58
75007500	7.500	9.000	0.750	0.825	\$174.68
75008250	8.250	9.750	0.750	0.825	\$324.21
75008500	8.500	10.000	0.750	0.825	\$194.86
75009000	9.000	10.500	0.750	0.825	\$202.48
75009500	9.500	11.000	0.750	0.825	\$152.37
75010500	10.500	12.000	0.750	0.825	\$162.48
75012000	12.000	13.500	0.750	0.825	\$266.00
75012500	12.500	14.000	0.750	0.825	\$264.87
75013000	13.000	14.500	0.750	0.825	\$268.52
75014000	14.000	15.500	0.750	0.825	\$297.54
75014500	14.500	16.000	0.750	0.825	\$298.60
75016000	16.000	17.500	0.750	0.825	\$369.59
75016500	16.500	18.000	0.750	0.825	\$616.37
75018000	18.000	19.500	0.750	0.825	\$408.63
75019000	19.000	20.500	0.750	0.825	\$427.36
75026000	26.000	27.500	0.750	0.825	\$1,139.66
<b>1" CROSS SECTION ("F")</b>					
100004000	4.000	6.000	1.000	1.100	\$161.30
100007500	7.500	9.500	1.000	1.100	\$248.20

# Deep Loaded Lip Seals - Inch



**ALTERNATIVE SEALS:**  
 Rod: BLLS, US, UCH, UCF, UNR,  
 BS, BT, BD  
 Piston: UNP, UCH, UCF, US, BP



EXAMPLE: 18701500-375			
Cross Section	Inside Diameter		Height
187	01500	-	375
3/16	1-1/2"		3/8

Deep Loaded Lip Seals can be used as rod or piston seals. Their rectangular configuration gives them greater down stream stability while their greater lip interference provides for better low pressure sealability. They are manufactured from high quality, 90 durometer polyurethane. They are also available in other materials; consult sales office for price and availability.

Temperature: -65°F to 200°F      Pressure: 0 to 5,000 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
12500250-250	0.250	0.500	0.250	0.275	\$8.12
12500312-250	0.312	0.562	0.250	0.275	\$8.74
12500437-250	0.437	0.687	0.250	0.275	\$9.02
12500500-250	0.500	0.750	0.250	0.275	\$8.69
12500625-187	0.625	0.875	0.187	0.206	\$9.22
12500625-250	0.625	0.875	0.250	0.275	\$9.09
12500687-250	0.687	0.937	0.250	0.275	\$9.24
12500750-250	0.750	1.000	0.250	0.275	\$5.79
12500875-187	0.875	1.125	0.187	0.206	\$9.92
12500875-250	0.875	1.125	0.250	0.275	\$7.13
12501000-172	1.000	1.250	0.172	0.189	\$9.92
12501000-187	1.000	1.250	0.187	0.206	\$7.75
12501000-250	1.000	1.250	0.250	0.275	\$6.46
12501125-250	1.125	1.375	0.250	0.275	\$6.70
12501187-187	1.187	1.437	0.187	0.206	\$9.29
12501250-187	1.250	1.500	0.187	0.206	\$10.91
12501250-250	1.250	1.500	0.250	0.275	\$8.03
12501375-250	1.375	1.625	0.250	0.275	\$11.93
12501437-250	1.437	1.687	0.250	0.275	\$12.07
12501500-250	1.500	1.750	0.250	0.275	\$10.12

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
12501625-250	1.625	1.875	0.250	0.275	\$10.40
12501750-250	1.750	2.000	0.250	0.275	\$8.88
12502000-250	2.000	2.250	0.250	0.275	\$10.33
12502375-250	2.375	2.625	0.250	0.275	\$16.99
12502500-250	2.500	2.750	0.250	0.275	\$17.62
<b>3/16" CROSS SECTION ("F")</b>					
18700250-312	0.250	0.625	0.312	0.343	\$8.53
18700375-312	0.375	0.750	0.312	0.343	\$9.16
18700437-312	0.437	0.812	0.312	0.343	\$10.29
18700625-312	0.625	1.000	0.312	0.343	\$10.43
18700750-250	0.750	1.125	0.250	0.275	\$10.62
18700750-312	0.750	1.125	0.312	0.343	\$6.76
18700812-312	0.812	1.187	0.312	0.343	\$10.74
18700875-312	0.875	1.250	0.312	0.343	\$10.95
18700875-375	0.875	1.250	0.375	0.413	\$12.18
18701000-250	1.000	1.375	0.250	0.275	\$11.44
18701000-312	1.000	1.375	0.312	0.343	\$8.52
18701062-312	1.062	1.437	0.312	0.343	\$21.74
18701125-250	1.125	1.500	0.250	0.275	\$11.28
18701125-312	1.125	1.500	0.312	0.343	\$7.41

## Deep Loaded Lip Seals - Inch, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
18701250-312	1.250	1.625	0.312	0.343	\$7.41
18701375-312	1.375	1.750	0.312	0.343	\$9.06
18701375-375	1.375	1.750	0.375	0.413	\$10.08
18701500-281	1.500	1.875	0.281	0.309	\$13.25
18701500-375	1.500	1.875	0.375	0.413	\$8.14
18701625-250	1.625	2.000	0.250	0.275	\$18.77
18701625-312	1.625	2.000	0.312	0.343	\$18.77
18701625-375	1.625	2.000	0.375	0.413	\$9.33
18701687-375	1.687	2.062	0.375	0.413	\$19.59
18701750-250	1.750	2.125	0.250	0.275	\$21.55
18701750-375	1.750	2.125	0.375	0.413	\$10.60
18701875-375	1.875	2.250	0.375	0.413	\$9.65
18701937-375	1.937	2.312	0.375	0.413	\$14.91
18702000-270	2.000	2.375	0.270	0.297	\$15.12
18702000-375	2.000	2.375	0.375	0.413	\$12.12
18702125-250	2.125	2.500	0.250	0.275	\$14.30
18702125-375	2.125	2.500	0.375	0.413	\$10.22
18702187-375	2.187	2.562	0.375	0.413	\$18.17
18702250-312	2.250	2.625	0.312	0.343	\$15.16
18702250-375	2.250	2.625	0.375	0.413	\$15.60
18702375-375	2.375	2.750	0.375	0.413	\$19.38
18702500-375	2.500	2.875	0.375	0.413	\$15.72
18702625-312	2.625	3.000	0.312	0.343	\$15.76
18702625-375	2.625	3.000	0.375	0.413	\$15.76
18702750-375	2.750	3.125	0.375	0.413	\$16.27
18702875-375	2.875	3.250	0.375	0.413	\$15.00
18703000-375	3.000	3.375	0.375	0.413	\$19.23
18703125-375	3.125	3.500	0.375	0.413	\$19.48
18703187-375	3.187	3.562	0.375	0.413	\$20.16
18703250-312	3.250	3.625	0.312	0.343	\$20.26
18703250-375	3.250	3.625	0.375	0.413	\$20.46
18703375-375	3.375	3.750	0.375	0.413	\$20.83
18703500-375	3.500	3.875	0.375	0.413	\$25.74
18703625-312	3.625	4.000	0.312	0.343	\$27.05
18703625-375	3.625	4.000	0.375	0.413	\$27.05
18703750-375	3.750	4.125	0.375	0.413	\$27.48

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
18704000-375	4.000	4.375	0.375	0.413	\$28.49
18704250-312	4.250	4.625	0.312	0.343	\$29.09
18704250-375	4.250	4.625	0.375	0.413	\$32.47
18704375-375	4.375	4.750	0.375	0.413	\$36.67
18704500-375	4.500	4.875	0.375	0.413	\$36.79
18704625-312	4.625	5.000	0.312	0.343	\$37.49
18704625-375	4.625	5.000	0.375	0.413	\$27.55
18705000-375	5.000	5.375	0.375	0.413	\$35.52
<b>1/4" CROSS SECTION ("F")</b>					
25000437-375	7/16	0.937	0.375	0.413	\$15.49
25000500-375	1/2	1.000	0.375	0.413	\$12.39
25000625-375	5/8	1.125	0.375	0.413	\$12.39
25000750-375	3/4	1.250	0.375	0.413	\$12.39
25000875-375	7/8	1.375	0.375	0.413	\$9.44
25001000-375	1.000	1.500	0.375	0.413	\$9.04
25001125-375	1.125	1.625	0.375	0.413	\$12.77
25001250-375	1.250	1.750	0.375	0.413	\$7.99
25001375-375	1.375	1.875	0.375	0.413	\$13.42
25001500-203	1.500	2.000	0.203	0.223	\$13.79
25001500-312	1.500	2.000	0.312	0.343	\$13.79
25001500-375	1.500	2.000	0.375	0.413	\$10.05
25001750-375	1.750	2.250	0.375	0.413	\$10.15
25002000-375	2.000	2.500	0.375	0.413	\$10.66
25002125-375	2.125	2.625	0.375	0.413	\$13.06
25002250-375	2.250	2.750	0.375	0.413	\$13.72
25002250-562	2.250	2.750	0.562	0.618	\$16.31
25002375-375	2.375	2.875	0.375	0.413	\$16.55
25002500-312	2.500	3.000	0.312	0.343	\$15.13
25002500-375	2.500	3.000	0.375	0.413	\$13.32
25002625-375	2.625	3.125	0.375	0.413	\$21.50
25002750-375	2.750	3.250	0.375	0.413	\$15.55
25003000-203	3.000	3.500	0.203	0.223	\$19.76
25003000-375	3.000	3.500	0.375	0.413	\$16.79
25003000-562	3.000	3.500	0.562	0.618	\$18.06
25003125-375	3.125	3.625	0.375	0.413	\$18.76
25003250-375	3.250	3.750	0.375	0.413	\$17.45

## Deep Loaded Lip Seals - Inch, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
25003375-375	3.375	3.875	0.375	0.413	\$25.59
25003500-203	3.500	4.000	0.203	0.223	\$21.16
25003500-312	3.500	4.000	0.312	0.343	\$21.16
25003500-375	3.500	4.000	0.375	0.413	\$19.01
25003500-500	3.500	4.000	0.500	0.550	\$26.34
25003625-375	3.625	4.125	0.375	0.413	\$31.40
25003750-375	3.750	4.250	0.375	0.413	\$29.00
25003875-375	3.875	4.375	0.375	0.413	\$32.41
25004000-375	4.000	4.500	0.375	0.413	\$22.97
25004000-562	4.000	4.500	0.562	0.618	\$25.11
25004125-375	4.125	4.625	0.375	0.413	\$25.16
25004250-375	4.250	4.750	0.375	0.413	\$27.34
25004250-562	4.250	4.750	0.562	0.618	\$29.40
25004375-562	4.375	4.875	0.562	0.618	\$34.92
25004500-203	4.500	5.000	0.203	0.223	\$34.96
25004500-312	4.500	5.000	0.312	0.343	\$34.98
25004500-375	4.500	5.000	0.375	0.413	\$24.78
25004500-562	4.500	5.000	0.562	0.618	\$27.09
25004750-562	4.750	5.250	0.562	0.618	\$37.84
25004875-562	4.875	5.375	0.562	0.618	\$41.92
25005000-375	5.000	5.500	0.375	0.413	\$41.32
25005000-562	5.000	5.500	0.562	0.618	\$41.32
25005250-375	5.250	5.750	0.375	0.413	\$46.40
25005250-562	5.250	5.750	0.562	0.618	\$47.12
25005500-375	5.500	6.000	0.375	0.413	\$48.11
25005500-562	5.500	6.000	0.562	0.618	\$36.90
25005750-562	5.750	6.250	0.562	0.618	\$48.11
25005875-562	5.875	6.375	0.562	0.618	\$46.03
25006000-562	6.000	6.500	0.562	0.618	\$46.03
25006250-562	6.250	6.750	0.562	0.618	\$58.67
25006500-375	6.500	7.000	0.375	0.413	\$42.71
25006500-562	6.500	7.000	0.562	0.618	\$64.46
25006750-562	6.750	7.250	0.562	0.618	\$49.50
25007000-375	7.000	7.500	0.375	0.413	\$51.97
25007000-562	7.000	7.500	0.562	0.618	\$52.46
25007500-375	7.500	8.000	0.375	0.413	\$52.48

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
25007500-562	7.500	8.000	0.562	0.618	\$61.53
25007750-375	7.750	8.250	0.375	0.413	\$62.66
25008500-562	8.500	9.000	0.562	0.618	\$77.86
25009500-375	9.500	10.000	0.375	0.413	\$102.44
25009500-562	9.500	10.000	0.562	0.618	\$105.53
25010500-500	10.500	11.000	0.500	0.550	\$107.76
25014000-375	14.000	14.500	0.375	0.413	\$182.05
25014500-375	14.500	15.000	0.375	0.413	\$190.51
<b>9/32" CROSS SECTION ("F")</b>					
28103687-375	3.687	4.250	0.375	0.413	\$33.59
<b>5/16" CROSS SECTION ("F")</b>					
31201000-500	1.000	1.625	0.500	0.550	\$17.00
31201125-500	1.125	1.750	0.500	0.550	\$17.63
31201250-500	1.250	1.875	0.500	0.550	\$20.14
31201375-500	1.375	2.000	0.500	0.550	\$16.54
31201500-500	1.500	2.125	0.500	0.550	\$11.77
31201750-500	1.750	2.375	0.500	0.550	\$12.89
31201875-500	1.875	2.500	0.500	0.550	\$12.99
31202000-500	2.000	2.625	0.500	0.550	\$17.64
31202125-500	2.125	2.750	0.500	0.550	\$20.59
31202375-500	2.375	3.000	0.500	0.550	\$18.25
31202500-500	2.500	3.125	0.500	0.550	\$18.83
31202625-500	2.625	3.250	0.500	0.550	\$26.70
31202750-500	2.750	3.375	0.500	0.550	\$21.80
31202875-500	2.875	3.500	0.500	0.550	\$22.24
31203000-500	3.000	3.625	0.500	0.550	\$24.81
31203250-500	3.250	3.875	0.500	0.550	\$28.13
31203375-500	3.375	4.000	0.500	0.550	\$29.13
31203500-500	3.500	4.125	0.500	0.550	\$22.42
31203750-500	3.750	4.375	0.500	0.550	\$27.42
31203875-500	3.875	4.500	0.500	0.550	\$35.01
31204000-500	4.000	4.625	0.500	0.550	\$38.23
31204000-562	4.000	4.625	0.562	0.618	\$38.39
31204125-562	4.125	4.750	0.562	0.618	\$39.32
31204250-562	4.250	4.875	0.562	0.618	\$40.43
31204375-500	4.375	5.000	0.500	0.550	\$39.37

## Deep Loaded Lip Seals - Inch, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/16" CROSS SECTION ("F")</b>					
31204375-562	4.375	5.000	0.562	0.618	\$39.37
31204500-625	4.500	5.125	0.625	0.688	\$47.01
31205375-625	5.375	6.000	0.625	0.688	\$48.84
31206375-625	6.375	7.000	0.625	0.688	\$58.62
31207500-625	7.500	8.125	0.625	0.688	\$76.98
<b>3/8" CROSS SECTION ("F")</b>					
37501250-625	1.250	2.000	0.625	0.688	\$13.44
37501312-437	1.312	2.062	0.437	0.481	\$24.25
37501500-500	1.500	2.250	0.500	0.550	\$19.36
37501500-625	1.500	2.250	0.625	0.688	\$19.68
37501750-500	1.750	2.500	0.500	0.550	\$20.27
37501875-625	1.875	2.625	0.625	0.688	\$26.90
37502000-500	2.000	2.750	0.500	0.550	\$31.56
37502000-625	2.000	2.750	0.625	0.688	\$33.20
37502125-625	2.125	2.875	0.625	0.688	\$33.61
37502250-500	2.250	3.000	0.500	0.550	\$26.67
37502250-625	2.250	3.000	0.625	0.688	\$21.19
37502500-500	2.500	3.250	0.500	0.550	\$26.51
37502500-625	2.500	3.250	0.625	0.688	\$22.55
37502750-500	2.750	3.500	0.500	0.550	\$25.57
37502750-625	2.750	3.500	0.625	0.688	\$29.78
37503000-500	3.000	3.750	0.500	0.550	\$30.28
37503000-625	3.000	3.750	0.625	0.688	\$31.35
37503250-500	3.250	4.000	0.500	0.550	\$31.58
37503250-625	3.250	4.000	0.625	0.688	\$31.58
37503500-500	3.500	4.250	0.500	0.550	\$31.58
37503500-625	3.500	4.250	0.625	0.688	\$31.89
37503750-500	3.750	4.500	0.500	0.550	\$32.20
37503750-625	3.750	4.500	0.625	0.688	\$32.51
37504000-500	4.000	4.750	0.500	0.550	\$32.51
37504000-625	4.000	4.750	0.625	0.688	\$33.98
37504250-500	4.250	5.000	0.500	0.550	\$34.73
37504250-625	4.250	5.000	0.625	0.688	\$36.10
37504375-625	4.375	5.125	0.625	0.688	\$52.42
37504500-500	4.500	5.250	0.500	0.550	\$43.45
37504500-625	4.500	5.250	0.625	0.688	\$43.45
37504625-625	4.625	5.375	0.625	0.688	\$55.55

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/8" CROSS SECTION ("F")</b>					
37504750-500	4.750	5.500	0.500	0.550	\$55.35
37504750-625	4.750	5.500	0.625	0.688	\$57.35
37505000-500	5.000	5.750	0.500	0.550	\$57.85
37505000-625	5.000	5.750	0.625	0.688	\$57.85
37505250-500	5.250	6.000	0.500	0.550	\$44.16
37505250-625	5.250	6.000	0.625	0.688	\$44.16
37505500-625	5.500	6.250	0.625	0.688	\$63.02
37505625-625	5.625	6.375	0.625	0.688	\$68.64
37505750-500	5.750	6.500	0.500	0.550	\$68.80
37505750-625	5.750	6.500	0.625	0.688	\$68.93
37506000-625	6.000	6.750	0.625	0.688	\$63.73
37506250-500	6.250	7.000	0.500	0.550	\$49.32
37506250-625	6.250	7.000	0.625	0.688	\$60.32
37506500-500	6.500	7.250	0.500	0.550	\$80.65
37506500-625	6.500	7.250	0.625	0.688	\$80.65
37506750-562	6.750	7.500	0.562	0.618	\$86.88
37506750-625	6.750	7.500	0.625	0.688	\$86.88
37507000-500	7.000	7.750	0.500	0.550	\$58.07
37507000-625	7.000	7.750	0.625	0.688	\$58.07
37507250-625	7.250	8.000	0.625	0.688	\$60.21
37507500-500	7.500	8.250	0.500	0.550	\$70.37
37507500-625	7.500	8.250	0.625	0.688	\$70.37
37507750-500	7.750	8.500	0.500	0.550	\$94.24
37507750-625	7.750	8.500	0.625	0.688	\$73.56
37508000-500	8.000	8.750	0.500	0.550	\$74.35
37508000-625	8.000	8.750	0.625	0.688	\$74.54
37508250-500	8.250	9.000	0.500	0.550	\$74.72
37508250-625	8.250	9.000	0.625	0.688	\$74.72
37508750-625	8.750	9.500	0.625	0.688	\$67.76
37508750-750	8.750	9.500	0.750	0.825	\$110.50
37509000-625	9.000	9.750	0.625	0.688	\$119.90
37509250-500	9.250	10.000	0.500	0.550	\$91.00
37509250-625	9.250	10.000	0.625	0.688	\$124.21
37509625-625	9.625	10.375	0.625	0.688	\$128.37
37509750-500	9.750	10.500	0.500	0.550	\$137.99
37509750-625	9.750	10.500	0.625	0.688	\$137.99
37510250-625	10.250	11.000	0.625	0.688	\$150.40



## Deep Loaded Lip Seals - Inch, cont'd.

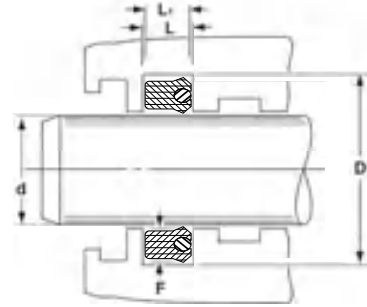
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/8" CROSS SECTION ("F")</b>					
37510500-625	10.500	11.250	0.625	0.688	\$160.53
37510750-625	10.750	11.500	0.625	0.688	\$166.96
37511250-625	11.250	12.000	0.625	0.688	\$134.64
37511500-625	11.500	12.250	0.625	0.688	\$180.34
37512500-625	12.500	13.250	0.625	0.688	\$218.40
37513500-625	13.500	14.250	0.625	0.688	\$253.41
37514750-625	14.750	15.500	0.625	0.688	\$283.76
37515250-625	15.250	16.000	0.625	0.688	\$293.98
37534000-625	34.000	34.750	0.625	0.688	\$1,722.31
<b>7/16" CROSS SECTION ("F")</b>					
43702250-375	2.250	3.125	0.375	0.413	\$34.07
43704750-625	4.750	5.625	0.625	0.688	\$67.46
43705125-500	5.125	6.000	0.500	0.550	\$71.84
<b>1/2" CROSS SECTION ("F")</b>					
50001500-750	1.500	2.500	0.750	0.825	\$32.96
50001750-750	1.750	2.750	0.750	0.825	\$34.24
50002000-750	2.000	3.000	0.750	0.825	\$35.76
50002500-750	2.500	3.500	0.750	0.825	\$40.54
50003000-750	3.000	4.000	0.750	0.825	\$49.60
50003500-750	3.500	4.500	0.750	0.825	\$54.66
50004000-750	4.000	5.000	0.750	0.825	\$70.83
50004500-750	4.500	5.500	0.750	0.825	\$53.12
50005000-750	5.000	6.000	0.750	0.825	\$53.60
50005500-750	5.500	6.500	0.750	0.825	\$55.42
50006000-750	6.000	7.000	0.750	0.825	\$59.14
50006500-750	6.500	7.500	0.750	0.825	\$59.14
50007000-750	7.000	8.000	0.750	0.825	\$97.62
50007500-750	7.500	8.500	0.750	0.825	\$72.95
50008000-750	8.000	9.000	0.750	0.825	\$107.41
50008250-750	8.250	9.250	0.750	0.825	\$109.14
50008500-750	8.500	9.500	0.750	0.825	\$119.10
50009000-750	9.000	10.000	0.750	0.825	\$132.74
50009500-750	9.500	10.500	0.750	0.825	\$135.04
50010000-750	10.000	11.000	0.750	0.825	\$132.04
50010750-750	10.750	11.750	0.750	0.825	\$175.62
50011000-750	11.000	12.000	0.750	0.825	\$175.97
50011500-750	11.500	12.500	0.750	0.825	\$176.11

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/2" CROSS SECTION ("F")</b>					
50012500-750	12.500	13.500	0.750	0.825	\$278.28
50013500-750	13.500	14.500	0.750	0.825	\$286.02
50014000-750	14.000	15.000	0.750	0.825	\$315.37
50015000-750	15.000	16.000	0.750	0.825	\$322.18
50016000-750	16.000	17.000	0.750	0.825	\$379.89
50017000-750	17.000	18.000	0.750	0.825	\$397.47
50019000-750	19.000	20.000	0.750	0.825	\$427.82
50020000-750	20.000	21.000	0.750	0.825	\$463.50
50020500-750	20.500	21.500	0.750	0.825	\$479.52
50021500-750	21.500	22.500	0.750	0.825	\$493.24
50030000-625	30.000	31.000	0.625	0.688	\$1,199.82
50037000-750	37.000	38.000	0.750	0.825	\$2,200.01
<b>5/8" CROSS SECTION ("F")</b>					
62504750-1000	4.750	6.000	1.000	1.100	\$99.76
62505500-1000	5.500	6.750	1.000	1.100	\$128.76
62506500-1000	6.500	7.750	1.000	1.100	\$144.57
62506750-1000	6.750	8.000	1.000	1.100	\$149.17
62508750-1000	8.750	10.000	1.000	1.100	\$188.32
62510000-1000	10.000	11.250	1.000	1.100	\$263.69
62512000-1000	12.000	13.250	1.000	1.100	\$319.24
62512750-1000	12.750	14.000	1.000	1.100	\$370.70
<b>3/4" CROSS SECTION ("F")</b>					
75006250-1250	6.250	7.750	1.250	1.375	\$163.89
75006500-1250	6.500	8.000	1.250	1.375	\$176.42
75007000-1250	7.000	8.500	1.250	1.375	\$180.78
75008500-1250	8.500	10.000	1.250	1.375	\$231.32
75009000-1250	9.000	10.500	1.250	1.375	\$239.60
75015000-1250	15.000	16.500	1.250	1.375	\$573.32
75016500-1250	16.500	18.000	1.250	1.375	\$765.69
75018000-1250	18.000	19.500	1.250	1.375	\$791.59
75020000-1250	20.000	21.500	1.250	1.375	\$827.40
75021000-1250	21.000	22.500	1.250	1.375	\$874.66
75022000-1250	22.000	23.500	1.250	1.375	\$1,617.77
75022500-1250	22.500	24.000	1.250	1.375	\$1,643.42
<b>1" CROSS SECTION ("F")</b>					
100025000-1343	25.000	27.000	1.343	1.477	\$2,426.71
100026000-1500	26.000	28.000	1.500	1.650	\$2,604.99

# Type B Loaded Lip Seals - Inch



**ALTERNATIVE SEALS:**  
 Rod: Deep LLS, UNRR, LLS  
 BD, BSLL, BS-B, BS, BT, UNR, US, UCH



EXAMPLE: 25003000-375B			
Cross Section	Inside Diameter	Height	Suffix
250	03000	-	B
1/4"	3"	3/8"	Beveled Lip

Type B Loaded Lip Seals are recommended only for rod seal applications. The high lip interference combined with a beveled lip provide the driest rod sealing of these configurations. The rectangular configuration gives good down stream stability making this seal the standard of the industry. They are manufactured from high quality 90 durometer polyurethane. They are also available in other materials; consult sales office for price and availability.

Temperature: -65°F to 200°F      Pressure: 0 to 5,000 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
12500125-250B	0.125	0.375	0.250	0.275	\$5.04
12500187-250B	0.187	0.437	0.250	0.275	\$5.04
12500250-125B	0.250	0.500	0.125	0.138	\$5.84
12500250-187B	0.250	0.500	0.187	0.206	\$5.84
12500250-250B	0.250	0.500	0.250	0.275	\$4.66
12500312-125B	0.312	0.562	0.125	0.138	\$4.84
12500312-250B	0.312	0.562	0.250	0.275	\$5.05
12500375-125B	0.375	0.625	0.125	0.138	\$4.22
12500375-187B	0.375	0.625	0.187	0.206	\$4.60
12500375-250B	0.375	0.625	0.250	0.275	\$5.06
12500437-250B	0.437	0.687	0.250	0.275	\$5.12
12500500-125B	0.500	0.750	0.125	0.138	\$4.60
12500500-250B	0.500	0.750	0.250	0.275	\$5.22
12500562-125B	0.562	0.812	0.125	0.138	\$6.05
12500562-250B	0.562	0.812	0.250	0.275	\$6.05
12500625-125B	0.625	0.875	0.125	0.138	\$4.72
12500625-187B	0.625	0.875	0.187	0.206	\$5.43
12500625-250B	0.625	0.875	0.250	0.275	\$5.43
12500687-250B	0.687	0.937	0.250	0.275	\$5.66
12500750-125B	0.750	1.000	0.125	0.138	\$4.72
12500750-187B	0.750	1.000	0.187	0.206	\$5.56
12500750-250B	0.750	1.000	0.250	0.275	\$5.52
12500812-125B	0.812	1.062	0.125	0.138	\$5.09
12500812-250B	0.812	1.062	0.250	0.275	\$5.72
12500875-125B	0.875	1.125	0.125	0.138	\$5.09
12500875-187B	0.875	1.125	0.187	0.206	\$7.09
12500875-250B	0.875	1.125	0.250	0.275	\$6.21
12500937-125B	0.937	1.187	0.125	0.138	\$6.87
12500937-250B	0.937	1.187	0.250	0.275	\$6.96
12501000-125B	1.000	1.250	0.125	0.138	\$5.22

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
12501000-156B	1.000	1.250	0.156	0.172	\$7.30
12501000-187B	1.000	1.250	0.187	0.206	\$8.07
12501000-250B	1.000	1.250	0.250	0.275	\$6.01
12501062-125B	1.062	1.312	0.125	0.138	\$5.34
12501062-170B	1.062	1.312	0.170	0.187	\$11.09
12501062-250B	1.062	1.312	0.250	0.275	\$6.01
12501125-125B	1.125	1.375	0.125	0.138	\$5.47
12501125-177B	1.125	1.375	0.177	0.195	\$12.23
12501125-187B	1.125	1.375	0.187	0.206	\$9.27
12501125-250B	1.125	1.375	0.250	0.275	\$6.22
12501125-312B	1.125	1.375	0.312	0.343	\$12.46
12501187-187B	1.187	1.437	0.187	0.206	\$6.71
12501187-250B	1.187	1.437	0.250	0.275	\$6.71
12501250-125B	1.250	1.500	0.125	0.138	\$5.72
12501250-187B	1.250	1.500	0.187	0.206	\$7.36
12501250-250B	1.250	1.500	0.250	0.275	\$6.70
12501312-187B	1.312	1.562	0.187	0.206	\$8.82
12501375-125B	1.375	1.625	0.125	0.138	\$6.09
12501375-178B	1.375	1.625	0.178	0.196	\$12.77
12501375-187B	1.375	1.625	0.187	0.206	\$12.77
12501375-250B	1.375	1.625	0.250	0.275	\$7.15
12501437-125B	1.437	1.687	0.125	0.138	\$7.15
12501437-250B	1.437	1.687	0.250	0.275	\$7.15
12501500-125B	1.500	1.750	0.125	0.138	\$6.07
12501500-187B	1.500	1.750	0.187	0.206	\$7.22
12501500-250B	1.500	1.750	0.250	0.275	\$7.22
12501625-187B	1.625	1.875	0.187	0.206	\$8.66
12501625-250B	1.625	1.875	0.250	0.275	\$8.72
12501750-125B	1.750	2.000	0.125	0.138	\$10.68
12501750-250B	1.750	2.000	0.250	0.275	\$8.27

**Type B Loaded Lip Seals - Inch, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price	Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>						<b>3/16" CROSS SECTION ("F")</b>					
12501875-125B	1.875	2.125	0.125	0.138	\$10.34	18701250-250B	1.250	1.625	0.250	0.275	\$7.25
12501875-187B	1.875	2.125	0.187	0.206	\$10.34	18701250-312B	1.250	1.625	0.312	0.343	\$6.64
12501875-250B	1.875	2.125	0.250	0.275	\$10.34	18701250-375B	1.250	1.625	0.375	0.413	\$7.25
12502000-125B	2.000	2.250	0.125	0.138	\$10.40	18701312-187B	1.312	1.687	0.187	0.206	\$8.16
12502000-187B	2.000	2.250	0.187	0.206	\$10.40	18701312-312B	1.312	1.687	0.312	0.343	\$7.72
12502000-250B	2.000	2.250	0.250	0.275	\$8.32	18701375-187B	1.375	1.750	0.187	0.206	\$6.77
12502125-250B	2.125	2.375	0.250	0.275	\$11.26	18701375-250B	1.375	1.750	0.250	0.275	\$8.28
12502500-250B	2.500	2.750	0.250	0.275	\$9.60	18701375-312B	1.375	1.750	0.312	0.343	\$7.46
12502750-125B	2.750	3.000	0.125	0.138	\$10.55	18701375-375B	1.375	1.750	0.375	0.413	\$7.71
12502875-250B	2.875	3.125	0.250	0.275	\$12.66	18701437-312B	1.437	1.812	0.312	0.343	\$13.97
12503625-187B	3.625	3.875	0.187	0.206	\$21.88	18701500-187B	1.500	1.875	0.187	0.206	\$6.84
12504500-187B	4.500	4.750	0.187	0.206	\$36.20	18701500-250B	1.500	1.875	0.250	0.275	\$7.63
<b>5/32" CROSS SECTION ("F")</b>						18701500-312B	1.500	1.875	0.312	0.343	\$7.70
15601000-156B	1.000	1.312	0.156	0.172	\$7.61	18701500-375B	1.500	1.875	0.375	0.413	\$7.70
15601000-230B	1.000	1.312	0.230	0.253	\$7.20	18701500-406B	1.500	1.875	0.406	0.447	\$12.18
15601500-312B	1.500	1.812	0.312	0.343	\$8.62	18701625-187B	1.625	2.000	0.187	0.206	\$7.66
<b>3/16" CROSS SECTION ("F")</b>						18701625-250B	1.625	2.000	0.250	0.275	\$8.50
18700187-187B	0.187	0.562	0.187	0.206	\$7.80	18701625-266B	1.625	2.000	0.266	0.293	\$12.86
18700250-187B	0.250	0.625	0.187	0.206	\$4.84	18701625-312B	1.625	2.000	0.312	0.343	\$8.50
18700250-312B	0.250	0.625	0.312	0.343	\$8.29	18701625-375B	1.625	2.000	0.375	0.413	\$8.50
18700312-187B	0.312	0.687	0.187	0.206	\$4.97	18701750-187B	1.750	2.125	0.187	0.206	\$7.23
18700312-312B	0.312	0.687	0.312	0.343	\$9.30	18701750-230B	1.750	2.125	0.230	0.253	\$8.61
18700375-187B	0.375	0.750	0.187	0.206	\$4.70	18701750-250B	1.750	2.125	0.250	0.275	\$10.12
18700375-312B	0.375	0.750	0.312	0.343	\$8.29	18701750-266B	1.750	2.125	0.266	0.293	\$10.00
18700437-187B	0.437	0.812	0.187	0.206	\$9.44	18701750-312B	1.750	2.125	0.312	0.343	\$10.44
18700437-312B	0.437	0.812	0.312	0.343	\$9.44	18701750-375B	1.750	2.125	0.375	0.413	\$8.45
18700500-250B	0.500	0.875	0.250	0.275	\$7.64	18701875-187B	1.875	2.250	0.187	0.206	\$7.42
18700500-312B	0.500	0.875	0.312	0.343	\$4.78	18701875-312B	1.875	2.250	0.312	0.343	\$9.12
18700562-312B	0.562	0.937	0.312	0.343	\$9.78	18701875-375B	1.875	2.250	0.375	0.413	\$9.12
18700625-312B	0.625	1.000	0.312	0.343	\$5.61	18701937-281B	1.937	2.312	0.281	0.309	\$14.56
18700687-312B	0.687	1.062	0.312	0.343	\$10.42	18702000-187B	2.000	2.375	0.187	0.206	\$7.62
18700750-187B	0.750	1.125	0.187	0.206	\$5.40	18702000-230B	2.000	2.375	0.230	0.253	\$11.06
18700750-250B	0.750	1.125	0.250	0.275	\$7.13	18702000-250B	2.000	2.375	0.250	0.275	\$8.88
18700750-312B	0.750	1.125	0.312	0.343	\$6.12	18702000-312B	2.000	2.375	0.312	0.343	\$8.88
18700750-375B	0.750	1.125	0.375	0.413	\$7.14	18702000-375B	2.000	2.375	0.375	0.413	\$8.88
18700812-312B	0.812	1.187	0.312	0.343	\$6.12	18702125-187B	2.125	2.500	0.187	0.206	\$8.04
18700875-312B	0.875	1.250	0.312	0.343	\$6.58	18702125-250B	2.125	2.500	0.250	0.275	\$9.77
18700937-312B	0.937	1.312	0.312	0.343	\$10.37	18702125-375B	2.125	2.500	0.375	0.413	\$9.77
18701000-187B	1.000	1.375	0.187	0.206	\$6.03	18702250-187B	2.250	2.625	0.187	0.206	\$8.40
18701000-250B	1.000	1.375	0.250	0.275	\$6.55	18702250-312B	2.250	2.625	0.312	0.343	\$11.06
18701000-312B	1.000	1.375	0.312	0.343	\$6.55	18702250-375B	2.250	2.625	0.375	0.413	\$10.16
18701000-375B	1.000	1.375	0.375	0.413	\$6.87	18702375-187B	2.375	2.750	0.187	0.206	\$8.88
18701062-312B	1.062	1.437	0.312	0.343	\$11.21	18702375-375B	2.375	2.750	0.375	0.413	\$11.47
18701125-187B	1.125	1.500	0.187	0.206	\$6.02	18702500-250B	2.500	2.875	0.250	0.275	\$11.55
18701125-250B	1.125	1.500	0.250	0.275	\$7.26	18702500-312B	2.500	2.875	0.312	0.343	\$11.55
18701125-312B	1.125	1.500	0.312	0.343	\$7.26	18702500-375B	2.500	2.875	0.375	0.413	\$11.56
18701187-312B	1.187	1.562	0.312	0.343	\$8.30	18702625-187B	2.625	3.000	0.187	0.206	\$10.26
18701250-187B	1.250	1.625	0.187	0.206	\$6.15	18702625-250B	2.625	3.000	0.250	0.275	\$12.04

### Type B Loaded Lip Seals - Inch, cont'd.

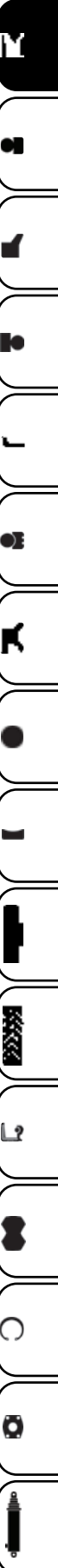
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
18702625-281B	2.625	3.000	0.281	0.309	\$24.48
18702625-312B	2.625	3.000	0.312	0.343	\$24.47
18702625-375B	2.625	3.000	0.375	0.413	\$12.04
18702750-187B	2.750	3.125	0.187	0.206	\$12.54
18702750-281B	2.750	3.125	0.281	0.309	\$22.68
18702750-312B	2.750	3.125	0.312	0.343	\$13.93
18702750-375B	2.750	3.125	0.375	0.413	\$12.54
18702875-281B	2.875	3.250	0.281	0.309	\$20.10
18702875-375B	2.875	3.250	0.375	0.413	\$13.36
18703000-187B	3.000	3.375	0.187	0.206	\$12.42
18703000-250B	3.000	3.375	0.250	0.275	\$19.65
18703000-312B	3.000	3.375	0.312	0.343	\$12.42
18703000-375B	3.000	3.375	0.375	0.413	\$13.41
18703125-187B	3.125	3.500	0.187	0.206	\$10.60
18703125-250B	3.125	3.500	0.250	0.275	\$15.53
18703125-312B	3.125	3.500	0.312	0.343	\$16.00
18703125-375B	3.125	3.500	0.375	0.413	\$14.21
18703250-312B	3.250	3.625	0.312	0.343	\$16.81
18703250-375B	3.250	3.625	0.375	0.413	\$16.11
18703375-187B	3.375	3.750	0.187	0.206	\$13.29
18703375-250B	3.375	3.750	0.250	0.275	\$16.48
18703375-375B	3.375	3.750	0.375	0.413	\$16.88
18703500-281B	3.500	3.875	0.281	0.309	\$28.27
18703500-375B	3.500	3.875	0.375	0.413	\$16.33
18703625-250B	3.625	4.000	0.250	0.275	\$19.80
18703625-312B	3.625	4.000	0.312	0.343	\$19.80
18703625-375B	3.625	4.000	0.375	0.413	\$18.30
18703750-187B	3.750	4.125	0.187	0.206	\$22.94
18703750-312B	3.750	4.125	0.312	0.343	\$22.94
18703750-375B	3.750	4.125	0.375	0.413	\$19.59
18703875-375B	3.875	4.250	0.375	0.413	\$20.44
18704000-187B	4.000	4.375	0.187	0.206	\$19.29
18704000-250B	4.000	4.375	0.250	0.275	\$23.25
18704000-312B	4.000	4.375	0.312	0.343	\$23.25
18704000-375B	4.000	4.375	0.375	0.413	\$20.52
18704125-250B	4.125	4.500	0.250	0.275	\$23.46
18704125-375B	4.125	4.500	0.375	0.413	\$24.12
18704250-281B	4.250	4.625	0.281	0.309	\$36.31
18704250-312B	4.250	4.625	0.312	0.343	\$30.97
18704250-375B	4.250	4.625	0.375	0.413	\$21.80
18704375-375B	4.375	4.750	0.375	0.413	\$30.60
18704500-375B	4.500	4.875	0.375	0.413	\$24.83
18704625-250B	4.625	5.000	0.250	0.275	\$28.70
18704625-312B	4.625	5.000	0.312	0.343	\$28.70
18704625-375B	4.625	5.000	0.375	0.413	\$28.70
18704750-375B	4.750	5.125	0.375	0.413	\$30.61
18704875-375B	4.875	5.250	0.375	0.413	\$30.86

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
18705000-375B	5.000	5.375	0.375	0.413	\$43.79
18705500-375B	5.500	5.875	0.375	0.413	\$31.04
18705625-375B	5.625	6.000	0.375	0.413	\$52.39
18707000-375B	7.000	7.375	0.375	0.413	\$70.93
<b>1/4" CROSS SECTION ("F")</b>					
25000250-375B	0.250	0.750	0.375	0.413	\$11.51
25000437-375B	0.437	0.937	0.375	0.413	\$9.60
25000500-375B	0.500	1.000	0.375	0.413	\$6.71
25000562-375B	0.562	1.062	0.375	0.413	\$12.26
25000625-250B	0.625	1.125	0.250	0.275	\$12.26
25000625-312B	0.625	1.125	0.312	0.343	\$12.26
25000625-375B	0.625	1.125	0.375	0.413	\$8.94
25000687-250B	0.687	1.187	0.250	0.275	\$13.37
25000687-375B	0.687	1.187	0.375	0.413	\$8.76
25000750-375B	0.750	1.250	0.375	0.413	\$6.93
25000875-250B	0.875	1.375	0.250	0.275	\$6.93
25000875-312B	0.875	1.375	0.312	0.343	\$9.60
25000875-375B	0.875	1.375	0.375	0.413	\$9.60
25001000-250B	1.000	1.500	0.250	0.275	\$6.49
25001000-375B	1.000	1.500	0.375	0.413	\$7.12
25001125-250B	1.125	1.625	0.250	0.275	\$9.54
25001125-375B	1.125	1.625	0.375	0.413	\$7.74
25001187-375B	1.125	1.687	0.375	0.413	\$10.70
25001250-250B	1.250	1.750	0.250	0.275	\$6.99
25001250-375B	1.250	1.750	0.375	0.413	\$7.71
25001312-375B	1.312	1.812	0.375	0.413	\$7.85
25001375-250B	1.375	1.875	0.250	0.275	\$7.85
25001375-375B	1.375	1.875	0.375	0.413	\$7.90
25001500-250B	1.500	2.000	0.250	0.275	\$7.90
25001500-312B	1.500	2.000	0.312	0.343	\$8.91
25001500-375B	1.500	2.000	0.375	0.413	\$8.83
25001625-375B	1.625	2.125	0.375	0.413	\$9.59
25001750-250B	1.750	2.250	0.250	0.275	\$13.12
25001750-312B	1.750	2.250	0.312	0.343	\$10.45
25001750-375B	1.750	2.250	0.375	0.413	\$9.64
25001875-375B	1.875	2.375	0.375	0.413	\$10.55
25001937-375B	1.937	2.437	0.375	0.413	\$18.24
25002000-250B	2.000	2.500	0.250	0.275	\$9.57
25002000-312B	2.000	2.500	0.312	0.343	\$10.34
25002000-375B	2.000	2.500	0.375	0.413	\$10.53
25002125-250B	2.125	2.625	0.250	0.275	\$13.27
25002125-375B	2.125	2.625	0.375	0.413	\$11.71
25002250-375B	2.250	2.750	0.375	0.413	\$12.16
25002375-375B	2.375	2.875	0.375	0.413	\$13.39
25002500-250B	2.500	3.000	0.250	0.275	\$11.97
25002500-312B	2.500	3.000	0.312	0.343	\$13.40
25002500-375B	2.500	3.000	0.375	0.413	\$13.40

**Type B Loaded Lip Seals - Inch, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
25002500-500B	2.500	3.000	0.500	0.550	\$13.40
25002562-375B	2.562	3.062	0.375	0.413	\$23.03
25002625-375B	2.625	3.125	0.375	0.413	\$13.55
25002750-250B	2.750	3.250	0.250	0.275	\$14.52
25002750-375B	2.750	3.250	0.375	0.413	\$14.18
25002875-375B	2.875	3.375	0.375	0.413	\$14.73
25003000-250B	3.000	3.500	0.250	0.275	\$13.44
25003000-375B	3.000	3.500	0.375	0.413	\$15.33
25003000-500B	3.000	3.500	0.500	0.550	\$17.92
25003000-562B	3.000	3.500	0.562	0.618	\$17.92
25003125-250B	3.125	3.625	0.250	0.275	\$18.25
25003125-375B	3.125	3.625	0.375	0.413	\$19.02
25003250-375B	3.250	3.750	0.375	0.413	\$16.54
25003375-375B	3.375	3.875	0.375	0.413	\$17.12
25003500-250B	3.500	4.000	0.250	0.275	\$15.86
25003500-312B	3.500	4.000	0.312	0.343	\$19.59
25003500-375B	3.500	4.000	0.375	0.413	\$18.13
25003500-625B	3.500	4.000	0.625	0.688	\$22.23
25003625-375B	3.625	4.125	0.375	0.413	\$21.61
25003690-500B	3.690	4.190	0.500	0.550	\$42.10
25003750-250B	3.750	4.250	0.250	0.275	\$18.18
25003750-375B	3.750	4.250	0.375	0.413	\$18.78
25003750-562B	3.750	4.250	0.562	0.618	\$19.65
25004000-250B	4.000	4.500	0.250	0.275	\$17.52
25004000-375B	4.000	4.500	0.375	0.413	\$21.62
25004000-500B	4.000	4.500	0.500	0.550	\$22.63
25004000-562B	4.000	4.500	0.562	0.618	\$21.62
25004125-250B	4.125	4.625	0.250	0.275	\$25.98
25004125-375B	4.125	4.625	0.375	0.413	\$22.82
25004125-562B	4.125	4.625	0.562	0.618	\$35.44
25004250-250B	4.250	4.750	0.250	0.275	\$25.24
25004250-375B	4.250	4.750	0.375	0.413	\$24.67
25004250-562B	4.250	4.750	0.562	0.618	\$25.09
25004375-250B	4.375	4.875	0.250	0.275	\$20.86
25004375-375B	4.375	4.875	0.375	0.413	\$25.95
25004375-562B	4.375	4.875	0.562	0.618	\$24.96
25004437-375B	4.437	4.937	0.375	0.413	\$38.29
25004500-250B	4.500	5.000	0.250	0.275	\$27.23
25004500-312B	4.500	5.000	0.312	0.343	\$24.88
25004500-375B	4.500	5.000	0.375	0.413	\$24.88
25004500-500B	4.500	5.000	0.500	0.550	\$24.89
25004500-562B	4.500	5.000	0.562	0.618	\$24.89
25004500-625B	4.500	5.000	0.625	0.688	\$28.46
25004625-250B	4.625	5.125	0.250	0.275	\$20.10
25004625-562B	4.625	5.125	0.562	0.618	\$30.00
25004750-375B	4.750	5.250	0.375	0.413	\$30.28
25004750-500B	4.750	5.250	0.500	0.550	\$28.69

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
25004750-562B	4.750	5.250	0.562	0.618	\$25.12
25004875-375B	4.875	5.375	0.375	0.413	\$32.94
25004875-562B	4.875	5.375	0.562	0.618	\$32.94
25005000-250B	5.000	5.500	0.250	0.275	\$32.63
25005000-375B	5.000	5.500	0.375	0.413	\$27.95
25005000-500B	5.000	5.500	0.500	0.550	\$28.20
25005000-562B	5.000	5.500	0.562	0.618	\$28.20
25005250-375B	5.250	5.750	0.375	0.413	\$32.76
25005250-562B	5.250	5.750	0.562	0.618	\$31.87
25005375-562B	5.375	5.875	0.562	0.618	\$50.14
25005500-375B	5.500	6.000	0.375	0.413	\$32.16
25005500-500B	5.500	6.000	0.500	0.550	\$35.69
25005500-562B	5.500	6.000	0.562	0.618	\$31.86
25005625-562B	5.625	6.125	0.562	0.618	\$46.06
25005750-375B	5.750	6.250	0.375	0.413	\$35.77
25005750-562B	5.750	6.250	0.562	0.618	\$35.77
25006000-375B	6.000	6.500	0.375	0.413	\$32.63
25006000-437B	6.000	6.500	0.437	0.481	\$53.69
25006000-500B	6.000	6.500	0.500	0.550	\$43.55
25006000-562B	6.000	6.500	0.562	0.618	\$33.55
25006250-375B	6.250	6.750	0.375	0.413	\$40.84
25006250-562B	6.250	6.750	0.562	0.618	\$49.95
25006500-375B	6.500	7.000	0.375	0.413	\$39.20
25006500-500B	6.500	7.000	0.500	0.550	\$46.91
25006500-562B	6.500	7.000	0.562	0.618	\$37.81
25006750-375B	6.750	7.250	0.375	0.413	\$39.23
25006750-500B	6.750	7.250	0.500	0.550	\$47.61
25006750-562B	6.750	7.250	0.562	0.618	\$38.45
25007000-375B	7.000	7.500	0.375	0.413	\$39.36
25007000-500B	7.000	7.500	0.500	0.550	\$47.63
25007000-562B	7.000	7.500	0.562	0.618	\$40.40
25007250-562B	7.250	7.750	0.562	0.618	\$50.43
25007500-375B	7.500	8.000	0.375	0.413	\$51.47
25007500-500B	7.500	8.000	0.500	0.550	\$52.33
25007500-562B	7.500	8.000	0.562	0.618	\$46.14
25007750-562B	7.750	8.250	0.562	0.618	\$77.68
25008000-375B	8.000	8.500	0.375	0.413	\$55.28
25008000-562B	8.000	8.500	0.562	0.618	\$49.25
25008125-562B	8.125	8.625	0.562	0.618	\$50.74
25008250-375B	8.250	8.750	0.375	0.413	\$82.86
25008250-562B	8.250	8.750	0.562	0.618	\$61.68
25008500-375B	8.500	9.000	0.375	0.413	\$85.10
25008500-500B	8.500	9.000	0.500	0.550	\$85.10
25008500-562B	8.500	9.000	0.562	0.618	\$52.90
25009000-375B	9.000	9.500	0.375	0.413	\$85.99
25009000-562B	9.000	9.500	0.562	0.618	\$86.49
25009500-562B	9.500	10.000	0.562	0.618	\$55.14



**Type B Loaded Lip Seals - Inch, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
25009750-562B	9.750	10.250	0.562	0.618	\$90.18
25010000-562B	10.000	10.500	0.562	0.618	\$78.60
25011000-562B	11.000	11.500	0.562	0.618	\$120.93
25011250-562B	11.250	11.750	0.562	0.618	\$134.54
<b>9/32" CROSS SECTION ("F")</b>					
28102937-500B	2.937	3.500	0.500	0.550	\$42.68
28103937-500B	3.937	4.500	0.500	0.550	\$48.44
28104437-500B	4.437	5.000	0.500	0.550	\$51.55
28104687-625B	4.687	5.250	0.625	0.688	\$52.61
28105437-562B	5.437	6.000	0.562	0.618	\$56.24
<b>.285" CROSS SECTION ("F")</b>					
28502200-500B	2.200	3.770	0.500	0.550	\$25.44
28503200-500B	3.200	3.770	0.500	0.550	\$33.12
<b>5/16" CROSS SECTION ("F")</b>					
31200750-500B	0.750	1.375	0.500	0.550	\$16.02
31200812-500B	0.812	1.437	0.500	0.550	\$18.83
31201000-375B	1.000	1.625	0.375	0.413	\$10.30
31201000-500B	1.000	1.625	0.500	0.550	\$8.27
31201125-375B	1.125	1.750	0.375	0.413	\$10.38
31201125-500B	1.125	1.750	0.500	0.550	\$12.70
31201250-312B	1.250	1.875	0.312	0.343	\$8.41
31201250-500B	1.250	1.875	0.500	0.550	\$9.09
31201375-312B	1.375	2.000	0.312	0.343	\$9.40
31201375-375B	1.375	2.000	0.375	0.413	\$9.50
31201375-500B	1.375	2.000	0.500	0.550	\$9.67
31201500-312B	1.500	2.125	0.312	0.343	\$13.79
31201500-375B	1.500	2.125	0.375	0.413	\$10.70
31201500-500B	1.500	2.125	0.500	0.550	\$10.70
31201625-375B	1.625	2.250	0.375	0.413	\$11.25
31201625-500B	1.625	2.250	0.500	0.550	\$11.25
31201687-500B	1.687	2.312	0.500	0.550	\$19.84
31201750-375B	1.750	2.375	0.375	0.413	\$12.16
31201750-500B	1.750	2.375	0.500	0.550	\$12.22
31201875-375B	1.875	2.500	0.375	0.413	\$12.35
31201875-500B	1.875	2.500	0.500	0.550	\$12.37
31202000-500B	2.000	2.625	0.500	0.550	\$12.87
31202000-562B	2.000	2.625	0.562	0.618	\$17.17
31202125-500B	2.125	2.750	0.500	0.550	\$14.41
31202250-312B	2.250	2.875	0.312	0.343	\$17.03
31202250-500B	2.250	2.875	0.500	0.550	\$14.41
31202375-312B	2.375	3.000	0.312	0.343	\$17.63
31202375-500B	2.375	3.000	0.500	0.550	\$14.75
31202500-375B	2.500	3.125	0.375	0.413	\$18.03
31202500-500B	2.500	3.125	0.500	0.550	\$15.14
31202625-312B	2.625	3.250	0.312	0.343	\$18.11
31202625-500B	2.625	3.250	0.500	0.550	\$19.26
31202750-312B	2.750	3.375	0.312	0.343	\$18.89

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/16" CROSS SECTION ("F")</b>					
31202750-375B	2.750	3.375	0.375	0.413	\$19.17
31202875-375B	2.875	3.500	0.375	0.413	\$19.88
31202875-500B	2.875	3.500	0.500	0.550	\$18.54
31203000-375B	3.000	3.625	0.375	0.413	\$18.84
31203000-500B	3.000	3.625	0.500	0.550	\$17.95
31203125-500B	3.125	3.750	0.500	0.550	\$20.71
31203250-312B	3.250	3.875	0.312	0.343	\$21.97
31203250-500B	3.250	3.875	0.500	0.550	\$20.01
31203375-312B	3.375	4.000	0.312	0.343	\$22.17
31203375-500B	3.375	4.000	0.500	0.550	\$20.01
31203375-625B	3.375	4.000	0.625	0.688	\$36.36
31203500-375B	3.500	4.125	0.375	0.413	\$39.83
31203500-500B	3.500	4.125	0.500	0.550	\$21.59
31203625-500B	3.625	4.250	0.500	0.550	\$22.20
31203750-375B	3.750	4.375	0.375	0.413	\$21.89
31203750-500B	3.750	4.375	0.500	0.550	\$23.61
31203750-625B	3.750	4.375	0.625	0.688	\$23.84
31204000-500B	4.000	4.625	0.500	0.550	\$39.06
31204000-562B	4.000	4.625	0.562	0.618	\$23.66
31204125-500B	4.125	4.750	0.500	0.550	\$29.15
31204125-562B	4.125	4.750	0.562	0.618	\$24.12
31204125-625B	4.125	4.750	0.625	0.688	\$31.65
31204250-312B	4.250	4.875	0.312	0.343	\$30.19
31204250-500B	4.250	4.875	0.500	0.550	\$30.19
31204250-562B	4.250	4.875	0.562	0.618	\$25.12
31204375-312B	4.375	5.000	0.312	0.343	\$27.61
31204375-500B	4.375	5.000	0.500	0.550	\$26.18
31204375-562B	4.375	5.000	0.562	0.618	\$26.18
31204375-625B	4.375	5.000	0.625	0.688	\$31.49
31204500-375B	4.500	5.125	0.375	0.413	\$32.20
31204500-562B	4.500	5.125	0.562	0.618	\$38.39
31204500-625B	4.500	5.125	0.625	0.688	\$27.02
31204625-625B	4.625	5.250	0.625	0.688	\$29.39
31204750-500B	4.750	5.375	0.500	0.550	\$29.99
31204750-625B	4.750	5.375	0.625	0.688	\$28.63
31205000-625B	5.000	5.625	0.625	0.688	\$31.98
31205125-625B	5.125	5.750	0.625	0.688	\$53.98
31205250-625B	5.250	5.875	0.625	0.688	\$34.09
31205375-625B	5.375	6.000	0.625	0.688	\$34.09
31205500-312B	5.500	6.125	0.312	0.343	\$29.24
31205500-625B	5.500	6.125	0.625	0.688	\$36.43
31205625-625B	5.625	6.250	0.625	0.688	\$58.80
31205750-625B	5.750	6.375	0.625	0.688	\$38.65
31206000-625B	6.000	6.625	0.625	0.688	\$38.75
31206375-312B	6.375	7.000	0.312	0.343	\$52.59
31206500-625B	6.500	7.125	0.625	0.688	\$43.22
31206625-625B	6.625	7.250	0.625	0.688	\$80.20

**Type B Loaded Lip Seals - Inch, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price	Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/16" CROSS SECTION ("F")</b>						<b>3/8" CROSS SECTION ("F")</b>					
31206750-625B	6.750	7.375	0.625	0.688	\$51.20	37503375-625B	3.375	4.125	0.625	0.688	\$27.57
31207000-625B	7.000	7.625	0.625	0.688	\$47.30	37503500-500B	3.500	4.250	0.500	0.550	\$32.20
31207250-625B	7.250	7.875	0.625	0.688	\$75.28	37503500-625B	3.500	4.250	0.625	0.688	\$28.40
31207375-312B	7.375	8.000	0.312	0.343	\$76.56	37503625-625B	3.625	4.375	0.625	0.688	\$29.88
31207375-500B	7.375	8.000	0.500	0.550	\$76.56	37503750-375B	3.750	4.500	0.375	0.413	\$29.92
31207375-625B	7.375	8.000	0.625	0.688	\$76.56	37503750-500B	3.750	4.500	0.500	0.550	\$34.13
31207875-625B	7.875	8.500	0.625	0.688	\$85.50	37503750-625B	3.750	4.500	0.625	0.688	\$32.23
31208000-500B	8.000	8.625	0.500	0.550	\$81.52	37503875-625B	3.875	4.625	0.625	0.688	\$53.08
31208000-625B	8.000	8.625	0.625	0.688	\$57.02	37504000-500B	4.000	4.750	0.500	0.550	\$38.52
31208500-625B	8.500	9.125	0.625	0.688	\$83.32	37504000-625B	4.000	4.750	0.625	0.688	\$32.08
31209250-625B	9.250	9.875	0.625	0.688	\$117.11	37504125-625B	4.125	4.875	0.625	0.688	\$47.78
31209375-625B	9.375	10.000	0.625	0.688	\$117.62	37504250-375B	4.250	5.000	0.375	0.413	\$31.17
31209750-625B	9.750	10.375	0.625	0.688	\$122.96	37504250-500B	4.250	5.000	0.500	0.550	\$40.50
31210375-625B	10.375	11.000	0.625	0.688	\$141.76	37504250-625B	4.250	5.000	0.625	0.688	\$34.02
31212250-625B	12.250	12.875	0.625	0.688	\$152.56	37504500-500B	4.500	5.250	0.500	0.550	\$39.93
31212500-625B	12.500	13.125	0.625	0.688	\$167.86	37504500-625B	4.500	5.250	0.625	0.688	\$35.28
<b>3/8" CROSS SECTION ("F")</b>						37504625-625B	4.625	5.375	0.625	0.688	\$36.06
37501250-500B	1.250	2.000	0.500	0.550	\$15.96	37504750-500B	4.750	5.500	0.500	0.550	\$37.30
37501250-625B	1.250	2.000	0.625	0.688	\$16.15	37504750-625B	4.750	5.500	0.625	0.688	\$37.50
37501375-625B	1.375	2.125	0.625	0.688	\$21.13	37504875-625B	4.875	5.625	0.625	0.688	\$37.50
37501500-375B	1.500	2.250	0.375	0.413	\$18.02	37505000-375B	5.000	5.750	0.375	0.413	\$46.00
37501500-500B	1.500	2.250	0.500	0.550	\$15.59	37505000-500B	5.000	5.750	0.500	0.550	\$43.37
37501500-625B	1.500	2.250	0.625	0.688	\$14.94	37505000-625B	5.000	5.750	0.625	0.688	\$38.75
37501625-625B	1.625	2.375	0.625	0.688	\$26.06	37505125-625B	5.125	5.875	0.625	0.688	\$64.21
37501750-500B	1.750	2.500	0.500	0.550	\$19.02	37505250-375B	5.250	6.000	0.375	0.413	\$39.08
37501750-625B	1.750	2.500	0.625	0.688	\$15.36	37505250-500B	5.250	6.000	0.500	0.550	\$41.44
37502000-375B	2.000	2.750	0.375	0.413	\$18.62	37505250-625B	5.250	6.000	0.625	0.688	\$41.44
37502000-500B	2.000	2.750	0.500	0.550	\$18.87	37505250-750B	5.250	6.000	0.750	0.825	\$48.44
37502000-625B	2.000	2.750	0.625	0.688	\$18.10	37505375-625B	5.375	6.125	0.625	0.688	\$67.06
37502250-375B	2.250	3.000	0.375	0.413	\$20.02	37505500-500B	5.500	6.250	0.500	0.550	\$42.65
37502250-500B	2.250	3.000	0.500	0.550	\$20.97	37505500-625B	5.500	6.250	0.625	0.688	\$43.06
37502250-625B	2.250	3.000	0.625	0.688	\$19.77	37505625-625B	5.625	6.375	0.625	0.688	\$50.03
37502375-625B	2.375	3.125	0.625	0.688	\$24.04	37505750-500B	5.750	6.500	0.500	0.550	\$50.03
37502500-375B	2.500	3.250	0.375	0.413	\$21.67	37505750-625B	5.750	6.500	0.625	0.688	\$46.62
37502500-500B	2.500	3.250	0.500	0.550	\$21.67	37505875-625B	5.875	6.625	0.625	0.688	\$51.69
37502500-625B	2.500	3.250	0.625	0.688	\$21.03	37506000-500B	6.000	6.750	0.500	0.550	\$50.94
37502625-625B	2.625	3.375	0.625	0.688	\$22.91	37506000-625B	6.000	6.750	0.625	0.688	\$46.15
37502750-500B	2.750	3.500	0.500	0.550	\$25.76	37506250-500B	6.250	7.000	0.500	0.550	\$51.20
37502750-625B	2.750	3.500	0.625	0.688	\$24.11	37506250-625B	6.250	7.000	0.625	0.688	\$47.19
37502875-500B	2.875	3.625	0.500	0.550	\$38.72	37506500-500B	6.500	7.250	0.500	0.550	\$63.72
37502875-625B	2.875	3.625	0.625	0.688	\$41.23	37506500-625B	6.500	7.250	0.625	0.688	\$56.68
37503000-500B	3.000	3.750	0.500	0.550	\$26.87	37506750-375B	6.750	7.500	0.375	0.413	\$54.50
37503000-625B	3.000	3.750	0.625	0.688	\$25.09	37506750-500B	6.750	7.500	0.500	0.550	\$57.20
37503125-625B	3.125	3.875	0.625	0.688	\$41.47	37506750-625B	6.750	7.500	0.625	0.688	\$52.33
37503250-375B	3.250	4.000	0.375	0.413	\$26.86	37506875-625B	6.875	7.625	0.625	0.688	\$52.43
37503250-500B	3.250	4.000	0.500	0.550	\$26.98	37507000-500B	7.000	7.750	0.500	0.550	\$53.74
37503250-625B	3.250	4.000	0.625	0.688	\$26.98	37507000-625B	7.000	7.750	0.625	0.688	\$53.74

**Type B Loaded Lip Seals - Inch, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price	Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/8" CROSS SECTION ("F")</b>						<b>1/2" CROSS SECTION ("F")</b>					
37507250-375B	7.250	8.000	0.375	0.413	\$53.74	50003000-750B	3.000	4.000	0.750	0.825	\$38.22
37507250-500B	7.250	8.000	0.500	0.550	\$61.56	50003250-750B	3.250	4.250	0.750	0.825	\$53.40
37507250-625B	7.250	8.000	0.625	0.688	\$57.53	50003375-625B	3.375	4.375	0.625	0.688	\$58.49
37507250-750B	7.250	8.000	0.750	0.825	\$62.25	50003500-750B	3.500	4.500	0.750	0.825	\$49.53
37507500-500B	7.500	8.250	0.500	0.550	\$68.15	50004000-750B	4.000	5.000	0.750	0.825	\$42.62
37507500-625B	7.500	8.250	0.625	0.688	\$62.23	50004250-750B	4.250	5.250	0.750	0.825	\$45.58
37507750-500B	7.750	8.500	0.500	0.550	\$70.72	50004500-750B	4.500	5.500	0.750	0.825	\$51.31
37507750-625B	7.750	8.500	0.625	0.688	\$62.58	50004750-750B	4.750	5.750	0.750	0.825	\$59.13
37508000-625B	8.000	8.750	0.625	0.688	\$62.71	50005000-750B	5.000	6.000	0.750	0.825	\$53.98
37508250-625B	8.250	9.000	0.625	0.688	\$66.14	50005250-500B	5.250	6.250	0.500	0.550	\$72.05
37508500-625B	8.500	9.250	0.625	0.688	\$78.56	50005250-750B	5.250	6.250	0.750	0.825	\$72.14
37508750-500B	8.750	9.500	0.500	0.550	\$84.24	50005500-750B	5.500	6.500	0.750	0.825	\$55.76
37508750-750B	8.750	9.500	0.750	0.825	\$120.80	50005750-750B	5.750	6.750	0.750	0.825	\$70.11
37509000-625B	9.000	9.750	0.625	0.688	\$124.70	50006000-750B	6.000	7.000	0.750	0.825	\$65.48
37509250-375B	9.250	10.000	0.375	0.413	\$103.03	50006250-750B	6.250	7.250	0.750	0.825	\$70.98
37509250-625B	9.250	10.000	0.625	0.688	\$104.36	50006500-750B	6.500	7.500	0.750	0.825	\$58.78
37509500-625B	9.500	10.250	0.625	0.688	\$104.36	50006750-750B	6.750	7.750	0.750	0.825	\$61.68
37510000-625B	10.000	10.750	0.625	0.688	\$109.86	50007000-750B	7.000	8.000	0.750	0.825	\$66.19
37510250-500B	10.250	11.000	0.500	0.550	\$156.31	50007250-750B	7.250	8.250	0.750	0.825	\$75.96
37510250-750B	10.250	11.000	0.750	0.825	\$156.31	50007500-750B	7.500	8.500	0.750	0.825	\$79.94
37510500-625B	10.500	11.250	0.625	0.688	\$170.34	50007750-750B	7.750	8.750	0.750	0.825	\$99.87
37510750-625B	10.750	11.500	0.625	0.688	\$169.75	50008000-750B	8.000	9.000	0.750	0.825	\$82.03
37511250-375B	11.250	12.000	0.375	0.413	\$127.18	50008250-750B	8.250	9.250	0.750	0.825	\$87.14
37511250-625B	11.250	12.000	0.625	0.688	\$130.63	50008500-750B	8.500	9.500	0.750	0.825	\$87.85
37511750-625B	11.750	12.500	0.625	0.688	\$167.79	50008750-750B	8.750	9.750	0.750	0.825	\$106.24
37512000-625B	12.000	12.750	0.625	0.688	\$150.91	50009000-750B	9.000	10.000	0.750	0.825	\$90.16
37512250-625B	12.250	13.000	0.625	0.688	\$187.50	50009250-750B	9.250	10.250	0.750	0.825	\$133.12
37513000-625B	13.000	13.750	0.625	0.688	\$210.81	50010000-750B	10.000	11.000	0.750	0.825	\$167.67
37513500-625B	13.500	14.250	0.625	0.688	\$240.13	50010250-750B	10.250	11.250	0.750	0.825	\$185.17
37513750-625B	13.750	14.500	0.625	0.688	\$247.42	50010500-750B	10.500	11.500	0.750	0.825	\$201.99
37514250-625B	14.250	15.000	0.625	0.688	\$221.03	50010750-750B	10.750	11.750	0.750	0.825	\$207.42
37514750-625B	14.750	15.500	0.625	0.688	\$255.54	50011000-750B	11.000	12.000	0.750	0.825	\$210.34
37520750-500B	20.750	21.500	0.500	0.550	\$384.23	50011500-750B	11.500	12.500	0.750	0.825	\$220.76
<b>7/16" CROSS SECTION ("F")</b>						<b>50011750-750B</b>					
43701125-500B	1.125	2.000	0.500	0.550	\$31.61	50012000-750B	12.000	13.000	0.750	0.825	\$166.17
43702250-625B	2.250	3.125	0.625	0.688	\$36.37	50012125-750B	12.125	13.125	0.750	0.825	\$253.43
43702500-625B	2.500	3.375	0.625	0.688	\$40.76	50012250-750B	12.250	13.250	0.750	0.825	\$254.64
43703875-750B	3.875	4.750	0.750	0.825	\$56.75	50012500-750B	12.500	13.500	0.750	0.825	\$250.86
43704000-625B	4.000	4.875	0.625	0.688	\$57.12	50013000-750B	13.000	14.000	0.750	0.825	\$253.90
43704500-750B	4.500	5.375	0.750	0.825	\$57.77	50013250-750B	13.250	14.250	0.750	0.825	\$337.21
43704750-750B	4.750	5.625	0.750	0.825	\$68.94	50013500-750B	13.500	14.500	0.750	0.825	\$342.82
43705000-750B	5.000	5.875	0.750	0.825	\$71.94	50014000-750B	14.000	15.000	0.750	0.825	\$339.92
<b>1/2" CROSS SECTION ("F")</b>						<b>50014750-750B</b>					
50001500-750B	1.500	2.500	0.750	0.825	\$27.91	50015000-750B	15.000	16.000	0.750	0.825	\$273.47
50001750-750B	1.750	2.750	0.750	0.825	\$25.45	50015500-750B	15.500	16.500	0.750	0.825	\$392.60
50002000-750B	2.000	3.000	0.750	0.825	\$25.77	50016500-750B	16.500	17.500	0.750	0.825	\$387.65
50002500-500B	2.500	3.500	0.500	0.550	\$32.34	50017000-750B	17.000	18.000	0.750	0.825	\$373.77
50002500-750B	2.500	3.500	0.750	0.825	\$31.51	50018000-750B	18.000	19.000	0.750	0.825	\$393.71

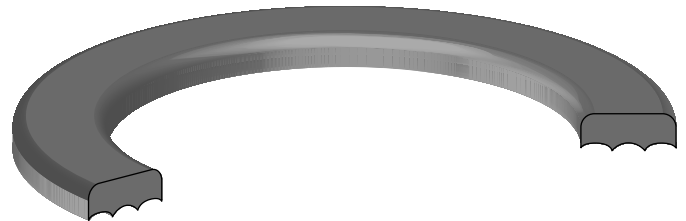
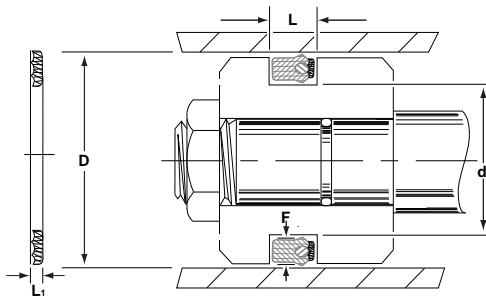


## Type B Loaded Lip Seals - Inch, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/2" CROSS SECTION ("F")</b>					
50019000-750B	19.000	20.000	0.750	0.825	\$413.51
50020000-750B	20.000	21.000	0.750	0.825	\$431.62
50021000-750B	21.000	22.000	0.750	0.825	\$455.29
50029000-750B	29.000	30.000	0.750	0.825	\$1,237.74
50034500-750B	34.500	35.500	0.750	0.825	\$2,071.66
<b>5/8" CROSS SECTION ("F")</b>					
62504250-1000B	4.250	5.500	1.000	1.100	\$89.59
62505000-1000B	5.000	6.250	1.000	1.100	\$100.50
62505250-1000B	5.250	6.500	1.000	1.100	\$106.15
62505500-1000B	5.500	6.750	1.000	1.100	\$112.09
62506000-1000B	6.000	7.250	1.000	1.100	\$124.08
62507000-1000B	7.000	8.250	1.000	1.100	\$126.15
62507250-1000B	7.250	8.500	1.000	1.100	\$149.47
62508250-1000B	8.250	9.500	1.000	1.100	\$160.73
62508500-1000B	8.500	9.750	1.000	1.100	\$166.11
62509000-1000B	9.000	10.250	1.000	1.100	\$195.70
62509750-1000B	9.750	11.000	1.000	1.100	\$206.08
62510000-1000B	10.000	11.250	1.000	1.100	\$219.18
62511250-1000B	11.250	12.500	1.000	1.100	\$272.80

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/8" CROSS SECTION ("F")</b>					
62511500-1000B	11.500	12.750	1.000	1.100	\$341.33
62518750-1000B	18.750	20.000	1.000	1.100	\$570.54
62519750-1000B	19.750	21.000	1.000	1.100	\$628.30
<b>3/4" CROSS SECTION ("F")</b>					
75008000-1250B	8.000	9.500	1.250	1.375	\$192.61
75008500-1125B	8.500	10.000	1.125	1.238	\$201.05
75009000-1250B	9.000	10.500	1.250	1.375	\$224.64
75010000-1250B	10.000	11.500	1.250	1.375	\$297.69
75010500-1000B	10.500	12.000	1.000	1.100	\$309.78
75012000-1250B	12.000	13.500	1.250	1.375	\$335.66
75012500-1250B	12.500	14.000	1.250	1.375	\$403.29
75013000-1000B	13.000	14.500	1.000	1.100	\$473.55
75014000-1250B	14.000	15.500	1.250	1.375	\$477.61
75019000-1250B	19.000	20.500	1.250	1.375	\$679.70
75020000-1250B	20.000	21.500	1.250	1.375	\$751.21
75020500-1000B	20.500	22.000	1.000	1.100	\$765.79
<b>1" CROSS SECTION ("F")</b>					
100016000-1250B	16.000	18.000	1.250	1.375	\$750.71

## PIP Rings - Inch



**EXAMPLE: 25002750PR**

Cross Section	Inside Diameter	Suffix
250	02750	PR
1/4	2-3/4"	PIP Rings

"PIP" (Pressure Inverting Pedestal) rings convert type "B" loaded lip seals into bi-directional seals. Pip rings are made from a harder durometer urethane material and may be split for easier installation or cut down for in-between sizes.

Temperature: -60°F to 200°F      Pressure: 0 to 5,000 PSI

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Price
<b>1/8" CROSS SECTION ("F")</b>				
12500437PR	0.437	0.687	0.062	\$7.33
12500750PR	0.750	1.000	0.062	\$6.10
12501250PR	1.250	1.500	0.062	\$7.19
12501500PR	1.500	1.750	0.062	\$7.78
12501750PR	1.750	2.000	0.062	\$8.27

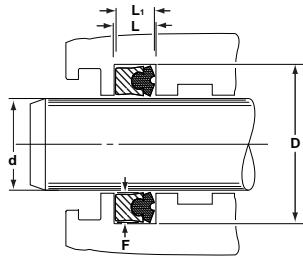
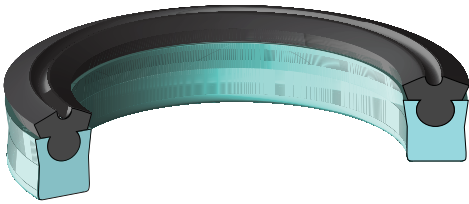
Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Price
<b>3/16" CROSS SECTION ("F")</b>				
18700750PR	0.750	1.125	0.125	\$9.34
18700875PR	0.875	1.250	0.125	\$9.67
18700937PR	0.937	1.312	0.125	\$7.28
18701000PR	1.000	1.375	0.125	\$7.38
18701125PR	1.125	1.500	0.125	\$7.13
18701250PR	1.250	1.625	0.125	\$8.66
18701500PR	1.500	1.875	0.125	\$8.51
18701625PR	1.625	2.000	0.125	\$8.54
18701750PR	1.750	2.125	0.125	\$8.85
18702125PR	2.125	2.500	0.125	\$11.27
18702375PR	2.375	2.750	0.125	\$11.78
18702500PR	2.500	2.875	0.125	\$11.78
18702625PR	2.625	3.000	0.125	\$11.78
18703000PR	3.000	3.375	0.125	\$11.78
18703125PR	3.125	3.500	0.125	\$12.80
18703625PR	3.625	4.000	0.125	\$14.43
18704000PR	4.000	4.375	0.125	\$18.00

**PIP Rings - Inch, cont'd.**

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Price
<b>1/4" CROSS SECTION ("F")</b>				
25001000PR	1.000	1.500	0.125	\$7.57
25001250PR	1.250	1.750	0.125	\$8.79
25002000PR	2.000	2.500	0.125	\$12.09
25002500PR	2.500	3.000	0.125	\$14.35
25002750PR	2.750	3.250	0.125	\$14.43
25002875PR	2.875	3.375	0.125	\$17.89
25003000PR	3.000	3.500	0.125	\$16.60
25003125PR	3.125	3.625	0.125	\$17.20
25003250PR	3.250	3.750	0.125	\$18.99
25003500PR	3.500	4.000	0.125	\$19.06
25003750PR	3.750	4.250	0.125	\$20.76
25004000PR	4.000	4.500	0.125	\$21.11
25005250PR	5.250	5.750	0.125	\$34.32
25005500PR	5.500	6.000	0.125	\$35.48
25006000PR	6.000	6.500	0.125	\$36.98
25006500PR	6.500	7.000	0.125	\$38.79
25007000PR	7.000	7.500	0.125	\$42.23
<b>5/16" CROSS SECTION ("F")</b>				
31203375PR	3.375	4.000	0.156	\$21.38
31204375PR	4.375	5.000	0.156	\$27.61
31206375PR	6.375	7.000	0.156	\$33.65

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Price
<b>3/8" CROSS SECTION ("F")</b>				
37502250PR	2.250	3.000	0.187	\$23.12
37502500PR	2.500	3.250	0.187	\$25.02
37502750PR	2.750	3.500	0.187	\$23.50
37503250PR	3.250	4.000	0.187	\$27.25
37503500PR	3.500	4.250	0.187	\$31.57
37503750PR	3.750	4.500	0.187	\$32.68
37505250PR	5.250	6.000	0.187	\$43.74
37505500PR	5.500	6.250	0.187	\$44.27
37506250PR	6.250	7.000	0.187	\$50.10
37506750PR	6.750	7.500	0.187	\$55.97
37508250PR	8.250	9.000	0.187	\$69.67
<b>1/2" CROSS SECTION ("F")</b>				
50005000PR	5.000	6.000	0.250	\$62.81
50006000PR	6.000	7.000	0.250	\$79.00
50007000PR	7.000	8.000	0.250	\$76.64
50009000PR	9.000	10.000	0.250	\$89.67
50010000PR	10.000	11.000	0.250	\$131.92
50011000PR	11.000	12.000	0.250	\$139.86
50014000PR	14.000	15.000	0.250	\$184.01
50015000PR	15.000	16.000	0.250	\$198.46

**Twin Lip Urethane DZ® Seals - Inch**



The DZ® Seal is mainly used for rod seal applications. Its unique multi-lip design incorporates the sealability & low-compression set of 70A nitrile with the benefits of the anti-extrusion and wear resistant properties of 90A urethane. These seals work extremely well in low temperature applications. Parts ending with an \* are limited quantities & do not have a Flouratrel® heel, the parts ending with an "R" have a nylon angled back up.

Temp : -40°F to +200°F Pressure : 0 to 5000 PSI

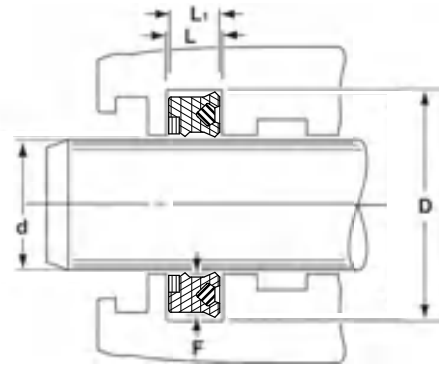
Part Number	Inside Diameter d	Outside Diameter D	Height L <sub>1</sub>	Price
<b>3/16" CROSS SECTION ("F")</b>				
18701000-312DZ	1.000	1.375	0.312	\$10.30
18701250-312DZ	1.250	1.625	0.312	\$12.89
18701500-375DZ	1.500	1.875	0.375	\$11.27
18701750-375DZ	1.750	2.125	0.375	\$15.30
18702000-375DZ	2.000	2.375	0.375	\$14.63
18704000-375Z*	4.000	4.375	0.375	\$36.65
<b>1/4" CROSS SECTION ("F")</b>				
25001750-375DZ	1.750	2.250	0.375	\$13.72
25002000-375DZ	2.000	2.500	0.375	\$17.81
25002250-375DZ*	2.250	2.750	0.375	\$18.56
25002500-375DZ	2.500	3.000	0.375	\$18.85
25002625-375DZ	2.625	3.125	0.375	\$20.28
25003000-375DZ	3.000	3.500	0.375	\$22.86
25003250-375DZ	3.250	3.750	0.375	\$29.09

Part Number	Inside Diameter d	Outside Diameter D	Height L <sub>1</sub>	Price
<b>1/4" CROSS SECTION ("F")</b>				
25003500-375DZ	3.500	4.000	0.375	\$29.46
25004000-375DZ	4.000	4.500	0.375	\$37.04
25004500-375DZ*	4.500	5.000	0.375	\$43.74
25004750-375DZ*	4.750	5.250	0.375	\$50.73
25005500-375DZ	5.500	6.000	0.375	\$53.40
<b>3/8" CROSS SECTION ("F")</b>				
37501750-625DZ	1.750	2.500	0.625	\$28.12
37503000-625DZ	3.000	3.750	0.625	\$32.00
37503500-625DZ	3.500	4.250	0.625	\$41.17
37504000-625DZ	4.000	4.750	0.625	\$51.02
<b>1/2" CROSS SECTION ("F")</b>				
50006500-750DZ*	6.500	7.500	0.750	\$109.39
50008500-750DZR*	8.000	9.500	0.750	\$398.56

# BD Loaded Lip Seals with I. D. Backup Ring - Inch



**ALTERNATIVE SEALS:**  
Rod: BS-B



EXAMPLE: BD-31202500-500				
Prefix	Cross Section	Inside Diameter	Height	
BD-	312	02500	-	500
	5/16	2-1/2"		1/2

Here is the state of the art in heavy duty sealing. Manufactured from high quality urethane, this seal is similar to the BS profile seal. The rod seal has an integral backup ring for added extrusion resistance and loaded lip for optimal low pressure sealing. A film of oil is trapped between the two lips for low running friction.

Temperature: -50°F to 230°F      Pressure: 0 to 10,000 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
BD-12501250-250	1.250	1.500	0.250	0.275	\$16.18
<b>3/16" CROSS SECTION ("F")</b>					
BD-18701250-250	1.250	1.625	0.250	0.275	\$16.07
BD-18701250-312	1.250	1.625	0.312	0.343	\$17.18
BD-18701500-250	1.500	1.875	0.250	0.275	\$19.41
BD-18701500-312	1.500	1.875	0.312	0.343	\$19.96
BD-18701500-375	1.500	1.875	0.375	0.413	\$19.93
BD-18701750-250	1.750	2.125	0.250	0.275	\$20.80
BD-18701750-375	1.750	2.125	0.375	0.413	\$21.02
BD-18702000-375	2.000	2.375	0.375	0.413	\$22.17
BD-18702500-375	2.500	2.875	0.375	0.413	\$44.60
BD-18703750-375	3.750	4.125	0.375	0.413	\$49.32
<b>1/4" CROSS SECTION ("F")</b>					
BD-25001375-375	1.375	1.875	0.375	0.413	\$22.14
BD-25001500-375	1.500	2.000	0.375	0.413	\$22.14
BD-25001750-375	1.750	2.250	0.375	0.413	\$22.17
BD-25002000-375	2.000	2.500	0.375	0.413	\$24.32
BD-25002125-375	2.125	2.625	0.375	0.413	\$30.76
BD-25002250-375	2.250	2.750	0.375	0.413	\$28.34
BD-25002375-375	2.375	2.875	0.375	0.413	\$28.74
BD-25002500-375	2.500	3.000	0.375	0.413	\$30.48
BD-25002750-375	2.750	3.250	0.375	0.413	\$32.83
BD-25003000-375	3.000	3.500	0.375	0.413	\$37.03
BD-25003250-375	3.250	3.750	0.375	0.413	\$38.43
BD-25003500-375	3.500	4.000	0.375	0.413	\$41.49
BD-25003750-375	3.750	4.250	0.375	0.413	\$46.24
BD-25004000-375	4.000	4.500	0.375	0.413	\$46.41
BD-25004000-562	4.000	4.500	0.562	0.618	\$48.66
BD-25004250-535	4.250	4.750	0.535	0.589	\$51.57
BD-25004500-375	4.500	5.000	0.375	0.413	\$55.46
BD-25004500-562	4.500	5.000	0.562	0.618	\$59.18
BD-25005000-562	5.000	5.500	0.562	0.618	\$63.44
BD-25005500-562	5.500	6.000	0.562	0.618	\$74.35

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
BD-25006000-562	6.000	6.500	0.562	0.618	\$88.14
BD-25006750-562	6.750	7.250	0.562	0.618	\$110.41
BD-25007000-500	7.000	7.500	0.500	0.550	\$115.01
BD-25008000-562	8.000	8.500	0.562	0.618	\$151.21
BD-25010000-562	10.000	10.500	0.562	0.618	\$218.28
<b>5/16" CROSS SECTION ("F")</b>					
BD-31202500-500	2.500	3.125	0.500	0.550	\$37.14
BD-31203000-500	3.000	3.625	0.500	0.550	\$44.97
BD-31203500-500	3.500	4.125	0.500	0.550	\$48.04
BD-31204000-500	4.000	4.625	0.500	0.550	\$55.43
BD-31204000-562	4.000	4.625	0.562	0.618	\$57.55
BD-31204500-375	4.500	5.125	0.375	0.413	\$65.19
BD-31204500-625	4.500	5.125	0.625	0.688	\$66.37
BD-31205000-625	5.000	5.625	0.625	0.688	\$73.78
BD-31205500-375	5.500	6.125	0.375	0.413	\$86.82
<b>3/8" CROSS SECTION ("F")</b>					
BD-37503000-625	3.000	3.750	0.625	0.688	\$57.45
BD-37503250-625	3.250	4.000	0.625	0.688	\$59.87
BD-37503500-625	3.500	4.250	0.625	0.688	\$67.24
BD-37503750-500	3.750	4.500	0.500	0.550	\$94.25
BD-37504000-625	4.000	4.750	0.625	0.688	\$73.65
BD-37504250-625	4.250	5.000	0.625	0.688	\$74.19
BD-37504500-625	4.500	5.250	0.625	0.688	\$81.03
BD-37504750-375	4.750	5.500	0.375	0.413	\$81.57
BD-37504750-625	4.750	5.500	0.625	0.688	\$85.11
BD-37505000-625	5.000	5.750	0.625	0.688	\$93.79
BD-37505250-625	5.250	6.000	0.625	0.688	\$95.21
BD-37505750-625	5.750	6.500	0.625	0.688	\$95.85
BD-37506000-625	6.000	6.750	0.625	0.688	\$105.68
BD-37506250-625	6.250	7.000	0.625	0.688	\$109.05
BD-37506500-500	6.500	7.250	0.500	0.550	\$109.75
BD-37507000-562	7.000	7.750	0.562	0.618	\$145.15
BD-37507000-625	7.000	7.750	0.625	0.688	\$150.11

**BD Loaded Lip Seals with I. D. Backup Ring - Inch, cont'd.**

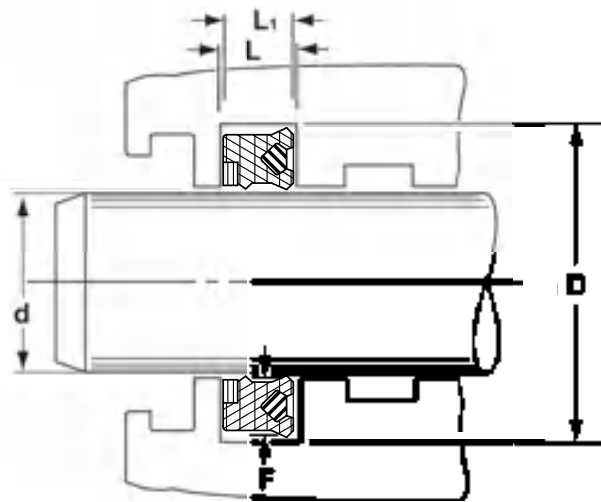
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/8" CROSS SECTION ("F")</b>					
BD-37508000-625	8.000	8.750	0.625	0.688	\$180.71
BD-37508500-625	8.500	9.250	0.625	0.688	\$240.70
BD-37509000-625	9.000	9.750	0.625	0.688	\$259.12
BD-37510000-625	10.000	10.750	0.625	0.688	\$309.80
BD-37511000-625	11.000	11.750	0.625	0.688	\$356.34
BD-37512000-625	12.000	12.750	0.625	0.688	\$389.97

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/2" CROSS SECTION ("F")</b>					
BD-50009000-750	9.000	10.000	0.750	0.825	\$313.41
BD-50010000-750	10.000	11.000	0.750	0.825	\$304.61
BD-50012000-750	12.000	13.000	0.750	0.825	\$433.89
BD-50014000-750	14.000	15.000	0.750	0.825	\$683.56
BD-50015000-750	15.000	16.000	0.750	0.825	\$785.63

**BD Loaded Lip Seals with I. D. Backup Ring - Metric**



ALTERNATIVE SEALS:  
Rod: BS-B, MA30-B:



EXAMPLE: BD-85X100X13					
Prefix	Inside Diameter		Outside Diameter		Height
BD-	85	x	100	x	13
	85mm		100mm		13mm

Here is the state of the art in heavy duty sealing. Manufactured from high quality urethane, this seal is similar to the BS profile seal. The seal has an integral backup ring for added extrusion resistance and loaded lip for optimal low pressure sealing. A film of oil is trapped between the two lips for low running friction.

Temperature: -50°F to 230°F      Pressure: 0 to 10,000 PSI

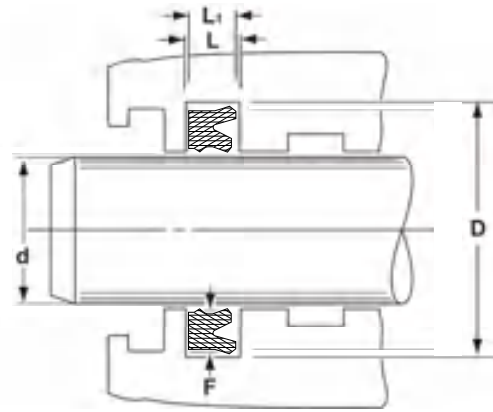
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BD-25X35X7.3	25	35	7.3	8.3	\$38.82
BD-30X40X7.3	30	40	7.3	8.3	\$46.48
BD-30X40X10	30	40	10	11	\$48.23
BD-35X50X9.5	35	50	9.5	10.5	\$49.63
BD-36X46X7.3	36	46	7.3	8.3	\$51.83
BD-40X50X7.3	40	50	7.3	8.3	\$56.78
BD-40X50X10	40	50	10	11	\$61.83
BD-40X52X8.6	40	52	8.6	9.6	\$61.93
BD-40X55X9.5	40	55	9.5	10.5	\$62.50
BD-40X55X11.4	40	55	11.4	12.4	\$62.85
BD-45X55X7.3	45	55	7.3	8.3	\$62.97
BD-45X60X11.4	45	60	11.4	12.4	\$61.93
BD-50X60X7.3	50	60	7.3	8.3	\$64.88
BD-50X65X10	50	65	10	11	\$61.88
BD-50X65X11.4	50	65	11.4	12.4	\$65.37
BD-55X68X13	55	68	13	14	\$69.20

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BD-55X70X11.4	55	70	11.4	12.4	\$69.20
BD-56X71X11.4	56	71	11.4	12.4	\$70.13
BD-60X72X8.6	60	72	8.6	9.6	\$65.40
BD-60X73X13	60	73	13	14	\$64.77
BD-60X75X11.4	60	75	11.4	12.4	\$76.04
BD-63X75X8.7	63	75	8.7	9.7	\$78.85
BD-63X78X11.4	63	78	11.4	12.4	\$79.84
BD-63X83X11.8	63	83	11.8	12.8	\$81.03
BD-65X75X10	65	75	10	11	\$69.72
BD-65X78X10	65	78	10	11	\$77.51
BD-65X80X9	65	80	9	10	\$78.89
BD-65X80X10	65	80	10	11	\$71.27

**BD Loaded Lip Seals with I. D. Backup Ring - Metric, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price	Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BD-65X80X11.4	65	80	11.4	12.4	\$77.14	BD-110X130X14.5	110	130	14.5	15.5	\$101.73
BD-70X80X12	70	80	12	13	\$79.19	BD-115X130X15	115	130	15	16	\$100.42
BD-70X82X8.6	70	82	8.6	9.6	\$76.93	BD-115X135X14.5	115	135	14.5	15.5	\$109.94
BD-70X83X10	70	83	10	11	\$81.12	BD-120X135X14.5	120	135	14.5	15.5	\$114.07
BD-70X85X9	70	85	9	10	\$81.83	BD-120X140X12	120	140	12	13	\$115.39
BD-70X85X10	70	85	10	11	\$82.71	BD-120X140X13	120	140	13	14	\$106.92
BD-70X85X11.4	70	85	11.4	12.4	\$83.06	BD-120X140X14.5	120	140	14.5	15.5	\$119.94
BD-75X88X10	75	88	10	11	\$76.36	BD-125X145X14.5	125	145	14.5	15.5	\$110.05
BD-75X88X13	75	88	13	14	\$78.74	BD-130X145X9	130	145	9	10	\$161.23
BD-75X90X9	75	90	9	10	\$83.73	BD-130X150X14.5	130	150	14.5	15.5	\$119.94
BD-75X90X11.4	75	90	11.4	12.4	\$120.66	BD-135X155X13.6	135	155	13.6	14.6	\$121.39
BD-75X90X13	75	90	13	14	\$106.77	BD-140X160X13	140	160	13	14	\$126.44
BD-80X93X10	80	93	10	11	\$85.03	BD-140X160X14.5	140	160	14.5	15.5	\$123.17
BD-80X95X9	80	95	9	10	\$88.31	BD-145X165X15	145	165	15	16	\$132.36
BD-80X95X11.4	80	95	11.4	12.4	\$90.66	BD-150X160X14.5	150	160	14.5	15.5	\$122.97
BD-80X95X13	80	95	13	14	\$98.22	BD-150X165X14.5	150	165	14.5	15.5	\$151.26
BD-85X97X8.6	85	97	8.6	9.6	\$88.70	BD-150X170X14.5	150	170	14.5	15.5	\$132.03
BD-85X100X10	85	100	10	11	\$91.55	BD-160X175X14.5	160	175	14.5	15.5	\$124.54
BD-85X100X11.4	85	100	11.4	12.4	\$109.13	BD-160X180X14.5	160	180	14.5	15.5	\$157.00
BD-85X100X13	85	100	13	14	\$83.48	BD-170X185X14.5	170	185	14.5	15.5	\$160.58
BD-85X105X15	85	105	15	16	\$99.79	BD-170X190X14.5	170	190	14.5	15.5	\$265.16
BD-90X100X12	90	100	12	13	\$89.66	BD-180X195X14.5	180	195	14.5	15.5	\$171.87
BD-90X105X10	90	105	10	11	\$91.55	BD-180X200X14.5	180	200	14.5	15.5	\$192.06
BD-90X105X11.4	90	105	11.4	12.4	\$92.50	BD-180X205X18.2	180	205	18.2	19.2	\$201.85
BD-90X105X13	90	105	13	14	\$82.79	BD-185X205X18.5	185	205	18.5	19.5	\$204.71
BD-90X105X15	90	105	15	16	\$93.94	BD-190X205X14.5	190	205	14.5	15.5	\$207.81
BD-90X110X14.5	90	110	14.5	15.5	\$94.66	BD-190X215X18.2	190	215	18.2	19.2	\$409.45
BD-90X110X17	90	110	17	18	\$96.44	BD-200X220X14.5	200	220	14.5	15.5	\$200.50
BD-95X110X10	95	110	10	11	\$91.57	BD-200X230X22.7	200	230	22.7	25	\$417.90
BD-95X110X13	95	110	13	14	\$84.59	BD-210X230X14.5	210	230	14.5	15.5	\$208.34
BD-95X115X15	95	115	15	16	\$97.93	BD-210X235X18.5	210	235	18.5	19.5	\$276.55
BD-100X115X10	100	115	10	11	\$100.68	BD-215X235X14.5	215	235	14.5	15.5	\$254.34
BD-100X115X12	100	115	12	13	\$142.71	BD-220X245X19	220	245	19	20	\$215.67
BD-100X115X13	100	115	13	14	\$89.47	BD-220X250X22.7	220	250	22.7	25	\$485.22
BD-100X115X15	100	115	15	16	\$93.82	BD-230X250X15	230	250	15	16	\$154.71
BD-100X120X14	100	120	14	15	\$91.20	BD-240X260X14.5	240	260	14.5	15.5	\$169.41
BD-100X120X14.5	100	120	14.5	15.5	\$95.82	BD-240X260X15	240	260	15	16	\$169.42
BD-105X120X12	105	120	12	13	\$95.94	BD-280X300X14.5	280	300	14.5	15.5	\$184.52
BD-105X120X14.5	105	120	14.5	15.5	\$95.99	BD-290X315X19	290	315	19	20	\$209.27
BD-105X125X14.5	105	125	14.5	15.5	\$96.21	BD-295X315X16.4	295	315	16.4	17.4	\$215.54
BD-110X125X12	110	125	12	13	\$96.46	BD-300X320X14.5	300	320	14.5	15.5	\$240.99
BD-110X130X12	110	130	12	13	\$96.72	BD-340X365X19	340	365	19	20	\$248.74
BD-110X130X13	110	130	13	14	\$106.19						

# BS Urethane Rod U-Cups - Inch



**ALTERNATIVE SEALS:**

Rod: Deep LLS, UNRR, BD, BSLL, BS-B, BT, UNR, US, UCH, UNR, BLLS

The BS series hydraulic rod seal is ideally suited for heavy-duty mobile and stationary service where leakage must be held to an absolute minimum. This unique geometry is highly resistant to side loading and insensitive to pressure spikes. The BS profile reduces or eliminates leakage under severe operating conditions. It also reduces wear and "dry run". Rod lubricant is retained in the cavity formed by the secondary lip providing exceptionally low running friction even at low velocities. Sealing performance is outstanding, even at 0 PSI.

Temperature: -50°F to 230°F Pressure: 0 to 6,000 PSI

EXAMPLE: BS-25003000-375				
Prefix	Cross Section	Inside Diameter	Height	
BS-	250	03000	-	375
	1/4	3"		3/8

When there is nothing to indicate Height in the Part # (No Dash #)  
Height = Cross Section

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/32" CROSS SECTION ("F")</b>					
BS-09300500-156	0.500	0.687	0.156	0.172	\$7.92
<b>.120" CROSS SECTION ("F")</b>					
BS-12001125-192	1.125	1.365	0.192	0.211	\$8.22
<b>1/8" CROSS SECTION ("F")</b>					
BS-12500375-198	0.375	0.625	0.198	0.218	\$6.98
BS-12500500-187	0.500	0.750	0.187	0.206	\$6.98
BS-12500562-187	0.562	0.812	0.187	0.206	\$10.26
BS-12500625-187	0.625	0.875	0.187	0.206	\$6.75
BS-12500625-241	0.625	0.875	0.241	0.265	\$7.24
BS-12500625-250	0.625	0.875	0.250	0.275	\$10.52
BS-12500687-187	0.687	0.937	0.187	0.206	\$7.19
BS-12500750	0.750	1.000	0.125	0.138	\$7.49
BS-12500750-187	0.750	1.000	0.187	0.206	\$6.69
BS-12500750-250	0.750	1.000	0.250	0.275	\$7.28
BS-12500812-187	0.812	1.062	0.187	0.206	\$8.84
BS-12500812-250	0.812	1.062	0.250	0.275	\$8.06
BS-12500875-187	0.875	1.125	0.187	0.206	\$8.27
BS-12500875-250	0.875	1.125	0.250	0.275	\$8.43
BS-12501000-187	1.000	1.250	0.187	0.206	\$8.48
BS-12501000-250	1.000	1.250	0.250	0.275	\$8.48
BS-12501062-187	1.062	1.312	0.187	0.206	\$8.71
BS-12501062-250	1.062	1.312	0.250	0.275	\$8.71
BS-12501125-187	1.125	1.375	0.187	0.206	\$8.81
BS-12501125-250	1.125	1.375	0.250	0.275	\$7.93
BS-12501250-187	1.250	1.500	0.187	0.206	\$9.05

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
BS-12501250-250	1.250	1.500	0.250	0.275	\$9.05
BS-12501375-187	1.375	1.625	0.187	0.206	\$9.21
BS-12501375-250	1.375	1.625	0.250	0.275	\$8.15
BS-12501500-187	1.500	1.750	0.187	0.206	\$12.66
BS-12501500-250	1.500	1.750	0.250	0.275	\$9.87
BS-12501625-250	1.625	1.875	0.250	0.275	\$11.29
BS-12501750-250	1.750	2.000	0.250	0.275	\$9.45
BS-12502000-187	2.000	2.250	0.187	0.206	\$14.56
BS-12502000-250	2.000	2.250	0.250	0.275	\$9.89
<b>.137" CROSS SECTION ("F")</b>					
BS-13701125-187	1.125	1.406	0.187	0.206	\$9.60
<b>5/32" CROSS SECTION ("F")</b>					
BS-15601000-250	1.000	1.312	0.250	0.275	\$13.94
BS-15601375-250	1.375	1.687	0.250	0.275	\$12.35
<b>3/16" CROSS SECTION ("F")</b>					
BS-18700375-312	0.375	0.750	0.312	0.343	\$6.95
BS-18700625-281	0.625	1.000	0.281	0.309	\$6.80
BS-18700750-312	0.750	1.125	0.312	0.343	\$7.90
BS-18700875-250	0.875	1.250	0.250	0.275	\$11.46
BS-18700875-324	0.875	1.250	0.324	0.356	\$11.46
BS-18701000-250	1.000	1.375	0.250	0.275	\$8.24
BS-18701000-312	1.000	1.375	0.312	0.343	\$9.67
BS-18701125-312	1.125	1.500	0.312	0.343	\$9.19
BS-18701187-250	1.187	1.562	0.250	0.275	\$8.15
BS-18701250	1.250	1.625	0.187	0.206	\$10.55

**BS Urethane Rod U-Cups - Inch, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
BS-18701250-227	1.250	1.625	0.227	0.250	\$10.55
BS-18701250-250	1.250	1.625	0.250	0.275	\$8.56
BS-18701250-312	1.250	1.625	0.312	0.343	\$10.36
BS-18701375	1.375	1.750	0.187	0.206	\$12.04
BS-18701375-312	1.375	1.750	0.312	0.343	\$9.99
BS-18701437-312	1.437	1.812	0.312	0.343	\$12.67
BS-18701500-250	1.500	1.875	0.250	0.275	\$11.13
BS-18701500-312	1.500	1.875	0.312	0.343	\$11.13
BS-18701500-375	1.500	1.875	0.375	0.413	\$11.13
BS-18701625-281	1.625	2.000	0.281	0.309	\$13.42
BS-18701625-312	1.625	2.000	0.312	0.343	\$13.78
BS-18701625-375	1.625	2.000	0.375	0.413	\$10.10
BS-18701750-250	1.750	2.125	0.250	0.275	\$10.23
BS-18701750-312	1.750	2.125	0.312	0.343	\$11.82
BS-18701750-375	1.750	2.125	0.375	0.413	\$9.57
BS-18701875-375	1.875	2.250	0.375	0.413	\$10.25
BS-18702000-250	2.000	2.375	0.250	0.275	\$12.40
BS-18702000-312	2.000	2.375	0.312	0.343	\$13.94
BS-18702000-375	2.000	2.375	0.375	0.413	\$12.77
BS-18702125-375	2.125	2.500	0.375	0.413	\$13.31
BS-18702250-335	2.250	2.625	0.335	0.369	\$17.00
BS-18702250-375	2.250	2.625	0.375	0.413	\$17.86
BS-18702375-375	2.375	2.750	0.375	0.413	\$14.01
BS-18702500-312	2.500	2.875	0.312	0.343	\$15.34
BS-18702500-375	2.500	2.875	0.375	0.413	\$14.82
BS-18702625-375	2.625	3.000	0.375	0.413	\$14.28
BS-18702750-375	2.750	3.125	0.375	0.413	\$15.52
BS-18702875-375	2.875	3.250	0.375	0.413	\$19.49
BS-18703000-375	3.000	3.375	0.375	0.413	\$17.33
BS-18703125-625	3.125	3.500	0.625	0.688	\$21.69
BS-18703250-375	3.250	3.625	0.375	0.413	\$20.89
BS-18703250-562	3.250	3.625	0.562	0.618	\$21.36
BS-18703500-375	3.500	3.875	0.375	0.413	\$21.51
BS-18703750-375	3.750	4.125	0.375	0.413	\$23.79
BS-18704000-375	4.000	4.375	0.375	0.413	\$25.28
BS-18704750-375	4.750	5.125	0.375	0.413	\$26.71
BS-18704750-625	4.750	5.125	0.625	0.688	\$59.92
BS-18705500-375	5.500	5.875	0.375	0.413	\$36.35
<b>7/32" CROSS SECTION ("F")</b>					
BS-21801125-325	1.125	1.562	0.325	0.358	\$13.19
BS-21802500-284	2.500	2.937	0.284	0.312	\$18.40
BS-21803000-281	3.000	3.437	0.281	0.309	\$20.19
<b>1/4" CROSS SECTION ("F")</b>					
BS-25000875-341	0.875	1.375	0.341	0.375	\$10.77
BS-25001000-341	1.000	1.500	0.341	0.375	\$10.77

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
BS-25001000-375	1.000	1.500	0.375	0.413	\$10.49
BS-25001125	1.125	1.625	0.250	0.275	\$9.24
BS-25001250	1.250	1.750	0.250	0.275	\$10.90
BS-25001250-375	1.250	1.750	0.375	0.413	\$10.86
BS-25001375-375	1.375	1.875	0.375	0.413	\$10.38
BS-25001500	1.500	2.000	0.250	0.275	\$9.89
BS-25001500-341	1.500	2.000	0.341	0.375	\$11.16
BS-25001500-375	1.500	2.000	0.375	0.413	\$12.71
BS-25001625-375	1.625	2.125	0.375	0.413	\$13.28
BS-25001750	1.750	2.250	0.250	0.275	\$11.15
BS-25001750-341	1.750	2.250	0.341	0.375	\$12.63
BS-25001750-375	1.750	2.250	0.375	0.413	\$14.10
BS-25001750-500	1.750	2.250	0.500	0.550	\$15.65
BS-25001875-375	1.875	2.375	0.375	0.413	\$13.16
BS-25002000	2.000	2.500	0.250	0.275	\$13.91
BS-25002000-312	2.000	2.500	0.312	0.343	\$14.53
BS-25002000-341	2.000	2.500	0.341	0.375	\$14.93
BS-25002000-375	2.000	2.500	0.375	0.413	\$15.34
BS-25002000-781	2.000	2.500	0.781	0.859	\$25.54
BS-25002250-341	2.250	2.750	0.341	0.375	\$18.18
BS-25002250-375	2.250	2.750	0.375	0.413	\$17.16
BS-25002375-375	2.375	2.875	0.375	0.413	\$13.60
BS-25002500	2.500	3.000	0.250	0.275	\$16.69
BS-25002500-284	2.500	3.000	0.284	0.312	\$16.81
BS-25002500-375	2.500	3.000	0.375	0.413	\$18.27
BS-25002625-375	2.625	3.125	0.375	0.413	\$24.09
BS-25002625-500	2.625	3.125	0.500	0.550	\$26.28
BS-25002750-375	2.750	3.250	0.375	0.413	\$19.35
BS-25002875-375	2.875	3.375	0.375	0.413	\$21.10
BS-25003000-375	3.000	3.500	0.375	0.413	\$20.45
BS-25003000-625	3.000	3.500	0.625	0.688	\$22.79
BS-25003000-705	3.000	3.500	0.705	0.776	\$47.40
BS-25003000-781	3.000	3.500	0.781	0.859	\$26.81
BS-25003250-375	3.250	3.750	0.375	0.413	\$22.13
BS-25003375-375	3.375	3.875	0.375	0.413	\$24.83
BS-25003500-312	3.500	4.000	0.312	0.343	\$25.85
BS-25003500-375	3.500	4.000	0.375	0.413	\$22.60
BS-25003625-375	3.625	4.125	0.375	0.413	\$23.74
BS-25003750-375	3.750	4.250	0.375	0.413	\$20.27
BS-25003750-500	3.750	4.250	0.500	0.550	\$21.06
BS-25003750-562	3.750	4.250	0.562	0.618	\$28.49
BS-25003875-375	3.875	4.375	0.375	0.413	\$29.01
BS-25004000-312	4.000	4.500	0.312	0.343	\$24.24
BS-25004000-375	4.000	4.500	0.375	0.413	\$29.00
BS-25004000-562	4.000	4.500	0.562	0.618	\$31.38

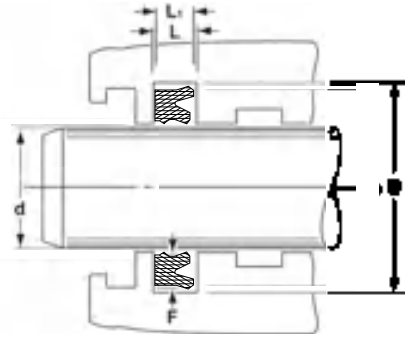
**BS Type Urethane Rod U-Cups - Inch, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
BS-25004000-705	4.000	4.500	0.705	0.776	\$61.99
BS-25004000-781	4.000	4.500	0.781	0.859	\$32.44
BS-25004250-562	4.250	4.750	0.562	0.618	\$49.50
BS-25004375-375	4.375	4.875	0.375	0.413	\$41.99
BS-25004500-375	4.500	5.000	0.375	0.413	\$31.47
BS-25004500-562	4.500	5.000	0.562	0.618	\$35.95
BS-25004750-625	4.750	5.250	0.625	0.688	\$34.58
BS-25004875-375	4.875	5.375	0.375	0.413	\$44.18
BS-25005000-375	5.000	5.500	0.375	0.413	\$35.97
BS-25005000-562	5.000	5.500	0.562	0.618	\$41.82
BS-25005000-705	5.000	5.500	0.705	0.776	\$67.06
BS-25005000-781	5.000	5.500	0.781	0.859	\$36.12
BS-25005125-562	5.125	5.625	0.562	0.618	\$47.08
BS-25005375-625	5.375	5.875	0.625	0.688	\$47.19
BS-25005500-375	5.500	6.000	0.375	0.413	\$40.32
BS-25005500-562	5.500	6.000	0.562	0.618	\$47.83
BS-25005625-375	5.625	6.125	0.375	0.413	\$63.20
BS-25006000-562	6.000	6.500	0.562	0.618	\$52.67
BS-25006000-705	6.000	6.500	0.705	0.776	\$93.37
BS-25006000-781	6.000	6.500	0.781	0.859	\$41.01
BS-25006375-375	6.375	6.875	0.375	0.413	\$52.71
BS-25006500-375	6.500	7.000	0.375	0.413	\$62.54
BS-25007000-562	7.000	7.500	0.562	0.618	\$61.27
BS-25007000-781	7.000	7.500	0.781	0.859	\$55.84
BS-25007250-375	7.250	7.750	0.375	0.413	\$60.22
BS-25007500-375	7.500	8.000	0.375	0.413	\$73.91
BS-25008000-375	8.000	8.500	0.375	0.413	\$75.42
BS-25008000-562	8.000	8.500	0.562	0.618	\$77.27
BS-25008125-781	8.125	8.625	0.781	0.859	\$67.04
BS-25008500-375	8.500	9.000	0.375	0.413	\$82.02
BS-25009000-562	9.000	9.500	0.562	0.618	\$83.20
BS-25009375-781	9.375	9.875	0.781	0.859	\$60.31
BS-25010000-562	10.000	10.500	0.562	0.618	\$90.61
<b>.258" CROSS SECTION ("F")</b>					
BS-25802735-312	2.735	3.250	0.312	0.343	\$28.99
<b>.266" CROSS SECTION ("F")</b>					
BS-26605000-557	5.000	5.531	0.557	0.613	\$41.04
BS-26606000-562	6.000	6.531	0.562	0.618	\$51.70
<b>5/16" CROSS SECTION ("F")</b>					
BS-31201125-397	1.125	1.750	0.397	0.437	\$12.56
BS-31201250-397	1.250	1.875	0.397	0.437	\$11.51
BS-31201375-397	1.375	2.000	0.397	0.437	\$11.22
BS-31201500-375	1.500	2.125	0.375	0.413	\$11.88
BS-31201500-397	1.500	2.125	0.397	0.437	\$15.30
BS-31201750-437	1.750	2.375	0.437	0.481	\$15.40

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/16" CROSS SECTION ("F")</b>					
BS-31201875-397	1.875	2.500	0.397	0.437	\$17.83
BS-31202000	2.000	2.625	0.312	0.343	\$15.71
BS-31202000-397	2.000	2.625	0.397	0.437	\$15.71
BS-31202000-500	2.000	2.625	0.500	0.550	\$16.49
BS-31202250-500	2.250	2.875	0.500	0.550	\$27.47
BS-31202500-500	2.500	3.125	0.500	0.550	\$19.82
BS-31202625-625	2.625	3.250	0.625	0.688	\$25.61
BS-31202750-375	2.750	3.375	0.375	0.413	\$18.27
BS-31202750-500	2.750	3.375	0.500	0.550	\$20.07
BS-31202750-805	2.750	3.375	0.805	0.886	\$33.16
BS-31203000-500	3.000	3.625	0.500	0.550	\$21.28
BS-31203250-500	3.250	3.875	0.500	0.550	\$24.83
BS-31203375-594	3.375	4.000	0.594	0.653	\$27.80
BS-31203500-500	3.500	4.125	0.500	0.550	\$24.97
BS-31204000-375	4.000	4.625	0.375	0.413	\$22.46
BS-31204000-500	4.000	4.625	0.500	0.550	\$34.61
BS-31204500-500	4.500	5.125	0.500	0.550	\$36.33
BS-31204500-625	4.500	5.125	0.625	0.688	\$42.20
BS-31204625-625	4.625	5.250	0.625	0.688	\$42.16
BS-31205000-500	5.000	5.625	0.500	0.550	\$41.17
BS-31205375-625	5.375	6.000	0.625	0.688	\$60.09
BS-31205500	5.500	6.125	0.312	0.343	\$62.34
<b>3/8" CROSS SECTION ("F")</b>					
BS-37502000-625	2.000	2.750	0.625	0.688	\$24.43
BS-37502250-511	2.250	3.000	0.511	0.562	\$29.17
BS-37502500-625	2.500	3.250	0.625	0.688	\$29.78
BS-37502750-625	2.750	3.500	0.625	0.688	\$32.58
BS-37503000-625	3.000	3.750	0.625	0.688	\$30.42
BS-37503500-625	3.500	4.250	0.625	0.688	\$31.87
BS-37504000-500	4.000	4.750	0.500	0.550	\$35.53
BS-37504000-625	4.000	4.750	0.625	0.688	\$34.54
BS-37504250-625	4.250	5.000	0.625	0.688	\$37.56
BS-37504500-625	4.500	5.250	0.625	0.688	\$42.95
BS-37505000-500	5.000	5.750	0.500	0.550	\$67.07
BS-37505000-625	5.000	5.750	0.625	0.688	\$68.32
BS-37505500-625	5.500	6.250	0.625	0.688	\$47.74
BS-37506000-625	6.000	6.750	0.625	0.688	\$48.28
BS-37506500-625	6.500	7.250	0.625	0.688	\$51.00
BS-37507000-625	7.000	7.750	0.625	0.688	\$55.21
BS-37507750-625	7.750	8.500	0.625	0.688	\$63.65
BS-37508000-625	8.000	8.750	0.625	0.688	\$85.06
BS-37509250-625	9.250	10.000	0.625	0.688	\$96.67
<b>7/16" CROSS SECTION ("F")</b>					
BS-43703875-750	3.875	4.750	0.750	0.825	\$57.59
BS-43705125-500	5.125	6.000	0.500	0.550	\$67.22



# BS Urethane Rod U-Cups - Metric



**ALTERNATIVE SEALS:**

Rod: UNRR, BD, BS-B, UCH, MA30, C1, MURH, MA21, MA25, MA35

**EXAMPLE: BS-85X100X12**

Prefix	Inside Diameter		Outside Diameter		Height
BS-	85	x	100	x	12
	85mm		100mm		12mm

The BS series hydraulic rod seal is ideally suited for heavy-duty mobile and stationary service where leakage must be held to an absolute minimum. This unique geometry is highly resistant to side loading and insensitive to pressure spikes. The BS profile reduces or eliminates leakage under severe operating conditions. It also reduces wear and "dry run". Rod lubricant is retained in the cavity formed by the secondary lip providing exceptionally low running friction even at low velocities. Sealing performance is outstanding even at 0 PSI.

Temperature: -50°F to 230°F

Pressure: 0 to 6,000 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BS-6X16X7	6	16	7	8.0	\$17.33
BS-10X15X3.6	10	15	3.6	4.6	\$12.69
BS-12X18X4	12	18	4	5.0	\$12.42
BS-12X18X5.7	12	18	5.7	6.7	\$10.60
BS-12X19X4.5	12	19	4.5	5.5	\$10.65
BS-12X20X5.7	12	20	5.7	6.7	\$11.04
BS-12X22X7	12	22	7.3	8.3	\$11.04
BS-12X22X7.7	12	22	7.7	8.7	\$11.04
BS-12.7X18X5.5	12.7	18	5.5	6.5	\$11.04
BS-13X20X4.5	13	20	4.5	5.5	\$11.25
BS-14X21X5.1	14	21	5.1	6.1	\$11.46
BS-14X22X5.7	14	22	5.7	6.7	\$9.23
BS-14X24X7.3	14	24	7.3	8.3	\$11.24
BS-15.37X25.48X6.35	15.37	25.48	6.3	7.3	\$11.56
BS-15.9X22.9X5.1	15.9	22.9	5.1	6.1	\$12.03
BS-16X22X4.5	16	22	4.5	5.5	\$12.14
BS-16X22X5	16	22	5	6.0	\$12.92
BS-16X24X5.7	16	24	5.7	6.7	\$14.21
BS-16X26X7.3	16	26	7	8.0	\$14.21
BS-16X26X7.7	16	26	7.7	8.7	\$11.87
BS-16X26X8	16	26	8	9.0	\$10.35
BS-18X24X4.9	18	24	4.9	5.9	\$10.27
BS-18X25X4.5	18	25	4.5	5.5	\$9.68
BS-18X25X5	18	25	5	6.0	\$11.63
BS-18X25.5X2.8	18	25.5	2.8	3.8	\$11.88
BS-18X26X5	18	26	5	6.0	\$9.62
BS-18X26X5.7	18	26	5.7	6.7	\$9.91
BS-18X26X6	18	26	6	7.0	\$12.93
BS-18X28X7.7	18	28	7.7	8.7	\$12.47
BS-20X25X3.2	20	25	3.2	4.2	\$10.90
BS-20X26X5	20	26	5	6.0	\$10.14

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BS-20X28X5	20	28	5	6.0	\$10.17
BS-20X28X5.7	20	28	5.7	6.7	\$11.55
BS-20X30X6	20	30	6	7.0	\$10.17
BS-20X30X7.7	20	30	7.7	8.7	\$12.11
BS-20X30X8	20	30	8	9.0	\$14.08
BS-20X30X10	20	30	10	11.0	\$11.62
BS-20X31X3.9	20	31	3.9	4.9	\$12.16
BS-22X30X5.7	22	30	5.7	6.7	\$11.10
BS-22X30X6	22	30	6	7.0	\$13.98
BS-22X30X7	22	30	7	8.0	\$14.10
BS-22X30X7.3	22	30	7.3	8.3	\$15.32
BS-22X32X7	22	32	7	8.0	\$11.44
BS-22X32X7.3	22	32	7.3	8.3	\$11.58
BS-22X32X8	22	32	8	9.0	\$11.53
BS-22X32X10	22	32	10	11.0	\$11.77
BS-22X33X3.8	22	33	3.8	4.8	\$11.82
BS-22.4X30X5	22.4	30	5	6.0	\$10.91
BS-25X33X5	25	33	5	6.0	\$10.14
BS-25X33X5.5	25	33	5.5	6.5	\$11.10
BS-25X33X5.7	25	33	5.7	6.7	\$11.10
BS-25X33X6	25	33	6	7.0	\$11.12
BS-25X33X6.5	25	33	6.5	7.5	\$11.28
BS-25X33X6.8	25	33	6.8	7.8	\$11.35
BS-25X33X10	25	33	10	11.0	\$11.42
BS-25X35X7.3	25	35	7.3	8.3	\$10.51
BS-25X35X7.7	25	35	7.7	8.7	\$12.21
BS-25X35X8	25	35	8	9.0	\$15.85
BS-25X35X10	25	35	10	11.0	\$12.21
BS-25X36X3.9	25	36	3.9	4.9	\$13.16
BS-25X37X10	25	37	10	11.0	\$12.69
BS-25X40X10	25	40	10	11.0	\$12.23

**BS Urethane Rod U-Cups - Metric, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BS-25.4X32.9X2.8	25.4	32.9	2.8	3.8	\$10.75
BS-26X36X7	26	36	7	8.0	\$11.25
BS-28X35.5X5	28	35.5	5	6.0	\$11.67
BS-28X36X5.7	28	36	5.7	6.7	\$12.02
BS-28X38X7	28	38	7	8.0	\$12.11
BS-28X38X8	28	38	8	9.0	\$12.13
BS-28X39X3.9	28	39	3.9	4.9	\$12.40
BS-28X43X11.4	28	43	11.4	12.4	\$12.23
BS-30X38X5.7	30	38	5.7	6.7	\$12.24
BS-30X38X6.3	30	38	6.3	7.3	\$12.24
BS-30X40X6	30	40	6	7.0	\$12.24
BS-30X40X7	30	40	7	8.0	\$10.35
BS-30X40X8	30	40	8	9.0	\$16.05
BS-30X40X10	30	40	10	11.0	\$12.66
BS-30X41X3.8	30	41	3.8	4.8	\$12.58
BS-30X42X10.9	30	42	10.9	11.9	\$13.19
BS-30X45X10	30	45	10	11.0	\$13.24
BS-30X50X10	30	50	10	11.0	\$15.16
BS-32X39.5X3.2	32	39.5	3.2	4.2	\$10.44
BS-32X40X6	32	40	6	7.0	\$10.58
BS-32X40X6.7	32	40	6.7	7.7	\$12.38
BS-32X40X7.7	32	40	7.7	8.7	\$12.25
BS-32X40X8	32	40	8	9.0	\$12.47
BS-32X41.53X7.9	32	41.53	7.9	8.9	\$12.51
BS-32X42X5.7	32	42	5.7	6.7	\$11.58
BS-32X42X7.3	32	42	7.3	8.3	\$12.80
BS-32X42X10	32	42	10	11.0	\$12.80
BS-32X43X3.9	32	43	3.9	4.9	\$12.72
BS-32X45X10	32	45	10	11.0	\$13.18
BS-32X47X9.1	32	47	9.1	10.1	\$13.26
BS-32X47X10	32	47	10	11.0	\$13.26
BS-32X48X10	32	48	10	11.0	\$13.36
BS-35X43X5.7	35	43	5.7	6.7	\$11.28
BS-35X43X6.3	35	43	6.3	7.3	\$11.42
BS-35X43X7	35	43	7	8.0	\$11.42
BS-35X43X8.2	35	43	8.2	9.2	\$12.17
BS-35X45X6	35	45	6	7.0	\$12.34
BS-35X45X8	35	45	8	9.0	\$13.77
BS-35X45X10	35	45	10	11.0	\$12.19
BS-35X50X9	35	50	9	10.0	\$13.73
BS-35X50X10	35	50	10	11.0	\$13.73
BS-36X44X6	36	44	6	7.0	\$11.56
BS-36X44X8.2	36	44	8.2	9.2	\$12.39
BS-36X46X6	36	46	6	7.0	\$12.45
BS-36X46X7.3	36	46	7.3	8.3	\$12.11
BS-36X46X10	36	46	10	11.0	\$12.80
BS-36X47X3.9	36	47	3.9	4.9	\$12.93
BS-36X51X10	36	51	10	11.0	\$12.93
BS-36X52X10	36	52	10	11.0	\$13.33
BS-36X56X12	36	56	12	13.0	\$24.66
BS-37X47X8	37	47	8	9.0	\$13.69
BS-38X48X9	38	48	9	10.0	\$13.86
BS-38X48X10	38	48	10	11.0	\$14.03
BS-38X50X10	38	50	10	11.0	\$13.84
BS-38X53X10	38	53	10	11.0	\$14.00

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BS-40X48X5.7	40	48	5.7	6.7	\$13.95
BS-40X48X8.2	40	48	8.2	9.2	\$13.42
BS-40X49.52X9.5	40	49.52	9.5	10.5	\$14.20
BS-40X50X6	40	50	6	7.0	\$13.09
BS-40X50X7	40	50	7	8.0	\$15.11
BS-40X50X7.3	40	50	7.3	8.3	\$16.14
BS-40X50X10	40	50	10	11.0	\$17.41
BS-40X52X10.9	40	52	10.9	11.9	\$13.40
BS-40X55X7.3	40	55	7.3	8.3	\$18.43
BS-40X55X9	40	55	9	10.0	\$13.21
BS-40X55X10	40	55	10	11.0	\$15.47
BS-40X55X11.5	40	55	11.5	12.5	\$17.48
BS-40X55.5X6	40	55.5	6	7.0	\$15.57
BS-40X60X11.5	40	60	11.5	12.5	\$16.05
BS-42X50X7.5	42	50	7.5	8.5	\$11.99
BS-42X52X10	42	52	10	11.0	\$12.75
BS-45X53X5.6	45	53	5.6	6.6	\$14.10
BS-45X53X8.1	45	53	8.1	9.1	\$13.51
BS-45X53X11.5	45	53	11.5	12.5	\$14.85
BS-45X53X11.8	45	53	11.8	12.8	\$13.01
BS-45X55X5.6	45	55	5.6	6.6	\$14.12
BS-45X55X7	45	55	7	8.0	\$12.40
BS-45X55X7.3	45	55	7.3	8.3	\$13.50
BS-45X55X10	45	55	10	11.0	\$15.96
BS-45X56X3.9	45	56	3.9	4.9	\$15.12
BS-45X57.7X9.5	45	57.7	9.5	10.5	\$15.38
BS-45X60X10	45	60	10	11.0	\$15.29
BS-45X60X11.5	45	60	11.5	12.5	\$15.59
BS-45X60.5X6	45	60.5	6	7.0	\$15.68
BS-45X65X10	45	65	10	11.0	\$17.32
BS-48X60X10	48	60	10	11.0	\$13.30
BS-50X57X9	50	57	9	10.0	\$14.78
BS-50X60X6	50	60	6	7.0	\$14.02
BS-50X60X7.3	50	60	7.3	8.3	\$14.86
BS-50X60X10	50	60	10	11.0	\$15.03
BS-50X60X11.8	50	60	11.8	12.8	\$14.46
BS-50X62.7X9.5	50	62.7	9.5	10.5	\$15.94
BS-50X63X10	50	63	10	11.0	\$15.18
BS-50X65X9	50	65	9	10.0	\$13.56
BS-50X65X9.5	50	65	9.5	10.5	\$17.32
BS-50X65X10	50	65	10	11.0	\$15.12
BS-50X65X10.9	50	65	10.9	11.9	\$18.95
BS-50X65X14.5	50	65	14.5	15.5	\$18.75
BS-50X65.5X6	50	65.5	6	7.0	\$15.94
BS-50X70X12	50	70	12	13.0	\$18.13
BS-55X63X11.4	55	63	11.4	12.4	\$18.19
BS-55X65X6	55	65	6	7.0	\$14.64
BS-55X65X8.2	55	65	8.2	9.2	\$14.59
BS-55X65X10	55	65	10	11.0	\$14.82
BS-55X65X11.8	55	65	11.8	12.8	\$13.31
BS-55X68X10	55	68	10	11.0	\$15.47
BS-55X70X9	55	70	9	10.0	\$15.47
BS-55X70X12	55	70	12	13.0	\$18.03
BS-55X75X12	55	75	12	13.0	\$20.43
BS-56X66X8	56	66	8	9.0	\$20.77

BS Urethane Rod U-Cups - Metric, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BS-56X66X10	56	66	10	11.0	\$19.40
BS-56X71X10	56	71	10	11.0	\$17.88
BS-56X71X11.4	56	71	11.4	12.4	\$19.29
BS-56X71.5X6	56	71.5	6	7.0	\$21.04
BS-56X76X12	56	76	12	13.0	\$18.69
BS-60X68X8	60	68	8	9.0	\$16.55
BS-60X68X11.4	60	68	11.4	12.4	\$17.44
BS-60X70X6	60	70	6	7.0	\$17.44
BS-60X70X7	60	70	7	8.0	\$13.38
BS-60X70X10	60	70	10	11.0	\$18.64
BS-60X70X11.5	60	70	11.5	12.5	\$16.87
BS-60X70X12	60	70	12	13.0	\$20.80
BS-60X70.6X3.9	60	70.6	3.9	4.9	\$17.71
BS-60X71X7	60	71	7	8.0	\$17.32
BS-60X72X10	60	72	10	11.0	\$16.88
BS-60X73X10	60	73	10	11.0	\$19.52
BS-60X75X6	60	75	6	7.0	\$19.33
BS-60X75X9	60	75	9	10.0	\$15.79
BS-60X75X10	60	75	10	11.0	\$17.95
BS-60X75X11.8	60	75	11.8	12.8	\$24.73
BS-60X75X12	60	75	12	13.0	\$27.44
BS-60X75X20.5	60	75	20.5	21.5	\$29.47
BS-60X80X11.4	60	80	11.4	12.4	\$34.43
BS-60X80X12	60	80	12	13.0	\$26.49
BS-63X73X6	63	73	6	7.0	\$18.28
BS-63X73X11.8	63	73	11.8	12.8	\$19.43
BS-63X73X12	63	73	12	13.0	\$21.95
BS-63X78X10	63	78	10	11.0	\$18.47
BS-63X78X11.4	63	78	11.4	12.4	\$18.98
BS-63X78.5X6	63	78.5	6	7.0	\$19.36
BS-63X83X12	63	83	12	13.0	\$19.48
BS-65X75X6	65	75	6	7.0	\$14.09
BS-65X75X7.7	65	75	7.7	8.7	\$14.16
BS-65X75X11.5	65	75	11.5	12.5	\$18.39
BS-65X75X11.8	65	75	11.8	12.8	\$16.43
BS-65X77X9	65	77	9	10.0	\$18.63
BS-65X77.7X9.5	65	77.7	9.5	10.5	\$20.79
BS-65X78X10	65	78	10	11.0	\$21.85
BS-65X80X9	65	80	9	10.0	\$21.96
BS-65X80X12	65	80	12	13.0	\$21.39
BS-65X80.5X6	65	80.5	6	7.0	\$21.85
BS-65X85X12	65	85	12	13.0	\$26.07
BS-67X77X6	67	77	6	7.0	\$19.20
BS-70X80X6	70	80	6	7.0	\$15.93
BS-70X80X11.5	70	80	11.5	12.5	\$20.39
BS-70X82X8.7	70	82	8.7	9.7	\$18.90
BS-70X82X10	70	82	10	11.0	\$18.90
BS-70X83X10	70	83	10	11.0	\$18.82
BS-70X85X9	70	85	9	10.0	\$16.57
BS-70X85X10	70	85	10	11.0	\$18.95
BS-70X85X11.4	70	85	11.4	12.4	\$20.35
BS-70X85X12	70	85	12	13.0	\$19.81
BS-70X85X20.5	70	85	20.5	21.5	\$23.06
BS-70X85.5X6	70	85.5	6	7.0	\$21.85
BS-70X90X12	70	90	12	13.0	\$25.10

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BS-75X83X11.4	75	83	11.4	12.4	\$20.66
BS-75X85X6	75	85	6	7.0	\$15.97
BS-75X85X11.5	75	85	11.5	12.5	\$19.00
BS-75X85X12	75	85	12	13.0	\$21.28
BS-75X88X10	75	88	10	11.0	\$20.88
BS-75X90X9	75	90	9	10.0	\$17.31
BS-75X90X12	75	90	12	13.0	\$20.46
BS-75X95X12	75	95	12	13.0	\$21.47
BS-77X87X12	77	87	12	13.0	\$21.71
BS-78X86X9	78	86	9	10.0	\$21.29
BS-80X90X6	80	90	6	7.0	\$16.83
BS-80X90X9	80	90	9	10.0	\$19.53
BS-80X90X10	80	90	10	11.0	\$21.52
BS-80X90X11.8	80	90	11.8	12.8	\$25.21
BS-80X90X12	80	90	12	13.0	\$21.96
BS-80X92X9	80	92	9	10.0	\$25.65
BS-80X93X10	80	93	10	11.0	\$24.47
BS-80X95X9	80	95	9	10.0	\$18.80
BS-80X95X10	80	95	10	11.0	\$23.56
BS-80X95X11.5	80	95	11.5	12.5	\$23.56
BS-80X95X12	80	95	12	13.0	\$23.06
BS-80X95.5X6	80	95.5	6	7.0	\$23.06
BS-80X100X12	80	100	12	13.0	\$33.85
BS-80X100X14.5	80	100	14.5	15.5	\$34.10
BS-80X100X15	80	100	15	16.0	\$33.85
BS-80X110X16.4	80	110	16.4	17.4	\$50.57
BS-85X93X10	85	93	10	11.0	\$21.16
BS-85X93X11	85	93	11	12.0	\$19.38
BS-85X93X11.5	85	93	11.5	12.5	\$20.49
BS-85X95X12	85	95	12	13.0	\$21.91
BS-85X100X9	85	100	9	10.0	\$22.71
BS-85X100X10	85	100	10	11.0	\$26.89
BS-85X100X12	85	100	12	13.0	\$28.88
BS-85X105X12	85	105	12	13.0	\$29.51
BS-88.9X98.9X6.8	88.9	98.9	6.8	7.8	\$30.14
BS-90X98X11.4	90	98	11.4	12.4	\$31.92
BS-90X100X6.8	90	100	6.8	7.8	\$21.36
BS-90X100X9	90	100	9	10.0	\$21.58
BS-90X100X10	90	100	10	11.0	\$24.98
BS-90X100X11.5	90	100	11.5	12.5	\$24.98
BS-90X100X11.8	90	100	11.8	12.8	\$24.20
BS-90X102X8.7	90	102	8.7	9.7	\$25.28
BS-90X105X9	90	105	9	10.0	\$26.47
BS-90X105X10	90	105	10	11.0	\$26.47
BS-90X105X11.4	90	105	11.4	12.4	\$26.26
BS-90X105X12	90	105	12	13.0	\$27.39
BS-90X105.5X5.6	90	105.5	5.6	6.6	\$26.89
BS-90X110X10	90	110	10	11.0	\$27.39
BS-90X110X12	90	110	12	13.0	\$26.49
BS-95X103X11.5	95	103	11.5	12.5	\$33.71
BS-95X105X12	95	105	12	13.0	\$30.98
BS-95X110X9	95	110	9	10.0	\$27.40
BS-95X110X10	95	110	10	11.0	\$27.40
BS-95X110X12	95	110	12	13.0	\$27.62
BS-95X110.5X5.6	95	110.5	5.6	6.6	\$27.40



### BS Urethane Rod U-Cups - Metric, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BS-95X115X12	95	115	12	13.0	\$27.81
BS-96X104X10.9	96	104	10.9	11.9	\$25.99
BS-100X108X8	100	108	8	9.0	\$40.32
BS-100X108X11.4	100	108	11.4	12.4	\$28.00
BS-100X110X10.9	100	110	10.9	11.9	\$28.12
BS-100X115X9	100	115	9	10.0	\$31.12
BS-100X115X10	100	115	10	11.0	\$29.20
BS-100X115X12	100	115	12	13.0	\$33.19
BS-100X115.5X6	100	115.5	6	7.0	\$31.12
BS-100X120X11.5	100	120	11.5	12.5	\$45.32
BS-100X120X12	100	120	12	13.0	\$42.99
BS-100X120X14.5	100	120	14.5	15.5	\$43.71
BS-100X125X15	100	125	15	16.0	\$44.18
BS-101.6X116.6X9.6	101.6	116.6	9.6	10.6	\$46.60
BS-105X113X10	105	113	10	11.0	\$27.93
BS-105X113X11.5	105	113	11.5	12.5	\$36.25
BS-105X115X11.5	105	115	11.5	12.5	\$31.74
BS-105X115X13.2	105	115	13.2	14.2	\$33.85
BS-105X120X10	105	120	10	11.0	\$30.55
BS-105X120X14.5	105	120	14.5	15.5	\$39.04
BS-108X123X10.9	108	123	10.9	11.9	\$37.37
BS-110X118X11.4	110	118	11.4	12.4	\$33.64
BS-110X125X9	110	125	9	10.0	\$34.85
BS-110X125X11	110	125	11	12.0	\$40.10
BS-110X125X14.5	110	125	14.5	15.5	\$54.88
BS-110X130X12	110	130	12	13.0	\$59.11
BS-110X130X14.5	110	130	14.5	15.5	\$60.69
BS-110X130X15	110	130	15	16.0	\$51.21
BS-110X135X14.5	110	135	14.5	15.5	\$63.22
BS-112X125X9	112	125	9	10.0	\$37.07
BS-115X123X12.5	115	123	12.5	13.5	\$43.62
BS-115X125X11.8	115	125	11.8	12.8	\$40.49
BS-115X125X14	115	125	14	15.0	\$44.62
BS-115X130X9	115	130	9	10.0	\$35.65
BS-115X130X10.9	115	130	10.9	11.9	\$44.01
BS-115X130X14.5	115	130	14.5	15.5	\$46.94
BS-118X126X11.5	118	126	11.5	12.5	\$39.79
BS-118X126X13.2	118	126	13.2	14.2	\$39.78
BS-120X128X11.4	120	128	11.4	12.4	\$43.21
BS-120X130X10.9	120	130	10.9	11.9	\$44.82
BS-120X130X11.5	120	130	11.5	12.5	\$37.19
BS-120X135X9	120	135	9	10.0	\$44.08
BS-120X135X15	120	135	15	16.0	\$50.56
BS-120X140X12	120	140	12	13.0	\$50.39
BS-120X140X14.5	120	140	14.5	15.5	\$58.85
BS-120X140X15	120	140	15	16.0	\$63.61
BS-125X133X10	125	133	10	11.0	\$48.44
BS-125X140X9	125	140	9	10.0	\$51.61
BS-125X145X12	125	145	12	13.0	\$52.75
BS-125X145X14.5	125	145	14.5	15.5	\$62.38
BS-125X150X12.5	125	150	12.5	13.5	\$67.58
BS-125X150X14	125	150	14	15.0	\$67.58
BS-127X142X9.6	127	142	9.6	10.6	\$55.50
BS-130X140X14.5	130	140	14.5	15.5	\$54.76
BS-130X145X9	130	145	9	10.0	\$47.99

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BS-130X145X12	130	145	12	13.0	\$45.12
BS-130X150X12	130	150	12	13.0	\$55.56
BS-130X150X14.5	130	150	14.5	15.5	\$65.35
BS-130X150X15	130	150	15	16.0	\$57.02
BS-132X142X8.6	132	142	8.6	9.6	\$48.04
BS-132.5X157.5X13.2	132.5	157.5	13.2	14.2	\$67.85
BS-135X150X11	135	150	11	12.0	\$65.06
BS-135X150X11.5	135	150	11.5	12.5	\$50.60
BS-140X150X10.9	140	150	10.9	11.9	\$59.70
BS-140X150X11.5	140	150	11.5	12.5	\$60.73
BS-140X155X9	140	155	9	10.0	\$50.41
BS-140X155.5X6	140	155.5	6	7.0	\$55.90
BS-140X160X12	140	160	12	13.0	\$58.17
BS-140X160X14.5	140	160	14.5	15.5	\$60.54
BS-140X160X15	140	160	15	16.0	\$60.99
BS-140X170X18	140	170	18	19.0	\$72.16
BS-145X175X15	145	175	15	16.0	\$76.94
BS-150X160X11	150	160	11	12.0	\$54.25
BS-150X165X9	150	165	9	10.0	\$76.94
BS-150X170X12	150	170	12	13.0	\$66.90
BS-150X170X13.2	150	170	13.2	14.2	\$77.20
BS-150X170X14.5	150	170	14.5	15.5	\$64.07
BS-150X170X15	150	170	15	16.0	\$77.20
BS-150X180X18	150	180	18	19.0	\$79.44
BS-151X159X9	151	159	9	10.0	\$76.94
BS-155X170X14.5	155	170	14.5	15.5	\$63.85
BS-160X168X11.5	160	168	11.5	12.5	\$81.25
BS-160X170X11.5	160	170	11.5	12.5	\$65.62
BS-160X175X9	160	175	9	10.0	\$66.96
BS-160X175X11	160	175	11	12.0	\$82.48
BS-160X175.5X6	160	175.5	6	7.0	\$76.04
BS-160X180X12	160	180	12	13.0	\$72.74
BS-160X180X14.5	160	180	14.5	15.5	\$83.90
BS-160X180X15	160	180	15	16.0	\$83.90
BS-160X185X15	160	185	15	16.0	\$102.54
BS-160X185X18.2	160	185	18.2	19.2	\$104.20
BS-165X180X9	165	180	9	10.0	\$97.77
BS-170X190X14.5	170	190	14.5	15.5	\$90.16
BS-170X200X15	170	200	15	16.0	\$100.58
BS-170X200X16.5	170	200	16.5	17.5	\$107.66
BS-170X200X18	170	200	18	19.0	\$112.26
BS-180X200X11.8	180	200	11.8	12.8	\$93.86
BS-180X200X14.5	180	200	14.5	15.5	\$88.09
BS-180X200X15	180	200	15	16.0	\$98.54
BS-185X200X10.9	185	200	10.9	11.9	\$93.86
BS-190X210X15	190	210	15	16.0	\$102.53
BS-200X220X12	200	220	12	13.0	\$102.02
BS-200X220X14.5	200	220	14.5	15.5	\$103.90
BS-200X220X15	200	220	15	16.0	\$116.06
BS-205X220X12.2	205	220	12.2	13.2	\$107.05
BS-210X230X15	210	230	15	16.0	\$98.07
BS-220X240X14.5	220	240	14.5	15.5	\$112.70
BS-220X250X18	220	250	18	19.0	\$149.02
BS-240X260X15	240	260	15	16.0	\$120.63

**BSLL Loaded Lip Urethane Rod U-Cups - Inch**



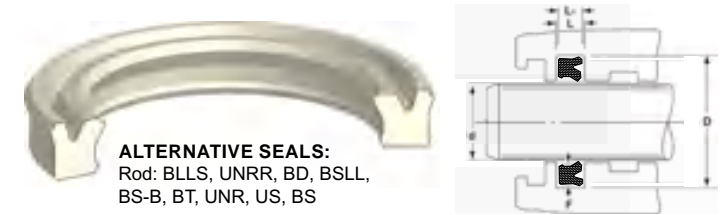
EXAMPLE: BSLL-18701000-250				
Prefix	Cross Section	Inside Diameter	Height	
BSLL-	187	01000	-	250
	3/16"	1"		1/4"

The BSLL type polyurethane loaded rod seal has twin lips that offer dry rod, low friction sealing. This seal is easily installed and the nitrile expander ensures complete actuation under all pressure conditions. Styles with an asterisk (\*) have a specially designed expander while the others have an o-ring. Parts with the suffix 43 are made from high temperature urethane.

Temperature: -50°F to 230°F      Pressure: 0 to 6,000 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
BSLL-12500312-187 43	0.312	0.562	0.187	0.206	\$20.87
BSLL-12500625-175	0.625	0.875	0.175	0.193	\$12.86
BSLL-12500625-250	0.625	0.875	0.250	0.275	\$12.86
BSLL-12500750-187	0.750	1.000	0.187	0.206	\$12.58
BSLL-12500750-250	0.750	1.000	0.250	0.275	\$13.78
BSLL-12500875-187	0.875	1.125	0.187	0.206	\$11.84
BSLL-12501000-187	1.000	1.250	0.187	0.206	\$14.53
BSLL-12501000-250	1.000	1.250	0.250	0.275	\$15.65
BSLL-12501125-250	1.125	1.375	0.250	0.275	\$16.22
BSLL-12501250-187	1.250	1.500	0.187	0.206	\$16.38
BSLL-12501250-250	1.250	1.500	0.250	0.275	\$16.43
<b>3/16" CROSS SECTION ("F")</b>					
BSLL-18701000-250	1.000	1.375	0.250	0.275	\$15.25
BSLL-18701000-312	1.000	1.375	0.312	0.343	\$15.85
BSLL-18701000N312 43	1.000	1.375	0.312	0.343	\$21.79
BSLL-18701125-250	1.125	1.500	0.250	0.275	\$16.63
BSLL-18701125-312	1.125	1.500	0.312	0.343	\$16.32
BSLL-18701250-312	1.250	1.625	0.312	0.343	\$19.48
BSLL-18701250-312 43	1.250	1.625	0.312	0.343	\$19.49
BSLL-18701375-311	1.375	1.750	0.312	0.343	\$19.36
BSLL-18701500-312	1.500	1.875	0.312	0.343	\$21.44
BSLL-18701500-375	1.500	1.875	0.375	0.413	\$20.20
BSLL-18701750-375	1.750	2.125	0.375	0.413	\$21.12
<b>1/4" CROSS SECTION ("F")</b>					
BSLL-25001500-375	1.500	2.000	0.375	0.413	\$21.27
BSLL-25001750-375	1.750	2.250	0.375	0.413	\$24.89
BSLL-25002000-375	2.000	2.500	0.375	0.413	\$24.01
BSLL-25002250-375	2.250	2.750	0.375	0.413	\$27.14
BSLL-25002500-375	2.500	3.000	0.375	0.413	\$31.16
BSLL-25002750-375	2.750	3.250	0.375	0.413	\$32.57
BSLL-25003000-375	3.000	3.500	0.375	0.413	\$36.47
BSLL-25003500-375	3.500	4.000	0.375	0.413	\$43.02
BSLL-25004000-375	4.000	4.500	0.375	0.413	\$45.10
BSLL-25004500-375	4.500	5.000	0.375	0.413	\$49.17

**BT 4300 Urethane Rod U-Cups - Inch**



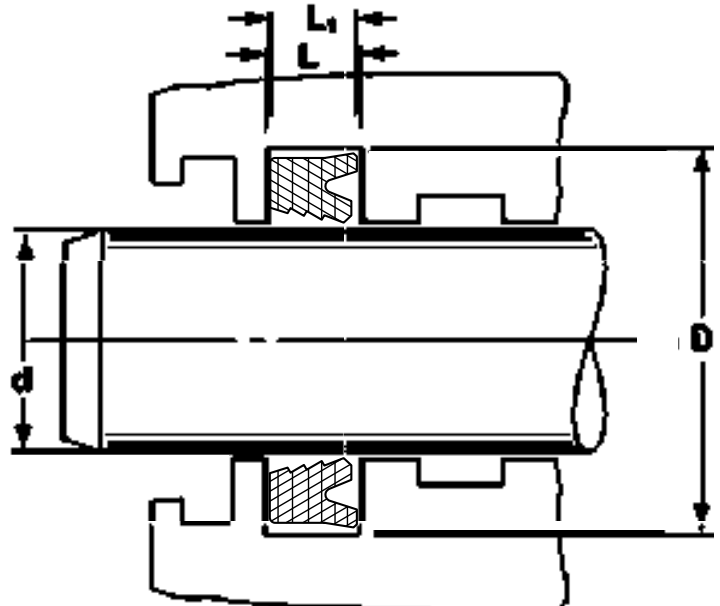
EXAMPLE: BT-25003000-375 4300				
Prefix	Cross Section	Inside Diameter	Height	Suffix
BT-	250	03000	-	375 4300
	1/4"	3"		3/8" Material

The BT series rod seal is a premium hydraulic 90A polyurethane seal. Using Parker's® 4300 proprietary compound, this profile provides shock load resistance and increased sealing performance, even at zero pressure and with one of the highest temperature ranges available in a polyurethane seal. A knife trimmed beveled sealing lip does an excellent job wiping excess fluids from the rod while a secondary sealing lip, located at the base, ensures a stable fit in the gland while providing an enhanced seal.

Temp : -65°F to 275°F      Pressure : 0 to 5000 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/32" CROSS SECTION ("F")</b>					
BT-15601000-219 4300	1.000	1.312	0.219	0.241	\$19.74
BT-15601375-219 4300	1.375	1.687	0.219	0.241	\$19.79
BT-15601375-312 4300	1.375	1.687	0.312	0.343	\$20.72
<b>3/16" CROSS SECTION ("F")</b>					
BT-18701375-312 4300	1.375	1.750	0.312	0.343	\$20.29
BT-18701500-250 4300	1.500	1.875	0.250	0.275	\$22.32
BT-18701750-250 4300	1.750	2.125	0.250	0.275	\$25.11
BT-18701750-375 4300	1.750	2.125	0.375	0.413	\$23.37
<b>7/32" CROSS SECTION ("F")</b>					
BT-21802500-281 4300	2.500	2.937	0.281	0.309	\$35.84
<b>1/4" CROSS SECTION ("F")</b>					
BT-25001750-375 4300	1.750	2.250	0.375	0.413	\$28.14
BT-25002000-375 4300	2.000	2.500	0.375	0.413	\$30.17
BT-25002125-375 4300	2.125	2.625	0.375	0.413	\$30.52
BT-25002250-375 4300	2.250	2.750	0.375	0.413	\$32.18
BT-25002375-375 4300	2.375	2.875	0.375	0.413	\$33.80
BT-25002500-375 4300	2.500	3.000	0.375	0.413	\$37.16
BT-25002750-375 4300	2.750	3.250	0.375	0.413	\$39.50
BT-25003000-375 4300	3.000	3.500	0.375	0.413	\$52.31
BT-25003250-375 4300	3.250	3.750	0.375	0.413	\$53.25
BT-25003500-375 4300	3.500	4.000	0.375	0.413	\$53.76
BT-25003750-375 4300	3.750	4.250	0.375	0.413	\$55.37
BT-25004000-562 4300	4.000	4.500	0.562	0.618	\$57.94
BT-25004750-562 4301	4.750	5.250	0.562	0.618	\$87.29
BT-25005000-562 4300	5.000	5.500	0.562	0.618	\$72.42
BT-25006000-562 4300	6.000	6.500	0.562	0.618	\$103.73
<b>9/32" CROSS SECTION ("F")</b>					
BT-28105000-344 4300	5.000	5.687	0.344	0.378	\$88.88
<b>5/16" CROSS SECTION ("F")</b>					
BT-31204000-375 4300	4.000	4.625	0.375	0.413	\$72.46

# UNRR Ribbed Urethane Rod U-Cups - Inch/Metric



**ALTERNATIVE SEALS:**

Inch: BLLS, BSLL, BS, BT, UNR, US, BD, BS-B  
 Metric: MA30, MA25, BS, BD, BS-B

Style UNRR rod seals are made from 92 A durometer urethane, and are commonly used in industrial cylinders. The serrated inside lip of these seals produce a dry rod with little friction.

Temperature: -60°F to 200°F      Pressure: 0 to 5,000 PSI

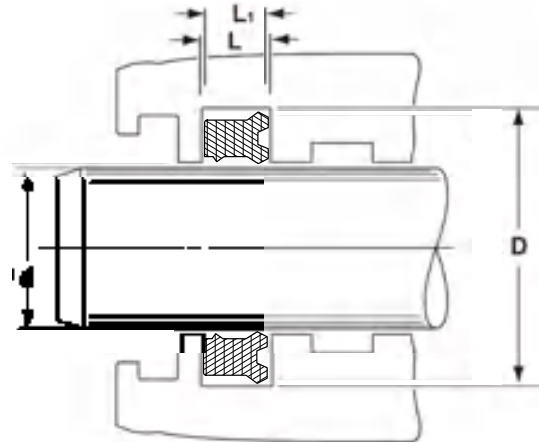
EXAMPLE: UNRR-25003500-330			
Prefix	Cross Section	Inside Diameter	Height
UNRR-	250	03500	- 330
	1/4	3.5"	.330

EXAMPLE: UNRR-90X100X6.5					
Prefix	Inside Diameter	Outside Diameter	Height		
UNRR-	90	x 100	x 6.5		
	90mm	100mm	6.5mm		

Inch					
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
UNRR-12500500-218	0.500	0.750	0.218	0.240	\$24.18
UNRR-12500625-218	0.625	0.875	0.218	0.240	\$17.83
UNRR-15601000-240	1.000	1.312	0.240	0.264	\$18.17
UNRR-15601375-240	1.375	1.687	0.240	0.264	\$23.98
UNRR-18701750-270	1.750	2.125	0.270	0.297	\$30.00
UNRR-18702000-270	2.000	2.375	0.270	0.297	\$35.21
UNRR-21802500-300	2.500	2.937	0.300	0.330	\$36.40
UNRR-21802500-330	2.500	2.937	0.330	0.363	\$38.49
UNRR-21803000-300	3.000	3.437	0.300	0.330	\$39.85
UNRR-25003500-330	3.500	4.000	0.330	0.363	\$58.12
UNRR-25004000-330	4.000	4.500	0.330	0.363	\$69.80
UNRR-25004500-330	4.500	5.000	0.330	0.363	\$68.72
UNRR-28105000-355	5.000	5.562	0.355	0.391	\$61.58

Metric					
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
UNRR-12X19X5	12	19	5	5.5	\$10.78
UNRR-14X21X5	14	21	5	5.5	\$10.90
UNRR-18X25X5	18	25	5	5.5	\$11.01
UNRR-22X29X5	22	29	5	5.5	\$11.11
UNRR-28X36X5.7	28	36	5.7	6.3	\$11.26
UNRR-36X44X5.7	36	44	5.7	6.3	\$11.26
UNRR-45X53X5.7	45	53	5.7	6.3	\$11.40
SLR-48X58X7.3	48	58	7.3	8.0	\$14.13
UNRR-56X66X6.5	56	66	6.5	7.2	\$13.44
UNRR-70X80X6.5	70	80	6.5	7.2	\$15.44
UNRR-90X100X6.5	90	100	6.5	7.2	\$19.32
UNRR-110X125X9.6	110	125	9.6	10.6	\$27.46
UNRR-140X155X9.6	140	155	9.6	10.6	\$34.75

# MA35 Symmetrical Urethane Rod Seals - Metric



**ALTERNATIVE SEALS:**

Rod: UNRR, BD, BS-B, BSLL, MA25, MA30, BS

EXAMPLE: MA35 - 45X52X10					
Prefix	Inside Diameter		Outside Diameter		Height
MA35-	45	x	52	x	10
	45mm		52mm		10mm

This single acting rod seal is commonly used in telescoping cylinders. Made from 94 durometer polyurethane, it has symmetrical lips and an additional sealing lip. This extra lip provides extra stability while improving the sealing effect. It is easily assembled into closed grooves and offers good performance even at low pressures.

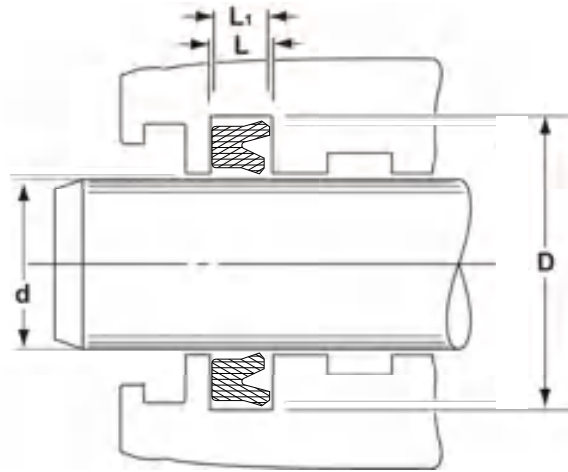
Temperature: -20°F to 212°F

Pressure: ≤ 5,500 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA35-12X20X5.8	12	20	5.8	6.8	\$6.33
MA35-16X24X5.8	16	24	6	7.0	\$6.76
MA35-18X25X5	18	25	5	6.0	\$7.24
MA35-18X26X5.8	18	26	5.8	6.8	\$7.30
MA35-20X30X7	20	30	8	9.0	\$6.72
MA35-22X28X4.5	22	28	4.5	5.5	\$7.84
MA35-22X30X5.8	22	30	5.8	6.8	\$7.70
MA35-22X30X7	22	32	7	8.0	\$7.72
MA35-22X32X8	22	32	8	9.0	\$7.84
MA35-25X33X5.8	25	33	5.8	6.8	\$8.35
MA35-25X35X7	25	35	7	8.0	\$8.17
MA35-25X35X8	25	35	8	9.0	\$8.32
MA35-28X36X5.8	28	36	5.8	6.8	\$9.27
MA35-28X36X6	28	36	6	7.0	\$11.28
MA35-28X38X7	28	38	7	8.0	\$8.48
MA35-30X38X5.8	30	38	5.8	6.8	\$9.65
MA35-30X38X8	30	38	8	9.0	\$8.75
MA35-30X40X6.5	30	40	6.5	7.5	\$8.60
MA35-30X40X10	30	40	10	11.0	\$9.62
MA35-32X42X8	32	42	8	9.0	\$9.30
MA35-35X43X5.8	35	43	5.8	6.8	\$7.98
MA35-35X43X8	35	43	8	9.0	\$9.53
MA35-35X45X7	35	45	7	8.0	\$10.20
MA35-35X45X10	35	45	10	11.0	\$10.27
MA35-35X50X10	35	50	10	11.0	\$9.91
MA35-36X44X5.8	36	44	5.7	6.7	\$10.99
MA35-36X44X8	36	44	8	9.0	\$9.89
MA35-40X48X5.8	40	48	5.8	6.8	\$9.19
MA35-40X50X7	40	50	7	8.0	\$9.89
MA35-40X50X10	40	50	10	11.0	\$10.34
MA35-40X55X10	40	55	10	11.0	\$10.73

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA35-42X52X8	42	52	8	9.0	\$10.36
MA35-45X52X10	45	52	10	11.0	\$21.54
MA35-45X53X8	45	53	8	9.0	\$13.34
MA35-45X55X10	45	55	10	11.0	\$13.34
MA35-46X54X8	46	54	8	9.0	\$10.87
MA35-50X58X8	50	58	8	9.0	\$13.77
MA35-50X60X7	50	60	7	8.0	\$10.98
MA35-50X60X9	50	60	9	10.0	\$11.20
MA35-50X60X10	50	60	10	11.0	\$12.52
MA35-50X65X10	50	65	10	11.0	\$13.15
MA35-55X63X8	55	63	8	9.0	\$12.77
MA35-55X65X10	55	65	10	11.0	\$13.15
MA35-56X66X6.5	56	66	6.5	7.5	\$13.90
MA35-60X68X8	60	68	8	9.0	\$13.73
MA35-60X68X12	60	68	12	13.0	\$15.14
MA35-61X69X8	61	69	8	9.0	\$13.89
MA35-63X71X8	63	71	8	9.0	\$13.99
MA35-70X78X8	70	78	8	9.0	\$14.99
MA35-75X83X8	75	83	8	9.0	\$14.55
MA35-76X84X8	76	84	8	9.0	\$15.93
MA35-78X86X12	78	86	12	13	\$16.29
MA35-88X96X8	88	96	8	9.0	\$17.09
MA35-90X98X8	90	98	8	9.0	\$17.11
MA35-91X99X8	91	99	8	9.0	\$18.85
MA35-97X105X12	97	105	12	13	\$19.56
MA35-100X115X12	100	115	12	13.0	\$19.83
MA35-105X113X8	105	113	8	9.0	\$17.36
MA35-107X115X8	107	115	8	9.0	\$17.96
MA35-120X128X11.5	120	128	11.5	12.5	\$23.10
MA35-126X134X8	126	134	8	9.0	\$27.47

# UNR Urethane Rod U-Cups - Inch



**ALTERNATIVE SEALS:**

Rod: \*B\*LLS, UNRR, BD, BSLL, BS-B, BT, US, BS

EXAMPLE: UNRR-25003000-375			
Prefix	Cross Section	Inside Diameter	Height
UNR-	250	03000	- 375
	1/4	3"	3/8

UNR series urethane U-cups are non-symmetrical in design and are meant only to be used for reciprocating hydraulic rod applications. They are manufactured slightly larger in diameter than nominal dimensions. This ensures a tight fit when snapped into the groove. Good stability and decreased heel drag resulting in lower friction are the prime features of this seal.

Temperature: -65°F to 200°F

Pressure: 0 to 5,000 PSI

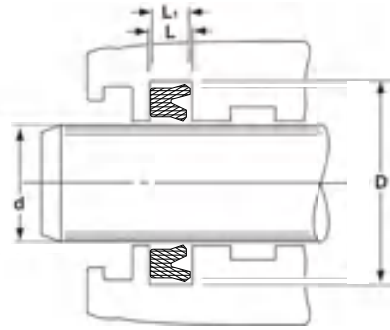
When there is nothing to indicate Height in the Part #  
(No Dash #) Height = Cross Section

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
UNR-12500219-187-1	0.218	0.468	0.187	0.206	\$10.60
UNR-12500750-250	0.750	1.000	0.250	0.275	\$7.69
<b>3/16" CROSS SECTION ("F")</b>					
UNR-18700750-312	0.750	1.125	0.312	0.343	\$8.20
UNR-18701000-250	1.000	1.375	0.250	0.275	\$8.80
UNR-18701125-250	1.125	1.500	0.250	0.275	\$9.11
UNR-18701125-312	1.125	1.500	0.312	0.343	\$9.29
UNR-18701187-312	1.187	1.562	0.312	0.343	\$9.41
UNR-18701250-250	1.250	1.625	0.250	0.275	\$9.92
UNR-18701250-312	1.250	1.625	0.312	0.343	\$10.10
UNR-18701375-250	1.375	1.750	0.250	0.275	\$10.63
UNR-18701500-375	1.500	1.875	0.375	0.413	\$11.14
UNR-18701750-375	1.750	2.125	0.375	0.413	\$11.39
UNR-18702000-375	2.000	2.375	0.375	0.413	\$12.33
UNR-18702500-375	2.500	2.875	0.375	0.413	\$15.08
<b>.205" CROSS SECTION ("F")</b>					
UNR-20508244-225	8.244	8.654	0.225	0.248	\$23.05
<b>1/4" CROSS SECTION ("F")</b>					
UNR-25000937-375	0.937	1.437	0.375	0.413	\$17.69
UNR-25001000	1.000	1.500	0.250	0.275	\$8.81
UNR-25001000-375	1.000	1.500	0.375	0.413	\$8.91
UNR-25001125-375	1.125	1.625	0.375	0.413	\$20.52
UNR-25001250-375	1.250	1.750	0.375	0.413	\$9.41
UNR-25001375-375	1.375	1.875	0.375	0.413	\$10.32

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
UNR-25001500-375	1.500	2.000	0.375	0.413	\$9.50
UNR-25001625-375	1.625	2.125	0.375	0.413	\$11.64
UNR-25001750-375	1.750	2.250	0.375	0.413	\$10.51
UNR-25002000-375	2.000	2.500	0.375	0.413	\$11.02
UNR-25002125-375	2.125	2.625	0.375	0.413	\$20.95
UNR-25002250-375	2.250	2.750	0.375	0.413	\$14.47
UNR-25002500-375	2.500	3.000	0.375	0.413	\$14.81
UNR-25002625-375	2.625	3.125	0.375	0.413	\$20.88
UNR-25002750-375	2.750	3.250	0.375	0.413	\$17.71
UNR-25003000-375	3.000	3.500	0.375	0.413	\$19.32
UNR-25003250-375	3.250	3.750	0.375	0.413	\$20.94
UNR-25004000-375	4.000	4.500	0.375	0.413	\$24.08
UNR-25004000-562	4.000	4.500	0.562	0.618	\$24.99
<b>9/32" CROSS SECTION ("F")</b>					
UNR-28105000-500	5.000	5.687	0.500	0.550	\$36.55
<b>5/16" CROSS SECTION ("F")</b>					
UNR-31201750-375	1.750	2.375	0.375	0.413	\$24.61
UNR-31202250-500	2.250	2.875	0.500	0.550	\$18.71
UNR-31203000-500	3.000	3.625	0.500	0.550	\$22.26
UNR-31204500-500	4.500	5.125	0.500	0.550	\$32.67
<b>3/8" CROSS SECTION ("F")</b>					
UNR-37503500-500	3.500	4.250	0.500	0.550	\$32.18
UNR-37503500-625	3.500	4.250	0.625	0.688	\$36.37
UNR-37505000-625	5.000	5.750	0.625	0.625	\$45.56



# MA30 Urethane Rod U-Cups - Metric



**ALTERNATIVE SEALS:**  
Rod: UNRR, BD, BS-B, MA35, MA25, BS

EXAMPLE: MA30-85X100X10					
Prefix	Inside Diameter		Outside Diameter		Height
MA30-	85	x	100	x	10
	85mm		100mm		10mm

MA30 series metric urethane U-cups are non-symmetrical in design and are meant only to be used for reciprocating hydraulic rod applications. They are manufactured slightly larger in diameter than nominal dimensions. This ensures a tight fit when snapped into the groove. Good stability and decreased heel drag resulting in lower friction are the prime features of this seal.

Temperature: -40°F to 230°F      Pressure: 0 to 5,800 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA30-6X10X3	6	10	3	4.0	\$4.84
MA30-6X13X5	6	13	5	6.0	\$4.88
MA30-8X18X8.2	8	18	8.2	9.2	\$8.94
MA30-9X14.5X5	9	14.5	5	6.0	\$5.35
MA30-10X16X4.5	10	16	4.5	5.5	\$5.64
MA30-10X18X5.7	10	18	5.7	6.7	\$7.31
MA30-12X20X5.5	12	20	5.5	6.7	\$7.33
MA30-12X22X7.5	12	22	7.2	8.2	\$7.36
MA30-14X22X5	14	22	5	6.0	\$8.89
MA30-14X22X5.5	14	22	5.5	6.5	\$8.62
MA30-15X23X5	15	23	5	6.0	\$9.20
MA30-15X23X6	15	23	5.8	6.8	\$9.20
MA30-16X22X5	16	22	5	6.0	\$9.40
MA30-16X24X5	16	24	5	6.0	\$9.42
MA30-16X24X5.7	16	24	5.7	6.7	\$8.62
MA30-16X24X6.5	16	24	6.5	7.5	\$9.67
MA30-16X26X5	16	26	5	6.0	\$9.66
MA30-16X26X7	16	26	7	8.0	\$9.67
MA30-16X26X7.3	16	26	7.3	8.3	\$10.22
MA30-18X25X5	18	25	5	6.0	\$9.67
MA30-18X26X5.7	18	26	5.7	6.7	\$10.89
MA30-18X28X7	18	28	7	8.0	\$10.43
MA30-18X28X8	18	28	8	9.0	\$18.57
MA30-18X28X8.2	18	28	8.2	9.2	\$10.43
MA30-20X25X5	20	25	5	6.0	\$9.08
MA30-20X26X5	20	26	5	6.0	\$9.18
MA30-20X27X6	20	27	6	7.0	\$9.77
MA30-20X28X5	20	28	5	6.0	\$9.22
MA30-20X28X5.7	20	28	5.7	6.7	\$7.18
MA30-20X30X6	20	30	6	7.0	\$9.77
MA30-20X30X8	20	30	8	9.0	\$9.77

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA30-20X30X10	20	30	10	11.0	\$9.80
MA30-20X32X7.5	20	32	7.5	8.5	\$9.82
MA30-22X30X5	22	30	5	6.0	\$9.52
MA30-22X30X5.5	22	30	5.5	6.5	\$9.52
MA30-22X30X7	22	30	7	8.0	\$9.52
MA30-22X30X8	22	30	8	9.0	\$9.52
MA30-22X32X6	22	32	6	7.0	\$9.52
MA30-22.4X30X5	22.4	30	5	6.0	\$10.18
MA30-24X34X7.2	24	34	7.2	8.2	\$14.45
MA30-25X32X6	25	32	6	7.0	\$9.67
MA30-25X33X5.5	25	33	5.5	6.5	\$8.07
MA30-25X33X10	25	33	10	11.0	\$6.81
MA30-25X35X6	25	35	6	7.0	\$9.67
MA30-25X35X7.5	25	35	7.5	8.5	\$9.67
MA30-25X35X8	25	35	8	9.0	\$9.67
MA30-25X35X10	25	35	10	11.0	\$7.33
MA30-28X36X5.7	28	36	5.7	6.7	\$8.41
MA30-28X38X8	28	38	8	9.0	\$12.10
MA30-28X38X10	28	38	10	11.0	\$12.11
MA30-30X38X8	30	38	8	9.0	\$7.58
MA30-30X40X6	30	40	6	7.0	\$8.66
MA30-30X40X7.3	30	40	7	8.0	\$10.07
MA30-30X40X8	30	40	8	9.0	\$10.07
MA30-30X40X10	30	40	10	11.0	\$12.09
MA30-30X42X8.5	30	42	8.5	9.5	\$13.24
MA30-30X43X10	30	43	10	11.0	\$11.04
MA30-30X45X9	30	45	9	10.0	\$13.88
MA30-32X42X6	32	42	6	7.0	\$14.22
MA30-32X42X7	32	42	7	8.0	\$12.60
MA30-32X42X10	32	42	10	11.0	\$15.06
MA30-32X45X10	32	45	10	11.0	\$17.64

## MA30 Urethane Rod U-Cups - Metric, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA30-32X47X10	32	47	10	11.0	\$10.06
MA30-33X43X10	33	43	10	11.0	\$9.89
MA30-35X43X6	35	43	6	7.0	\$11.63
MA30-35X43X8	35	43	8	9.0	\$9.89
MA30-35X45X6	35	45	6	7.0	\$12.03
MA30-35X45X7	35	45	7	8.0	\$9.05
MA30-35X45X8	35	45	8	9.0	\$12.03
MA30-35X45X10	35	45	10	11.0	\$11.04
MA30-35X50X9	35	50	9	10.0	\$14.36
MA30-35X50X10	35	50	10	11.0	\$14.99
MA30-35.5X45X6	35.5	45	6	7.0	\$16.89
MA30-36X46X7.3	36	46	7.3	8.3	\$9.58
MA30-36X51X10	36	51	10	11.0	\$10.43
MA30-38X45X6	38	45	6	7.0	\$21.13
MA30-40X48X5.7	40	48	5.7	6.7	\$10.43
MA30-40X48X8	40	48	8	9.0	\$14.22
MA30-40X50X6	40	50	6	7.0	\$14.32
MA30-40X50X7.2	40	50	7.2	8.2	\$14.57
MA30-40X50X8	40	50	8	9.0	\$14.74
MA30-40X50X10	40	50	10	11.0	\$9.18
MA30-40X55X9	40	55	9	10.0	\$15.89
MA30-40X55X10	40	55	10	11.0	\$11.69
MA30-40X60X12	40	60	12	13.0	\$18.08
MA30-42X52X7	42	52	7	8.0	\$14.62
MA30-45X55X6	45	55	6	7.0	\$15.99
MA30-45X55X7	45	55	7	8.0	\$14.09
MA30-45X55X8	45	55	8	9.0	\$18.26
MA30-45X55X10	45	55	10	11.0	\$11.69
MA30-45X60X9	45	60	9	10.0	\$15.40
MA30-45X60X10	45	60	10	11.0	\$11.10
MA30-45X61X12	45	61	12	13.0	\$14.43
MA30-45X65X10	45	65	10	11.0	\$16.39
MA30-45X65X12	45	65	12	13.0	\$14.65
MA30-50X58X8	50	58	8	9.0	\$14.89
MA30-50X60X6	50	60	6	7.0	\$14.74
MA30-50X60X7.2	50	60	7.2	8.2	\$15.66
MA30-50X60X8	50	60	8	9.0	\$17.34
MA30-50X60X10	50	60	10	11.0	\$12.46
MA30-50X62X8	50	62	8	9.0	\$14.04
MA30-50X63X10	50	63	9	10.0	\$17.15
MA30-50X65X9	50	65	9	10.0	\$20.87
MA30-50X65X10	50	65	10	11.0	\$13.46
MA30-50X70X12	50	70	12	13.0	\$20.63
MA30-52X62X10	52	62	10	11.0	\$15.65
MA30-53X63X6	53	63	6	7.0	\$14.29
MA30-55X63X8	55	63	8	9.0	\$14.38
MA30-55X65X7.2	55	65	7.2	8.2	\$11.68
MA30-55X65X10	55	65	10	11.0	\$13.46

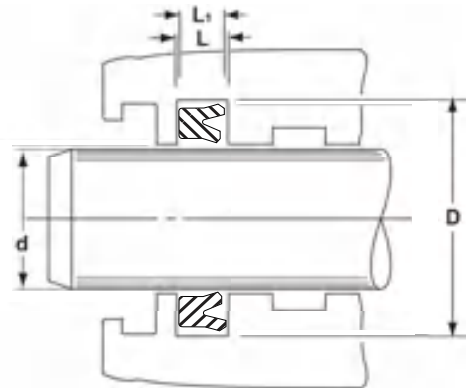
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA30-55X68X10	55	68	10	11.0	\$22.49
MA30-55X70X10	55	70	10	11.0	\$12.94
MA30-55X71X10	55	71	10	11.0	\$24.65
MA30-55X71X12	55	71	12	13.0	\$26.19
MA30-55X75X12	55	75	12	13.0	\$20.86
MA30-56X66X6	56	66	6	7.0	\$16.30
MA30-56X66X10	56	66	10	11.0	\$11.94
MA30-56X71X10	56	71	10	11.0	\$18.23
MA30-56X71X11.5	56	71	11.5	12.5	\$22.53
MA30-57.5X72X9	57.5	72	9	10.0	\$21.63
MA30-60X70X6	60	70	6	7.0	\$22.78
MA30-60X70X8.5	60	70	8.5	9.5	\$22.82
MA30-60X70X10	60	70	10	11.0	\$16.06
MA30-60X70X12	60	70	12	13.0	\$16.54
MA30-60X72X8.5	60	72	8.5	9.5	\$16.98
MA30-60X72X9	60	72	9	10.0	\$16.14
MA30-60X73X10	60	73	10	11.0	\$20.29
MA30-60X75X9	60	75	9	10.0	\$20.92
MA30-60X75X12	60	75	12	13.0	\$21.11
MA30-60X76X10	60	76	10	11.0	\$21.45
MA30-60X76X12	60	76	12	13.0	\$30.50
MA30-60X80X12	60	80	12	13.0	\$21.69
MA30-63X73X10	63	73	10	11.0	\$31.19
MA30-63X73X12	63	73	12	13.0	\$14.96
MA30-63X78X10	63	78	10	11.0	\$15.25
MA30-65X75X6	65	75	6	7.0	\$17.99
MA30-65X75X10	65	75	10	11.0	\$17.91
MA30-65X78X10	65	78	10	11.0	\$22.18
MA30-65X80X9	65	80	9	10.0	\$22.32
MA30-65X80X10	65	80	10	11.0	\$23.00
MA30-65X85X12	65	85	12	13.0	\$29.76
MA30-70X80X6	70	80	6	7.0	\$21.97
MA30-70X80X12	70	80	12	13.0	\$22.64
MA30-70X83X10	70	83	10	11.0	\$22.26
MA30-70X85X9	70	85	9	10.0	\$22.56
MA30-70X85X10	70	85	10	11.0	\$17.33
MA30-70X85X11.4	70	85	11.4	12.4	\$16.85
MA30-70X85X12	70	85	12	13.0	\$13.38
MA30-70X90X14.5	70	90	14.5	15.5	\$29.70
MA30-71X81X6	71	81	6	7.0	\$21.77
MA30-75X85X6	75	85	6	7.0	\$21.77
MA30-75X85X12	75	85	12	13.0	\$11.87
MA30-75X88X10	75	88	10	11.0	\$24.67
MA30-75X90X10	75	90	10	11.0	\$19.54
MA30-75X90X12	75	90	12	13.0	\$25.57
MA30-75X95X12	75	95	12	13.0	\$29.78
MA30-80X90X6	80	90	6	7.0	\$21.08
MA30-80X90X7.2	80	90	7.2	8.2	\$25.27

**MA30 Urethane Rod U-Cups - Metric, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price	Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA30-80X90X12	80	90	12	13.0	\$25.27	MA30-125X135X13.5	125	135	13.5	14.5	\$52.89
MA30-80X93X9	80	93	9	10.0	\$30.08	MA30-125X145X12	125	145	12	13.0	\$56.80
MA30-80X93X10	80	93	10	11.0	\$26.18	MA30-130X140X13.5	130	140	13.5	14.5	\$58.36
MA30-80X95X10	80	95	10	11.0	\$26.31	MA30-130X145X9	130	145	9	10.0	\$51.83
MA30-80X95X12	80	95	12	13.0	\$34.48	MA30-130X150X15	130	150	15	16.0	\$57.43
MA30-80X100X12	80	100	12	13.0	\$33.77	MA30-136X150X8.5	136	150	8.5	9.5	\$51.54
MA30-80X100X13.5	80	100	13.5	14.5	\$26.11	MA30-140X150X7	140	150	7	8.0	\$52.04
MA30-85X95X7	85	95	7	8.0	\$25.06	MA30-140X155X9	140	155	9	10.0	\$43.45
MA30-85X100X9	85	100	9	10.0	\$28.06	MA30-140X160X12	140	160	12	13.0	\$62.86
MA30-85X100X10	85	100	10	11.0	\$27.65	MA30-140X165X12	140	165	12	13.0	\$63.69
MA30-85X105X12	85	105	12	13.0	\$34.06	MA30-145X160X9	145	160	9	10.0	\$40.29
MA30-90X100X12	90	100	12	13.0	\$25.85	MA30-150X160X13.5	150	160	13.5	14.5	\$55.03
MA30-90X105X9	90	105	9	10.0	\$38.55	MA30-150X165X9	150	165	9	10.0	\$44.99
MA30-90X105X10	90	105	10	11.0	\$38.55	MA30-150X170X12	150	170	12	13.0	\$73.16
MA30-90X105X11.4	90	105	11.4	12.4	\$25.77	MA30-150X170X13.5	150	170	13.5	14.5	\$56.06
MA30-90X105X12	90	105	12	13.0	\$29.60	MA30-150X170X15	150	170	15	16.0	\$56.06
MA30-90X110X12	90	110	12	13.0	\$31.65	MA30-155X170X9	155	170	9	10.0	\$44.33
MA30-95X105X12	95	105	12	13.0	\$31.08	MA30-160X170X12	160	170	12	13.0	\$58.06
MA30-95X110X9	95	110	9	10.0	\$31.08	MA30-160X180X12	160	180	12	13.0	\$69.72
MA30-95X110X10	95	110	10	11.0	\$33.58	MA30-160X180X15	160	180	15	16.0	\$79.46
MA30-95X110X12	95	110	12	13.0	\$30.07	MA30-170X180X14.5	170	180	14.5	15.5	\$62.62
MA30-95X115X12	95	115	12	13.0	\$37.90	MA30-170X185X9	170	185	9	10.0	\$55.15
MA30-100X110X14	100	110	14	15.0	\$35.83	MA30-170X190X12	170	190	12	13.0	\$63.88
MA30-100X113X12.5	100	113	12.5	13.5	\$26.59	MA30-170X190X15	170	190	15	16.0	\$67.21
MA30-100X115X9	100	115	9	10.0	\$28.11	MA30-175X190X9	175	190	9	10.0	\$72.08
MA30-100X115X10	100	115	10	11.0	\$28.74	MA30-175X200X12	175	200	12	13.0	\$102.38
MA30-100X115X12	100	115	12	13.0	\$16.05	MA30-180X200X12	180	200	12	13.0	\$67.48
MA30-100X120X12	100	120	12	13.0	\$39.41	MA30-180X200X15	180	200	15	16.0	\$115.55
MA30-100X120X14.5	100	120	14.5	15.5	\$37.83	MA30-190X210X12	190	210	12	13.0	\$99.02
MA30-100X120X15	100	120	15	16.0	\$25.54	MA30-200X220X12	200	220	12	13.0	\$116.37
MA30-105X115X10	105	115	10	11.0	\$38.85	MA30-200X220X15	200	220	15	16.0	\$97.39
MA30-105X120X9	105	120	9	10.0	\$43.26	MA30-200X225X15	200	225	15	16.0	\$120.65
MA30-105X120X12	105	120	12	13.0	\$36.97	MA30-200X225X16	200	225	16	17.0	\$155.62
MA30-105X125X12	105	125	12	13.0	\$46.33	MA30-210X230X12	210	230	12	13.0	\$123.96
MA30-105X125X15	105	125	15	16.0	\$49.48	MA30-220X240X12	220	240	12	13.0	\$123.86
MA30-110X125X9	110	125	9	10.0	\$46.76	MA30-220X240X15	220	240	15	16.0	\$125.44
MA30-110X130X12	110	130	12	13.0	\$52.02	MA30-220X250X22.7	220	250	22.7	25.0	\$144.75
MA30-112X125X9	112	125	9	10.0	\$45.38	MA30-230X250X12	230	250	12	13.0	\$146.39
MA30-112X132X15	112	132	15	16.0	\$64.51	MA30-230X255X19	230	255	19	20.0	\$185.28
MA30-115X125X12	115	125	12	13.0	\$39.18	MA30-240X260X12	240	260	12	13.0	\$149.49
MA30-115X130X9	115	130	9	10.0	\$43.11	MA30-240X260X15	240	260	15	16.0	\$153.23
MA30-115X135X12	115	135	12	13.0	\$49.69	MA30-240X270X18	240	270	18	19.0	\$172.05
MA30-118X133X9	118	133	9	10.0	\$38.43	MA30-250X270X12	250	270	12	13.0	\$180.07
MA30-120X135X9	120	135	9	10.0	\$40.42	MA30-250X270X15	250	270	15	16.0	\$174.03
MA30-120X135X9.5	120	135	9.5	10.5	\$35.76	MA30-250X270X16	250	270	16	17.0	\$218.16
MA30-120X135X10	120	135	10	11.0	\$45.65	MA30-260X285X19	260	285	19	20.0	\$296.28
MA30-120X135X11.5	120	135	11.5	12.5	\$43.22	MA30-280X300X15	280	300	15	16.0	\$234.32
MA30-120X140X12	120	140	12	13.0	\$60.93						



# MA24 Nitrile Rod U-Cups - Metric



This non-symmetrical 90A nitrile single acting rod seal is an economical sealing solution for standard cylinder applications. Easily assembled into closed grooves, the MA24 offers a superior static and dynamic sealing effect.

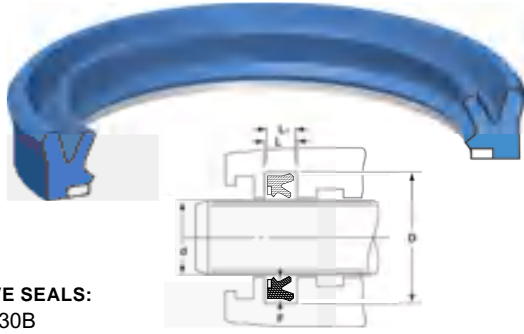
Temperature : -20°F to +220°F      Pressure : 0 to 2175 PSI

**ALTERNATIVE SEALS:**  
Rod: MA21, C1, MURH

EXAMPLE: MA24-25X33X5.5					
Prefix	Inside Diameter		Outside Diameter		Height
MA24-	25	x	33	x	5.5
	25mm		33mm		5.5mm

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA24-2.5X5X1.7	2.5	5	1.7	2.7	\$3.42
MA24-3X7X3	3	7	3	4.0	\$3.68
MA24-4X12X4.5	4	12	4.5	5.5	\$3.83
MA24-6X12X4	6	12	4	5.0	\$4.04
MA24-20X28X5.5	20	28	5.5	6.5	\$5.68
MA24-25X33X5.5	25	33	5.5	6.5	\$6.25
MA24-25X37X6	25	37	6	7.0	\$6.93
MA24-30X40X6	30	40	6	7.0	\$8.62
MA24-35X45X6	35	45	6	7.0	\$10.01
MA24-40X50X7	40	50	7	8.0	\$11.38
MA24-50X60X7	50	60	7	8.0	\$13.32
MA24-52X69X9	52	69	9	10.0	\$13.72
MA24-63X75X8.5	63	75	8.5	9.5	\$14.15
MA24-65X77X8.7	65	77	8.7	9.7	\$15.03
MA24-75X87X8.5	75	87	8.5	9.5	\$17.05
MA24-80X92X8.5	80	92	8.5	9.5	\$18.35

**BS-B Urethane Rod U-Cups w/ Backup Ring**



**ALTERNATIVE SEALS:**  
Rod: BD, MA30B

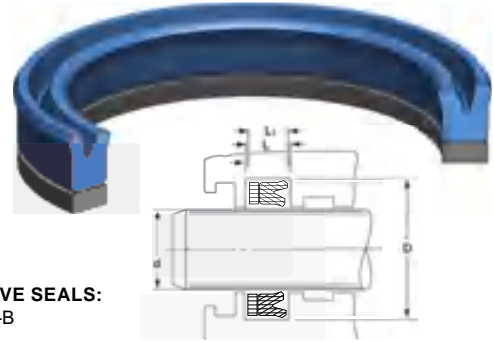
EXAMPLE: BS-12501375-250-B				
Prefix	Cross Section	Inside Diameter	Height	Suffix
BS-	125	01375	- 250	B
	1/8"	1-3/8"	1/4"	HAS B/U

The BS-B two piece single acting rod seal consists of 94 shore A polyurethane with a POM ID backup. The twin lip design offers superior sealing while the active back up ring provides an improved sealing gap.

Temperature: -22°F to 212°F      Pressure: 0 to 5,800 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
BS-12500750-250-B	0.750	1.000	0.250	0.275	\$5.99
BS-12501000-250-B	1.000	1.250	0.250	0.275	\$7.63
BS-12501250-250-B	1.250	1.500	0.250	0.275	\$9.67
BS-12501375-250-B	1.375	1.625	0.250	0.275	\$12.01
BS-12501500-250-B	1.500	1.750	0.250	0.275	\$11.92
BS-12501750-250-B	1.750	2.000	0.250	0.275	\$18.77
BS-12502000-250-B	2.000	2.250	0.250	0.275	\$18.38
<b>3/16" CROSS SECTION ("F")</b>					
BS-18701750-375-B	1.750	2.125	0.375	0.413	\$14.28
<b>Metric</b>					
BS-22X30X6-B	22	30	6	7.0	\$7.76
BS-28X35.5X5-B	28	35.5	5	6.0	\$9.36
BS-30X40X8-B	30	40	8	9.0	\$10.07
BS-35X45X8-B	35	45	8	9.0	\$10.70
BS-40X50X10-B	40	50	10	11.0	\$11.14
BS-50X60X10-B	50	60	10	11.0	\$20.17
BS-50X62X8-B	50	62	8	9.0	\$12.56
BS-55X65X10-B	55	65	10	11.0	\$14.48
BS-65X80X12-B	65	80	12	13.0	\$15.99
BS-75X85X12-B	75	85	12	13.0	\$17.75
BS-80X90X12-B	80	90	12	13.0	\$18.09
BS-85X100X12-B	85	100	12	13.0	\$18.19
BS-90X100X12-B	90	100	12	13.0	\$19.13
BS-95X105X12-B	95	105	12	13.0	\$19.48
BS-100X115X12-B	100	115	12	13.0	\$20.51
BS-110X125X14.6-B	110	125	14.6	15.6	\$21.22
BS-110X130X15-B	110	130	15	16.0	\$22.60
BS-115X125X12-B	115	125	12	13.0	\$23.95
BS-120X140X14.6-B	120	140	14.6	15.6	\$25.01
BS-140X160X14.6-B	140	160	14.6	15.6	\$32.36
BS-160X170X12-B	160	170	12	13.0	\$42.53
BS-220X235X14.6-B	220	235	14.6	15.6	\$125.07

**MA30B Urethane Rod U-Cups w/ Backup - Metric**



**ALTERNATIVE SEALS:**  
Rod: BD, BS-B

EXAMPLE: MA30B-85X100X13.2					
Prefix	Inside Diameter	Outside Diameter	Height		
MA30B-	85	x 100	x 13.2		
	85mm	100mm	13.2mm		

This sealing set is designed to resist extrusion even with an excessive clearance gap. The seal is made from 90+ Shore A hardness urethane and the backup ring is machined nylon.

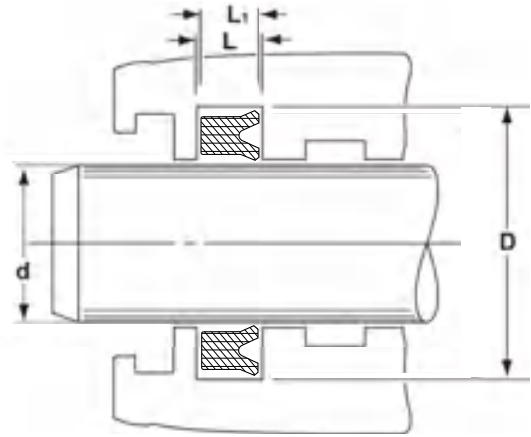
Temperature: -40°F to 230°F      Pressure: 0 to 7,000 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA30B-35X45X7.5	35	45	7.5	8.5	\$20.23
MA30B-40X50X7.5	40	50	7.5	8.5	\$22.27
MA30B-50X63X12	50	63	12	13.0	\$32.29
MA30B-60X73X13.2	60	73	13.2	14.2	\$35.01
MA30B-65X78X13.2	65	78	13.2	14.2	\$37.56
MA30B-70X83X13.2	70	83	13.2	14.2	\$38.92
MA30B-75X88X13.2	75	88	13.2	14.2	\$42.61
MA30B-80X93X13.2	80	93	13.2	14.2	\$43.94
MA30B-85X100X11.8	85	100	11.8	12.8	\$62.42
MA30B-90X105X13.2	90	105	13.2	14.2	\$50.02
MA30B-95X110X13.2	95	110	13.2	14.2	\$52.38
MA30B-100X115X13.2	100	115	13.2	14.2	\$52.74
MA30B-100X120X15	100	120	15	16.0	\$76.89
MA30B-110X125X13.2	110	125	13.2	14.2	\$78.89
MA30B-110X130X15	110	130	15	16.0	\$76.81
MA30B-120X140X15	120	140	15	16.0	\$77.13

# US Symmetrical Urethane U-Cups - Inch



**ALTERNATIVE SEALS:**  
 Rod: "B"LLS, BD, BSLL, BS-B, BT,  
 LLS, UNR, BS, UNRR  
 Piston: UNP, DEEP LLS, LLS



EXAMPLE: US-25003000-375				
Prefix	Cross Section	Inside Diameter	Height	
US-	250	03000	-	375
	1/4"	3"		3/8"

Made of 90 durometer urethane, US series U-cups are symmetrical in design and may be used as rod or piston seals. Back-beveled knife-trimmed lips ensure a good seal with minimal friction.

Temperature: -65°F to 200°F      Pressure: 0 to 5,000 PSI

When there is nothing to indicate Height in the Part #  
 (No Dash #) Height = Cross Section

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/32" CROSS SECTION ("F")</b>					
US-09300562	0.562	0.750	0.093	0.102	\$6.25
<b>1/8" CROSS SECTION ("F")</b>					
US-12500093	0.093	0.343	0.125	0.138	\$6.31
US-12500250-250	0.250	0.500	0.250	0.275	\$6.41
US-12500312	0.312	0.562	0.125	0.138	\$6.41
US-12500312-250	0.312	0.562	0.250	0.275	\$6.41
US-12500375-250	0.375	0.625	0.250	0.275	\$6.51
US-12500437-187	0.437	0.687	0.187	0.206	\$6.62
US-12500500	0.500	0.750	0.125	0.138	\$7.73
US-12500500-250	0.500	0.750	0.250	0.275	\$7.31
US-12500625	0.625	0.875	0.125	0.138	\$6.12
US-12500625-187	0.625	0.875	0.187	0.206	\$7.94
US-12500625-250	0.625	0.875	0.250	0.275	\$7.94
US-12500750	0.750	1.000	0.125	0.138	\$8.34
US-12500750-187	0.750	1.000	0.187	0.206	\$8.24
US-12501000	1.000	1.250	0.125	0.138	\$8.93
US-12501000-187	1.000	1.250	0.187	0.206	\$12.00
US-12501000-250	1.000	1.250	0.250	0.275	\$5.79
US-12501125-187	1.125	1.375	0.187	0.206	\$8.94
US-12501250	1.250	1.500	0.125	0.138	\$6.35
US-12501250-187	1.250	1.500	0.187	0.206	\$9.25
US-12501250-250	1.250	1.500	0.250	0.275	\$6.61
US-12501375-187	1.375	1.625	0.187	0.206	\$9.47
US-12501375-250-1	1.375	1.625	0.250	0.275	\$18.11
US-12501500-187	1.500	1.750	0.187	0.206	\$9.57
US-12501500-250	1.500	1.750	0.250	0.275	\$9.57
US-12501750	1.750	2.000	0.125	0.138	\$9.67
US-12501875-156	1.875	2.125	0.156	0.172	\$29.30
<b>5/32" CROSS SECTION ("F")</b>					
US-15600187-250	0.187	0.500	0.250	0.275	\$9.15
US-15601375-250	1.375	1.687	0.250	0.275	\$8.07

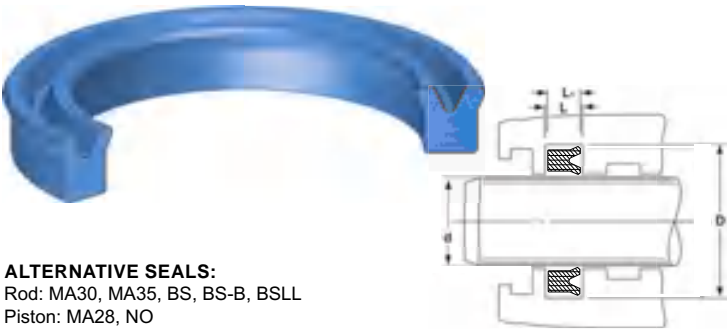
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
US-18700187-312	0.187	0.562	0.312	0.343	\$6.82
US-18700250-312	0.250	0.625	0.312	0.343	\$7.50
US-18700375	0.375	0.750	0.187	0.206	\$7.83
US-18700375-250	0.375	0.750	0.250	0.275	\$10.69
US-18700375-312	0.375	0.750	0.312	0.343	\$8.46
US-18700437-250-1	0.437	0.812	0.250	0.275	\$15.88
US-18700500-250	0.500	0.875	0.250	0.275	\$7.33
US-18700500-312	0.500	0.875	0.312	0.343	\$7.83
US-18700625-250	0.625	1.000	0.250	0.275	\$9.59
US-18700750-312	0.750	1.125	0.312	0.343	\$8.64
US-18700875-250	0.875	1.250	0.250	0.275	\$6.08
US-18700875-312	0.875	1.250	0.312	0.343	\$8.95
US-18701000	1.000	1.375	0.187	0.206	\$8.99
US-18701250-375	1.250	1.625	0.375	0.413	\$6.72
US-18701312-312	1.312	1.687	0.312	0.343	\$9.67
US-18701375-312	1.375	1.750	0.312	0.343	\$9.97
US-18701375-375	1.375	1.750	0.375	0.413	\$13.49
US-18701500	1.500	1.875	0.187	0.206	\$10.07
US-18701500-312	1.500	1.875	0.312	0.343	\$7.77
US-18701500-375	1.500	1.875	0.375	0.413	\$10.38
US-18701625	1.625	2.000	0.187	0.206	\$10.38
US-18701625-250	1.625	2.000	0.250	0.275	\$10.58
US-18701625-312	1.625	2.000	0.312	0.343	\$7.91
US-18701625-375	1.625	2.000	0.375	0.413	\$10.78
US-18701625-375-1	1.625	2.000	0.375	0.413	\$12.76
US-18701750	1.750	2.125	0.187	0.206	\$9.15
US-18701750-250	1.750	2.125	0.250	0.275	\$8.37
US-18701750-312	1.750	2.125	0.312	0.343	\$11.19
US-18701750-375	1.750	2.125	0.375	0.413	\$8.23
US-18701875-280	1.875	2.250	0.280	0.308	\$11.50
US-18702000-250	2.000	2.375	0.250	0.275	\$8.77
US-18702000-312	2.000	2.375	0.312	0.343	\$8.86
US-18702000-375	2.000	2.375	0.375	0.413	\$8.86

## US Symmetrical Urethane U-Cups - Inch, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
US-18702125	2.125	2.500	0.187	0.206	\$10.36
US-18702125-312	2.125	2.500	0.312	0.343	\$14.94
US-18702125-375	2.125	2.500	0.375	0.413	\$18.78
US-18702500-312	2.500	2.875	0.312	0.343	\$14.94
US-18702500-375	2.500	2.875	0.375	0.413	\$10.54
US-18702577-375-1	2.577	2.952	0.375	0.413	\$15.75
US-18702625-375	2.625	3.000	0.375	0.413	\$11.65
US-18703125-375	3.125	3.500	0.375	0.413	\$11.37
US-18703200-375-1	3.200	3.575	0.375	0.413	\$18.91
US-18703625-250	3.625	4.000	0.250	0.275	\$21.56
US-18705000-375	5.000	5.375	0.375	0.413	\$30.92
US-18705500-375	5.500	5.875	0.375	0.413	\$35.50
<b>1/4" CROSS SECTION ("F")</b>					
US-25000250-312	0.250	0.750	0.312	0.343	\$9.15
US-25000312-375	0.312	0.812	0.375	0.413	\$9.16
US-25000375-312	0.375	0.875	0.312	0.343	\$9.26
US-25000500	0.500	1.000	0.250	0.275	\$8.34
US-25000562	0.562	1.063	0.250	0.275	\$9.67
US-25000625-375	0.625	1.125	0.375	0.413	\$8.46
US-25000750	0.750	1.250	0.250	0.275	\$8.94
US-25000750-375	0.750	1.250	0.375	0.413	\$8.94
US-25000937-1	0.937	1.437	0.250	0.275	\$15.21
US-25001000	1.000	1.500	0.250	0.275	\$6.01
US-25001000-375	1.000	1.500	0.375	0.413	\$6.43
US-25001125	1.125	1.625	0.250	0.275	\$10.35
US-25001125-312	1.125	1.625	0.312	0.343	\$20.29
US-25001187	1.187	1.687	0.250	0.275	\$10.55
US-25001250	1.250	1.750	0.250	0.275	\$7.11
US-25001250-375	1.250	1.750	0.375	0.413	\$6.63
US-25001500-312	1.500	2.000	0.312	0.343	\$8.51
US-25001500-375	1.500	2.000	0.375	0.413	\$7.64
US-25001625-375	1.625	2.125	0.375	0.413	\$14.80
US-25001750-1	1.750	2.250	0.250	0.275	\$15.60
US-25001750-375	1.750	2.250	0.375	0.413	\$8.71
US-25002000-375	2.000	2.500	0.375	0.413	\$9.52
US-25002125-375	2.125	2.625	0.375	0.413	\$20.06
US-25002250-375	2.250	2.750	0.375	0.413	\$10.60
US-25002375-375	2.375	2.875	0.375	0.413	\$17.51
US-25002500-312	2.500	3.000	0.312	0.343	\$18.16
US-25002500-375	2.500	3.000	0.375	0.413	\$11.77
US-25002625-375	2.625	3.125	0.375	0.413	\$18.58
US-25002750	2.750	3.250	0.250	0.275	\$13.23
US-25002750-375	2.750	3.250	0.375	0.413	\$13.23
US-25003000-375	3.000	3.500	0.375	0.413	\$13.66
US-25003250-375	3.250	3.750	0.375	0.413	\$16.00
US-25003500-375	3.500	4.000	0.375	0.413	\$16.98
US-25004000-375	4.000	4.500	0.375	0.413	\$18.44
US-25004500-375	4.500	5.000	0.375	0.413	\$20.90
US-25004500-562	4.500	5.000	0.562	0.618	\$21.30
US-25005500-375	5.500	6.000	0.375	0.413	\$35.87
US-25006500-562	6.500	7.000	0.562	0.618	\$45.98
US-25007500-562	7.500	8.000	0.562	0.618	\$54.24

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>5/16" CROSS SECTION ("F")</b>					
US-31200875-240-1	0.875	1.500	0.240	0.264	\$17.16
US-31201250-1	1.250	1.875	0.312	0.343	\$20.89
US-31201250-375	1.250	1.875	0.375	0.413	\$8.51
US-31201375	1.375	2.000	0.312	0.343	\$8.52
US-31201750	1.750	2.375	0.312	0.343	\$10.18
US-31201875	1.875	2.500	0.312	0.343	\$14.95
US-31201875-500	1.875	2.500	0.500	0.550	\$15.22
US-31202000-375	2.000	2.625	0.375	0.413	\$15.67
US-31202250-1	2.250	2.875	0.312	0.343	\$21.24
US-31202250-375	2.250	2.875	0.375	0.413	\$17.70
US-31202500-375	2.500	3.125	0.375	0.413	\$30.86
US-31202875	2.875	3.500	0.312	0.343	\$26.04
US-31203000-375	3.000	3.625	0.375	0.413	\$31.30
US-31203000-500-1	3.000	3.625	0.500	0.550	\$32.57
US-31203125-500	3.125	3.750	0.500	0.550	\$21.87
US-31203875-500	3.875	4.500	0.500	0.550	\$25.83
US-31205250-500	5.250	5.875	0.500	0.550	\$75.76
US-31205375-375	5.375	6.000	0.375	0.413	\$30.05
US-31205375-625	5.375	6.000	0.625	0.688	\$33.91
US-31207375	7.375	8.000	0.312	0.343	\$57.87
<b>3/8" CROSS SECTION ("F")</b>					
US-37502750	2.750	3.500	0.375	0.413	\$26.20
US-37502750-1	2.750	3.500	0.375	0.413	\$27.04
US-37502750-625	2.750	3.500	0.625	0.688	\$20.55
US-37503000	3.000	3.750	0.375	0.413	\$22.22
US-37503250	3.250	4.000	0.375	0.413	\$22.26
US-37503250-625	3.250	4.000	0.625	0.688	\$26.30
US-37503500-500	3.500	4.250	0.500	0.550	\$23.39
US-37503750	3.750	4.500	0.375	0.413	\$30.49
US-37504000-500	4.000	4.750	0.500	0.550	\$33.17
US-37504000-625	4.000	4.750	0.625	0.688	\$33.17
US-37504250	4.250	5.000	0.375	0.413	\$29.88
US-37504250-500	4.250	5.000	0.500	0.550	\$30.33
US-37504500-500	4.500	5.250	0.500	0.550	\$30.92
US-37504750-625	4.750	5.500	0.625	0.688	\$32.17
US-37505000-500	5.000	5.750	0.500	0.550	\$33.50
US-37505250	5.250	6.000	0.375	0.413	\$36.58
US-37505250-625	5.250	6.000	0.625	0.688	\$50.90
US-37506250	6.250	7.000	0.375	0.413	\$41.90
US-37506250-625	6.250	7.000	0.625	0.688	\$42.33
US-37507250-625	7.250	8.000	0.625	0.688	\$47.12
<b>7/16" CROSS SECTION ("F")</b>					
US-43701750-250S	1.750	2.625	0.250	0.275	\$17.91
<b>1/2" CROSS SECTION ("F")</b>					
US-50005000-750-2	5.000	6.000	0.750	0.825	\$54.66
US-50007000-750	7.000	8.000	0.750	0.825	\$75.97
US-50011000-750-1	11.000	12.000	0.750	0.825	\$263.28
<b>5/8" CROSS SECTION ("F")</b>					
US-62504250-750	4.250	5.500	0.750	0.825	\$62.55
US-62505250-750	5.250	6.500	0.750	0.825	\$77.29
<b>21/32" CROSS SECTION ("F")</b>					
US-65600875-312-1	0.875	2.187	0.312	0.343	\$29.31

# MA25 Symmetrical Urethane U-Cups - Metric



MA25 series metric urethane U-cups are symmetrical in design and may be used as rod or piston seals. Back-beveled knife-trimmed lips ensure a good seal with minimal friction.

Temperature: -50°F to 212°F

Pressure: 0 to 5,800 PSI

**ALTERNATIVE SEALS:**  
Rod: MA30, MA35, BS, BS-B, BSLL  
Piston: MA28, NO

EXAMPLE: MA25-60X85X10				
Prefix	Inside Diameter	Outside Diameter	Height	
MA25-	60	x 85	x	10
	60mm	85mm		10mm

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-3X10X6	3	10	6	7.0	\$4.25
MA25-4X10X4	4	10	4	5.0	\$4.25
MA25-4X12X5.5	4	12	5.5	6.5	\$4.32
MA25-4.5X11X5	4.5	11	5	6.0	\$8.14
MA25-4.5X12.5X4.5	4.5	12.5	4.5	5.5	\$8.51
MA25-5X11X5	5	11	5	6.0	\$6.77
MA25-5X11X7	5	11	7	8.0	\$6.78
MA25-5X12X5	5	12	5	6.0	\$4.49
MA25-5X12X5.5	5	12	5.5	6.5	\$5.88
MA25-5X14X8	5	14	8	9.0	\$5.00
MA25-6X10X3	6	10	3	4.0	\$4.58
MA25-6X12X4	6	12	4	5.0	\$4.89
MA25-6X12X5	6	12	5	6.0	\$4.89
MA25-6X12X6	6	12	6	7.0	\$4.89
MA25-6X12X7	6	12	7	8.0	\$4.89
MA25-6X13X5.5	6	13	5.5	6.5	\$4.91
MA25-6X13X8	6	13	8	9.0	\$9.88
MA25-6X14X6	6	14	6	7.0	\$5.09
MA25-6X16X6	6	16	6	7.0	\$5.36
MA25-7X15X5	7	15	5	6.0	\$5.02
MA25-7X15X7	7	15	7	8.0	\$5.02
MA25-8X14X4	8	14	4	5.0	\$5.41
MA25-8X14X6	8	14	6	7.0	\$4.20
MA25-8X15X8.2	8	15	8.2	9.2	\$5.15
MA25-8X16X5.7	8	16	5.7	6.7	\$5.80
MA25-8X16X6	8	16	6	7.0	\$4.74
MA25-8X16X8	8	16	8	9.0	\$5.41
MA25-8X18X8	8	18	8	9.0	\$5.54
MA25-9X17X6	9	17	6	7.0	\$5.67
MA25-9X19X6	9	19	6	7.0	\$5.93
MA25-10X14X3	10	14	3	4.0	\$8.22
MA25-10X16X4	10	16	4	5.0	\$6.10
MA25-10X16X6	10	16	6	7.0	\$8.04
MA25-10X18X5	10	18	5	6.0	\$8.29
MA25-10X18X6	10	18	6	7.0	\$4.81
MA25-10X18X8	10	18	8	9.0	\$5.93
MA25-10X20X8	10	20	8	9.0	\$5.27
MA25-10X22X6	10	22	6	7.0	\$6.49
MA25-10X25X10	10	25	10	11.0	\$8.66
MA25-12X18X4	12	18	4	5.0	\$5.85
MA25-12X18X5	12	18	5	6.0	\$5.93
MA25-12X18X6	12	18	6	7.0	\$5.36
MA25-12X18X6.3	12	18	6.3	7.3	\$9.10
MA25-12X19X5	12	19	5	6.0	\$9.17
MA25-12X20X4.4	12	20	4.4	5.4	\$15.94

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-12X20X5	12	20	5	6.0	\$10.55
MA25-12X20X7	12	20	7	8.0	\$8.08
MA25-12X20X8	12	20	8	9.0	\$5.32
MA25-12X22X5	12	22	5	6.0	\$5.34
MA25-12X22X6	12	22	6	7.0	\$6.35
MA25-12X22X7	12	22	7	8.0	\$6.62
MA25-12X22X8	12	22	8	9.0	\$6.72
MA25-12X24X6	12	24	6	7.0	\$6.63
MA25-12X24X8	12	24	8	9.0	\$10.40
MA25-12X24X10	12	24	10	11.0	\$6.72
MA25-12X25X8	12	25	8	9.0	\$6.72
MA25-12X25X10	12	25	10	11.0	\$9.10
MA25-14X20X4	14	20	4	5.0	\$6.25
MA25-14X20X4.8	14	20	4.8	5.8	\$8.82
MA25-14X20X5	14	20	5	6.0	\$5.04
MA25-14X20X6	14	20	6	7.0	\$6.37
MA25-14X22X4.4	14	22	4.4	5.4	\$8.38
MA25-14X22X5	14	22	5	6.0	\$5.94
MA25-14X22X8	14	22	8	9.0	\$6.54
MA25-14X24X6	14	24	6	7.0	\$6.90
MA25-14X24X8	14	24	8	9.0	\$5.48
MA25-14X26X8	14	26	8	9.0	\$6.90
MA25-14X28X10	14	28	10	11.0	\$7.28
MA25-15X21X4	15	21	4	5.0	\$6.32
MA25-15X22X4	15	22	4	5.0	\$8.66
MA25-15X25X8	15	25	8	9.0	\$6.44
MA25-15X25X10	15	25	10	11.0	\$7.17
MA25-15X28X10	15	28	10	11.0	\$7.33
MA25-15X30X8	15	30	8	9.0	\$7.41
MA25-16X22X4	16	22	4	5.0	\$5.42
MA25-16X22X5	16	22	5	6.0	\$5.42
MA25-16X24X4.4	16	24	4.4	5.4	\$14.62
MA25-16X24X5	16	24	5	6.0	\$5.83
MA25-16X26X6	16	26	6	7.0	\$6.27
MA25-16X26X8	16	26	8	9.0	\$7.54
MA25-16X28X6	16	28	6	7.0	\$8.39
MA25-17X25X10	17	25	10	11.0	\$6.64
MA25-17X32X10	17	32	10	11.0	\$8.59
MA25-18X25X5	18	25	5	6.0	\$7.29
MA25-18X26X4.4	18	26	4.4	5.4	\$12.27
MA25-18X26X5	18	26	5	6.0	\$8.15
MA25-18X26X6	18	26	6	7.0	\$8.95
MA25-18X26X8	18	26	8	9.0	\$10.75
MA25-18X28X7.27	18	28	7.27	8.3	\$11.23
MA25-18X28X8	18	28	8	9.0	\$6.44



## MA25 Symmetrical Urethane U-Cups - Metric, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-18X30X7.5	18	30	7.5	8.5	\$7.46
MA25-18X30X8.5	18	30	8.5	9.5	\$8.77
MA25-18X32X7	18	32	7	8.0	\$8.89
MA25-18X34X8	18	34	8	9.0	\$12.17
MA25-19X25X6	19	25	6	7.0	\$8.89
MA25-20X26X5	20	26	5	6.0	\$8.89
MA25-20X27X6	20	27	6	7.0	\$9.10
MA25-20X28X4	20	28	4	5.0	\$6.82
MA25-20X28X4.4	20	28	4.4	5.4	\$11.23
MA25-20X28X5	20	28	5	6.0	\$8.32
MA25-20X28X6	20	28	6	7.0	\$8.89
MA25-20X28X8	20	28	8	9.0	\$6.95
MA25-20X30X6	20	30	6	7.0	\$7.74
MA25-20X30X8	20	30	8	9.0	\$7.29
MA25-20X30X10	20	30	10	11.0	\$7.29
MA25-20X31X8	20	31	8	9.0	\$9.26
MA25-20X32X5	20	32	5	6.0	\$9.26
MA25-20X32X7.7	20	32	7.7	8.7	\$11.46
MA25-20X32X8	20	32	8	9.0	\$12.10
MA25-20X35X10	20	35	10	11.0	\$10.36
MA25-20X35X12	20	35	12	13.0	\$7.55
MA25-20X36X12	20	36	12	13.0	\$11.34
MA25-20X40X8	20	40	8	9.0	\$11.39
MA25-20X40X10	20	40	10	11.0	\$8.94
MA25-20X40X12	20	40	12	13.0	\$11.31
MA25-22X28X8	22	28	8	9.0	\$7.74
MA25-22X30X4.4	22	30	4.4	5.4	\$13.78
MA25-22X30X5	22	30	5	6.0	\$9.05
MA25-22X30X6	22	30	6	7.0	\$7.29
MA25-22X30X10	22	30	10	11.0	\$7.69
MA25-22X32X7	22	32	7	8.0	\$11.55
MA25-22X32X8	22	32	8	9.0	\$7.58
MA25-22X32X10	22	32	10	11.0	\$11.55
MA25-22X35X10	22	35	10	11.0	\$7.07
MA25-22X40X10	22	40	10	11.0	\$11.55
MA25-22X40X12	22	40	12	13.0	\$12.62
MA25-22.4X30X5	22.4	30	5	6.0	\$11.24
MA25-23X35X6	23	35	6	7.0	\$13.44
MA25-24X32X7	24	32	7	8.0	\$6.33
MA25-24X40X8	24	40	8	9.0	\$7.93
MA25-25X32X4	25	32	4	5.0	\$10.03
MA25-25X33X4.4	25	33	4.4	5.4	\$12.21
MA25-25X33X5	25	33	5	6.0	\$10.68
MA25-25X33X8	25	33	8	9.0	\$7.74
MA25-25X35X5	25	35	5	6.0	\$7.10
MA25-25X35X6	25	35	6	7.0	\$10.95
MA25-25X35X8	25	35	8	9.0	\$5.81
MA25-25X35X10	25	35	10	11.0	\$7.13
MA25-25X37X7	25	37	7	8.0	\$13.75
MA25-25X38X8	25	38	8	9.0	\$7.89
MA25-25X38X10	25	38	10	11.0	\$7.31
MA25-25X40X10	25	40	10	11.0	\$13.66
MA25-25X45X10	25	45	10	11.0	\$11.96
MA25-27X38X6	27	38	6	7.0	\$14.47
MA25-28X35X5	28	35	5	6.0	\$7.28
MA25-28X35.5X5	28	35.5	5	6.0	\$11.70
MA25-28X36X5	28	36	5	6.0	\$8.24
MA25-28X36X6.5	28	36	6.5	7.5	\$12.56

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-28X36X9	28	36	9	10.0	\$9.10
MA25-28X38X5.6	28	38	5.6	6.6	\$15.23
MA25-28X38X10	28	38	10	11.0	\$5.55
MA25-28X40X8	28	40	8	9.0	\$8.01
MA25-28X40X10	28	40	10	11.0	\$8.01
MA25-28X43X10	28	43	10	11.0	\$9.26
MA25-28X44X8	28	44	8	9.0	\$5.57
MA25-30X37X6	30	37	6	7.0	\$15.04
MA25-30X38X5	30	38	5	6.0	\$10.87
MA25-30X38X5.5	30	38	5.5	6.5	\$5.44
MA25-30X38X6	30	38	6	7.0	\$7.85
MA25-30X40X5.6	30	40	5.6	6.6	\$11.76
MA25-30X40X6	30	40	6	7.0	\$13.51
MA25-30X40X7	30	40	7	8.0	\$13.51
MA25-30X40X8	30	40	8	9.0	\$15.26
MA25-30X40X10	30	40	10	11.0	\$13.51
MA25-30X42X9	30	42	9	10.0	\$11.02
MA25-30X42X10	30	42	10	11.0	\$11.11
MA25-30X43X6.5	30	43	6.5	7.5	\$13.63
MA25-30X45X10	30	45	10	11.0	\$9.16
MA25-30X50X10	30	50	10	11.0	\$10.10
MA25-30X50X12	30	50	12	13.0	\$15.98
MA25-31.5X41.5X6	31.5	41.5	6	7.0	\$13.33
MA25-32X40X4	32	40	4	5.0	\$15.25
MA25-32X40X5	32	40	5	6.0	\$5.81
MA25-32X40X5.7	32	40	5.7	6.7	\$5.81
MA25-32X40X8	32	40	8	9.0	\$8.25
MA25-32X42X5.6	32	42	5.6	6.6	\$13.76
MA25-32X42X6	32	42	6	7.0	\$15.43
MA25-32X42X10	32	42	10	11.0	\$8.01
MA25-32X45X10	32	45	10	11.0	\$9.36
MA25-32X46X10	32	46	10	11.0	\$14.57
MA25-32X47X10	32	47	10	11.0	\$11.08
MA25-32X48X10	32	48	10	11.0	\$11.08
MA25-32X50X10	32	50	10	11.0	\$12.36
MA25-32X50X12	32	50	12	13.0	\$16.74
MA25-33X43X5	33	43	5	6.0	\$17.31
MA25-35X43X6	35	43	6	7.0	\$6.57
MA25-35X43X7	35	43	7	8.0	\$16.74
MA25-35X45X6	35	45	6	7.0	\$13.26
MA25-35X45X7	35	45	7	8.0	\$13.64
MA25-35X45X8	35	45	8	9.0	\$9.17
MA25-35X45X10	35	45	10	11.0	\$12.59
MA25-35X48X10	35	48	10	11.0	\$10.49
MA25-35X50X10	35	50	10	11.0	\$9.89
MA25-35X55X10	35	55	10	11.0	\$10.93
MA25-35X55X12	35	55	12	13.0	\$16.45
MA25-35.5X45X6	35.5	45	6	7.0	\$13.39
MA25-36X44X4	36	44	4	5.0	\$16.74
MA25-36X44X5.7	36	44	5.7	6.7	\$14.75
MA25-36X46X7	36	46	7	8.0	\$8.01
MA25-36X46X10	36	46	10	11.0	\$7.73
MA25-36X50X8	36	50	8	9.0	\$16.74
MA25-36X51X10	36	51	10	11.0	\$17.44
MA25-36X70X10	36	70	10	11.0	\$17.44
MA25-38X45X6	38	45	6	7.0	\$13.86
MA25-38X46X6.5	38	46	6.5	7.5	\$16.74
MA25-38X48X6	38	48	6	7.0	\$14.94



**MA25 Symmetrical Urethane U-Cups - Metric, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-38X48X10	38	48	10	11.0	\$11.09
MA25-38X50X6	38	50	6	7.0	\$16.74
MA25-38X50X9	38	50	9	10.0	\$8.67
MA25-38X50X10	38	50	10	11.0	\$7.63
MA25-38X55X9.7	38	55	9.7	10.7	\$15.65
MA25-38X55X10	38	55	10	11.0	\$15.65
MA25-38X58X10	38	58	10	11.0	\$11.53
MA25-40X48X8	40	48	8	9.0	\$7.67
MA25-40X48X10	40	48	10	11.0	\$15.57
MA25-40X48X11	40	48	11	12.0	\$16.74
MA25-40X50X5	40	50	5	6.0	\$6.43
MA25-40X50X5.6	40	50	5.6	6.6	\$13.51
MA25-40X50X6	40	50	6	7.0	\$15.38
MA25-40X50X6.5	40	50	6.5	7.5	\$9.00
MA25-40X50X7	40	50	7	8.0	\$9.89
MA25-40X50X8	40	50	8	9.0	\$8.97
MA25-40X50X10	40	50	10	11.0	\$9.15
MA25-40X53X8	40	53	8	9.0	\$22.41
MA25-40X55X10	40	55	10	11.0	\$16.07
MA25-40X55X12	40	55	12	13.0	\$16.48
MA25-40X56X8	40	56	8	9.0	\$6.99
MA25-40X56X10	40	56	10	11.0	\$7.09
MA25-40X60X10	40	60	10	11.0	\$7.99
MA25-40X60X12	40	60	12	13.0	\$16.49
MA25-40X60X13	40	60	13	14.0	\$9.49
MA25-40X60X18	40	60	18	19.0	\$11.42
MA25-40X65X10	40	65	10	11.0	\$17.70
MA25-40X65X12	40	65	12	13.0	\$12.46
MA25-40.8X50.8X6	40.8	50.8	6	7.0	\$13.01
MA25-40.8X50.8X8.8	40.8	50.8	8.8	9.8	\$13.01
MA25-42X50X6	42	50	6	7.0	\$10.51
MA25-42X50X8	42	50	8	9.0	\$8.83
MA25-42X52X6	42	52	6	7.0	\$8.82
MA25-42X52X9	42	52	9	10.0	\$9.52
MA25-42X52X10	42	52	10	11.0	\$16.50
MA25-42X62X12	42	62	12	13.0	\$19.31
MA25-45X53X8	45	53	8	9.0	\$17.20
MA25-45X55X5	45	55	5	6.0	\$17.20
MA25-45X55X5.6	45	55	5.6	6.6	\$16.20
MA25-45X55X6	45	55	6	7.0	\$17.98
MA25-45X55X6.5	45	55	6.5	7.5	\$10.11
MA25-45X55X10	45	55	10	11.0	\$10.11
MA25-45X56X7	45	56	7	8.0	\$17.98
MA25-45X58X10	45	58	10	11.0	\$9.45
MA25-45X60X10	45	60	10	11.0	\$10.89
MA25-45X63X10	45	63	10	11.0	\$9.47
MA25-45X63X12	45	63	12	13.0	\$19.16
MA25-45X65X10	45	65	10	11.0	\$12.51
MA25-45X65X12	45	65	12	13.0	\$12.53
MA25-45X70X12	45	70	12	13.0	\$7.40
MA25-45X75X15	45	75	15	16.0	\$19.93
MA25-46X56X6	46	56	6	7.0	\$16.13
MA25-47X55X6	47	55	6	7.0	\$23.45
MA25-48X58X6.5	48	58	6.5	7.5	\$11.51
MA25-48X58X10	48	58	10	11.0	\$10.74
MA25-48X60X9	48	60	9	10.0	\$21.36
MA25-48X63X10	48	63	10	11.0	\$23.16
MA25-48X65X10	48	65	10	11.0	\$23.16

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-48X68X10	48	68	10	11.0	\$23.26
MA25-50X58X8	50	58	8	9.0	\$20.74
MA25-50X60X5	50	60	5	6.0	\$11.22
MA25-50X60X5.6	50	60	5.6	6.6	\$17.12
MA25-50X60X6	50	60	6	7.0	\$14.55
MA25-50X60X7	50	60	7	8.0	\$14.30
MA25-50X60X8	50	60	8	9.0	\$12.80
MA25-50X60X10	50	60	10	11.0	\$12.07
MA25-50X60X12	50	60	12	13.0	\$20.53
MA25-50X60X13	50	60	13	14.0	\$20.53
MA25-50X62X9	50	62	9	10.0	\$13.34
MA25-50X62X10	50	62	10	11.0	\$17.98
MA25-50X63X6	50	63	6	7.0	\$9.39
MA25-50X63X8	50	63	8	9.0	\$12.64
MA25-50X63X9	50	63	9	10.0	\$17.72
MA25-50X63X10	50	63	10	11.0	\$9.98
MA25-50X65X10	50	65	10	11.0	\$22.45
MA25-50X65X12	50	65	12	13.0	\$20.30
MA25-50X70X10	50	70	10	11.0	\$13.30
MA25-50X70X12	50	70	12	13.0	\$13.38
MA25-50X70X18	50	70	18	19.0	\$27.05
MA25-50X75X12	50	75	12	13.0	\$17.70
MA25-52X62X6	52	62	6	7.0	\$13.07
MA25-52X62X12	52	62	12	13.0	\$10.77
MA25-53X63X6	53	63	6	7.0	\$18.23
MA25-53X63X6.5	53	63	6.5	7.5	\$16.67
MA25-53X63X7.5	53	63	7.5	8.5	\$15.48
MA25-55X65X5	55	65	5	6.0	\$9.01
MA25-55X65X6	55	65	6	7.0	\$18.88
MA25-55X65X10	55	65	10	11.0	\$12.58
MA25-55X65X11	55	65	11	12.0	\$13.00
MA25-55X65X12	55	65	12	13.0	\$9.96
MA25-55X70X9	55	70	9	10.0	\$16.70
MA25-55X70X10	55	70	10	11.0	\$9.79
MA25-55X70X12	55	70	12	13.0	\$13.33
MA25-55X75X10	55	75	10	11.0	\$12.88
MA25-55X75X12	55	75	12	13.0	\$12.95
MA25-55X80X12	55	80	12	13.0	\$15.32
MA25-55X80X18	55	80	18	19.0	\$22.86
MA25-56X66X6	56	66	6	7.0	\$19.66
MA25-56X66X6.7	56	66	6.7	7.7	\$19.46
MA25-56X66X7.3	56	66	7.3	8.3	\$19.80
MA25-56X70X12	56	70	12	13.0	\$25.17
MA25-56X71X8.4	56	71	8.4	9.4	\$23.52
MA25-56X71X10	56	71	10	11.0	\$13.35
MA25-56X71X10.6	56	71	10.6	11.6	\$20.00
MA25-56X76X12	56	76	12	13.0	\$15.60
MA25-58X78X15	58	78	15	16.0	\$19.54
MA25-60X68X8	60	68	8	9.0	\$18.22
MA25-60X68X13	60	68	13	14.0	\$41.49
MA25-60X70X5	60	70	5	6.0	\$7.35
MA25-60X70X6	60	70	6	7.0	\$15.68
MA25-60X70X8	60	70	8	9.0	\$13.31
MA25-60X70X10	60	70	10	11.0	\$13.35
MA25-60X70X12	60	70	12	13.0	\$13.35
MA25-60X70X13	60	70	13	14.0	\$19.33
MA25-60X71X7	60	71	7	8.0	\$17.52
MA25-60X75X10	60	75	10	11.0	\$11.66

**MA25 Symmetrical Urethane U-Cups - Metric, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-60X75X12	60	75	12	13.0	\$11.66
MA25-60X80X10	60	80	10	11.0	\$13.11
MA25-60X80X12	60	80	12	13.0	\$13.14
MA25-60X80X18	60	80	18	19.0	\$14.75
MA25-60X85X10	60	85	10	11.0	\$23.58
MA25-60X85X12	60	85	12	13.0	\$23.58
MA25-60X85X12.5	60	85	12.5	13.5	\$23.58
MA25-60X90X15	60	90	15	16.0	\$26.15
MA25-61X71X6	61	71	6	7.0	\$17.32
MA25-62X72X12.5	62	72	12.5	13.5	\$18.73
MA25-63X73X5	63	73	5	6.0	\$21.52
MA25-63X73X6	63	73	6	7.0	\$16.15
MA25-63X73X11.8	63	73	11.8	12.8	\$19.49
MA25-63X75X10	63	75	10	11.0	\$11.94
MA25-63X78X8.4	63	78	8.4	9.4	\$20.93
MA25-63X78X10	63	78	10	11.0	\$13.54
MA25-63X78X11	63	78	11	12.0	\$22.97
MA25-63X83X12	63	83	12	13.0	\$16.49
MA25-63X83X15	63	83	15	16.0	\$25.37
MA25-65X73X8	65	73	8	9.0	\$21.78
MA25-65X75X6	65	75	6	7.0	\$23.33
MA25-65X75X10	65	75	10	11.0	\$25.37
MA25-65X75X12	65	75	12	13.0	\$25.37
MA25-65X80X8.4	65	80	8.4	9.4	\$24.07
MA25-65X80X10	65	80	10	11.0	\$25.51
MA25-65X80X11	65	80	11	12.0	\$13.49
MA25-65X80X12	65	80	12	13.0	\$13.49
MA25-65X85X10	65	85	10	11.0	\$14.47
MA25-65X85X12	65	85	12	13.0	\$13.50
MA25-65X90X18	65	90	18	19.0	\$23.43
MA25-67X77X10	67	77	10	11.0	\$23.88
MA25-67X77X12	67	77	12	13.0	\$23.88
MA25-70X80X5	70	80	5	6.0	\$12.36
MA25-70X80X6	70	80	6	7.0	\$22.78
MA25-70X80X7	70	80	7	8.0	\$22.85
MA25-70X80X8	70	80	8	9.0	\$11.66
MA25-70X80X10	70	80	10	11.0	\$12.10
MA25-70X80X12	70	80	12	13.0	\$12.11
MA25-70X82X9	70	82	9	10.0	\$15.51
MA25-70X85X8.4	70	85	8.4	9.4	\$28.81
MA25-70X85X10	70	85	10	11.0	\$22.60
MA25-70X85X11	70	85	11	12.0	\$24.71
MA25-70X85X12	70	85	12	13.0	\$13.08
MA25-70X90X10	70	90	10	11.0	\$20.09
MA25-70X90X12	70	90	12	13.0	\$13.20
MA25-70X95X12	70	95	12	13.0	\$17.28
MA25-71X80X6	71	80	6	7.0	\$22.23
MA25-75X85X6	75	85	6	7.0	\$24.19
MA25-75X85X10	75	85	10	11.0	\$11.32
MA25-75X85X11.8	75	85	11.8	12.8	\$25.61
MA25-75X85X12	75	85	12	13.0	\$13.86
MA25-75X90X7.5	75	90	7.5	8.5	\$14.84
MA25-75X90X9	75	90	9	10.0	\$25.55
MA25-75X90X10	75	90	10	11.0	\$10.70
MA25-75X90X12	75	90	12	13.0	\$14.18
MA25-75X95X12	75	95	12	13.0	\$13.71
MA25-75X100X15	75	100	15	16.0	\$28.94
MA25-78X93X10.5	78	93	10.5	11.5	\$21.20

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-80X90X5	80	90	5	6.0	\$9.35
MA25-80X90X6	80	90	6	7.0	\$20.87
MA25-80X90X8	80	90	8	9.0	\$13.17
MA25-80X90X10	80	90	10	11.0	\$13.17
MA25-80X90X11.8	80	90	11.8	12.8	\$26.16
MA25-80X90X12	80	90	12	13.0	\$33.16
MA25-80X95X8.4	80	95	8.4	9.4	\$29.30
MA25-80X95X9	80	95	9	10.0	\$10.25
MA25-80X95X12	80	95	12	13.0	\$13.13
MA25-80X100X10	80	100	10	11.0	\$13.65
MA25-80X100X12	80	100	12	13.0	\$13.66
MA25-80X105X12	80	105	12	13.0	\$32.52
MA25-82X92X10	82	92	10	11.0	\$18.72
MA25-85X95X8.5	85	95	8.5	9.5	\$11.91
MA25-85X95X9	85	95	9	10.0	\$19.29
MA25-85X95X12	85	95	12	13.0	\$13.70
MA25-85X100X8.4	85	100	8.4	9.4	\$23.81
MA25-85X100X9	85	100	9	10.0	\$28.65
MA25-85X100X11	85	100	11	12.0	\$14.50
MA25-85X100X12	85	100	12	13.0	\$16.65
MA25-85X100X25	85	100	25	26.0	\$20.79
MA25-85X105X12	85	105	12	13.0	\$14.26
MA25-85X105X18	85	105	18	19.0	\$23.86
MA25-85X115X15	85	115	15	16.0	\$29.45
MA25-90X100X7	90	100	7	8.0	\$13.34
MA25-90X100X8	90	100	8	9.0	\$13.34
MA25-90X100X10	90	100	10	11.0	\$23.45
MA25-90X100X11.8	90	100	11.8	12.8	\$30.02
MA25-90X100X12	90	100	12	13.0	\$38.15
MA25-90X105X8.4	90	105	8.4	9.4	\$35.20
MA25-90X105X9	90	105	9	10.0	\$34.58
MA25-90X105X12	90	105	12	13.0	\$18.00
MA25-90X110X10	90	110	10	11.0	\$12.69
MA25-90X110X12	90	110	12	13.0	\$15.29
MA25-90X110X18	90	110	18	19.0	\$32.94
MA25-90X120X15	90	120	15	16.0	\$37.35
MA25-95X105X12	95	105	12	13.0	\$35.55
MA25-95X110X9	95	110	9	10.0	\$38.85
MA25-95X110X12	95	110	12	13.0	\$11.18
MA25-95X110X15	95	110	15	16.0	\$37.99
MA25-95X112X11	95	112	11	12.0	\$39.35
MA25-95X115X12	95	115	12	13.0	\$17.55
MA25-95X115X18	95	115	18	19.0	\$38.89
MA25-100X112X9	100	112	9	10.0	\$23.49
MA25-100X115X9	100	115	9	10.0	\$38.85
MA25-100X115X12	100	115	12	13.0	\$15.74
MA25-100X120X10	100	120	10	11.0	\$43.53
MA25-100X120X11	100	120	11	12.0	\$44.71
MA25-100X120X12	100	120	12	13.0	\$42.74
MA25-100X120X15	100	120	15	16.0	\$19.56
MA25-100X120X18	100	120	18	19.0	\$39.55
MA25-100X125X12	100	125	12	13.0	\$43.36
MA25-100X125X15	100	125	15	16.0	\$18.82
MA25-100X130X12	100	130	12	13.0	\$39.37
MA25-100X130X15	100	130	15	16.0	\$23.88
MA25-105X120X8	105	120	8	9.0	\$14.48
MA25-105X120X15	105	120	15	16.0	\$17.64
MA25-105X125X10	105	125	10	11.0	\$36.96

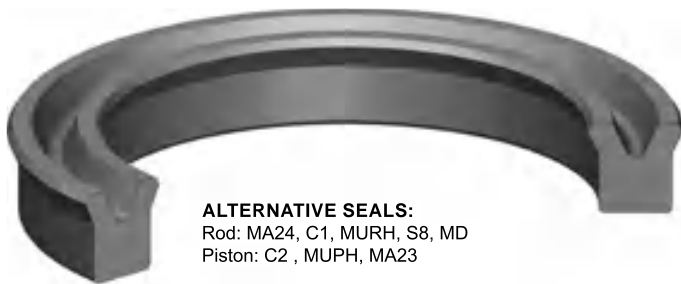


## MA25 Symmetrical Urethane U-Cups - Metric, cont'd.

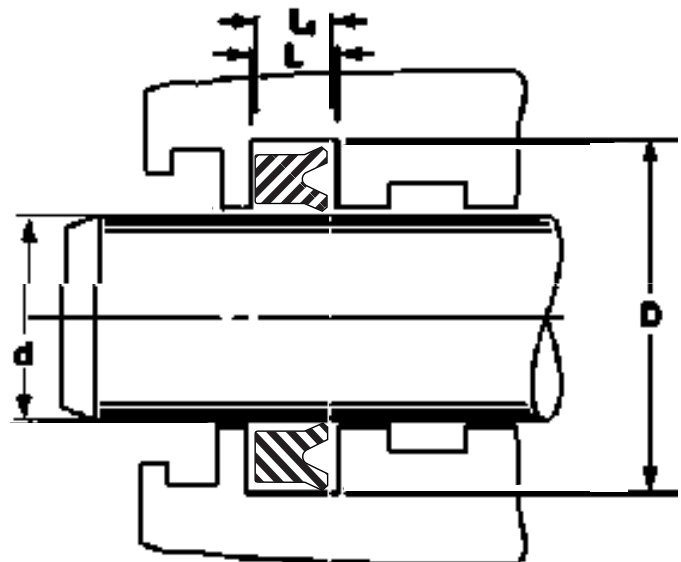
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-105X125X11.36	105	125	11.36	12.4	\$31.47
MA25-105X125X15	105	125	15	16.0	\$22.64
MA25-106X120X8.5	106	120	8.5	9.5	\$37.55
MA25-110X125X12	110	125	12	13.0	\$18.32
MA25-110X125X15	110	125	15	16.0	\$45.99
MA25-110X130X11	110	130	11	12.0	\$46.77
MA25-110X130X12	110	130	12	13.0	\$43.39
MA25-110X130X14.5	110	130	14.5	15.5	\$41.35
MA25-110X130X15	110	130	15	16.0	\$40.80
MA25-110X130X18	110	130	18	19.0	\$49.39
MA25-110X135X18	110	135	18	19.0	\$44.35
MA25-112X125X9	112	125	9	10.0	\$40.88
MA25-113X125X9.5	113	125	9.5	10.5	\$58.17
MA25-115X125X15	115	125	15	16.0	\$45.45
MA25-115X126X15	115	126	15	16.0	\$49.44
MA25-115X130X10	115	130	10	11.0	\$47.95
MA25-115X130X15	115	130	15	16.0	\$50.25
MA25-115X135X15	115	135	15	16.0	\$56.80
MA25-115X140X15	115	140	15	16.0	\$59.14
MA25-115X140X18	115	140	18	19.0	\$60.48
MA25-120X130X5	120	130	5	6.0	\$60.59
MA25-120X130X14	120	130	14	15.0	\$35.98
MA25-120X135X15	120	135	15	16.0	\$22.15
MA25-120X140X10	120	140	10	11.0	\$16.85
MA25-120X140X12	120	140	12	13.0	\$22.98
MA25-120X140X14.5	120	140	14.5	15.5	\$55.85
MA25-120X140X15	120	140	15	16.0	\$19.85
MA25-120X150X15	120	150	15	16.0	\$57.63
MA25-120X150X18	120	150	18	19.0	\$58.03
MA25-125X135X10	125	135	10	11.0	\$50.44
MA25-125X140X9	125	140	9	10.0	\$37.92
MA25-125X140X11	125	140	11	12.0	\$20.52
MA25-125X140X12	125	140	12	13.0	\$18.43
MA25-125X140X15	125	140	15	16.0	\$39.34
MA25-125X145X11	125	145	11	12.0	\$58.26
MA25-125X145X15	125	145	15	16.0	\$46.61
MA25-125X150X12	125	150	12	13.0	\$30.48
MA25-125X155X15	125	155	15	16.0	\$29.59
MA25-125X155X18	125	155	18	19.0	\$40.80
MA25-130X150X14.5	130	150	14.5	15.5	\$54.84
MA25-130X150X15	130	150	15	16.0	\$46.61
MA25-130X150X16	130	150	16	17.0	\$58.33
MA25-130X160X15	130	160	15	16.0	\$59.51
MA25-130X160X18	130	160	18	19.0	\$48.69
MA25-135X155X15	135	155	15	16.0	\$51.34
MA25-135X160X15	135	160	15	16.0	\$64.83
MA25-136X150X9	136	150	9	10.0	\$44.40
MA25-140X150X5	140	150	5	6.0	\$39.11
MA25-140X155X9	140	155	9	10.0	\$18.98
MA25-140X155X15	140	155	15	16.0	\$46.49
MA25-140X160X6	140	160	6	7.0	\$49.09
MA25-140X160X10	140	160	10	11.0	\$49.25
MA25-140X160X12	140	160	12	13.0	\$52.05

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA25-140X160X15	140	160	15	16.0	\$48.14
MA25-145X160X9	145	160	9	10.0	\$51.50
MA25-145X165X15	145	165	15	16.0	\$55.67
MA25-150X170X15	150	170	15	16.0	\$57.46
MA25-150X170X18	150	170	18	19.0	\$95.21
MA25-150X180X15	150	180	15	16.0	\$58.39
MA25-150X180X18	150	180	18	19.0	\$54.86
MA25-155X180X15	155	180	15	16.0	\$61.32
MA25-160X175X7.5	160	175	7.5	8.5	\$76.67
MA25-160X180X15	160	180	15	16.0	\$61.48
MA25-160X185X15	160	185	15	16.0	\$70.58
MA25-160X190X15	160	190	15	16.0	\$68.64
MA25-160X190X19	160	190	19	20.0	\$81.61
MA25-165X190X15	165	190	15	16.0	\$75.62
MA25-170X190X15	170	190	15	16.0	\$34.02
MA25-170X195X15	170	195	15	16.0	\$79.61
MA25-170X200X15	170	200	15	16.0	\$78.31
MA25-170X200X18	170	200	18	19.0	\$82.35
MA25-175X200X15	175	200	15	16.0	\$80.46
MA25-180X200X12	180	200	12	13.0	\$57.24
MA25-180X200X15	180	200	15	16.0	\$57.24
MA25-180X205X15	180	205	15	16.0	\$78.33
MA25-180X210X22	180	210	22	23.0	\$52.02
MA25-185X200X7.5	185	200	7.5	8.5	\$62.47
MA25-190X210X12	190	210	12	13.0	\$82.99
MA25-190X210X15	190	210	15	16.0	\$51.11
MA25-190X215X15	190	215	15	16.0	\$94.28
MA25-200X220X12	200	220	12	13.0	\$85.70
MA25-200X220X15	200	220	15	16.0	\$80.43
MA25-200X230X17	200	230	17	18.0	\$113.91
MA25-210X230X15	210	230	15	16.0	\$83.49
MA25-210X240X18	210	240	18	19.0	\$58.97
MA25-220X250X15	220	250	15	16.0	\$64.77
MA25-220X250X17.5	220	250	17.5	18.5	\$104.67
MA25-220X250X18	220	250	18	19.0	\$72.77
MA25-225X250X18.2	225	250	18.2	19.2	\$79.47
MA25-230X250X12	230	250	12	13.0	\$94.13
MA25-230X250X15	230	250	15	16.0	\$69.51
MA25-240X260X16	240	260	16	17.0	\$58.77
MA25-240X265X18	240	265	18	19.0	\$100.80
MA25-250X270X15	250	270	15	16.0	\$105.05
MA25-250X275X19	250	275	19	20.0	\$107.59
MA25-250X280X18	250	280	18	19.0	\$78.59
MA25-250X280X22	250	280	22	24.0	\$116.15
MA25-260X290X18	260	290	18	19.0	\$80.69
MA25-270X300X19	270	300	19	20.0	\$131.52
MA25-270X300X20	270	300	20	22.0	\$167.43
MA25-280X300X15	280	300	15	16.0	\$91.46
MA25-300X330X17	300	330	17	18.0	\$156.47
MA25-300X330X19	300	330	19	20.0	\$159.90
MA25-310X330X15	310	330	15	16.0	\$158.00
MA25-320X350X19	320	350	19	20.0	\$192.58
MA25-325X360X20	325	360	20	22.0	\$248.24

# MA21 NBR Symmetrical U-Cup - Metric



**ALTERNATIVE SEALS:**  
 Rod: MA24, C1, MURH, S8, MD  
 Piston: C2, MUPH, MA23



EXAMPLE: MA21-65X75X10					
Prefix	Inside Diameter		Outside Diameter		Height
MA21-	65	x	75	x	10
	65mm		75mm		10mm

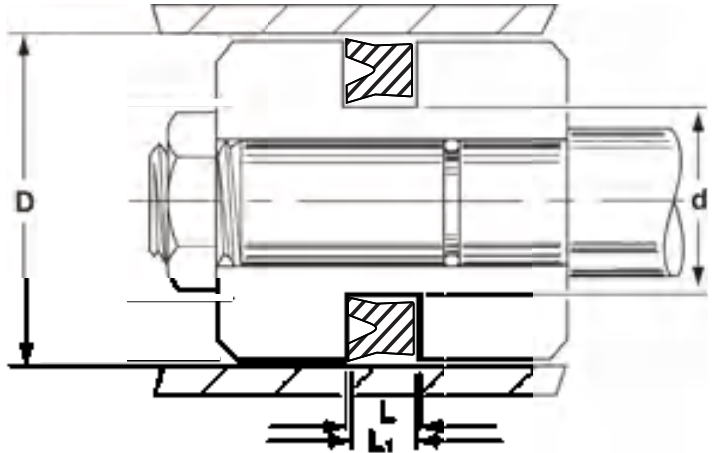
Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA21-4X7.5X3	4	7.5	3	4	\$2.45
MA21-5X12X5	5	12	5	6	\$2.41
MA21-6X12X4	6	12	4	5	\$2.37
MA21-6X12X6	6	12	6	7	\$2.41
MA21-6X13X5.5	6	13	5.5	6.5	\$2.44
MA21-6X14X6	6	14	6	7	\$2.46
MA21-8X14X6	8	14	6	7	\$2.76
MA21-14X22X4	14	22	4	5	\$3.08
MA21-14X22X5	14	22	5	6	\$3.90
MA21-16X24X4	16	24	4	5	\$3.18
MA21-16X32X10	16	32	10	11	\$3.90
MA21-20X28X6	20	28	6	7	\$4.12
MA21-20X36X8	20	36	8	9	\$6.37
MA21-24X34X5	24	34	5	6	\$3.90
MA21-24X40X8	24	40	8	9	\$4.02
MA21-25X35X5	25	35	5	6	\$4.24
MA21-27X35X6	27	35	6	7	\$4.43
MA21-28X40X6	28	40	6	7	\$4.65
MA21-30X40X6	30	40	6	7	\$3.80
MA21-30X42X10	30	42	10	11	\$5.07
MA21-32X40X8	32	40	8	9	\$4.69
MA21-35X45X6	35	45	6	7	\$4.10
MA21-35X55X12	35	55	12	13	\$8.45
MA21-36X46X6	36	46	6	7	\$5.73
MA21-38X50X6	38	50	6	7	\$10.00
MA21-40X56X10	40	56	10	11	\$8.50
MA21-45X60X9	45	60	9	10	\$29.17
MA21-45X60X10	45	60	10	11	\$6.98
MA21-45X65X10	45	65	10	11	\$7.39
MA21-50X60X6	50	60	6	7	\$4.82
MA21-50X60X10	50	60	10	11	\$6.66
MA21-60X70X6	60	70	6	7	\$6.05

This symmetrical 90A nitrile single acting rod or piston seal is an economical sealing solution for standard cylinder applications. Easily assembled into closed grooves, the MA21 offers a superior static and dynamic sealing effect.

Temperature : -20°F to +220°F      Pressure : 0 to 2175 PSI

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA21-60X80X10	60	80	10	11	\$13.59
MA21-65X75X10	65	75	10	11	\$8.14
MA21-68X80X10	68	80	10	11	\$8.24
MA21-70X80X6	70	80	6	7	\$6.51
MA21-70X80X7	70	80	7	8	\$9.47
MA21-80X90X6	80	90	6	7	\$7.63
MA21-80X95X9	80	95	9	10	\$8.85
MA21-85X100X9	85	100	9	10	\$8.89
MA21-85X105X12	85	105	12	13	\$19.53
MA21-90X100X5	90	100	5	6	\$10.04
MA21-90X105X9	90	105	9	10	\$9.58
MA21-95X115X12	95	115	12	13	\$13.83
MA21-100X115X9	100	115	9	10	\$11.03
MA21-120X150X15	120	150	15	16	\$19.46
MA21-125X140X9	125	140	9	10	\$15.65
MA21-125X155X18	125	155	18	19	\$24.47
MA21-130X160X18	130	160	18	19	\$26.11
MA21-140X170X18	140	170	18	19	\$45.35
MA21-150X165X9	150	165	9	10	\$20.88
MA21-160X190X22	160	190	22	24	\$54.00
MA21-200X220X12	200	220	12	13	\$65.21
MA21-200X230X15	200	230	15	16	\$63.33
MA21-210X250X20	210	250	20	22	\$64.23
MA21-270X300X22	270	300	22	24	\$76.40
MA21-360X400X20	360	400	20	22	\$127.92

# MA22 NBR Symmetrical U-Cup - Metric



This symmetrical 90A nitrile single acting rod or piston seal is an economical sealing solution for standard cylinder applications. Although originally designed for hydraulic applications, it is also used in special pneumatic cylinders as well. Easily assembled into closed grooves, the MA22 offers a superior static and dynamic sealing effect.

Temperature : -20°F to 220°F

Pressure : 0 to 2175 PSI

**ALTERNATIVE SEALS:**

Rod: MA21, C1, MURH

Piston: MA21, MUPH, MA23, C2

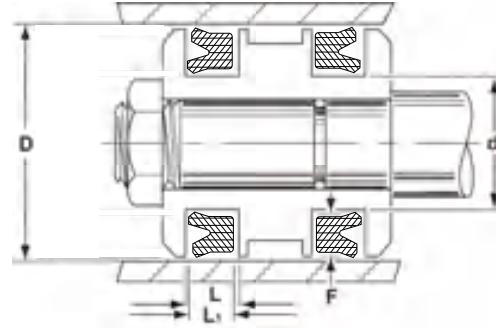
EXAMPLE: MA22 -24X34X5					
Prefix	Inside Diameter		Outside Diameter		Height
MA22-	24	x	34	x	5
	24mm		34mm		5mm

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA22-4X12X5.5	4	12	5.5	6.5	\$2.43
MA22-4.4X10X4 N70FDA	4.4	10	4	5.0	\$5.03
MA22-8X12X4	8	12	4	5.0	\$2.58
MA22-12X18X4	12	18	4	5	\$2.80
MA22-14X22X4	14	22	4	5	\$3.00
MA22-16X22X4	16	22	4	5	\$3.21
MA22-18X26X4	18	26	4	5	\$3.90
MA22-22X34X6	22	34	6	7	\$5.06
MA22-22X35X7	22	35	7	8	\$3.46
MA22-24X34X5	24	34	5	6	\$4.35
MA22-25X33X5	25	33	5	6	\$5.40
MA22-25X37X6 V90	22	37	6	7	\$15.17
MA22-25X40X6	25	40	6	7	\$6.67
MA22-40X60X10	40	60	10	11	\$8.84
MA22-45X65X10	45	65	10	11	\$15.80
MA22-50X60X6	50	60	6	7	\$10.68
MA22-80X100X10	80	100	10	11	\$18.94
MA22-85X100X7.5	85	100	7.5	8.5	\$40.71

# UNP Urethane Piston U-Cups - Inch



**ALTERNATIVE SEALS:**  
Piston: DEEP LLS, US, UNP-AN, LLS



EXAMPLE: UNP-25004500-375			
Prefix	Cross Section	Inside Diameter	Height
UNP-	250	04500	- 375
	1/4	4-1/2"	3/8

When there is nothing to indicate Height in the Part #  
(No Dash #) Height = Cross Section

UNP series urethane U-cups are non-symmetrical in design and are meant only to be used for reciprocating hydraulic piston applications. They are manufactured slightly smaller in diameter than nominal dimensions. This ensures a tight fit when installed in the groove. Good stability and decreased heel drag, resulting in lower friction, are the prime features of this seal.

Temperature: -65°F to 200°F      Pressure: 0 to 5,000 PSI

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
UNP-12500500-187	0.500	0.750	0.187	0.206	\$6.95
UNP-12500500-250	0.500	0.750	0.250	0.275	\$6.95
UNP-12501875-163	1.875	2.125	0.163	0.179	\$33.96
<b>3/16" CROSS SECTION ("F")</b>					
UNP-18700750-312-1	0.750	1.125	0.312	0.343	\$8.16
UNP-18701250-312	1.250	1.625	0.312	0.343	\$8.76
UNP-18701625-250	1.625	2.000	0.250	0.275	\$10.27
UNP-18701625-312	1.625	2.000	0.312	0.343	\$11.31
UNP-18701625-375	1.625	2.000	0.375	0.413	\$11.86
UNP-18702125-312	2.125	2.500	0.312	0.343	\$13.28
UNP-18702125-375	2.125	2.500	0.375	0.413	\$13.59
UNP-18703625-375	3.625	4.000	0.375	0.413	\$23.85
<b>1/4" CROSS SECTION ("F")</b>					
UNP-25000875	0.875	1.375	0.250	0.275	\$7.45
UNP-25001000-375	1.000	1.500	0.375	0.413	\$8.67
UNP-25001187	1.187	1.687	0.250	0.275	\$9.37
UNP-25001500	1.500	2.000	0.250	0.275	\$10.47
UNP-25001500-312	1.500	2.000	0.312	0.343	\$10.57
UNP-25001500-375	1.500	2.000	0.375	0.413	\$11.63
UNP-25002000	2.000	2.500	0.250	0.275	\$12.65
UNP-25002000-375	2.000	2.500	0.375	0.413	\$13.19
UNP-25002125-375	2.125	2.625	0.375	0.413	\$13.99
UNP-25002250-375	2.250	2.750	0.375	0.413	\$14.80
UNP-25002500	2.500	3.000	0.250	0.275	\$16.41
UNP-25002500-375	2.500	3.000	0.375	0.413	\$16.41
UNP-25002500-375ODBU	2.500	3.000	0.375	0.413	\$30.67
UNP-25002750-375	2.750	3.250	0.375	0.413	\$18.12
UNP-25003000	3.000	3.500	0.250	0.275	\$18.52
UNP-25003000-375	3.000	3.500	0.375	0.413	\$21.56
UNP-25003000-375ODBU	3.000	3.500	0.375	0.413	\$42.84
UNP-25003250-375	3.250	3.750	0.375	0.413	\$22.25
UNP-25003500	3.500	4.000	0.250	0.275	\$21.65
UNP-25003500-375	3.500	4.000	0.375	0.413	\$22.74
UNP-25003500-375 NBR	3.500	4.000	0.375	0.413	\$21.36
UNP-25003750-375	3.750	4.250	0.375	0.413	\$23.15
UNP-25004000-375	4.000	4.500	0.375	0.413	\$23.65
UNP-25004500	4.500	5.000	0.250	0.275	\$24.66
UNP-25004500-375	4.500	5.000	0.375	0.413	\$24.57

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
UNP-25004500-437-1	4.500	5.000	0.437	0.481	\$74.10
UNP-25004500-562	4.500	5.000	0.562	0.618	\$32.87
UNP-25005000-562	5.000	5.500	0.562	0.618	\$31.70
UNP-25005500	5.500	6.000	0.250	0.275	\$39.75
UNP-25005500-375	5.500	6.000	0.375	0.413	\$39.75
UNP-25005500-562	5.500	6.000	0.562	0.618	\$39.75
<b>.258" CROSS SECTION ("F")</b>					
UNP-25809491-285	9.491	10.007	0.285	0.313	\$46.10
<b>5/16" CROSS SECTION ("F")</b>					
UNP-31201375-500	1.375	2.000	0.500	0.550	\$17.29
UNP-31201875-500	1.875	2.500	0.500	0.550	\$26.93
UNP-31202375-500	2.375	3.000	0.500	0.550	\$18.67
UNP-31202875-500	2.875	3.500	0.500	0.550	\$18.87
UNP-31203125-375	3.125	3.750	0.375	0.413	\$20.89
UNP-31203375-500	3.375	4.000	0.500	0.550	\$28.31
UNP-31204375-562	4.375	5.000	0.562	0.618	\$28.88
UNP-31204875-625	4.875	5.500	0.625	0.688	\$77.69
UNP-31205375-625	5.375	6.000	0.625	0.688	\$37.16
<b>3/8" CROSS SECTION ("F")</b>					
UNP-37501750	1.750	2.500	0.375	0.413	\$23.16
UNP-37502500-500	2.500	3.250	0.500	0.550	\$23.20
UNP-37502750-500	2.750	3.500	0.500	0.550	\$24.35
UNP-37502750-625-1	2.750	3.500	0.625	0.688	\$71.20
UNP-37503000-500	3.000	3.750	0.500	0.550	\$26.23
UNP-37503000-625	3.000	3.750	0.625	0.688	\$27.57
UNP-37503250	3.250	4.000	0.375	0.413	\$27.10
UNP-37503250-437	3.250	4.000	0.437	0.481	\$30.61
UNP-37503250-500	3.250	4.000	0.500	0.550	\$30.61
UNP-37503250-625	3.250	4.000	0.625	0.688	\$30.61
UNP-37503750-500	3.750	4.500	0.500	0.550	\$33.45
UNP-37503750-625	3.750	4.500	0.625	0.688	\$33.83
UNP-37504250	4.250	5.000	0.375	0.413	\$34.23
UNP-37504250-500	4.250	5.000	0.500	0.550	\$34.58
UNP-37504250-625	4.250	5.000	0.625	0.688	\$35.57
UNP-37504750-500	4.750	5.500	0.500	0.550	\$41.60
UNP-37505250	5.250	6.000	0.375	0.413	\$47.90

## UNP Urethane Piston U-Cups - Inch, cont'd.

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/8" CROSS SECTION ("F")</b>					
UNP-37505250-500	5.250	6.000	0.500	0.550	\$34.12
UNP-37505250-625	5.250	6.000	0.625	0.688	\$47.90
UNP-37505500-500	5.500	6.250	0.500	0.550	\$48.78
UNP-37505750-625	5.750	6.500	0.625	0.688	\$52.24
UNP-37506250-500	6.250	7.000	0.500	0.550	\$72.34
UNP-37506250-625	6.250	7.000	0.625	0.688	\$73.88
UNP-37506750-625	6.750	7.500	0.625	0.688	\$73.92

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/8" CROSS SECTION ("F")</b>					
UNP-37507250	7.250	8.000	0.375	0.413	\$79.85
UNP-37507250-500	7.250	8.000	0.500	0.550	\$82.43
UNP-37508250-625	8.250	9.000	0.625	0.688	\$94.99
UNP-37509250	9.250	10.000	0.375	0.413	\$102.28
<b>1/2" CROSS SECTION ("F")</b>					
UNP-50007500-625-1	7.500	8.500	0.625	0.688	\$196.71
UNP-50009000-750	9.000	10.000	0.750	0.825	\$106.16

## UNP-AN Urethane Piston U-Cups - Inch



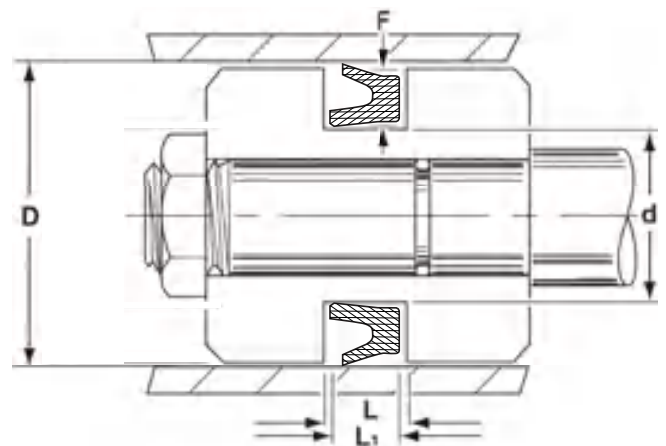
**ALTERNATIVE SEALS:**

Piston: UNP, DEEP LLS, LLS, US

EXAMPLE: UNP-18700750-250AN					
Prefix	Cross Section	Inside Diameter	Height	Suffix	
UNP-	250	00750	-	250	AN
	1/4"	3/4"	1/4"		

When there is nothing to indicate Height in the Part #  
(No Dash #) Height = Cross Section

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
UNP-18700750-250AN	0.750	1.125	0.250	0.275	\$12.43
<b>1/4" CROSS SECTION ("F")</b>					
UNP-25001187AN	1.187	1.687	0.250	0.275	\$17.12
UNP-25001187-312AN	1.187	1.687	0.312	0.343	\$18.69
UNP-25001187-312AN-V	1.187	1.687	0.312	0.343	\$47.34
UNP-25002062AN	2.062	2.562	0.250	0.275	\$26.71
UNP-25002062-343AN	2.062	2.562	0.343	0.377	\$27.61
<b>5/16" CROSS SECTION ("F")</b>					
UNP-31201375-375AN	1.375	2.000	0.375	0.413	\$22.66
UNP-31201375-440AN	1.375	2.000	0.440	0.484	\$24.81
<b>3/8" CROSS SECTION ("F")</b>					
UNP-37503000AN	3.000	3.750	0.375	0.413	\$49.99
UNP-37503000-468AN	3.000	3.750	0.468	0.515	\$54.27
<b>1/2" CROSS SECTION ("F")</b>					
UNP-50004125-594AN	4.125	5.125	0.594	0.653	\$107.54



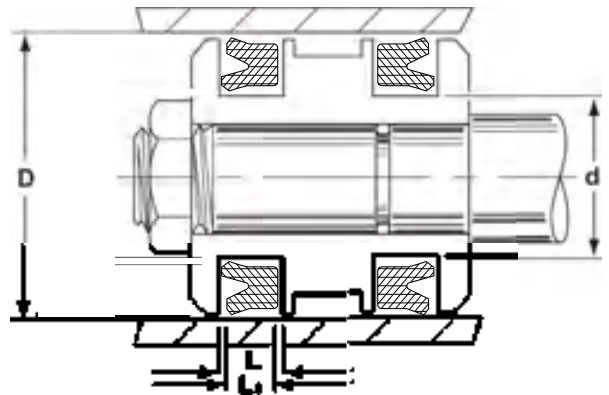
UNP-AN series urethane u-cups are non-symmetrical in design and are meant only to be used for reciprocating hydraulic piston applications. These seals are similar to our other UNP seals but have a thinner outside lip. These are mainly used in Porta-Power® cylinders that use springs to retract the piston. Good stability and decreased heel drag, resulting in lower friction, are the prime features of this seal.

Temperature: -65°F to 200°F

Pressure: 0 to 5,000 PSI



# MA28 Urethane Piston U-Cups - Metric



**ALTERNATIVE SEALS:**  
Piston: MA25, NO

EXAMPLE: MA28 -24X32X5.5					
Prefix	Inside Diameter		Outside Diameter		Height
MA28-	24	x	32	x	5.5
	24mm		32mm		5.5mm

MA28 series metric urethane U-cups are non-symmetrical in design and are meant to be used only for reciprocating piston seals. They are manufactured slightly smaller in diameter than nominal dimensions. This ensures a tight fit when snapped over the piston. Good stability and decreased heel drag, resulting in lower friction, are the prime features of this seal.

Temperature: -40°F to 230°F

Pressure: 0 to 5,000 PSI

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA28-5X12X5.5	5	12	5.5	6.5	\$8.68
MA28-6X14X6	6	14	6	7	\$5.59
MA28-10X20X6	10	20	6	7	\$10.53
MA28-12X20X5.5	12	20	5.5	6.5	\$4.92
MA28-14X20X5.5	14	20	5.5	6.5	\$5.90
MA28-15X25X6	15	25	6	7	\$10.83
MA28-15X30X10	15	30	10	11	\$6.18
MA28-17X25X5.5	17	25	5.5	6.5	\$6.78
MA28-20X30X5	20	30	5	6	\$10.70
MA28-20X30X6	20	30	6	7	\$10.70
MA28-22X32X5.5	22	32	5.5	6.5	\$7.76
MA28-24X32X5.5	24	32	5.5	6.5	\$8.85
MA28-25X35X6	25	35	6	7	\$10.70
MA28-25X40X9	25	40	9	10	\$11.62
MA28-27X35X10	27	35	10	11	\$12.02
MA28-30X40X6	30	40	6	7	\$11.17
MA28-30X40X7	30	40	7	8	\$8.34
MA28-30X45X9	30	45	9	10	\$12.52
MA28-30X45X10	30	45	10	11	\$15.55
MA28-32X40X5.5	32	40	5.5	6.5	\$10.25
MA28-33X40X8	33	40	8	9	\$12.09
MA28-35X45X6	35	45	6	7	\$12.30
MA28-35X50X9	35	50	9	10	\$23.63
MA28-37X45X7	37	45	7	8	\$12.11
MA28-38X45X4.5	38	45	4.5	5.5	\$19.14
MA28-40X50X6	40	50	6	7	\$10.77
MA28-40X50X7	40	50	7	8	\$10.96

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA28-40X60X12	40	60	12	13	\$16.85
MA28-40.6X50X6.1	40.6	50	6.1	7.1	\$12.16
MA28-42X50X10	42	50	10	11	\$12.41
MA28-42X52X10	42	52	10	11	\$14.93
MA28-43X63X12	43	63	12	13	\$16.53
MA28-45X55X6	45	55	6	7	\$14.19
MA28-45X55X7	45	55	7	8	\$14.21
MA28-45X60X10	45	60	10	11	\$14.53
MA28-48X63X9	48	63	9	10	\$10.52
MA28-48X63X11.4	48	63	11.4	12.4	\$14.65
MA28-50X60X6	50	60	6	7	\$15.15
MA28-50X60X10	50	60	10	11	\$15.16
MA28-50X65X10	50	65	10	11	\$22.38
MA28-50X70X12	50	70	12	13	\$26.58
MA28-53X63X6	53	63	6	7	\$14.42
MA28-55X65X6	55	65	6	7	\$14.95
MA28-55X70X10	55	70	10	11	\$18.27
MA28-55X75X12	55	75	12	13	\$20.43
MA28-60X70X6	60	70	6	7	\$20.43
MA28-60X70X10	60	70	10	11	\$20.65
MA28-60X75X10	60	75	10	11	\$21.04
MA28-60X80X12	60	80	12	13	\$31.71
MA28-60X80X14.5	60	80	14.5	15.5	\$25.64
MA28-61X71X6	61	71	6	7	\$26.36
MA28-63X75X8.5	63	75	8.5	9.5	\$15.72
MA28-65X75X6	65	75	6	7	\$21.56
MA28-65X80X9	65	80	9	10	\$22.92

## MA28 Urethane Piston U-Cups - Metric, cont'd.

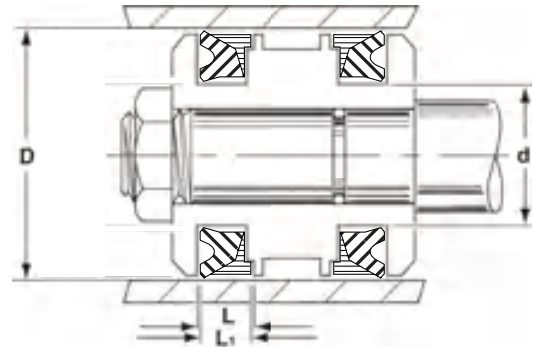
Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA28-65X80X10	65	80	10	11	\$23.30
MA28-65X85X12	65	85	12	13	\$29.37
MA28-68X80X8.5	68	80	8.5	9.5	\$23.55
MA28-70X80X6	70	80	6	7	\$28.32
MA28-70X80X6.7	70	80	6.7	7.7	\$18.81
MA28-72X80X12	72	80	12	13	\$14.69
MA28-75X85X6	75	85	6	7	\$20.09
MA28-75X90X9	75	90	9	10	\$21.24
MA28-80X90X6	80	90	6	7	\$22.79
MA28-80X90X12.8	80	90	12.8	13.8	\$24.96
MA28-80X95X10	80	95	10	11	\$30.19
MA28-80X100X12	80	100	12	13	\$37.79
MA28-80X101.6X12	80	101.6	12	13	\$38.09
MA28-85X100X9	85	100	9	10	\$28.06
MA28-85X110X15	85	110	15	16	\$44.57
MA28-90X105X9	90	105	9	10	\$31.50
MA28-90X110X12	90	110	12	13	\$43.10
MA28-95X110X10	95	110	10	11	\$29.89
MA28-95X110X12	95	110	12	13	\$34.26
MA28-95X115X12	95	115	12	13	\$44.40
MA28-95X120X15	95	120	15	16	\$56.96
MA28-100X115X9	100	115	9	10	\$32.29
MA28-100X120X12	100	120	12	13	\$43.71
MA28-100X120X13	100	120	13	14	\$41.79
MA28-105X120X9	105	120	9	10	\$37.00
MA28-105X125X12	105	125	12	13	\$34.50
MA28-105X125X15	105	125	15	16	\$34.50
MA28-106X120X8.5	106	120	8.5	9.5	\$35.13
MA28-110X125X9	110	125	9	10	\$35.13
MA28-110X125X10	110	125	10	11	\$25.03
MA28-110X130X12	110	130	12	13	\$50.66
MA28-110X130X15	110	130	15	16	\$59.24
MA28-112X125X9	112	125	9	10	\$30.91
MA28-115X125X7.2	115	125	7.2	8.2	\$32.17
MA28-115X130X9	115	130	9	10	\$39.32
MA28-115X135X12	115	135	12	13	\$60.41
MA28-120X130X13.5	120	130	13.5	14.5	\$66.04
MA28-120X140X12	120	140	12	13	\$50.32
MA28-120X140X15	120	140	15	16	\$40.16
MA28-120X150X18	120	150	18	19	\$60.10
MA28-125X140X9	125	140	9	10	\$36.66

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA28-125X140X15	125	140	15	16	\$41.13
MA28-125X145X12	125	145	12	13	\$54.29
MA28-125X150X19	125	150	19	20	\$85.26
MA28-130X150X14.5	130	150	14.5	15.5	\$68.03
MA28-135X150X9	135	150	9	10	\$42.05
MA28-135X160X19	135	160	19	20	\$98.40
MA28-140X160X12	140	160	12	13	\$88.36
MA28-140X155X9	140	155	9	10	\$40.79
MA28-140X160X18.2	140	160	18.2	19.2	\$72.91
MA28-140X165X19	140	165	19	20	\$97.18
MA28-145X170X19	145	170	19	20	\$52.63
MA28-150X170X12	150	170	12	13	\$72.16
MA28-150X170X15	150	170	15	16	\$55.74
MA28-155X170X9	155	170	9	10	\$48.35
MA28-155X180X19	155	180	19	20	\$123.64
MA28-160X180X12	160	180	12	13	\$71.98
MA28-165X180X9	165	180	9	10	\$46.54
MA28-170X200X18	170	200	18	19	\$103.84
MA28-175X190X9	175	190	9	10	\$82.31
MA28-175X200X19	175	200	19	20	\$156.80
MA28-180X200X12	180	200	12	13	\$99.64
MA28-180X200X14.5	180	200	14.5	15.5	\$90.83
MA28-180X205X19	180	205	19	20	\$158.83
MA28-190X210X12	190	210	12	13	\$101.40
MA28-190X215X16	190	215	16	17	\$150.34
MA28-190X220X18	190	220	18	19	\$116.74
MA28-200X220X12	200	220	12	13	\$112.74
MA28-200X220X15	200	220	15	16	\$113.71
MA28-204X224X12	204	224	12	13	\$117.29
MA28-205X225X12	205	225	12	13	\$123.15
MA28-220X240X12	220	240	12	13	\$131.46
MA28-220X250X22.7	220	250	22.7	25	\$264.11
MA28-230X250X12	230	250	12	13	\$154.86
MA28-230X250X15	230	250	15	16	\$108.36
MA28-238X250X14	238	250	14	15	\$105.59
MA28-240X260X16	240	260	16	17	\$108.24
MA28-250X280X18	250	280	18	19	\$153.08
MA28-255X280X19	255	280	19	20	\$296.20
MA28-270X300X19	270	300	19	20	\$339.90
MA28-288X300X14	288	300	14	15	\$255.74
MA28-290X320X20	290	320	20	22	\$234.58

# MA20 2pc. Nitrile / Nylon U-Cups - Metric



Temperature: -22°F to 212°F  
Pressure: 0 to 3,045 PSI



### EXAMPLE: MA20-27X45X12.1

Prefix	Inside Diameter	Outside Diameter	Height
MA20-	27	x 45	x 12.1
	27mm	45mm	12.1mm

These seals are to be used in applications where the piston is stepped on the outer diameter to accommodate the flange in the hard nylon heel of the two piece seal. The nylon cap serves as a bearing and anti-extrusion device. The seal material is a high durometer nitrile rubber.

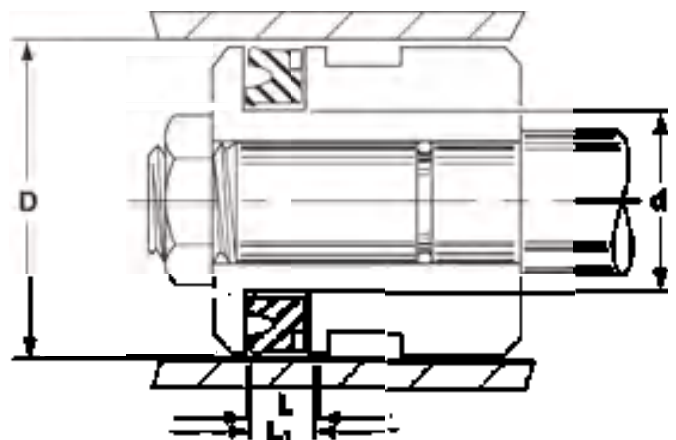
Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA20-27X45X12.1	27	45	12.1	13.1	\$32.96
MA20-32X50X12.1	32	50	12.1	13.1	\$38.27
MA20-37X55X12.1	37	55	12.1	13.1	\$39.06
MA20-42X60X12.1	42	60	12.1	13.1	\$39.77
MA20-47X65X12.1	47	65	12.1	13.1	\$41.32
MA20-48X70X14.5	48	70	14.5	15.5	\$41.98
MA20-58X80X14.5	58	80	14.5	15.5	\$43.02
MA20-68X90X14.5	68	90	14.5	15.5	\$48.02
MA20-78X100X14.5	78	100	14.5	15.5	\$50.05
MA20-88X110X14.5	88	110	14.5	15.5	\$54.24
MA20-93X115X14.5	93	115	14.5	15.5	\$55.67
MA20-98X120X14.5	98	120	14.5	15.5	\$57.39

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA20-103X125X14.5	103	125	14.5	15.5	\$60.30
MA20-108X130X14.5	108	130	14.5	15.5	\$62.11
MA20-118X140X14.5	118	140	14.5	15.5	\$70.86
MA20-123X145X14.5	123	145	14.5	15.5	\$75.34
MA20-128X150X14.5	128	150	14.5	15.5	\$78.41
MA20-138X160X14.5	138	160	14.5	15.5	\$84.81
MA20-148X170X14.5	148	170	14.5	15.5	\$90.56
MA20-158X180X14.5	158	180	14.5	15.5	\$98.78
MA20-168X190X14.5	168	190	14.5	15.5	\$103.50
MA20-178X200X14.5	178	200	14.5	15.5	\$106.14
MA20-203X225X14.5	203	225	14.5	15.5	\$327.83

# OUY - NBR PISTON U-CUP w/POM B/U - Metric



Temperature: -20°F to 220°F  
Pressure: 0 to 4,000 PSI



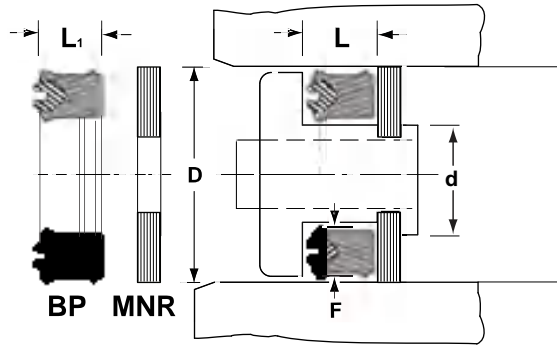
### EXAMPLE: OUY-75X100X18

Prefix	Inside Diameter	Outside Diameter	Height
OUY-	75	x 100	x 18
	75mm	100mm	18mm

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
OUY-25X40X12	25	40	12	13	\$10.03
OUY-30X45X12	30	45	12	13	\$12.40
OUY-35X50X12	35	50	12	13	\$13.01
OUY-35X60X15.5	35	60	15.5	16.5	\$15.61
OUY-45X70X15.5	45	70	15.5	16.5	\$17.51
OUY-55X80X18	55	80	18	19	\$18.23
OUY-65X90X18	65	90	18	19	\$19.16
OUY-75X100X18	75	100	18	19	\$25.29

These high durometer NBR u-cup piston seals have an anti-extrusion ring on the outer edge made from POM and are commonly found in many track adjuster cylinders.

# BP Loaded Lip Piston Seals - Inch



**ALTERNATIVE SEALS:**  
Piston: US, UNP, Deep LLS

**EXAMPLE: BP-37503250-625**

Prefix	Cross Section	Inside Diameter	Height
BP-	375	03250	- 625
	3/8"	3-1/4"	5/8"

The BP type polyurethane twin lip piston seal is an excellent choice for all single acting piston applications. Loaded with a specially designed nitrile expander, this seal offers improved sealing with lower friction. This seal is used in conjunction with the nylon retainer below in many Mailhot® telescopic cylinders.

Temperature: -50°F to 230°F

Pressure: 0 to 6,000 PSI

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Cross-Section F	Price
BP-31201875-500	1.875	2.500	0.500	0.312	\$33.81
BP-37502500-625	2.500	3.250	0.625	0.375	\$43.71
BP-18702625-250	2.625	3.000	0.250	0.187	\$18.18
BP-37502750-625	2.750	3.500	0.625	0.375	\$54.17
BP-37503250-625	3.250	4.000	0.625	0.375	\$62.84
BP-37503750-625	3.750	4.500	0.625	0.375	\$71.64
BP-37504250-625	4.250	5.000	0.625	0.375	\$79.50
BP-37504750-625	4.750	5.500	0.625	0.375	\$87.36
BP-37505250-625	5.250	6.000	0.625	0.375	\$95.14
BP-37505750-625	5.750	6.500	0.625	0.375	\$102.65

# MNR Nylon Retaining Rings - Inch

**EXAMPLE: MNR-187**

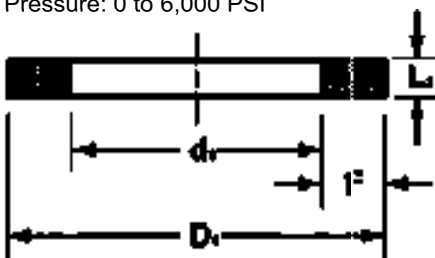
Prefix	Inside Diameter
MNR-	187
	1-7/8



The MNR nylon retainer is used with the BP style piston seal above in many Mailhot® telescopic cylinders.

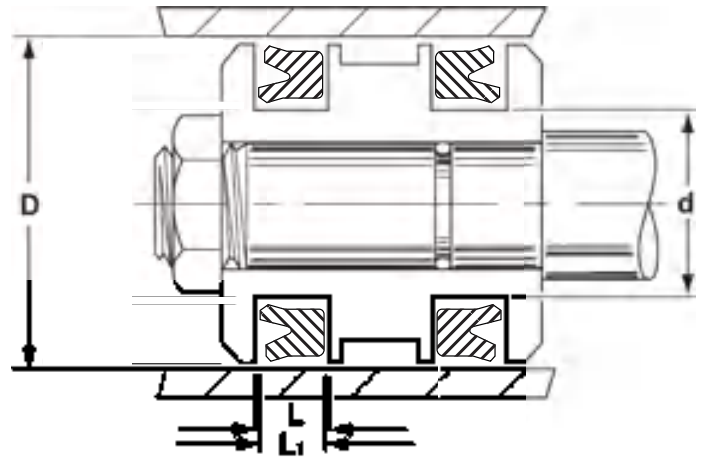
Temperature: -50°F to 230°F

Pressure: 0 to 6,000 PSI



Part Number	Inside Diameter d <sub>1</sub>	Outside Diameter D <sub>1</sub>	Ring Height L <sub>1</sub>	Cross-Section F	Price
MNR-187	1.875	2.625	0.182	0.375	\$6.85
MNR-250	2.500	3.350	0.182	0.425	\$7.47
MNR-275	2.750	3.600	0.182	0.425	\$8.09
MNR-325	3.250	4.100	0.182	0.425	\$8.84
MNR-375	3.750	4.600	0.182	0.425	\$9.59
MNR-425	4.250	5.100	0.182	0.425	\$10.46
MNR-475	4.750	5.600	0.182	0.425	\$11.46
MNR-525	5.250	6.100	0.182	0.425	\$12.58
MNR-575	5.750	6.600	0.182	0.425	\$14.20

# MA23 Nitrile Piston U-Cups - Metric



The MA23 non-symmetrical 90A nitrile single acting piston U-cup is an economical sealing solution for standard cylinder applications. Easily assembled into closed grooves, this seal offers a superior static and dynamic sealing effect.

Temperature : -20°F to 220°F

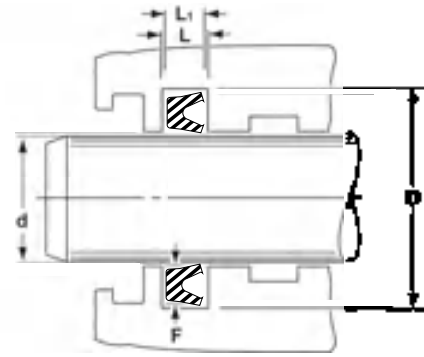
Pressure : 0 to 2175 PSI

**ALTERNATIVE SEALS:**  
Piston: C2, MUPH, MA21, MA22

EXAMPLE: MA23-17X25X5.5					
Prefix	Inside Diameter		Outside Diameter		Height
MA23-	17	x	25	x	5.5
	17mm		25mm		5.5mm

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MA23-17X25X5.5	17	25	5.5	6.5	\$4.95
MA23-24X36X6	24	36	6	7	\$6.01
MA23-25X35X7	25	35	7	8	\$6.16
MA23-28X40X6	28	40	6	7	\$23.34
MA23-30X40X6	30	40	6	7	\$6.29
MA23-40X50X7	40	50	7	8	\$7.31
MA23-53X63X6	53	63	6	7	\$7.89
MA23-85X100X9	85	100	9	10	\$10.66
MA23-105X125X15	105	125	15	16	\$15.05

# 8400 Series Nitrile U-Cups - Inch



**ALTERNATIVE SEALS:**  
6226, UCH

EXAMPLE: 8403-0100			
Prefix	Cross Section	Inside Diameter	Height
84__*	03	0100	HT = CS
	3/32	1"	3/32

\*\_\_ refers to \_\_/32" for HT and CS  
Items with V Suffix are FKM

8400 series U-cups for pneumatic and hydraulic cylinders are especially suited for low speed, low pressure situations. They provide an extremely smooth steady movement, with less breakaway force required because of their inherent low friction. Standard material for 8400 series U-cups is 80 durometer nitrile, with a temperature range of -40° to 250° F. However, other materials such as FKM, nitroxiles, and ethylene propylene are available. 8400 series U-cups may be used at pressures up to 800 PSI with proper clearances, without back-up rings; and up to 2500 PSI with back-up rings.

Temperature: -40°F to 250°F

Pressure: 0 to 800 PSI, with back-ups 2,500 PSI (see above)

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/16" CROSS SECTION ("F")</b>					
8402-0025	0.250	0.375	0.062	0.068	\$2.78
8402-0025V	0.250	0.375	0.062	0.068	\$30.24
8402-0031 N70	0.312	0.437	0.062	0.068	\$2.81
8402-0062	0.625	0.750	0.062	0.068	\$3.55
<b>3/32" CROSS SECTION ("F")</b>					
8403-0012	0.125	0.312	0.093	0.102	\$2.57
8403-0015	0.156	0.343	0.093	0.102	\$4.81
8403-0019	0.187	0.375	0.093	0.102	\$2.90
8403-0019 N70	0.187	0.375	0.093	0.102	\$3.11
8403-0031	0.312	0.500	0.093	0.102	\$2.78
8403-0037	0.375	0.562	0.093	0.102	\$3.76
8403-0043	0.437	0.625	0.093	0.102	\$2.78
8403-0062	0.625	0.812	0.093	0.102	\$2.78
8403-0062V	0.625	0.812	0.093	0.102	\$15.38
8403-0075	0.750	0.937	0.093	0.102	\$3.14
8403-0100	1.000	1.187	0.093	0.102	\$4.37
<b>1/8" CROSS SECTION ("F")</b>					
8404-0018	0.187	0.437	0.125	0.138	\$2.57
8404-0025	0.250	0.500	0.125	0.138	\$2.57
8404-0031	0.312	0.562	0.125	0.138	\$2.66
8404-0037	0.375	0.625	0.125	0.138	\$2.66
8404-0043	0.437	0.687	0.125	0.138	\$2.66
8404-0050	0.500	0.750	0.125	0.138	\$2.66
8404-0050V	0.500	0.750	0.125	0.138	\$15.06
8404-0056	0.562	0.812	0.125	0.138	\$2.77
8404-0062	0.625	0.875	0.125	0.138	\$2.77
8404-0062V	0.625	0.875	0.125	0.138	\$11.67
8404-0068	0.687	0.937	0.125	0.138	\$2.77
8404-0075	0.750	1.000	0.125	0.138	\$2.77
8404-0075V	0.750	1.000	0.125	0.138	\$14.81

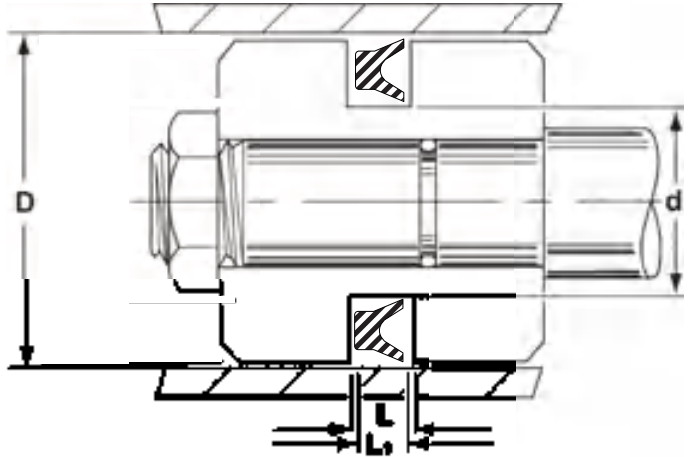
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/8" CROSS SECTION ("F")</b>					
8404-0081	0.812	1.062	0.125	0.138	\$2.83
8404-0087	0.875	1.125	0.125	0.138	\$2.83
8404-0087V	0.875	1.125	0.125	0.138	\$32.51
8404-0093	0.937	1.187	0.125	0.138	\$3.06
8404-0100	1.000	1.250	0.125	0.138	\$2.86
8404-0100V	1.000	1.250	0.125	0.138	\$17.16
8404-0112	1.125	1.375	0.125	0.138	\$2.98
8404-0125	1.250	1.500	0.125	0.138	\$3.42
8404-0137	1.375	1.625	0.125	0.138	\$2.87
8404-0150	1.500	1.750	0.125	0.138	\$3.34
8404-0175	1.750	2.000	0.125	0.138	\$3.34
<b>5/32" CROSS SECTION ("F")</b>					
8405-0062	0.625	0.937	0.156	0.172	\$7.05
8405-0068	0.687	1.000	0.156	0.172	\$3.05
8405-0093	0.937	1.250	0.156	0.172	\$3.06
8405-0100	1.000	1.312	0.156	0.172	\$3.11
8405-0100V	1.000	1.312	0.156	0.172	\$19.73
8405-0106	1.062	1.375	0.156	0.172	\$3.15
8405-0112	1.125	1.437	0.156	0.172	\$6.12
8405-0112V	1.125	1.437	0.156	0.172	\$19.35
8405-0118	1.187	1.500	0.156	0.172	\$3.46
8405-0118V	1.187	1.500	0.156	0.172	\$20.67
8405-0125	1.250	1.562	0.156	0.172	\$3.46
8405-0125V	1.250	1.562	0.156	0.172	\$17.22
8405-0131	1.312	1.625	0.156	0.172	\$4.17
8405-0137	1.375	1.687	0.156	0.172	\$4.17
8405-0137V	1.375	1.687	0.156	0.172	\$22.46
8405-0143	1.437	1.750	0.156	0.172	\$3.81
8405-0150	1.500	1.812	0.156	0.172	\$4.46

## 8400 Series Nitrile U-Cups, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>3/16" CROSS SECTION ("F")</b>					
8406-0075	0.750	1.125	0.187	0.206	\$3.05
8406-0100	1.000	1.375	0.187	0.206	\$3.14
8406-0125	1.250	1.625	0.187	0.206	\$3.19
8406-0125V	1.250	1.625	0.187	0.206	\$39.15
8406-0137	1.375	1.750	0.187	0.206	\$3.47
8406-0137V	1.375	1.750	0.187	0.206	\$40.59
8406-0150	1.500	1.875	0.187	0.206	\$3.50
8406-0150V	1.500	1.875	0.187	0.206	\$29.58
8406-0162	1.625	2.000	0.187	0.206	\$3.89
8406-0162V	1.625	2.000	0.187	0.206	\$24.07
8406-0175	1.750	2.125	0.187	0.206	\$3.89
8406-0175V	1.750	2.125	0.187	0.206	\$25.28
8406-0187	1.875	2.250	0.187	0.206	\$3.90
8406-0187V	1.875	2.250	0.187	0.206	\$43.37
8406-0200	2.000	2.375	0.187	0.206	\$3.97
8406-0200V	2.000	2.375	0.187	0.206	\$25.69
8406-0212	2.125	2.500	0.187	0.206	\$4.02
8406-0212V	2.125	2.500	0.187	0.206	\$25.96
8406-0225	2.250	2.625	0.187	0.206	\$5.24
8406-0237	2.375	2.750	0.187	0.206	\$4.03
8406-0250	2.500	2.875	0.187	0.206	\$5.45
8406-0250V	2.500	2.875	0.187	0.206	\$43.85
8406-0262	2.625	3.000	0.187	0.206	\$5.19
8406-0275	2.750	3.125	0.187	0.206	\$17.26
8406-0300	3.000	3.375	0.187	0.206	\$4.03
8406-0312	3.125	3.500	0.187	0.206	\$8.97
8406-0325	3.250	3.625	0.187	0.206	\$18.47
8406-0337	3.375	3.750	0.187	0.206	\$9.73
<b>7/32" CROSS SECTION ("F")</b>					
8407-0193	1.937	2.375	0.218	0.240	\$13.00
8407-0250	2.500	2.937	0.218	0.240	\$5.74
8407-0250V	2.500	2.937	0.218	0.240	\$27.81
8407-0256	2.562	3.000	0.218	0.240	\$5.64
8407-0256V	2.562	3.000	0.218	0.240	\$28.12
8407-0275	2.750	3.187	0.218	0.240	\$6.22
8407-0281	2.812	3.250	0.218	0.240	\$6.53
8407-0281V	2.812	3.250	0.218	0.240	\$29.43
8407-0300	3.000	3.437	0.218	0.240	\$8.19
8407-0300V	3.000	3.437	0.218	0.240	\$40.97
8407-0306	3.062	3.500	0.218	0.240	\$9.38
8407-0306V	3.062	3.500	0.218	0.240	\$56.88
8407-0331	3.312	3.750	0.218	0.240	\$10.63

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
<b>1/4" CROSS SECTION ("F")</b>					
8408-0100	1.000	1.500	0.250	0.275	\$7.87
8408-0175	1.750	2.250	0.250	0.275	\$5.80
8408-0200V	2.000	2.500	0.250	0.275	\$30.41
8408-0250	2.500	3.000	0.250	0.275	\$6.79
8408-0275	2.750	3.250	0.250	0.275	\$7.04
8408-0337	3.375	3.875	0.250	0.275	\$10.99
8408-0350	3.500	4.000	0.250	0.275	\$7.20
8408-0350V	3.500	4.000	0.250	0.275	\$32.97
8408-0375	3.750	4.250	0.250	0.275	\$8.30
8408-0400	4.000	4.500	0.250	0.275	\$7.90
8408-0400V	4.000	4.500	0.250	0.275	\$42.71
8408-0425	4.250	4.750	0.250	0.275	\$11.74
8408-0450	4.500	5.000	0.250	0.275	\$8.38
8408-0450V	4.500	5.000	0.250	0.275	\$42.76
8408-0475	4.750	5.250	0.250	0.275	\$15.27
<b>9/32" CROSS SECTION ("F")</b>					
8409-0443	4.437	5.000	0.281	0.309	\$14.70
8409-0443V	4.437	5.000	0.281	0.309	\$47.49
8409-0500	5.000	5.562	0.281	0.309	\$27.59
8409-0500V	5.000	5.562	0.281	0.309	\$52.67
8409-0543	5.437	6.000	0.281	0.309	\$17.83
8409-0543V	5.437	6.000	0.281	0.309	\$97.19
8409-0593	5.937	6.500	0.281	0.309	\$18.61
<b>5/16" CROSS SECTION ("F")</b>					
8410-0512	5.125	5.750	0.312	0.343	\$33.31
8410-0537	5.375	6.000	0.312	0.343	\$16.32
8410-0537V	5.375	6.000	0.312	0.343	\$63.77
8410-0550	5.500	6.125	0.312	0.343	\$20.25
8410-0600	6.000	6.625	0.312	0.343	\$21.88
8410-0637	6.375	7.000	0.312	0.343	\$25.03
8410-0637V	6.375	7.000	0.312	0.343	\$90.93
8410-0696	6.968	7.593	0.312	0.343	\$31.84
8410-0737	7.375	8.000	0.312	0.343	\$30.97
8410-0737V	7.375	8.000	0.312	0.343	\$101.78
<b>11/32" CROSS SECTION ("F")</b>					
8411-0931	9.312	10.000	0.343	0.377	\$41.12
<b>3/8" CROSS SECTION ("F")</b>					
8412-0225	2.250	3.000	0.375	0.413	\$25.06
8412-1125	11.250	12.000	0.375	0.413	\$47.17
<b>13/32" CROSS SECTION ("F")</b>					
8413-1318	13.187	14.000	0.406	0.447	\$53.47
<b>1/2" CROSS SECTION ("F")</b>					
8416-1300	13.000	14.000	0.500	0.550	\$99.43

# 6226 AN Nitrile U-Cups - Inch



**ALTERNATIVE SEALS:**  
8400, UCH, UCF

EXAMPLE: 6226-1 N80		
Prefix	Inside Diameter	Suffix
6226-	1	N80
	1/8"	80 DURO NBR

6226 series U-cups are manufactured to the AN design. Standard material is 80 durometer nitrile. (May substitute 70 durometer when 80 is not available.) They may be used at pressures up to 1000 PSI with the proper clearances without back-up rings.

Temperature: -40°F to 250°F

Pressure: 0 to 1,000 PSI

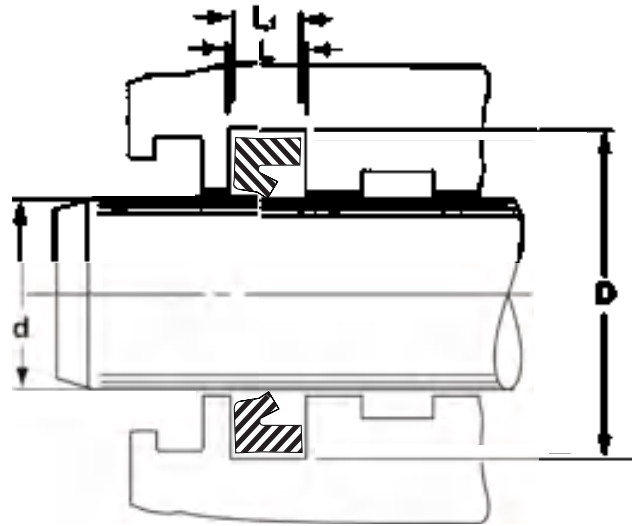
AN NUMBERING SYSTEM

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
6226-1 N80	0.125	0.500	0.187	0.206	\$1.97
6226-2 N80	0.187	0.562	0.187	0.206	\$1.97
6226-3 N80	0.250	0.625	0.187	0.206	\$2.09
6226-4 N80	0.312	0.687	0.187	0.206	\$2.05
6226-5 N80	0.375	0.750	0.187	0.206	\$2.05
6226-6 N80	0.437	0.812	0.187	0.206	\$2.29
6226-7 N80	0.500	0.875	0.187	0.206	\$2.37
6226-8 N80	0.250	0.750	0.250	0.275	\$2.51
6226-9 N70	0.312	0.812	0.250	0.275	\$2.51
6226-10 N80	0.375	0.875	0.250	0.275	\$2.51
6226-11 N80	0.437	0.937	0.250	0.275	\$2.51
6226-12 N70	0.500	1.000	0.250	0.275	\$2.66
6226-13 N80	0.562	1.062	0.250	0.275	\$2.66
6226-14 N80	0.625	1.125	0.250	0.275	\$2.66
6226-15 N80	0.687	1.187	0.250	0.275	\$2.66
6226-16 N80	0.750	1.250	0.250	0.275	\$2.86
6226-17 N80	0.812	1.312	0.250	0.275	\$2.86
6226-18 N70	0.875	1.375	0.250	0.275	\$2.86
6226-19 N80	0.937	1.437	0.250	0.275	\$2.86
6226-20 N70	1.000	1.500	0.250	0.275	\$2.99
6226-21 N80	1.062	1.562	0.250	0.275	\$3.07
6226-22 N80	1.125	1.625	0.250	0.275	\$3.07
6226-23 N80	1.187	1.687	0.250	0.275	\$3.07
6226-24 N80	1.250	1.750	0.250	0.275	\$3.07
6226-25 N80	1.250	1.875	0.312	0.343	\$3.30
6226-26 N70	1.375	2.000	0.312	0.343	\$3.51
6226-27 N80	1.500	2.125	0.312	0.343	\$3.62
6226-28 N70	1.625	2.250	0.312	0.343	\$3.67
6226-29 N80	1.750	2.375	0.312	0.343	\$3.73
6226-30 N80	1.875	2.500	0.312	0.343	\$3.84
6226-31 N80	2.000	2.625	0.312	0.343	\$3.95
6226-32 N80	2.125	2.750	0.312	0.343	\$4.15
6226-33 N80	2.250	2.875	0.312	0.343	\$5.06

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
6226-34 N80	2.375	3.000	0.312	0.343	\$6.13
6226-35 N80	2.500	3.125	0.312	0.343	\$4.70
6226-36 N80	2.500	3.250	0.375	0.413	\$4.88
6226-37 N80	2.625	3.375	0.375	0.413	\$10.13
6226-38 N80	2.750	3.500	0.375	0.413	\$5.31
6226-39 N80	2.875	3.625	0.375	0.413	\$5.32
6226-40 N80	3.000	3.750	0.375	0.413	\$5.42
6226-41 N80	0.125	0.375	0.125	0.138	\$1.97
6226-42 N80	0.187	0.437	0.125	0.138	\$1.97
6226-43 N80	0.250	0.500	0.125	0.138	\$1.97
6226-44 N80	0.312	0.562	0.125	0.138	\$1.97
6226-45 N80	0.375	0.625	0.125	0.138	\$2.05
6226-46 N80	0.437	0.687	0.125	0.138	\$2.15
6226-47 N80	0.500	0.750	0.125	0.138	\$2.15
6226-48 N80	0.625	1.000	0.187	0.206	\$2.66
6226-49 N80	0.750	1.125	0.187	0.206	\$2.66
6226-50 N70	0.875	1.250	0.187	0.206	\$2.86
6226-51 N80	1.000	1.375	0.187	0.206	\$2.86
6226-52 N80	1.125	1.500	0.187	0.206	\$2.91
6226-53 N80	1.250	1.625	0.187	0.206	\$2.91
6226-60 N80	3.250	4.000	0.375	0.413	\$10.68
6226-63 N80	3.750	4.500	0.375	0.413	\$22.89
6226-65 N80	4.250	5.000	0.375	0.413	\$15.19
6226-70 N80	5.125	6.000	0.437	0.481	\$37.23
6226-71 N80	5.250	6.000	0.375	0.413	\$24.22
6226-75 N80	6.125	7.000	0.437	0.481	\$37.15
6226-80 N80	7.000	8.000	0.500	0.550	\$38.22
6226-81 N80	7.500	8.250	0.375	0.413	\$38.57
6226-82 N80	8.000	9.000	0.500	0.550	\$64.03
6226-85 N80	9.000	10.000	0.500	0.550	\$58.51
6226-90 N80	11.000	12.000	0.500	0.550	\$56.51
6226-95 N80	13.000	14.000	0.500	0.550	\$65.73



# C1 Nitrile Rod U-Cups - Metric



EXAMPLE: C1-30X40X7

Prefix	Inside Diameter		Outside Diameter		Height
C1-	30	x	40	x	7
	30mm		40mm		7mm

Profile C1 rod seals are a good choice for hydraulic and pneumatic equipment that require seals with the smallest possible housings. Although cross sections and heights are very small, the sealing performance is excellent. Extremely low friction is experienced because of the short contact area at the sealing surface.

**Installation:** These rod seals are manufactured oversized on the external diameters in relation to the nominal dimensions. This ensures the required tight fit, and eliminates heel drag on the dynamic surface. Only after installation will the sealing lip diameter show the desired dimensions. Profile C1 rod seals may easily be snapped into the groove. Standard material is 84 durometer nitrile, and may be used

at a temperature range of -65° to 220°F in hydraulic applications and -65° to 180°F in pneumatic applications. Maximum working pressure for hydraulic use is 2350 PSI and for pneumatic use is 235 PSI.

Temperature: -65°F to 220°F (see above)

Pressure: 0 to 2,350 PSI (see above)

**ALTERNATIVE SEALS:**  
Rod: MURH, MA21, MA24

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
C1-3X7X3	3	7	3	4	POA
C1-4X12X4.5	4	12	4.5	5.5	POA
C1-5X9X2.5	5	9	2.5	3.5	POA
C1-5X10X4	5	10	4	5	POA
C1-6X10X3	6	10	3	4	POA
C1-6X12X4.2	6	12	4.2	5.2	POA
C1-8X14X4	8	14	4	5	POA
C1-8X16X5.5	8	16	5.5	6.5	POA
C1-9X14X3.5	9	14	3.5	4.5	POA
C1-10X13.6X2.3	10	13.6	2.3	3.3	POA

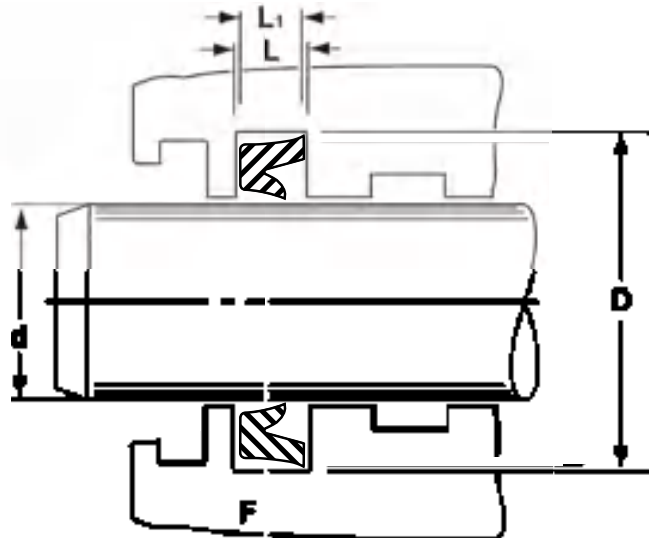
Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
C1-10X15X3.5	10	15	3.5	4.5	POA
C1-10X16X4.5	10	16	4.5	5.5	POA
C1-12X18.5X4.5	12	18.5	4.5	5.5	POA
C1-12X19X4.5	12	19	4.5	5.5	POA
C1-12X20X5.5	12	20	5.5	6.5	POA
C1-14X19X3.5	14	19	3.5	4.5	POA
C1-14X20X4.8	14	20	4.8	5.8	POA
C1-14X22X5.5	14	22	5.5	6.5	POA
C1-15X22X5	15	22	5	6	POA
C1-16X23X5.5	16	23	5.5	6.5	POA

### C1 Nitrile Rod U-Cups - Metric, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
C1-16X24X5.5	16	24	5.5	6.5	POA
C1-16X26X7	16	26	7	8	POA
C1-18X25X5.5	18	25	5.5	6.5	POA
C1-18X26X5.5	18	26	5.5	6.5	POA
C1-18X30X8.5	18	30	8.5	9.5	POA
C1-18.5X25.5X5.5	18.5	25.5	5.5	6.5	POA
C1-20X26X4.8	20	26	4.8	5.8	POA
C1-20X28X5.5	20	28	5.5	6.5	POA
C1-20X30X7	20	30	7	8	POA
C1-22X29X5.5	22	29	5.5	6.5	POA
C1-23X31X5.5	23	31	5.5	6.5	POA
C1-24X32X5.5	24	32	5.5	6.5	POA
C1-25X32X5.5	25	32	5.5	6.5	POA
C1-25X33X5.5	25	33	5.5	6.5	POA
C1-25X35X7	25	35	7	8	POA
C1-25X37X8.5	25	37	8.5	9.5	POA
C1-26X36X7	26	36	7	8	POA
C1-28X36X5.5	28	36	5.5	6.5	POA
C1-28X38X7	28	38	7	8	POA
C1-28X40X8.5	28	40	8.5	9.5	POA
C1-30X38X5.5	30	38	5.5	6.5	POA
C1-30X38X8	30	38	8	9	POA
C1-30X40X7	30	40	7	8	POA
C1-31.9X45X11	31.9	45	11	12	POA
C1-32X40X5.5	32	40	5.5	6.5	POA
C1-32X42X7	32	42	7	8	POA
C1-34X44X7	34	44	7	8	POA
C1-35X45X7	35	45	7	8	POA
C1-36X46X7	36	46	7	8	POA
C1-40X48X5.5	40	48	5.5	6.5	POA
C1-40X50X7	40	50	7	8	POA

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
C1-42X52X7	42	52	7	8	POA
C1-45X55X7	45	55	7	8	POA
C1-48X58X7	48	58	7	8	POA
C1-50X58X8	50	58	8	9	POA
C1-50X60X7	50	60	7	8	POA
C1-50X63X8.5	50	63	8.5	9.5	POA
C1-54X64X7	54	64	7	8	POA
C1-55X65X7	55	65	7	8	POA
C1-56X66X7	56	66	7	8	POA
C1-60X72X8.5	60	72	8.5	9.5	POA
C1-63X73X7	63	73	7	8	POA
C1-63X75X8.5	63	75	8.5	9.5	POA
C1-65X77X8.5	65	77	8.5	9.5	POA
C1-68X80X8.5	68	80	8.5	9.5	POA
C1-70X82X8.5	70	82	8.5	9.5	POA
C1-75X87X8.5	75	87	8.5	9.5	POA
C1-85X97X8.5	85	97	8.5	9.5	POA
C1-90X102X8.5	90	102	8.5	9.5	POA
C1-100X115X10	100	115	10	11	POA
C1-110X125X10	110	125	10	11	POA
C1-120X135X10	120	135	10	11	POA
C1-125X140X10	125	140	10	11	POA
C1-130X145X10	130	145	10	11	POA
C1-140X160X14	140	160	14	15	POA
C1-142X157X10	142	157	10	11	POA
C1-150X170X14	150	170	14	15	POA
C1-160X180X14	160	180	14	15	POA
C1-170X190X14	170	190	14	15	POA
C1-180X200X14	180	200	14	15	POA
C1-190X210X14	190	210	14	15	POA

# MURH Nitrile Rod U-Cups - Metric



**ALTERNATIVE SEALS:**  
Rod: C1, MA21, MA22, MA24

EXAMPLE: MURH-32X42X7					
Prefix	Inside Diameter		Outside Diameter		Height
MURH-	32	x	42	x	7
	32mm		42mm		7mm

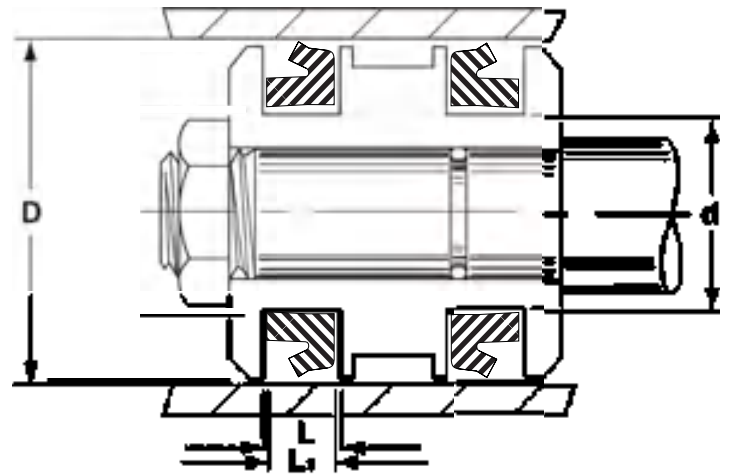
These seals are molded from 90 or 70 durometer NBR. The heavy lip interference ensures that your systems will seal under zero-pressure situations. These seals can be used in either low pressure hydraulic or pneumatic applications. For sizes not listed, or availability in FKM, please call customer service.

Temperature: -22°F to 212°F      Pressure: 0 to 1,160 PSI

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MURH-8X14X4	8	14	4	5	\$3.88
MURH-8X16X5.5	8	16	5.5	6.5	\$3.88
MURH-14X22X5.5	14	22	5.5	6.5	\$4.53
MURH-16X24X5.5	16	24	5.5	6.5	\$4.53
MURH-18X25X4.5	18	25	4.5	5.5	\$7.84
MURH-18X26X5.5	18	26	5.5	6.5	\$4.82
MURH-25X35X7	25	35	7	8	\$5.32
MURH-28X36X5.5	28	36	5.5	6.5	\$5.74
MURH-32X42X7	32	42	7	8	\$6.99
MURH-36X46X7	36	46	7	8	\$7.22
MURH-45X55X7	45	55	7	8	\$8.77
MURH-50X60X7	50	60	7	8	\$9.62
MURH-56X68X8.5	56	68	8.5	9.5	\$10.27

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MURH-60X72X8.5	60	72	8.5	9.5	\$10.75
MURH-63X75X8.5	63	75	8.5	9.5	\$11.75
MURH-65X77X8.5	65	77	8.5	9.5	\$14.15
MURH-70X82X8.5	70	82	8.5	9.5	\$14.43
MURH-80X92X8.5	80	92	8.5	9.5	\$14.92
MURH-90X102X8.5	90	102	8.5	9.5	\$16.68
MURH-100X112X8.5	100	112	8.5	9.5	\$20.54
MURH-100X115X10	100	115	10	11	\$21.51
MURH-110X130X14	110	130	14	15	\$22.07
MURH-125X145X14	125	145	14	15	\$23.61
MURH-140X160X14	140	160	14	15	\$24.66
MURH-160X180X14	160	180	14	15	\$45.12
MURH-180X200X14	180	200	14	15	\$50.42

# C2 - Nitrile Piston U-Cups - Metric



**ALTERNATIVE SEALS:**  
Piston: MUPH, MA23, MA21, MA22

EXAMPLE: C2-6X12X4					
Prefix	Inside Diameter		Outside Diameter		Height
C2-	6	x	12	x	4
	6mm		12mm		4mm

C2 style piston seals have excellent sealing performance despite the small profile. Extremely low friction is experienced because of the short contact area at the sealing surface. These piston seals are manufactured undersized on the internal diameters in relation to the nominal dimensions. This ensures the required tight fit and eliminates heel drag on the dynamic surface. Only after installation will the sealing lip diameter show the desired dimensions. Profile C2 piston seals stretch easily into the groove

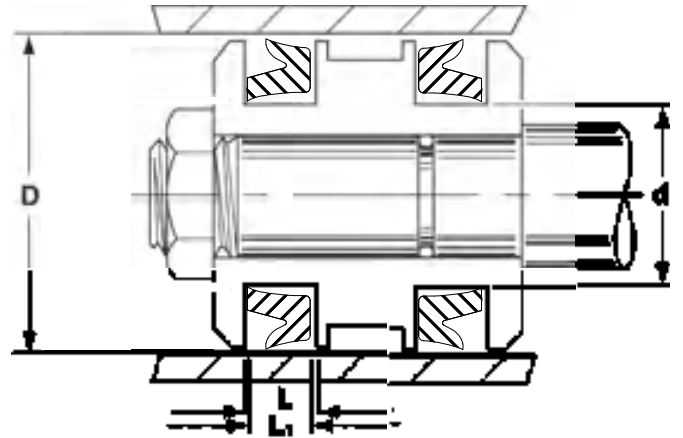
of one-piece pistons. Standard material is 84 durometer nitrile, and may be used at a temperature range of -65° to 220° F in hydraulic applications and -65° to 180°F in pneumatic applications. Maximum working pressure for hydraulic use is 2350 PSI and for pneumatic use is 235 PSI.

Temperature: -65°F to 220°F (see above)  
Pressure: 0 to 2,350 PSI (see above)

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
C2-6X12X4	6	12	4	5	POA
C2-8X12X3	8	12	3	4	POA
C2-8X14X4	8	14	4	5	POA
C2-8X16X5.5	8	16	5.5	6.5	POA
C2-10X16X4	10	16	4	5	POA
C2-10X18X5	10	18	5	6	POA
C2-12X20X5.5	12	20	5.5	6.5	POA
C2-14X20X4.2	14	20	4.2	5.2	POA
C2-16X24X5.5	16	24	5.5	6.5	POA
C2-17X25X5.5	17	25	5.5	6.5	POA
C2-18X26X5.5	18	26	5.5	6.5	POA
C2-20X28X5.5	20	28	5.5	6.5	POA
C2-20X30X7	20	30	7	8	POA
C2-22X30X5.5	22	30	5.5	6.5	POA
C2-22X32X7	22	32	7	8	POA
C2-24X32X5.5	24	32	5.5	6.5	POA
C2-26X36X7	26	36	7	8	POA
C2-30X40X7	30	40	7	8	POA
C2-32X40X5.5	32	40	5.5	6.5	POA
C2-37X45X4	37	45	4	5	POA
C2-40X48X5.5	40	48	5.5	6.5	POA
C2-40X50X7	40	50	7	8	POA
C2-42X50X8	42	50	8	9	POA
C2-45X55X7	45	55	7	8	POA

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
C2-48X60X7.5	48	60	7.5	8.5	POA
C2-50X60X7	50	60	7	8	POA
C2-53X63X7	53	63	7	8	POA
C2-53X65X10	53	65	10	11	POA
C2-55X65X7	55	65	7	8	POA
C2-57X67X7	57	67	7	8	POA
C2-58X68X7	58	68	7	8	POA
C2-58X70X8.5	58	70	8.5	9.5	POA
C2-68X80X8.5	68	80	8.5	9.5	POA
C2-73X85X8.5	73	85	8.5	9.5	POA
C2-88X100X8.5	88	100	8.5	9.5	POA
C2-95X110X10	95	110	10	11	POA
C2-110X125X10	110	125	10	11	POA
C2-115X130X10	115	130	10	11	POA
C2-115X135X14	115	135	14	15	POA
C2-120X140X14	120	140	14	15	POA
C2-125X140X10	125	140	10	11	POA
C2-135X150X10	135	150	10	11	POA
C2-140X160X14	140	160	14	15	POA
C2-145X160X10	145	160	10	11	POA
C2-160X180X14	160	180	14	15	POA
C2-180X200X14	180	200	14	15	POA
C2-200X220X14	200	220	14	15	POA
C2-230X250X14	230	250	14	15	POA

# MUPH Nitrile Piston U-Cups - Metric



**ALTERNATIVE SEALS:**  
Piston: C2, MA21, MA22, MA23, E4

EXAMPLE: MUPH-6X12X4				
Prefix	Inside Diameter		Outside Diameter	Height
MUPH-	6	x	12	x 4
	6mm		12mm	4mm

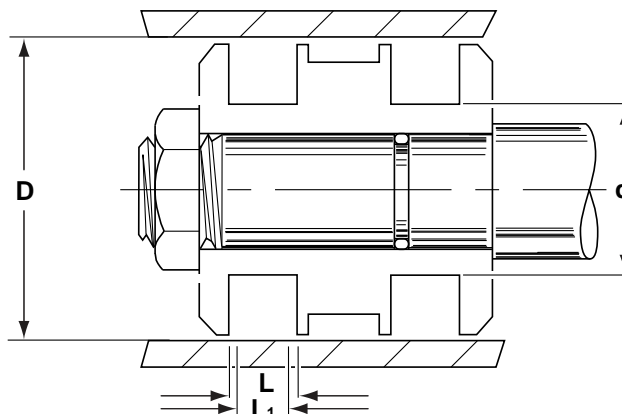
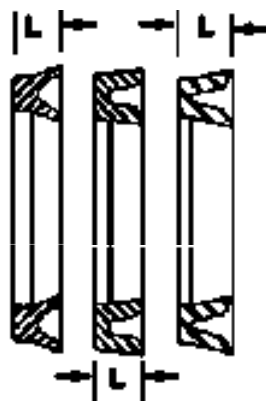
These easy to install piston U-seals are perfect for low pressure hydraulic and pneumatic applications. These seals have lower breakaway friction than most urethane U-cups. Also available in FKM.

Temperature: -22°F to 212°F      Pressure: 0 to 1,160 PSI

Part Number	Groove-Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MUPH-6X12X4	6	12	4	5	\$4.22
MUPH-14X22X5.5	14	22	5.5	6.5	\$4.92
MUPH-24X32X5.5	24	32	5.5	6.5	\$5.60
MUPH-27.3X40X6.35	27.3	40.6	6.35	7.35	\$5.91
MUPH-30X40X7	30	40	7	8	\$6.20
MUPH-40X50X7	40	50	7	8	\$7.57
MUPH-45X55X7	45	55	7	8	\$9.23
MUPH-50X60X7	50	60	7	8	\$7.88
MUPH-53X63X7	53	63	7	8	\$8.20
MUPH-55X65X7	55	65	7	8	\$11.52
MUPH-58X70X8.5	58	70	8.5	9.5	\$10.75
MUPH-63X75X8.5	63	75	8.5	9.5	\$14.59
MUPH-68X80X8.5	68	80	8.5	9.5	\$16.26

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
MUPH-73X85X8.5	73	85	8.5	9.5	\$16.26
MUPH-78X90X8.5	78	90	8.5	9.5	\$16.78
MUPH-88X100X8.5	88	100	8.5	9.5	\$17.67
MUPH-93X105X8.5	93	105	8.5	9.5	\$18.37
MUPH-98X110X8.5	98	110	8.5	9.5	\$21.18
MUPH-105X120X10	105	120	10	11	\$26.36
MUPH-125X140X10	125	140	10	11	\$27.51
MUPH-130X145X10	130	145	10	11	\$27.94
MUPH-145X160X10	145	160	10	11	\$33.69
MUPH-160X180X14	160	180	14	15	\$67.76
MUPH-180X200X14	180	200	14	15	\$76.33
MUPH-200X220X14	200	220	14	15	\$81.19
MUPH-230X250X14	230	250	14	15	\$97.62

# UCH Nitrile U-Cups - Inch



Homogeneous Nitrile U-Cups are made from 80 durometer nitrile and may come in one of several profiles. All may be used for rod or piston seals in pneumatic or low pressure hydraulic applications.

Temperature: -25°F to 225°F

Pressure: 0 to 2,200 PSI

**ALTERNATIVE SEALS:**

8400, 6226, UCF, DEEP LLS, LLS

**EXAMPLE: UCH15002000-375**

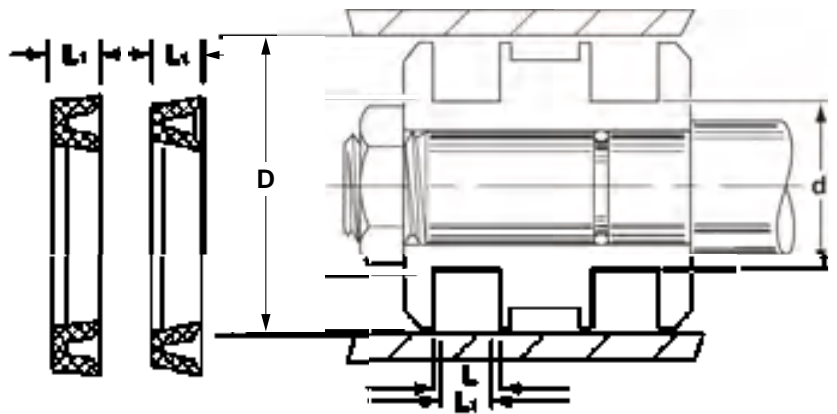
Prefix	Inside Diameter	Outside Diameter	Height
UCH	1500	2000	- 375
	1-1/2"	2"	3/8

When there is nothing to indicate Height in the Part #  
(No Dash #) Height = Cross Section

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
UCH02500375-070	0.250	0.375	0.070	0.077	\$17.20
UCH07501000-250	0.750	1.000	0.250	0.275	\$15.95
UCH08121125-187	0.812	1.125	0.187	0.206	\$21.14
UCH12501687-250 N90	1.250	1.687	0.250	0.275	\$12.05
UCH12502000-500	1.250	2.000	0.500	0.550	\$9.05
UCH13751875-250	1.375	1.875	0.250	0.275	\$16.23
UCH15002000-375	1.500	2.000	0.375	0.413	\$10.64
UCH15003000-500	1.500	3.000	0.500	0.550	\$90.41
UCH16253000-375-1	1.625	3.000	0.375	0.413	\$27.28
UCH17502250-375	1.750	2.250	0.375	0.413	\$29.10
UCH17502500	1.750	2.500	0.375	0.413	\$16.48
UCH20002500-375	2.000	2.500	0.375	0.413	\$19.11
UCH22502750-312	2.250	2.750	0.312	0.343	\$19.38
UCH25003000-375	2.500	3.000	0.375	0.413	\$19.75
UCH26253250	2.625	3.250	0.312	0.343	\$18.98
UCH30003500	3.000	3.500	0.250	0.275	\$19.13
UCH30003500-375	3.000	3.500	0.375	0.413	\$19.44
UCH32504000-312	3.250	4.000	0.312	0.343	\$23.70
UCH32504000-500	3.250	4.000	0.500	0.550	\$23.88
UCH35004000-375	3.500	4.000	0.375	0.413	\$19.07

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
UCH41254625-250	4.125	4.625	0.250	0.275	\$21.81
UCH42505000-500	4.250	5.000	0.500	0.550	\$24.34
UCH43755000	4.375	5.000	0.312	0.343	\$24.05
UCH45005000-375	4.500	5.000	0.375	0.413	\$21.48
UCH45005250-375	4.500	5.250	0.375	0.413	\$45.64
UCH52506000-500	5.250	6.000	0.500	0.550	\$31.06
UCH55006000-375	5.500	6.000	0.375	0.413	\$21.17
UCH60007000	6.000	7.000	0.500	0.550	\$45.37
UCH62507000-500	6.250	7.000	0.500	0.550	\$28.76
UCH72508000-500	7.250	8.000	0.500	0.550	\$30.88
UCH75008000-375	7.500	8.000	0.375	0.413	\$33.08
UCH82509000-500	8.250	9.000	0.500	0.550	\$38.88
UCH925010000-500	9.250	10.000	0.500	0.550	\$41.61
UCH1125012000-500	11.250	12.000	0.500	0.550	\$70.83
UCH1325014000-500	13.250	14.000	0.500	0.550	\$84.75
UCH1512516000	15.125	16.000	0.437	0.481	\$136.78
UCH1512516000-500	15.125	16.000	0.500	0.550	\$176.62
UCH1525016000-500	15.250	16.000	0.500	0.550	\$146.92
UCH1625017000-500	16.250	17.000	0.500	0.550	\$188.65
UCH1900020000-750	19.000	20.000	0.750	0.825	\$253.08

# UCF Fabric Reinforced Nitrile U-Cups - Inch



Cotton-Duck reinforced nitrile U-cups wear extremely well in heavy duty hydraulic cylinder applications. The wicking action of the cotton-duck material keeps the seal lubricated. The lip seal design also contributes to low friction.

Temperature: -20°F to 200°F Pressure: 0 to 3,500 PSI

ALTERNATIVE SEALS:  
Piston: DEEP LLS, LLS, US, UNP

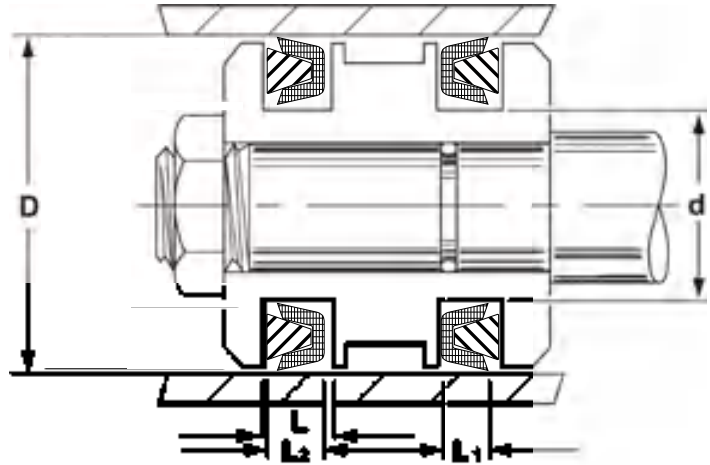
EXAMPLE: UCF15002000-375			
Prefix	Inside Diameter	Outside Diameter	Height
UCF	1500	2000	-375
	1-1/2"	2"	3/8

When there is nothing to indicate Height in the Part #  
(No Dash #) Height = Cross Section

Part Number	Groove Diameter d	Bore Diameter D	Height L <sub>1</sub>	Groove Height L	Price
UCF15002000-375	1.500	2.000	0.375	0.413	\$14.32
UCF17502500-500	1.750	2.500	0.500	0.550	\$20.73
UCF22502750-375	2.250	2.750	0.375	0.413	\$18.03
UCF22503000-375-1	2.250	3.000	0.375	0.413	\$16.35
UCF22503000-500	2.250	3.000	0.500	0.550	\$17.26
UCF25003000-375	2.500	3.000	0.375	0.413	\$14.03
UCF25003250-375-1	2.500	3.250	0.375	0.413	\$19.63
UCF25003250-500	2.500	3.250	0.500	0.550	\$18.45
UCF25003750	2.500	3.750	0.625	0.688	\$27.44
UCF27503500-375-1	2.750	3.500	0.375	0.413	\$21.52
UCF27503500-500	2.750	3.500	0.500	0.550	\$25.19
UCF30003500-375	3.000	3.500	0.375	0.413	\$22.54
UCF30003750-375-1	3.000	3.750	0.375	0.413	\$23.82
UCF30003750-500	3.000	3.750	0.500	0.550	\$30.34
UCF32504000-375-1	3.250	4.000	0.375	0.413	\$25.69
UCF32504000-500	3.250	4.000	0.500	0.550	\$25.69
UCF37504500-375-1	3.750	4.500	0.375	0.413	\$25.69
UCF37504500-500	3.750	4.500	0.500	0.550	\$30.25
UCF40004750-500	4.000	4.750	0.500	0.550	\$28.21
UCF40005000-500-1	4.000	5.000	0.500	0.550	\$26.81
UCF41255000-437-1	4.125	5.000	0.437	0.481	\$45.83

Part Number	Groove Diameter d	Bore Diameter D	Height L <sub>1</sub>	Groove Height L	Price
UCF42505000-500	4.250	5.000	0.500	0.550	\$31.08
UCF45005250-500	4.500	5.250	0.500	0.550	\$32.81
UCF47505500-500	4.750	5.500	0.500	0.550	\$36.80
UCF50006000-750-1	5.000	6.000	0.750	0.825	\$37.33
UCF52506000-500	5.250	6.000	0.500	0.550	\$35.62
UCF52506125-437-1	5.250	6.125	0.437	0.481	\$57.26
UCF55006250-500	5.500	6.250	0.500	0.550	\$49.82
UCF55126063-433-1	5.512	6.063	0.433	0.476	\$40.24
UCF57506500-500	5.750	6.500	0.500	0.550	\$38.58
UCF62507000-500	6.250	7.000	0.500	0.550	\$46.96
UCF72508000-500	7.250	8.000	0.500	0.550	\$52.51
UCF77508500-500	7.750	8.500	0.500	0.550	\$66.46
UCF80008750-500	8.000	8.750	0.500	0.550	\$74.71
UCF82509000-500	8.250	9.000	0.500	0.550	\$81.71
UCF925010000-500	9.250	10.000	0.500	0.550	\$98.29
UCF1000011250-1125	10.000	11.250	1.125	1.238	\$112.98
UCF1325014000-500	13.250	14.000	0.500	0.550	\$108.13
UCF1525016000-500	15.250	16.000	0.500	0.550	\$756.13
UCF1687517875-750	16.875	17.875	0.750	0.825	\$664.87
UCF2300024000-750-1	23.000	24.000	0.750	0.825	\$697.80
UCF2787528875-750	27.875	28.875	0.750	0.825	\$802.82

# UCL Leather U-Cups with Nitrile Filler - Inch



EXAMPLE: UCL125200-375F469

Prefix	Inside Diameter	Outside Diameter	Height	Filler Height
UCL	125	200	- 375	F469
	1-1/4"	2"	3/8"	7/16"

Despite the fact that leather U-cups with rubber fillers are somewhat outdated, we fulfill our commitment to our customers by carrying the hard to find items. Many applications still require the use of these seals since there are no reliable retrofits available. Among these applications are bucket trucks, drill rigs, forklifts and some cylinders built by Benton Harbor Engineering®. They are constructed of Thiokol-treated leather with nitrile expander rings. Other sizes may be available by request.

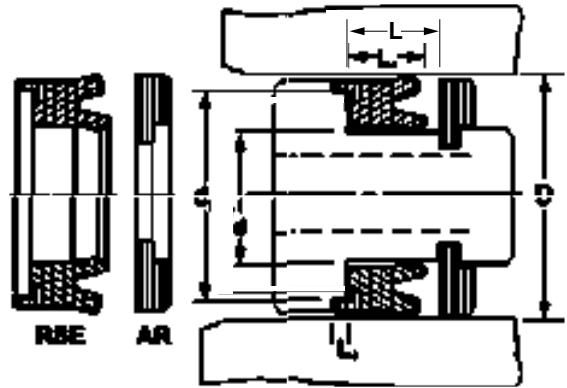
Temperature: -50°F to 275°F

Pressure: 0 to 5,000 PSI

Part Number	Groove Diameter d	Bore Diameter D	Seal Height L <sub>1</sub>	Seal Height L <sub>2</sub>	Groove Height L	Price
UCL125200-375F469	1.250	2.000	0.375	0.437	0.437	\$80.17
UCL150225-375F469	1.500	2.250	0.375	0.437	0.437	\$58.27
UCL175250-375F469	1.750	2.500	0.375	0.437	0.437	\$76.16
UCL200300-500F593	2.000	3.000	0.500	0.562	0.562	\$97.39
UCL225325-500F593	2.250	3.250	0.500	0.562	0.562	\$88.74
UCL250350-500F593	2.500	3.500	0.500	0.562	0.562	\$91.73
UCL275400-562F656	2.750	4.000	0.562	0.625	0.625	\$126.07
UCL300400-500F593	3.000	4.000	0.500	0.562	0.562	\$126.07
UCL300425-562F656	3.000	4.250	0.562	0.625	0.625	\$124.59
UCL325450-562F656	3.250	4.500	0.562	0.625	0.625	\$185.21
UCL375500-562F656	3.750	5.000	0.562	0.625	0.625	\$161.36
UCL425550-750F843	4.250	5.500	0.750	0.812	0.812	\$193.21
UCL475600-750F843	4.750	6.000	0.750	0.812	0.812	\$235.34
UCL525650-750F843	5.250	6.500	0.750	0.812	0.812	\$293.10
UCL575700-750F843	5.750	7.000	0.750	0.812	0.812	\$348.44



# RSE Piston U-Cups with Backup Ring - Metric



EXAMPLE: RSE4025		
Prefix	Outside Diameter	Inside Diameter
RSE	40	25
	40mm	25mm

These urethane piston u-cups utilize an L-shaped anti-extrusion ring/bearing designed into the outside of the heel. These seals offer high elasticity and low deformation and abrasion resistance, along with superior anti-extrusion capabilities. These are commonly used with plastic retainer rings, which hold the seal in its groove.

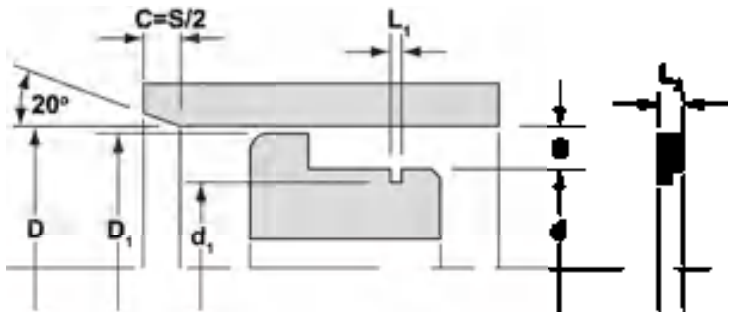
See below for the retainers.

Temperature: -22°F to 230°F Pressure: 0 to 5,800 PSI

Part Number	Bore Dia D	GRV Dia d	Seal HT L <sub>1</sub>	B/U ID d <sub>1</sub>	B/U HT L <sub>2</sub>	GRV HT L	Price
RSE4025/W	40	25	10.0	35.4	6.4	11.0	\$15.72
RSE4530/W	45	30	10.0	40.4	6.4	11.0	\$18.01
RSE4535/W	45	35	9.5	40.4	6.4	10.5	\$18.65
RSE5030/W	50	30	14.5	45.4	6.4	15.5	\$18.78
RSE5035/W	50	35	11.0	45.4	6.4	12.0	\$20.05
RSE5540/W	55	40	11.0	50.4	6.4	12.0	\$20.13
RSE6040/W	60	40	14.5	55.4	6.4	15.5	\$20.33
RSE6040/W1	60	40	14.5	54.2	6.4	15.5	\$20.33

Part Number	Bore Dia D	GRV Dia d	Seal HT L <sub>1</sub>	B/U ID d <sub>1</sub>	B/U HT L <sub>2</sub>	GRV HT L	Price
RSE6045/W	60	45	11.0	55.4	6.4	12.0	\$22.88
RSE6345/W	63	45	11.0	58.4	6.4	12.0	\$21.19
RSE6550/W	65	50	11.0	60.4	6.4	12.0	\$21.20
RSE7050/W	70	50	13.5	64.2	6.4	14.5	\$22.53
RSE10080/W	100	80	14.5	93.2	6.4	15.5	\$27.43
RSE11095/W	110	95	13.0	103.1	6.4	14.0	\$29.29
RSE120100/W	120	100	14.5	113.1	6.4	15.5	\$34.06

# AR Retaining Rings - Metric

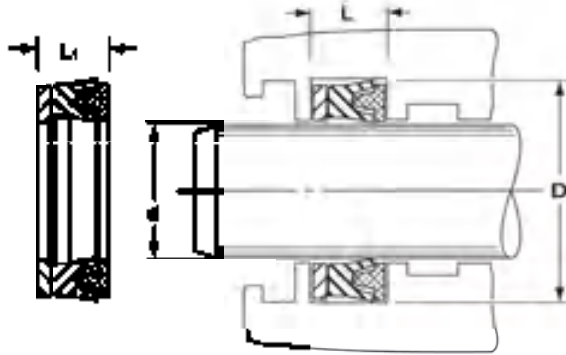


These plastic retaining rings are commonly used with the RSE piston U-cups. Their primary use is to hold the seal from sliding off the piston during the return stroke. They allow for a piston to be designed with the steel to be removed from the end for easy installation of the piston seal.

Part Number	Bore Dia D	Ring Dia D <sub>1</sub>	Groove Dia d	Insert ID d <sub>1</sub>	Insert HT L <sub>1</sub>	Total HT L <sub>2</sub>	Price
AR4026	40	38.7	26	21.6	3.1	6	\$8.55
AR5030	50	48.3	30	25.6	3.3	6.5	\$8.55
AR6040	60	58.3	40	35.6	3.1	6.5	\$9.19
AR7050	70	68.3	50	45.6	3.1	6.5	\$11.72
AR9070	90	88.3	70	65.6	3.3	6.5	\$12.66

EXAMPLE: AR4026		
Prefix	Outside Diameter	Inside Diameter
AR	40	26
	40mm	26mm

## W1 Pressure Washer Pump Seals



EXAMPLE: W1-14X24X7B				
Prefix	Inside Diameter	Outside Diameter	Height	Suffix
W1-	14	24	7	B
	14mm	24mm	7mm	HAS B/U

This 2 or 3 piece sealing set was designed specifically for high pressure water pumps and pressure washer cleaning equipment. This new design replaces the higher friction chevron solution. This sealing set has a much longer service life due to less friction and a specially lubricated NBR and Cotton material. It works well in water and water/oil mixture fluids. Part numbers with a "B" suffix contain a carbon-filled Teflon backup ring.

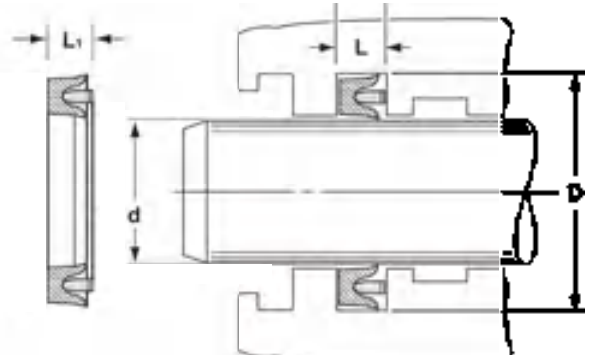
Temperature: -22°F to 175°F

Pressure: PSI ≤ 3,600

Part Number	Rod Dia d	Groove Dia D	Seal Ht. L <sub>1</sub>	Groove Ht. L	Price
W1-14X24X7	14	24	7	7.5	\$11.75
W1-14X24X8.75B	14	24	8.75	9	\$16.55
W1-15X24X7.25	15	24	7.25	7.75	\$12.09
W1-15X24X7.9B	15	24	7.9	8.5	\$17.32
W1-16X26X7	16	26	7	7.5	\$12.69
W1-16X26X8.75B	16	26	8.75	9	\$17.86
W1-18X28X8	18	28	8	8.5	\$13.61
W1-18X28X9.75B	18	28	9.75	10	\$19.16
W1-20X30X9.75B	20	30	9.75	10	\$19.16
W1-22X32X9.75B	22	32	9.75	10	\$19.16
W1-24X34X9.75B	24	34	9.75	10	\$19.27
W1-25X35X9.75B	25	35	9.75	10	\$19.27
W1-28X38X9.75B	28	38	9.75	10	\$21.01

Part Numbers without a "B" do not contain the backup ring.

## W2/W3 Pressure Washer Pump Seals



EXAMPLE: W2-12X20X5.3			
Prefix	Inside Diameter	Outside Diameter	Height
W2-	12	20	5.3
	12mm	20mm	5.3mm

This 1 or 2 piece sealing set was designed for low pressure water pumps and pressure washer cleaning equipment. It is used downstream of the W1 set, seals the low pressure leakage return, and has a much longer service life due to less friction and a specially lubricated NBR and Cotton material. It works well in water and water/oil mixture fluids. W3 is pictured. W2 part numbers do not contain a thermoplastic header ring.

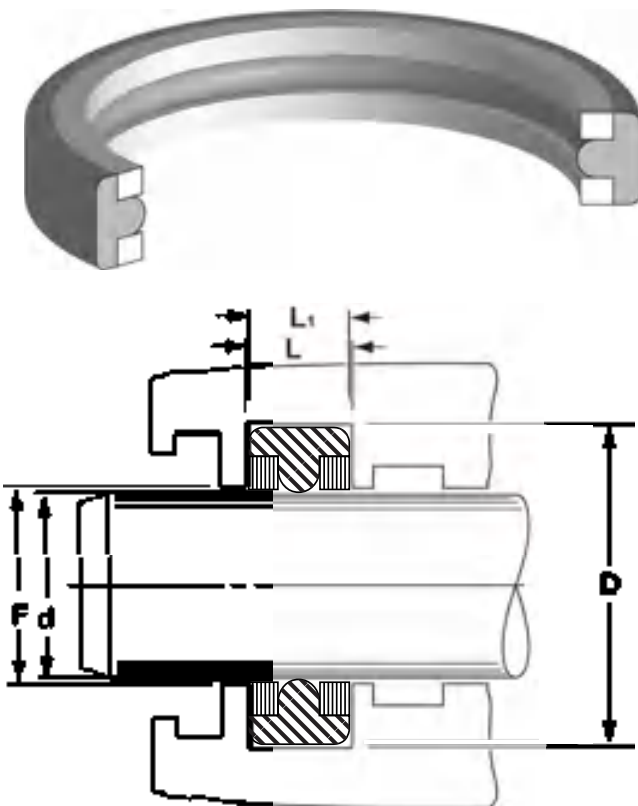
Temperature: -22°F to 175°F

Pressure: PSI ≤ 1,100

Part Number	Rod Dia d	Groove Dia D	Seal Ht. L <sub>1</sub>	Groove Ht. L	Price
W2-12X20X5.3	12	20	5.3	5.8	\$9.20
W2-14X22X5.5	14	22	5.5	6	\$9.62
W2-16X24X5.5	16	24	5.5	6	\$9.89
W2-18X26X5.5	18	26	5.5	6	\$10.22
W2-20X28X5.5	20	28	5.5	6	\$12.20
W2-22X30X5.5	22	30	5.5	6	\$10.83
W2-24X32X5.3	24	32	5.3	5.8	\$11.06
W3-12X20X6	12	20	6	6.5	\$12.79
W3-14X22X6.5	14	22	6.5	7	\$13.19
W3-22X30X6.5	22	30	6.5	7	\$14.02
W3-24X32X6.3	24	32	6.3	6.8	\$14.45

Part Numbers that start with W3 have a header ring.  
W2 is the U-cup only.

# TR Rod T-Seals - Inch



Rod T-seals were originally developed to replace o-rings, and retrofit into standard commercial o-ring grooves. This development ended two serious reliability problems:

1. Extrusion through the clearance gap.
2. Spiral or twisting failure due to instability in their groove.

T-seal back-ups are hydraulically or pneumatically driven against the dynamic surface when system pressure forces the elastomer into the space beneath the back-up. This immediate response to pressure makes them very effective wipers, keeping contaminants away from the sealing line.

Standard material for our T-seals is 75 durometer nitrile with moly-filled nylon back-up rings. Other materials are available upon request.

Temperature: -40° to 225°F.

Pressure: 0 to 5,000 PSI

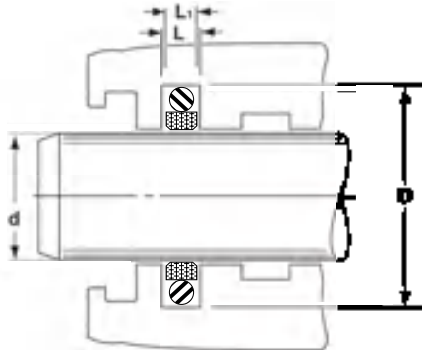
\* For piston T-seals, see piston seal section.

Part Number	Nominal Size			Rod Dia. +0.000 /-0.002 d	Groove Dia. +0.002 /-0.000 D	Groove Height +0.005 /-0.000 L	Clearance Dia. +0.001 /-0.000 F	O-ring Size	Price
	I.D.	O.D.	Width						
TR001	3/16	3/8	5/32	0.186	0.362	0.140	0.188	-106	\$8.64
TR002	1/4	7/16	5/32	0.249	0.425	0.140	0.251	-108	\$9.52
TR003	5/16	1/2	5/32	0.311	0.487	0.140	0.313	-109	\$21.26
TR004	3/8	5/8	3/16	0.373	0.615	0.187	0.376	-204	\$6.23
TR005	7/16	11/16	3/16	0.435	0.677	0.187	0.438	-205	\$23.79
TR006	1/2	3/4	3/16	0.498	0.740	0.187	0.501	-206	\$10.45
TR007	9/16	13/16	3/16	0.560	0.802	0.187	0.563	-207	\$10.95
TR008	5/8	7/8	3/16	0.623	0.865	0.187	0.626	-208	\$7.63
TR009	11/16	15/16	3/16	0.685	0.927	0.187	0.688	-209	\$7.67
TR010	3/4	1	3/16	0.748	0.990	0.187	0.751	-210	\$8.09
TR011	13/16	1 1/16	3/16	0.810	1.052	0.187	0.813	-211	\$11.95
TR012	7/8	1 1/8	3/16	0.873	1.115	0.187	0.876	-212	\$9.19
TR013	15/16	1 3/16	3/16	0.935	1.177	0.187	0.938	-213	\$27.97
TR014	1	1 1/4	3/16	0.998	1.240	0.187	1.001	-214	\$8.09
TR015	1 1/16	1 5/16	3/16	1.060	1.302	0.187	1.063	-215	\$8.37
TR016	1 1/8	1 3/8	3/16	1.123	1.365	0.187	1.126	-216	\$9.17
TR018	1 1/4	1 1/2	3/16	1.248	1.490	0.187	1.251	-218	\$8.76
TR018V	1 1/4	1 1/2	3/16	1.248	1.490	0.187	1.251	-218	\$62.31
TR019	1 5/16	1 9/16	3/16	1.310	1.552	0.187	1.313	-219	\$13.46
TR020	1 3/8	1 5/8	3/16	1.373	1.615	0.187	1.376	-220	\$11.10
TR021	1 7/16	1 11/16	3/16	1.435	1.677	0.187	1.438	-221	\$38.02

TR Rod Seals - inch , cont'd.

Part Number	Nominal Size			Rod Dia. +0.000 /-0.002 d	Groove Dia. +0.002 /-0.000 D	Groove Height +0.005 /-0.000 L	Clearance Dia. +0.001 /-0.000 F	O-ring Size	Price
	I.D.	O.D.	Width						
TR022	1 1/2	1 3/4	3/16	1.498	1.740	0.187	1.501	-222	\$9.38
TR023	1 1/2	1 7/8	9/32	1.498	1.868	0.281	1.501	-325	\$8.26
TR024	1 5/8	2	9/32	1.623	1.993	0.281	1.626	-326	\$11.51
TR025	1 3/4	2 1/8	9/32	1.748	2.118	0.281	1.751	-327	\$9.21
TR026	1 7/8	2 1/4	9/32	1.873	2.243	0.281	1.876	-328	\$11.74
TR027	2	2 3/8	9/32	1.998	2.368	0.281	2.001	-329	\$9.80
TR028	2 1/8	2 1/2	9/32	1.123	2.493	0.281	1.126	-330	\$10.25
TR029	2 1/4	2 5/8	9/32	2.248	2.618	0.281	2.251	-331	\$11.18
TR030	2 3/8	2 3/4	9/32	2.373	2.743	0.281	2.376	-332	\$12.65
TR031	2 1/2	2 7/8	9/32	2.498	2.868	0.281	2.501	-333	\$12.87
TR032	2 5/8	3	9/32	2.623	2.993	0.281	2.626	-334	\$12.91
TR033	2 3/4	3 1/8	9/32	2.748	3.118	0.281	2.751	-335	\$14.87
TR034	2 7/8	3 1/4	9/32	2.873	3.243	0.281	2.876	-336	\$14.98
TR035	3	3 3/8	9/32	2.998	3.368	0.281	3.001	-337	\$15.77
TR036	3 1/8	3 1/2	9/32	3.123	3.493	0.281	3.126	-338	\$29.52
TR037	3 1/4	3 5/8	9/32	3.248	3.618	0.281	3.251	-339	\$17.18
TR038	3 3/8	3 3/4	9/32	3.373	3.743	0.281	3.376	-340	\$17.84
TR039	3 1/2	3 7/8	9/32	3.498	3.868	0.281	3.501	-341	\$19.12
TR040	3 5/8	4	9/32	3.623	3.993	0.281	3.626	-342	\$19.86
TR041	3 3/4	4 1/8	9/32	3.748	4.118	0.281	3.751	-343	\$28.84
TR042	3 7/8	4 1/4	9/32	3.873	4.243	0.281	3.876	-344	\$37.90
TR043	4	4 3/8	9/32	3.998	4.368	0.281	4.001	-345	\$23.67
TR043V	4	4 3/8	9/32	3.998	4.368	0.281	4.001	-345	\$97.40
TR044	4 1/8	4 1/2	9/32	4.123	4.493	0.281	4.126	-346	\$70.33
TR045	4 1/4	4 5/8	9/32	4.248	4.618	0.281	4.251	-347	\$25.28
TR046	4 3/8	4 3/4	9/32	4.373	4.743	0.281	4.376	-348	\$29.28
TR047	4 1/2	4 7/8	9/32	4.498	4.868	0.281	4.501	-349	\$41.66
TR048	5	5 1/2	3/8	4.997	5.471	0.375	5.001	-429	\$36.73
TR048V	5	5 1/2	3/8	4.997	5.471	0.375	5.001	-429	\$96.26
TR049	5 1/4	5 3/4	3/8	5.247	5.721	0.375	5.251	-431	\$45.36
TR050	5 1/2	6	3/8	5.497	5.971	0.375	5.501	-433	\$74.49
TR051	5 5/8	6 1/8	3/8	5.622	6.096	0.375	5.626	-434	\$99.60
TR052	6	6 1/2	3/8	5.997	6.471	0.375	6.001	-437	\$47.12
TR053	6 1/4	6 3/4	3/8	6.247	6.721	0.375	6.251	-438	\$125.92
TR054	6 1/2	7	3/8	6.497	6.971	0.375	6.501	-439	\$78.69
TR055	6 3/4	7 1/4	3/8	6.747	7.221	0.375	6.751	-440	\$120.78
TR056	7	7 1/2	3/8	6.997	7.471	0.375	7.001	-441	\$67.15
TR057	7 1/4	7 3/4	3/8	7.247	7.721	0.375	7.251	-442	\$127.59
TR058	7 1/2	8	3/8	7.497	7.971	0.375	7.501	-443	\$90.66
TR059	8	8 1/2	3/8	7.997	8.471	0.375	8.001	-445	\$129.35
TR060	9	9 1/2	3/8	8.997	9.471	0.375	9.001	-447	\$147.11
TR061	9 1/2	10	3/8	9.497	9.971	0.375	9.501	-448	\$223.14
TR062	10	10 1/2	3/8	9.997	10.471	0.375	10.001	-449	\$265.61
TR063	11	11 1/2	3/8	10.997	11.471	0.375	11.001	-451	\$338.50

# AS7 Series Double-Acting Rod Seals - Metric



Most of our AS7 series rod seals are machined from bronze filled PTFE for the most severe applications. Standard expander rings on this series rod seal are round cross section high memory 70 durometer nitrile; however, FKM expanders are available. Consult sales for pricing and delivery of special compounds.

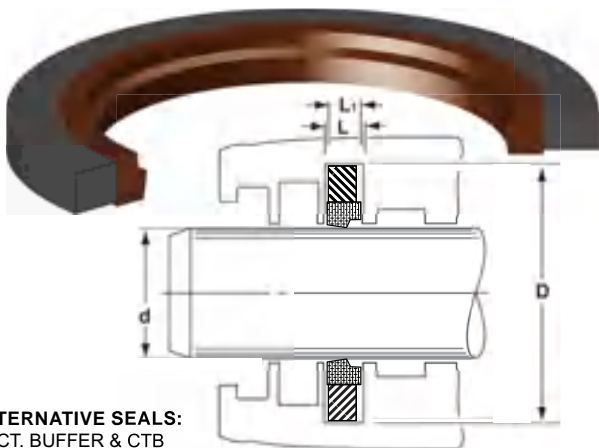
Temperature: -40° to 225°F      Pressure: 0 to 5,000 PSI

EXAMPLE: AS731E-19MMB			
Prefix	Groove Height	Inside Diameter	Suffix
AS7	*31E-	19MM	B
	3.2mm	19mm	BTFE

\*\_E- Number Refers to Groove Height  
(29 = 2.2, 31 = 3.2, 35 = 4.2, 39 = 6.3, 41 = 8.1mm)

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L	Price
AS729E-10MM	10	14.9	2.2	\$17.47
AS731E-19MMB	19	26.3	3.2	\$17.74
AS735E-35MMB	35	45.7	4.2	\$22.27
AS735E-36MMB	36	46.7	4.2	\$23.58
AS735E-38MMB	38	48.7	4.2	\$26.62
AS735E-41MMB	41	51.7	4.2	\$29.12
AS739E-63MMB	63	78.5	6.3	\$30.21
AS735E-65MMB	65	75.7	4.2	\$30.64
AS735E-65MMC	65	75.7	4.2	\$31.00
AS735E-70MMB	70	80.7	4.2	\$32.20
AS739E-75MMB	75	90.5	6.3	\$36.49
AS739E-90MMB	90	105.5	6.3	\$67.50
AS739E-100MMC	100	115.5	6.3	\$53.67
AS739E-120MMB	120	135.5	6.3	\$61.86
AS741E-430MMH	430	454.2	8.1	\$282.67
AS741E-550MMH	550	574.2	8.1	\$383.27

# CAT® Stepped PTFE Buffer Rings - Inch



ALTERNATIVE SEALS:  
RECT. BUFFER & CTB

OEM NUMBERING SYSTEM

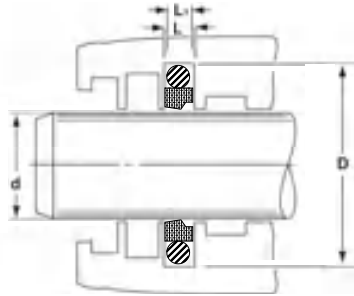
Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +.008/-0	Price
1353251	1.250	1.783	0.140	\$16.04
8C9122	1.500	2.033	0.140	\$16.72
8C9117	1.625	2.158	0.140	\$17.28
8C9123	1.750	2.283	0.140	\$17.95
9X3566	1.875	2.252	0.140	\$18.11
8C9124	2.000	2.533	0.140	\$19.65

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +.008/-0	Price
9X3568	2.125	2.627	0.140	\$22.30
8C9125	2.250	2.891	0.220	\$25.32
8C9138	2.375	3.016	0.220	\$28.20
8C3839	2.500	3.141	0.220	\$23.43
9T9363	2.625	3.266	0.220	\$29.10
8C3841	2.750	3.391	0.220	\$29.88
8C9126	3.000	3.641	0.220	\$21.24
8C9121	3.250	3.891	0.220	\$29.19
8C9127	3.500	4.141	0.220	\$34.27
8C9128	3.750	4.391	0.220	\$36.51
8C9129	4.000	4.641	0.220	\$39.11
6E0425	4.250	5.225	0.250	\$59.73
8C9144	4.500	5.475	0.250	\$55.19
9X7261	4.750	5.725	0.250	\$64.88
9X3581	5.000	5.960	0.250	\$68.23
9X7267	5.250	6.210	0.250	\$71.87
9X3572	5.500	6.116	0.250	\$74.33
9X3575	5.750	6.725	0.250	\$79.68
9X3614	6.000	6.619	0.250	\$77.58
9X7322	6.500	7.502	0.250	\$85.54
8C9145	6.750	7.695	0.250	\$89.16
8C9130	7.000	7.945	0.250	\$77.09

We do not imply that these seals are a product of Cat®.  
Part numbers are used for reference purposes only.

# AS2 Stepped PTFE Buffer Rings - Inch

ALTERNATIVE SEALS:  
CBR, CTB



Stepped seals are used to "buffer" pressure spikes from the primary rod seal, and are sometimes used in tandem. Combined with an unloaded U-cup, pressure builds between the step seal and primary seal and helps "load" the U-cup. Seals are machined from bronze filled PTFE. Expanders are 70 durometer high memory nitrile, also available with FKM expander rings. Part numbers that contain a P63D suffix are made from 63 shore D polyurethane.

Temperature: -40°F to 225°F

Pressure: 0 to 3,500 PSI

EXAMPLE: AS235E-32B			
Prefix	Groove Height	Inside Diameter	Suffix
AS2	*35E-	32	B
	.166"	2"	BTFE

\*\_\_E- Number Refers to Groove Height(31 = .126, 35 = .166, 39 = .247, 41 = .320")  
Standard size "AS" assemblies are numbered in multiples of 1/16" (# AFTER DASH)

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +.008/-0	Price
AS231E-10B	0.625	0.912	0.126	\$10.88
AS231E-12B	0.750	1.037	0.126	\$12.27
AS235E-12B	0.750	1.174	0.166	\$12.32
AS231E-14B	0.875	1.162	0.126	\$14.69
AS231E-16B	1.000	1.287	0.126	\$15.85
AS235E-16B	1.000	1.424	0.166	\$8.42
AS231E-18B	1.125	1.412	0.126	\$14.46
AS235E-18B	1.125	1.549	0.166	\$14.44
AS231E-20B	1.250	1.537	0.126	\$20.64
AS235E-20	1.250	1.674	0.166	\$16.01
AS235E-20B	1.250	1.674	0.166	\$20.94
AS231E-22B	1.375	1.662	0.126	\$23.98
AS235E-22G	1.375	1.799	0.166	\$23.97
AS235E-22B	1.375	1.799	0.166	\$23.97
AS231E-24B	1.500	1.787	0.126	\$20.10
AS235E-24B	1.500	1.924	0.166	\$22.88
AS239E-24B	1.500	2.116	0.247	\$15.16
AS231E-28B	1.750	2.037	0.126	\$25.67
AS235E-28B	1.750	2.174	0.166	\$24.66
AS239E-28B	1.750	2.366	0.247	\$25.55
AS235E-30B	1.875	2.299	0.166	\$21.46
AS231E-32B	2.000	2.287	0.126	\$27.00
AS235E-32B	2.000	2.424	0.166	\$26.83
AS239E-32B	2.000	2.616	0.247	\$27.77
AS235E-34B	2.125	2.549	0.166	\$28.35
AS235E-36B	2.250	2.674	0.166	\$30.05
AS239E-36B	2.250	2.866	0.247	\$31.79
AS235E-40B	2.500	2.924	0.166	\$27.08
AS239E-40B	2.500	3.116	0.247	\$36.26
AS239E-42B	2.625	3.241	0.247	\$37.03
AS235E-44B	2.750	3.174	0.166	\$31.76
AS239E-44B	2.750	3.366	0.247	\$31.76
AS235E-48B	3.000	3.424	0.166	\$35.11
AS239E-48B	3.000	3.616	0.247	\$42.24
AS239E-48P63D	3.000	3.616	0.247	\$56.76

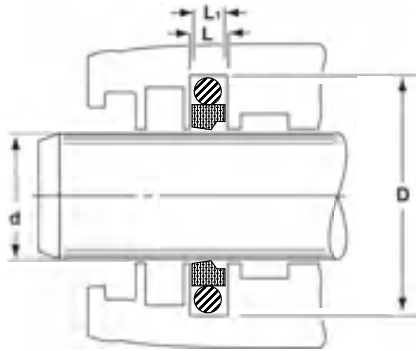
Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +.008/-0	Price
AS239E-52B	3.250	3.866	0.247	\$43.54
AS235E-56B	3.500	3.924	0.166	\$40.01
AS239E-56B	3.500	4.116	0.247	\$44.69
AS239E-58B	3.625	4.241	0.247	\$50.80
AS239E-60B	3.750	4.366	0.247	\$56.96
AS239E-60P	3.750	4.366	0.247	\$48.10
AS241E-60B	3.750	4.580	0.320	\$65.13
AS235E-64B	4.000	4.424	0.166	\$54.75
AS239E-64B	4.000	4.616	0.247	\$58.42
AS239E-64P63D	4.000	4.616	0.247	\$77.51
AS241E-64B	4.000	4.830	0.320	\$56.32
AS239E-68B	4.250	4.866	0.247	\$58.89
AS239E-72B	4.500	5.116	0.247	\$66.38
AS241E-72B	4.500	5.330	0.320	\$70.64
AS239E-76B	4.750	5.366	0.247	\$71.13
AS239E-78	4.875	5.491	0.247	\$73.77
AS239E-80B	5.000	5.616	0.247	\$72.59
AS241E-80B	5.000	5.830	0.320	\$75.92
AS239E-82B	5.125	5.741	0.247	\$89.25
AS239E-86B	5.375	5.991	0.247	\$93.84
AS239E-88B	5.500	6.116	0.247	\$79.07
AS241E-88B	5.500	6.330	0.320	\$84.44
AS239E-92B	5.750	6.366	0.247	\$83.61
AS241E-92B	5.750	6.580	0.320	\$78.18
AS239E-96B	6.000	6.616	0.247	\$75.13
AS241E-96B	6.000	6.830	0.320	\$78.06
AS241E-100B-1	6.250	7.080	0.362	\$94.37
AS239E-104B	6.500	7.116	0.247	\$86.22
AS241E-104B	6.500	7.330	0.320	\$87.83
AS241E-108B	6.750	7.580	0.320	\$97.99
AS239E-112B	7.000	7.616	0.247	\$92.12
AS241E-112B	7.000	7.830	0.320	\$102.87
AS241E-116B	7.250	8.080	0.320	\$117.44
AS241E-120B	7.500	8.330	0.320	\$108.03
AS241E-124B	7.750	8.580	0.320	\$110.72

**AS2 Stepped PTFE Buffer Rings - Inch, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +.008/-0	Price
AS239E-128B	8.000	8.616	0.247	\$97.78
AS241E-128B	8.000	8.830	0.320	\$137.99
AS239E-132B	8.250	8.866	0.247	\$141.19
AS241E-132B	8.250	9.080	0.320	\$142.16
AS239E-136B	8.500	9.116	0.247	\$144.24
AS241E-136B	8.500	9.330	0.320	\$145.73
AS241E-144B	9.000	9.830	0.320	\$144.65

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +.008/-0	Price
AS241E-160B	10.000	10.830	0.320	\$171.04
AS241E-168B	10.500	11.330	0.320	\$173.89
AS241E-192B	12.000	12.830	0.320	\$182.72
AS241E-208B	13.000	13.830	0.320	\$323.65
AS241E-224HB	14.000	14.945	0.320	\$337.96
AS241E-320HB	20.000	20.945	0.320	\$615.65

**AS2 Stepped PTFE Buffer Rings - Metric**



ALTERNATIVE SEALS:  
MBR

Stepped seals are used to "buffer" pressure spikes from the primary rod seal, and are sometimes used in tandem. Combined with an unloaded U-cup, pressure builds between the step seal and primary seal and helps "load" the U-cup. Seals are machined from bronze-filled PTFE and urethane. Expanders are 70 durometer high memory nitrile, also available with FKM expander rings.

EXAMPLE: AS239E-50MMB			
Prefix	Groove Height	Inside Diameter	Suffix
AS2	*39E-	50MM	B
	6.3mm	50mm	BTFE

Temperature: -40°F to 225°F  
Pressure: 0 to 3,500 PSI

Parts with a "P" are made from 55D shore urethane  
Parts with a "-1" suffix are used in John Deere® cylinders.

\*\_\_ E- Number Refers to Groove Height  
(29 = 2.2, 31 = 3.2, 35 = 4.2, 39 = 6.3, 41 = 8.1mm)

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +.2/-0	Price
AS229E-8MMB	8	12.9	2.2	\$13.15
AS231E-8MMB	8	15.3	3.2	\$13.15
AS229E-10MM	10	14.9	2.2	\$14.64
AS231E-10MMB	10	17.3	3.2	\$15.41
AS231E-12MM	12	19.3	3.2	\$13.28
AS231E-12MMB	12	19.3	3.2	\$11.92
AS231E-14MMB	14	21.3	3.2	\$8.70
AS231E-15MMB	15	22.3	3.2	\$11.96
AS229E-16MMB	16	20.9	2.2	\$13.07
AS231E-16MMB	16	23.3	3.2	\$5.62
AS229E-18MMB	18	22.9	2.2	\$11.79
AS231E-18MMB	18	25.3	3.2	\$6.10
AS231E-20MMB	20	27.5	3.2	\$8.53
AS235E-20MMB	20	30.7	4.2	\$8.57
AS231E-22MMB	22	29.5	3.2	\$11.57
AS231E-22MMC	22	29.5	3.2	\$11.50
AS235E-22MMB	22	32.7	4.2	\$8.69
AS231E-25MMB	25	32.5	3.2	\$8.87
AS235E-25MMB	25	35.7	4.2	\$15.38
AS231E-28MMB	28	35.5	3.2	\$8.87
AS235E-28MMB	28	38.7	4.2	\$8.87

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +.2/-0	Price
AS231E-30MMB	30	37.5	3.2	\$10.35
AS235E-30MMB	30	40.7	4.2	\$23.92
AS235E-30MMP	30	40.7	4.2	\$26.58
AS231E-32MMB	32	39.5	3.2	\$18.95
AS235E-32MMB	32	42.7	4.2	\$9.47
AS231E-35MMB	35	42.5	3.2	\$22.66
AS235E-35MMB	35	45.7	4.2	\$10.22
AS231E-36MMB	36	43.5	3.2	\$12.35
AS235E-36MMB	36	46.7	4.2	\$10.23
AS235E-40MMB	40	50.7	4.2	\$16.66
AS235E-40MMB-1	40	52.6	4.2	\$28.55
AS239E-40MMB	40	55.5	6.3	\$28.71
AS239E-40MMP63D	40	55.5	6.3	\$24.60
AS235E-42MMB	42	52.7	4.2	\$30.96
AS239E-42MMB	42	57.5	6.3	\$35.87
AS231E-45MMB	45	52.7	3.2	\$31.02
AS235E-45MMB	45	55.7	4.2	\$20.31
AS235E-45MMB-1	45	57.6	4.2	\$26.79
AS239E-45MMB	45	60.5	6.3	\$20.31
AS239E-48MMB	48	63.5	6.3	\$29.19
AS239E-48P63D	48	63.5	6.3	\$38.10

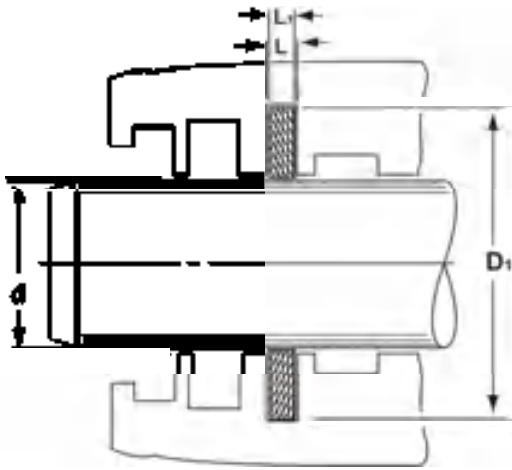
## AS2 Stepped PTFE Buffer Rings - Metric, cont'd.

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +./-0	Price
AS235E-50MMB	50	60.7	4.2	\$13.13
AS235E-50MMB-1	50	62.6	4.2	\$33.58
AS239E-50MMB	50	65.5	6.3	\$20.30
AS239E-50MMP63D	50	65.5	6.3	\$25.03
AS239E-52MMB	52	67.5	6.3	\$30.10
AS235E-55MMB	55	65.7	4.2	\$28.19
AS235E-55MMB-1	55	67.6	4.2	\$36.33
AS239E-55MMB	55	70.5	6.3	\$33.10
AS235E-56MMB	56	66.7	4.2	\$33.10
AS235E-56MMB-1	56	68.6	4.2	\$33.10
AS239E-56MMB	56	71.5	6.3	\$24.42
AS239E-56MMP55D	56	71.5	6.3	\$25.74
AS235E-60MMB	60	70.7	4.2	\$25.81
AS239E-60MMB	60	75.5	6.3	\$33.31
AS239E-60MMH55D	60	75.5	6.3	\$28.24
AS235E-63MMB	63	73.7	4.2	\$33.63
AS235E-63MMB-1	63	75.6	4.2	\$25.25
AS239E-63MMB	63	78.5	6.3	\$27.96
AS235E-65MMB	65	75.7	4.2	\$34.24
AS239E-65MMB	65	80.5	6.3	\$32.67
AS235E-70MMB	70	80.7	4.2	\$29.93
AS239E-70MMB	70	85.5	6.3	\$37.49
AS239E-70MMH55D	70	85.5	6.3	\$49.82
AS239E-70MMP	70	85.5	6.3	\$40.19
AS239E-75MMB	75	90.5	6.3	\$40.04
AS235E-80MMB	80	90.7	4.2	\$45.74
AS239E-80MMB	80	95.5	6.3	\$43.29
AS241E-80MMB	80	101.0	8.1	\$59.30
AS239E-85MMB	85	100.5	6.3	\$42.61
AS239E-85MMP	85	100.5	6.3	\$50.39
AS241E-85MMB	85	106.0	8.1	\$62.96
AS235E-90MMB	90	100.7	4.2	\$52.32
AS239E-90MMB	90	105.5	6.3	\$47.34
AS239E-90MMP	90	105.5	6.3	\$43.84
AS241E-90MMB	90	111.0	8.1	\$70.24
AS239E-95MMB	95	110.5	6.3	\$48.48
AS239E-95MMP	95	110.5	6.3	\$65.78
AS241E-95MMB	95	116.0	8.1	\$75.71
AS239E-97MMB	97	112.5	6.3	\$67.92
AS235E-100MMB	100	110.7	4.2	\$71.70
AS239E-100MMB	100	115.5	6.3	\$49.62
AS239E-100MMP63D	100	115.5	6.3	\$54.87
AS241E-100MMB	100	121.0	8.1	\$75.55
AS239E-105MMB	105	120.5	6.3	\$52.33
AS239E-105MMP	105	120.5	6.3	\$58.38
AS241E-105MMB	105	126.0	8.1	\$76.34
AS241E-105MMP	105	126.0	8.1	\$82.01
AS239E-110MMB	110	125.5	6.3	\$58.53
AS239E-110MMP	110	125.5	6.3	\$64.18
AS241E-110MMB	110	131.0	8.1	\$87.95
AS241E-110MMP	110	131.0	8.1	\$90.54
AS239E-115MMB	115	130.5	6.3	\$58.80
AS241E-115MMB	115	136.0	8.1	\$92.15
AS239E-120MMB	120	135.5	6.3	\$59.10

Part Number	Rod Diameter d	Groove Diameter D	Groove Height L +./-0	Price
AS239E-120MMP	120	135.5	6.3	\$70.69
AS241E-120MMB	120	141.0	8.1	\$97.86
AS239E-125MMB	125	140.5	6.3	\$59.75
AS239E-125MMP	125	140.5	6.3	\$77.22
AS241E-125MMB	125	146.0	8.1	\$105.67
AS241E-125MMP	125	146.0	8.1	\$108.48
AS239E-130MMB	130	145.5	6.3	\$60.21
AS241E-130MMB	130	151.0	8.1	\$109.50
AS239E-135MMB	135	150.5	6.3	\$69.59
AS239E-135MMP	135	150.5	6.3	\$79.13
AS241E-135MMB	135	156.0	8.1	\$110.85
AS239E-140MMB	140	155.5	6.3	\$57.47
AS239E-140MMP	140	155.5	6.3	\$76.78
AS241E-140MMB	140	161.0	8.1	\$111.94
AS241E-140MMP	140	161.0	8.1	\$126.88
AS239E-150MMB	150	165.5	6.3	\$64.20
AS241E-150MMB	150	171.0	8.1	\$111.84
AS239E-155MMB	155	170.5	6.3	\$65.31
AS239E-160MMB	160	175.5	6.3	\$65.97
AS241E-160MMB	160	181.0	8.1	\$72.04
AS241E-160MMP	160	181.0	8.1	\$126.56
AS239E-165MMB	165	180.5	6.3	\$82.38
AS239E-170MMB	170	185.5	6.3	\$81.20
AS241E-170MMB	170	191.0	8.1	\$88.94
AS239E-175MMB	175	190.5	6.3	\$92.08
AS239E-180MMB	180	195.5	6.3	\$108.26
AS241E-180MMB	180	201.0	8.1	\$134.03
AS241E-185MMB	185	206.0	8.1	\$157.31
AS239E-190MMB	190	205.5	6.3	\$124.46
AS241E-190MMB	190	211.0	8.1	\$156.04
AS239E-200MMB	200	215.5	6.3	\$125.20
AS241E-200MMB	200	221.0	8.1	\$156.41
AS239E-210MMB	210	225.5	6.3	\$155.29
AS241E-210MMB	210	230.0	8.1	\$158.70
AS241E-220MMB	220	241.0	8.1	\$177.24
AS239E-235MMB	235	250.5	6.3	\$211.19
AS241E-235MMB	235	255.6	8.1	\$228.58
AS241E-240MMB	240	261.0	8.1	\$231.88
AS241E-245MMB	245	266.0	8.1	\$245.35
AS241E-250MMB	250	271.0	8.1	\$237.97
AS241E-260MMHB	260	284.0	8.1	\$254.20
AS241E-280MMHP63D	280	304.0	8.1	\$193.37
AS241E-300MMHB	300	324.0	8.1	\$272.85
AS241E-300MMP55D	300	320.5	8.1	\$276.93
AS241E-320MMHB	320	344.0	8.1	\$300.62
AS241E-340MMHB	340	364.0	8.1	\$316.76
AS241E-360MMHB	360	384.0	8.1	\$351.06
AS241E-370MMHB	370	394.0	8.1	\$440.59
AS241E-380MMHB	380	404.0	8.1	\$365.14
AS241E-390MMHB	390	414.0	8.1	\$371.78
AS241E-390MMHP	390	414.0	8.1	\$381.37
AS241E-390MMP	390	410.5	8.1	\$340.71
AS241E-500MMHB	500	524.0	8.1	\$521.69
AS241E-520MMHB	520	544.0	8.1	\$592.53



# Rectangular Buffer Rings - Inch



These buffer rings are rectangular shaped in profile. They are most commonly used in combination with a U-cup as a rod seal. Their purpose is to protect the rod seal from contaminants as well as to apply a hydraulic "load" to the U-cup. Some of these rings are used as a backup ring combined with a rubber sealing ring in suspension cylinder applications. Part numbers starting with a G are used in Case® equipment; the others are typically used in Caterpillar® equipment.

Temperature: -40°F to 225°F

Pressure: 0 to 5,000 PSI

ALTERNATIVE SEALS: CBR, CTB, CAT STEPPED BUFFER SEALS

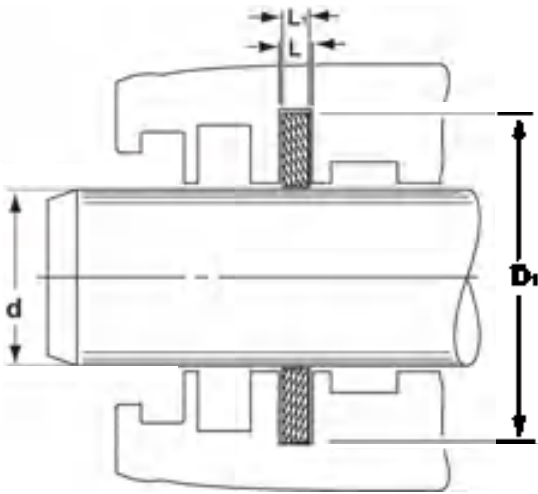
## OEM NUMBERING SYSTEM

Part Number	Rod Dia. d	Seal C/S F	Seal O.D. D <sub>1</sub>	Seal Height L <sub>1</sub>	Material	Price
G109092	1.250	0.253	1.756	0.117	URE	\$5.42
9J3497	1.250	0.285	1.820	0.117	URE	\$13.41
G109093	1.500	0.253	2.006	0.117	URE	\$9.96
6J9733	1.500	0.285	2.070	0.117	URE	\$6.15
G109094	1.750	0.251	2.252	0.117	URE	\$7.04
6J9178	1.750	0.285	2.320	0.117	URE	\$9.71
4T6778	1.875	0.200	2.275	0.113	URE	\$13.11
G107997	2.000	0.258	2.516	0.115	URE	\$13.42
6J6917	2.000	0.285	2.570	0.117	URE	\$9.61
4T6127	2.125	0.268	2.661	0.113	URE	\$20.24
G109086	2.250	0.312	2.874	0.187	URE	\$25.32
5J3616	2.250	0.340	2.930	0.187	URE	\$19.78
6J6916	2.375	0.340	3.055	0.187	URE	\$19.16
G107998	2.500	0.340	3.180	0.187	URE	\$20.42
5J3620	2.500	0.340	3.180	0.187	URE	\$13.81
8J9454	2.500	0.325	3.150	0.187	NBR	\$26.26
1U4020	2.625	0.340	3.305	0.187	URE	\$21.07
G107999	2.750	0.340	3.430	0.187	URE	\$18.43
6J6553	2.750	0.340	3.430	0.187	URE	\$18.43
G109015	3.000	0.310	3.620	0.187	URE	\$19.45
6J6915	3.000	0.342	3.684	0.187	URE	\$19.91
6J7167	3.250	0.340	3.930	0.187	URE	\$19.91
6J6736	3.500	0.343	4.186	0.187	URE	\$19.97
8J6070	3.750	0.340	4.430	0.187	URE	\$20.08
7J3863	4.000	0.367	4.734	0.183	NBR	\$26.40
7J3864	4.000	0.358	4.716	0.168	URE	\$26.84
8J4627	4.000	0.340	4.680	0.187	URE	\$36.25
7J8943	4.250	0.506	5.262	0.219	URE	\$26.40
3G5055	4.375	0.437	5.249	0.220	URE	\$26.65
7J9257	4.750	0.500	5.750	0.220	URE	\$28.45
8J4509	5.000	0.504	6.008	0.219	URE	\$29.59
9J2548	5.000	0.353	5.706	0.166	URE	\$37.71
4T5717	5.250	0.504	6.258	0.220	URE	\$34.93
8J9450	5.500	0.353	6.206	0.166	URE	\$35.13
8J9449	5.500	0.367	6.234	0.183	NBR	\$38.67
9J5468	5.750	0.495	6.740	0.219	URE	\$41.04
7J3866	6.125	0.351	6.827	0.169	URE	\$36.77
6J8631	6.500	0.523	7.546	0.217	URE	\$33.18
5J1731	7.000	0.352	7.704	0.167	URE	\$43.31
4T4804	7.250	0.370	7.990	0.170	URE	\$46.93
7J3867	7.500	0.351	8.202	0.169	URE	\$39.36
7J3868	7.500	0.368	8.236	0.185	NBR	\$35.10
8J9916	8.500	0.351	9.202	0.165	URE	\$56.38
8J9933	8.500	0.370	9.240	0.185	NBR	\$53.24
6J7693	9.000	0.351	9.702	0.170	URE	\$46.58
4T4806	10.500	0.380	11.260	0.183	NBR	\$48.20
4T4807	10.500	0.360	11.220	0.170	URE	\$59.25

We do not imply that these seals are a product of Cat® or Case®.

Part numbers are used for reference purposes only.

# MBRU Rectangular Buffer Rings - Metric



These buffer rings are rectangular shaped in profile. They are most commonly used in combination with a U-cup as a rod seal. Their purpose is to protect the rod seal from contaminants as well as to apply a hydraulic "load" to the U-cup. Some of these urethane rings are used as a backup ring combined with a rubber sealing ring in suspension cylinder applications.

Temperature: -40°F to 225°F

Pressure: 0 to 5,000 PSI

ALTERNATIVE SEALS: MBR

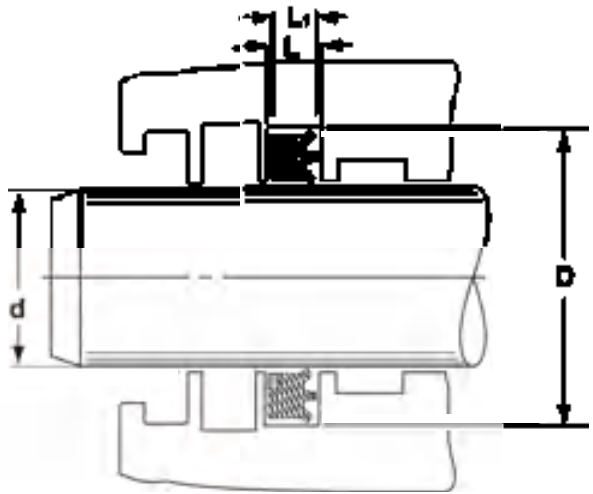
### EXAMPLE: MBRU-50X58X3

Prefix	Inside Diameter		Outside Diameter		Height
MBRU-	50	x	58	x	3
	50mm		58mm		3mm

Part Number	Rod Diameter d	Seal OD D <sub>1</sub>	Seal Height L <sub>1</sub>	Price
MBRU-25X33.6X2.3	25	33.6	2.3	\$19.84
MBRU-30X41X2.9	30	41	2.9	\$21.88
MBRU-35X46X2.9	35	46	2.9	\$12.30
MBRU-35X46X3.1	35	46	3.1	\$16.30
MBRU-35X48X3	35	48	3	\$12.38
MBRU-40X48X3	40	48	3	\$12.67
MBRU-45X57X3.5	45	57	3.5	\$16.66
MBRU-50X58X3	50	58	3	\$11.69
MBRU-50X63X4	50	63	4	\$18.18
MBRU-56X68X4	56	68	4	\$13.71
MBRU-56X70X3	56	70	3	\$14.01
MBRU-56X73X4.8	56	73	4.8	\$15.66
MBRU-56X74X5	56	74	5	\$25.43
MBRU-63X76X4.25	63	76	4.25	\$25.47
MBRU-63X77X3	63	77	3	\$13.79

Part Number	Rod Diameter d	Seal OD D <sub>1</sub>	Seal Height L <sub>1</sub>	Price
MBRU-63X80X4.8	63	80	4.8	\$24.61
MBRU-63X81X5	63	81	5	\$26.56
MBRU-65X78X4	65	78	4	\$16.45
MBRU-70X83X4	70	83	4	\$17.77
MBRU-70X83.5X3	70	83.5	3	\$16.65
MBRU-70X84X3	70	84	3	\$17.10
MBRU-75X88X4	75	88	4	\$19.32
MBRU-80X93X4	80	93	4	\$19.56
MBRU-80X95.5X6.3	80	95.5	6.3	\$37.82
MBRU-90X103X4	90	103	4	\$31.41
MBRU-90X104X4	90	104	4	\$21.48
MBRU-90X107X5.1	90	107	5.1	\$55.44
MBRU-95X110.5X6.3	95	110.5	6.3	\$47.65
MBRU-100X113X4	100	113	4	\$32.47
MBRU-100X118X5	100	118	5	\$49.40

# BU- Urethane Rod Buffer Ring w/ID POM Back-up Ring - Metric



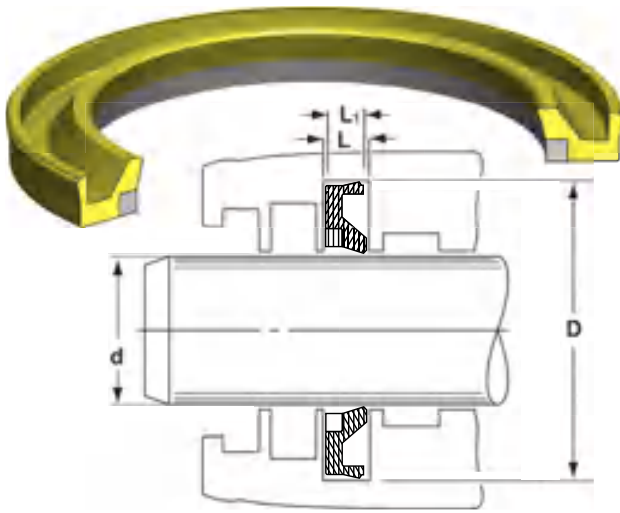
The BU is a compact, snap-in urethane rod buffer seal with a POM ID back-up ring. This seal is often found in heavy construction machinery cylinders. It was developed for high pressure loads and where extreme pressure spikes are common.

Temp: -30°F to +230°F Pressure: 0 to 7,200 PSI

EXAMPLE: BU-60X75.1X6.1					
Prefix	Inside Diameter		Outside Diameter		Seal Height
BU-	60	x	75.1	x	6.1
	60mm		75.1mm		6.1mm

Part Number	Rod Diameter d	Groove Diameter D	Seal Height L <sub>1</sub>	Groove Height L	Price
BU-60X75.1X6.1	60	75.1	6.1	6.7	\$25.71
BU-60X75X8.5	60	75	8.5	9.4	\$31.54
BU-70X85.1X6.1	70	85.1	6.1	6.7	\$32.27
BU-70X85X8.5	70	85	8.5	9.4	\$36.83
BU-75X90.1X6.1	75	90.1	6.1	6.7	\$37.93
BU-75X90X8.5	75	90	8.5	9.4	\$40.12
BU-80X95.1X6.1	80	95.1	6.1	6.7	\$32.99
BU-80X95X8.5	80	95	8.5	9.4	\$34.42
BU-85X100.5X6.1	85	100.5	6.1	6.7	\$37.40
BU-90X105X8.5	90	105	8.5	9.4	\$46.86
BU-100X115.5X6.1	100	110.5	6.1	6.7	\$38.29
BU-100X120X11.4	100	120	11.4	12.5	\$52.38

# U-Cup Type Buffer Rings - Inch/Metric



U-cup type buffer rings are made in sizes to retrofit many Caterpillar® and Case® grooves, and are easy to install. They are designed for systems running high pressures, or susceptible to pressure spikes. The sealing element is made from 90 durometer urethane, and the anti-extrusion ring is made from POM. \* Metric sizes retrofit the stepped buffer ring grooves.

\* Sizes smaller than 2 1/4" may not have the B/U Ring

Temperature: -22°F to 230°F

Pressure: 0 to 5,800 PSI

**EXAMPLE: MBR-80X95.5X6.3**

Prefix	Inside Diameter		Outside Diameter		Height
MBR-	80	x	95.5	x	6.3
	80mm		95.5mm		6.3mm

**EXAMPLE: CTB-1500**

Prefix	Inside Diameter
CTB-	1500
	1-1/2"

**ALTERNATIVE SEALS:**  
Rectangular Buffer Rings  
AS2 Step Buffer Rings

**MBR - Metric size**

Part Number	Rod Dia. d	Groove Dia. D	Groove Height L	Price
MBR-32X42.7X4.2	32	42.7	4.2	\$11.23
MBR-35X45.7X4.2	35	45.7	4.2	\$11.30
MBR-40X50.7X4.2	40	50.7	4.2	\$11.59
MBR-40X55.5X6.3	40	55.5	6.3	\$10.66
MBR-45X55.7X4.2	45	55.7	4.2	\$18.56
MBR-45X60.5X6.3	45	60.5	6.3	\$11.91
MBR-50X65.5X6.3	50	65.5	6.3	\$16.78
MBR-55X70.5X6.3	55	70.5	6.3	\$16.92
MBR-56X71.5X6.3	56	71.5	6.3	\$17.80
MBR-60X75.5X6.3	60	75.5	6.3	\$18.55
MBR-63X78.5X6.3	63	78.5	6.3	\$20.14
MBR-65X80.5X6.3	65	80.5	6.3	\$20.85
MBR-70X85.5X6.3	70	85.5	6.3	\$21.32
MBR-75X90.5X6.3	75	90.5	6.3	\$22.79
MBR-80X95.5X6.3	80	95.5	6.3	\$24.39
MBR-85X100.5X6.3	85	100.5	6.3	\$25.39
MBR-90X105.5X6.3	90	105.5	6.3	\$27.15
MBR-95X110.5X6.3	95	110.5	6.3	\$29.03
MBR-100X115.5X6.3	100	115.5	6.3	\$31.18
MBR-105X120.5X6.3	105	120.5	6.3	\$33.05
MBR-110X125.5X6.3	110	125.5	6.3	\$35.33
MBR-115X130.5X6.3	115	130.5	6.3	\$37.06
MBR-120X135.5X6.3	120	135.5	6.3	\$39.61
MBR-125X140.5X6.3	125	140.5	6.3	\$39.66
MBR-130X145.5X6.3	130	145.5	6.3	\$43.70
MBR-135X150.5X6.3	135	150.5	6.3	\$45.91
MBR-140X155.5X6.3	140	155.5	6.3	\$48.54
MBR-150X165.5X6.3	150	165.5	6.3	\$52.83
MBR-155X170.5X6.3	155	170.5	6.3	\$54.83
MBR-160X175.5X6.3	160	175.5	6.3	\$56.85
MBR-170X185.5X6.3	170	185.5	6.3	\$61.87
MBR-180X195.5X6.3	180	195.5	6.3	\$66.65
MBR-190X205.5X6.3	190	205.5	6.3	\$75.31
MBR-200X221X8.1	200	221.0	8.1	\$86.84

**Inch size**

Part Number	Rod Dia. d	Groove Dia. D	Groove Height L	Price
<b>CTB - CAT®</b>				
CTB-1500	1.500	2.033	0.140	\$10.89
CTB-1750	1.750	2.283	0.140	\$11.19
CTB-1875	1.875	2.252	0.140	\$11.80
CTB-2000	2.000	2.533	0.140	\$19.56
CTB-2125	2.125	2.627	0.140	\$13.28
CTB-2250	2.250	2.891	0.220	\$13.27
CTB-2375	2.375	3.016	0.220	\$13.44
CTB-2500	2.500	3.141	0.220	\$13.44
CTB-2750	2.750	3.391	0.220	\$13.64
CTB-3000	3.000	3.641	0.220	\$13.64
CTB-3250	3.250	3.891	0.220	\$13.64
CTB-3500	3.500	4.141	0.220	\$13.95
CTB-3750	3.750	4.391	0.220	\$16.64
CTB-4000	4.000	4.641	0.220	\$16.76
<b>CBR - Case®</b>				
CBR-1250	1.250	1.812	0.140	\$18.80
CBR-1500	1.500	2.062	0.140	\$18.80
CBR-1750	1.750	2.312	0.140	\$19.22
CBR-2000	2.000	2.562	0.140	\$21.30
CBR-2250	2.250	2.937	0.234	\$22.66
CBR-2500	2.500	3.187	0.234	\$24.48
CBR-2750	2.750	3.375	0.234	\$27.06
CBR-3000	3.000	3.625	0.234	\$29.59
CBR-3500	3.500	4.187	0.234	\$34.90
CBR-4000	4.000	4.625	0.234	\$59.82

**We do not imply that these seals are a product of Cat® or Case®.**

**Part numbers are used for reference purposes only.**

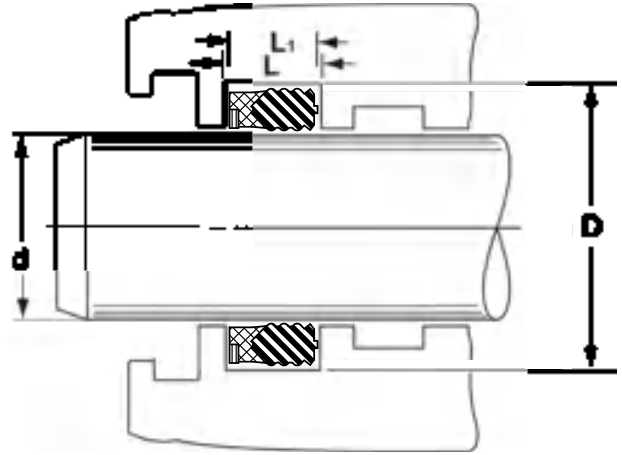
# SM Ribbed 3 Piece Rod Seals - Metric



**ALTERNATIVE SEALS:**  
BD, BS-B, MA30B

Our ribbed 3 piece Selemaster® Replacement rod seal is used as an alternative to vee packing in a rod application. This 3 piece seal offers excellent low pressure sealing due to its multi-lip NBR design. The header is made from urethane and Hytrel® and incorporates a POM anti-extrusion ring which enables this seal to withstand up to 10,000 PSI.

Temperature: -22°F to 248°F      Pressure: 0 to 10,000 PSI



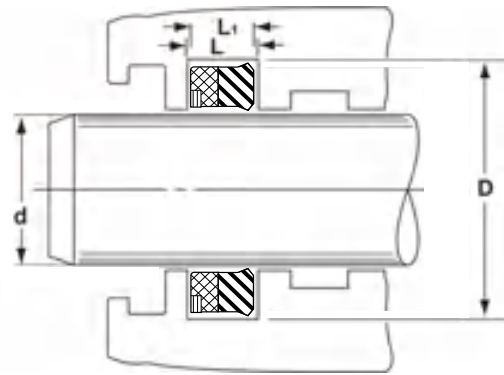
EXAMPLE: SM295216/1AX			
Prefix	Outside Diameter	Inside Diameter	Suffix
SM	295	216	/1AX
	75mm	55mm	

Part Numbers were created in inches but convert to metric.  
Standard Part Number divided by 100 then multiplied by 25.4  
Example: (295 / 100 = 2.95) then (2.95 x 25.4 = 75mm)

Part Number	Rod Dia. d	Groove Dia. D	Groove Height L	Price
SM137086/1AX	22	35	20.0	\$31.24
SM161110/1AX	28	41	20.0	\$41.75
SM169118/1AX	30	43	20.0	\$41.75
SM177137/1AX	35	45	25.6	\$44.16
SM185125/1AX	32	47	22.5	\$20.02
SM185137/1AX	35	47	22.5	\$44.16
SM196137/1AX	35	50	22.5	\$44.16
SM196157/1AX	40	50	17.5	\$41.75
SM204157/1AX	40	52	22.5	\$34.39
SM216157/1AX	40	55	22.5	\$18.80
SM236157/1AX	40	60	30.0	\$46.93
SM236177/1AX	45	60	22.5	\$27.03
SM255177/1AX	45	65	28.0	\$52.06
SM248196/1AX	50	63	20.0	\$31.61
SM255196/1BX	50	65	22.5	\$50.04
SM255196/1AX	50	65	24.5	\$27.42
SM275196/1AX	50	70	31.9	\$57.53
SM275216/2AX	55	70	22.5	\$46.39
SM295216/2AX	55	75	30.0	\$66.14
SM295216/1AX	55	75	32.0	\$66.14
SM295236/2AX	60	75	22.5	\$24.77
SM303236/1AX	60	77	27.0	\$66.15
SM314236/1BX	60	80	30.0	\$60.57
SM314236/3BX	60	80	32.0	\$68.74
SM315236/1AX	60	80	34.9	\$72.15

Part Number	Rod Dia. d	Groove Dia. D	Groove Height L	Price
SM326248/1BX	63	83	27.0	\$72.16
SM326248/1AX	63	83	29.0	\$73.54
SM334255/1AX	65	85	29.0	\$54.88
SM334275/1AX	70	85	22.5	\$28.64
SM354275/1AX	70	90	30.0	\$40.62
SM354275/2AX	70	90	31.9	\$71.65
SM374295/2AX	75	95	30.0	\$77.15
SM379301/1AX	76.5	96.5	32.5	\$77.15
SM374314/1AX	80	95	22.5	\$72.95
SM393314/1AX	80	100	30.0	\$43.63
SM433354/2AX	90	110	30.0	\$45.55
SM472393/2AX	100	120	30.0	\$39.25
SM492413/2AX	105	125	30.0	\$101.41
SM511433/1AX	110	130	32.5	\$112.20
SM551472/2AX	120	140	30.0	\$114.15
SM570492/2AX	125	145	29.6	\$114.15
SM629551/1AX	140	160	28.0	\$138.85
SM629551/1BX	140	160	30.0	\$94.72
SM708629/1AX	160	180	28.0	\$102.45
SM767669/1AX	170	195	35.0	\$229.91
SM807708/1AX	180	205	35.0	\$110.25
SM846748/1AX	190	215	35.0	\$282.89
SM885787/1AX	200	225	35.0	\$125.76
SM964866/1AX	220	245	35.0	\$338.83
SM100905/1AX	230	255	35.0	\$440.00

# MD Rod Squeeze Seals - Metric



**ALTERNATIVE SEALS:**  
 MA30, BS, BSLL, BD,  
 MA25, S8, MA30B, BS-B

**EXAMPLE: MD-85X100X12-E**

Prefix	Inside Diameter		Outside Diameter		Height	Suffix
MD-	85	x	100	x	12	-E
	85mm		100mm		12mm	HAS B/U

Style MD rod seals utilize a fabric-reinforced rubber base combined with a POM backup for extrusion resistance, and a homogenous nitrile sealing lip, enabling this seal to handle higher pressures than most other all-rubber seals. The "squeeze" design provides for good low pressure sealability. Parts with no suffix do not have a backup ring.

Temperature: -22°F to 248°F

Pressure: 0 to 6,000 PSI

Part Number	f8 Rod Diameter d	s11 Groove Diameter D	Groove Height L	Price
MD-14X22X6.4	14	22	6.4	\$9.33
MD-16X24X7-E	16	24	7	\$9.91
MD-18X30X7.5-E	18	30	7.5	\$11.13
MD-20X30X8	20	30	8	\$10.20
MD-22X30X6.5	22	30	6.5	\$10.88
MD-22X30X7-E	22	30	7	\$9.22
MD-22X34X9.5-E	22	34	9.5	\$11.66
MD-25X33X6.3-E	25	33	6.3	\$7.69
MD-25X35X8.5-E	25	35	8.5	\$8.97
MD-30X40X7	30	40	7	\$10.74
MD-30X40X7.5-E	30	40	7.5	\$11.21
MD-32X45X10-E	32	45	10	\$11.21
MD-35X43X6.4-E	35	43	6.4	\$13.07
MD-35X45X10-E	35	45	10	\$11.77
MD-36X44X8.5	36	44	8.5	\$20.00
MD-40X50X8-E	40	50	8	\$12.89
MD-40X50X10-E	40	50	10	\$10.40
MD-40X50X10.5-E	40	50	10.5	\$11.47
MD-42X50X6.3	42	50	6.3	\$11.24
MD-45X60X10.5-E	45	60	10.5	\$13.61
MD-45X65X14.5	45	65	14.5	\$14.10
MD-50X60X8-E	50	60	8	\$16.65
MD-50X60X10-E	50	60	10	\$16.60
MD-50X62X10-E	50	62	10	\$14.35
MD-50X65X11-E	50	65	11	\$17.28
MD-50X70X14-E	50	70	14	\$15.56
MD-50X70X14.5-E	50	70	14.5	\$15.67

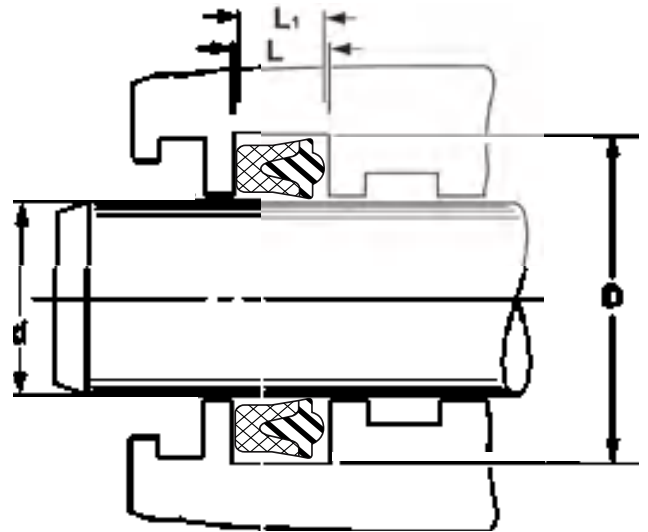
Part Number	f8 Rod Diameter d	s11 Groove Diameter D	Groove Height L	Price
MD-55X65X10.5-E	55	65	10.5	\$14.12
MD-60X72X10-E	60	72	10	\$16.76
MD-60X75X13-E	60	75	13	\$18.22
MD-60X80X13.5	60	80	13.5	\$31.94
MD-60X80X14-E	60	80	14	\$19.80
MD-60X80X14.5-E	60	80	14.5	\$26.81
MD-65X80X12.5-E	65	80	12.5	\$26.81
MD-70X80X7.5	70	80	7.5	\$16.85
MD-70X80X8-E	70	80	8	\$19.17
MD-70X84X12.5-E	70	84	12.5	\$19.06
MD-70X90X12-E	70	90	12	\$21.49
MD-75X95X14.5-E	75	95	14.5	\$21.72
MD-80X90X7	80	90	7	\$20.08
MD-80X95X12-E	80	95	12	\$22.18
MD-80X100X14.5-E	80	100	14.5	\$22.23
MD-85X100X12-E	85	100	12	\$22.60
MD-90X100X11-E	90	100	11	\$32.81
MD-90X105X12-E	90	105	12	\$44.76
MD-95X105X11-E	95	105	11	\$30.60
MD-95X115X14.5-E	95	115	14.5	\$40.60
MD-100X113X13.5-E	100	113	13.5	\$42.37
MD-100X120X14.5-E	100	120	14.5	\$27.10
MD-120X132.7X10-E	120	132.7	10	\$44.72
MD-120X140X12.5-E	120	140	12.5	\$34.43
MD-130X145X9.5-E	130	145	9.5	\$180.78
MD-140X160X12.5-E	140	160	12.5	\$49.22

# S8 Rod Squeeze Seals - Metric



The S8 style seal utilizes a U-cup type base with a bonded NBR expander. The NBR expander provides an excellent sealing contact with a fabric reinforced base providing high-pressure support. Some sizes available in FKM.

Temperature: -22°F to 212°F      Pressure: 0 to 3,200 PSI



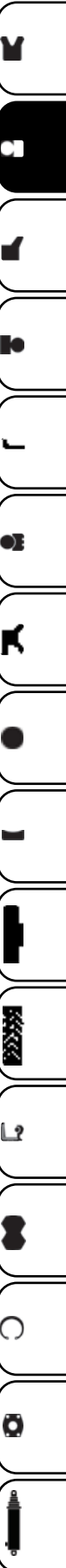
**EXAMPLE: S8-10X17X6.4**

Prefix	Inside Diameter		Outside Diameter		Height
S8-	10	x	17	x	6.4
	10mm		17mm		6.4mm

**ALTERNATIVE SEALS:**  
MA30, BS, BSLL, BD, MA25, S8, BS-B

Part Number	f8 Rod Diameter d	s11 Groove Diameter D	Groove Height L	Price
S8-10X17X6.4	10	17	6.4	\$16.48
S8-14X22X6.4	14	22	6.4	\$18.84
S8-16X24X6.4	16	24	6.4	\$18.84
S8-20X28X6.4	20	28	6.4	\$17.97
S8-22X30X6.4	22	30	6.4	\$18.06
S8-25X33X6.4	25	33	6.4	\$19.15
S8-28X36X6.4	28	36	6.4	\$19.17
S8-35X43X6.4	35	43	6.4	\$19.22
S8-36X44X6.4	36	44	6.4	\$24.63
S8-40X48X6.4	40	48	6.4	\$22.01
S8-45X55X8	45	55	8	\$24.84

Part Number	f8 Rod Diameter d	s11 Groove Diameter D	Groove Height L	Price
S8-50X60X8	50	60	8	\$25.69
S8-55X65X8	55	65	8	\$28.72
S8-60X70X8	60	70	8	\$31.01
S8-65X77X9.6	65	77	9.6	\$31.99
S8-70X82X9.6	70	82	9.6	\$32.48
S8-75X87X9.6	75	87	9.6	\$48.64
S8-90X102X9.6	90	102	9.6	\$54.66
S8-100X115X12	100	115	12	\$73.44
S8-110X125X12	110	125	12	\$74.31
S8-160X180X16	160	180	16	\$92.63

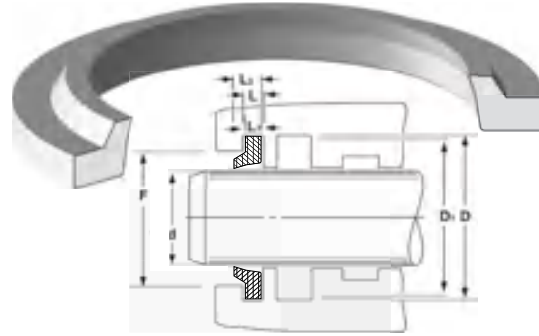


# 940 AN Urethane Wipers - Inch

### EXAMPLE: 940-1

Prefix	Inside Diameter
940-	1
	1/2"

"AN" (940) wipers are supplied in a high durometer urethane or Hytrel® material as standard. Also available in Polymyte®, Fluoromyte®, and FKM. Consult sales for special compound pricing.



AN NUMBERING SYSTEM

ALTERNATIVE SEALS:

MS28776

Parts marked with suffix

"V" are FKM

Groove dimensions given meet ANSI/B93.35 1978 specifications (NFPA-T3-197.3 RI).

Temperature: -65°F to 200°F

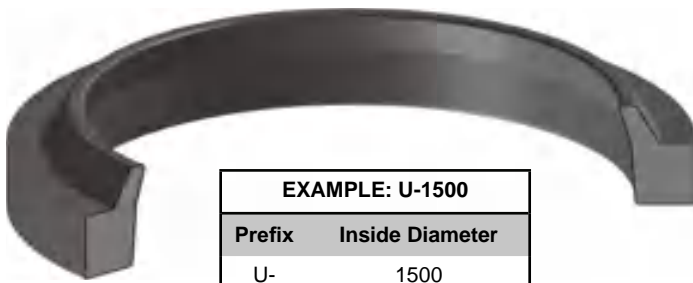
Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	O.D. D <sub>1</sub>	Base Ht L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.004 -0.000 D	+0.003 -0.000 L	+0.005 -0.000 F	
940-1	0.500	0.766	0.104	0.187	0.760	0.107	0.647	\$1.32
940-2	0.562	0.829	0.104	0.187	0.823	0.107	0.710	\$1.32
940-3	0.625	0.891	0.104	0.187	0.885	0.107	0.772	\$1.32
940-4	0.687	0.954	0.104	0.187	0.948	0.107	0.834	\$1.32
940-5	0.750	1.016	0.104	0.187	1.010	0.107	0.897	\$1.32
940-6	0.812	1.090	0.104	0.187	1.084	0.107	0.960	\$1.38
940-7	0.875	1.153	0.104	0.187	1.147	0.107	1.023	\$1.38
940-8	0.937	1.215	0.104	0.187	1.209	0.107	1.085	\$1.38
940-9-1	1.000	1.249	0.104	0.187	1.241	0.107	1.125	\$1.80
940-9	1.000	1.278	0.104	0.187	1.272	0.107	1.148	\$1.35
940-9V	1.000	1.278	0.104	0.187	1.272	0.107	1.148	\$14.97
940-10	1.062	1.340	0.104	0.187	1.334	0.107	1.210	\$1.30
940-11	1.125	1.403	0.104	0.187	1.397	0.107	1.273	\$1.46
940-11V	1.125	1.403	0.104	0.187	1.397	0.107	1.273	\$14.69
940-12	1.187	1.465	0.104	0.187	1.459	0.107	1.335	\$1.46
940-13	1.250	1.528	0.104	0.187	1.522	0.107	1.398	\$1.50
940-13V	1.250	1.528	0.104	0.187	1.522	0.107	1.398	\$15.02
940-14	1.312	1.622	0.104	0.187	1.614	0.107	1.480	\$1.44
940-15	1.375	1.685	0.104	0.187	1.677	0.107	1.542	\$1.93
940-15V	1.375	1.685	0.104	0.187	1.677	0.107	1.542	\$16.77
940-16	1.437	1.747	0.104	0.187	1.739	0.107	1.605	\$2.14
940-17	1.500	1.810	0.104	0.187	1.802	0.107	1.668	\$2.18
940-17A	1.500	1.738	0.104	0.187	1.730	0.107	1.668	\$7.42
940-17V	1.500	1.810	0.104	0.187	1.802	0.107	1.668	\$15.09
940-M	1.562	1.873	0.104	0.187	1.865	0.107	1.731	\$8.94
940-18	1.625	1.935	0.104	0.187	1.927	0.107	1.793	\$2.27
940-19	1.750	2.060	0.104	0.187	2.052	0.107	1.918	\$2.27
940-19V	1.750	2.060	0.104	0.187	2.052	0.107	1.918	\$19.55
940-A	1.812	2.123	0.104	0.187	2.115	0.107	1.981	\$9.90
940-20	1.875	2.185	0.104	0.187	2.177	0.107	2.043	\$2.31
940-21	2.000	2.310	0.104	0.187	2.302	0.107	2.178	\$2.31
940-21V	2.000	2.310	0.104	0.187	2.302	0.107	2.178	\$18.17
993988	2.000	2.500	0.120	0.250	2.500	0.125	2.250	\$6.33
940-B	2.062	2.373	0.104	0.187	2.365	0.107	2.241	\$11.18
940-22	2.125	2.435	0.104	0.187	2.427	0.107	2.303	\$2.37
940-23	2.250	2.560	0.104	0.187	2.552	0.107	2.428	\$2.45
940-24	2.375	2.685	0.104	0.187	2.677	0.107	2.553	\$2.54
940-CC	2.437	2.747	0.104	0.187	2.732	0.107	2.615	\$11.91
940-25	2.500	2.810	0.104	0.187	2.802	0.107	2.678	\$2.78
940-25V	2.500	2.810	0.104	0.187	2.802	0.107	2.678	\$18.12
994110	2.500	3.000	0.120	0.250	3.000	0.125	2.750	\$6.46
940-D	2.562	2.873	0.104	0.187	2.865	0.107	2.741	\$13.16
940-26	2.625	2.999	0.119	0.211	2.989	0.122	2.834	\$2.85
940-27	2.750	3.124	0.119	0.211	3.114	0.122	2.959	\$2.94



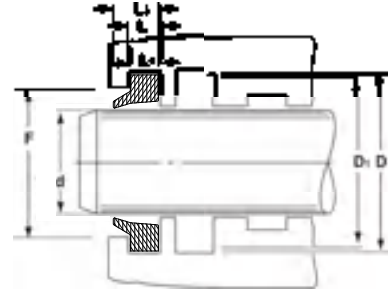
940 AN Urethane Wipers - Inch, cont'd.

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	O.D. D <sub>1</sub>	Base Ht L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.004 -0.000 D	+0.003 -0.000 L	+0.005 -0.000 F	
940-28	2.875	3.249	0.119	0.211	3.239	0.122	3.084	\$3.42
940-29	3.000	3.374	0.119	0.211	3.364	0.122	3.209	\$3.42
940-29V	3.000	3.374	0.119	0.211	3.364	0.122	3.209	\$25.59
690211A	3.000	3.500	0.120	0.250	3.500	0.125		\$6.55
940-30	3.125	3.499	0.119	0.211	3.489	0.122	3.334	\$3.49
940-31	3.250	3.624	0.119	0.211	3.614	0.122	3.459	\$4.02
940-32	3.375	3.749	0.119	0.211	3.739	0.122	3.584	\$4.06
940-33	3.500	3.874	0.119	0.211	3.864	0.122	3.709	\$4.11
940-34	3.625	3.999	0.119	0.211	3.989	0.122	3.834	\$4.18
71-AN-S-5	3.750	4.000	0.120	0.218	4.000	0.125		\$9.80
940-35	3.750	4.124	0.119	0.211	4.114	0.122	3.959	\$4.37
940-36	3.875	4.249	0.119	0.211	4.239	0.122	4.084	\$4.47
940-37	4.000	4.439	0.135	0.238	4.427	0.138	4.240	\$4.59
940-38	4.125	4.564	0.135	0.238	4.552	0.138	4.365	\$4.72
940-39	4.250	4.689	0.135	0.238	4.677	0.138	4.490	\$4.85
940-40	4.375	4.814	0.135	0.238	4.802	0.138	4.615	\$4.93
940-41	4.500	4.939	0.135	0.238	4.927	0.138	4.740	\$4.99
940-42	4.625	5.064	0.135	0.238	5.052	0.138	4.865	\$5.05
71-AN-S-6	4.750	5.000	0.120	0.218	5.000	0.125		\$10.83
940-43	4.750	5.189	0.135	0.238	5.177	0.138	4.990	\$5.18
940-44	4.875	5.314	0.135	0.238	5.302	0.138	5.115	\$5.29
940-45	5.000	5.439	0.135	0.238	5.427	0.138	5.240	\$6.12
940-46	5.125	5.564	0.135	0.238	5.552	0.138	5.365	\$6.23
940-47	5.250	5.689	0.135	0.238	5.677	0.138	5.490	\$6.30
940-48	5.375	5.814	0.135	0.238	5.802	0.138	5.615	\$6.34
940-49	5.500	5.939	0.135	0.238	5.927	0.138	5.740	\$6.40
940-50	5.625	6.128	0.151	0.264	6.114	0.154	5.896	\$7.02
71-AN-S-7	5.750	6.000	0.120	0.218	6.000	0.125		\$64.48
940-51	5.750	6.254	0.151	0.264	6.239	0.154	6.022	\$7.44
940-52	5.875	6.379	0.151	0.264	6.364	0.154	6.146	\$7.55
940-53	6.000	6.504	0.151	0.264	6.489	0.154	6.272	\$7.79
940-54	6.250	6.754	0.151	0.264	6.739	0.154	6.522	\$8.05
940-55	6.500	7.004	0.151	0.264	6.989	0.154	6.772	\$8.42
71-AN-S-8	6.750	7.000	0.120	0.218	6.750	0.125		\$18.41
940-56	6.750	7.254	0.151	0.264	7.239	0.154	7.022	\$8.57
940-57	7.000	7.504	0.151	0.264	7.489	0.154	7.272	\$8.74
940-58	7.250	7.754	0.151	0.264	7.739	0.154	7.522	\$22.86
940-L	7.375	7.879	0.151	0.264	7.864	0.154	7.647	\$36.05
940-59	7.500	8.004	0.151	0.264	7.989	0.154	7.772	\$14.76
940-60	7.750	8.254	0.151	0.264	8.239	0.154	8.022	\$13.26
940-61	8.000	8.504	0.151	0.264	8.489	0.154	8.272	\$15.30
940-DD	8.125	8.629	0.151	0.264	8.614	0.154	8.397	\$44.12
940-61.5	8.250	8.754	0.151	0.264	8.739	0.154	8.522	\$28.30
940-62	8.500	9.004	0.151	0.264	8.989	0.154	8.772	\$40.50
940-62.5	8.750	9.254	0.151	0.264	9.239	0.154	9.022	\$47.20
940-63	9.000	9.504	0.151	0.264	9.489	0.154	9.272	\$16.32
940-E	9.250	9.754	0.151	0.264	9.739	0.154	9.522	\$55.80
940-65	10.000	10.504	0.151	0.264	10.489	0.154	10.272	\$43.92
940-66	10.500	11.004	0.151	0.264	10.989	0.154	10.772	\$44.44
940-F	10.750	11.254	0.151	0.264	11.239	0.154	11.022	\$57.88
940-67	11.000	11.504	0.151	0.264	11.489	0.154	11.272	\$51.72
940-FF	11.250	11.759	0.166	0.289	11.739	0.169	11.522	\$56.40
940-69	12.000	12.509	0.166	0.289	12.489	0.169	12.272	\$85.60
940-71	13.000	13.509	0.166	0.289	13.489	0.169	13.272	\$113.31
940-K	13.750	14.259	0.166	0.289	14.239	0.169	14.022	\$116.87

# U Type Universal Urethane Wipers - Inch



EXAMPLE: U-1500	
Prefix	Inside Diameter
U-	1500
	1-1/2"



The standard materials for universal wipers (U, D or ST) are high durometer urethane or hytel®. They are also available in Molythane®, Polymyte®, Fluoromyte®, Nitroxile®, and FKM. Consult sales for price and availability.

**ALTERNATIVE SEALS:**  
S34, Wiper Cord, U-R, 842

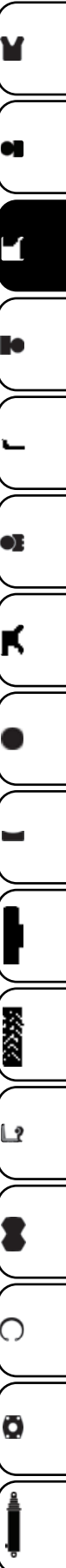
Parts marked with suffix "V" are FKM

Temperature: -65° to 200°F

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	O.D. D <sub>1</sub>	Base Ht L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.006 -0.000 D	+0.004 -0.000 L	+0.010 -0.000 F	
U-0187	0.187	0.437	0.124	0.210	0.434	0.125	0.347	\$16.73
U-0250	0.250	0.500	0.124	0.210	0.497	0.125	0.410	\$2.76
U-0312	0.312	0.562	0.124	0.210	0.560	0.125	0.475	\$2.76
U-0375	0.375	0.625	0.124	0.210	0.622	0.125	0.535	\$2.76
U-0437	0.437	0.687	0.124	0.210	0.685	0.125	0.600	\$2.76
U-0500	0.500	0.750	0.124	0.210	0.747	0.125	0.660	\$3.13
U-0562	0.562	0.812	0.124	0.210	0.810	0.125	0.725	\$3.13
U-0625	0.625	0.875	0.124	0.210	0.872	0.125	0.785	\$3.13
U-0687	0.687	0.937	0.124	0.210	0.935	0.125	0.850	\$5.99
U-0750	0.750	1.125	0.186	0.305	1.122	0.187	0.995	\$3.13
U-0812	0.812	1.187	0.186	0.305	1.185	0.187	1.060	\$3.30
U-0875	0.875	1.250	0.186	0.305	1.247	0.187	1.120	\$3.30
U-0937	0.937	1.312	0.186	0.305	1.310	0.187	1.185	\$2.91
U-0984	0.984	1.359	0.186	0.305	1.357	0.187	1.185	\$7.00
U-1000	1.000	1.375	0.186	0.305	1.372	0.187	1.245	\$3.18
U-1000V	1.000	1.375	0.186	0.305	1.372	0.187	1.245	\$13.09
U-1062	1.062	1.437	0.186	0.305	1.434	0.187	1.300	\$5.98
U-1102	1.102	1.477	0.186	0.305	1.474	0.187	1.370	\$3.20
U-1125	1.125	1.500	0.186	0.305	1.497	0.187	1.370	\$3.20
U-1125V	1.125	1.500	0.186	0.305	1.497	0.187	1.370	\$15.03
U-1187	1.187	1.562	0.186	0.305	1.560	0.187	1.435	\$3.22
U-1250	1.250	1.625	0.186	0.305	1.622	0.187	1.495	\$3.43
U-1250V	1.250	1.625	0.186	0.305	1.622	0.187	1.495	\$18.00
U-1312	1.312	1.687	0.186	0.305	1.685	0.187	1.560	\$3.56
U-1375	1.375	1.750	0.186	0.305	1.747	0.187	1.620	\$3.66
U-1375V	1.375	1.750	0.186	0.305	1.747	0.187	1.620	\$16.27
U-1500	1.500	1.875	0.186	0.305	1.872	0.187	1.745	\$3.97
U-1500V	1.500	1.875	0.186	0.305	1.872	0.187	1.745	\$18.26
U-1625	1.625	2.000	0.186	0.305	1.997	0.187	1.870	\$4.16
U-1750	1.750	2.125	0.186	0.305	2.122	0.187	1.995	\$4.52
U-1750V	1.750	2.125	0.186	0.305	2.122	0.187	1.995	\$18.41
U-1812	1.812	2.187	0.186	0.305	2.185	0.187	2.060	\$11.44
U-1875	1.875	2.250	0.186	0.305	2.247	0.187	2.120	\$4.67
3670-200	2.000	2.375	0.186	0.305	2.375	0.187	2.245	\$24.75
U-2000-187S	2.000	2.500	0.186	0.305	2.497	0.187	2.327	\$14.43
U-2000	2.000	2.500	0.249	0.395	2.497	0.250	2.327	\$4.73
U-2000 NBR	2.000	2.500	0.249	0.395	2.497	0.250	2.327	\$4.73

## U Type Universal Urethane Wipers - Inch, cont'd.

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	O.D. D <sub>1</sub>	Base Ht L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.006 -0.000 D	+0.004 -0.000 L	+0.010 -0.000 F	
U-2000V	2.000	2.500	0.249	0.395	2.497	0.250	2.327	\$22.27
U-2125	2.125	2.625	0.249	0.395	2.622	0.250	2.452	\$4.90
U-2250	2.250	2.750	0.249	0.395	2.747	0.250	2.577	\$5.00
U-2312	2.312	2.812	0.249	0.395	2.810	0.250	2.640	\$10.87
U-2375	2.375	2.875	0.249	0.395	2.872	0.250	2.702	\$5.45
U-2500	2.500	3.000	0.249	0.395	2.997	0.250	2.827	\$5.50
U-2500V	2.500	3.000	0.249	0.395	2.997	0.250	2.827	\$34.11
U-2562	2.562	3.063	0.249	0.395	3.060	0.250	2.890	\$11.31
U-2625	2.625	3.125	0.249	0.395	3.122	0.250	2.952	\$5.62
U-2625V	2.625	3.125	0.249	0.395	3.122	0.250	2.952	\$50.76
U-2750	2.750	3.250	0.249	0.395	3.247	0.250	3.077	\$5.70
U-2750V	2.750	3.250	0.249	0.395	3.247	0.250	3.077	\$75.18
U-2875	2.875	3.375	0.249	0.395	3.372	0.250	3.202	\$6.08
U-3000	3.000	3.500	0.249	0.395	3.497	0.250	3.327	\$6.07
U-3000V	3.000	3.500	0.249	0.395	3.497	0.250	3.327	\$40.98
U-3125	3.125	3.625	0.249	0.395	3.622	0.250	3.452	\$6.66
U-3150	3.150	3.676	0.249	0.379	3.673	0.250	3.503	\$11.01
U-3250	3.250	3.750	0.249	0.395	3.747	0.250	3.577	\$6.92
U-3250V	3.250	3.750	0.249	0.395	3.747	0.250	3.577	\$38.98
U-3375	3.375	3.875	0.249	0.395	3.872	0.250	3.702	\$6.86
U-3500	3.500	4.000	0.249	0.395	3.997	0.250	3.827	\$6.86
U-3500V	3.500	4.000	0.249	0.395	3.997	0.250	3.827	\$45.94
U-3625	3.625	4.125	0.249	0.395	4.122	0.250	3.952	\$7.96
U-3750	3.750	4.250	0.249	0.395	4.247	0.250	4.077	\$8.10
U-3875	3.875	4.375	0.249	0.395	4.372	0.250	4.202	\$9.05
U-4000	4.000	4.500	0.249	0.395	4.497	0.250	4.327	\$8.94
U-4125	4.125	4.625	0.249	0.395	4.622	0.250	4.452	\$9.19
U-4250	4.250	4.750	0.249	0.395	4.747	0.250	4.577	\$9.34
U-4375	4.375	4.875	0.249	0.395	4.872	0.250	4.702	\$10.50
U-4500-250	4.500	5.000	0.249	0.395	4.947	0.250	4.827	\$15.78
U-4500	4.500	5.250	0.374	0.585	5.247	0.375	4.993	\$13.44
U-4625	4.625	5.375	0.374	0.585	5.372	0.375	5.118	\$25.51
U-4750	4.750	5.500	0.374	0.585	5.497	0.375	5.243	\$13.74
U-4875	4.875	5.625	0.374	0.585	5.622	0.375	5.368	\$17.58
U-5000	5.000	5.750	0.374	0.585	5.747	0.375	5.493	\$13.97
U-5125	5.125	5.875	0.374	0.585	5.872	0.375	5.618	\$30.76
U-5250	5.250	6.000	0.374	0.585	5.997	0.375	5.743	\$17.27
U-5375	5.375	6.125	0.374	0.585	6.122	0.375	5.868	\$33.78
U-5500	5.500	6.250	0.374	0.585	6.247	0.375	5.993	\$17.37
U-5500V	5.500	6.250	0.374	0.585	6.247	0.375	5.993	\$100.26
U-5625	5.625	6.375	0.374	0.585	6.372	0.375	6.118	\$36.24
U-5750	5.750	6.500	0.374	0.585	6.497	0.375	6.243	\$19.73
U-5875	5.875	6.625	0.374	0.585	6.622	0.375	6.368	\$41.56
U-6000	6.000	6.750	0.374	0.585	6.747	0.375	6.493	\$20.53
U-6250	6.250	7.000	0.374	0.585	6.997	0.375	6.743	\$21.05
U-6500	6.500	7.250	0.374	0.585	7.247	0.375	6.993	\$22.16
U-6500-500	6.500	7.500	0.499	0.750	7.500	0.500	7.159	\$73.77
U-6625	6.625	7.375	0.374	0.585	7.372	0.375	7.118	\$71.07
U-6750	6.750	7.500	0.374	0.585	7.497	0.375	7.243	\$22.58
U-7000	7.000	7.750	0.374	0.585	7.747	0.375	7.493	\$22.72
U-7000-500	7.000	8.000	0.499	0.750	8.000	0.500	7.659	\$72.90
U-7250	7.250	8.000	0.374	0.585	7.997	0.375	7.743	\$25.17



## U Type Universal Urethane Wipers - Inch, cont'd.

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	O.D. D <sub>1</sub>	Base Ht L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.006 -0.000 D	+0.004 -0.000 L	+0.010 -0.000 F	
U-7500	7.500	8.250	0.374	0.585	8.247	0.375	7.993	\$24.78
U-7750	7.750	8.500	0.374	0.585	8.497	0.375	8.243	\$35.43
959-60.7SA	7.925	8.425	0.250	0.375	8.425	0.250		\$65.16
959-61SA1889	8.000	8.500	0.250	0.375	8.500	0.250		\$68.22
U-8000	8.000	8.750	0.374	0.585	8.747	0.375	8.493	\$28.93
U-8250	8.250	9.000	0.374	0.585	8.997	0.375	8.743	\$29.33
959-62SA	8.500	9.000	0.250	0.375	8.997	0.250		\$89.76
U-8500	8.500	9.250	0.374	0.585	9.247	0.375	8.993	\$29.36
U-8750	8.750	9.500	0.374	0.585	9.497	0.375	9.243	\$74.40
U-8875	8.875	9.625	0.374	0.585	9.622	0.375	9.368	\$150.94
U-9000	9.000	9.750	0.374	0.585	9.747	0.375	9.493	\$33.38
U-9000-500	9.000	10.000	0.499	0.775	10.000	0.500	9.659	\$137.10
U-9250	9.250	10.000	0.374	0.585	9.997	0.375	9.743	\$63.45
U-9500	9.500	10.250	0.374	0.585	10.247	0.375	9.993	\$74.82
U-9500-500	9.500	10.500	0.499	0.775	10.497	0.500	10.159	\$159.76
U-9750	9.750	10.500	0.374	0.585	10.497	0.375	10.243	\$90.90
U-10000	10.000	11.000	0.499	0.775	10.997	0.500	10.659	\$67.44
U-10250	10.250	11.250	0.499	0.775	11.247	0.500	10.909	\$88.20
U-10500	10.500	11.500	0.499	0.775	11.497	0.500	11.159	\$109.38
U-10625	10.625	11.625	0.499	0.775	11.622	0.500	11.284	\$98.39
U-10750	10.750	11.750	0.499	0.775	11.747	0.500	11.409	\$112.56
U-11000	11.000	12.000	0.499	0.775	11.997	0.500	11.659	\$97.23
U-11250	11.250	12.250	0.499	0.775	12.247	0.500	11.909	\$134.00
U-11500	11.500	12.500	0.499	0.775	12.497	0.500	12.159	\$138.16
U-12000	12.000	13.000	0.499	0.775	12.997	0.500	12.659	\$128.04
U-12500	12.500	13.500	0.499	0.775	13.497	0.500	13.159	\$138.18
U-13000	13.000	14.000	0.499	0.775	13.997	0.500	13.659	\$162.28
U-13500	13.500	14.500	0.499	0.775	14.497	0.500	14.159	\$202.49
U-13750	13.750	14.750	0.499	0.775	14.747	0.500	14.409	\$205.31
U-14000	14.000	15.000	0.499	0.775	14.997	5.000	14.659	\$208.55
U-15000	15.000	16.000	0.499	0.775	15.997	0.500	15.659	\$215.38
U-16000	16.000	17.000	0.499	0.775	16.997	0.500	16.659	\$241.99
U-18000	18.000	19.000	0.499	0.775	18.997	0.500	18.659	\$255.35
U-20000	20.000	21.000	0.499	0.775	20.997	0.500	20.659	\$316.97
U-30000	30.000	31.000	0.499	0.775	30.997	0.500	30.659	\$501.64

### U Wiper Nitrile Cord

**ALTERNATIVE SEALS:**

U-Wiper, 842, U-R, S34

**EXAMPLE: 187UCORD N70**

Cross Section	Style	Suffix
187	UCORD	N70
3/16"	UNIVERSAL WIPER CORD	70D NBR

This 70 durometer nitrile extrusion is available for those non-standard rod applications and some telescopic cylinders and will interchange into a standard U-wiper groove.

Temperature: -40° to 250°F

Part Number	Cross Section/Base Height	Price/ft
187UCORD N70	0.187	\$3.71

### K Wiper Nitrile Cord

**ALTERNATIVE SEALS:**

K-Wiper, 7580

**EXAMPLE: 187KCORD N70**

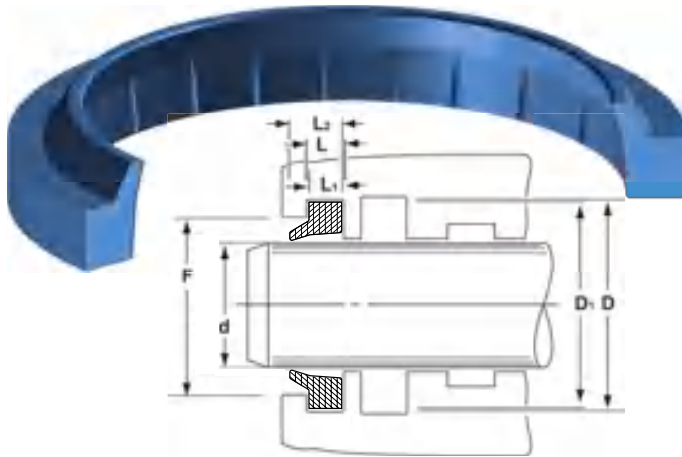
Cross Section	Style	Suffix
187	KCORD	N70
3/16"	K WIPER CORD	70D NBR

This 70 durometer nitrile extrusion is available in two cross sections for those non-standard rod applications and will interchange into standard K and 7580 wiper grooves.

Temperature: -40° to 250°F

Part Number	Cross Section	Price/ft.
187KCORD N70	0.187	\$3.70
250KCORD N70	0.250	\$4.08

# U-R Wipers w/ Ribbed Heel - Inch



The ribbed heel snap-in rod wiper has been designed to fit "universal" type housings. The proportions of the wiping lip ensure that contact is maintained with the surface of the rod to remove heavily deposited mud, ice, etc. The outside of the wiper has snug contact with the inside of the housing and has a wiping lip to prevent contaminants from entering the groove. The molded ribs on the inside provide extra stability to the wiper and help prevent pressure trapping.

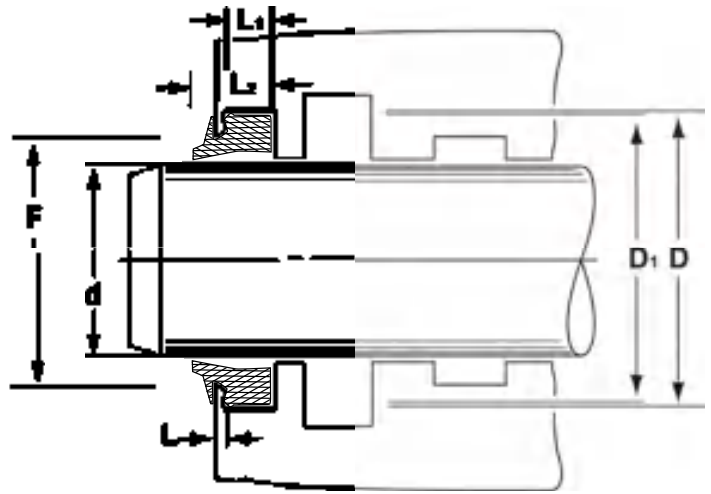
Temperature: -40°F to 230°F

EXAMPLE: U-1500R		
Prefix	Inside Diameter	Suffix
U-	1500	R
	1-1/2"	Ribbed Heel

**ALTERNATIVE SEALS:**  
U-Wiper, 842, Wiper  
Cord, S34

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.006 -0.000 D	+0.004 -0.000 L	+0.010 -0.000 F	
U-0500R	0.500	0.750	0.124	0.210	0.747	0.125	0.660	\$2.69
U-0625R	0.625	0.875	0.124	0.210	0.872	0.125	0.785	\$1.76
U-0750R	0.750	1.125	0.187	0.305	1.122	0.187	0.995	\$3.19
U-0875R	0.875	1.250	0.187	0.305	1.247	0.187	1.120	\$1.95
U-1000R	1.000	1.375	0.187	0.305	1.372	0.187	1.245	\$3.93
U-1125R	1.125	1.500	0.187	0.305	1.497	0.187	1.370	\$4.01
U-1250R	1.250	1.625	0.187	0.305	1.622	0.187	1.495	\$4.51
U-1375R	1.375	1.750	0.187	0.305	1.747	0.187	1.620	\$4.87
U-1500R	1.500	1.875	0.187	0.305	1.872	0.187	1.745	\$4.44
U-1625R	1.625	2.000	0.187	0.305	1.997	0.187	1.870	\$5.21
U-1750R	1.750	2.125	0.187	0.305	2.122	0.187	1.995	\$5.87
U-2000R	2.000	2.500	0.249	0.395	2.497	0.250	2.327	\$6.14
U-2250R	2.250	2.750	0.249	0.395	2.747	0.250	2.577	\$6.88
U-2375R	2.375	2.875	0.249	0.395	2.872	0.250	2.702	\$6.98
U-2500R	2.500	3.000	0.249	0.395	2.997	0.250	2.827	\$7.22
U-2750R	2.750	3.250	0.249	0.395	3.247	0.250	3.077	\$7.71
U-3000R	3.000	3.500	0.249	0.395	3.497	0.250	3.327	\$8.11
U-3250R	3.250	3.750	0.249	0.395	3.747	0.250	3.577	\$8.72
U-3500R	3.500	4.000	0.249	0.395	3.997	0.250	3.827	\$9.02
U-3750R	3.750	4.250	0.249	0.395	4.247	0.250	4.077	\$10.73
U-4000-187R	4.000	4.375	0.187	0.275	4.497	0.187	4.370	\$11.88
U-4000R	4.000	4.500	0.249	0.395	4.497	0.250	4.327	\$12.13
U-4250R	4.250	4.750	0.249	0.395	4.747	0.250	4.577	\$12.64
U-4500R	4.500	5.250	0.374	0.585	5.247	0.375	4.993	\$13.50
U-4750-187R	4.750	5.125	0.187	0.275	4.747	0.187	4.620	\$23.89
U-4750R	4.750	5.500	0.374	0.585	5.497	0.375	5.243	\$17.40
U-5000-250R	5.000	5.500	0.249	0.395	5.497	0.250	5.327	\$21.36
U-5000R	5.000	5.750	0.374	0.585	5.747	0.375	5.493	\$20.68
U-5250R	5.250	6.000	0.374	0.585	5.997	0.375	5.743	\$23.41
U-5500-187R	5.500	5.875	0.187	0.275	5.872	0.187	5.745	\$24.60
U-5500R	5.500	6.250	0.374	0.585	6.247	0.375	5.993	\$24.60
U-6000-250R	6.000	6.500	0.250	0.375	6.497	0.250	6.332	\$27.94
U-6000R	6.000	6.750	0.374	0.585	6.747	0.375	6.493	\$28.32
U-6375-250R	6.375	6.875	0.249	0.375	6.872	0.250	6.702	\$30.50
U-6500R	6.500	7.250	0.374	0.585	7.247	0.375	6.993	\$31.55
U-7000-250R	7.000	7.500	0.250	0.375	7.497	0.250	7.332	\$31.94
U-7000R	7.000	7.750	0.374	0.585	7.747	0.375	7.493	\$25.93
U-7250-250R	7.250	7.750	0.249	0.375	7.747	0.250	7.577	\$34.42
U-8000R	8.000	8.750	0.374	0.585	8.747	0.375	8.493	\$31.79
U-8125-250R	8.125	8.625	0.250	0.375	8.122	0.250	8.452	\$41.53
U-8500R	8.500	9.250	0.374	0.585	9.247	0.375	8.993	\$35.67
U-8500R 361	8.500	9.250	0.374	0.585	9.247	0.375	8.993	\$46.58

# 842 Urethane Wipers - Inch & Metric



**EXAMPLE: 842-1750**

Prefix	Inside Diameter
842-	1750
	1-3/4"

**ALTERNATIVE SEALS:**  
U-Wiper, U-R, H

**EXAMPLE: 842-50X58X5**

Prefix	Inside Diameter		Outside Diameter		Base Height
842-	50	x	58	x	5
	50mm		58mm		5mm

**ALTERNATIVE SEALS:**  
A40, AY

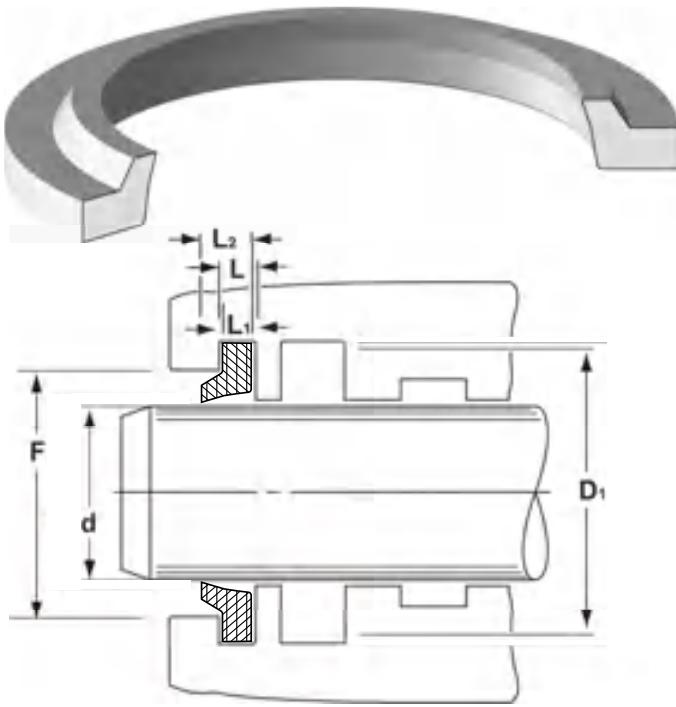
The 842 was developed especially for harsh environments including the mining industry. The unique design prevents the infiltration of foreign matter and moisture into the cylinder by covering the gland housing with a flap. The wipers are also ribbed on the inside to ensure stability and prevent pressure trapping. Made from 93A high performance urethane, these wipers provide excellent compression set characteristics and wear resistance.

Temperature : -50°F to 230°F

Inch Sizes							
Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Seal Base Height L <sub>1</sub>	Seal Total HT L <sub>2</sub>	Ret. Lip Dia. F	Ret. Lip Height L	Price
820-1500	1.500	1.875	0.187	0.362	1.745	0.790	25.430
842-1750	1.750	2.125	0.220	0.362	1.995	0.079	\$27.92
842-2500	2.500	2.875	0.220	0.362	2.745	0.079	\$35.44

Metric Sizes							
Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Seal Base Height L <sub>1</sub>	Seal Total HT L <sub>2</sub>	Ret. Lip Dia. F	Ret. Lip Height L	Price
842-50X58X5	50.0	58.0	5.0	8.0	55.5	1.5	\$23.03
842-60X70X6.3	60.0	70.0	6.3	10.0	67.0	1.5	\$33.50
842-70X82.6X8	70.0	82.6	8.0	12.0	78.4	2.0	\$42.11
842-80X90X6.3	80.0	90.0	6.3	10.0	87.0	1.5	\$44.02
842-80X95X5.1	80.0	95.0	5.1	12.0	91.5	3.0	\$49.86
842-90X102.2X7.1	90.0	102.2	7.1	12.4	96.0	2.8	\$40.79
842-100X112.2X7.1	100.0	112.2	7.1	12.4	106.0	2.8	\$41.95
842-110X125X9.5	110.0	125.0	9.5	14.0	120.0	2.0	\$48.23
842-120X135X9.5	120.0	135.0	9.5	14.0	130.0	2.0	\$54.63
842-125X140X9.5	125.0	140.0	9.5	14.0	135.0	2.0	\$57.89
842-130X145X9.5	130.0	145.0	9.5	14.0	140.0	2.3	\$62.34
842-140X155X9.5	140.0	155.0	9.5	14.0	150.0	2.0	\$77.70
842-220X240X10	220.0	240.0	10.0	15.0	230.0	2.5	\$115.60
842-250X270X10.2	250.0	270.0	10.2	15.0	260.0	2.5	\$154.32
842-320X340X10	320.0	340.0	10.2	15.0	330.0	2.5	\$204.30
842-350X370X10.2	350.0	370.0	10.2	15.0	340.0	2.5	\$182.30

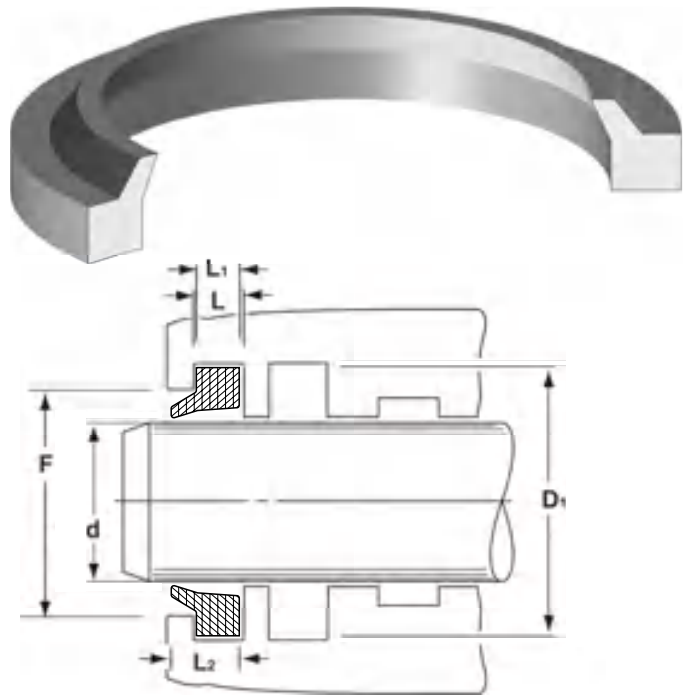
**AN Type Non-Stand. Urethane Wipers - Inch**



Temperature: -65° to 200°F

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Price
993988	2.000	2.500	0.125	0.250	\$6.33
994110	2.500	3.000	0.125	0.250	\$6.46
690211A	3.000	3.500	0.125	0.250	\$6.55
71-AN-S-5	3.750	4.000	0.125	0.218	\$9.80
71-AN-S-6	4.750	5.000	0.125	0.218	\$10.83
71-AN-S-7	5.750	6.000	0.125	0.218	\$64.48
71-AN-S-8	6.750	7.000	0.125	0.218	\$18.41

**U Type Non-Stand. Urethane Wipers - Inch**

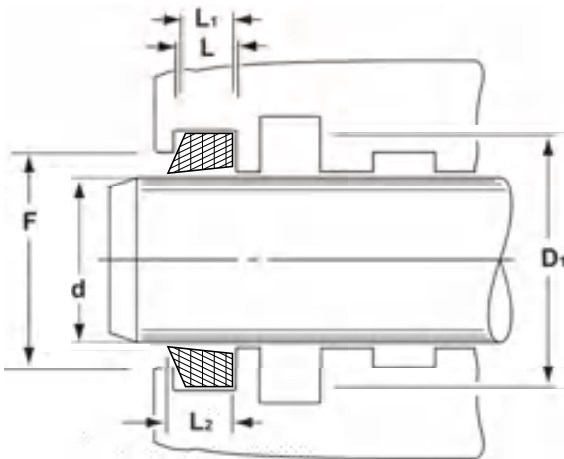


These wipers are used in mobile hydraulic applications.

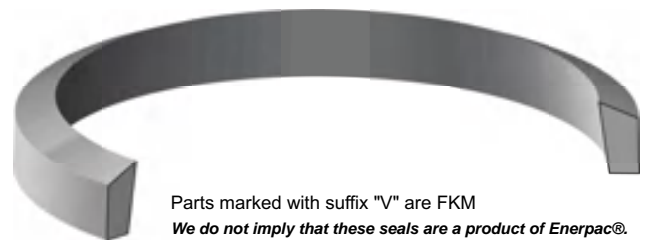
Temperature: -65° to 200°F

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Price
3670-200	2.000	2.375	0.187	0.343	\$24.75
959-60.7SA	7.925	8.425	0.250	0.375	\$65.16
959-61SA1889	8.000	8.500	0.250	0.375	\$68.22
959-62SA	8.500	9.000	0.250	0.375	\$89.76

**Replacement Wipers for Enerpac® - Inch**

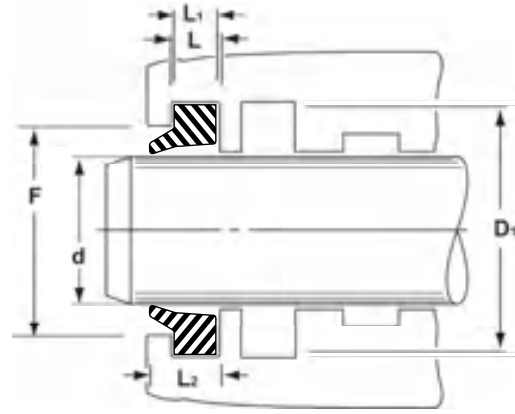


Temperature: -65° to 200°F



Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Price
997388	0.750	0.875	0.125	0.156	\$11.88
996132	1.000	1.125	0.125	0.156	\$7.17
993014	1.500	1.625	0.125	0.156	\$7.18
993014V	1.500	1.625	0.125	0.156	\$16.36
996076	2.000	2.125	0.125	0.156	\$7.18

# A40 Urethane & Nitrile Wipers - Metric



EXAMPLE: A40-50X60X5 P90

Prefix	Inside Diameter		Outside Diameter		Base Height	Suffix
A40-	50	x	60	x	5	P90
	50mm		60mm		5mm	90A PU

PARTS W/O SUFFIX ARE **90A NBR**

ALTERNATIVE SEALS:

842, AY, A41

Profile A40 wipers are manufactured from 90 durometer nitrile or 90 durometer Urethane, (designated by P90 in part number). These rings can easily be snapped into grooves of relatively simple design. No close tolerances are needed.

Temperature: -40° to 230°F

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Material	Groove Dimensions			Price
					H11 D	(+0.1) (-0.0) L	H11 F	
A40-5X12X2.5 P90	5	12	2.5	P90	12	2.8	9	\$3.43
A40-8X14.6X3.8 P90	8	14.6	3.8	P90	14.6	3.8	11	\$3.70
A40-10X16X3.5	10	16	3.5					\$2.67
A40-10X16X3.5 P90	10	16	3.5	P90	16.6	3.8	13	\$3.95
A40-12X18X3.5	12	18	3.5					\$4.02
A40-12X18X4	12	18	4		18.6	4	15	\$4.69
A40-12X18X4 P90	12	18	4	P90				\$8.25
A40-12X20X4 P90	12	20	4	P90	20	4	14	\$8.14
A40-14X20X3.5 P90	14	20	3.5	P90				\$2.89
A40-15X21.6X3.8 P90	15	21.6	3.8	P90				\$4.52
A40-16X22X3.4	16	22	3.4					\$3.31
A40-16X22X3.5 P90	16	22	3.5	P90				\$4.60
A40-16X22.6X3.8 P90	16	22.6	3.8	P90				\$5.04
A40-16X24X5 P90	16	24	5	P90				\$3.99
A40-16X26X4 P90	16	26	4	P90				\$6.06
A40-18X24X3.4	18	24	3.4					\$3.31
A40-18X24X3.5 P90	18	24	3.5	P90				\$4.10
A40-18X30X5	18	30	5					\$3.13
A40-19X28X5	19	28	5					\$3.13
A40-20X28X5	20	28	5					\$3.13
A40-20X28X5 P90	20	28	5	P90	28.6	5.3	23	\$2.19
A40-20X28X5 V85	20	28	5	V85	28.6	5.3	23	\$11.51
A40-22X30X5	22	30	5		30.6	5.3	25	\$4.17
A40-22X30X5 P90	22	30	5	P90				\$2.84
A40-24X32X5	24	32	5					\$3.37
A40-24X32X5 P90	24	32	5	P90	32.6	5.3	27	\$4.89
A40-25X33X4	25	33	4		33	4	27	\$12.76
A40-25X33X5	25	33	5		33.6	5.3	28	\$5.36
A40-25X33X5 P90	25	33	5	P90				\$3.30
A40-25.4X34.93X4.6	25.4	34.93	4.6					\$4.44
A40-27X35X5	27	35	5					\$3.37
A40-28X36X5	28	36	5					\$3.37
A40-28X36X5 P90	28	36	5	P90				\$3.46
A40-30X38X5	30	38	5					\$3.51
A40-30X38X5 P90	30	38	5	P90	38.6	5.3	33	\$5.36



## A40 Urethane & Nitrile Wipers - Metric, cont'd.

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Material	Groove Dimensions			Price
					H11 D	(+0.1) (-0.0) L	H11 F	
A40-30X40X7 N85	30	40	7	N85				\$13.31
A40-30X42X6	30	42	6					\$13.68
A40-30X45X5	30	45	5					\$4.85
A40-32X40X3.5 P90	32	40	3.5	P90				\$6.08
A40-32X40X5	32	40	5		40.6	5.3	35	\$8.08
A40-32X40X5 P90	32	40	5	P90				\$4.92
A40-32X44X6	32	44	6					\$4.56
A40-33X42X5	33	42	5					\$4.86
A40-35X43X5	35	43	5					\$4.31
A40-35X43X5 P90	35	43	5	P90	43.6	5.3	38	\$7.68
A40-35X45X3.8 P90	35	45	3.8	P90				\$8.58
A40-35X47X4	35	47	4					\$5.96
A40-35X47X6	35	47	6					\$14.64
A40-36X44X5	36	44	5		44.6	5.3	39	\$7.55
A40-36X44X5 P90	36	44	5	P90				\$7.55
A40-36X48X6	36	48	6					\$12.32
A40-38X44X4.3	38	44	4.3					\$35.95
A40-38X46X5	38	46	5					\$6.76
A40-38X46X5 P90	38	46	5	P90	46.6	5	41	\$7.20
A40-40X48X4	40	48	4					\$4.24
A40-40X48X4 P90	40	48	4	P90				\$6.04
A40-40X48X5	40	48	5		48.6	5.3	43	\$7.69
A40-40X48X5 P90	40	48	5	P90	48	5	42	\$7.75
A40-40X50X5	40	50	5					\$4.34
A40-40X50X5 P90	40	50	5	P90				\$6.62
A40-40X50X7 P90	40	50	7	P90				\$6.93
A40-40X52X5 P90	40	52	5	P90				\$6.64
A40-40X52X6	40	52	6					\$4.55
A40-42X50X5	42	50	5		50.6	5.3	45	\$7.27
A40-42X50X5 P90	42	50	5	P90				\$7.38
A40-42X54X6 P90	42	54	6	P90	54	6	44	\$12.38
A40-45X53X5	45	53	5					\$5.05
A40-45X53X5 P90	45	53	5	P90				\$7.14
A40-45X55X5	45	55	5		55.6	5.3	52.6	\$7.56
A40-45X55X5 P90	45	55	5	P90				\$6.77
A40-45X60X4 P90	45	60	4	P90				\$7.86
A40-46X54X5	46	54	5					\$6.83
A40-46X54X5 P90	46	54	5	P90	54.6	5.3	49	\$7.59
A40-47X53X5 P90	47	53	5	P90				\$30.05
A40-48X56X5	48	56	5					\$5.04
A40-48X56X5.3 P90	48	56	5.3	P90				\$8.32
A40-50X58X5	50	58	5					\$4.32
A40-50X58X5 P90	50	58	5	P90				\$7.50
A40-50X58.6X5.3 P90	50	58.6	5.3	P90				\$7.88
A40-50X60X5	50	60	5		60.6	5.3	57.6	\$8.37
A40-50X60X5 P90	50	60	5	P90				\$8.80
A40-50X60X7 P90	50	60	7	P90				\$8.89
A40-50X62X6	50	62	6		62	6	52	\$16.68
A40-50X65X4 P90	50	65	4	P90	65.5	4.2	58	\$8.98
A40-53X61X5 P90	53	61	5	P90	61.6	5.3	56	\$9.12
A40-55X63X5	55	63	5					\$6.09
A40-55X63X5 P90	55	63	5	P90	63.6	5.3	58	\$11.00
A40-55X65X5	55	65	5					\$5.33
A40-55X65X5 P90	55	65	5	P90	65.6	5.3	62.6	\$8.92
A40-55X65X7	55	65	7					\$37.13

## A40 Urethane & Nitrile Wipers - Metric, cont'd.

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Material	Groove Dimensions			Price
					H11 D	(+0.1) (-0.0) L	H11 F	
A40-55X67X7 P90	55	67	7	P90				\$7.56
A40-56X64X5 P90	56	64	5	P90	64.6	5.3	59	\$7.86
A40-56X66X5	56	66	5		66.6	5.3	63.6	\$4.58
A40-56X66X5 P90	56	66	5	P90				\$4.44
A40-56X66X6 P90	56	66	6	P90				\$11.38
A40-56X66X6.3	56	66	6.3					\$23.92
A40-56X66X6.3 P90	56	66	6.3	P90				\$20.46
A40-56X68X6	56	68	6					\$21.27
A40-60X68X5	60	68	5		68.6	5.3	63	\$9.67
A40-60X70X5	60	70	5		70.6	5.3	67.6	\$6.50
A40-60X70X5 P90	60	70	5	P90				\$6.76
A40-60X70X7 P90	60	70	7	P90				\$8.89
A40-63X71X5	63	71	5		71.6	5.3	66	\$9.43
A40-63X71X5 P90	63	71	5	P90				\$9.77
A40-63X73X5	63	73	5					\$5.43
A40-63X73X5 P90	63	73	5	P90				\$9.62
A40-63X73X6.3	63	73	6.3					\$21.31
A40-63X73.6X5.3 P90	63	73.6	5.3	P90				\$17.85
A40-63X75X6	63	75	6					\$15.58
A40-65X73X5	65	73	5		73.6	5.3	68	\$10.95
A40-65X73X5 P90	65	73	5	P90				\$10.51
A40-65X75X5	65	75	5		75.6	5.3	72.6	\$7.09
A40-65X75X5 P90	65	75	5	P90				\$10.20
A40-65X75X7 P90	65	75	7	P90				\$10.33
A40-65X76X5.8 P90	65	76	5.8	P90				\$10.36
A40-65X77X7 P90	65	77	7	P90				\$10.42
A40-70X78X5	70	78	5					\$7.20
A40-70X78X5 P90	70	78	5	P90	78.6	5.3	73	\$9.51
A40-70X80X5	70	80	5		80.6	5.3	77.6	\$6.29
A40-70X80X5 P90	70	80	5	P90				\$7.82
A40-70X80X6.3	70	80	6.3					\$28.09
A40-70X80X6.3 P90	70	80	6.3	P90				\$21.77
A40-70X80X7 P90	70	80	7	P90				\$9.96
A40-70X82X6	70	82	6					\$19.16
A40-70X82X7	70	82	7					\$6.33
A40-70X82X7 P90	70	82	7	P90				\$7.02
A40-73X81X5 P90	73	81	5	P90				\$7.17
A40-75X83X5	75	83	5		83.6	5.3	78	\$7.21
A40-75X83X5 P90	75	83	5	P90	83.6	5.3	78	\$9.66
A40-75X85X5	75	85	5					\$9.72
A40-75X87X7	75	87	7					\$9.79
A40-75X87X7 P90	75	87	7	P90				\$9.80
A40-78X88X5.2 P90	78	88	5.2	P90				\$11.00
A40-78X92X7 P90	78	92	7	P90				\$11.33
A40-80X88X5	80	88	5		88.6	5.3	83	\$12.52
A40-80X88X5 P90	80	88	5	P90				\$10.67
A40-80X90X3 P90	80	90	3	P90				\$29.39
A40-80X90X6.3	80	90	6.3					\$29.52
A40-80X90X6.5 P90	80	90	6.5	P90	90	6.5	87	\$12.08
A40-80X92X7	80	92	7					\$8.02
A40-80X92X7 P90	80	92	7	P90	92.2	7.1	86	\$10.57
A40-85X93X5	85	93	5					\$9.04
A40-85X93X5 P90	85	93	5	P90	93.6	5.3	88	\$10.50
A40-85X93X5X7-V	85	93	5	V90				\$34.62
A40-85X97X7	85	97	7					\$7.88

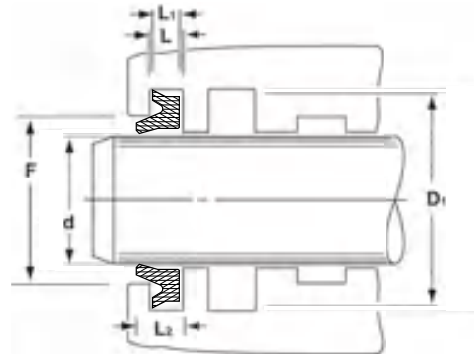
## A40 Urethane & Nitrile Wipers - Metric, cont'd.

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Material	Groove Dimensions			Price
					H11 D	(+0.1) (-0.0) L	H11 F	
A40-85X97X7 P90	85	97	7	P90	97.2	7.1	91	\$6.59
A40-88X96.6X5.3 P90	88	96.6	5.3	P90				\$11.63
A40-90X98X5	90	98	5		98.6	5.3	93	\$13.75
A40-90X100X6 P90	90	100	6	P90				\$9.03
A40-90X100X7	90	100	7					\$9.62
A40-90X102X6 P90	90	102	6	P90				\$9.60
A40-90X102X7	90	102	7		102.2	7.1	96	\$7.82
A40-90X102X7 P90	90	102	7	P90				\$8.09
A40-90X106X8	90	106	8		106	8	97	\$28.53
A40-91X99.6X5.3 P90	91	99.6	5.3	P90				\$10.66
A40-95X103X5	95	103	5					\$10.42
A40-95X107X7	95	107	7					\$11.68
A40-95X107X7 P90	95	107	7	P90				\$13.31
A40-100X108X5	100	108	5		108.6	5.3	103	\$15.17
A40-100X110X5	100	110	5					\$15.17
A40-100X112X7	100	112	7		112.2	7.1	106	\$9.07
A40-100X112X7 P90	100	112	7	P90	112.2	7.1	106	\$13.27
A40-100X115X9.5 P90	100	115	9.5	P90				\$19.54
A40-100X115X9.5	100	115	9.5					\$41.61
A40-100X116X8	100	116	8		116	8	106	\$23.31
A40-105X113X5	105	113	5					\$14.82
A40-105X113X5 P90	105	113	5	P90				\$20.07
A40-105X117X7	105	117	7					\$20.12
A40-105X117X7 P90	105	117	7	P90				\$20.81
A40-107X115.6X5.3P90	107	115.6	5.3	P90				\$13.77
A40-110X118X5	110	118	5		118.6	5.3	113	\$14.47
A40-110X122X7	110	122	7		122.2	7.1	116	\$11.12
A40-110X122X7 P90	110	122	7	P90	122.2	7.1	116	\$12.36
A40-110X125X9.2 P90	110	125	9.2	P90				\$14.10
A40-110X125X9.5 P90	110	125	9.5	P90	125	9.5	116	\$21.89
A40-110X126X8	110	126	8					\$28.61
A40-115X123X5	115	123	5					\$12.03
A40-115X125X5	115	125	5					\$13.30
A40-115X127X7 P90	115	127	7	P90				\$13.57
A40-120X128X5 P90	120	128	5	P90				\$15.67
A40-120X128X5	120	128	5					\$16.57
A40-120X132X7	120	132	7					\$13.95
A40-120X132X7 P90	120	132	7	P90	132.2	7.1	126	\$13.89
A40-120X135X9.5 P90	120	135	9.5	P90				\$44.56
A40-125X133X5	125	133	5					\$16.52
A40-125X137X7 P90	125	137	7	P90	137.2	7.1	N/A	\$15.50
A40-125X140X9.5 P90	125	140	9.5	P90	140	9.5	131	\$25.34
A40-125X140X10	125	140	10		140	10.2	132.6	\$22.23
A40-125X140X10 P90	125	140	10	P90				\$15.86
A40-128X140X7 P90	128	140	7	P90	140.2	7.1	134	\$17.33
A40-130X142X7	130	142	7					\$15.35
A40-130X142X7 P90	130	142	7	P90	142.2	7.1	136	\$15.47
A40-130X145X10	130	145	10					\$16.48
A40-135X150X7 P90	135	150	7	P90				\$54.11
A40-140X148X5 P90	140	148	5	P90				\$23.12
A40-140X152X7	140	152	7					\$14.50
A40-140X152X7 P90	140	152	7	P90	152.2	7.1	146	\$15.11
A40-140X155X9.5	140	155	9.5					\$47.64
A40-140X155X9.5 P90	140	155	9.5	P90	155	9.5	146	\$26.36
A40-140X155X10	140	155	10		155	10.2	147.6	\$14.12

**A40 Urethane & Nitrile Wipers - Metric, cont'd.**

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Material	Groove Dimensions			Price
					H11 D	(+0.1) (-0.0) L	H11 F	
A40-145X157X7 P90	145	157	7	P90				\$21.76
A40-150X162X7.1 P90	150	162	7.1	P90				\$19.03
A40-150X165X10	150	165	10		165	10.2	157.6	\$23.49
A40-150X165X10 P90	150	165	10	P90				\$14.77
A40-150X166X8 P90	150	166	8	P90	166	8	156	\$47.92
A40-155X167X7	155	167	7					\$20.01
A40-160X172X7 P90	160	172	7	P90				\$25.86
A40-160X175X9.5 P90	160	175	9.5	P90				\$30.74
A40-160X175X10	160	175	10					\$15.18
A40-160X175X10 P90	160	175	10	P90	175	10.2	167.6	\$29.56
A40-165X173X5	165	173	5		173	5.3	168	\$46.14
A40-165X173X5 P90	165	173	5		173	5.3	168	\$46.14
A40-165X180X10	165	180	10					\$33.59
A40-170X182X7	170	182	7		182.2	7.1	176	\$45.99
A40-170X185X10	170	185	10					\$34.16
A40-180X188X5 P90	180	188	5	P90				\$22.97
A40-180X195X9.5 P90	180	195	9.5	P90				\$64.16
A40-180X195X10 P90	180	195	10	P90				\$64.44
A40-180X200X10	180	200	10					\$46.41
A40-180X200X10 P90	180	200	10	P90				\$48.81
A40-185X197X7	185	197	7					\$44.01
A40-190X210X10 P90	190	210	10	P90	210	10.2	196	\$54.72
A40-200X215X9.5 P90	200	215	9.5	P90	215	9.5	206	\$44.64
A40-200X215X10 P90	200	215	10	P90				\$42.53
A40-200X220X10	200	220	10					\$24.86
A40-200X220X10 P90	200	220	10	P90				\$58.00
A40-210X225X10	210	225	10					\$70.51
A40-210X225X10 P90	210	225	10	P90				\$61.83
A40-210X230X10 P90	210	230	10	P90				\$71.82
A40-220X240X10	220	240	10					\$63.63
A40-220X240X10 P90	220	240	10	P90	240	10.2	230	\$75.92
A40-220X240X12 P90	220	240	12	P90	240	12.5	227	\$93.22
A40-225X245X10	225	245	10					\$95.46
A40-230X250X10	230	250	10					\$45.77
A40-230X250X10 P90	230	250	10	P90				\$48.51
A40-235X255X10.2 P90	235	255	10.2	P90				\$147.66
A40-240X248X5	240	248	5					\$126.65
A40-240X255X10 P90	240	255	10	P90				\$78.88
A40-240X260X10	240	260	10		260	10.2	250	\$46.16
A40-250X270X10	250	270	10		270	10.2	260	\$62.59
A40-250X270X10 P90	250	270	10	P90				\$131.53
A40-260X280X10	260	280	10		280	10.2	270	\$75.73
A40-260X280X10.2 P90	260	280	10.2	P90				\$130.96
A40-270X290X10	270	290	10		290	10.2	280	\$78.27
A40-280X300X10	280	300	10					\$89.44
A40-280X300X10 P90	280	300	10	P90				\$117.08
A40-290X310X10 P90	290	310	10	P90				\$154.56
A40-300X316X7.5 P90	300	316	7.5	P90				\$156.24
A40-300X320X10	300	320	10		320	10.2	310	\$162.54
A40-320X340X10 P90	320	340	10	P90	340	10.2	330	\$178.80
A40-330X346X10	330	346	10					\$88.52
A40-340X360X10 P90	340	360	10	P90				\$135.20
A40-350X370X10 P90	350	370	10	P90				\$215.80
A40-380X400X10 P90	380	400	10	P90				\$134.01
A40-450X470X10 P90	450	470	10	P90				\$170.10

# A37 Urethane Wipers - Metric



EXAMPLE: A37-50X60X6					
Prefix	Inside Diameter		Outside Diameter		Base Height
A37-	50	x	60	x	6
	50mm		60mm		6mm

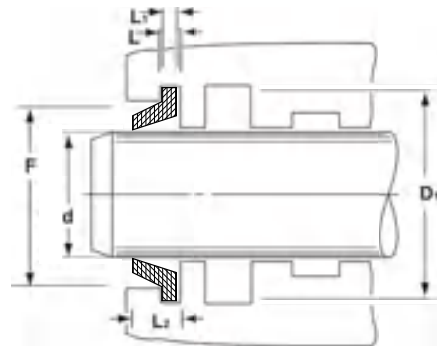
A37 style wipers are made from 90 durometer urethane and are commonly found in Japanese hydraulics. The outer lip keeps contaminants from entering the system from the outside of the wiper groove.

Temperature: -40°F to 230°F

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Groove Height L	Price
A37-50X60X6	50	60	6	8	7	\$8.08
A37-55X68X7	55	68	7	9.5	8	\$11.73
A37-60X73X7	60	73	7	9.5	8	\$9.16
A37-65X78X7	65	78	7	10	8	\$9.88
A37-70X80X6	70	80	6	8	7	\$9.91
A37-70X83X7	70	83	7	9.5	8	\$9.96
A37-75X88X7	75	88	7	10	8	\$10.38
A37-80X93X7	80	93	7	9.5	8	\$10.77
A37-85X98X7	85	98	7	9.5	8	\$15.01

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Groove Height L	Price
A37-90X103X7	90	103	7	9.5	8	\$16.23
A37-95X108X7	95	108	7	9.5	8	\$20.85
A37-100X113X7	100	113	7	9.5	8	\$21.51
A37-105X118X7	105	118	7	9.5	8	\$24.16
A37-110X123X7	110	123	7	9.5	8	\$24.04
A37-120X133X7	120	133	7	9.5	8	\$25.20
A37-125X138X7	125	138	7	9.5	8	\$26.11
A37-130X143X7	130	143	7	9.5	8	\$28.60

# A39 Nitrile Wipers - Metric



EXAMPLE: A39-60X70X2					
Prefix	Inside Diameter		Outside Diameter		Base Height
A39-	60	x	70	x	2
	60mm		70mm		2mm

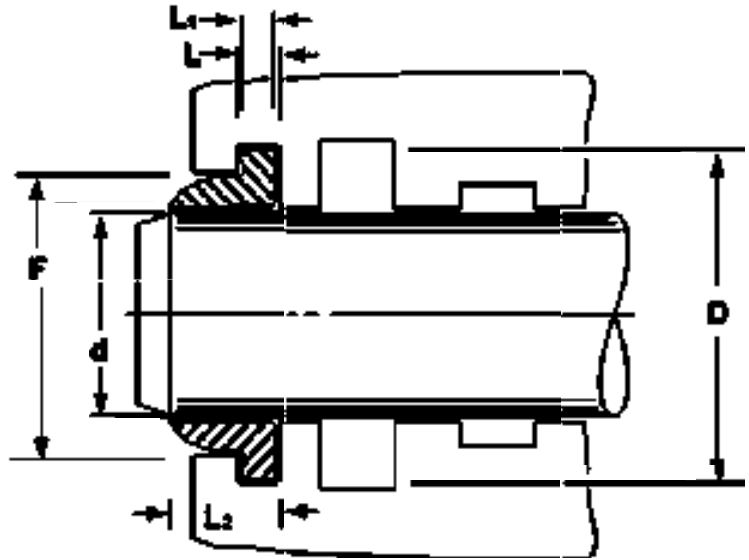
A39 style wipers are made from 90 durometer nitrile and can easily be snapped into grooves.

Temperature: -40°F to 250°F

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Groove Height L	Price
A39-30X37.5X1.5	30	37.5	1.5	4	1.6	\$14.74
A39-32X39.5X1.5	32	39.5	1.5	4	1.6	\$18.15
A39-45X52.5X1.5	45	52.5	1.5	4	1.6	\$24.16
A39-55X65X2	55	65	2	6	2.15	\$27.22
A39-60X70X2	60	70	2	6	2.15	\$27.73
A39-63X73X2	63	73	2	6	2.15	\$22.73
A39-70X80X2	70	80	2	6	2.15	\$24.72

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Groove Height L	Price
A39-74X87X3.3	74	87	3	7	3.45	\$19.44
A39-75X85X2	75	85	2	6	2.15	\$25.08
A39-80X90X2	80	90	2	6	2.15	\$32.29
A39-90X100X2	90	100	2	6	2.15	\$33.54
A39-100X110X2	100	110	2	6	2.15	\$27.66
A39-140X150X2	140	150	2	6	2.15	\$46.70

# Style 33 Rectangular Base Nitrile Wipers - Inch



**EXAMPLE: 33-10001375-125**

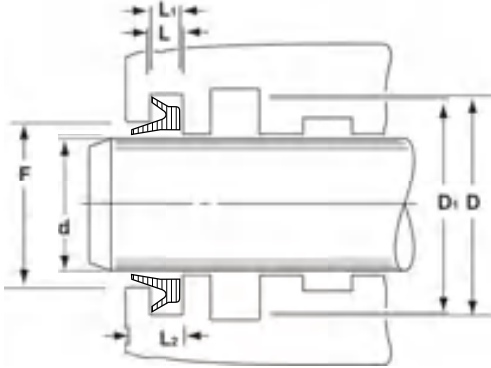
Prefix	Inside Diameter	Outside Diameter	Base Height
33-	1000	1375	-125
	1"	1-3/8"	1/8"

This general purpose wiper has a lip designed to remove lightly adhered dirt, dust, and moisture from the rod. Manufactured from a hard nitrile rubber, suitable for installing in grooved housings, creates an effective seal on housings as well as rods.

Temperature: -22°F to 212°F

Part Number	Rod Size d	Groove Dia. D	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Throat F	Groove Height L	Price
33-10001375-125	1.000	1.375	0.125	0.250	1.200	0.140	\$14.36
33-11251625-125	1.125	1.625	0.125	0.375	1.425	0.140	\$14.52
33-12501750-125	1.250	1.750	0.125	0.375	1.550	0.140	\$14.63
33-13751875-125	1.375	1.875	0.125	0.375	1.675	0.140	\$16.78
33-15002000-125	1.500	2.000	0.125	0.375	1.800	0.140	\$4.50
33-16252125-125	1.625	2.125	0.125	0.375	1.925	0.140	\$9.75
33-17502250-125	1.750	2.250	0.125	0.375	2.050	0.140	\$10.18
33-20002500-125	2.000	2.500	0.125	0.375	2.300	0.140	\$20.79
33-22502750-125	2.250	2.750	0.125	0.375	2.550	0.140	\$21.34
33-25003000-125	2.500	3.000	0.125	0.375	2.800	0.140	\$21.84
33-27503250-125	2.750	3.250	0.125	0.375	3.050	0.140	\$23.54
33-28753375-125	2.875	3.375	0.125	0.375	3.175	0.140	\$27.10
33-30003500-125	3.000	3.500	0.125	0.375	3.300	0.140	\$26.50
33-32504000-187	3.250	4.000	0.187	0.500	3.650	0.202	\$27.73
33-35004250-187	3.500	4.250	0.187	0.500	3.900	0.202	\$28.32
33-40004750-187	4.000	4.750	0.187	0.500	4.400	0.202	\$32.12
33-45005250-187	4.500	5.250	0.187	0.500	4.900	0.202	\$43.89
33-50005750-187	5.000	5.750	0.187	0.500	5.400	0.202	\$52.42
33-60006750-187	6.000	6.750	0.187	0.500	6.400	0.202	\$91.36

# NW Nylon Wipers / Scrapers - Inch & Metric



EXAMPLE: NW-0500	
Prefix	Inside Diameter
NW-	0500
	1/2"

EXAMPLE: NW-20MM	
Prefix	Inside Diameter
NW-	20MM
	20mm

NW wipers are made from a moly-filled nylon material and more properly referred to as scrapers. The tough material is great for removing slag and other harmful contaminants from the rod.

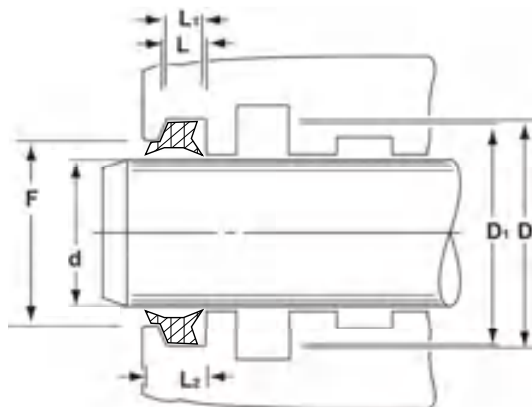
Temperature: -22°F to 248°F

Part No.	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. +.000 -.001 d	Out. Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+.002 -.000 D	+.005 -.000 L	+.002 -.000 F	
<b>Inch Sizes</b>								
NW-0500	0.500	0.875	0.156	0.250	0.875	0.172	0.812	\$10.78
NW-0625	0.625	1.000	0.156	0.250	1.000	0.172	0.940	\$12.03
NW-0750	0.750	1.250	0.219	0.344	1.250	0.234	1.188	\$10.96
NW-1000	1.000	1.500	0.219	0.344	1.500	0.234	1.438	\$13.17
NW-1125	1.125	1.625	0.219	0.344	1.625	0.234	1.563	\$13.03
NW-1250	1.250	1.750	0.219	0.344	1.750	0.234	1.688	\$9.41
NW-1375	1.375	1.875	0.219	0.344	1.875	0.234	1.812	\$9.41
NW-1500	1.500	2.000	0.219	0.344	2.000	0.234	1.938	\$11.66
NW-1625	1.625	2.125	0.219	0.344	2.125	0.234	2.063	\$11.87
NW-1750	1.750	2.250	0.219	0.344	2.250	0.234	2.188	\$12.54
NW-2000	2.000	2.500	0.219	0.344	2.500	0.234	2.438	\$14.20
NW-2125	2.125	2.625	0.219	0.344	2.625	0.234	2.563	\$14.48
NW-2250	2.250	2.750	0.219	0.344	2.750	0.234	2.690	\$11.52
NW-2500	2.500	3.000	0.219	0.344	3.000	0.234	2.938	\$12.49
NW-2750	2.750	3.250	0.219	0.344	3.250	0.234	3.188	\$30.39
NW-3000	3.000	3.500	0.219	0.344	3.500	0.234	3.438	\$21.74
NW-3250	3.250	3.750	0.219	0.344	3.750	0.234	3.688	\$15.68
NW-3500	3.500	4.000	0.219	0.344	4.000	0.234	3.938	\$27.25
NW-3750	3.750	4.250	0.219	0.344	4.250	0.234	4.188	\$24.01
NW-4000	4.000	4.500	0.219	0.344	4.500	0.234	4.438	\$24.01
<b>Metric Sizes</b>								
NW-16MM	16	26	4.5	6.5	26	4.5	24.5	\$11.09
NW-20MM	20	33	5.3	8.5	33	6	31.5	\$11.33
NW-25MM	25	38	5.3	8.5	38	6	36.5	\$5.29
NW-28MM	28	41	5.3	8.5	41	6	39.5	\$5.33
NW-30MM	30	43	5.3	8.5	43	6	41.5	\$5.91
NW-32MM	32	45	5.3	8.5	45	6	43.5	\$5.91
NW-36MM	36	49	5.3	8.5	49	6	47.5	\$5.91
NW-40MM	40	53	5.3	8.5	53	6	51.5	\$5.99
NW-45MM	45	58	5.3	8.5	58	6	56.5	\$5.99
NW-50MM	50	63	5.3	8.5	63	6	61.5	\$6.97
NW-55MM	55	68	5.3	8.5	68	6	66.5	\$8.74
NW-56MM	56	69	5.3	8.5	69	6	67.5	\$8.10
NW-60MM	60	73	5.3	8.5	73	6	71.5	\$8.31
NW-63MM	63	76	5.3	8.5	76	6	74.5	\$8.72
NW-70MM	70	83	5.3	8.5	83	6	81.5	\$6.33
NW-75MM	75	88	5.3	8.5	88	6	86.5	\$9.95
NW-80MM	80	93	5.3	8.5	93	6	91.5	\$11.13
NW-90MM	90	103	5.3	8.5	103	6	101.5	\$12.12
NW-100MM	100	114	5.3	8.5	114	6	111.5	\$38.36
NW-110MM	110	124	5.3	8.5	124	6	121.5	\$59.22

# K Double Lip Urethane Wipers - Inch



**ALTERNATIVE SEALS:**  
Custom K-WIPER Cord  
7580 RUBBER



EXAMPLE: K-0500	
Prefix	Inside Diameter
K-	0500
	1/2"

K type double lip wiper seal rings are one piece snap-in type rod wipers made from 90 durometer urethane. They fit grooves with a 30° tapered top surface. As the external lip scrapes dust and dirt from the rod, the secondary lip traps slight leakage that may pass the rod seal.

Temperature: -65° to 200°F

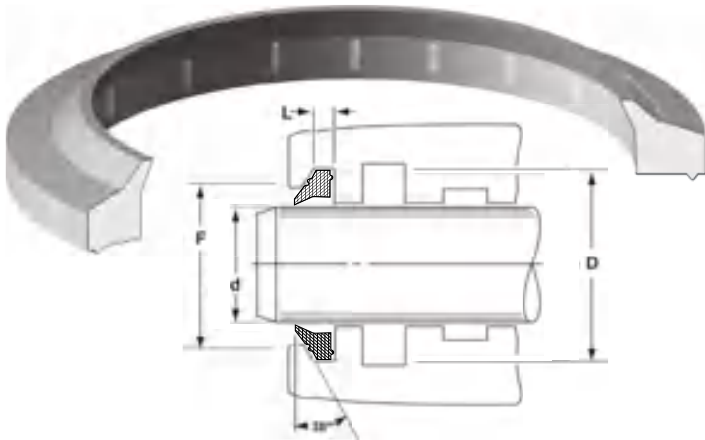
Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.005 -0.000 D	+0.005 -0.000 L	+0.000 -0.005 F	
K-0500	0.500	0.750	0.150	0.315	0.760	0.155	0.625	\$3.71
K-0625	0.625	0.875	0.150	0.315	0.885	0.155	0.750	\$4.01
K-0750	0.750	1.125	0.190	0.361	1.135	0.195	0.832	\$4.21
K-0875	0.875	1.250	0.190	0.361	1.260	0.195	0.957	\$4.32
K-1000	1.000	1.375	0.190	0.361	1.385	0.195	1.082	\$4.53
K-1125	1.125	1.500	0.190	0.361	1.510	0.195	1.207	\$4.78
K-1250	1.250	1.625	0.190	0.361	1.635	0.195	1.332	\$4.96
K-1375	1.375	1.750	0.190	0.361	1.760	0.195	1.457	\$5.75
K-1437	1.437	1.813	0.190	0.361	1.822	0.195	1.519	\$7.02
K-1500	1.500	1.875	0.190	0.361	1.885	0.195	1.582	\$5.96
K-1750	1.750	2.125	0.190	0.361	2.135	0.195	1.832	\$6.55
K-2000	2.000	2.375	0.190	0.361	2.385	0.195	2.083	\$7.47
K-2125	2.125	2.500	0.190	0.361	2.510	0.195	2.207	\$9.12
K-2250-187	2.250	2.625	0.190	0.361	2.635	0.195	2.332	\$9.16
K-2250	2.250	2.750	0.250	0.478	2.760	0.255	2.407	\$9.25
K-2500-187	2.500	2.875	0.190	0.361	2.885	0.195	2.582	\$10.47
K-2500	2.500	3.000	0.250	0.478	3.010	0.255	2.657	\$9.39
K-2625	2.625	3.125	0.250	0.478	3.135	0.255	2.782	\$10.34
K-2750-187	2.750	3.125	0.190	0.361	3.135	0.195	2.832	\$12.96
K-2750	2.750	3.250	0.250	0.478	3.260	0.255	2.907	\$10.77
K-3000-187	3.000	3.375	0.190	0.361	3.385	0.195	3.082	\$12.07
K-3000	3.000	3.500	0.250	0.478	3.510	0.255	3.157	\$12.19
K-3250	3.250	3.750	0.250	0.478	3.760	0.255	3.407	\$13.35
K-3375	3.375	3.875	0.250	0.478	3.885	0.255	3.532	\$14.67
K-3500-187	3.500	3.875	0.190	0.361	3.875	0.195	3.582	\$17.72
K-3500	3.500	4.000	0.250	0.478	4.010	0.255	3.657	\$14.57
K-3625	3.625	4.125	0.250	0.478	4.135	0.255	3.782	\$17.33
K-3687	3.687	4.188	0.250	0.478	4.197	0.255	3.488	\$17.60
K-3750-187	3.750	4.125	0.190	0.361	4.135	0.195	3.832	\$18.79
K-3750	3.750	4.250	0.250	0.478	4.260	0.255	3.907	\$15.42
K-3970	3.970	4.470	0.250	0.478	4.480	0.255	4.127	\$18.34
K-4000	4.000	4.500	0.250	0.478	4.510	0.255	4.157	\$18.74
K-4250	4.250	4.750	0.250	0.478	4.760	0.255	4.407	\$21.53
K-4437	4.437	4.938	0.250	0.478	4.947	0.255	4.594	\$21.80



## K Double Lip Urethane Wipers - Inch, cont'd.

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.005 -0.000 D	+0.005 -0.000 L	+0.000 -0.005 F	
K-4500	4.500	5.000	0.250	0.478	5.010	0.255	4.657	\$21.93
K-4750	4.750	5.250	0.250	0.478	5.260	0.255	4.907	\$24.17
K-4875	4.875	5.375	0.250	0.478	5.385	0.255	5.032	\$21.97
K-5000	5.000	5.500	0.250	0.478	5.510	0.255	5.157	\$23.80
K-5250	5.250	5.750	0.250	0.478	5.760	0.255	5.407	\$28.20
K-5500	5.500	6.000	0.250	0.478	6.010	0.255	5.657	\$33.17
K-5950	5.950	6.450	0.250	0.478	6.460	0.255	6.107	\$28.73
K-6000	6.000	6.500	0.250	0.478	6.510	0.255	6.157	\$27.50
K-7000	7.000	7.500	0.250	0.478	7.510	0.255	7.157	\$29.46
K-8000	8.000	8.500	0.250	0.478	8.510	0.255	8.157	\$40.82
K-8125	8.125	8.625	0.250	0.478	8.635	0.255	8.282	\$61.38
K-9125	9.125	9.625	0.250	0.478	9.635	0.255	9.282	\$71.62
K-9375 4700	9.375	9.875	0.250	0.478	10.385	0.255	9.532	\$128.55

## KB / KBM Urethane Wipers - Inch and Metric



KB style wipers resemble a K type wiper but with a single lip and a heavier base. They do not interchange grooves. Standard material is 94 durometer polyurethane.

Temperature: -65° to 200°F

KB style wipers are also available in nitrile. Please consult sales for pricing and availability.

Temperature: -22° to 212°F

INCH EXAMPLE: KB-1000	
Prefix	Inside Diameter
KB-	1000
	1"

METRIC EXAMPLE: KBM-100X112.7X5.3			
Prefix	Rod Diameter	Outside Diameter	Groove Height
KBM-	100 x	112.7 x	5.3
	100 mm	112.7 mm	5.3 mm

INCH Part No.	Wiper Dimensions	Groove Dimensions			Price
	Rod Dia. d	+0.005 -0.000 D	+0.005 -0.000 L	+0.000 -0.005 F	
KB-1000	1.000	1.500	0.208	1.250	\$4.11
KB-1000R	1.000	1.500	0.208	1.250	\$8.70
KB-1125	1.125	1.625	0.208	1.375	\$4.39
KB-1250	1.250	1.750	0.208	1.500	\$4.26
KB-1500	1.500	2.000	0.208	1.750	\$4.57
KB-1750	1.750	2.250	0.208	2.000	\$4.65
KB-1875	1.875	2.375	0.208	2.125	\$5.14
KB-2000	2.000	2.500	0.208	2.250	\$4.89
KB-2125	2.125	2.625	0.208	2.375	\$6.29
KB-2250	2.250	2.750	0.208	2.500	\$6.08
KB-2500	2.500	3.000	0.208	2.750	\$6.29
KB-2750	2.750	3.250	0.208	3.000	\$5.90
KB-3000	3.000	3.500	0.208	3.250	\$6.10

METRIC Part No.	Wiper Dimensions	Groove Dimensions			Price
	Rod Dia. d	+0.1 -0.0 D	+0.1 -0.0 L	+0.0 -0.1 F	
KBM-25X37.7X5.3	25	37.7	5.3	26.40	\$3.99
KBM-25X37.7X5.3R	25	37.7	5.3	26.40	\$8.04
KBM-40X52.7X5.3	40	52.7	5.3	46.40	\$5.56
KBM-45X57.7X5.3	45	57.7	5.3	51.40	\$5.99
KBM-50X62.7X5.3	50	62.7	5.3	46.40	\$6.40
KBM-56X68.7X5.3	56	68.7	5.3	62.40	\$7.01
KBM-60X72.7X5.3	60	72.7	5.3	66.40	\$7.13
KBM-60X72.7X5.3R	60	72.7	5.3	66.40	\$11.46
KBM-63X77.7x5.3	63	77.7	5.3	69.40	\$7.52
KBM-80X92.7x5.3	80	92.7	5.3	86.40	\$7.97
KBM-85X97.7x5.3	85	97.7	5.3	91.40	\$9.99
KBM-100X112.7x5.3	100	112.7	5.3	106.40	\$12.05
KBM-110x122.7x5.3	110	122.7	5.3	116.40	\$13.82

# 7580 Double Lip Nitrile Wipers - Inch

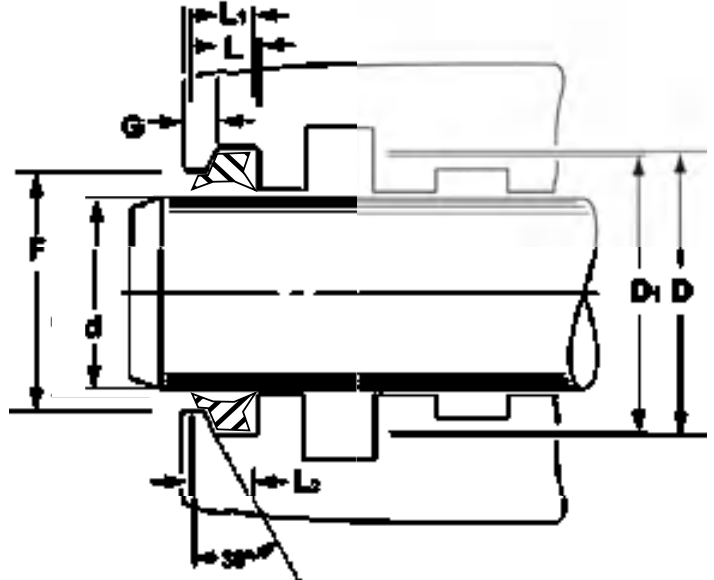


**ALTERNATIVE SEALS:**  
K Wiper

7580 type double lip wiper seal rings are one piece snap-in rod wipers made from 80 durometer nitrile. They fit grooves with a 30° tapered top surface. As the external lip scrapes dust and dirt from the rod, the secondary lip traps slight leakage that may pass the rod seal.

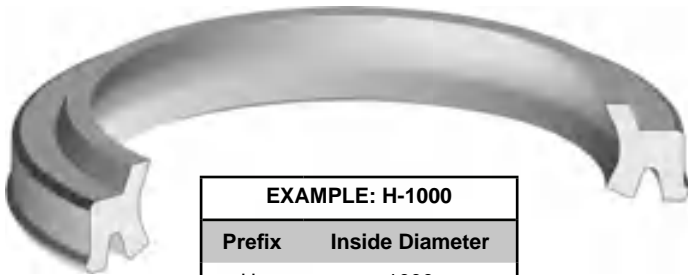
Temperature: -40° to 250°F

**OEM NUMBERING SYSTEM**

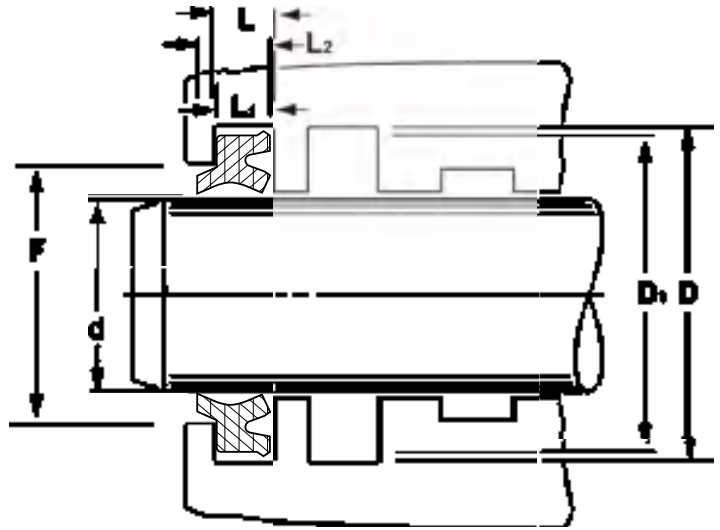


Part Number	Wiper Dimensions		Groove Dimensions				Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	+0.005 -0.000 D	+0.005 -0.000 L	+0.005 -0.000 F	+0.005 -0.000 G	
7580-00840	0.500	0.750	0.760	0.155	0.621	0.250	\$6.77
7580-10060	1.000	1.375	1.385	0.195	1.077	0.345	\$8.24
7580-10860	1.500	1.875	1.885	0.195	1.577	0.345	\$8.59
7580-11260	1.750	2.125	2.135	0.195	1.827	0.345	\$13.09
7580-11561	1.937	2.313	2.322	0.195	2.014	0.345	\$16.21
7580-20060	2.000	2.375	1.384	0.195	2.077	0.345	\$13.25
7580-20481	2.210	2.750	2.760	0.255	2.452	0.400	\$19.72
7580-20460	2.250	2.625	2.635	0.195	2.327	0.345	\$20.89
7580-20781	2.437	3.000	3.010	0.286	2.633	0.468	\$22.06
7580-20880	2.450	3.000	3.010	0.286	2.646	0.468	\$27.20
7580-20881	2.500	3.000	3.010	0.255	2.652	0.443	\$10.21
7580-21281	2.750	3.250	3.260	0.255	2.902	0.443	\$17.92
7580-30061	2.980	3.355	3.365	0.195	3.057	0.345	\$15.50
7580-30381	3.165	3.734	3.744	0.255	3.317	0.443	\$18.38
7580-30880	3.450	4.000	4.010	0.280	3.646	0.463	\$28.80
7580-30862	3.500	3.875	3.885	0.195	3.577	0.345	\$34.13
7580-40080	3.950	4.500	4.510	0.280	4.146	0.463	\$20.42
7580-40081	4.000	4.500	4.510	0.255	4.152	0.443	\$23.83
7580-40881	4.500	5.000	5.010	0.255	4.652	0.443	\$34.26
7580-41581	4.925	5.489	5.499	0.286	5.121	0.468	\$29.08
7580-50081	5.000	5.500	5.499	0.255	5.157	0.443	\$30.44
7580-51280	5.700	6.250	6.260	0.280	5.896	0.463	\$36.78
7580-80081	8.000	8.500	8.510	0.255	8.152	0.443	\$37.33

# H Double Lip Urethane Wipers - Inch



EXAMPLE: H-1000	
Prefix	Inside Diameter
H-	1000
	1"



H type double lip wipers are one piece snap-in type rod wipers made from 90 durometer urethane. Wiping and sealing functions can be performed from a single component in low pressure systems. As the external lip scrapes foreign matter from the rod, the other lip acts as an effective pressure seal in low pressure pneumatic applications and a secondary seal to trap slight leakage in hydraulic systems.

Temperature: -65° to 200°F

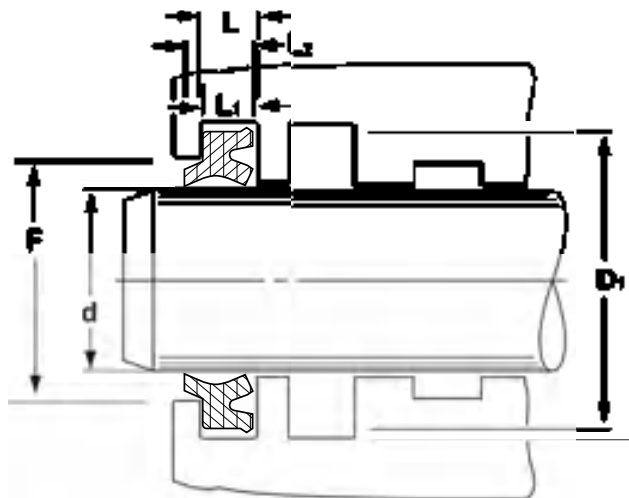
ALTERNATIVE SEALS:  
8600 (RUBBER)

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.002 -0.000 D	+0.005 -0.000 L	+0.002 -0.000 F	
H-0250	0.250	0.562	0.194	0.245	0.552	0.203	0.370	\$3.09
H-0312	0.312	0.625	0.194	0.245	0.615	0.203	0.432	\$3.09
H-0375	0.375	0.687	0.194	0.245	0.677	0.203	0.495	\$3.18
H-0500	0.500	0.812	0.194	0.245	0.802	0.203	0.620	\$3.22
H-0625	0.625	0.937	0.194	0.245	0.927	0.203	0.745	\$3.46
H-0750	0.750	1.062	0.194	0.245	1.052	0.203	0.870	\$3.62
H-0875	0.875	1.250	0.212	0.275	1.240	0.218	1.010	\$3.75
H-1000	1.000	1.375	0.212	0.275	1.365	0.218	1.135	\$3.82
H-1125	1.125	1.500	0.212	0.275	1.490	0.218	1.260	\$3.99
H-1250	1.250	1.625	0.212	0.275	1.615	0.218	1.385	\$4.17
H-1375	1.375	1.750	0.212	0.275	1.740	0.218	1.510	\$4.54
					(+0.003)		(+0.003)	
H-1500	1.500	1.875	0.212	0.275	1.865	0.218	1.635	\$4.89
H-1625	1.625	2.000	0.212	0.275	1.990	0.218	1.760	\$5.05
H-1750	1.750	2.125	0.212	0.275	2.115	0.218	1.885	\$5.23
H-1875	1.875	2.250	0.212	0.275	2.240	0.218	2.010	\$5.72
H-2000	2.000	2.375	0.212	0.275	2.365	0.218	2.135	\$5.83
H-2125	2.125	2.500	0.212	0.275	2.490	0.218	2.260	\$6.15
H-2250	2.250	2.750	0.275	0.351	2.745	0.281	2.385	\$6.27
H-2375	2.375	2.875	0.275	0.351	2.870	0.281	2.510	\$9.12
H-2500	2.500	3.000	0.275	0.351	2.995	0.281	2.635	\$6.60
H-2500-1	2.500	3.000	0.290	0.375	2.995	0.295	2.635	\$9.50
H-2750	2.750	3.250	0.275	0.351	3.245	0.281	2.885	\$7.50
H-3000	3.000	3.500	0.275	0.351	3.495	0.281	3.135	\$8.42
H-3250	3.250	3.750	0.275	0.351	3.745	0.281	3.385	\$9.54
H-3500	3.500	4.000	0.275	0.351	3.995	0.281	3.635	\$9.99
H-3500-1	3.500	4.000	0.290	0.375	3.995	0.295	3.635	\$10.54
H-3625	3.625	4.125	0.275	0.351	4.120	0.281	3.760	\$12.55

## H Double Lip Urethane Wipers - Inch, cont'd.

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.03 -0.00 D	+0.05 -0.00 L	+0.03 -0.00 F	
H-3750	3.750	4.250	0.275	0.351	4.245	0.281	3.885	\$13.05
H-3875	3.875	4.375	0.275	0.351	4.370	0.281	4.010	\$13.59
H-4000	4.000	4.500	0.275	0.351	4.495	0.281	4.135	\$10.95
H-4500	4.500	5.000	0.275	0.351	4.995	0.281	4.635	\$12.33
H-4500-1	4.500	5.000	0.275	0.375	4.995	0.281	4.635	\$13.75
H-4750	4.750	5.250	0.275	0.351	5.245	0.281	4.885	\$22.21
H-5000	5.000	5.500	0.275	0.351	5.495	0.281	5.135	\$14.82
H-5125	5.125	5.625	0.275	0.351	5.620	0.281	5.260	\$20.64
H-5250	5.250	5.750	0.275	0.351	5.745	0.281	5.385	\$21.74
H-5500	5.500	6.000	0.275	0.351	5.995	0.281	5.635	\$21.96
H-6000	6.000	6.500	0.275	0.351	6.495	0.281	6.135	\$27.47
H-7000	7.000	7.500	0.275	0.351	7.495	0.281	7.135	\$29.64
H-8000	8.000	8.500	0.275	0.351	8.495	0.281	8.135	\$43.59
H-8500	8.500	9.000	0.275	0.351	8.995	0.281	8.635	\$48.05
H-10000	10.000	10.500	0.275	0.351	10.495	0.281	10.135	\$60.58
H-17500	17.500	18.000	0.275	0.351	17.995	0.281	17.635	\$142.92

## Special High Lip H Wipers - Inch



These urethane wipers are used in car carrier cylinder applications.

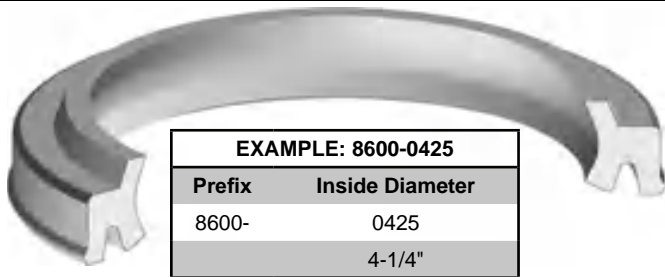
Temperature: -65°F to 200°F

ALTERNATIVE SEALS:  
H WIPER

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Price
2537-150	1.500	1.875	0.218	0.406	\$6.36
2537-200	2.000	2.375	0.218	0.406	\$6.65

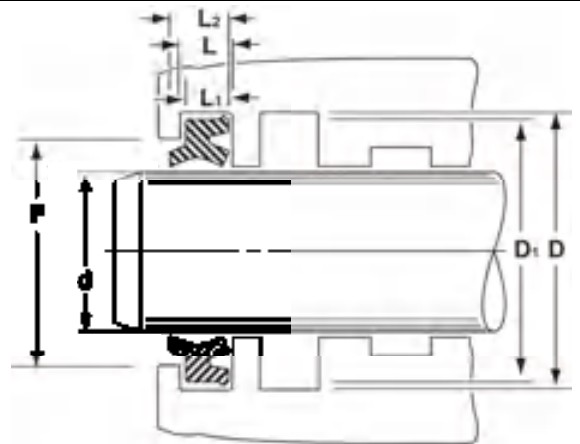
EXAMPLE: 2537-150	
Prefix	Inside Diameter
2537-	150
	1-1/2"

# 8600 Double Lip Nitrile Wipers - Inch



8600 type double lip wipers are one piece snap-in type rod wipers made from 90 durometer nitrile. Parts with a "V" suffix are 90A FKM. Wiping and sealing functions can be performed from a single component in low pressure systems. As the outer lip scrapes foreign matter from the rod, the inner lip acts as an effective pressure seal in low pressure pneumatic applications and a secondary seal to trap slight leakage in hydraulic systems. We recommend the use of the 8600 type nitrile wiper over the H type urethane wiper when using a nitrile rod seal.

Temperature: -40°F to 250°F



ALTERNATIVE SEALS:  
H (URETHANE)

Parts marked with suffix "V" are FKM

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.002 -0.000 D	+0.005 -0.000 L	+0.002 -0.000 F	
8600-0037	0.375	0.687	0.194	0.245	0.677	0.203	0.495	\$3.32
8600-0050	0.500	0.812	0.194	0.245	0.802	0.203	0.620	\$3.06
8600-0062	0.625	0.937	0.194	0.245	0.927	0.203	0.745	\$3.58
8600-0062V	0.625	0.937	0.194	0.245	0.927	0.203	0.745	\$12.48
8600-0075	0.750	1.062	0.194	0.245	1.052	0.203	0.870	\$4.69
8600-0087	0.875	1.250	0.212	0.275	<u>+0.003</u> 1.240	0.218	<u>+0.003</u> 1.010	\$12.39
8600-0087V	0.875	1.250	0.212	0.275	1.240	0.218	1.010	\$28.57
8600-0100	1.000	1.375	0.212	0.275	1.365	0.218	1.135	\$3.79
8600-0100V	1.000	1.375	0.212	0.275	1.365	0.218	1.135	\$13.18
8600-0112	1.125	1.500	0.212	0.275	1.490	0.218	1.260	\$5.22
8600-0125	1.250	1.625	0.212	0.275	1.615	0.218	1.385	\$4.12
8600-0125V	1.250	1.625	0.212	0.275	1.615	0.218	1.385	\$27.51
8600-0137	1.375	1.750	0.212	0.275	1.740	0.218	1.510	\$4.47
8600-0137 CN80	1.375	1.750	0.212	0.275	1.740	0.218	1.510	\$16.53
8600-0137V	1.375	1.750	0.212	0.275	1.740	0.218	1.510	\$23.14
8600-0150	1.500	1.875	0.212	0.275	1.865	0.218	1.635	\$4.94
8600-0150V	1.500	1.875	0.212	0.275	1.865	0.218	1.635	\$38.98
8600-0162	1.625	2.000	0.212	0.275	1.990	0.218	1.760	\$22.76
8600-0175	1.750	2.125	0.212	0.275	2.115	0.218	1.885	\$5.19
8600-0175V	1.750	2.125	0.212	0.275	2.115	0.218	1.885	\$33.73
8600-0187	1.875	2.250	0.212	0.275	2.240	0.218	2.010	\$17.56
8600-0200	2.000	2.375	0.212	0.275	2.365	0.218	2.135	\$5.83
8600-0200V	2.000	2.375	0.212	0.275	2.365	0.218	2.135	\$18.17
8600-0212	2.125	2.500	0.212	0.275	2.490	0.218	2.260	\$5.88
8600-0250	2.500	3.000	0.275	0.351	2.995	0.281	2.635	\$5.36
8600-0250-187	2.500	2.875	0.187	0.282	2.870	0.212	2.635	\$20.44
8600-0250-4183	2.500	3.000	0.275	0.351	2.995	0.281	2.635	\$42.60
8600-0250V	2.500	3.000	0.275	0.351	2.995	0.281	2.635	\$21.08
8600-0268	2.688	3.188	0.275	0.351	3.183	0.281	2.823	\$31.51
8600-0275	2.750	3.250	0.275	0.351	3.245	0.281	2.885	\$22.61
8600-0275V	2.750	3.250	0.275	0.351	3.245	0.281	2.885	\$89.80
8600-0293	2.937	3.438	0.275	0.351	3.433	0.281	3.073	\$25.28
8600-0300	3.000	3.500	0.275	0.351	3.495	0.281	3.135	\$8.49
8600-0300V	3.000	3.500	0.275	0.351	3.495	0.281	3.135	\$26.94
8600-0325	3.250	3.750	0.275	0.351	3.745	0.281	3.385	\$27.77
8600-0343	3.437	3.938	0.275	0.351	3.932	0.281	3.572	\$28.88

## 8600 Double Lip Nitrile Wipers - Inch, cont'd.

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.002 -0.000 D	+0.005 -0.000 L	+0.002 -0.000 F	
8600-0350	3.500	4.000	0.275	0.351	3.995	0.281	3.635	\$9.69
8600-0350V	3.500	4.000	0.275	0.351	3.995	0.281	3.635	\$33.90
8600-0375	3.750	4.250	0.275	0.351	4.245	0.281	3.885	\$31.33
8600-0400	4.000	4.500	0.275	0.351	4.495	0.281	4.135	\$11.22
8600-0400V	4.000	4.500	0.275	0.351	4.495	0.281	4.135	\$36.13
8600-0400-4207	4.000	4.500	0.275	0.351	4.495	0.281	4.135	\$33.91
8600-0425	4.250	4.750	0.275	0.351	4.745	0.281	4.385	\$31.95
8600-0443	4.438	4.938	0.275	0.351	4.933	0.281	4.573	\$40.60
8600-0450	4.500	5.000	0.275	0.351	4.995	0.281	4.635	\$11.74
8600-0450V	4.500	5.000	0.275	0.351	4.995	0.281	4.635	\$47.28
8600-0475	4.750	5.250	0.275	0.351	5.245	0.281	4.885	\$24.13
8600-0500	5.000	5.500	0.275	0.351	5.495	0.281	5.135	\$12.25
8600-0500V	5.000	5.500	0.275	0.351	5.495	0.281	5.135	\$65.92
8600-0518	5.188	5.688	0.275	0.351	5.683	0.281	5.323	\$46.11
8600-0550	5.500	6.000	0.275	0.351	5.995	0.281	5.635	\$40.09
8600-0550V	5.500	6.000	0.275	0.351	5.995	0.281	5.635	\$64.64
8600-0600	6.000	6.500	0.275	0.351	6.495	0.281	6.135	\$42.63
8600-0637	6.375	6.875	0.275	0.351	6.870	0.281	6.510	\$61.77
8600-0675	6.750	7.250	0.275	0.351	7.245	0.281	6.885	\$63.93
8600-0700	7.000	7.500	0.275	0.351	7.495	0.281	7.135	\$39.31
8600-0800	8.000	8.500	0.275	0.351	8.495	0.281	8.135	\$54.69
8600-0900	9.000	9.500	0.275	0.351	9.495	0.281	9.135	\$63.76
8600-0975	9.750	10.250	0.275	0.351	10.245	0.281	9.885	\$70.87
8600-1000	10.000	10.500	0.275	0.351	10.495	0.281	10.135	\$76.93

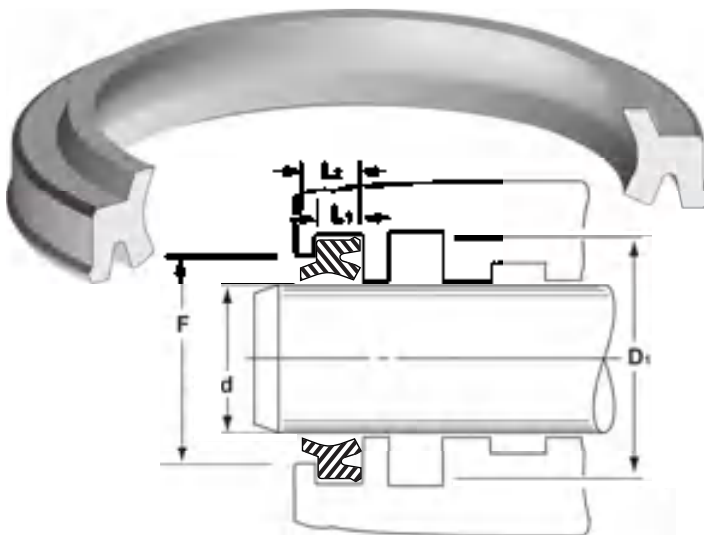
## SDR Double Lip Nitrile Wipers - Metric

SDR type double lip wipers are one piece snap-in type rod wipers made from 90 durometer nitrile. Wiping and sealing functions can be performed from a single component in low pressure systems. As the outer lip scrapes foreign matter from the rod, the inner

lip acts as an effective pressure seal in low pressure pneumatic applications and a secondary seal to trap slight leakage in hydraulic systems. We recommend the use of the SDR type nitrile wiper over the AY type urethane wiper when using a nitrile rod seal.

Temperature: -40° to 250°F

Parts marked with suffix "V" are FKM

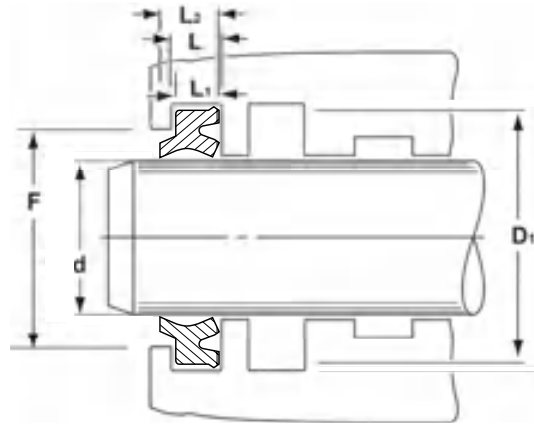


ALTERNATIVE SEALS:  
AY (URETHANE), A40, 842

EXAMPLE: SDR-18	
Prefix	Inside Diameter
SDR-	18
	18mm

Part Number	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Price
SDR-16A	16	22	3.5	5.0	\$4.19
SDR-16	16	24	4.3	6.0	\$4.53
SDR-18	18	26	4.5	7.0	\$14.23
SDR-22.4	22.4	30.4	4.5	6.0	\$14.61
SDR-25	25	33	4.5	6.0	\$14.95
SDR-28V	28	36	4.5	6.0	\$20.88
SDR-35	35	43	5.0	6.5	\$15.83
SDR-35.5	35.5	43.5	5.0	7.0	\$16.14
SDR-36	36	44	5.0	7.0	\$16.66
SDR-40	40	48	5.0	7.0	\$16.93
SDR-50	50	58	5.0	6.5	\$18.40
SDR-53	53	61	5.0	6.5	\$18.82
SDR-55/1	55	63	5.0	6.5	\$19.36
SDR-60	60	68	5.0	6.5	\$20.01
SDR-63	63	73	5.0	7.0	\$20.57
SDR-70	70	80	5.0	7.0	\$21.24
SDR-112	112	122	6.0	8.0	\$32.17
SDR-125	125	138	6.0	8.0	\$56.38
SDR-140	140	153	7.0	9.5	\$97.34
SDR-190	190	203	7.0	9.5	\$108.20

# AY Double Lip Urethane Wipers - Metric



EXAMPLE: AY-45X53X5

Prefix	Inside Diameter		Outside Diameter		Base Height
AY-	45	x	53	x	5
	45mm		53mm		5mm

**ALTERNATIVE SEALS:**  
A40, 842, SDR (Rubber)

AY type double lip are one piece snap-in type rod wipers made from 90 durometer urethane. Wiping and sealing functions can be performed from a single component in low pressure systems. As the outside lip scrapes foreign matter from the rod, the other lip acts as an effective pressure seal in low pressure pneumatic applications and a secondary seal to trap slight leakage in hydraulic systems.

Temperature: -40° to 230°F

Part Number	Rod Dia. d	O.D. D <sub>1</sub>	Base HT L <sub>1</sub>	Groove Dimensions		Price
				±0.1 L	±0.1 F	
AY-12X18X3.6	12	18	3.6	4		\$5.86
AY-14X22X4.5	14	22	4.5	5		\$4.56
AY-14X24X5	14	24	5	5.5		\$11.89
AY-16X22X3.6	16	22	3.6	4		\$3.77
AY-18X26X4.5	18	26	4.5	5	22.3	\$3.19
AY-20X26X4	20	26	4	4.5		\$3.65
AY-20X28X4.5	20	28	4.5	5	24.3	\$3.31
AY-22X28X3.6	22	28	3.6	4	24.5	\$6.33
AY-22X28X3.6X4.8 V8522	22	28	3.6	4	24.5	\$26.59
AY-22X30X4.5	22	30	4.5	5	24.5	\$6.40
AY-22X30X5	22	30	5	5.5		\$5.84
AY-23.5X31.5X4.5	23.5	31.5	4.5	5		\$3.46
AY-25X31X3.6	25	31	3.6	4	27.5	\$5.87
AY-25X33X4.5	25	33	4.5	5	29.3	\$3.64
AY-25X33X5	25	33	5	5.5		\$4.83
AY-26X32X2.5	26	32	2.5	3		\$3.80
AY-28X36X4.5	28	36	4.5	5	32.3	\$3.45
AY-30X38X4.5	30	38	4.5	5	34	\$21.20
AY-30X38X5	30	38	5	5.5	34.3	\$3.59
AY-30X38X5X6.5 V85	30	38	5	5.5	34.3	\$26.04
AY-30X38.6X5.3	30	38.6	5.3	6		\$3.59
AY-31.5X39.5X5	31.5	39.5	5	5.5	35.8	\$8.88
AY-32X40X4	32	40	4	4.5		\$5.44
AY-32X40X5	32	40	5	5.5	36.3	\$5.44
AY-35X43X5	35	43	5	5.5	39.3	\$4.81

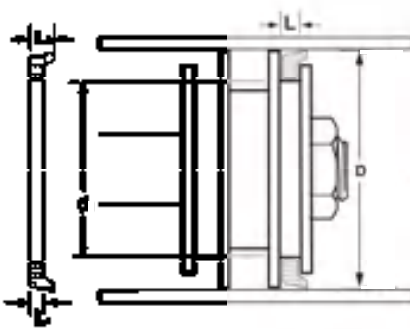
Part Number	Rod Dia. d	O.D. D <sub>1</sub>	Base HT L <sub>1</sub>	Groove Dimensions		Price
				±0.1 L	±0.1 F	
AY-35.5X43.5X5	35.5	43.5	5	5.5	39.8	\$6.30
AY-36X44X5	36	44	5	5.5		\$7.20
AY-38X46X5	38	46	5	5.5		\$15.71
AY-40X48X5	40	48	5	5.5	44.3	\$5.16
AY-40X48.6X5.3	40	48.6	5.3	6		\$16.99
AY-42X50X4.5	42	50	4.5	5		\$17.01
AY-45X53X5	45	53	5	5.5	49.3	\$5.58
AY-50X58X4.5	50	58	4.5	5.5	54	\$10.64
AY-50X58X5	50	58	5	5.5	54.3	\$5.66
AY-53X61X5	53	61	5	5.5	57.3	\$9.84
AY-55X63X5	55	63	5	5.5	59.3	\$6.62
AY-55X65X5	55	65	5	5.5		\$9.37
AY-56X64X5	56	64	5	5.5	60.3	\$6.40
AY-56X66X5.5	56	66	5.5	6		\$7.48
AY-60X68X5	60	68	5	5.5		\$7.81
AY-60X70X5	60	70	5.3	5.5	65	\$7.10
AY-63X71X5	63	71	5	5.5	67.3	\$11.22
AY-63X73X5.3	63	73	5.3	5.8		\$12.94
AY-65X73X5	65	73	5	5.5	69.3	\$6.98
AY-65X75X5	65	75	5	5.5		\$9.20
AY-70X78.6X5.3	70	78.6	5.3	6		\$12.86
AY-70X80X5	70	80	5	5.5		\$8.72
AY-70X80X5.3	70	80	5.3	5.6		\$8.22
AY-70X80X6	70	80	6	7	75	\$8.31
AY-71X81X6	71	81	6	7	76	\$8.32

## AY Double Lip Metric Urethane Wipers - Metric, cont'd.

Part Number	Rod Dia. d	O.D. D <sub>1</sub>	Base HT L <sub>1</sub>	Groove Dimensions		Price
				±0.1 L	±0.1 F	
				AY-75X83.6X5.3	75	
AY-75X85X5	75	85	5	5.5	\$8.43	
AY-75X85X6	75	85	6	7	\$8.91	
AY-75X87X7	75	87	7	8	\$8.43	
AY-80X88.6X5	80	88.6	5	5.5	\$17.51	
AY-80X90X6	80	90	6	7	\$9.18	
AY-80X90X7	80	90	7	8	\$9.73	
AY-80X92X7	80	92	7	8	\$10.02	
AY-85X95X6	85	95	6	7	\$9.41	
AY-90X100X6	90	100	6	7	\$9.80	
AY-90X102X7	90	102	7	8	\$8.96	
AY-95X107X7	95	107	7	7.5	\$9.25	
AY-98X108X6	98	108	6	7	\$12.92	
AY-100X110X6	100	110	6	7	\$14.33	
AY-107X117X5	107	117	5	5.5	\$21.95	
AY-110X120X6	110	120	6	7	\$13.49	
AY-110X122.2X7.1	110	122.2	7.1	7.1	\$25.70	
AY-115X125X6	115	125	6	7	\$26.96	
AY-118X128X6	118	128	6	7	\$28.61	
AY-120X130X6	120	130	6	7	\$28.61	
AY-120X130X7	120	130	7	8	\$37.21	
AY-125X138X7	125	138	7	8	\$16.97	
AY-130X143X7	130	143	7	8	\$16.87	

Part Number	Rod Dia. d	O.D. D <sub>1</sub>	Base HT L <sub>1</sub>	Groove Dimensions		Price
				±0.1 L	±0.1 F	
				AY-132X145X7	132	
AY-136X149X7	136	149	7	8	\$18.22	
AY-140X153X7	140	153	7	8	\$18.75	
AY-140X155X7.5	140	155	7.5	8	\$45.29	
AY-150X163X7	150	163	7	8	\$39.79	
AY-155X168X7	155	168	7	8	\$52.54	
AY-160X173X7	160	173	7	8	\$44.56	
AY-170X183X7	170	183	7	8	\$126.85	
AY-175X188X7	175	188	7	8	\$63.23	
AY-180X193X7	180	193	7	8	\$63.43	
AY-190X203X7	190	203	7	8	\$25.68	
AY-200X213X7	200	213	7	8	\$74.46	
AY-204X218X7	204	218	7	8	\$25.38	
AY-205X215X7	205	215	7	8	\$26.75	
AY-210X223X7	210	223	7	8	\$77.93	
AY-220X233X7	220	233	7	8	\$80.14	
AY-230X243X7	230	243	7	8	\$87.83	
AY-230X244X7	230	244	7	8	\$34.27	
AY-240X256X9	240	256	9	10	\$133.84	
AY-250X263X7	250	263	7	8	\$33.92	
AY-250X265X9	250	265	9	10	\$137.44	
AY-260X275X9	260	275	9	10	\$148.12	
AY-270X285X9	270	285	9	10	\$153.83	

## O.D. Lip Urethane Wipers - Inch & Metric



Temperature: -65° to 200°F

Part Number	Outside Dia./Bore D	Groove Dia. d	Seal Base Ht L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Price
994480	60MM	50MM	3MM	8MM	\$13.57
994422	3.625	3.125	0.125	0.250	\$14.58

Part Number	Outside Dia./Bore D	Groove Dia. d	Seal Base Ht L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Price
994553	4.000	3.500	0.125	0.205	\$15.69
994554	5.000	4.500	0.125	0.205	\$16.61



# ASC Nitrile Wipers - Inch

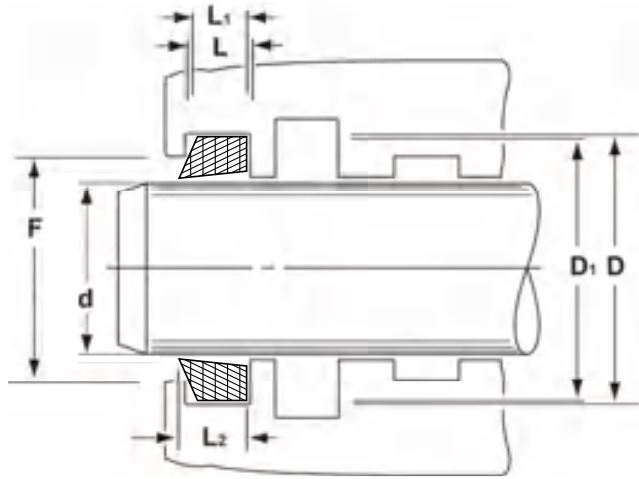


ASC style wipers are normally found in lighter duty applications for reciprocating rods. Standard material is 90 durometer nitrile. Parts without "N" Suffix are urethane.

Temperature: -40° to 250°F

### AN NUMBERING SYSTEM

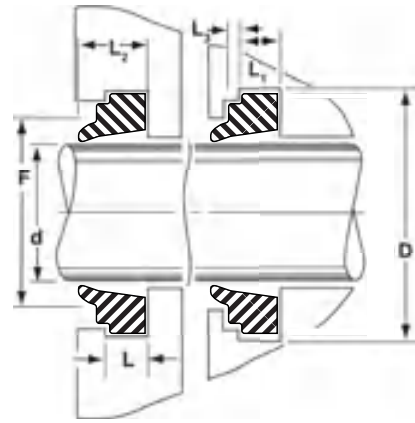
EXAMPLE: ASC-1N		
Prefix	Inside Diameter	Suffix
ASC-	1	N
	1/2"	NBR



Part Number	Inch Sizes					Price
	Wiper Dimensions		Groove Dimensions			
	Rod Dia. d	Outside Dia. D <sub>1</sub>	±.005 D	±.010 L	±.005 F	
ASC-1N	0.500	0.680	0.680	0.130	0.560	\$8.91
ASC-3N	0.625	0.820	0.820	0.140	0.700	\$8.91
ASC-5N	0.750	0.950	0.950	0.140	0.820	\$8.98
ASC-9N	1.000	1.240	1.240	0.160	1.080	\$9.24
ASC-11N	1.125	1.360	1.360	0.160	1.210	\$9.24
ASC-13N	1.250	1.475	1.475	0.170	1.330	\$9.24
ASC-15N	1.375	1.625	1.625	0.170	1.460	\$9.90
ASC-17N	1.500	1.770	1.770	0.180	1.590	\$10.77
ASC-21N	1.750	2.030	2.030	0.190	1.850	\$11.04
ASC-25N	2.000	2.300	2.300	0.200	2.100	\$11.81
ASC-26N	2.125	2.430	2.430	0.210	2.230	\$12.62
ASC-27N	2.250	2.570	2.570	0.210	2.360	\$12.80
ASC-28N	2.375	2.700	2.700	0.220	2.490	\$13.03
ASC-31N	2.750	3.102	3.102	0.230	2.850	\$13.33
ASC-33N	3.000	3.380	3.380	0.240	3.130	\$13.59
ASC-34N	3.125	3.510	3.510	0.250	3.260	\$14.65
ASC-35N	3.250	3.646	3.646	0.250	3.390	\$15.58
ASC-37N	3.500	3.920	3.920	0.270	3.640	\$16.71
ASC-7	0.875	1.075	1.075	0.150	0.950	\$9.09
ASC-11	1.125	1.360	1.360	0.160	1.210	\$9.24
ASC-26	2.125	2.430	2.430	0.210	2.230	\$12.62
ASC-28	2.375	2.700	2.700	0.220	2.490	\$13.03
ASC-33	3.000	3.380	3.380	0.240	3.130	\$13.59
ASC-34	3.125	3.510	3.510	0.250	3.260	\$14.65

Other sizes are available upon request.

# A41 Urethane & Nitrile Wipers - Metric



**EXAMPLE: A41-16X24X4 P90**

Prefix	Inside Diameter		Outside Diameter		Base Height	Suffix
A41-	16	x	24	x	4	P90
	16mm		24mm		4mm	90A PU

A41 series European wipers are made from either 90 durometer nitrile or urethane designated by P90 in the part number. The function of the A41 style wiper is to keep dust, dirt, grains of sand, and metal chips from penetrating the rod gland. This is achieved by a special design which prevents the development of chamfers, protects the

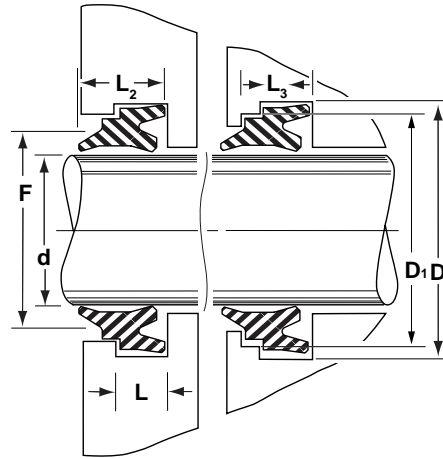
guiding parts, and extends the working life of the seals. Oversized diameters ensure a tight fit in the groove recess, thus preventing the penetration of foreign particles and dampness.

Temperature: -40° to 230°F

Part Number	Rod Dia. d	Grov. Dia. D	Grov. HT L	Total Seal Ht L <sub>2</sub>	Groove Dimensions		Price
					F	L <sub>3</sub>	
A41-4X12X4	4	12	4	7	10	1	\$2.41
A41-8X16X4	8	16	4	7	14	1	\$2.47
A41-10X18X4	10	18	4	7	16	1	\$2.93
A41-12X18X2.6	12	18	2.6	5	16	1	\$2.47
A41-12X20X4	12	20	4	7	18	1	\$2.49
A41-14X22X4	14	22	4	7	20	1	\$2.51
A41-15X23X4	15	23	4	7	21	1	\$2.52
A41-16X24X4	16	24	4	7	22	1	\$2.47
A41-16X24X4 P90	16	24	4	7	22	1	\$2.32
A41-18X26X4	18	26	4	7	24	1	\$2.52
A41-18X26X4 P90	18	26	4	7	24	1	\$4.80
A41-20X28X4	20	28	4	7	26	1	\$3.15
A41-20X28X4 P90	20	28	4	7	26	1	\$3.15
A41-20X28X4X7 V85GR	20	28	4	7	26	1	\$14.18
A41-22X30X4	22	30	4	7	28	1	\$2.58
A41-24X32X4	24	32	4	7	30	1	\$2.58
A41-25X33X4	25	33	4	7	31	1	\$2.58
A41-28X36X4	28	36	4	7	34	1	\$2.87
A41-28X36X4 P90	28	36	4	7	34	1	\$2.87
A41-30X38X4	30	38	4	7	36	1	\$3.47
A41-32X40X4	32	40	4	7	38	1	\$3.54
A41-32X40X4 P90	32	40	4	7	38	1	\$2.87
A41-35X43X4	35	43	4	7	41	1	\$3.14
A41-36X44X4	36	44	4	7	42	1	\$3.25
A41-38X46X4	38	46	4	7	44	1	\$3.46
A41-40X48X4	40	48	4	7	46	1	\$3.46
A41-40X48X4 P90	40	48	4	7	46	1	\$3.46
A41-42X50X4	42	50	4	7	48	1	\$3.56
A41-44X52X4	44	52	4	7	50	1	\$3.41
A41-45X53X4	45	53	4	7	51	1	\$3.56
A41-45X53X4 P90	45	53	4	7	51	1	\$3.26
A41-48X56X4	48	56	4	7	54	1	\$4.33
A41-50X58X4	50	58	4	7	56	1	\$4.80
A41-50X58X4 P90	50	58	4	7	56	1	\$4.79
A41-50X62X5.5	50	62	5.5	10	59	1.5	\$4.79
A41-52X60X4	52	60	4	7	58	1	\$4.29
A41-54X62X4	54	62	4	7	60	1	\$4.43
A41-55X63X4	55	63	4	7	61	1	\$4.57
A41-55X63X4 P90	55	63	4	7	61	1	\$4.70
A41-56X64X4	56	64	4	7	62	1	\$4.65

PART NUMBER	Rod Dia. d	Grov. Dia. D	Grov. HT L	Total Seal Ht L <sub>2</sub>	Groove Dimensions		Price
					F	L <sub>3</sub>	
A41-56X64X4 P90	56	64	4	7	62	1	\$6.87
A41-60X68X4	60	68	4	7	66	1	\$4.65
A41-60X68X4 P90	60	68	4	7	66	1	\$4.40
A41-60X72X5.5	60	72	5.5	10	69	1.5	\$6.58
A41-62X70X4	62	70	4	7	68	1	\$4.98
A41-63X71X4	63	71	4	7	69	1	\$4.73
A41-63X71X4 P90	63	71	4	7	69	1	\$4.40
A41-65X73X4	65	73	4	7	71	1	\$4.99
A41-70X78X4	70	78	4	7	76	1	\$5.17
A41-70X78X4 P90	70	78	4	7	76	1	\$3.84
A41-75X83X4	75	83	4	7	81	1	\$5.64
A41-80X88X4	80	88	4	7	86	1	\$5.81
A41-80X88X4 P90	80	88	4	7	86	1	\$6.10
A41-85X93X4	85	93	4	7	91	1	\$5.22
A41-90X98X4	90	98	4	7	96	1	\$8.74
A41-100X108X4	100	108	4	7	106	1	\$5.98
A41-110X118X4	110	118	4	7	116	1	\$10.50
A41-110X122X5.5	110	122	5.5	10	119	1.5	\$11.83
A41-115X127X5.5	115	127	5.5	10	124	1.5	\$22.41
A41-120X132X5.5	120	132	5.5	10	129	1.5	\$12.68
A41-125X137X5.5	125	137	5.5	10	134	1.5	\$13.12
A41-130X142X5.5	130	142	5.5	10	140	1.5	\$13.34
A41-140X152X5.5	140	152	5.5	10	149	1.5	\$16.11
A41-150X162X5.5	150	162	5.5	10	159	1.5	\$20.94
A41-150X162X5.5 P90	150	162	5.5	10	159	1.5	\$21.95
A41-155X167X5.5	155	167	5.5	10	165	1.5	\$17.84
A41-160X172X5.5	160	172	5.5	10	169	1.5	\$24.87
A41-170X182X5.5 P90	170	182	5.5	10	180	1.5	\$72.22
A41-180X192X5.5	180	192	5.5	10	189	1.5	\$27.59
A41-180X192X5.5 P90	180	192	5.5	10	189	2	\$30.37
A41-190X202X5.5	190	202	5.5	10	199	1.5	\$42.55
A41-200X212X5.5	200	212	5.5	10	209	1.5	\$40.39
A41-210X225X6.5	210	225	6.5	13	221	2	\$41.46
A41-220X235X6.5	220	235	6.5	13	231	2	\$46.46
A41-240X255X6.5	240	255	6.5	13	251	2	\$124.69
A41-250X265X6.5	250	265	6.5	13	261	2	\$105.92
A41-300X315X6.5	300	315	6.5	13	311	2	\$95.38
A41-310X325X6.5	310	325	6.5	13	321	2	\$175.47
A41-325X340X6.5	325	340	6.5	13	339	2	\$182.16
A41-450X465X6.5	450	465	6.5	13	461	2	\$249.48

# DA17 Nitrile Wipers - Metric



**ALTERNATIVE SEALS:**  
AY, A41, A40

EXAMPLE: DA17-0100	
Prefix	Inside Diameter
DA17-	0100
	10mm

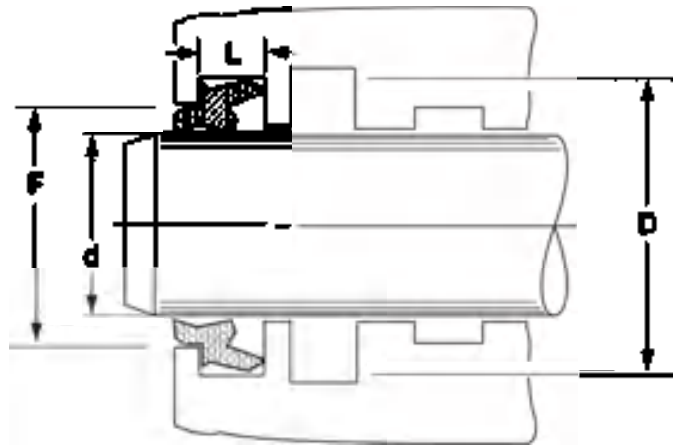
The DA17 wiper utilizes an extra step on the heel that adds extra stability, helps maintain consistent wiping pressure, and ensures wiper retention. The u-cup base keeps excess oil inside the cylinder. Standard material is nitrile, but may be available in 90 durometer urethane. Consult sales for sizes not listed.

Temperature: -40° to 230°F

Part No.	Rod Dia. d	Groove Dia D	Groove Height L	L <sub>3</sub>	L <sub>2</sub>	D <sub>1</sub>	F	Price
DA17-0100	10	18	4	6	8	16	13.5	\$3.73
DA17-0120	12	20	4	6	8	18	15.5	\$4.07
DA17-0140	14	22	4	6	8	20	17.5	\$4.07
DA17-0150	15	23	4	6	8	21	18.5	\$4.07
DA17-0160	16	24	4	6	8	22	19.5	\$4.07
DA17-0180	18	26	4	6	8	24	21.5	\$4.07
DA17-0200	20	28	4	6	8	26	23.5	\$4.07
DA17-0220	22	30	4	6	8	28	25.5	\$4.35
DA17-0250	25	33	4	6	8	31	28.5	\$4.35
DA17-0280	28	36	4	6	8	34	31.5	\$4.73
DA17-0300	30	38	4	6	8	36	33.5	\$4.73
DA17-0320	32	40	4	6	8	38	35.5	\$4.86
DA17-0350	35	43	4	6	8	41	38.5	\$5.20
DA17-0360	36	44	4	6	8	42	39.5	\$5.20
DA17-0380	38	46	4	6	8	44	41.5	\$5.43
DA17-0400	40	48	4	6	8	46	43.5	\$5.42
DA17-0420	42	50	4	6	8	48	45.5	\$6.13
DA17-0450	45	53	4	6	8	51	48.5	\$5.50
DA17-0500	50	58	4	6	8	56	53.5	\$5.50
DA17-0550	55	63	4	6	8	61	58.5	\$6.19
DA17-0560	56	64	4	6	8	62	59.5	\$6.37
DA17-0600	60	68	4	6	8	66	63.5	\$6.54
DA17-0630	63	71	4	6	8	69	66.5	\$6.59
DA17-0650	65	73	4	6	8	71	68.5	\$6.77
DA17-0700	70	78	4	6	8	76	73.5	\$6.88
DA17-0750	75	83	4	6	8	81	78.5	\$8.24
DA17-0800	80	88	4	6	8	86	83.5	\$8.49
DA17-0850	85	93	4	6	8	91	88.5	\$8.92
DA17-0900	90	98	4	6	8	96	93.5	\$9.12
DA17-0950	95	103	4	6	8	101	98.5	\$11.12
DA17-1000	100	108	4	6	8	106	103.5	\$9.56
DA17-1050	105	117	5.5	8.2	11	114	110	\$15.90
DA17-1100	110	122	5.5	8.2	11	119	115	\$11.29

Part No.	Rod Dia. d	Groove Dia D	Groove Height L	L <sub>3</sub>	L <sub>2</sub>	D <sub>1</sub>	F	Price
DA17-1150	115	127	5.5	8.2	11	124	120	\$17.89
DA17-1200	120	132	5.5	8.2	11	129	125	\$13.73
DA17-1250	125	137	5.5	8.2	11	134	130	\$14.24
DA17-1300	130	142	5.5	8.2	11	139	135	\$19.13
DA17-1350	135	147	5.5	8.2	11	144	140	\$21.40
DA17-1400	140	152	5.5	8.2	11	149	145	\$26.15
DA17-1450	145	157	5.5	8.2	11	154	150	\$29.25
DA17-1500	150	162	5.5	8.2	11	159	155	\$32.61
DA17-1550	155	167	5.5	8.2	11	164	160	\$38.18
DA17-1600	160	172	5.5	8.2	11	169	165	\$40.79
DA17-1650	165	177	5.5	8.2	11	174	170	\$43.27
DA17-1700	170	182	5.5	8.2	11	179	175	\$51.57
DA17-1750	175	187	5.5	8.2	11	184	180	\$51.58
DA17-1800	180	192	5.5	8.2	11	189	185	\$51.70
DA17-1850	185	197	5.5	8.2	11	194	190	\$51.76
DA17-1900	190	202	5.5	8.2	11	199	195	\$63.38
DA17-1950	195	207	5.5	8.2	11	204	200	\$63.44
DA17-2000	200	212	5.5	8.2	11	209	205	\$63.50
DA17-2050	205	220	6.4	9.5	13	216	212	\$64.97
DA17-2100	210	225	6.4	9.5	13	221	217	\$65.09
DA17-2200	220	235	6.4	9.5	13	231	227	\$82.93
DA17-2250	225	240	6.4	9.5	13	236	232	\$65.40
DA17-2300	230	245	6.4	9.5	13	241	237	\$89.99
DA17-2400	240	255	6.4	9.5	13	251	247	\$92.74
DA17-2500	250	265	6.4	9.5	13	261	257	\$95.13
DA17-2600	260	275	6.4	9.5	13	271	267	\$96.47
DA17-2750	275	290	6.4	9.5	13	286	282	\$97.88
DA17-2800	280	295	6.4	9.5	13	291	287	\$99.05
DA17-2900	290	305	6.4	9.5	13	301	297	\$105.33
DA17-3000	300	315	6.4	9.5	13	311	307	\$108.92
DA17-3200	320	335	6.4	9.5	13	331	327	\$115.61
DA17-3500	350	365	6.4	9.5	13	361	357	\$120.64

## DA24 Urethane Wipers - Metric



Part Number	Rod Dia. d	Grv. Dia. D	Grv. HT L	Throat F	Price
DA24-40X48.8X6.3	40	48.8	6.3	44.4	\$8.23
DA24-45X53.8X6.3	45	53.8	6.3	49.4	\$8.46
DA24-50X58.8X6.3	50	58.8	6.3	58.8	\$8.96
DA24-55X63.8X6.3	55	63.8	6.3	59.4	\$9.15
DA24-56X64.8X6.3	56	64.8	6.3	60.4	\$9.20
DA24-60X68.8X6.3	60	68.8	6.3	64.4	\$9.45
DA24-63X71.8X6.3	63	71.8	6.3	67.4	\$10.01
DA24-65X73.8X6.3	65	73.8	6.3	69.4	\$11.02
DA24-70X82.2X8.1	70	82.2	8.1	76	\$11.46
DA24-75X87.2X8.1	75	87.2	8.1	81	\$12.06
DA24-80X92.2X8.1	80	92.2	8.1	86	\$12.39
DA24-85X97.2X8.1	85	97.2	8.1	91	\$13.64
DA24-90X102.2X8.1	90	102.2	8.1	96	\$15.40
DA24-95X107.2X8.1	95	107.2	8.1	101	\$16.71
DA24-100X112.2X8.1	100	112.2	8.1	106	\$19.35
DA24-105X117.2X8.1	105	117.2	8.1	111	\$20.88
DA24-110X122.2X8.1	110	122.2	8.1	116	\$22.65
DA24-115X127.2X8.1	115	127.2	8.1	121	\$24.39
DA24-120X132.2X8.1	120	132.2	8.1	126	\$26.29
DA24-125X137.2X8.1	125	137.2	8.1	131	\$27.03
DA24-140X156X9.5	140	156.0	9.5	148	\$151.54
DA24-160X176X9.5	160	176.0	9.5	168	\$220.00

The DA24 scraper, made of polyurethane, is double acting. The dynamic scraping lip has an extra sealing edge to keep the oil film in the system while the static sealing lip provides protection against the egress of dirt and fluids

Temperature: -40°F to 230°F

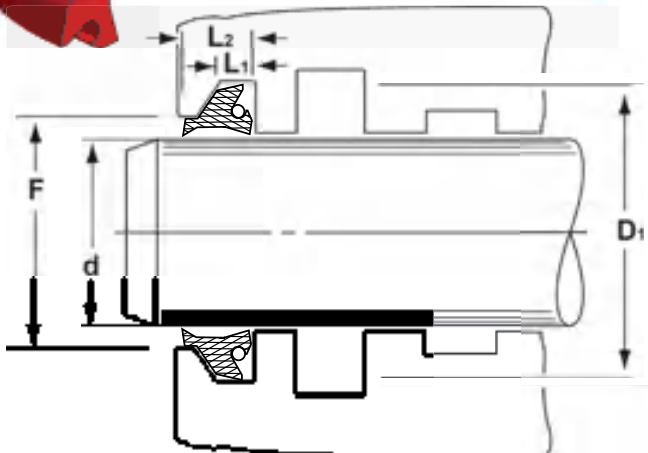
EXAMPLE: DA24-56x64.8x6.3			
Prefix	Inside Diameter	Outside Diameter	Groove Height
DA24-	56	x 64.8	x 6.3
	56mm	64.8mm	6.3mm

## ORK Urethane Wipers - Inch

Used mainly in forklift applications, these double lip wipers when used with an o-ring garter provide good low pressure sealing in vented single acting applications.

Temperature: -65° to 200°F

OEM Part #'s are for reference purposes only.



Part Number	OEM Ref.	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	Price
994113	605609	2.700	3.312	0.187	0.500	\$35.01
994115	605611	3.200	3.812	0.187	0.500	\$21.74
993387	605613	3.700	4.312	0.187	0.500	\$79.51
994116	605615	4.200	4.812	0.187	0.500	\$153.58
996095	605620	5.450	6.063	0.187	0.500	\$146.09
996514	624452	6.075	6.687	0.187	0.500	\$241.14

# Seal-Guard® Wipers / Scrapers - Inch

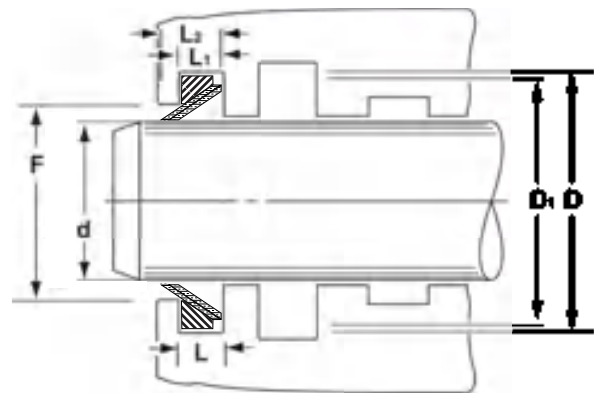


**ALTERNATIVE SEALS:**  
U, U-R, U Wiper Cord

For heavy-duty protection against hard contaminants such as ice, mud or metal spattering, the self-adjusting Seal-Guard® "scraper" is an ideal exclusion ring. Seal-Guard® consists of two knife-like bronze rings and a nitrile cushion ring. To eliminate the clogging and caking of contaminants under the ring, the conically tapered bronze rings act as blades to remove and dispose of foreign matter away from the rod and ring. The notches in the bronze rings provide flexibility, allow for expansion and produce a spring effect resulting in constant contact with the rod, full circle. When compressed, the cushion ring preloads the wiper rings for wiper edge contact with the rod, and it absorbs shock and side loads; therefore, it's self-adjusting.

To install the Seal-Guard® wiper, cut a groove in the gland, install the bronze rings, staggering the notches. Then using a dull tool and a light film of oil, push the cushion ring into the counterbore under the retaining ring.

Temperature: -40° to 250°F.



### AN NUMBERING SYSTEM

EXAMPLE:	
Prefix	Inside Diameter
S34-	8
	1/4"

Parts marked with suffix "V" have an FKM Expander

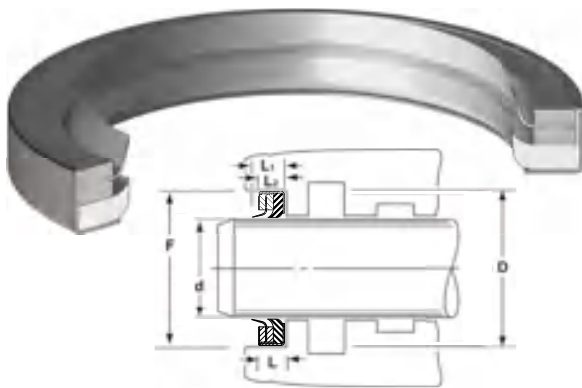
Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Height L <sub>2</sub>	+0.006 -0.000 D	+0.003 -0.000 L	+0.010 -0.000 F	
S34-8	0.250	0.500	0.125	0.187	0.500	.125	0.470	\$23.36
S34-9	0.312	0.562	0.125	0.187	0.562	.125	0.532	\$23.64
S34-10	0.375	0.625	0.125	0.187	0.625	.125	0.595	\$21.92
S34-12	0.500	0.750	0.125	0.187	0.750	.125	0.720	\$21.61
S34-14	0.625	0.875	0.125	0.187	0.875	.125	0.845	\$23.86
S34-14V	0.625	0.875	0.125	0.187	0.875	.125	0.845	\$53.69
3435-.750	0.750	1.000	0.125	0.187	1.000	.125	0.970	\$22.26
S34-16	0.750	1.125	0.187	0.281	1.126	.187	1.082	\$22.80
S34-18	0.875	1.250	0.187	0.281	1.251	.187	1.207	\$23.71
3435-1	1.000	1.250	0.125	0.281	1.250	.125	1.220	\$24.61
3436-1	1.000	1.375	0.187	0.281	1.375	.187	1.350	\$26.28
S34-20	1.000	1.375	0.187	0.281	1.376	.187	1.332	\$24.84
S34-20V	1.000	1.375	0.187	0.281	1.376	.187	1.332	\$91.23
S34-21	1.062	1.437	0.187	0.281	1.438	.187	1.394	\$30.52
S34-22	1.125	1.500	0.187	0.281	1.501	.187	1.457	\$27.56
S34-24	1.250	1.625	0.187	0.281	1.626	.187	1.582	\$30.78
S34-26	1.375	1.750	0.187	0.281	1.751	.187	1.707	\$34.31
S34-26V	1.375	1.750	0.187	0.281	1.751	.187	1.707	\$82.68
S34-27	1.500	1.875	0.187	0.281	1.876	.187	1.832	\$36.45
S34-28	1.625	2.000	0.187	0.281	2.000	.187	1.957	\$41.74
S34-29	1.750	2.125	0.187	0.281	2.126	.187	2.082	\$42.56
S34-29V	1.750	2.125	0.187	0.281	2.126	.187	2.082	\$103.51
S34-30	1.875	2.250	0.187	0.281	2.251	.187	2.207	\$60.36
S34-30V	1.875	2.250	0.187	0.281	2.251	.187	2.207	\$96.58
3436-1.937	1.937	2.313	0.187	0.281	2.313	.187	2.269	\$58.70
3436-2	2.000	2.375	0.187	0.281	2.376	.187	2.332	\$51.77
S34-31	2.000	2.500	0.250	0.375	2.500	.250	2.440	\$50.01
S34-32	2.125	2.625	0.250	0.375	2.625	.250	2.565	\$60.90
S34-33	2.250	2.750	0.250	0.375	2.750	.250	2.690	\$57.45
S34-33V	2.250	2.750	0.250	0.375	2.750	.250	2.690	\$133.88
S34-34	2.375	2.875	0.250	0.375	2.875	.250	2.815	\$71.99
3436-2.500	2.500	2.875	0.187	0.281	2.876	.187	2.832	\$76.75

Also available in FKM

## Seal Guard® Wipers - Inch, cont'd.

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Base Height L <sub>1</sub>	Total Height L <sub>2</sub>	+0.006 -0.000 D	+0.003 -0.000 L	+0.010 -0.000 F	
S34-35	2.500	3.000	0.250	0.375	3.000	.250	2.940	\$60.99
S34-38	2.750	3.250	0.250	0.375	3.250	.250	3.190	\$83.55
S34-40	3.000	3.500	0.250	0.375	3.500	.250	3.440	\$72.85
S34-40V	3.000	3.500	0.250	0.375	3.500	.250	3.440	\$147.88
S34-42	3.250	3.750	0.250	0.375	3.750	.250	3.690	\$116.93
S34-44	3.500	4.000	0.250	0.375	4.000	.250	3.940	\$127.34
S34-44V	3.500	4.000	0.250	0.375	4.000	.250	3.940	\$259.89
S34-49	4.000	4.500	0.250	0.375	4.500	.250	4.440	\$166.40
S34-50	4.250	4.750	0.250	0.375	4.750	.250	4.690	\$303.83
S34-51	4.500	5.250	0.375	0.562	5.250	.375	5.160	\$408.87
S34-52	4.750	5.500	0.375	0.562	5.500	.375	5.410	\$474.96
S34-53	5.000	5.750	0.375	0.562	5.750	.375	5.660	\$590.89
S34-54	5.250	6.000	0.375	0.562	6.000	.375	5.910	\$609.82
S34-55	5.500	6.250	0.375	0.562	6.250	.375	6.160	\$654.78
S34-57	5.750	6.500	0.375	0.562	6.500	.375	6.410	\$699.73
S34-58	6.000	6.750	0.375	0.562	6.750	.375	6.660	\$744.69
S34-60	6.500	7.250	0.375	0.562	7.250	.375	7.160	\$832.64
S34-62	7.000	7.750	0.375	0.562	7.750	.375	7.660	\$946.60
S34-62V	7.000	7.750	0.375	0.562	7.750	.375	7.660	\$1,484.16
S34-64	7.500	8.250	0.375	0.562	8.250	.375	8.160	\$1,008.55
S34-66	8.000	8.750	0.375	0.562	8.750	.375	8.660	\$1,096.51

## SC Wipers / Scrapers - Inch



The SC style wiper / scraper consists of a self-aligning brass scraper and a nitrile wiping lip assembled together and securely clamped into a steel shell. This scraper removes sticky and abrasive contaminants such as ice, mud, and tar from cylinder rods, while the nitrile lip removes water, dust, and other abrasive matter too small to be blocked by the scraper.

Temperature: -40° to 250°F.

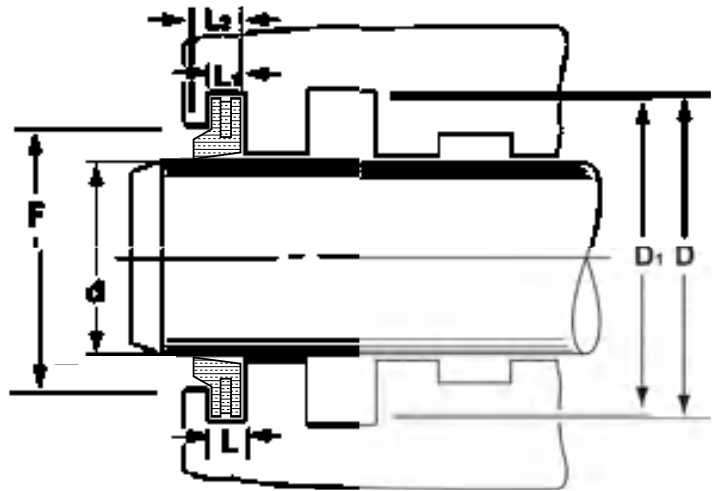
**ALTERNATIVE SEALS:**  
ME

OEM NUMBERING SYSTEM

Part Number	Rod Dia. f8 d	Groove Dia. H8 D	Seal Base Height L <sub>1</sub>	Price
504260	0.500	1.000	0.281	\$41.54
504261	0.625	1.125	0.281	\$42.91
504262	0.750	1.250	0.281	\$44.65
504263	0.875	1.375	0.281	\$54.93
504264	1.000	1.500	0.281	\$47.52
504265	1.125	1.625	0.281	\$47.01
504266	1.250	1.750	0.281	\$48.86
504267	1.375	1.875	0.281	\$51.15
504268	1.500	2.000	0.281	\$55.15
504269	1.625	2.125	0.281	\$78.26
509543	1.687	2.183	0.281	\$75.89
504270	1.750	2.250	0.281	\$64.32
504271	1.875	2.375	0.281	\$68.03
504272	2.000	2.500	0.281	\$68.23

Part Number	Rod Dia. f8 d	Groove Dia. H8 D	Seal Base Height L <sub>1</sub>	Price
504273	2.000	2.625	0.281	\$77.61
504275	2.250	2.750	0.281	\$68.32
504277	2.500	3.000	0.281	\$68.08
505774	2.500	3.125	0.281	\$83.32
504279	2.750	3.250	0.281	\$89.63
504281	3.000	3.500	0.281	\$90.92
504283	3.250	3.875	0.328	\$121.55
504285	3.500	4.125	0.328	\$97.01
504287	3.750	4.375	0.328	\$124.22
504289	4.000	4.625	0.328	\$127.17
504291	4.250	4.875	0.328	\$273.76
504293	4.500	5.125	0.328	\$222.78
504297	5.500	6.125	0.359	\$312.07

# MS28776 AN Style Metal Scrapers - Inch



<b>EXAMPLE: MS28776M2-1</b>	
<b>Prefix</b>	<b>Inside Diameter</b>
MS28776M2-	1
	1/2"

ALTERNATIVE SEALS:  
940

AN # SYSTEM

MS28776 series wiper rings are made from a copper based alloy and will not scratch the rod. Operating temperatures are from -65° to 500°F, making them a good choice for extreme temperature use.

Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Seal Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.004 -0.000 D	±.003 L	+0.005 -0.000 F	
MS28776M2-1	0.498	0.766	0.094	0.187	0.760	0.107	0.647	\$19.75
MS28776M2-2	0.560	0.829	0.094	0.187	0.823	0.107	0.710	\$31.23
MS28776M2-3	0.623	0.891	0.094	0.187	0.885	0.107	0.772	\$20.35
MS28776M2-4	0.685	0.954	0.094	0.187	0.948	0.107	0.834	\$22.12
MS28776M2-5	0.748	1.016	0.094	0.187	1.010	0.107	0.897	\$19.91
MS28776M2-7	0.873	1.153	0.094	0.187	1.147	0.107	1.023	\$18.23
MS28776M2-9	0.998	1.278	0.094	0.187	1.272	0.107	1.148	\$22.98
MS28776M2-10	1.060	1.340	0.094	0.187	1.334	0.107	1.210	\$25.35
MS28776M2-11	1.123	1.403	0.094	0.187	1.397	0.107	1.273	\$25.65
MS28776M2-12	1.185	1.465	0.094	0.187	1.459	0.107	1.335	\$25.73
MS28776M2-13	1.248	1.528	0.094	0.187	1.522	0.107	1.398	\$24.21
MS28776M2-15	1.373	1.685	0.094	0.187	1.677	0.107	1.542	\$26.81
MS28776M2-17	1.498	1.810	0.094	0.187	1.802	0.107	1.668	\$27.49
MS28776M2-18	1.623	1.935	0.094	0.187	1.927	0.107	1.793	\$28.15
MS28776M2-19	1.748	2.060	0.094	0.187	2.052	0.107	1.918	\$29.26
MS28776M2-20	1.873	2.185	0.094	0.187	2.177	0.107	2.043	\$30.20
MS28776M2-21	1.998	2.310	0.094	0.187	2.302	0.107	2.178	\$31.46
MS28776M2-22	2.123	2.435	0.094	0.187	2.427	0.107	2.303	\$32.09
MS28776M2-23	2.248	2.560	0.094	0.187	2.552	0.107	2.428	\$32.80
MS28776M2-24	2.373	2.685	0.094	0.187	2.677	0.107	2.553	\$48.29
MS28776M2-25	2.498	2.810	0.094	0.187	2.802	0.107	2.678	\$38.80
MS28776M2-26	2.623	2.999	0.109	0.211	2.989	0.122	2.834	\$39.77
MS28776M2-27	2.748	3.124	0.109	0.211	3.114	0.122	2.959	\$45.60
MS28776M2-28	2.873	3.249	0.109	0.211	3.239	0.122	3.084	\$58.00

**MS28776 AN Style Metal Scrapers - Inch, cont'd.**

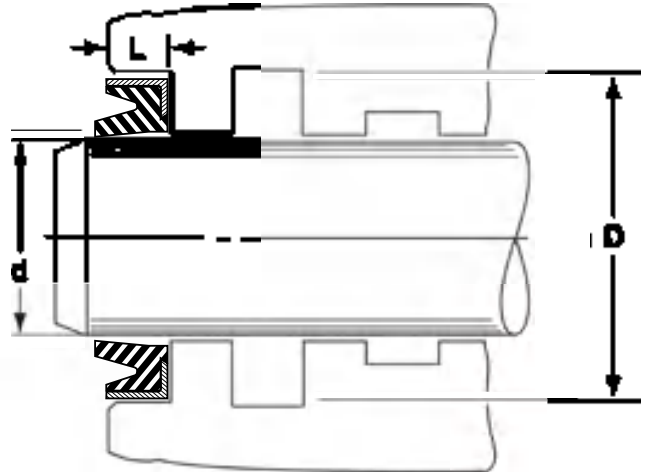
Part Number	Wiper Dimensions				Groove Dimensions			Price
	Rod Dia. d	Outside Dia. D <sub>1</sub>	Seal Base Height L <sub>1</sub>	Total Seal Ht L <sub>2</sub>	+0.004 -0.000 D	±0.003 L	+0.005 -0.000 F	
MS28776M2-29	2.997	3.374	0.109	0.211	3.364	0.122	3.209	\$48.57
MS28776M2-30	3.122	3.499	0.109	0.211	3.489	0.122	3.334	\$50.16
MS28776M2-31	3.247	3.624	0.109	0.211	3.614	0.122	3.459	\$53.86
MS28776M2-32	3.372	3.749	0.109	0.211	3.739	0.122	3.584	\$54.54
MS28776M2-33	3.497	3.874	0.109	0.211	3.864	0.122	3.709	\$55.83
MS28776M2-35	3.747	4.124	0.109	0.211	4.114	0.122	3.959	\$63.25
MS28776M2-36	3.872	4.249	0.109	0.211	4.239	0.122	4.084	\$59.90
MS28776M2-37	3.997	4.439	0.125	0.238	4.427	0.138	4.240	\$62.61
MS28776M2-38	4.122	4.564	0.125	0.238	4.552	0.138	4.365	\$63.33
MS28776M2-39	4.247	4.689	0.125	0.238	4.677	0.138	4.490	\$65.18
MS28776M2-41	4.497	4.939	0.125	0.238	4.927	0.138	4.740	\$73.74
MS28776M2-43	4.747	5.189	0.125	0.238	5.177	0.138	4.990	\$75.43
MS28776M2-45	4.997	5.439	0.125	0.238	5.427	0.138	5.240	\$79.94
MS28776M2-47	5.247	5.689	0.125	0.238	5.677	0.138	5.487	\$87.54
MS28776M2-49	5.497	5.939	0.125	0.238	5.927	0.138	5.740	\$91.19
MS28776M2-51	5.747	6.254	0.141	0.264	6.239	0.154	6.022	\$115.12
MS28776M2-52	5.872	6.379	0.141	0.264	6.364	0.154	6.146	\$125.29
MS28776M2-53	5.997	6.504	0.141	0.264	6.489	0.154	6.272	\$131.74
MS28776M2-55	6.497	7.004	0.141	0.264	6.989	0.154	6.772	\$140.18
MS28776M2-56	6.747	7.254	0.141	0.264	7.239	0.154	7.022	\$157.25
MS28776M2-57	6.997	7.504	0.141	0.264	7.489	0.154	7.272	\$167.20
MS28776M2-59	7.497	8.004	0.141	0.264	7.989	0.154	7.772	\$190.96
MS28776M2-60	7.747	8.254	0.141	0.264	8.239	0.154	8.022	\$203.76
MS28776M2-61	7.997	8.504	0.141	0.264	8.489	0.154	8.272	\$216.80
MS28776M2-62	8.497	9.004	0.141	0.264	8.989	0.154	8.772	\$238.02
MS28776M2-63	8.997	9.504	0.141	0.264	9.489	0.154	9.272	\$246.82
MS28776M2-64	9.497	10.004	0.141	0.264	9.989	0.154	9.772	\$253.54
MS28776M2-65	9.997	10.504	0.141	0.264	10.489	0.154	10.272	\$258.30
MS28776M2-66	10.497	11.004	0.141	0.264	10.989	0.154	10.772	\$269.60
MS28776M2-67	10.997	11.504	0.141	0.264	11.489	0.154	11.272	\$274.15
MS28776M2-69	11.997	12.509	0.156	0.289	12.489	0.169	12.272	\$285.01



# ME Metal Encased Wipers - Inch



ALTERNATIVE SEALS:  
504



EXAMPLE: ME1250HJ-P				
Prefix	Inside Diameter	Cross Section	Height	Suffix
ME	1250	H	J	-P
	1-1/4"	1/4"	5/16"	MATERIAL (P=PU/N=NBR)

**1ST LETTER** IN SUFFIX DESIGNATES C/S. C=3/32, D=1/8, E=5/32, F=3/16, G=7/32, H=1/4, I=9/32, J=5/16, K=1/32, L=3/8, M=13/32, P=1/2, T=5/8

**2ND LETTER** IN SUFFIX DESIGNATES HT. C=3/32, D=1/8, E=5/32, F=3/16, G=7/32, H=1/4, I=9/32, J=5/16, K=11/32, L=3/8, M=13/32, P=1/2, T=5/8

Metal encased wipers are manufactured from a corrosion-resistant carbon steel case with either a urethane or nitrile lip chemically bonded to it. N = Nitrile P = Polyurethane

These wipers are designed with a slightly oversized diameter, thus ensuring a secure fit in the recess after installation.

Polyurethane temperature: -40° to 212°F

Nitrile temperature: -40° to 250°F

Part No.	Rod Diameter +.000 -.002 d	Groove Dimensions		Price
		+.001 D	+.015 -.000 L	
ME0250DD-N	0.250	0.500	0.125	\$6.88
ME0312DD-N	0.312	0.562	0.125	\$9.57
ME0375DD-N	0.375	0.625	0.125	\$2.55
ME0375FH-N	0.375	0.750	0.250	\$8.82
ME0375HH-N	0.375	0.875	0.250	\$8.33
ME0437CD-N	0.437	0.625	0.125	\$8.90
ME0437FF-N	0.437	0.836	0.187	\$6.76
ME0500CC-N	0.500	0.687	0.093	\$2.72
ME0500DD-N	0.500	0.750	0.125	\$4.03
ME0500FD-N	0.500	0.875	0.125	\$7.71
ME0500FH-N	0.500	0.875	0.250	\$11.95
ME0562DD-N	0.562	0.812	0.125	\$4.75
ME0625CC-N	0.625	0.812	0.093	\$10.19
ME0625DD-N	0.625	0.875	0.125	\$6.14
ME0625EF-N	0.625	0.937	0.187	\$4.67
ME0625FD-N	0.625	1.000	0.125	\$10.10
ME0625GF-N	0.625	1.062	0.187	\$6.23
ME0625GH-N	0.625	1.062	0.250	\$10.10
ME0625HH-N	0.625	1.125	0.250	\$10.17
ME0625HJ-P	0.625	1.125	0.312	\$8.00
ME0625JH-N	0.625	1.250	0.250	\$3.93
ME0687DD-N	0.687	0.937	0.125	\$3.24
ME0687EF-N	0.687	1.000	0.187	\$3.99

Part No.	Rod Diameter +.000 -.002 d	Groove Dimensions		Price
		+.001 D	+.015 -.000 L	
ME0687KD-N	0.687	1.375	0.125	\$6.74
ME0750DD-N	0.750	1.000	0.125	\$3.25
ME0750EF-N	0.750	1.062	0.187	\$10.64
ME0750FF-N	0.750	1.125	0.187	\$10.64
ME0750HH-N	0.750	1.250	0.250	\$3.16
ME0750HJ-P	0.750	1.250	0.312	\$7.33
ME0812MF-N	0.812	1.625	0.187	\$7.11
ME0875DD-N	0.875	1.125	0.125	\$3.38
ME0875EF-N	0.875	1.187	0.187	\$8.38
ME0875FF-N	0.875	1.250	0.187	\$15.28
ME0875GH-N	0.875	1.312	0.250	\$7.55
ME0875HJ-P	0.875	1.375	0.312	\$8.33
ME1000DD-N	1.000	1.250	0.125	\$3.34
ME1000ED-N	1.000	1.312	0.125	\$6.52
ME1000FF-N	1.000	1.375	0.187	\$3.83
ME1000GH-N	1.000	1.437	0.250	\$4.27
ME1000HF-N	1.000	1.500	0.187	\$3.20
ME1000HJ-P	1.000	1.500	0.312	\$9.27
ME1000JH-N	1.000	1.625	0.250	\$11.62
ME1062DD-N	1.062	1.312	0.125	\$5.42
ME1062FF-N	1.062	1.437	0.187	\$5.83
ME1062GF-N	1.062	1.500	0.187	\$4.22
ME1125DD-N	1.125	1.375	0.125	\$3.20

## ME Metal Encased Wipers - Inch, cont'd.

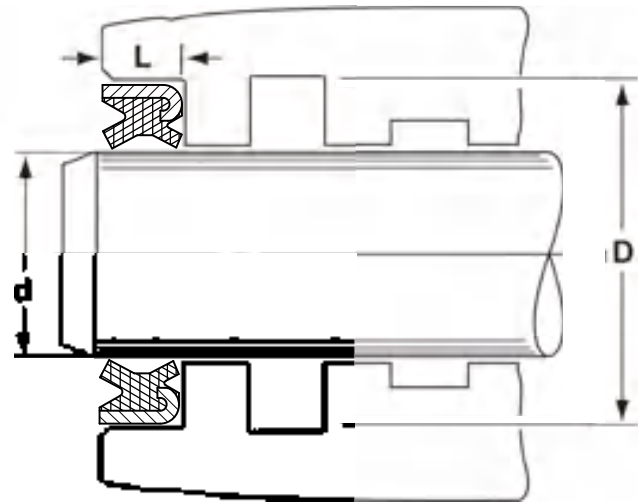
Part No.	Rod Diameter +.000 -.002 d	Groove Dimensions		Price	Part No.	Rod Diameter +.000 -.002 d	Groove Dimensions		Price
		+001 D	+015 -.000 L				+001 D	+015 -.000 L	
ME1125EF-N	1.125	1.625	0.187	\$4.53	ME1500PH-N	1.500	2.500	0.250	\$18.15
ME1125FF-N	1.125	1.500	0.187	\$4.88	ME1500RH-N	1.500	2.625	0.250	\$12.88
ME1125GH-N	1.125	1.562	0.250	\$4.98	ME1562OH-N	1.562	2.500	0.250	\$14.24
ME1125HH-N	1.125	1.625	0.250	\$3.20	ME1562RL-N	1.562	2.688	0.375	\$34.40
ME1125HJ-P	1.125	1.625	0.312	\$11.02	ME1625DD-N	1.625	1.875	0.125	\$11.57
ME1125JH-N	1.125	1.750	0.250	\$18.55	ME1625FF-N	1.625	2.000	0.187	\$12.40
ME1187FF-N	1.187	1.562	0.187	\$4.49	ME1625HH-N	1.625	2.125	0.250	\$5.48
ME1187GH-N	1.187	1.625	0.250	\$5.53	ME1625HJ-P	1.625	2.125	0.312	\$13.16
ME1187HH-P	1.187	1.625	0.250	\$10.30	ME1687JP-N	1.687	2.328	0.500	\$13.78
ME1219LK-N	1.219	1.979	0.343	\$8.50	ME1687MI-N	1.687	2.500	0.281	\$16.42
ME1250DD-N	1.250	1.500	0.125	\$3.83	ME1687OL-N	1.687	2.625	0.375	\$17.90
ME1250FH-N	1.250	1.625	0.250	\$3.65	ME1750FF-N	1.750	2.125	0.187	\$7.95
ME1250GF-N	1.250	1.687	0.187	\$3.62	ME1750HF-N	1.750	2.250	0.187	\$12.74
ME1250HH-N	1.250	1.750	0.250	\$4.47	ME1750HH-N	1.750	2.250	0.250	\$6.49
ME1250HH-P	1.250	1.750	0.250	\$11.07	ME1750HH-P	1.750	2.250	0.250	\$14.00
ME1250HJ-P	1.250	1.750	0.312	\$11.07	ME1750HJ-P	1.750	2.250	0.312	\$14.00
ME1250JH-N	1.250	1.875	0.250	\$5.03	ME1750JH-N	1.750	2.375	0.250	\$5.72
ME1250LH-N	1.250	1.983	0.250	\$14.41	ME1750KL-P	1.750	2.437	0.375	\$13.95
ME1250ML-P	1.250	2.062	0.375	\$8.01	ME1750LL-P	1.750	2.500	0.375	\$12.06
ME1312DD-N	1.312	1.562	0.125	\$7.79	ME1750MH-N	1.750	2.562	0.250	\$18.18
ME1312HH-N	1.312	1.812	0.250	\$8.25	ME1750NH-N	1.750	2.625	0.250	\$6.18
ME1375DD-N	1.375	1.625	0.125	\$5.44	ME1812LN-N	1.812	2.562	0.437	\$17.44
ME1375FF-N	1.375	1.750	0.187	\$5.15	ME1875FF-N	1.875	2.250	0.187	\$8.66
ME1375HH-N	1.375	1.875	0.250	\$5.02	ME1875HJ-P	1.875	2.375	0.312	\$15.08
ME1375HJ-P	1.375	1.875	0.312	\$12.30	ME1875JH-N	1.875	2.500	0.250	\$6.38
ME1375IH-N	1.375	1.937	0.250	\$11.72	ME1875KL-P	1.875	2.563	0.375	\$14.67
ME1375JJ-N	1.375	2.000	0.312	\$12.08	ME1875RH-N	1.875	3.000	0.250	\$20.95
ME1375OH-N	1.375	2.282	0.250	\$32.16	ME1875RP-N	1.875	3.000	0.500	\$17.05
ME1437ID-N	1.437	2.000	0.125	\$8.08	ME1937II-N	1.937	2.506	0.281	\$20.00
ME1500DL-N	1.500	1.750	0.375	\$14.02	ME2000FF-N	2.000	2.375	0.187	\$6.07
ME1500EF-N	1.500	1.812	0.187	\$6.29	ME2000FH-N	2.000	2.375	0.250	\$10.66
ME1500FF-N	1.500	1.875	0.187	\$4.70	ME2000HH-N	2.000	2.500	0.250	\$7.65
ME1500FF-P	1.500	1.875	0.187	\$13.25	ME2000HH-P	2.000	2.500	0.250	\$16.85
ME1500FH-N	1.500	1.875	0.250	\$3.91	ME2000HJ-P	2.000	2.500	0.312	\$15.26
ME1500FH-P	1.500	1.875	0.250	\$14.80	ME2000JH-N	2.000	2.625	0.250	\$6.38
ME1500HF-N-1	1.500	1.983	0.187	\$14.97	ME2000JJ-N	2.000	2.625	0.312	\$9.50
ME1500HH-N	1.500	2.000	0.250	\$4.02	ME2000KH-N	2.000	2.687	0.250	\$13.59
ME1500HH-P	1.500	2.000	0.250	\$14.46	ME2000KL-P	2.000	2.687	0.375	\$15.75
ME1500HJ-N	1.500	2.000	0.312	\$14.46	ME2000LH-N	2.000	2.750	0.250	\$8.36
ME1500HJ-P	1.500	2.000	0.312	\$14.56	ME2000LL-P	2.000	2.750	0.375	\$18.76
ME1500IH-N	1.500	2.062	0.250	\$21.91	ME2062OJ-N	2.062	3.000	0.312	\$23.40
ME1500JJ-P	1.500	2.125	0.312	\$11.27	ME2125FF-N	2.125	2.500	0.187	\$7.19
ME1500LH-N	1.500	2.250	0.250	\$14.84	ME2125HH-P	2.125	2.625	0.250	\$16.65
ME1500LL-P	1.500	2.250	0.375	\$15.77	ME2125HJ-P	2.125	2.625	0.312	\$18.16
ME1500MK-N	1.500	2.327	0.343	\$22.03	ME2125LH-N	2.125	2.875	0.250	\$25.01
ME1500OH-N	1.500	2.437	0.250	\$12.70	ME2125LL-P	2.125	2.875	0.375	\$13.08

**ME Metal Encased Wipers - Inch, cont'd.**

Part No.	Rod Diameter +.000 -.002 d	Groove Dimensions		Price	Part No.	Rod Diameter +.000 -.002 d	Groove Dimensions		Price
		+ .001 D	+ .015 -.000 L				+ .001 D	+ .015 -.000 L	
ME2125TL-N	2.125	3.372	0.375	\$14.53	ME3375JJ-P	3.375	4.000	0.312	\$18.58
ME2250FF-N	2.250	2.625	0.187	\$7.04	ME3500FF-N	3.500	3.875	0.187	\$18.81
ME2250FH-N	2.250	2.625	0.250	\$12.59	ME3500HH-N	3.500	4.000	0.250	\$11.57
ME2250HH-N	2.250	2.750	0.250	\$7.24	ME3500HJ-P	3.500	4.000	0.312	\$23.24
ME2250HH-P	2.250	2.750	0.250	\$17.46	ME3500JJ-P	3.500	4.125	0.312	\$28.42
ME2250HJ-P	2.250	2.750	0.312	\$17.46	ME3500LJ-P	3.500	4.250	0.312	\$27.64
ME2250JH-N	2.250	2.875	0.250	\$13.12	ME3500PP-P	3.500	4.500	0.500	\$30.75
ME2250LH-N	2.250	2.996	0.250	\$19.75	ME3750JH-N	3.750	4.375	0.250	\$35.15
ME2250LL-P	2.250	3.000	0.375	\$16.45	ME3750JJ-P	3.750	4.375	0.312	\$35.14
ME2250RL-N	2.250	3.375	0.375	\$34.07	ME3750PP-P	3.750	4.750	0.500	\$29.38
ME2250SH-N	2.250	3.442	0.250	\$20.83	ME4000HJ-P	4.000	4.500	0.312	\$37.32
ME2312KH-N	2.312	3.000	0.250	\$15.06	ME4000JJ-P	4.000	4.625	0.312	\$39.52
ME2312KL-N	2.312	3.000	0.375	\$23.31	ME4000LJ-P	4.000	4.750	0.312	\$41.94
ME2375HJ-P	2.375	2.875	0.312	\$16.10	ME4000NH-N	4.000	4.875	0.250	\$65.05
ME2375LL-P	2.375	3.125	0.375	\$16.31	ME4000PP-P	4.000	5.000	0.500	\$36.11
ME2500HF-P	2.500	3.000	0.187	\$17.45	ME4250HF-P	4.250	4.750	0.187	\$42.91
ME2500HH-N	2.500	3.000	0.250	\$7.32	ME4250HJ-P	4.250	4.750	0.312	\$39.36
ME2500HH-P	2.500	3.000	0.250	\$12.50	ME4250JJ-P	4.250	4.875	0.312	\$34.01
ME2500HJ-P	2.500	3.000	0.312	\$20.59	ME4250PP-P	4.250	5.250	0.500	\$58.24
ME2500JH-N	2.500	3.125	0.250	\$9.88	ME4375JJ-P	4.375	5.000	0.312	\$53.79
ME2500LL-P	2.500	3.250	0.375	\$19.58	ME4500JJ-P	4.500	5.125	0.312	\$62.22
ME2500PH-N	2.500	3.500	0.250	\$29.12	ME4500LJ-P	4.500	5.250	0.312	\$39.83
ME2500PL-P	2.500	3.500	0.375	\$23.18	ME4500PP-P	4.500	5.500	0.500	\$47.06
ME2625HH-P	2.625	3.125	0.250	\$18.47	ME4750JJ-P	4.750	5.375	0.312	\$47.06
ME2660IL-N	2.660	3.250	0.375	\$8.94	ME4750PP-P	4.750	5.750	0.500	\$50.55
ME2750FF-N	2.750	3.125	0.187	\$17.22	ME5000JJ-P	5.000	5.625	0.312	\$46.27
ME2750HH-N	2.750	3.250	0.250	\$15.85	ME5000LJ-P	5.000	5.750	0.312	\$47.34
ME2750HJ-P	2.750	3.250	0.312	\$22.15	ME5000PP-P	5.000	6.000	0.500	\$53.06
ME2750LL-P	2.750	3.500	0.375	\$22.15	ME5500JL-P	5.500	6.125	0.375	\$54.44
ME2750PL-N	2.750	3.750	0.375	\$10.05	ME5500LJ-P	5.500	6.250	0.312	\$55.00
ME2750PP-P	2.750	3.750	0.500	\$24.56	ME5750PP-P	5.750	6.750	0.500	\$82.78
ME2875HH-N	2.875	3.371	0.250	\$12.45	ME6000JL-P	6.000	6.625	0.375	\$77.65
ME2875JH-P	2.875	3.500	0.250	\$15.48	ME6000LL-P	6.000	6.750	0.375	\$69.77
ME3000HH-N	3.000	3.500	0.250	\$8.02	ME6000PP-P	6.000	7.000	0.500	\$81.39
ME3000HJ-P	3.000	3.500	0.312	\$23.58	ME6500LJ-P	6.500	7.250	0.312	\$85.60
ME3000LH-N	3.000	3.750	0.250	\$9.18	ME6500PT-P	6.500	7.500	0.625	\$108.13
ME3000LH-P	3.000	3.750	0.250	\$22.25	ME6750HJ-P	6.750	7.250	0.312	\$82.78
ME3000LL-P	3.000	3.750	0.375	\$21.26	ME6750PP-P	6.750	7.750	0.500	\$69.01
ME3000PP-P	3.000	4.000	0.500	\$26.55	ME7000LJ-P	7.000	7.750	0.312	\$90.08
ME3125HF-P	3.125	3.625	0.187	\$27.07	ME7000PP-P	7.000	8.000	0.500	\$113.20
ME3125JL-P	3.125	3.750	0.375	\$24.07	ME7000RT-P	7.000	8.125	0.625	\$182.89
ME3250HJ-P	3.250	3.750	0.312	\$24.07	ME7250LJ-P	7.250	8.000	0.312	\$180.32
ME3250JJ-N	3.250	3.875	0.312	\$24.06	ME7250PP-P	7.250	8.250	0.500	\$181.70
ME3250JJ-P	3.250	3.875	0.312	\$24.07	ME8125HJ-P	8.125	8.625	0.312	\$185.08
ME3250PP-P	3.250	4.250	0.500	\$26.56	ME9000LR-P	9.000	9.750	0.550	\$139.68
ME3375FL-P	3.375	3.750	0.375	\$20.69					



# ME, CAT® Type, Double Lip Wipers - Inch



These heavy duty metal encased double lip urethane wipers are used mainly for severe applications on Caterpillar® equipment. When used with a multi-lip sealing system they provide a dry clean rod.

Temperature: -65° to 220°F

### OEM NUMBERING SYSTEM

*We do not imply that these seals are a product of Cat®. Part numbers are used for reference purposes only.*

Part Number	Rod Dia. f8 d	Groove Dia. s11 D	Groove Height L	Price
8C9131	1.500	2.250	0.433	\$29.79
8C9132	1.750	2.437	0.433	\$30.67
9X3565	1.875	2.562	0.433	\$31.50
8C9133	2.000	2.687	0.433	\$32.21
9X3567	2.125	2.875	0.433	\$33.46
8C9134	2.250	3.000	0.433	\$33.97
9X7259	2.375	3.125	0.433	\$34.30
8C3840	2.500	3.250	0.433	\$35.82
9X3569	2.625	3.375	0.433	\$29.40
8C3842	2.750	3.750	0.555	\$38.42
8C5218	3.000	4.000	0.555	\$40.75
8T8389	3.250	4.250	0.555	\$41.95
8C5219	3.500	4.500	0.555	\$42.37

Part Number	Rod Dia. f8 d	Groove Dia. s11 D	Groove Height L	Price
8C9135	3.750	4.750	0.555	\$43.14
8C5220	4.000	5.000	0.555	\$43.25
6E0426	4.250	5.250	0.555	\$53.42
9X7262	4.750	5.750	0.555	\$65.74
9X3582	5.000	6.000	0.555	\$72.11
9X7268	5.250	6.250	0.555	\$76.49
9X3573	5.500	6.500	0.555	\$52.86
9X3574	5.750	6.750	0.555	\$87.53
9X7255	6.000	7.000	0.555	\$67.75
9X7323	6.500	7.500	0.555	\$64.64
8C9146	6.750	7.750	0.555	\$124.80
8C9136	7.000	8.000	0.555	\$137.88

# AMJ Metal Encased Urethane Wipers - Metric



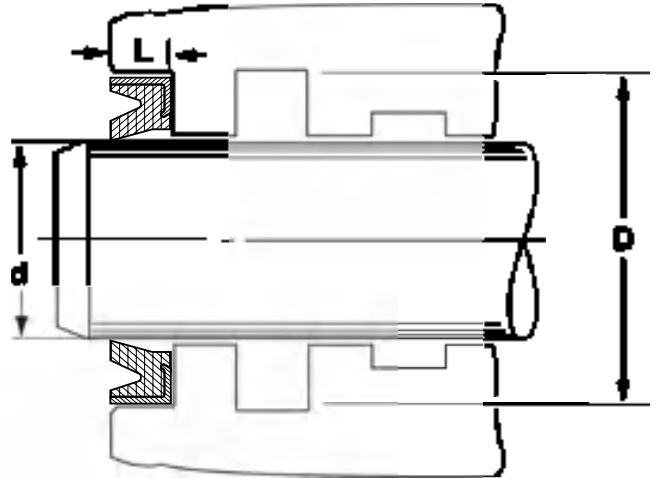
AMJ metric J-type wipers consist of a polyurethane scraper element, encased in a metal shell to enable it to be pressed into an open faced gland without the aid of other retention devices such as snap rings or face plates. The elastomeric element is bonded to the metal shell by adhesive means. The metal shell is carbon steel which has been treated to prevent corrosion.

Temperature: -40° to 230°F

Many of these wipers are used for grease seals in hinge pin applications.

**ALTERNATIVE SEALS:**

AMH, AM43, AM44, AM46, AM47, AM48



EXAMPLE: AMJ-16X24X2.8				
Prefix	Inside Diameter		Outside Diameter	Base Height
AMJ-	16	x	24	x 2.8
	16mm		24mm	2.8mm

Part Number	Rod Dia. d	Groove Dimensions		Price
		Groove Dia. H8 D	Groove Height +0.5/-0 L	
AMJ-8X16X4	8	16	4	\$4.13
AMJ-16X24X2.8	16	24	2.8	\$8.00
AMJ-20X28X5	20	28	5	\$10.76
AMJ-25X32X7	25	32	7	\$11.04
AMJ-25X35X4	25	35	4	\$9.39
AMJ-25X35X5	25	35	5	\$10.67
AMJ-28X42X7	28	42	7	\$15.12
AMJ-30X40X4	30	40	4	\$15.18
AMJ-30X40X7	30	40	7	\$15.21
AMJ-30X45X4	30	45	4	\$10.18
AMJ-35X45X4	35	45	4	\$14.27
AMJ-35X50X7.5	35	50	7.5	\$10.80
AMJ-36X46X7	36	46	7	\$14.89
AMJ-40X50X3.2	40	50	3.2	\$9.84
AMJ-40X50X4	40	50	4	\$9.97
AMJ-40X50X5	40	50	5	\$11.88
AMJ-40X50X7	40	50	7	\$11.88
AMJ-40X50X9	40	50	9	\$11.88
AMJ-40X52X7	40	52	7	\$14.91
AMJ-40X55X9	40	55	9	\$14.88
AMJ-45X55X3.2	45	55	3.2	\$12.11
AMJ-45X55X4	45	55	4	\$12.82
AMJ-45X55X4.5	45	55	4.5	\$12.82
AMJ-45X55X5	45	55	5	\$12.82
AMJ-45X55X6	45	55	6	\$12.82

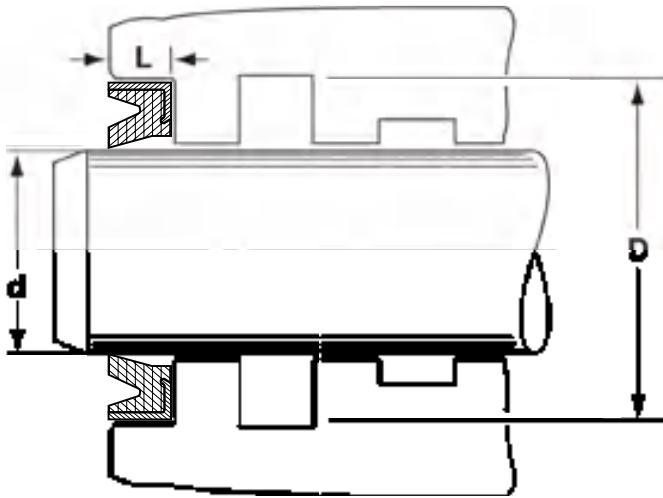
Part Number	Rod Dia. d	Groove Dimensions		Price
		Groove Dia. H8 D	Groove Height +0.5/-0 L	
AMJ-45X55X7	45	55	7	\$12.82
AMJ-45X57X7	45	57	7	\$10.77
AMJ-45X60X5	45	60	5	\$13.20
AMJ-45X60X7.5	45	60	7.5	\$15.31
AMJ-50X60X4.5	50	60	4.5	\$13.67
AMJ-50X60X5	50	60	5	\$14.09
AMJ-50X60X6	50	60	6	\$14.14
AMJ-50X60X7	50	60	7	\$14.37
AMJ-50X62X7	50	62	7	\$15.27
AMJ-50X64X8	50	64	8	\$15.68
AMJ-50X65X5	50	65	5	\$15.92
AMJ-50X65X7.5	50	65	7.5	\$18.54
AMJ-50X65X9	50	65	9	\$18.84
AMJ-55X63X7	55	63	7	\$16.93
AMJ-55X65X3.2	55	65	3.2	\$13.11
AMJ-55X65X5	55	65	5	\$14.61
AMJ-55X65X7	55	65	7	\$14.99
AMJ-55X68X6	55	68	6	\$15.55
AMJ-55X69X8	55	69	8	\$12.32
AMJ-55X70X5	55	70	5	\$14.78
AMJ-55X70X7.5	55	70	7.5	\$15.54
AMJ-56X68X7	56	68	7	\$13.83
AMJ-56X70X7.5	56	70	7.5	\$18.42
AMJ-56X71X9	56	71	9	\$18.73
AMJ-60X70X5	60	70	5	\$19.20

## AMJ Metal Encased Urethane Wipers - Metric, cont'd.

Part Number	Rod Dia. d	Groove Dimensions		Price
		Groove Dia. H8 D	Groove Height +0.5/-0 L	
AMJ-60X70X7	60	70	7	\$19.90
AMJ-60X70X8	60	70	8	\$17.97
AMJ-60X74X8	60	74	8	\$15.71
AMJ-60X75X5	60	75	5	\$16.29
AMJ-60X75X7	60	75	7	\$17.83
AMJ-60X75X8	60	75	8	\$17.19
AMJ-63X75X7	63	75	7	\$17.93
AMJ-63X78X9	63	78	9	\$23.89
AMJ-63X83X10	63	83	10	\$24.09
AMJ-65X75X7	65	75	7	\$17.71
AMJ-65X79X8	65	79	8	\$14.66
AMJ-65X80X5	65	80	5	\$23.62
AMJ-65X80X8	65	80	8	\$21.58
AMJ-70X80X5	70	80	5	\$18.81
AMJ-70X80X7	70	80	7	\$21.45
AMJ-70X84X8	70	84	8	\$14.73
AMJ-70X85X5	70	85	5	\$17.79
AMJ-70X85X7	70	85	7	\$21.83
AMJ-70X85X8	70	85	8	\$30.94
AMJ-71X86X5	71	86	5	\$18.96
AMJ-71X86X6	71	86	6	\$19.01
AMJ-75X89X8	75	89	8	\$15.66
AMJ-75X90X6	75	90	6	\$19.50
AMJ-75X90X8	75	90	8	\$31.25
AMJ-80X90X3.2	80	90	3.2	\$21.73
AMJ-80X90X4.5	80	90	4.5	\$22.54
AMJ-80X90X7	80	90	7	\$34.21
AMJ-80X93X8	80	93	8	\$22.80
AMJ-80X94X8	80	94	8	\$15.60
AMJ-80X95X5	80	95	5	\$21.68
AMJ-80X95X6	80	95	6	\$21.68
AMJ-80X95X8	80	95	8	\$29.20
AMJ-80X100X10	80	100	10	\$36.62
AMJ-85X99X8	85	99	8	\$15.77
AMJ-85X100X8	85	100	8	\$27.03
AMJ-90X100X7	90	100	7	\$19.97
AMJ-90X104X8	90	104	8	\$15.60
AMJ-90X105X6	90	105	6	\$31.02
AMJ-90X105X7	90	105	7	\$32.16
AMJ-90X105X8	90	105	8	\$33.76
AMJ-90X106X8	90	106	8	\$33.30
AMJ-90X110X7	90	110	7	\$34.55

Part Number	Rod Dia. d	Groove Dimensions		Price
		Groove Dia. H8 D	Groove Height +0.5/-0 L	
AMJ-90X110X10	90	110	10	\$34.65
AMJ-95X109X8	95	109	8	\$36.77
AMJ-95X110X4	95	110	4	\$22.15
AMJ-95X110X6	95	110	6	\$28.29
AMJ-95X110X7	95	110	7	\$28.37
AMJ-95X110X8	95	110	8	\$19.04
AMJ-100X110X4	100	110	4	\$22.50
AMJ-100X110X7	100	110	7	\$24.07
AMJ-100X114X8	100	114	8	\$20.50
AMJ-100X115X6	100	115	6	\$27.59
AMJ-100X115X7	100	115	7	\$36.81
AMJ-100X115X8	100	115	8	\$37.76
AMJ-100X115X9	100	115	9	\$32.05
AMJ-100X116X8	100	116	8	\$39.39
AMJ-100X120X4	100	120	4	\$33.00
AMJ-100X120X10	100	120	10	\$34.21
AMJ-105X115X7	105	115	7	\$34.73
AMJ-105X120X7	105	120	7	\$31.20
AMJ-105X120X8	105	120	8	\$31.48
AMJ-105X121X9	105	121	9	\$28.20
AMJ-110X125X4	110	125	4	\$31.20
AMJ-110X125X8	110	125	8	\$46.60
AMJ-110X125X9	110	125	9	\$46.75
AMJ-110X126X9	110	126	9	\$26.96
AMJ-110X130X8	110	130	8	\$52.03
AMJ-110X130X10	110	130	10	\$53.18
AMJ-120X135X8	120	135	8	\$54.30
AMJ-120X136X9	120	136	9	\$36.75
AMJ-120X140X8	120	140	8	\$52.81
AMJ-120X140X10	120	140	10	\$81.42
AMJ-120X150X12	120	150	12	\$82.31
AMJ-125X140X9	125	140	9	\$82.39
AMJ-130X145X7.5	130	145	7.5	\$44.63
AMJ-130X146X9	130	146	9	\$39.09
AMJ-130X150X8	130	150	8	\$66.31
AMJ-130X150X10	130	150	10	\$67.90
AMJ-130X154X8	130	154	8	\$67.99
AMJ-130X160X12	130	160	12	\$77.60
AMJ-140X160X10	140	160	10	\$51.20
AMJ-150X165X8	150	165	8	\$54.36
AMJ-150X175X9	150	175	9	\$86.24

# AM47 Metal Encased NBR Pin Wipers - Metric



This listing of AM47 style seals cover the most popular link pin seal sizes found on European equipment. They are made from 90 durometer nitrile bonded to a corrosive-resistant steel can.

Temperature: -40° to 230°F

Material: Nitrile/Steel

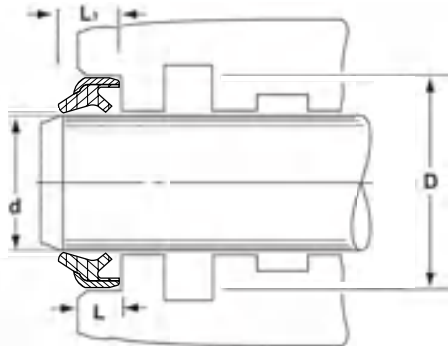
ALTERNATIVE SEALS:  
AMJ, AM46, AM48

EXAMPLE: AM47-30X40X4					
Prefix	Inside Diameter		Outside Diameter		Base Height
AM47-	30	x	40	x	4
	30mm		40mm		4mm

Part Number	Rod Dia. d	Groove Dimensions		Price
		Groove Dia. H8 D	Groove Height +0.5/-0 L	
AM47-4X8X2	4	8	2	\$4.19
AM47-5X9X2	5	9	2	\$5.58
AM47-5X10X2	5	10	2	\$5.40
AM47-6X10X2	6	10	2	\$5.16
AM47-6X12X2	6	12	2	\$5.60
AM47-7X11X2	7	11	2	\$4.42
AM47-7X14X2	7	14	2	\$4.42
AM47-8X12X3	8	12	3	\$7.93
AM47-8X15X3	8	15	3	\$5.95
AM47-9X13X3	9	13	3	\$5.95
AM47-10X14X3	10	14	3	\$5.95
AM47-10X17X3	10	17	3	\$6.02
AM47-12X19X3	12	19	3	\$6.17
AM47-13X19X3	13	19	3	\$6.17
AM47-15X21X2	15	21	2	\$6.26
AM47-15X21X3	15	21	3	\$6.26

Part Number	Rod Dia. d	Groove Dimensions		Price
		Groove Dia. H8 D	Groove Height +0.5/-0 L	
AM47-18X24X3	18	24	3	\$6.49
AM47-20X26X4	20	26	4	\$9.10
AM47-22X30X4	22	30	4	\$9.32
AM47-25X32X4	25	32	4	\$6.74
AM47-25X35X4	25	35	4	\$10.65
AM47-28X37X4	28	37	4	\$12.98
AM47-30X40X4	30	40	4	\$8.98
AM47-34X42X4	34	42	4	\$9.92
AM47-35X42X4	35	42	4	\$9.72
AM47-35X45X4	35	45	4	\$9.42
AM47-38X48X4	38	48	4	\$9.43
AM47-40X47X4	40	47	4	\$10.18
AM47-40X48X4	40	48	4	\$10.18
AM47-40X50X4	40	50	4	\$10.69
AM47-42X52X4	42	52	4	\$15.79
AM47-50X58X4	50	58	4	\$12.48

# AMH Metal Encased NBR/PU Wipers - Metric



**ALTERNATIVE SEALS:**  
AMJ, AM43, AM44, AM48

AMH wipers are available in metric sizes only. They consist of a corrosive resistant carbon steel shell chemically bonded to a 90 durometer shore A polyurethane\*. The double lip design works very well at keeping dirt and contaminants out as well as excess oil in. This design is used extensively in Japanese heavy equipment and mobile hydraulics.

Temperature: -40° to 230°F

\*Part numbers with a N90 suffix denote a 90 Durometer nitrile sealing lip.

**EXAMPLE: AMH-16X28X6 N90**

Prefix	Inside Diameter	Outside Diameter	Base Height	Suffix
AMH-	16	x 28	x 6	N90
	16mm	28mm	6mm	90A NBR

Part Number	Rod Dia. d	Groove Dimensions		Total Seal HT L <sub>1</sub>	Price
		Grv. Dia. H8 D	Grv. HT +0.5/-0 L		
AMH-16X28X6 N90	16	28	6	9	\$12.10
AMH-18X30X6	18	30	6	9	\$10.12
AMH-19X27X4	19	27	4	6	\$10.12
AMH-20X32X6	20	32	6	9	\$5.48
AMH-22X34X6	22	34	6	9	\$13.57
AMH-25X37X6	25	37	6	9	\$8.10
AMH-28X40X6	28	40	6	9	\$10.44
AMH-30X40X5	30	40	5	8	\$13.76
AMH-30X42X6	30	42	6	9	\$13.93
AMH-30X47X7 N90	30	47	7	10	\$20.68
AMH-32X44X7	32	44	7	10	\$10.99
AMH-32X52X8	32	52	8	11	\$14.37
AMH-35X45X7	35	45	7	10	\$17.35
AMH-35X47X7	35	47	7	10	\$17.75
AMH-36X48X7	36	48	7	10	\$23.08
AMH-38X50X7	38	50	7	10	\$18.52
AMH-40X50X5	40	50	5	8	\$18.74
AMH-40X52X7	40	52	7	10	\$19.74
AMH-40X60X7	40	60	7	10	\$20.03
AMH-45X55X7	45	55	7	10	\$20.45
AMH-45X57X7	45	57	7	10	\$19.75
AMH-50X60X7	50	60	7	10	\$20.14
AMH-50X62X7	50	62	7	10	\$22.12
AMH-50X72X8	50	72	8	11	\$25.63
AMH-55X69X8	55	69	8	11	\$25.98
AMH-56X66X5	56	66	5	8	\$41.58
AMH-56X70X8	56	70	8	11	\$18.25
AMH-60X74X8	60	74	8	11	\$25.66
AMH-60X82X11	60	82	11	14	\$29.90
AMH-63X77X8	63	77	8	11	\$21.36
AMH-65X79X8	65	79	8	11	\$26.30
AMH-70X83X8	70	83	8	11	\$26.81

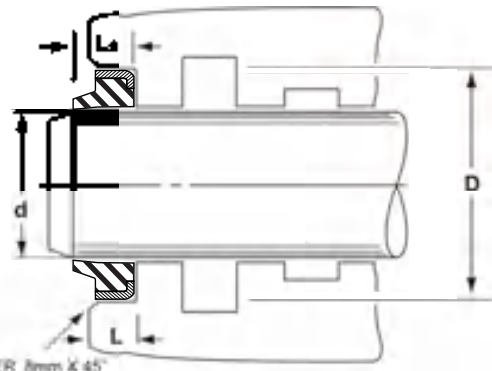
Part Number	Rod Dia. d	Groove Dimensions		Total Seal HT L <sub>1</sub>	Price
		Grv. Dia. H8 D	Grv. HT +0.5/-0 L		
AMH-70X84X8	70	84	8	11	\$28.43
AMH-75X89X8	75	89	8	11	\$28.76
AMH-78X92X8 N90	78	92	8	11	\$75.84
AMH-80X94X8	80	94	8	11	\$28.82
AMH-85X97X7	85	97	7	11	\$42.25
AMH-85X99X8	85	99	8	11	\$31.78
AMH-90X100X7	90	100	7	10	\$34.51
AMH-90X104X8	90	104	8	11	\$34.70
AMH-95X109X8	95	109	8	11	\$30.39
AMH-98X112X8 N90	98	112	8	11	\$97.86
AMH-100X114X8	100	114	8	11	\$36.18
AMH-105X121X9	105	121	9	12	\$38.90
AMH-110X126X9	110	126	9	12	\$46.02
AMH-115X131X9	115	131	9	12	\$27.99
AMH-120X136X9	120	136	9	12	\$51.78
AMH-125X141X9	125	141	9	12	\$64.98
AMH-130X146X9	130	146	9	12	\$65.25
AMH-135X155X10	135	155	10	14	\$57.48
AMH-140X160X10	140	160	10	14	\$66.61
AMH-145X160X10	145	160	10	14	\$76.46
AMH-145X165X10	145	165	10	14	\$77.76
AMH-150X170X10	150	170	10	14	\$84.14
AMH-160X180X10	160	180	10	14	\$93.42
AMH-165X185X10	165	185	10	14	\$67.97
AMH-170X190X10	170	190	10	14	\$109.62
AMH-180X200X10	180	200	10	14	\$107.82
AMH-180X205X12	180	205	12	17	\$107.82
AMH-200X225X12	200	225	12	17	\$140.34
AMH-210X230X12	210	230	12	15	\$139.18
AMH-230X255X12	230	255	12	15	\$137.44
AMH-260X285X12	260	285	12	17	\$184.96



# AM43 Metal Encased Nitrile Wipers - Metric



ALTERNATIVE SEALS:  
AMJ, AMH, AM44, AM47



AM43 series press in-wipers are made from a hard nitrile material chemically bonded to a corrosion resistant carbon steel shell. As with other press-in wipers, there is no need for additional retention devices.

Temperature: -40° to 250°F

EXAMPLE: AM43-63X73X5

Prefix	Inside Diameter		Outside Diameter		Base Height
AM43-	63	x	73	x	5
	63mm		73mm		5mm

Part Number	Rod Dia. f8 d	Grv. Dia. s11 D	Grv. HT L	Total Seal HT L <sub>1</sub>	Price
AM43-6X13X3	6	13	3	5	\$3.50
AM43-8X14X3.5	8	14	3.5	5	\$3.65
AM43-8X22X3	8	22	3	4	\$5.27
AM43-10X16X3	10	16	3	5	\$2.77
AM43-10X18X5	10	18	5	8	\$8.99
AM43-10X20X5	10	20	5	8	\$5.28
AM43-12X18X3.5	12	18	3.5	5	\$3.71
AM43-12X20X4	12	20	4	6	\$2.85
AM43-12X22X5	12	22	5	8	\$3.01
AM43-12X25X5	12	25	5	8	\$2.99
AM43-14X20X3	14	20	3	4	\$4.86
AM43-14X20X4	14	20	4	6	\$5.01
AM43-14X22X3	14	22	3	4	\$4.56
AM43-14X25X5	14	25	5	8	\$5.16
AM43-15X21X3.5	15	21	3.5	5	\$4.33
AM43-15X25X5	15	25	5	8	\$2.82
AM43-15X25X7	15	25	7	10	\$3.92
AM43-16X22X3	16	22	3	4	\$5.73
AM43-16X22X3.5	16	22	3.5	5	\$5.73
AM43-16X24X3.5X5R	16	24	3.5	8	\$9.66
AM43-16X26X5	16	26	5	8	\$4.39
AM43-16X26X7	16	26	7	10	\$5.27
AM43-17X22X5	17	22	5	8	\$5.51
AM43-18X26X3	18	26	3	4	\$3.95
AM43-18X26X5	18	26	5	7	\$5.82
AM43-18X28X5	18	28	5	7	\$8.75
AM43-18X28X7	18	28	7	10	\$5.48
AM43-18X32X5	18	32	5	9	\$5.59
AM43-20X26X4	20	26	4	7	\$5.65
AM43-20X26X5	20	26	5	8	\$5.73
AM43-20X28X3.5	20	28	3.5	5	\$2.82
AM43-20X28X5	20	28	5	8	\$4.98

Part Number	Rod Dia. f8 d	Grv. Dia. s11 D	Grv. HT L	Total Seal HT L <sub>1</sub>	Price
AM43-20X30X4	20	30	4	6	\$2.97
AM43-20X30X5	20	30	5	8	\$2.97
AM43-20X30X7	20	30	7	10	\$3.34
AM43-20X35X7	20	35	7	10	\$5.27
AM43-21X28X3.5	21	28	3.5	5	\$7.33
AM43-22X28X5	22	28	5	9	\$3.24
AM43-22X30X4	22	30	4	5	\$4.95
AM43-22X32X5	22	32	5	8	\$3.68
AM43-22X32X7	22	32	7	10	\$3.74
AM43-22X35X5	22	35	5	8	\$6.43
AM43-23X33X5	23	33	5	8	\$7.29
AM43-24X32X5	24	32	5	7	\$5.27
AM43-24X35X7	24	35	7	10	\$3.51
AM43-25X31X5	25	31	5	7	\$3.92
AM43-25X35X5	25	35	5	8	\$4.94
AM43-25X35X7	25	35	7	10	\$3.24
AM43-26X34X5	26	34	5	8	\$6.21
AM43-26X35X7	26	35	7	10	\$5.54
AM43-28X34X5	28	34	5	8	\$6.21
AM43-28X38X5	28	38	5	8	\$3.29
AM43-28X38X7	28	38	7	10	\$3.54
AM43-28X40X7	28	40	7	10	\$6.27
AM43-30X40X5	30	40	5	7	\$9.33
AM43-30X40X7	30	40	7	10	\$3.46
AM43-30X42X7	30	42	7	10	\$7.95
AM43-30X45X5	30	45	5	10	\$5.27
AM43-32X40X4	32	40	4	7	\$4.14
AM43-32X40X7	32	40	7	10	\$6.75
AM43-32X42X5	32	42	5	7	\$4.36
AM43-32X42X7	32	42	7	10	\$4.38
AM43-32X45X4	32	45	4	8	\$4.36
AM43-32X45X7	32	45	7	10	\$4.38

**AM43 Metal Encased Nitrile Wipers - Metric, cont'd.**

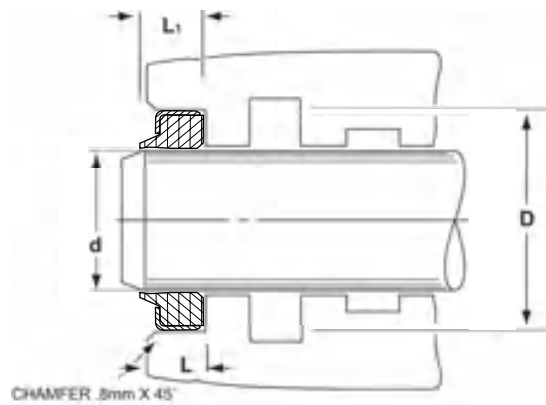
Part Number	Rod Dia. f8 d	Grv. Dia. s11 D	Grv. HT L	Total Seal HT L <sub>1</sub>	Price
AM43-32X50X7	32	50	7	10	\$5.40
AM43-35X45X7	35	45	7	10	\$5.44
AM43-35X47X7	35	47	7	10	\$4.80
AM43-35X50X9	35	50	9	12	\$6.47
AM43-35X52X7	35	52	7	10	\$11.34
AM43-36X45X7	36	45	7	10	\$6.75
AM43-36X46X5	36	46	5	8	\$6.77
AM43-36X46X7	36	46	7	10	\$6.88
AM43-38X48X7	38	48	7	10	\$4.86
AM43-40X50X5	40	50	5	8	\$4.07
AM43-40X50X7	40	50	7	10	\$4.50
AM43-40X52X7	40	52	7	10	\$5.01
AM43-40X55X9	40	55	9	12	\$9.71
AM43-42X52X7	42	52	7	10	\$4.39
AM43-44X55X5	44	55	5	8	\$6.12
AM43-45X55X7	45	55	7	10	\$4.40
AM43-45X57X7	45	57	7	10	\$5.09
AM43-45X60X7	45	60	7	10	\$5.15
AM43-48X60X7	48	60	7	10	\$9.57
AM43-50X56X5	50	56	5	7	\$5.77
AM43-50X60X5	50	60	5	7	\$7.80
AM43-50X60X5-R	50	60	5	7	\$7.91
AM43-50X60X7	50	60	7	10	\$8.01
AM43-50X65X5	50	65	5	8	\$8.48
AM43-50X65X7	50	65	7	10	\$6.02
AM43-50X72X8	50	72	8	11	\$12.40
AM43-52X62X7	52	62	7	10	\$8.74
AM43-52X62X7V	52	62	7	10	\$35.05
AM43-55X63X7	55	63	7	10	\$5.88
AM43-55X65X7	55	65	7	10	\$5.46
AM43-56X65X7	56	65	7	10	\$5.46
AM43-56X66X7	56	66	7	10	\$5.90
AM43-60X70X5	60	70	5	8	\$6.74
AM43-60X70X7	60	70	7	10	\$7.88
AM43-60X74X5	60	74	5	8	\$12.82
AM43-60X75X7	60	75	7	10	\$6.57
AM43-60X80X7	60	80	7	10	\$11.60
AM43-63X73X5	63	73	5	7	\$11.33
AM43-63X73X7	63	73	7	10	\$11.32
AM43-63X75X7	63	75	7	10	\$5.75
AM43-67X83X7	67	83	7	10	\$20.54
AM43-63X83X5	63	83	5	8	\$14.77
AM43-65X75X7	65	75	7	10	\$6.20
AM43-70X80X7	70	80	7	10	\$6.80

Part Number	Rod Dia. f8 d	Grv. Dia. s11 D	Grv. HT L	Total Seal HT L <sub>1</sub>	Price
AM43-72X82X7	72	82	7	10	\$12.94
AM43-73X89X7	73	89	7	10	\$11.06
AM43-75X85X7	75	85	7	10	\$7.83
AM43-75X87X5	75	87	5	7	\$13.61
AM43-78X88X7	78	88	7	10	\$12.51
AM43-80X88X7R	80	88	7	10	\$15.77
AM43-80X90X7	80	90	7	10	\$8.34
AM43-82X92X7	82	92	7	10	\$20.05
AM43-84X94X5	84	94	5	8	\$18.52
AM43-85X95X7	85	95	7	10	\$16.07
AM43-90X100X7	90	100	7	10	\$13.26
AM43-95X105X7	95	105	7	10	\$12.21
AM43-100X110X7	100	110	7	10	\$12.44
AM43-100X115X9	100	115	9	12	\$25.55
AM43-105X115X7	105	115	7	10	\$14.64
AM43-110X120X7	110	120	7	10	\$14.65
AM43-115X125X7	115	125	7	10	\$15.53
AM43-120X130X7	120	130	7	10	\$17.87
AM43-123X147X9	123	147	9	12	\$28.44
AM43-125X140X9	125	140	9	12	\$16.52
AM43-130X145X9	130	145	9	12	\$16.78
AM43-135X145X7	135	145	7	10	\$55.44
AM43-135X150X9	135	150	9	12	\$35.12
AM43-140X150X7	140	150	7	10	\$35.44
AM43-140X155X9	140	155	9	12	\$19.91
AM43-145X160X9	145	160	9	12	\$37.21
AM43-150X165X9	150	165	9	12	\$38.98
AM43-150X166X8	150	166	8	12	\$48.15
AM43-160X175X9	160	175	9	12	\$23.50
AM43-165X180X12	165	180	12	16	\$49.86
AM43-170X185X10	170	185	10	14	\$59.69
AM43-175X195X10	175	195	10	14	\$79.48
AM43-180X195X10	180	195	10	14	\$75.31
AM43-185X200X10	185	200	10	14	\$80.31
AM43-200X215X7	200	215	7	10	\$87.22
AM43-200X220X12	200	220	12	16	\$63.42
AM43-210X230X12	210	230	12	16	\$86.23
AM43-220X240X12	220	240	12	16	\$96.59
AM43-240X260X12	240	260	12	16	\$108.81
AM43-250X270X12	250	270	12	16	\$143.71
AM43-270X295X12	270	295	12	16	\$180.71
AM43-275X300X12	275	300	12	16	\$190.57
AM43-320X340X12	320	340	12	16	\$219.37

# AM44 Metal Encased Urethane Wipers - Metric



**ALTERNATIVE SEALS:**  
AMJ, AMH, AM43



EXAMPLE: AM44-63X75X7					
Prefix	Inside Diameter		Outside Diameter		Base Height
AM44-	63	x	75	x	7
	63mm		75mm		7mm

AM44 series press-in wipers are made from a urethane material bonded to a corrosion resistant carbon steel shell. These wipers may be interchanged, in many cases, with AMH series wipers when the double lip is not desirable.

Temperature: -40° to 230°F

Part Number	Rod Dia. d	Groove Dimensions		Total Seal HT L <sub>1</sub>	Price
		Grv. Dia. H8 D	Grv. HT +0.5/-0.0 L		
AM44-12X20X4.5	12	20	4.5	6	\$10.22
AM44-12X22X5	12	22	5	7	\$16.96
AM44-14X20X3.5	14	20	3.5	5	\$10.07
AM44-15X21X3.5	15	21	3.5	5	\$11.52
AM44-15X25X5	15	25	5	7	\$10.51
AM44-16X22X3	16	22	3	5	\$8.51
AM44-16X26X5	16	26	5	7	\$10.22
AM44-17X24X3.5	17	24	3.5	5	\$8.98
AM44-18X28X5	18	28	5	7	\$12.81
AM44-18X30X6	18	30	6	9	\$13.81
AM44-20X28X3.5	20	28	3.5	5	\$11.44
AM44-20X30X4	20	30	4	6	\$12.13
AM44-20X32X6	20	32	6	9	\$13.38
AM44-22X32X5	22	32	5	7	\$13.68
AM44-25X35X5	25	35	5	7	\$14.33
AM44-25X35X7	25	35	7	10	\$14.77
AM44-25X37X6	25	37	6	9	\$15.11
AM44-28X38X5	28	38	5	7	\$8.99
AM44-28X40X7	28	40	7	10	\$11.35
AM44-30X40X5	30	40	5	7	\$10.44
AM44-30X40X7	30	40	7	10	\$11.34

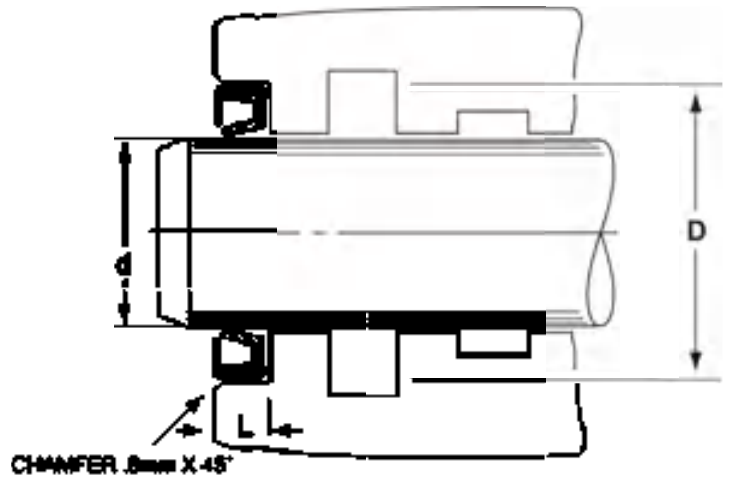
Part Number	Rod Dia. d	Groove Dimensions		Total Seal HT L <sub>1</sub>	Price
		Grv. Dia. H8 D	Grv. HT +0.5/-0.0 L		
AM44-30X42X6	30	42	6	9	\$15.72
AM44-30X45X5	30	45	5	7	\$17.12
AM44-30X45X7	30	45	7	10	\$20.98
AM44-32X42X5	32	42	5	7	\$17.12
AM44-32X44X7	32	44	7	10	\$221.50
AM44-32X45X4	32	45	4	6	\$15.49
AM44-35X45X7	35	45	7	10	\$19.33
AM44-35X47X7	35	47	7	10	\$19.54
AM44-36X45X7	36	45	7	10	\$21.12
AM44-36X46X7	36	46	7	10	\$28.93
AM44-36X50X7	36	50	7	10	\$17.12
AM44-38X48X7	38	48	7	10	\$17.43
AM44-38X50X7	38	50	7	10	\$25.95
AM44-40X50X5	40	50	5	8	\$21.89
AM44-40X50X7	40	50	7	10	\$21.44
AM44-40X52X7	40	52	7	10	\$22.82
AM44-40X60X7	40	60	7	10	\$21.90
AM44-42X52X7	42	52	7	10	\$21.80
AM44-45X55X7	45	55	7	10	\$17.00
AM44-45X57X7	45	57	7	10	\$23.69
AM44-45X60X7	45	60	7	10	\$18.32

**AM44 Metal Encased Urethane Wipers - Metric, cont'd.**

Part Number	Rod Dia. d	Groove Dimensions		Total Seal HT L <sub>1</sub>	Price
		Grv. Dia. H8 D	Grv. HT +0.5/-0.0 L		
AM44-47X59X7	47	59	7	10	\$21.90
AM44-48X60X7	48	60	7	10	\$21.07
AM44-48X62X7	48	62	7	10	\$20.18
AM44-50X56X5	50	56	5	7	\$21.90
AM44-50X60X7	50	60	7	10	\$25.58
AM44-50X62X7	50	62	7	10	\$22.10
AM44-53X67X8	53	67	8	11	\$20.63
AM44-55X63X7	55	63	7	10	\$24.28
AM44-55X69X8	55	69	8	11	\$28.38
AM44-56X66X7	56	66	7	10	\$21.85
AM44-56X70X8	56	70	8	11	\$29.10
AM44-60X70X7	60	70	7	10	\$29.12
AM44-60X74X8	60	74	8	11	\$29.29
AM44-63X75X7	63	75	7	10	\$23.06
AM44-63X77X8	63	77	8	11	\$17.92
AM44-64X78X8	64	78	8	11	\$32.81
AM44-65X75X7	65	75	7	10	\$27.03
AM44-65X79X8	65	79	8	11	\$32.80
AM44-70X80X7	70	80	7	10	\$28.68
AM44-70X84X8	70	84	8	11	\$31.72
AM44-75X83X7	75	83	7	10	\$58.21
AM44-75X85X7	75	85	7	10	\$25.17
AM44-75X89X8	75	89	8	11	\$34.56
AM44-80X90X7	80	90	7	10	\$29.30
AM44-80X94X8	80	94	8	11	\$38.91
AM44-82X92X7	82	92	7	10	\$35.29
AM44-85X99X8	85	99	8	11	\$40.08
AM44-90X100X7	90	100	7	10	\$32.77
AM44-90X104X8	90	104	8	11	\$44.20
AM44-95X105X7	95	105	7	10	\$39.91
AM44-95X109X8	95	109	8	11	\$40.12
AM44-100X110X7	100	110	7	10	\$36.33
AM44-100X114X8	100	114	8	11	\$39.64

Part Number	Rod Dia. d	Groove Dimensions		Total Seal HT L <sub>1</sub>	Price
		Grv. Dia. H8 D	Grv. HT +0.5/-0.0 L		
AM44-100X115X8	100	115	8	11	\$39.63
AM44-105X115X7	105	115	7	10	\$40.83
AM44-105X121X9	105	121	9	12	\$55.79
AM44-110X120X7	110	120	7	10	\$40.30
AM44-110X126X9	110	126	9	12	\$51.21
AM44-114X140X8	114	140	8	12	\$61.23
AM44-115X131X9	115	131	9	12	\$53.92
AM44-120X130X7	120	130	7	10	\$38.88
AM44-120X136X9	120	136	9	12	\$56.06
AM44-125X140X9	125	140	9	12	\$51.41
AM44-125X141X9	125	141	9	12	\$64.46
AM44-130X145X9	130	145	9	12	\$64.46
AM44-130X146X9	130	146	9	12	\$67.50
AM44-132X148X9	132	148	9	12	\$66.07
AM44-135X150X9	135	150	9	12	\$66.85
AM44-140X155X9	140	155	9	12	\$59.14
AM44-140X160X10	140	160	10	14	\$73.30
AM44-145X165X10	145	165	10	14	\$76.97
AM44-150X165X9	150	165	9	12	\$76.97
AM44-150X170X10	150	170	10	14	\$80.51
AM44-160X175X9	160	175	9	12	\$113.59
AM44-160X180X10	160	180	10	14	\$100.54
AM44-165X185X10	165	185	10	14	\$114.34
AM44-170X190X10	170	190	10	14	\$105.38
AM44-180X195X10	180	195	10	14	\$106.60
AM44-180X205X12	180	205	12	16	\$95.25
AM44-190X215X12	190	215	12	16	\$146.03
AM44-200X220X12	200	220	12	16	\$147.41
AM44-200X225X12	200	225	12	16	\$150.95
AM44-210X235X12	210	235	12	16	\$165.65
AM44-212X237X12	212	237	12	16	\$189.28
AM44-224X249X12	224	249	12	16	\$190.05
AM44-225X250X12	225	250	12	16	\$208.79

# AM46 Double Metal Can NBR Pin Wipers - Metric



**ALTERNATIVE SEALS:**  
AMJ, AM47, AM48

EXAMPLE: AM46-65X80X4					
Prefix	Inside Diameter		Outside Diameter		Base Height
AM46-	65	x	80	x	4
	65mm		80mm		4mm

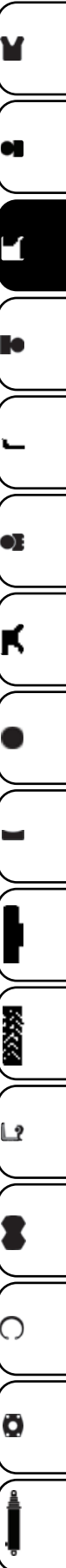
AM46 series wipers have a double metal can making them rigid. They are used mainly for hinge pin applications.

Temperature: -40° to 230°F

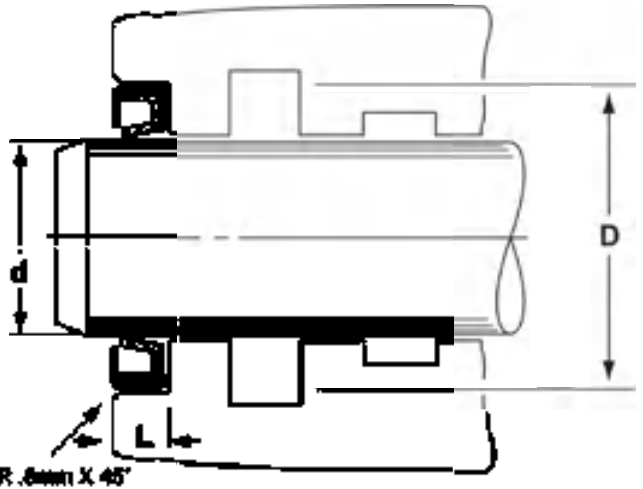
Material: Nitrile/Steel

Part Number	Rod Dia. d	Groove Dimensions		Price
		Groove Dia. H8 D	Groove HT +0.5/-0 L	
AM46-35X45X4	35	45	4	\$4.41
AM46-40X50X4	40	50	4	\$10.02
AM46-45X55X4	45	55	4	\$5.81
AM46-50X60X4	50	60	4	\$6.60
AM46-50X65X4	50	65	4	\$6.91
AM46-50X65X8	50	65	8	\$7.13
AM46-55X65X4	55	65	4	\$13.07
AM46-55X68X4	55	68	4	\$8.77
AM46-55X70X4	55	70	4	\$8.37
AM46-60X75X4	60	75	4	\$9.25
AM46-60X75X8	60	75	8	\$25.41
AM46-65X80X4	65	80	4	\$10.73
AM46-65X80X8	65	80	8	\$16.12
AM46-70X80X4	70	80	4	\$11.63
AM46-70X85X4	70	85	4	\$11.69
AM46-70X85X8	70	85	8	\$12.15
AM46-75X90X4	75	90	4	\$13.14
AM46-75X90X8	75	90	8	\$20.92
AM46-80X95X4	80	95	4	\$14.62

Part Number	Rod Dia. d	Groove Dimensions		Price
		Groove Dia. H8 D	Groove HT +0.5/-0 L	
AM46-80X95X6	80	95	6	\$18.49
AM46-80X95X8	80	95	8	\$18.88
AM46-85X100X4	85	100	4	\$18.72
AM46-85X100X8	85	100	8	\$22.95
AM46-90X105X4	90	105	4	\$19.22
AM46-90X105X8	90	105	8	\$23.82
AM46-95X110X4	95	110	4	\$19.64
AM46-100X115X4	100	115	4	\$22.40
AM46-100X115X8	100	115	8	\$26.69
AM46-100X120X4	100	120	4	\$25.26
AM46-110X125X4	110	125	4	\$26.29
AM46-110X125X8	110	125	8	\$30.40
AM46-110X130X8	110	130	8	\$41.21
AM46-115X135X8	115	135	8	\$42.85
AM46-120X135X8	120	135	8	\$31.93
AM46-120X140X8	120	140	8	\$44.57
AM46-130X150X8	130	150	8	\$46.35
AM46-140X160X8	140	160	8	\$48.20



# AM48 Double Metal Can PU Pin Wipers - Metric



ALTERNATIVE SEALS:  
AMJ, AM46, AM47

EXAMPLE: AM48-100X115X4					
Prefix	Inside Diameter		Outside Diameter		Base Height
AM48-	100	x	115	x	4
	100mm		115mm		4mm

AM48 series wipers have a double metal can making them rigid. They are used mainly for hinge pin applications.

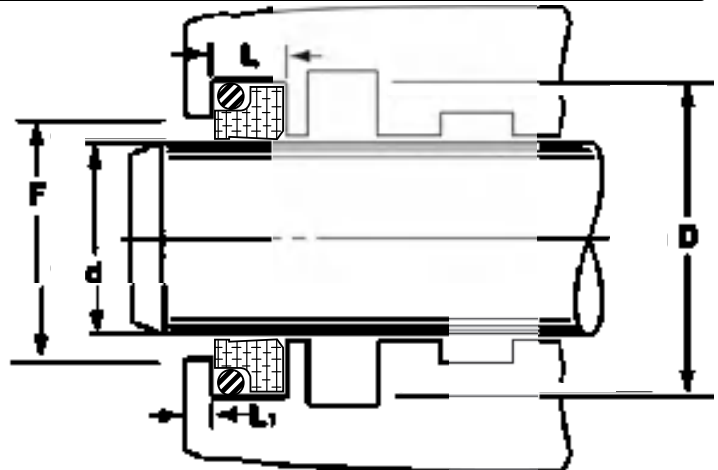
Material: Urethane/Steel

Temperature: -40° to 230°F

Part Number	Rod Dia. d	Groove Dia. H8 D	Groove Height L	Price
AM48-35X45X4	35	45	4	\$16.55
AM48-40X50X4	40	50	4	\$16.55
AM48-40X50X6	40	50	6	\$16.55
AM48-45X55X4	45	55	4	\$17.20
AM48-50X60X5	50	60	5	\$19.78
AM48-50X60X6	50	60	6	\$20.62
AM48-50X65X6	50	65	6	\$22.50
AM48-55X68X4	55	68	4	\$21.85
AM48-55X70X6	55	70	6	\$24.83
AM48-55X75X6	55	75	6	\$24.83
AM48-60X75X4	60	75	4	\$24.83
AM48-60X75X6	60	75	6	\$25.92
AM48-65X80X4	65	80	4	\$27.22
AM48-65X80X6	65	80	6	\$29.09
AM48-65X85X5	65	85	5	\$30.19
AM48-65X85X6	65	85	6	\$31.68
AM48-70X80X6	70	80	6	\$29.09
AM48-70X85X4	70	85	4	\$27.22
AM48-70X85X6	70	85	6	\$31.42
AM48-75X90X5	75	90	5	\$32.71
AM48-75X90X9.5	75	90	9.5	\$39.50
AM48-75X95X7	75	95	7	\$38.01
AM48-75X95X9.5	75	95	9.5	\$42.28

Part Number	Rod Dia. d	Groove Dia. H8 D	Groove Height L	Price
AM48-80X95X4	80	95	4	\$35.49
AM48-80X95X6	80	95	6	\$37.62
AM48-80X100X6	80	100	6	\$38.85
AM48-90X105X6	90	105	6	\$41.44
AM48-90X110X9.5	90	110	9.5	\$52.23
AM48-95X110X9.5	95	110	9.5	\$55.66
AM48-95X115X9.5	95	115	9.5	\$55.66
AM48-100X115X4	100	115	4	\$51.85
AM48-100X115X8	100	115	8	\$51.84
AM48-100X120X8	100	120	8	\$54.17
AM48-100X120X9.5	100	120	9.5	\$59.02
AM48-110X125X4	110	125	4	\$51.85
AM48-110X125X8	110	125	8	\$58.18
AM48-110X130X9.5	110	130	9.5	\$66.26
AM48-110X140X8	110	140	8	\$70.72
AM48-120X135X8	120	135	8	\$64.77
AM48-120X135X9.5	120	135	9.5	\$70.07
AM48-120X140X9.5	120	140	9.5	\$74.14
AM48-130X155X9.5	130	155	9.5	\$86.23
AM48-140X155X8	140	155	8	\$75.44
AM48-160X180X9.5	160	180	9.5	\$132.77
AM48-190X220X8	190	220	8	\$154.80

# TW 100 Series Excluders - Metric



ALTERNATIVE SEALS:  
A40

EXAMPLE: TW102E-130MMB			
Prefix	Groove Height	Inside Diameter	Suffix
TW10_*	2E-	130MM	B
	6mm	130mm	BTFE

\* (0=4mm, 1=5mm, 2=6mm, 3=8.4mm, 4=11mm) = Groove Ht.

The TW100 series TFE wipers are designed for those applications that necessitate a high sliding speed rate. With a PTFE excluder lip, these wipers offer a low friction alternative to traditional snap-in wipers. Standard material is bronze-filled PTFE with nitrile energizers, but can be made from any TFE compound. Temperature ranges can be increased by using FKM o-rings.

Temperature: -40° to 225°F

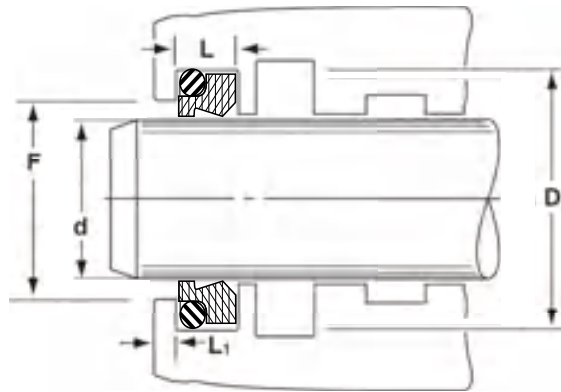
Part No.	Rod Dia. d	Groove Dia. D	Groove Height L	Throat Dia. F	Groove Lip Height L <sub>1</sub>	O-Ring	Price
TW100E-25MMB	25	29.8	4	25.7	1	023	\$24.84
TW101E-12MMB	12	18.8	5	15.5	2	113	\$24.47
TW101E-14MMB	14	20.8	5	17.5	2	114	\$28.27
TW101E-15MMB	15	21.8	5	18.5	2	115	\$28.77
TW101E-16MMB	16	22.8	5	19.5	2	116	\$29.52
TW101E-18MMB	18	24.8	5	21.5	2	117	\$31.87
TW101E-20MMB	20	26.8	5	23.5	2	118	\$32.34
TW101E-22MMB	22	28.8	5	25.5	2	119	\$34.06
TW101E-24MMB	24	30.8	5	27.5	2	120	\$32.61
TW101E-25MMB	25	31.8	5	28.5	2	121	\$33.99
TW101E-26MMB	26	32.8	5	29.5	2	122	\$34.18
TW101E-28MMB	28	34.8	5	31.5	2	123	\$34.58
TW101E-30MMB	30	36.8	5	33.5	2	124	\$35.87
TW101E-32MMB	32	38.8	5	35.5	2	126	\$36.26
TW101E-35MMB	35	41.8	5	38.5	2	127	\$37.13
TW101E-36MMB	36	42.8	5	39.5	2	129	\$37.85
TW101E-38MMB	38	44.8	5	41.5	2	130	\$37.90
TW101E-40MMB	40	46.8	5	43.5	2	131	\$38.05
TW101E-42MMB	42	48.8	5	45.5	2	132	\$38.32
TW101E-45MMB	45	51.8	5	48.5	2	134	\$39.19
TW101E-48MMB	48	54.8	5	51.5	2	136	\$39.22
TW101E-50MMB	50	56.8	5	53.5	2	137	\$39.47
TW101E-52MMB	52	58.8	5	55.5	2	138	\$39.62
TW101E-55MMB	55	61.8	5	58.5	2	140	\$39.81
TW101E-56MMB	56	62.8	5	59.5	2	140	\$39.93
TW101E-58MMB	58	64.8	5	61.5	2	142	\$40.11
TW101E-60MMB	60	66.8	5	63.5	2	143	\$40.44
TW101E-70MMB	70	76.8	5	73.5	2	148	\$42.28
TW102E-65MMB	65	73.8	6	69	3	231	\$51.78
TW102E-70MMB	70	78.8	6	74	3	233	\$44.34
TW102E-75MMB	75	83.8	6	79	3	234	\$45.68
TW102E-80MMB	80	88.8	6	84	3	236	\$47.22

**TW 100 Series Excluders - Metric, cont'd.**

Part No.	Rod Dia. d	Groove Dia. D	Groove Height L	Throat Dia. F	Groove Lip Height L <sub>1</sub>	O-Ring	Price
TW102E-85MMB	85	93.8	6	89	3	237	\$48.76
TW102E-88.9MMB	88.9	98.8	6	92.9	3	239	\$49.62
TW102E-90MMB	90	98.8	6	94	3	239	\$49.98
TW102E-95MMB	95	103.8	6	99	3	241	\$49.84
TW102E-100MMB	100	108.8	6	104	3	242	\$54.20
TW102E-105MMB	105	113.8	6	109	3	244	\$58.61
TW102E-110MMB	110	118.8	6	114	3	245	\$58.61
TW102E-120MMB	120	128.8	6	124	3	249	\$62.82
TW102E-125MMB	125	133.8	6	129	3	250	\$65.18
TW102E-130MMB	130	138.8	6	134	3	252	\$67.33
TW102E-140MMB	140	148.8	6	144	3	255	\$74.56
TW102E-150MMB	150	158.8	6	154	3	258	\$80.32
TW102E-155MMB	155	163.8	6	159	3	259	\$81.16
TW102E-160MMB	160	168.8	6	164	3	259	\$82.73
TW102E-165MMB	165	173.8	6	169	3	260	\$83.09
TW102E-170MMB	170	178.8	6	174	3	261	\$85.42
TW102E-175MMB	175	183.8	6	179	3	262	\$125.88
TW102E-180MMB	180	188.8	6	184	3	263	\$130.80
TW102E-185MMB	185	193.8	6	189	3	263	\$131.05
TW102E-190MMB	190	198.8	6	194	3	264	\$132.42
TW102E-195MMB	195	203.8	6	199	3	265	\$116.56
TW102E-200MMB	200	208.8	6	204	3	266	\$120.64
TW102E-210MMB	210	218.8	6	214	3	267	\$135.52
TW102E-220MMB	220	228.8	6	224	3	269	\$136.37
TW102E-225MMB	225	233.8	6	229	3	270	\$138.23
TW102E-230MMB	230	238.8	6	234	3	271	\$144.29
TW102E-240MMB	240	248.8	6	244	3	272	\$161.54
TW102E-250MMB	250	258.8	6	254	3	274	\$191.51
TW103E-90MMB	90	102.2	8.4	94.5	4	343	\$193.99
TW103E-260MMB	260	272.2	8.4	264.5	4	378	\$275.81
TW103E-270MMB	270	282.2	8.4	274.5	4	379	\$287.53
TW103E-280MMB	280	292.2	8.4	284.5	4	379	\$299.35
TW103E-290MMB	290	302.2	8.4	294.5	4	380	\$315.05
TW103E-300MMB	300	312.2	8.4	304.5	4	381	\$326.77
TW103E-310MMB	310	322.2	8.4	314.5	4	381	\$337.78
TW103E-320MMB	320	332.2	8.4	324.5	4	382	\$348.68
TW103E-330MMB	330	342.2	8.4	334.5	4	382	\$359.59
TW103E-340MMB	340	352.2	8.4	344.5	4	382	\$370.39
TW103E-350MMB	350	362.2	8.4	354.5	4	383	\$381.30
TW103E-360MMB	360	372.2	8.4	364.5	4	383	\$392.10
TW103E-370MMB	370	382.2	8.4	374.5	4	383	\$452.95
TW103E-380MMB	380	392.2	8.4	384.5	4	384	\$455.31
TW103E-390MMB	390	402.2	8.4	394.5	4	384	\$467.42
TW103E-400MMB	400	412.2	8.4	404.5	4	385	\$470.70
TW103E-410MMB	410	422.2	8.4	414.5	4	385	\$482.36
TW103E-420MMB	420	432.2	8.4	424.5	4	386	\$494.14
TW104E-430MMB	430	446	11	435.2	4	463	\$595.20
TW104E-440MMB	440	456	11	445.2	4	464	\$608.93
TW104E-450MMB	450	466	11	455.2	4	465	\$622.78
TW104E-460MMB	460	476	11	465.2	4	466	\$636.77
TW104E-470MMB	470	486	11	475.2	4	466	\$650.50
TW104E-480MMB	480	496	11	485.2	4	467	\$664.35
TW104E-490MMB	490	506	11	495.2	4	468	\$678.21
TW104E-500MMB	500	516	11	505.2	4	469	\$692.07



# TW 500 Series Excluders - Metric



ALTERNATIVE SEALS:  
DA24

EXAMPLE: TW502E-130MMB			
Prefix	Groove Height	Inside Diameter	Suffix
TW50_*	2E-	130MM	B
	8.1mm	130mm	BTFE

\* (1=4.2mm & 6.3mm, 2=8.1mm, 3=9.5mm, 4=14mm) = Groove Ht.

The TW500 series BTFE wipers are designed for those applications that necessitate a high sliding speed rate. They offer great wear resistance and are a good low friction alternative to traditional snap-in wipers. These wipers also incorporate a secondary lip that aids stability and helps maintain a pocket of oil between wiping surfaces. This aids in dissipating any heat buildup that may occur. Standard material is bronze-filled PTFE. Temperature range can be increased by using a FKM o-ring energizer. Other materials are available.

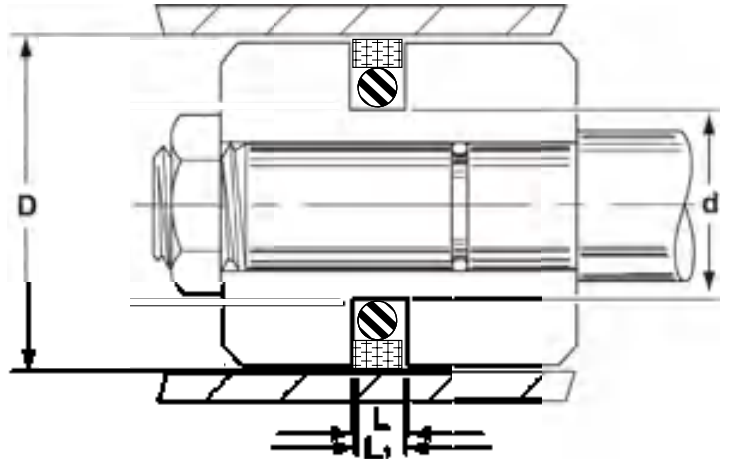
Temperature: -40° to 225°F

Part Number	Rod Dia. (f8) d	Groove Dia. (js11) D	Groove Height L	Throat Dia. (h11) F	Groove Lip Height L <sub>1</sub>	O-Ring	Price
TW501E-20MMB	20	27.6	4.2	21	2	118	\$13.05
TW501E-22MMB	22	29.6	4.2	23	2	120	\$20.71
TW501E-24MMB	24	31.6	4.2	25	2	121	\$21.17
TW501E-25MMB	25	32.6	4.2	26	2	122	\$17.26
TW501E-28MMB	28	35.6	4.2	29	2	123	\$22.46
TW501E-30MMB	30	37.6	4.2	31	2	125	\$11.18
TW501E-32MMB	32	39.6	4.2	33	2	126	\$15.17
TW501E-35MMB	35	42.6	4.2	36	2	128	\$16.22
TW501E-36MMB	36	43.6	4.2	37	2	129	\$16.35
TW501E-38MMB	38	45.6	4.2	39	2	130	\$26.71
TW501E-40MMB	40	48.8	6.3	41.5	2	132	\$26.33
TW501E-40MMP	40	48.8	6.3	41.5	2	132	\$54.56
TW501E-42MMB	42	50.8	6.3	43.5	2	133	\$26.55
TW501E-45MMB	45	53.8	6.3	46.5	2	135	\$26.70
TW501E-48MMB	48	56.8	6.3	49.5	2	137	\$26.85
TW501E-50MMB	50	58.8	6.3	51.5	2	137	\$26.85
TW501E-50MMP	50	58.8	6.3	51.5	2	137	\$24.69
TW501E-52MMB	52	60.8	6.3	53.5	2	139	\$26.99
TW501E-55MMB	55	63.8	6.3	56.5	2	141	\$27.07
TW501E-56MMB	56	64.8	6.3	57.5	2	142	\$28.52
TW501E-58MMB	58	66.8	6.3	59.5	2	143	\$28.87
TW501E-60MMB	60	68.8	6.3	61.5	2	144	\$22.92
TW501E-63MMB	63	71.8	6.3	64.5	2	146	\$26.26
TW501E-65MMB	65	73.8	6.3	66.5	2	147	\$26.75
TW501E-100MMB	100	108.8	6.3	101.5	2	155	\$39.91
TW501E-110MMB	110	118.8	6.3	111.5	2	157	\$48.50
TW502E-70MMB	70	82.2	8.1	72	3	234	\$25.68
TW502E-70MMP	70	82.2	8.1	72	3	234	\$38.01
TW502E-75MMB	75	87.2	8.1	77	3	235	\$34.84
TW502E-80MMB	80	92.2	8.1	82	3	237	\$39.45
TW502E-80MMP	80	92.2	8.1	82	3	237	\$40.16
TW502E-85MMB	85	97.2	8.1	87	3	239	\$44.50
TW502E-85MMP	85	97.2	8.1	87	3	239	\$47.64

TW 500 Series Excluders - Metric, cont'd.

Part Number	Rod Dia. (f8) d	Groove Dia. (js11) D	Groove Height L	Throat Dia. (h11) F	Groove Lip Height L <sub>1</sub>	O-Ring	Price
TW502E-90MMB	90	102.2	8.1	92	3	240	\$40.81
TW502E-90MMP	90	102.2	8.1	92	3	240	\$39.93
TW502E-95MMB	95	107.2	8.1	97	3	242	\$43.02
TW502E-95MMP	95	107.2	8.1	97	3	242	\$57.00
TW502E-100MMB	100	112.2	8.1	102	3	243	\$42.94
TW502E-105MMB	105	117.2	8.1	107	3	245	\$43.52
TW502E-105MMP	105	117.2	8.1	107	3	245	\$44.09
TW502E-110MMB	110	122.2	8.1	112	3	246	\$45.56
TW502E-110MMP	110	122.2	8.1	112	3	246	\$44.10
TW502E-115MMB	115	127.2	8.1	117	3	248	\$50.48
TW502E-120MMB	120	132.2	8.1	122	3	249	\$54.61
TW502E-125MMB	125	137.2	8.1	127	3	251	\$51.81
TW502E-125MMP	125	137.2	8.1	127	3	251	\$53.71
TW502E-130MMB	130	142.2	8.1	132	3	253	\$49.75
TW502E-135MMB	135	147.2	8.1	137	3	254	\$55.24
TW502E-135MMP	135	147.2	8.1	137	3	254	\$51.65
TW503E-140MMB	140	156	9.5	142.5	3	359	\$67.73
TW503E-140MMP	140	156	9.5	142.5	3	359	\$62.07
TW503E-145MMB	145	161	9.5	147.5	3	360	\$77.32
TW503E-150MMB	150	166	9.5	152.5	3	361	\$79.68
TW503E-155MMB	155	171	9.5	157.5	3	362	\$82.68
TW503E-160MMB	160	176	9.5	162.5	3	363	\$85.36
TW503E-170MMB	170	186	9.5	172.5	3	365	\$91.90
TW503E-180MMB	180	196	9.5	182.5	3	366	\$97.48
TW503E-180MMP	180	196	9.5	182.5	3	366	\$88.47
TW503E-190MMB	190	206	9.5	192.5	3	368	\$104.34
TW503E-200MMB	200	216	9.5	202.5	3	369	\$111.20
TW503E-210MMB	210	226	9.5	212.5	3	371	\$119.57
TW503E-220MMB	220	236	9.5	222.5	3	373	\$128.79
TW503E-225MMB	225	241	9.5	227.5	3	373	\$133.72
TW503E-230MMB	230	246	9.5	232.5	3	374	\$138.65
TW503E-240MMB	240	256	9.5	242.5	3	376	\$152.27
TW503E-250MMB	250	266	9.5	252.5	3	377	\$179.61
TW503E-260MMB	260	276	9.5	262.5	4	378	\$221.97
TW503E-270MMB	270	286	9.5	272.5	4	379	\$237.58
TW503E-280MMB	280	296	9.5	282.5	4	379	\$251.08
TW503E-290MMB	290	306	9.5	292.5	4	380	\$268.02
TW503E-300MMB	300	316	9.5	302.5	4	381	\$282.29
TW503E-310MMB	310	326	9.5	312.5	4	381	\$294.62
TW503E-320MMB	320	336	9.5	322.5	4	382	\$307.05
TW503E-330MMB	330	346	9.5	332.5	4	382	\$319.39
TW503E-340MMB	340	356	9.5	342.5	4	382	\$331.83
TW503E-350MMB	350	366	9.5	352.5	4	383	\$344.27
TW503E-360MMB	360	376	9.5	362.5	4	383	\$356.60
TW503E-370MMB	370	386	9.5	372.5	4	384	\$369.03
TW503E-380MMB	380	396	9.5	382.5	4	384	\$381.48
TW503E-390MMB	390	406	9.5	392.5	4	384	\$393.81
TW504E-400MMB	400	424	14	405.2	4	461	\$462.08
TW504E-410MMB	410	434	14	415.2	4	462	\$475.80
TW504E-420MMB	420	444	14	425.2	4	462	\$489.64
TW504E-430MMB	430	454	14	435.2	4	463	\$503.50
TW504E-440MMB	440	464	14	445.2	4	464	\$510.95
TW504E-450MMB	450	474	14	455.2	4	465	\$521.87
TW504E-460MMB	460	484	14	465.2	4	465	\$534.94
TW504E-470MMB	470	494	14	475.2	4	466	\$544.43
TW504E-480MMB	480	504	14	485.2	4	467	\$572.44
TW504E-490MMB	490	514	14	495.2	4	468	\$586.16
TW504E-500MMB	500	524	14	505.2	4	469	\$595.62

# AS700 2pc. PTFE Piston Seals - Inch



EXAMPLE: AS700E-32	
Prefix	Bore Diameter
AS700E-	32
	2"

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

AS700 style rectangular piston seal assemblies are manufactured from glass filled PTFE and include a 70 durometer nitrile o-ring energizer. This medium duty seal is found in many forklift and agricultural applications and can be considered in applications requiring a compact seal and ease of installation.

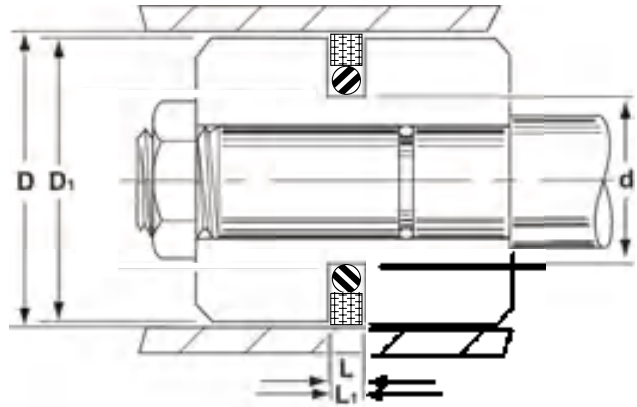
Temperature: -40° to 225°F

Pressure: 0 to 5,000 PSI

Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Dia. +.004/-0 D	Groove Dia. +0/-0.004 d	Groove Height +.004/-0 L	Seal Height L <sub>1</sub>	Seal Wall	Expander Cross Section	Price
AS700E-16	1.000	0.787	0.094	0.088	0.055	0.070	\$6.95
AS700E-18	1.125	0.912	0.094	0.088	0.055	0.070	\$7.11
AS700E-20	1.250	1.037	0.094	0.088	0.055	0.070	\$7.28
AS700E-22	1.375	1.162	0.094	0.088	0.055	0.070	\$7.45
AS700E-24	1.500	1.287	0.094	0.088	0.055	0.070	\$7.81
AS700E-26	1.625	1.412	0.094	0.088	0.055	0.070	\$8.01
AS700E-28	1.750	1.473	0.126	0.120	0.055	0.103	\$8.80
AS700E-30	1.875	1.598	0.126	0.120	0.055	0.103	\$9.08
AS700E-32	2.000	1.723	0.126	0.120	0.055	0.103	\$9.46
AS700E-36	2.250	1.973	0.126	0.120	0.055	0.103	\$10.32
AS700E-40	2.500	2.223	0.126	0.120	0.055	0.103	\$10.92
AS700E-44	2.750	2.348	0.157	0.150	0.085	0.139	\$13.02
AS700E-48	3.000	2.603	0.157	0.150	0.085	0.139	\$16.51
AS700E-52	3.250	2.853	0.157	0.150	0.085	0.139	\$17.56
AS700E-56	3.500	3.103	0.157	0.150	0.085	0.139	\$17.77
AS700E-60	3.750	3.353	0.157	0.150	0.085	0.139	\$17.94
AS700E-64	4.000	3.603	0.157	0.150	0.085	0.139	\$18.23
AS700E-68	4.250	3.853	0.157	0.150	0.085	0.139	\$18.31
AS700E-72	4.500	4.103	0.157	0.150	0.085	0.139	\$18.74
AS700E-76	4.750	4.353	0.157	0.150	0.085	0.139	\$21.33
AS700E-80	5.000	4.603	0.157	0.150	0.085	0.139	\$23.14
AS700E-86	5.375	4.978	0.157	0.150	0.085	0.139	\$39.55
AS700E-88	5.500	5.103	0.157	0.150	0.085	0.139	\$40.96
AS700E-92	5.750	5.353	0.157	0.150	0.085	0.139	\$41.58
AS700E-96	6.000	5.305	0.294	0.287	0.120	0.275	\$47.82

# AS800 2pc. PTFE Piston Seals - Inch



**ALTERNATIVE SEALS:**  
AS800E-P, AS800E-B

EXAMPLE: AS800E-96	
Prefix	Bore Diameter
AS800E-	96
	6"

AS800 style square piston seal assemblies are made from glass filled PTFE and include an o-ring energizer. This popular medium duty assembly assures dependable service to a wide variety of sealing applications from rotary swivels to reciprocating cylinders.

Temperature: -40° to 225°F      Pressure: 0 to 5,000 PSI

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Dia. +.004/-0 D	Piston Dia. +0/--.004 D <sub>1</sub>	Groove Dia. +0/--.004 d	Groove Height +.004/-0 L	Wall & Seal Height L <sub>1</sub>	Expander Cross Section	Price
AS800E-8	0.500	0.497	0.241	0.083	0.070	0.070	\$4.43
AS800E-10	0.625	0.622	0.366	0.083	0.070	0.070	\$4.43
AS800E-12	0.750	0.747	0.491	0.083	0.070	0.070	\$4.49
AS800E-14	0.875	0.872	0.616	0.083	0.070	0.070	\$5.03
AS800E-16	1.000	0.997	0.741	0.083	0.070	0.070	\$5.08
AS800E-18	1.125	1.122	0.866	0.083	0.070	0.070	\$5.56
AS800E-20	1.250	1.247	0.991	0.083	0.070	0.070	\$5.65
AS800E-22	1.375	1.372	1.116	0.083	0.070	0.070	\$7.74
AS800E-24	1.500	1.497	1.241	0.083	0.070	0.070	\$5.76
AS800E-25	1.562	1.559	1.172	0.122	0.109	0.103	\$14.54
AS800E-26	1.625	1.622	1.235	0.122	0.109	0.103	\$5.88
AS800E-27	1.687	1.684	1.297	0.122	0.109	0.103	\$7.75
AS800E-28	1.750	1.747	1.360	0.122	0.109	0.103	\$5.95
AS800E-29	1.812	1.809	1.422	0.122	0.109	0.103	\$7.86
AS800E-30	1.875	1.872	1.485	0.122	0.109	0.103	\$10.31
AS800E-31	1.938	1.935	1.548	0.122	0.109	0.103	\$10.59
AS800E-32	2.000	1.996	1.606	0.130	0.115	0.103	\$6.20
AS800E-34	2.125	2.121	1.731	0.130	0.115	0.103	\$11.15
AS800E-36	2.250	2.246	1.856	0.130	0.115	0.103	\$6.56
AS800E-38	2.375	2.371	1.981	0.130	0.115	0.103	\$6.56
AS800E-40	2.500	2.496	2.106	0.130	0.115	0.103	\$6.56
AS800E-42	2.625	2.621	2.231	0.130	0.115	0.103	\$9.04
AS800E-44	2.750	2.746	2.356	0.130	0.115	0.103	\$6.62
AS800E-46	2.875	2.871	2.481	0.130	0.115	0.103	\$9.13
AS800E-48	3.000	2.996	2.606	0.130	0.115	0.103	\$6.84
AS800E-50	3.125	3.121	2.731	0.130	0.115	0.103	\$18.71

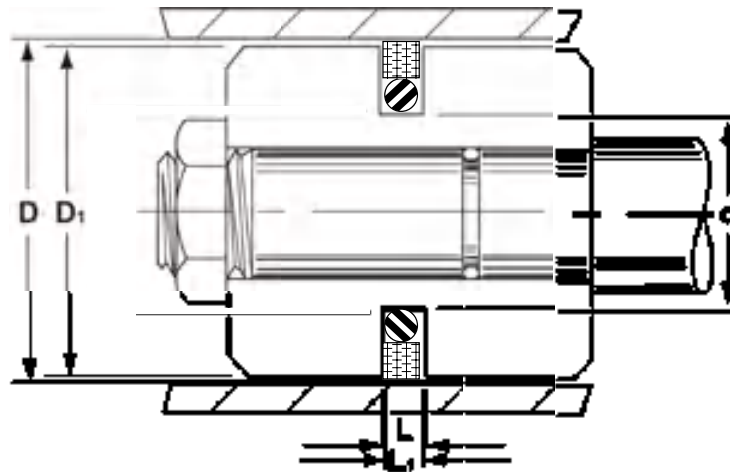
AS800 2pc. PTFE Piston Seals - Inch, cont'd.

Part Number	Bore Dia. +.004/-0 D	Piston Dia. +0/-.004 D <sub>1</sub>	Groove Dia. +0/-.004 d	Groove Height +.004/-0 L	Wall & Seal Height L <sub>1</sub>	Expander Cross Section	Price
AS800E-52	3.250	3.246	2.856	0.130	0.115	0.103	\$6.87
AS800E-54	3.375	3.371	2.981	0.130	0.115	0.103	\$12.50
AS800E-56	3.500	3.496	3.106	0.130	0.115	0.103	\$7.00
AS800E-58	3.625	3.621	3.231	0.130	0.115	0.103	\$12.03
AS800E-60	3.750	3.746	3.356	0.130	0.115	0.103	\$7.66
AS800E-64	4.000	3.996	3.606	0.130	0.115	0.103	\$7.73
AS800E-68	4.250	4.246	3.856	0.130	0.115	0.103	\$7.93
AS800E-72	4.500	4.496	4.106	0.130	0.115	0.103	\$8.76
AS800E-76	4.750	4.746	4.356	0.130	0.115	0.103	\$13.02
AS800E-78	4.875	4.871	4.481	0.130	0.115	0.103	\$16.69
AS800E-80	5.000	4.996	4.606	0.130	0.115	0.103	\$9.77
AS800E-84	5.250	5.246	4.856	0.130	0.115	0.103	\$10.44
AS800E-88	5.500	5.496	5.106	0.130	0.115	0.103	\$10.52
AS800E-92	5.750	5.746	5.232	0.159	0.143	0.139	\$11.42
AS800E-94	5.875	5.871	5.357	0.159	0.143	0.139	\$27.75
AS800E-96	6.000	5.996	5.482	0.159	0.143	0.139	\$11.98
AS800E-100	6.250	6.246	5.732	0.159	0.143	0.139	\$12.79
AS800E-104	6.500	6.496	5.982	0.159	0.143	0.139	\$15.09
AS800E-108	6.750	6.746	6.232	0.159	0.143	0.139	\$21.92
AS800E-112	7.000	6.996	6.482	0.159	0.143	0.139	\$15.65
AS800E-114	7.125	7.121	6.607	0.159	0.143	0.139	\$46.00
AS800E-116	7.250	7.246	6.732	0.159	0.143	0.139	\$15.37
AS800E-120	7.500	7.496	6.982	0.159	0.143	0.139	\$15.56
AS800E-124	7.750	7.746	7.232	0.159	0.143	0.139	\$28.21
AS800E-128	8.000	7.996	7.482	0.159	0.143	0.139	\$15.58
AS800E-132	8.250	8.246	7.732	0.159	0.143	0.139	\$35.83
AS800E-136	8.500	8.496	7.982	0.159	0.143	0.139	\$39.66
AS800E-140	8.750	8.746	8.232	0.159	0.143	0.139	\$42.98
AS800E-144	9.000	8.996	8.482	0.159	0.143	0.139	\$44.62
AS800E-148	9.250	9.246	8.732	0.159	0.143	0.139	\$59.76
AS800E-152	9.500	9.496	8.982	0.159	0.143	0.139	\$61.39
AS800E-156	9.750	9.746	9.232	0.159	0.143	0.139	\$90.77
AS800E-160	10.000	9.996	9.482	0.159	0.143	0.139	\$66.05
AS800E-164	10.250	10.246	9.732	0.159	0.143	0.139	\$82.09
AS800E-168	10.500	10.496	9.982	0.159	0.143	0.139	\$85.76
AS800E-176	11.000	10.996	10.482	0.159	0.143	0.139	\$88.97
AS800E-184	11.500	11.496	10.982	0.159	0.143	0.139	\$92.50
AS800E-192	12.000	11.996	11.482	0.159	0.143	0.139	\$96.05
AS800E-200	12.500	12.496	11.982	0.159	0.143	0.139	\$100.49
AS800E-208	13.000	12.996	12.482	0.159	0.143	0.139	\$117.27
AS800E-224	14.000	13.996	13.482	0.159	0.143	0.139	\$137.39
AS800E-256	16.000	15.996	15.482	0.159	0.143	0.139	\$207.65

# AS800-B 2pc. BTFE Piston Seals - Inch



ALTERNATIVE SEALS:  
AS800E-P, AS800E



EXAMPLE: AS800E-72B		
Prefix	Bore Diameter	Suffix
AS800E-	72	B
	4-1/2"	BTFE

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

AS800-B style square piston seal assemblies are made from bronze filled PTFE and include an o-ring energizer. This popular medium to heavy duty assembly assures dependable service to reciprocating cylinders.

Temperature: -40° to 225°F  
Pressure: 0 to 5,000 PSI

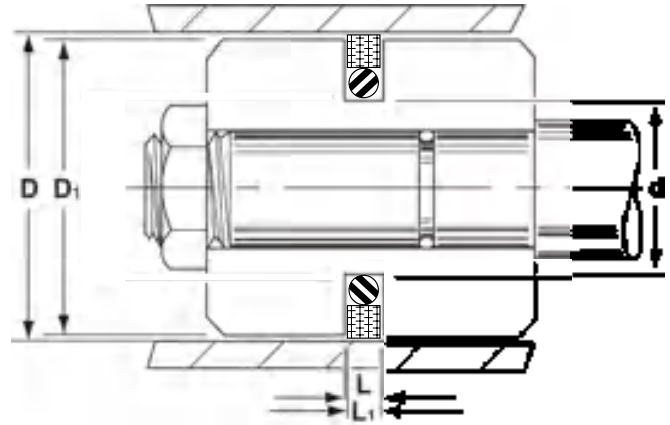
Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Dia. +.004/-0 D	Piston Dia. +0/-0.004 D <sub>1</sub>	Groove Dia. +0/-0.004 d	Groove Height +.004/-0 L	Wall & Seal Height L <sub>1</sub>	Expander Cross Section	Price
AS800E-40B	2.500	2.496	2.106	0.130	0.115	0.103	\$25.26
AS800E-56B	3.500	3.496	3.106	0.130	0.115	0.103	\$32.85
AS800E-64B	4.000	3.996	3.606	0.130	0.115	0.103	\$42.72
AS800E-80B	5.000	4.996	4.606	0.130	0.115	0.103	\$46.99
AS800E-84B	5.250	5.246	4.856	0.130	0.115	0.103	\$50.57
AS800E-88B	5.500	5.496	5.106	0.130	0.115	0.103	\$51.31
AS800E-92B	5.750	5.746	5.232	0.159	0.143	0.139	\$55.07
AS800E-96B	6.000	5.996	5.482	0.159	0.143	0.139	\$57.45
AS800E-112B	7.000	6.996	6.482	0.159	0.143	0.139	\$66.91
AS800E-136B	8.500	8.496	7.982	0.159	0.143	0.139	\$76.61
AS800E-144B	9.000	8.996	8.482	0.159	0.143	0.139	\$91.03
AS800E-192B	12.000	11.996	11.482	0.159	0.143	0.139	\$195.99

# AS800-P 2pc. Polyurethane Piston Seals - Inch



ALTERNATIVE SEALS:  
AS800E, AS800E-B



EXAMPLE: AS800E-24P		
Prefix	Bore Diameter	Suffix
AS800E-	24	P
	1-1/2"	PU

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

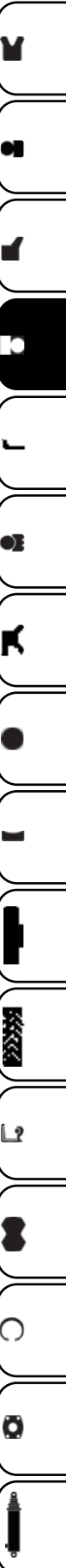
AS800-P square piston seal assemblies are made from polyurethane and include an o-ring energizer. They install easier than PTFE and because they snap back into the groove they require no re-sizing. The wear properties are good due to the high durometer of urethane used.

Temperature: -65° to 220°F

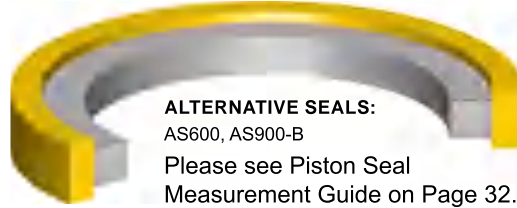
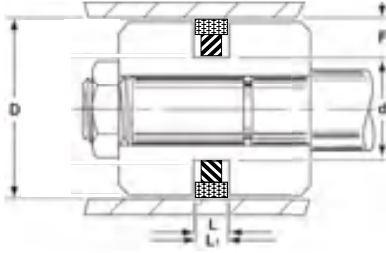
Pressure: 0 to 5,000 PSI

Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Dia. +0.004/-0 D	Piston Dia. +0/-0.004 D <sub>1</sub>	Groove Dia. +0/-0.004 d	Groove Height +0.004/-0 L	Wall & Seal Height L <sub>1</sub>	Expander Cross Section	Price
AS800E-16P	1.000	0.997	0.741	0.083	0.070	0.070	\$4.66
AS800E-18P	1.125	1.122	0.866	0.083	0.070	0.070	\$4.77
AS800E-20P	1.250	1.247	0.991	0.083	0.070	0.070	\$4.91
AS800E-22P	1.375	1.372	1.116	0.083	0.070	0.070	\$5.07
AS800E-24P	1.500	1.497	1.241	0.083	0.070	0.070	\$5.23
AS800E-26P	1.625	1.622	1.235	0.122	0.109	0.103	\$5.35
AS800E-28P	1.750	1.747	1.360	0.122	0.109	0.103	\$5.41
AS800E-30P	1.875	1.872	1.485	0.122	0.109	0.103	\$5.57
AS800E-32P	2.000	1.996	1.606	0.130	0.115	0.103	\$5.62
AS800E-36P	2.250	2.246	1.856	0.130	0.115	0.103	\$5.73
AS800E-40P	2.500	2.496	2.106	0.130	0.115	0.103	\$5.85
AS800E-44P	2.750	2.746	2.356	0.130	0.115	0.103	\$5.98
AS800E-48P	3.000	2.996	2.606	0.130	0.115	0.103	\$6.08
AS800E-52P	3.250	3.246	2.856	0.130	0.115	0.103	\$6.23
AS800E-56P	3.500	3.496	3.106	0.130	0.115	0.103	\$6.40
AS800E-60P	3.750	3.746	3.356	0.130	0.115	0.103	\$6.53
AS800E-64P	4.000	3.996	3.606	0.130	0.115	0.103	\$6.86
AS800E-68P	4.250	4.246	3.856	0.130	0.115	0.103	\$7.10
AS800E-72P	4.500	4.496	4.106	0.130	0.115	0.103	\$7.89
AS800E-76P	4.750	4.746	4.356	0.130	0.115	0.103	\$8.25
AS800E-80P	5.000	4.996	4.606	0.130	0.115	0.103	\$8.78
AS800E-84P	5.250	5.246	4.856	0.130	0.115	0.103	\$8.94
AS800E-88P	5.500	5.496	5.106	0.130	0.115	0.103	\$9.33
AS800E-92P	5.750	5.746	5.232	0.159	0.143	0.139	\$11.03
AS800E-96P	6.000	5.996	5.482	0.159	0.143	0.139	\$13.20
AS800E-104P	6.500	6.496	5.982	0.159	0.143	0.139	\$14.43
AS800E-112P	7.000	6.996	6.482	0.159	0.143	0.139	\$15.07
AS800E-120P	7.500	7.496	6.982	0.159	0.143	0.139	\$17.47
AS800E-128P	8.000	7.996	7.482	0.159	0.143	0.139	\$11.33
AS800E-136P	8.500	8.496	7.982	0.159	0.143	0.139	\$18.31



# AS900 2pc. PTFE Piston Seals - Inch



**ALTERNATIVE SEALS:**

AS600, AS900-B

Please see Piston Seal

Measurement Guide on Page 32.

AS900 style rectangular piston seal assemblies are supplied with 70 durometer nitrile square cut energizers and glass or bronze-filled PTFE outer rings for extra heavy duty applications and larger clearance gaps. AS900 style seals provide many cycles of drift-free service to medium and heavy duty cylinder applications. Items with a "Z" suffix feature a Z cut.

Temperature: -40° to 225°F

Pressure: 0 to 5,000 PSI

Material: Glass-filled PTFE

Bronze-filled PTFE

**EXAMPLE: AS900E-48**

Prefix	Bore Diameter
AS900E-	48
	3"

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

**Glass - Filled PTFE**

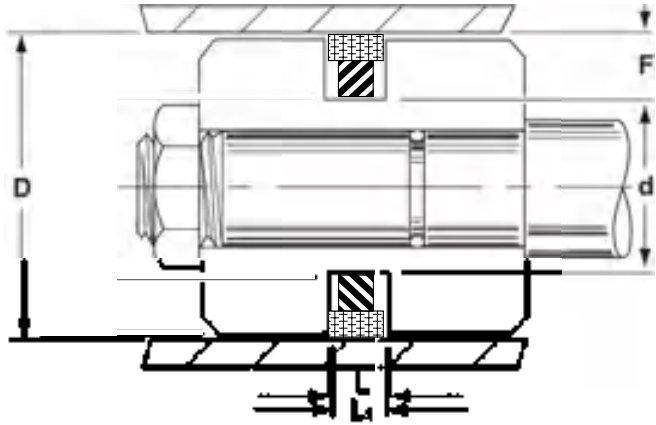
Part Number	Bore Dia. +.002/-0 D	Groove Dia. +.002/-0.002 d	Groove Height +.002/-0.002 L	Seal Height +.002/-0 L <sub>1</sub>	Seal Wall	Expander Cross Section	Price
AS900E-16	1.000	0.691	0.129	0.119	0.070	0.099	\$6.89
AS900E-20	1.250	0.941	0.129	0.119	0.070	0.099	\$7.11
AS900E-22	1.375	1.066	0.129	0.119	0.070	0.099	\$16.31
AS900E-24	1.500	1.191	0.129	0.119	0.070	0.099	\$7.13
AS900E-28	1.750	1.441	0.129	0.119	0.070	0.099	\$7.90
AS900E-32	2.000	1.691	0.129	0.119	0.070	0.099	\$9.47
AS900E-34	2.125	1.816	0.129	0.119	0.070	0.099	\$14.02
AS900E-36	2.250	1.941	0.129	0.119	0.070	0.099	\$10.72
AS900E-40	2.500	2.191	0.129	0.119	0.070	0.099	\$10.89
AS900E-44	2.750	2.441	0.129	0.119	0.070	0.099	\$12.48
AS900E-48	3.000	2.462	0.129	0.272	0.090	0.203	\$13.95
AS900E-50.5	3.150 (80mm)	2.602	0.129	0.272	0.090	0.203	\$28.23
AS900E-52	3.250	2.702	0.283	0.272	0.090	0.203	\$16.53
AS900E-53.5	3.346 (85mm)	2.860	0.283	0.272	0.090	0.203	\$31.71
AS900E-56	3.500	2.962	0.283	0.272	0.090	0.203	\$18.59
AS900E-56.7	3.543 (90mm)	3.005	0.283	0.272	0.090	0.203	\$27.55
AS900E-60	3.750	3.212	0.283	0.272	0.090	0.203	\$20.74
AS900E-60Z	3.750	3.212	0.283	0.272	0.090	0.203	\$30.01
AS900E-63	3.937 (100mm)	3.399	0.283	0.272	0.090	0.203	\$27.78
AS900E-64	4.000	3.462	0.283	0.272	0.090	0.203	\$23.45
AS900E-64Z	4.000	3.462	0.283	0.272	0.090	0.203	\$37.65
AS900E-66	4.125	3.587	0.283	0.272	0.090	0.203	\$28.34
AS900E-68	4.250	3.712	0.283	0.272	0.090	0.203	\$26.58
AS900E-69.3	4.330 (110mm)	3.792	0.283	0.272	0.090	0.203	\$37.32
AS900E-72	4.500	3.962	0.283	0.272	0.090	0.203	\$28.15
AS900E-72.5	4.527 (115mm)	3.989	0.283	0.272	0.090	0.203	\$39.30
AS900E-76	4.750	4.212	0.283	0.272	0.090	0.203	\$29.47
AS900E-78	4.875	4.337	0.283	0.272	0.090	0.203	\$57.26
AS900E-78.7	4.921 (125mm)	4.383	0.283	0.272	0.090	0.203	\$36.84
AS900E-80	5.000	4.462	0.283	0.272	0.090	0.203	\$29.81
AS900E-82	5.125	4.587	0.283	0.272	0.090	0.203	\$50.33
AS900E-84	5.250	4.504	0.378	0.365	0.142	0.265	\$34.09
AS900E-88	5.500	4.754	0.378	0.365	0.142	0.265	\$39.42
AS900E-92	5.750	6.004	0.378	0.365	0.142	0.265	\$41.64
AS900E-96	6.000	5.254	0.378	0.365	0.142	0.265	\$44.71
AS900E-98	6.125	5.379	0.378	0.365	0.142	0.265	\$75.53
AS900E-100	6.250	5.504	0.378	0.365	0.142	0.265	\$47.44
AS900E-104	6.500	5.754	0.378	0.365	0.142	0.265	\$47.83
AS900E-108	6.750	6.004	0.378	0.365	0.142	0.265	\$87.00
AS900E-112	7.000	6.254	0.378	0.365	0.142	0.265	\$48.15
AS900E-116	7.250	6.604	0.378	0.365	0.142	0.265	\$51.02
AS900E-120	7.500	6.754	0.378	0.365	0.142	0.265	\$48.52
AS900E-124	7.750	7.004	0.378	0.365	0.142	0.265	\$103.33



**AS900 2pc. PTFE Piston Seals - Inch, cont'd.**

Part Number	Bore Dia. +.004/-0 D	Groove Dia. +0/-.004 d	Groove Height +.004/-0 L	Seal Height L <sub>1</sub>	Seal Wall	Expander Cross Section	Price
<b>Glass - Filled PTFE</b>							
AS900E-128	8.000	7.254	0.378	0.365	0.142	0.265	\$52.73
AS900E-130	8.125	7.379	0.378	0.365	0.142	0.265	\$99.42
AS900E-132	8.250	7.504	0.378	0.365	0.142	0.265	\$56.92
AS900E-136	8.500	7.726	0.378	0.365	0.142	0.265	\$60.73
AS900E-144	9.000	8.254	0.378	0.365	0.202	0.265	\$72.53
AS900E-152	9.500	8.754	0.378	0.365	0.202	0.265	\$82.58
AS900E-160	10.000	9.254	0.378	0.365	0.202	0.265	\$94.32
AS900E-168	10.500	9.754	0.378	0.365	0.202	0.265	\$108.00
AS900E-176	11.000	10.254	0.378	0.365	0.202	0.265	\$120.77
AS900E-192	12.000	11.254	0.378	0.365	0.202	0.265	\$127.70
AS900E-208	13.000	12.254	0.378	0.365	0.202	0.265	\$184.43
AS900E-212	13.250	12.504	0.378	0.365	0.202	0.265	\$279.96
AS900E-224	14.000	13.254	0.378	0.365	0.202	0.265	\$136.15
<b>AS900-B 2pc. BTFE Piston Seals - Inch</b>							
AS900E-24B	1.500	1.191	0.129	0.119	0.070	0.099	\$10.88
AS900E-28B	1.750	1.441	0.129	0.119	0.070	0.099	\$11.46
AS900E-32B	2.000	1.691	0.129	0.119	0.070	0.099	\$13.17
AS900E-40B	2.500	2.191	0.129	0.119	0.070	0.099	\$14.79
AS900E-48B	3.000	2.462	0.283	0.272	0.090	0.203	\$17.56
AS900E-52B	3.250	2.712	0.283	0.272	0.090	0.203	\$20.23
AS900E-53.5B	3.346 (85mm)	2.808	0.283	0.272	0.090	0.203	\$32.09
AS900E-56B	3.500	2.962	0.283	0.272	0.090	0.203	\$22.23
AS900E-60B	3.750	3.212	0.283	0.272	0.090	0.203	\$25.01
AS900E-64B	4.000	3.462	0.283	0.272	0.090	0.203	\$27.59
AS900E-68B	4.250	3.712	0.283	0.272	0.090	0.203	\$32.19
AS900E-72B	4.500	3.962	0.283	0.272	0.090	0.203	\$33.71
AS900E-76B	4.750	4.212	0.283	0.272	0.090	0.203	\$47.79
AS900E-80B	5.000	4.462	0.283	0.272	0.090	0.203	\$36.74
AS900E-84B	5.250	4.504	0.378	0.365	0.142	0.265	\$45.53
AS900E-88B	5.500	4.754	0.378	0.365	0.142	0.265	\$49.07
AS900E-92B	5.750	5.004	0.378	0.365	0.142	0.265	\$53.73
AS900E-96B	6.000	5.254	0.378	0.365	0.142	0.265	\$55.27
AS900E-100B	6.250	5.504	0.378	0.365	0.142	0.265	\$57.01
AS900E-104B	6.500	5.754	0.378	0.365	0.142	0.265	\$57.54
AS900E-108B	6.750	6.004	0.378	0.365	0.142	0.265	\$98.91
AS900E-112B	7.000	6.254	0.378	0.365	0.142	0.265	\$59.66
AS900E-116B	7.250	6.504	0.378	0.365	0.142	0.265	\$59.75
AS900E-120B	7.500	6.754	0.378	0.365	0.142	0.265	\$59.75
AS900E-128B	8.000	7.254	0.378	0.365	0.142	0.265	\$67.46
AS900E-132B	8.250	7.504	0.378	0.365	0.142	0.265	\$75.34
AS900E-135B	8.437	7.691	0.378	0.365	0.142	0.265	\$119.20
AS900E-136B	8.500	7.754	0.378	0.365	0.142	0.265	\$80.76
AS900E-144B	9.000	8.254	0.378	0.365	0.202	0.265	\$93.06
AS900E-148B	9.250	8.504	0.378	0.365	0.202	0.265	\$206.84
AS900E-152B	9.500	8.754	0.378	0.365	0.202	0.265	\$113.98
AS900E-156B	9.750	9.004	0.378	0.365	0.202	0.265	\$224.05
AS900E-158B	9.875	9.129	0.378	0.365	0.202	0.265	\$228.69
AS900E-160B	10.000	9.254	0.378	0.365	0.202	0.265	\$130.60
AS900E-164B	10.250	9.504	0.378	0.365	0.202	0.265	\$303.84
AS900E-168B	10.500	9.754	0.378	0.365	0.202	0.265	\$219.01
AS900E-176B	11.000	10.254	0.378	0.365	0.202	0.265	\$191.53
AS900E-184B	11.500	10.754	0.378	0.365	0.202	0.265	\$269.26
AS900E-189B	11.812	11.066	0.378	0.365	0.202	0.265	\$355.91
AS900E-192B	12.000	11.254	0.378	0.365	0.202	0.265	\$22.11
AS900E-196B	12.250	11.504	0.378	0.365	0.202	0.265	\$387.14
AS900E-200B	12.500	11.754	0.378	0.365	0.202	0.265	\$284.35
AS900E-208B	13.000	12.254	0.378	0.365	0.202	0.265	\$240.42
AS900E-224B	14.000	13.254	0.378	0.365	0.202	0.265	\$196.98
AS900E-228B	14.250	13.504	0.378	0.365	0.202	0.265	\$371.03
AS900E-232B	14.500	13.754	0.378	0.365	0.202	0.265	\$386.31
AS900E-256B	16.000	15.254	0.378	0.365	0.202	0.265	\$479.44

# AS9 Series 2pc. PTFE Piston Seals - Inch



EXAMPLE: AS940E-44	
Prefix	Bore Diameter
AS940E-	44
	2-3/4"

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

These rectangular piston seal assemblies are manufactured from a rugged bronze filled or glass filled PTFE material and include a 70 durometer square cut or o-ring energizer. The AS930 series are used in many trash equipment cylinders and the AS960 series are found in many logging and construction equipment applications.

Temperature: -40° to 225°F

Pressure: 0 to 5,000 PSI

Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Dia. +.004/-0 D	Groove Dia. +0/-0.004 d	Groove Height +.004/-0 L	Seal Height L <sub>1</sub>	Seal Wall	Expander Cross Section	Price
AS940E-24	1.500	0.944	0.282	0.278	0.090	0.206	\$28.58
AS940E-32	2.000	1.444	0.282	0.278	0.090	0.206	\$26.81
AS940E-36B	2.250	1.694	0.282	0.278	0.090	0.206	\$27.73
AS940E-38B	2.362 (60mm)	1.819	0.282	0.278	0.090	0.206	\$31.50
AS930E-40B	2.500	1.944	0.250	0.245	0.090	0.206	\$34.93
AS940E-40B	2.500	1.944	0.282	0.272	0.090	0.206	\$35.18
AS940E-40Z	2.500	1.944	0.282	0.272	0.090	0.206	\$31.05
AS940E-44	2.750	2.194	0.282	0.272	0.090	0.206	\$25.42
AS960E-56B	3.500	2.726	0.375	0.367	0.142	0.264	\$44.59
AS930E-64B	4.000	3.444	0.312	0.307	0.090	0.206	\$33.96
AS960E-64B	4.000	3.226	0.375	0.367	0.142	0.264	\$50.32
AS930E-72B	4.500	3.944	0.312	0.307	0.090	0.206	\$31.34
AS960E-72B	4.500	3.726	0.375	0.367	0.142	0.264	\$58.67
AS960E-76B	4.750	3.976	0.375	0.367	0.142	0.264	\$63.36
AS930E-80B	5.000	4.226	0.375	0.367	0.142	0.264	\$48.08
AS970E-112B	7.000	5.938	0.500	0.490	0.203	0.375	\$60.99
AS950E-128	8.000	7.292	0.282	0.272	0.190	0.206	\$103.93
AS970E-128B	8.000	6.938	0.500	0.490	0.203	0.375	\$217.88
AS950E-144	9.000	8.292	0.282	0.272	0.190	0.206	\$140.76
AS970E-144B	9.000	7.938	0.500	0.490	0.203	0.375	\$229.96
AS950E-192	12.000	11.292	0.282	0.272	0.190	0.206	\$263.72
AS970E-256B	16.000	14.938	0.500	0.490	0.203	0.375	\$773.75
AS970E-288B	18.000	16.938	0.500	0.490	0.203	0.375	\$961.43
AS970E-320B	20.000	18.938	0.500	0.490	0.203	0.375	\$1,072.20

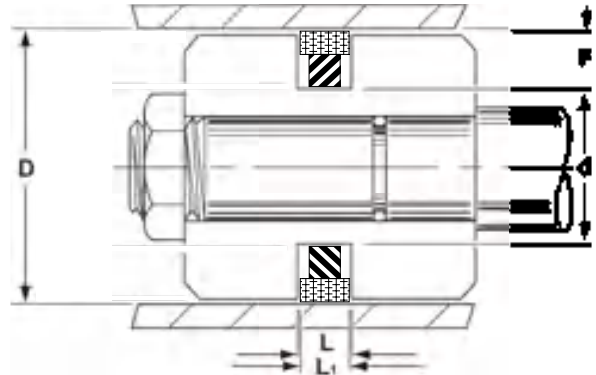
“B” in part number signifies Bronze-filled TFE

# AS980 2pc. PTFE Piston Seals - Inch



ALTERNATIVE SEALS:  
CAT® 2 Pc Step Cut

EXAMPLE: AS980E-48	
Prefix	Bore Diameter
AS980E-	48
	3"



# AFTER DASH IN INCREMENTS OF 1/16 (16=")

AS980 rectangular piston seal assemblies are manufactured from a custom blended glass/moly-reinforced PTFE and include a rectangular shaped nitrile lathe cut expander. These rugged seals are replacements for those used in Caterpillar® equipment and auxilliary items used on construction equipment.

Temperature: -40° to 225°F Pressure: 0 to 3,000 PSI

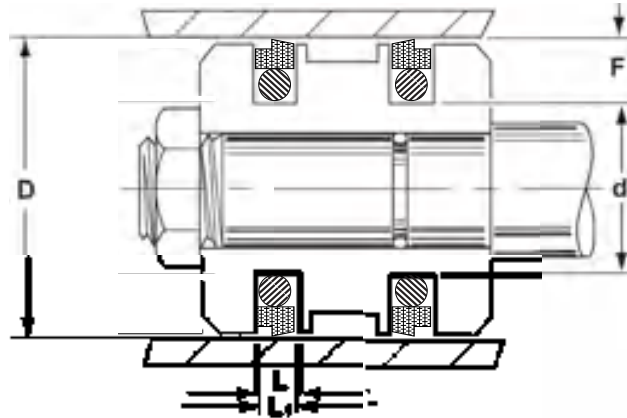
Please see Piston Seal Measurement Guide on Page 32.

We do not imply that these seals are a product of Caterpillar®.

Part numbers are used for reference purposes only.

Part Number	OEM Part Number	Bore Dia. +.004/-0 D	Groove Dia. +0/-0.004 d	Seal Height L <sub>1</sub>	Groove Height +.004/-0 L	Price
AS980E-16	3E4277	1.000	0.750	0.125	0.127	\$9.78
AS980E-20	3E4278	1.250	1.000	0.125	0.127	\$10.12
AS980E-24	5J9822	1.500	1.125	0.125	0.127	\$10.76
AS980E-28	3E4279	1.750	1.500	0.125	0.127	\$11.38
AS980E-32	5J7004	2.000	1.625	0.187	0.190	\$11.74
AS980E-36	1U3998	2.250	1.875	0.187	0.190	\$19.64
AS980E-40	8J6213	2.500	2.125	0.187	0.190	\$13.91
AS980E-44	5J7010	2.750	2.375	0.187	0.190	\$20.59
AS980E-48	6J1972	3.000	2.460	0.187	0.190	\$15.74
AS980E-52	6J0793	3.250	2.710	0.187	0.190	\$21.42
AS980E-56	5J7013	3.500	2.960	0.187	0.190	\$16.60
AS980E-60	5J8011	3.750	3.210	0.187	0.190	\$26.18
AS980E-64	5J5402	4.000	3.335	0.250	0.252	\$21.83
AS980E-68	5J7854	4.250	3.585	0.250	0.252	\$23.80
AS980E-72	5J4986	4.500	3.835	0.250	0.252	\$25.22
AS980E-76	5J4987	4.750	4.085	0.250	0.252	\$27.66
AS980E-80	5J5020	5.000	4.235	0.375	0.379	\$31.80
AS980E-84	5J7234	5.250	4.485	0.375	0.379	\$36.47
AS980E-88	5J4988	5.500	4.735	0.375	0.379	\$31.88
AS980E-92	9J4981	5.750	4.845	0.375	0.379	\$35.65
AS980E-96	5J4989	6.000	5.095	0.375	0.379	\$36.86
AS980E-100	5J4990	6.250	5.345	0.375	0.379	\$38.26
AS980E-104	5J4991	6.500	5.595	0.375	0.379	\$41.41
AS980E-112	5J4997	7.000	6.095	0.375	0.379	\$45.77
AS980E-116	5J4993	7.250	6.345	0.375	0.379	\$51.21
AS980E-120	9J7117	7.500	6.595	0.375	0.379	\$81.04
AS980E-124	5J7016	7.750	6.845	0.375	0.379	\$74.49
AS980E-128	3E4280	8.000	7.254	0.375	0.379	\$80.32
AS980E-132	5J5559	8.250	7.255	0.375	0.379	\$82.75
AS980E-136	6J9385	8.500	7.505	0.375	0.379	\$120.05
AS980E-144	3E4281	9.000	8.137	0.375	0.379	\$86.31
AS980E-148	5J7019	9.250	8.255	0.375	0.379	\$66.09
AS980E-152	3E4282	9.500	8.380	0.437	0.440	\$90.18
AS980E-160	1214179	10.000	8.880	0.437	0.440	\$101.35
AS980E-164	5J7023	10.250	9.125	0.437	0.440	\$146.94
AS980E-168	5J6762	10.500	9.375	0.437	0.440	\$150.69

# AS2 2pc. BTFE Piston Step Seals - Inch & Metric



Please see Piston Seal Measurement Guide on Page 32.

BTFE step seals are low friction piston seals and are sometimes used in conjunction with other piston seals. Due to their design, they will bleed off pressure traps. Expanders are 70 durometer high memory nitrile, and are also available in FKM.

"V" in part number signifies FKM

Temperature: -40°F to 225°F    Pressure: 0 to 3,500 PSI

**EXAMPLE: AS232E-16B**

Prefix	Groove Height	Bore Diameter	Suffix
AS2	*32E-	16	B
	1/8"	1"	BTFE

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

\* \_\_ E- Number Refers to Groove Height  
(32 = .125", 36 = .187", 40 = .25")

**EXAMPLE: AS236E-32MMB**

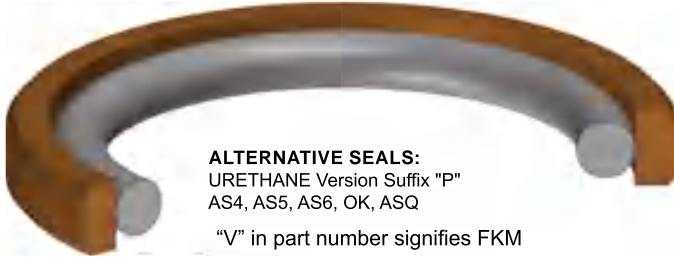
Prefix	Groove Height	Bore Diameter	Suffix
AS2	*36E-	32MM	B
	4.2mm	32mm	BTFE

\* \_\_ E- Number Refers to Groove Height  
(28 = 2.2mm, 32 = 3.2mm, 36 = 4.2mm, 40 = 6.3mm, 42 = 8.1mm)

Inch				
Part Number	Bore Dia. H11 D	Groove Dia. h11 d	Groove Height +.004/ -0 F	Price
AS232E-16B	1.000	0.726	0.125	\$15.62
AS240E-64B	4.000	3.384	0.250	\$51.23
AS240E-96B	6.000	5.384	0.250	\$62.84

Metric				
Part Number	Bore Dia. H11 D	Groove Dia. h11 d	Groove Height +.1 / -0 F	Price
AS228E-16MMB	16	11.1	2.2	\$11.62
AS232E-28MMP	28	20.9	3.2	\$13.80
AS236E-30MMB	30	19.3	4.2	\$17.81
AS236E-32MMB	32	21.3	4.2	\$22.38
AS236E-40MMB-V	40	29.3	4.2	\$29.88
AS236E-50MMB	50	39.3	4.2	\$23.12
AS236E-55MMB	55	44.3	4.2	\$23.46
AS240E-63MMB	63	47.9	6.3	\$31.71
AS240E-100MMB	100	84.9	6.3	\$45.62
AS240E-110MMB	110	94.9	6.3	\$54.45
AS242E-120MM	120	99.5	8.1	\$66.72
AS240E-125MMB	125	109.9	6.3	\$57.51
AS240E-140MMB	140	124.9	6.3	\$68.80
AS240E-161MMB	161	145.9	6.3	\$82.88
AS240E-180MMB	180	164.9	6.3	\$95.23
AS240E-190MMB	190	174.9	6.3	\$106.24
AS242E-200MMHB-1	200	176.0	8.1	\$149.73
AS242E-230MMB	230	209.5	8.1	\$154.15
AS242E-250MMB	250	229.5	8.1	\$168.81
AS242E-340MMHB	340	316.0	8.1	\$438.65
AS242E-350MMHB	350	326.0	8.1	\$453.47
AS242E-420MMHB	420	396.0	8.1	\$503.07
AS242E-520MMHB	520	496.0	8.1	\$515.25
AS242E-600MMHB	600	576.0	8.1	\$720.18

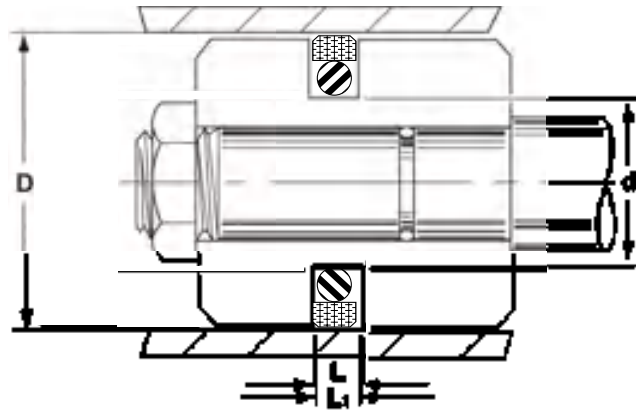
# AS7 Series 2pc. BTFE Piston Seals - Inch



**ALTERNATIVE SEALS:**  
URETHANE Version Suffix "P"  
AS4, AS5, AS6, OK, ASQ

"V" in part number signifies FKM

Parts w/o Suffix are glass filled PTFE



**EXAMPLE: AS742E-120B**

Prefix	Groove Height	Bore Diameter	Suffix
AS7	*42E-	120	B
	.318"	7-1/2"	BTFE

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

\*\_ \_ E- Number Refers to Groove Height

(32 = .125", 36 = .165", 40 = .248", 42 = .318")

Please see Piston Seal Measurement Guide on Page 32.

Our AS7 series piston seals are machined from bronze filled PTFE for the most severe applications. Standard expander rings on this series piston seal are round cross section high memory 70 durometer nitrile; however, FKM expanders are available. Consult sales for pricing and delivery of special compounds.

Temperature: -40° to 225°F

Pressure: 0 to 5,000 PSI

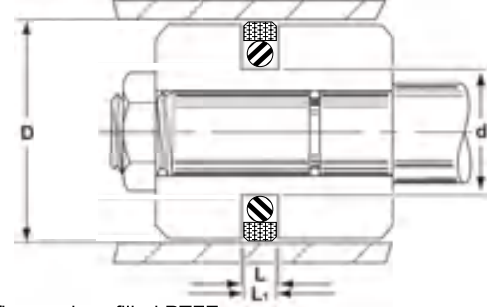
Part Number	Bore Dia. H9 D	Groove Dia. h9 d	Groove Height +.004 / -.000 L	Price
AS732E-16B	1.000	0.705	.125	\$10.79
AS732E-20B	1.250	0.955	.125	\$11.02
AS732E-24	1.500	1.205	.125	\$10.00
AS732E-24B	1.500	1.205	.125	\$12.21
AS736E-24B	1.500	1.076	.165	\$12.82
AS736E-28B	1.750	1.326	.165	\$14.13
AS732E-32B	2.000	1.705	.125	\$15.08
AS736E-32B	2.000	1.576	.165	\$17.04
AS732E-36B	2.250	1.955	.125	\$17.16
AS736E-36	2.250	1.826	.165	\$18.15
AS736E-36B	2.250	1.826	.165	\$20.36
AS732E-40B	2.500	2.205	.125	\$17.78
AS736E-40B	2.500	2.076	.165	\$18.04
AS736E-44B	2.750	2.326	.165	\$24.77
AS732E-48B	3.000	2.705	.125	\$23.37
AS736E-48B	3.000	2.576	.165	\$20.19
AS740E-48B	3.000	2.384	.248	\$29.89
AS732E-52	3.250	2.955	.125	\$26.31
AS732E-52B	3.250	2.955	.125	\$38.11
AS736E-52B	3.250	2.826	.165	\$28.86
AS740E-52B	3.250	2.634	.248	\$31.86
AS732E-56B	3.500	3.205	.125	\$31.69
AS736E-56B	3.500	3.076	.165	\$32.42
AS740E-56B	3.500	2.884	.248	\$32.81
AS740E-58B	3.625	3.009	.248	\$39.33
AS740E-60B	3.750	3.134	.248	\$40.48
AS736E-64B	4.000	3.576	.165	\$34.92
AS740E-64B	4.000	3.384	.248	\$35.48
AS740E-68B	4.250	3.634	.248	\$34.59
AS740E-72B	4.500	3.884	.248	\$42.15
AS740E-76B	4.750	4.134	.248	\$49.44
AS736E-80	5.000	4.576	.165	\$41.24

Part Number	Bore Dia. H9 D	Groove Dia. h9 d	Groove Height +.004 / -.000 L	Price
AS736E-80B	5.000	4.576	.165	\$42.98
AS740E-80B	5.000	4.384	.248	\$43.04
AS740E-80-V	5.000	4.384	.248	\$72.72
AS740E-84B	5.250	4.634	.248	\$64.75
AS742E-86B	5.375	4.545	.318	\$92.98
AS740E-88B	5.500	4.884	.248	\$56.32
AS742E-88B	5.500	4.670	.318	\$54.54
AS740E-92B	5.750	5.134	.248	\$72.58
AS740E-96B	6.000	5.384	.248	\$50.98
AS742E-96B	6.000	5.170	.318	\$63.80
AS742E-100B	6.250	5.420	.318	\$70.49
AS742E-104	6.500	5.670	.318	\$62.62
AS742E-104B	6.500	5.670	.318	\$66.51
AS740E-112B	7.000	6.384	.248	\$68.39
AS742E-112B	7.000	6.170	.318	\$70.78
AS742E-120B	7.500	6.670	.318	\$75.33
AS740E-124	7.750	7.134	.248	\$74.34
AS740E-124B	7.750	7.134	.248	\$108.84
AS740E-128B	8.000	7.384	.248	\$79.59
AS742E-128B	8.000	7.170	.318	\$78.70
AS742E-136B	8.500	7.670	.318	\$135.77
AS742E-144B	9.000	8.170	.318	\$136.62
AS742E-152B	9.500	8.670	.318	\$94.49
AS742E-160B	10.000	9.170	.318	\$129.97
AS742E-168B	10.500	9.670	.318	\$150.80
AS742E-176B	11.000	10.170	.318	\$389.86
AS742E-192B	12.000	11.170	.318	\$187.05
AS742E-224B	14.000	13.170	.318	\$313.03
AS742E-224HB	14.000	13.035	.318	\$326.86
AS742E-256	16.000	15.170	.318	\$315.13
AS742E-256B	16.000	15.170	.318	\$413.38
AS742E-288HB	18.000	17.035	.318	\$702.55

# AS7 Series 2pc. BTFE Piston Seals - Metric



**ALTERNATIVE SEALS:**  
URETHANE Version Suffix "P"  
AS4, AS5, AS6, OK



Please see Piston Seal Measurement Guide on Page 32.  
For Piston Backup Rings see Page 320.

Our AS7 series piston seals are machined from bronze filled PTFE for the most severe applications. Standard expander rings on this series piston seal are round or square cross section, high memory 70 durometer nitrile; however, FKM expanders are available. Consult sales for pricing and delivery of special compounds.

Temperature: -40° to 225°F Pressure: 0 to 5,000 PSI  
Material: 40% Bronze-filled PTFE/Nitrile

Parts w/o "B" Suffix are glass filled PTFE

EXAMPLE: AS736E-55MMB			
Prefix	Groove Height	Bore Diameter	Suffix
AS7	*36E-	55MM	B
	4.2mm	55mm	BTFE

\*\_\_ E- Number Refers to Groove Height  
(28 = 2.2mm, 32 = 3.2mm, 36 = 4.2mm, 40 = 6.3mm, 42 = 8.1mm)

Part Number	Bore Dia. H 9 D	Groove Dia. f 8 d	Groove Height +.1/-0 L	Price
AS728E-16MMB	16	11.1	2.2	\$14.06
AS732E-16MMB	16	8.5	3.2	\$14.16
AS728E-20MMB	20	15.1	2.2	\$19.15
AS732E-20MMB	20	12.5	3.2	\$14.39
AS732E-22MMB	22	14.5	3.2	\$14.39
AS732E-24MMB	24	16.5	3.2	\$14.39
AS732E-25MMB	25	17.5	3.2	\$14.39
AS736E-25MMB	25	14.0	4.2	\$15.29
AS732E-28MMB	28	20.5	3.2	\$16.04
AS732E-30MMB	30	22.5	3.2	\$16.37
AS736E-30MMB	30	19.0	4.2	\$18.19
AS728E-32MMB	32	27.1	2.2	\$16.18
AS732E-32MMB	32	24.5	3.2	\$16.37
AS736E-32MMB	32	21.0	4.2	\$18.35
AS732E-35MMB	35	27.5	3.2	\$16.37
AS736E-35MMB	35	24.0	4.2	\$18.46
AS732E-36MMB	36	28.5	3.2	\$18.68
AS736E-36MMB	36	25.0	4.2	\$20.91
AS732E-38MMB	38	30.5	3.2	\$22.00
AS732E-40MMB	40	32.5	3.2	\$20.17
AS736E-40MMB	40	29.0	4.2	\$20.17
AS736E-42MMB	42	31.0	4.2	\$23.45
AS736E-45MMB	45	34.0	4.2	\$24.14
AS736E-48MMB	48	37.0	4.2	\$28.65
AS732E-50MMB	50	42.5	3.2	\$28.71
AS736E-50MMB	50	39.0	4.2	\$27.45
AS740E-50MMB	50	34.5	6.3	\$29.91
AS736E-52MMB	52	41.0	4.2	\$27.85
AS740E-52MMB	52	36.5	6.3	\$37.98
AS736E-55MMB	55	44.0	4.2	\$31.36
AS740E-55MMB	55	39.5	6.3	\$31.74
AS736E-56MMB	56	45.0	4.2	\$32.44
AS736E-60MMB	60	49.0	4.2	\$19.95
AS740E-60MMB	60	44.5	6.3	\$36.23
AS732E-62MMB	62	54.5	3.2	\$36.99
AS736E-63MMB	63	52.0	4.2	\$19.98

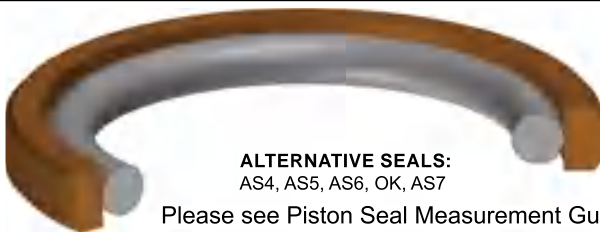
Part Number	Bore Dia. H 9 D	Groove Dia. f 8 d	Groove Height +.1/-0 L	Price
AS740E-63MMB	63	47.5	6.3	\$36.00
AS732E-65MM	65	57.5	3.2	\$36.71
AS736E-65MMB	65	54.0	4.2	\$38.49
AS740E-65MMB	65	49.5	6.3	\$38.49
AS736E-70MMB	70	59.0	4.2	\$20.87
AS740E-70MMB	70	54.5	6.3	\$37.53
AS736E-75MMB	75	64.0	4.2	\$21.53
AS740E-75MMB	75	59.5	6.3	\$36.58
AS742E-75MMB	75	54.0	8.1	\$41.51
AS736E-80MMB	80	69.0	4.2	\$32.55
AS740E-80MMB	80	64.5	6.3	\$37.60
AS742E-80MMB	80	59.0	8.1	\$45.32
AS740E-85MMB	85	69.5	6.3	\$40.97
AS742E-85MMB	85	64.0	8.1	\$49.16
AS740E-90MMB	90	74.5	6.3	\$43.82
AS742E-90MMB	90	69.0	8.1	\$54.47
AS740E-95MMB	95	79.5	6.3	\$49.14
AS742E-95MMB	95	74.0	8.1	\$56.62
AS736E-100MMB	100	89.0	4.2	\$41.14
AS740E-100MMB	100	84.5	6.3	\$41.23
AS742E-100MMB	100	79.0	8.1	\$55.38
AS740E-105MMB	105	89.5	6.3	\$44.52
AS742E-105MMB	105	84.0	8.1	\$55.39
AS740E-110MMB	110	94.5	6.3	\$45.85
AS742E-110MMB	110	89.0	8.1	\$60.05
AS740E-115MMB	115	99.5	6.3	\$48.03
AS742E-115MMB	115	94.0	8.1	\$61.61
AS740E-120MMB	120	104.5	6.3	\$49.48
AS742E-120MMB	120	99.0	8.1	\$61.37
AS740E-125MMB	125	109.5	6.3	\$51.10
AS742E-125MMB	125	104.0	8.1	\$61.39
AS740E-130MMB	130	114.5	6.3	\$54.56
AS742E-130MMB	130	109.0	8.1	\$64.12
AS742E-135MMB	135	114.0	8.1	\$72.31
AS740E-140MMB	140	124.5	6.3	\$71.18
AS742E-140MMB	140	119.0	8.1	\$73.24

## AS7 Series 2pc. BTFE Piston Seals - Metric, cont'd.

Part Number	Bore Dia. H9 D	Groove Dia. f8 d	Groove Height +.1/-0 L	Price
AS742E-145MMB	145	124.0	8.1	\$74.63
AS742E-150MMB	150	129.0	8.1	\$77.71
AS742E-155MMB	155	134.0	8.1	\$79.99
AS740E-160MMB	160	144.5	6.3	\$83.22
AS742E-160MMB	160	139.0	8.1	\$83.86
AS742E-165MMB	165	144.0	8.1	\$92.55
AS742E-170MMB	170	149.0	8.1	\$94.26
AS740E-175MMB	175	159.5	6.3	\$99.62
AS742E-175MMB	175	154.0	8.1	\$112.58
AS740E-180MMB	180	164.5	6.3	\$96.34
AS742E-180MMB	180	159.0	8.1	\$105.89
AS742E-185MMB	185	164.0	8.1	\$123.35
AS742E-190MMB	190	169.0	8.1	\$110.96
AS742E-195MMB	195	174.0	8.1	\$123.00
AS740E-200MMB	200	184.5	6.3	\$110.16
AS742E-200MMB	200	179.0	8.1	\$114.38
AS742E-205MMB	205	184.0	8.1	\$179.79
AS742E-210MMB	210	189.0	8.1	\$125.17
AS742E-215MMB	215	194.0	8.1	\$116.77
AS742E-220MMB	220	199.0	8.1	\$126.94
AS742E-225MMB	225	204.0	8.1	\$127.92
AS742E-230MMB	230	209.0	8.1	\$137.36
AS742E-240MMB	240	219.0	8.1	\$131.08
AS742E-250MMB	250	229.0	8.1	\$166.69
AS742E-250MMHB	250	225.5	8.1	\$151.27
AS742E-260MMB	260	239.0	8.1	\$163.31

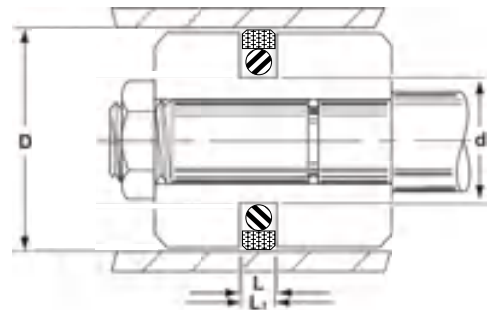
Part Number	Bore Dia. H9 D	Groove Dia. f8 d	Groove Height +.1/-0 L	Price
AS742E-270MMB	270	249.0	8.1	\$207.56
AS742E-275MMB	275	254.0	8.1	\$243.24
AS742E-280MMB	280	259.0	8.1	\$251.39
AS742E-285MMB	285	264.0	8.1	\$259.06
AS742E-290MMB	290	269.0	8.1	\$264.55
AS742E-300MMB	300	279.0	8.1	\$280.02
AS742E-305MMHB	305	284.5	8.1	\$300.29
AS742E-310MMB	310	289.0	8.1	\$320.14
AS742E-320MMB	320	299.0	8.1	\$305.05
AS742E-320MMHB	320	295.5	8.1	\$305.05
AS742E-325MMB	325	304.0	8.1	\$310.08
AS742E-330MMHB	330	305.5	8.1	\$356.45
AS742E-340MMHB	340	315.5	8.1	\$162.04
AS742E-350MMHB	350	325.5	8.1	\$435.77
AS744E-350MMP	350	322.0	9.5	\$421.92
AS742E-360MMHB	360	335.5	8.1	\$440.12
AS742E-370MMHB	370	345.5	8.1	\$447.36
AS742E-380MMHB	380	355.5	8.1	\$459.32
AS742E-400MMHB	400	375.5	8.1	\$448.98
AS742E-450MMP	450	429.0	8.1	\$464.80
AS742E-480MMH	480	455.5	8.1	\$475.44
AS742E-480MMHB	480	455.5	8.1	\$533.19
AS742E-500MMHB	500	475.5	8.1	\$551.60
AS742E-530MMHB	530	505.5	8.1	\$588.90
AS744E-530MMB	530	502.0	9.5	\$592.02
AS742E-550MMH	550	525.5	8.1	\$594.73

## TSP Series 2pc. BTFE Piston Seals - Metric



**ALTERNATIVE SEALS:**  
AS4, AS5, AS6, OK, AS7

Please see Piston Seal Measurement Guide on Page 32.



Part Number	Bore Dia. H9 D	Groove Dia. f8 d	Groove Height +0.1 / -0 L	Price
TSP-50X39X5.2G	50	39	5.2	\$21.77
TSP-55X45X4.2G	55	45	4.2	\$22.67
TSP-60X47X5C	60	47	5.0	\$23.34
TSP-60X49X5	60	49	5.0	\$28.97
TSP-60X47X6.3	60	47	6.3	\$32.40
TSP-63X48X7.5	63	48	7.5	\$36.29
TSP-65X50X7.5	65	50	7.5	\$26.36
TSP-70X55X7.5	70	55	7.5	\$41.22
TSP-75X61.8X6.3	75	61.8	6.3	\$25.96
TSP-75X60X7.5	75	60	7.5	\$25.96
TSP-80X65X7.5	80	65	7.5	\$39.88
TSP-90X75X7.5	90	75	7.5	\$48.30
TSP-90X78X6	90	78	6.0	\$58.89
TSP-100X85X7.5	100	85	7.5	\$31.05
TSP-160X144X7.5	160	144	7.5	\$87.22
TSP-224X202X11	224	202	11.0	\$227.29

Our TSP series piston seals are machined from bronze filled PTFE for the most severe applications and are most commonly found on Japanese equipment. Standard expander rings on this series piston seal are round or square cross section, high memory 70 durometer nitrile; however, FKM expanders are available. Consult sales for pricing and delivery of special compounds.

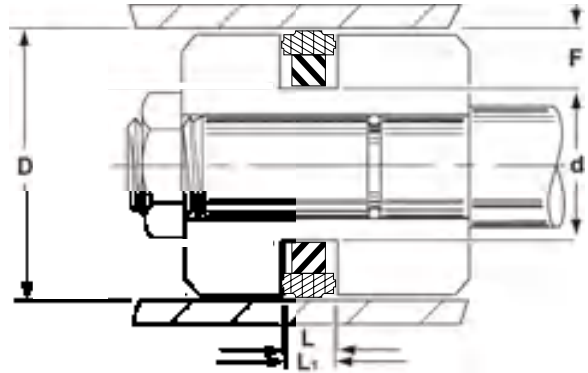
Temperature: -40° to 225°F Pressure: 0 to 5,000 PSI

Material: 40% Bronze-filled PTFE / Nitrile

"G" Suffix = Glass filled PTFE "C" Suffix = Carbon filled PTFE

EXAMPLE: TSP-50X39X5.2G				
Prefix	Bore Dia.	Groove Dia.	Groove Ht.	Suffix
TSP	- 50	x 39	x 5.2	G
	50mm	39mm	5.2mm	Glass filled

# AS600 2pc. Hytrel® Piston Seals - Inch



ALTERNATIVE SEALS:  
AS900E, AS900E-B

EXAMPLE: AS600E-84	
Prefix	Bore Diameter
AS600E-	84
	5-1/4"

These compact seal assemblies are molded from a specially blended Hytrel® material and include a 70 durometer nitrile o-ring expander. They are interchangeable with the AS900 PTFE piston seal grooves and offer easier installation and better resistance to cold flow and extrusion.

Temperature: -40° to 225°F

Pressure: 0 to 5,000 PSI

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

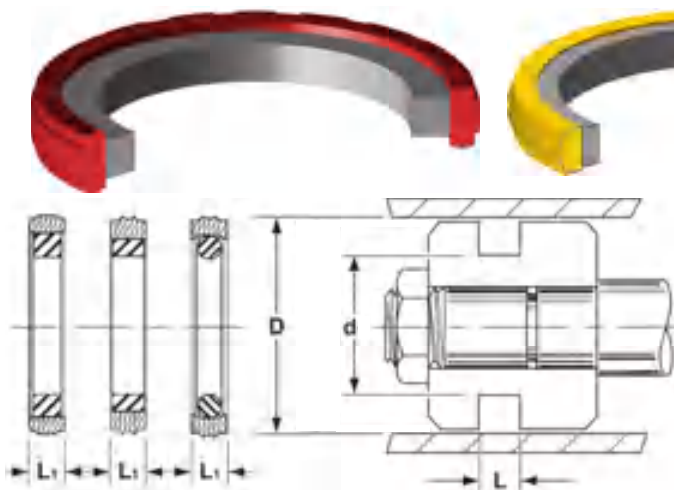
Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Dia. +.002/-0 D	Groove Dia. +.002/-0.002 d	Groove Height +.002/-0.002 L	Seal Height +.002/-0 L <sub>1</sub>	Seal Wall	Expander Cross Section	Price
AS600E-16	1.000	0.691	0.129	0.119	0.070	0.099	\$6.91
AS600E-20	1.250	0.941	0.129	0.119	0.070	0.099	\$6.99
AS600E-24	1.500	1.191	0.129	0.119	0.070	0.099	\$7.59
AS600E-28	1.750	1.441	0.129	0.119	0.070	0.099	\$7.50
AS600E-32	2.000	1.691	0.129	0.119	0.070	0.099	\$8.02
AS600E-36	2.250	1.941	0.129	0.119	0.070	0.099	\$8.18
AS600E-40	2.500	2.191	0.129	0.119	0.070	0.099	\$8.94
AS600E-44	2.750	2.441	0.129	0.119	0.070	0.099	\$9.20
AS600E-48	3.000	2.462	0.283	0.272	0.090	0.203	\$11.12
AS600E-52	3.250	2.712	0.283	0.272	0.090	0.203	\$12.23
AS600E-56	3.500	2.962	0.283	0.272	0.090	0.203	\$13.22
AS600E-60	3.750	3.212	0.283	0.272	0.090	0.203	\$13.30
AS600E-64	4.000	3.462	0.283	0.272	0.090	0.203	\$13.92
AS600E-68	4.250	3.712	0.283	0.272	0.090	0.203	\$14.03
AS600E-72	4.500	3.962	0.283	0.272	0.090	0.203	\$14.24
AS600E-76	4.750	4.212	0.283	0.272	0.090	0.203	\$15.47
AS600E-80	5.000	4.462	0.283	0.272	0.090	0.203	\$17.78
AS600E-84	5.250	4.504	0.378	0.365	0.142	0.265	\$24.12
AS600E-88	5.500	4.754	0.378	0.365	0.142	0.265	\$24.18
AS600E-92	5.750	5.004	0.378	0.365	0.142	0.265	\$31.40
AS600E-96	6.000	5.254	0.378	0.365	0.142	0.265	\$26.88
AS600E-100	6.250	5.504	0.378	0.365	0.142	0.265	\$25.82
AS600E-104	6.500	5.754	0.378	0.365	0.142	0.265	\$28.29
AS600E-112	7.000	6.254	0.378	0.365	0.142	0.265	\$28.63
AS600E-116	7.250	6.504	0.378	0.365	0.142	0.265	\$28.77
AS600E-120	7.500	6.754	0.378	0.365	0.142	0.265	\$38.14
AS600E-128	8.000	7.254	0.378	0.365	0.142	0.265	\$32.13
AS600E-135	8.437	7.691	0.378	0.365	0.142	0.265	\$42.60
AS600E-136	8.500	7.754	0.378	0.365	0.142	0.265	\$34.05
AS600E-144	9.000	8.137	0.378	0.365	0.202	0.265	\$52.08
AS600E-152	9.500	8.637	0.378	0.365	0.202	0.265	\$62.48
AS600E-160	10.000	9.137	0.378	0.365	0.202	0.265	\$72.78

Material Is 5% Glass / 5% PTFE Filled Hytrel®



# 2pc. Urethane Piston Seals - Metric



**ALTERNATIVE SEALS:**  
AS4, AS5, AS6, AS7, PSP

*Styles may vary by manufacturer.*

Please see Piston Seal Measurement Guide on Page 32.

These compact seal assemblies are molded from a specially blended urethane material and include a 70 durometer nitrile expander. They are interchangeable with many popular PTFE piston seal grooves and offer easier installation and better resistance to cold flow and extrusion.

Temperature: -40° to 230°F

Pressure: 0 to 5,000 PSI

Material: Urethane/Nitrile

EXAMPLE: AS532E-22MM		
Prefix	Groove Height	Bore Diameter
AS5	*32E-	22MM
	3.2mm	22mm

\*\_\_ E- Number Refers to Groove Height  
(28 = 2.2mm, 36 = 4.2mm, 40 = 6.3mm, 42 = 8.1mm)

Part Number	Bore Dia. H9 D	Groove Dia. h9 d	Groove Height +.1 / -0 L	Price
AS632E-15MM	15	7.5	3.2	\$8.29
AS632E-16MM	16	8.5	3.2	\$8.52
AS632E-20MM	20	12.5	3.2	\$9.60
AS532E-22MM	22	14.5	3.2	\$9.69
AS632E-25MM	25	17.5	3.2	\$8.33
AS536E-25MM	25	14.0	4.2	\$8.40
AS632E-30MM	30	22.5	3.2	\$8.67
AS532E-32MM	32	24.5	3.2	\$9.15
AS632E-32MM	32	24.5	3.2	\$10.52
AS536E-32MM	32	21.0	4.2	\$9.15
AS632E-35MM	35	27.5	3.2	\$9.73
AS532E-36MM	36	28.5	3.2	\$10.61
AS532E-40MM	40	32.5	3.2	\$9.50
AS636E-40MM	40	29.0	4.2	\$9.89
AS540E-40MM	40	24.5	6.3	\$10.14
PSP-40X27X6.3	40	27.0	6.3	\$18.54
AS636E-42MM	42	31.0	4.2	\$18.17
AS636E-45MM	45	34.0	4.2	\$10.56
AS540E-45MM	45	29.5	6.3	\$11.71
PSP-45X32X6.3	45	32.0	6.3	\$29.63
AS636E-48MM	48	37.0	4.2	\$22.49
AS636E-50MM	50	39.0	4.2	\$10.59
AS540E-50MM	50	34.5	6.3	\$11.75
AS640E-50MM	50	34.5	6.3	\$11.83
PSP-50X37X6.3	50	37.0	6.3	\$13.93
PSP-50X39X6.3	50	39.0	6.3	\$18.76
AS636E-55MM	55	44.0	4.2	\$12.03
AS640E-55MM	55	39.5	6.3	\$12.38
AS636E-60MM	60	49.0	4.2	\$11.75
AS640E-60MM	60	44.5	6.3	\$13.38
AS636E-63MM	63	52.0	4.2	\$12.21
PSP-63X53X5	63	53.0	5.0	\$30.85

Part Number	Bore Dia. H9 D	Groove Dia. h9 d	Groove Height +.1 / -0 L	Price
AS640E-63MM	63	47.5	6.3	\$15.35
PSP-63X50X6.3	63	50.0	6.3	\$19.18
AS636E-65MM	65	54.0	4.2	\$15.25
AS640E-65MM	65	49.5	6.3	\$16.92
PSP-65X52X6.3	65	52.0	6.3	\$16.04
AS536E-70MM	70	59.0	4.2	\$16.09
AS540E-70MM	70	54.5	6.3	\$16.13
AS636E-70MM	70	59.0	4.2	\$14.75
AS640E-70MM	70	54.5	6.3	\$18.48
PSP-70X57X6.3	70	57.0	6.3	\$13.78
AS536E-75MM	75	64.0	4.2	\$16.26
AS636E-75MM	75	64.0	4.2	\$15.97
AS540E-75MM	75	59.5	6.3	\$18.57
AS640E-75MM	75	59.5	6.3	\$18.52
PSP-75X62X6.3	75	62.0	6.3	\$30.63
AS636E-80MM	80	69.0	4.2	\$18.20
AS540E-80MM	80	64.5	6.3	\$18.51
AS640E-80MM	80	64.5	6.3	\$17.98
PSP-80X59X8.1	80	59.0	8.1	\$47.86
PSP-80X59X10.5	80	59.0	10.5	\$48.20
AS540E-85MM	85	69.5	6.3	\$19.13
AS640E-85MM	85	69.5	6.3	\$17.36
PSP-85X71.5X6.3	85	71.5	6.3	\$38.35
AS640E-90MM	90	74.5	6.3	\$17.36
PSP-90X69X8.1	90	69.0	8.1	\$49.47
PSP-90X69X10.5	90	69.0	10.5	\$55.56
AS640E-95MM	95	79.5	6.3	\$22.30
AS640E-100MM	100	84.5	6.3	\$18.17
PSP-100X86.3X6.3	100	86.3	6.3	\$46.29
PSP-100X79X8.1	100	79.0	8.1	\$48.95
AS640E-105MM	105	89.5	6.3	\$23.06
PSP-105X89.5X6.3	105	89.5	6.3	\$27.61

## 2pc. Urethane Piston Seals - Metric cont'd.

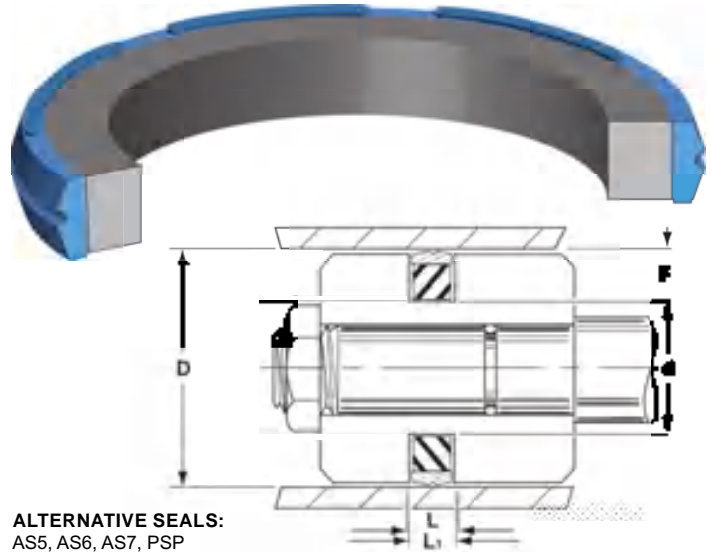
Part Number	Bore Dia. H9 D	Groove Dia. h9 d	Groove Height +.1 / -0 L	Price
AS640E-110MM	110	94.5	6.3	\$25.67
PSP-110X89X8.1	110	89	8.1	\$51.41
PSP-110X89X10.5	110	89	10.5	\$62.17
AS640E-115MM	115	99.5	6.3	\$26.05
AS640E-120MM	120	104.5	6.3	\$30.91
AS642E-120MM	120	99.0	8.1	\$30.91
PSP-120X99X10.5	120	99	10.5	\$57.13
AS640E-125MM	125	109.5	6.3	\$22.23
PSP-125X104X8.1	125	104.0	8.1	\$48.41
AS642E-125MM	125	104.0	8.1	\$42.39
PSP-125X104X10.5	125	104	10.5	\$73.41
AS640E-130MM	130	114.5	6.3	\$23.19
PSP-130X114X7.5	130	114	7.5	\$75.59
AS642E-130MM	130	109	8.1	\$30.67
AS642E-135MM	135	114.0	8.1	\$34.32
AS640E-140MM	140	124.5	6.3	\$36.64
PSP-140X119X7.5	140	119	7.5	\$68.51
PSP-140X124X7.5	140	124	7.5	\$73.57

Part Number	Bore Dia. H9 D	Groove Dia. h9 d	Groove Height +.1 / -0 L	Price
AS642E-140MM	140	119	8.1	\$35.94
PSP-140X119X10.5	140	119.0	10.5	\$66.08
PSP-150X134X7.5	150	134	7.5	\$75.03
AS642E-150MM	150	129	8.1	\$36.33
PSP-150X129X10.5	150	129.0	10.5	\$66.40
AS642E-160MM	160	139	8.1	\$37.81
AS642E-165MM	165	144.0	8.1	\$30.09
AS542E-170MM	170	149	8.1	\$53.71
AS642E-170MM	170	149	8.1	\$43.34
AS642E-180MM	180	159	8.1	\$44.15
AS642E-190MM	190	169	8.1	\$45.49
AS542E-200MM	200	179	8.1	\$51.80
AS642E-200MM	200	179	8.1	\$53.37
PSP-200X175X12.5	200	175	12.5	\$147.45
AS642E-210MM	210	189	8.1	\$47.89
AS642E-225MM	225	204.0	8.1	\$60.64
AS642E-250MM	250	229.0	8.1	\$87.92

## AS4 2pc. Urethane Piston Seals - Metric

Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Dia. H9 D	Groove Dia. h9 d	Groove Height +.1 / -0 L	Price
AS432E-25MM	25	17.5	3.2	\$12.20
AS432E-32MM	32	24.5	3.2	\$12.88
AS436E-35MM	35	24.0	4.2	\$14.20
AS436E-40MM	40	29.0	4.2	\$17.21
AS436E-45MM	45	34.0	4.2	\$17.99
AS436E-50MM	50	39.0	4.2	\$15.49
AS440E-55MM	55	39.5	6.3	\$15.53
AS436E-60MM	60	49.0	4.2	\$15.67
AS440E-60MM	60	44.5	6.3	\$17.01
AS436E-63MM	63	52.0	4.2	\$17.53
AS440E-63MM	63	47.5	6.3	\$17.98
AS440E-65MM	65	49.5	6.3	\$18.06
AS440E-70MM	70	54.5	6.3	\$18.62
AS440E-75MM	75	59.5	6.3	\$18.90
AS440E-80MM	80	64.5	6.3	\$22.68
AS440E-85MM	85	69.5	6.3	\$24.21
AS440E-90MM	90	74.5	6.3	\$26.36
AS440E-95MM	95	79.5	6.3	\$29.51
AS440E-100MM	100	84.5	6.3	\$30.32
AS442E-100MM	100	79.0	8.1	\$30.69
AS440E-110MM	110	94.5	6.3	\$30.95
AS442E-110MM	110	89.0	8.1	\$31.32
AS442E-115MM	115	94.0	8.1	\$32.24
AS442E-120MM	120	99.0	8.1	\$33.56
AS442E-125MM	125	104.0	8.1	\$36.50
AS442E-130MM	130	109.0	8.1	\$40.05
AS442E-140MM	140	119.0	8.1	\$40.46
AS442E-150MM	150	129.0	8.1	\$42.73
AS442E-160MM	160	139.0	8.1	\$45.93
AS442E-180MM	180	159.0	8.1	\$48.83
AS442E-200MM	200	179.0	8.1	\$56.83



ALTERNATIVE SEALS:  
AS5, AS6, AS7, PSP

EXAMPLE: AS440E-55MM		
Prefix	Groove Height	Bore Diameter
AS4	*40E-	55MM
	3.2mm	55mm

\*\_E- Number Refers to Groove Height  
(32 = 3.2mm, 36 = 4.2mm, 40 = 6.3mm, 42 = 8.1mm)

These compact seal assemblies are molded from a specially blended urethane according to vendor material and include a 70 durometer nitrile lathe cut expander. They are interchangeable with the AS5, AS6, and AS7 PTFE piston seal grooves and offer easy installation and good resistance to cold flow and extrusion.

Temperature: -40° to 225°F

Pressure: 0 to 5,000 PSI

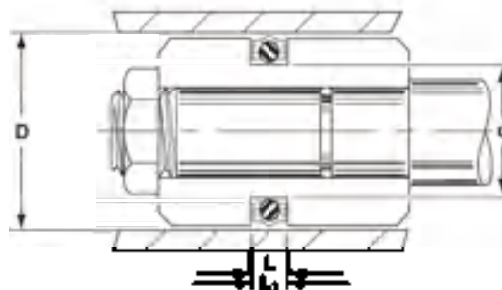
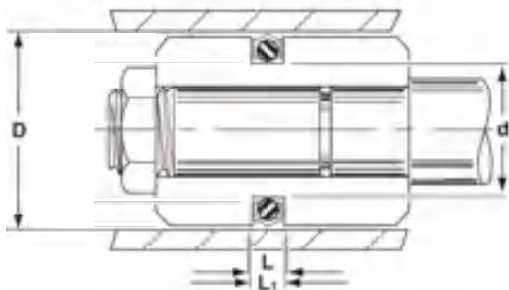
# CP 2pc. Polyurethane/NBR Piston Crown® Seal Assembly - Inch



**Standard Type**



**"WB" Type**



**EXAMPLE: CP-326WB**

Prefix	OD 568 DASH #	Suffix
CP-	326	WB
	1 5/8"	WIDE BASE

Crown seals are bi-directional squeeze type piston seals used as direct substitutes for o-rings and T-seals.

Temperature: -65° to 220°F      Pressure: 0 to 5,000 PSI

**ALTERNATIVE SEALS:**

PSP, TP

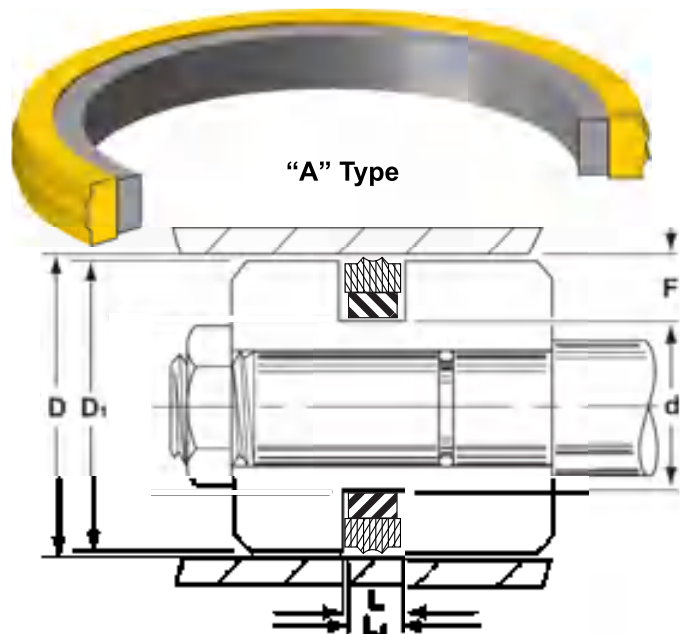
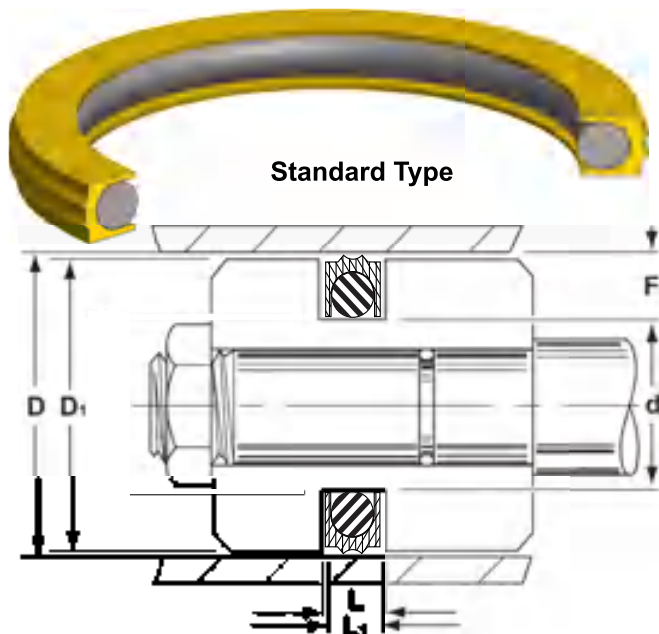
Please see Piston Seal Measurement Guide on Page 32.

Part No.	Bore Dia. +.004/-0 D	Groove Dia. +0/-0.004 d	Groove Height +.004/-0 L	Price
CP-210	1.000	0.750	0.187	\$3.90
CP-212	1.125	0.875	0.187	\$5.08
CP-214	1.250	1.000	0.187	\$5.39
CP-216	1.375	1.125	0.187	\$5.55
CP-218	1.500	1.250	0.187	\$6.35
CP-220	1.625	1.375	0.187	\$6.82
CP-222	1.750	1.500	0.187	\$6.91
CP-222WB	1.750	1.500	0.275	\$8.63
CP-326	2.000	1.625	0.281	\$8.58
CP-326WB	2.000	1.625	0.410	\$11.41
CP-328	2.250	1.875	0.281	\$9.82
CP-330	2.500	2.125	0.281	\$11.01
CP-330WB	2.500	2.125	0.410	\$15.10
CP-332	2.750	2.375	0.281	\$12.99
CP-332WB	2.750	2.375	0.410	\$17.71
CP-334	3.000	2.625	0.281	\$14.42
CP-334WB	3.000	2.625	0.410	\$16.75
CP-336	3.250	2.875	0.281	\$18.38
CP-338	3.500	3.125	0.281	\$19.40
CP-338WB	3.500	3.125	0.410	\$19.81
CP-339	3.625	3.250	0.281	\$24.97
CP-340	3.750	3.375	0.281	\$18.06

Part No.	Bore Dia. +.004/-0 D	Groove Dia. +0/-0.004 d	Groove Height +.004/-0 L	Price
CP-342	4.000	3.625	0.281	\$19.32
CP-342WB	4.000	3.625	0.410	\$22.65
CP-344	4.250	3.875	0.281	\$21.71
CP-344WB	4.250	3.875	0.410	\$26.57
CP-346	4.500	4.125	0.281	\$26.90
CP-346WB	4.500	4.125	0.410	\$29.16
CP-348	4.750	4.375	0.281	\$25.47
CP-348WB	4.750	4.375	0.410	\$29.43
CP-350	5.000	4.625	0.281	\$29.50
CP-425	5.000	4.500	0.375	\$31.53
CP-425WB	5.000	4.500	0.538	\$38.33
CP-429	5.500	5.000	0.375	\$36.69
CP-433	6.000	5.500	0.375	\$39.18
CP-433WB	6.000	5.500	0.538	\$51.13
CP-435	6.250	5.750	0.375	\$43.87
CP-437	6.500	6.000	0.375	\$45.85
CP-438	6.750	6.250	0.375	\$46.43
CP-439	7.000	6.500	0.375	\$48.85
CP-441	7.500	7.000	0.375	\$50.16
CP-442	7.750	7.250	0.375	\$52.92
CP-443	8.000	7.500	0.375	\$55.68
CP-448	10.000	9.500	0.375	\$64.14

## PSP Piston Seals - Inch

## PSP-A Piston Seals - Inch



PSP seals are bi-directional squeeze type piston seals used as direct substitutes for o-rings, T-seals and Cap seals in industrial no-back-up o-ring grooves. The unique geometry of the PSP seal design creates a fluid reservoir between the two level bi-lip sealing surfaces. This feature provides extra lubrication resulting in reduced breakaway and running friction. PSP seals are manufactured from a proprietary low friction urethane, which has excellent abrasion, tear and extrusion resistance. PSP seals provide positive, no-drift sealing at a continuous service temperature range from -65° to 220° F, and pressures up to 5000 PSI with the recommended groove dimensions and tolerances. Both styles fit the same groove.

Temperature: -65° to 220°F      Pressure: 0 to 5,000 PSI  
 "4300" Suffix = Temperature: -65° to 275°F

Please see Piston Seal Measurement Guide on Page 32.

### Standard Type

EXAMPLE: PSP-210

Prefix	OD 568 DASH #
PSP-	210
	1"

### "A" Type

EXAMPLE: PSP-336AT 4300

Prefix	OD 568 DASH #	Suffix	Suffix	Suffix
PSP-	336	A	T	4300
	3-1/4"	NEW STYLE	WIDE BASE	MATERIAL

Part No.	Bore Dia. +.004/-0 D	Piston Dia. +0/- .004 D <sub>1</sub>	Groove Dia. +0/- .004 d	Groove Height +.004/-0 L	Price
PSP-210	1.000	0.997	0.758	0.187	\$8.29
PSP-212	1.125	1.122	0.883	0.187	\$9.15
PSP-214	1.250	1.247	1.008	0.187	\$9.74
PSP-216	1.375	1.372	1.133	0.187	\$10.29
PSP-218	1.500	1.497	1.258	0.187	\$10.42
PSP-220	1.625	1.622	1.383	0.187	\$11.71
PSP-222	1.750	1.747	1.508	0.187	\$12.52
PSP-326	2.000	1.997	1.630	0.281	\$14.03
PSP-328	2.250	2.247	1.880	0.281	\$15.65
PSP-329	2.375	2.372	2.005	0.281	\$17.95
PSP-330	2.500	2.497	2.130	0.281	\$18.76
PSP-331	2.625	2.622	2.255	0.281	\$19.50
PSP-332	2.750	2.747	2.380	0.281	\$20.35
PSP-334	3.000	2.997	2.630	0.281	\$21.82
PSP-335	3.125	3.122	2.755	0.281	\$23.42
PSP-336	3.250	3.247	2.880	0.281	\$24.20

Part No.	Bore Dia. +.004/-0 D	Piston Dia. +0/- .004 D <sub>1</sub>	Groove Dia. +0/- .004 d	Groove Height +.004/-0 L	Price
PSP-210A	1.000	0.997	0.758	0.187	\$7.66
PSP-214A	1.250	1.247	1.008	0.187	\$8.39
PSP-218A	1.500	1.497	1.258	0.187	\$10.64
PSP-218AT 4300	1.500	1.497	1.258	0.275	\$14.73
PSP-222A	1.750	1.747	1.508	0.187	\$10.47
PSP-326A	2.000	1.997	1.630	0.281	\$10.46
PSP-326A 4300	2.000	1.997	1.630	0.281	\$13.28
PSP-326AT 4300	2.000	1.997	1.630	0.410	\$17.81
PSP-328A	2.250	2.247	1.880	0.281	\$14.65
PSP-328A 4300	2.250	2.247	1.880	0.281	\$14.65
PSP-330A	2.500	2.497	2.130	0.281	\$15.32
PSP-330A 4300	2.500	2.497	2.130	0.281	\$20.64
PSP-330AT 4300	2.500	2.497	2.130	0.410	\$23.67
PSP-332A	2.750	2.747	2.380	0.281	\$17.02
PSP-334A	3.000	2.997	2.630	0.281	\$19.12
PSP-334AT 4300	3.000	2.997	2.630	0.410	\$28.35

**PSP / PSP-A 2pc. Piston Seals - Inch cont'd.**

Standard Type con't.					
Part No.	Bore Dia. +.004/-0 D	Piston Dia. +0/--.004 D <sub>1</sub>	Groove Dia. +0/--.004 d	Groove Height +.004/-0 L	Price
PSP-338	3.500	3.497	3.130	0.281	\$25.74
PSP-340	3.750	3.747	3.380	0.281	\$28.12
PSP-342	4.000	3.997	3.630	0.281	\$31.21
PSP-344	4.250	4.247	3.880	0.281	\$36.07
PSP-346	4.500	4.497	4.130	0.281	\$39.02
PSP-348	4.750	4.747	4.380	0.281	\$42.88
PSP-350	5.002	4.997	4.630	0.281	\$47.05
PSP-425	5.002	4.997	4.528	0.281	\$48.94
PSP-429	5.502	5.498	5.028	0.281	\$57.65
PSP-433	6.002	5.998	5.528	0.281	\$67.75
PSP-435	6.252	6.248	5.778	0.281	\$71.00
PSP-437	6.502	6.498	6.028	0.281	\$74.76
PSP-439	7.002	6.998	6.528	0.281	\$78.75

"A" Type con't.					
Part No.	Bore Dia. +.004/-0 D	Piston Dia. +0/--.004 D <sub>1</sub>	Groove Dia. +0/--.004 d	Groove Height +.004/-0 L	Price
PSP-336A	3.250	3.247	2.880	0.281	\$22.18
PSP-336A 4300	3.250	3.247	2.880	0.281	\$24.12
PSP-338A	3.500	3.497	3.130	0.281	\$24.32
PSP-338AT 4300	3.500	3.497	3.130	0.410	\$36.56
PSP-342A	4.000	3.997	3.630	0.281	\$27.90
PSP-342AT 4300	4.000	3.997	3.630	0.410	\$48.38
PSP-346A	4.500	4.497	4.130	0.281	\$38.19
PSP-346AT 4300	4.500	4.497	4.130	0.410	\$70.30
PSP-350A	5.000	4.997	4.630	0.281	\$45.89
PSP-425AT 4300	5.000	4.997	4.528	0.538	\$77.62
PSP-429A	5.500	5.498	5.028	0.375	\$56.53
PSP-433A	6.000	5.998	5.528	0.375	\$66.53
PSP-433AT 4300	6.000	5.998	5.528	0.538	\$119.31
PSP-439AT 4300	7.000	6.998	6.528	0.538	\$120.04
PSP-443A 4300	8.000	7.998	7.528	0.375	\$66.78

**NO 2pc. Fabric Rubber Piston Seals w/ Backups - Metric**



The NO series piston seal is a 2 piece single-acting sealing set which consists of a fabric-reinforced lip seal (U-cup), and a Nylon or a rock-hard fabric-reinforced backup ring. The lip seal has an integrated support ring for stability and will discharge pressure that could build up between the seals in a double-acting cylinder. This seal set requires a 2 pc piston.

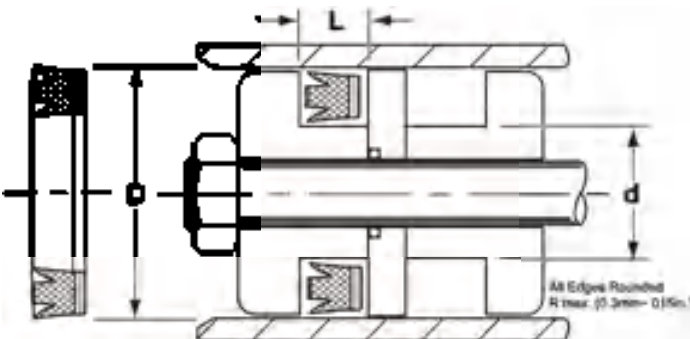
Temperature: -22° to 212°F

Pressure: 0 to 7,000 PSI

EXAMPLE: NO-25x40x9.5				
Prefix	Groove Diameter		Bore Diameter	Groove Height
NO-	25	x	40	x 9.5
	25mm		40mm	9.5mm

ALTERNATIVE SEALS:  
MA28, MA25, M4

Please see Piston Seal Measurement Guide on Page 32.

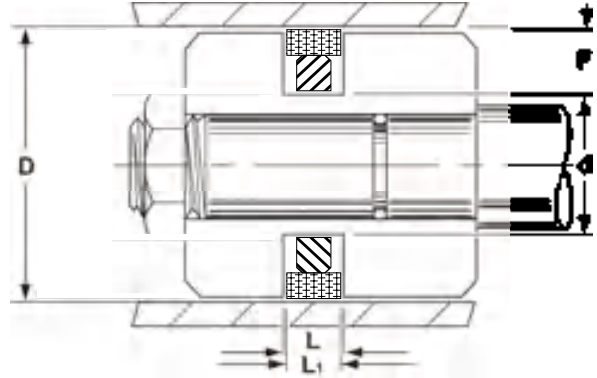


Part Number	Groove Dia. f 8 d	Bore Dia. H 9 D	Groove Height +.1/-0 L	Price
NO-25X40X9.5	25	40	9.5	\$35.25
NO-35X50X9.5	35	50	9.5	\$36.19
NO-40X55X9.5	40	55	9.5	\$36.82
NO-48X63X9.5	48	63	9.5	\$43.88
NO-50X70X12.5	50	70	12.5	\$45.27
NO-75X95X12.5	75	95	12.5	\$49.81
NO-85X105X12.5	85	105	12.5	\$58.46
NO-90X110X12.5	90	110	12.5	\$68.87
NO-90X115X15.5	90	115	15.5	\$77.24
NO-100X120X13	100	120	13.0	\$105.16
NO-105X130X17	105	130	17.0	\$74.10
NO-115X135X15.5	115	135	15.5	\$80.38
NO-120X140X15	120	140	15.0	\$97.78
NO-190X220X19	190	220	19.0	\$390.38

# 714 2pc. Nylon Piston Seals - Inch



**ALTERNATIVE SEALS:**  
914 -  
Some fit AS900 Groove



Part Number	Bore Dia. +0.004 / -0 D	Groove Dia. +0 / -.004 d	Groove Height +0.004 / -0 L	Price
714-2000-282	2.000	1.462	0.282	\$22.00
714-2250-282	2.250	1.712	0.282	\$24.43
714-2500-282	2.500	1.962	0.282	\$27.24
714-2750-282	2.750	2.212	0.282	\$29.22
714-3000-282	3.000	2.442	0.282	\$27.31
714-3250-282	3.250	2.692	0.282	\$30.56
714-3500-282	3.500	2.942	0.282	\$31.42
714-3500-312	3.500	2.908	0.312	\$32.12
714-3500-424	3.500	3.128	0.424	\$45.41
714-3750-282	3.750	3.192	0.282	\$39.08
714-4000-192	4.000	3.150	0.192	\$31.77
714-4000-282	4.000	3.442	0.282	\$32.10
714-4250-282	4.250	3.692	0.282	\$42.29
714-4250-377	4.250	3.692	0.377	\$102.02
714-4500-282	4.500	3.942	0.282	\$38.02
714-4500-424	4.500	4.128	0.424	\$51.66
714-4750-282	4.750	4.192	0.282	\$45.24
714-5000-282	5.000	4.442	0.282	\$47.88
714-5250-377	5.250	4.490	0.377	\$55.97
714-5500-282	5.500	4.940	0.282	\$99.62
714-5500-377	5.500	4.740	0.377	\$49.26
714-5500-579	5.500	5.014	0.579	\$55.02
714-6000-377	6.000	5.240	0.377	\$52.14
714-6250-282	6.250	5.692	0.282	\$104.30
714-7000-377	7.000	6.240	0.377	\$102.22
714-8000-377	8.000	7.240	0.377	\$105.11
714-9000-377	9.000	8.124	0.377	\$107.82

### EXAMPLE: 714-2000-282

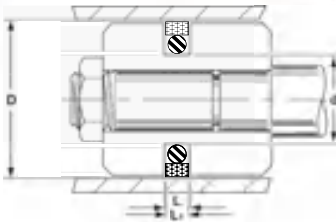
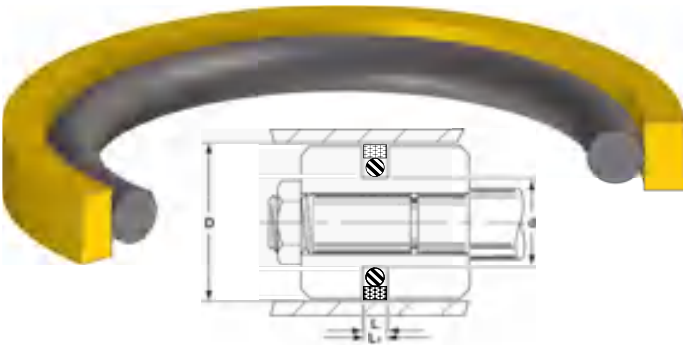
Prefix	Bore Diameter	Groove Height
714-	2000	282
	2"	9/32"

714 style piston seals are step cut, and are made from glass-filled polyamide. The rectangular energizer is a molded 70 durometer Shore A nitrile. They are primarily designed for heavy duty, double acting hydraulic applications. The sealing set is capable of passing a port and can be used up to 10,000 PSI (680 bar) with proper fitting. Its advantages are small profile, resistant to shock loads, low breakout and running friction, even after lengthy standstill under high pressures. They install easily due to the split outer sealing ring and offer high abrasion and extrusion resistance at high pressures and large clearance gaps.

Temperature: -40° to 250°F      Pressure: 0 to 10,000 PSI

Please see Piston Seal Measurement Guide on Page 32.

# AS990 2pc. BTFE Piston Seals - Metric



### EXAMPLE: AS990E-100MMB

Prefix	Bore Diameter	Suffix
AS990E-	100MM	B
	mm	BTFE

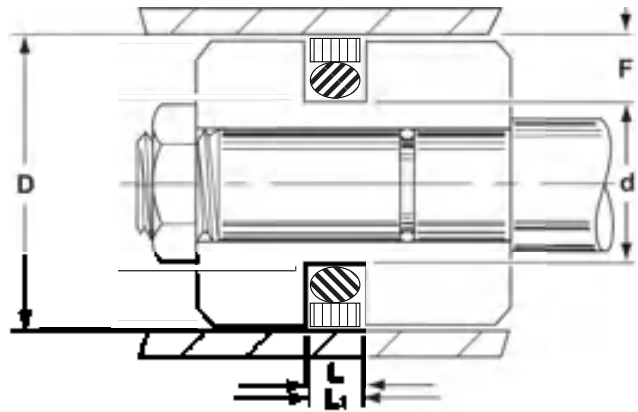
These rectangular bronze filled PTFE piston seal assemblies include a 70 durometer nitrile o-ring energizer. These heavy duty seals can be supplied with FKM expanders. Consult sales office for price and availability.

Temperature: -40° to 225°F      Pressure: 0 to 5,000 PSI

Part Number	Bore Dia. H 9 D	Groove Dia. f 8 d	Groove Height +1 / -0 L	Price
AS990E-90MMB	90	76	6.3	\$42.41
AS990E-100MMB	100	86	6.3	\$45.77
AS990E-110MMB	110	96	6.3	\$49.05
AS990E-120MMB	120	106	6.3	\$55.21
AS990E-125MMB	125	106	9.5	\$59.88
AS990E-130MMB	130	111	9.5	\$64.59
AS990E-140MMB	140	121	9.5	\$73.57
AS990E-150MMB	150	131	9.5	\$95.31
AS990E-160MMB	160	141	9.5	\$99.30

Part Number	Bore Dia. H 9 D	Groove Dia. f 8 d	Groove Height +1 / -0 L	Price
AS990E-170MMB	170	151	9.5	\$110.33
AS990E-180MMB	180	161	9.5	\$114.32
AS990E-190MMB	190	171	9.5	\$125.88
AS990E-200MMB	200	181	9.5	\$127.93
AS990E-220MMB	220	201	9.5	\$157.05
AS990E-250MMB	250	226.5	11.5	\$248.70
AS990E-280MMB	280	256.5	11.5	\$251.00
AS990E-300MMB	300	276.5	11.5	\$285.90

# 914 2pc. ChemCast® Piston Seals - Inch



**EXAMPLE: 914-2000-282**

Prefix	Bore Diameter	Groove Height
914-	2000-	282
	2"	9/32"

SOME SUFFIX HAVE NO CORRELATION TO HEIGHT

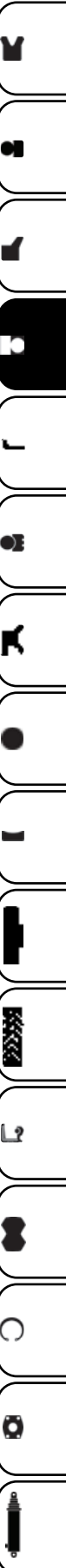
ChemCast® piston rings consist of a moly/glass-filled nylon step cut outer ring with a precision milled joint, together with a carboxylated nitrile 90 durometer oval expander ring. The expander ring is designed so as not to pinch between the joint of the outer ring during installation. These rings will pass a small port with no problem and can handle large diametrical clearances. It is the seal of choice for super-heavy duty applications. Many OEM's have adopted this seal due to its superior sealing ability, wear resistance, and port passing capabilities. Do not cut rings down.

Please see Piston Seal Measurement Guide on Page 32.

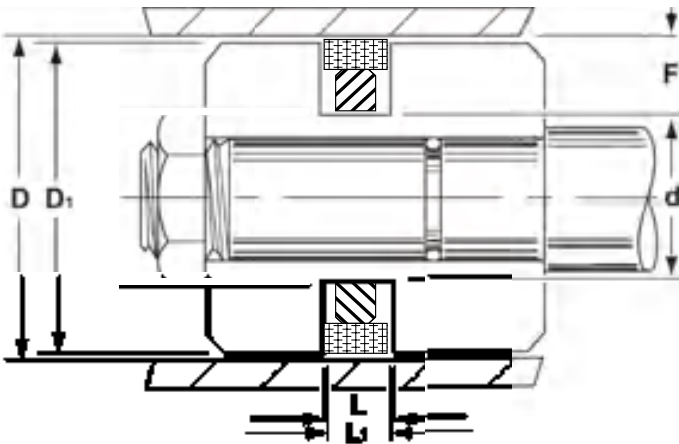
Temperature: -40° to 250°F

Pressure: 0 to 10,000 PSI

Part Number	Bore Diameter +.004 / -0 D	Groove Diameter +0/ -.004 d	Groove Height +.004 / -0 L	Price
914-2000-2003	2.000	1.462	0.282	\$60.74
914-2000-312	2.000	1.408	0.312	\$82.50
914-2500-2504	2.500	1.962	0.282	\$74.85
914-2500-312	2.500	1.908	0.312	\$76.58
914-3000-3005	3.000	2.442	0.282	\$79.87
914-3000-312	3.000	2.408	0.312	\$77.94
914-3250-3255	3.250	2.692	0.282	\$84.32
914-3500-3505	3.500	2.942	0.282	\$92.47
914-3500-312	3.500	2.908	0.312	\$94.09
914-4000-4005	4.000	3.442	0.282	\$95.28
914-4000-312	4.000	3.408	0.312	\$98.36
914-4250-4255	4.250	3.692	0.282	\$85.40
914-4500-4505	4.500	3.942	0.282	\$104.32
914-4500-312	4.500	3.908	0.312	\$105.19
914-5000-5005	5.000	4.442	0.282	\$108.54
914-5000-375	5.000	4.226	0.375	\$125.76
914-5250-282	5.250	4.692	0.282	\$148.86
914-5500-5505	5.500	4.740	0.375	\$124.52
914-6000-375	6.000	5.240	0.375	\$134.48
914-6250-6255	6.250	5.490	0.375	\$139.17
914-6500-6505	6.500	5.740	0.375	\$139.35
914-7000-375	7.000	6.222	0.375	\$132.19
914-7025-375	7.025	6.265	0.375	\$133.85
914-7500-7505	7.500	6.740	0.375	\$135.49
914-8437-8442	8.437	7.677	0.375	\$158.67
914-8500-375	8.500	7.740	0.375	\$138.23
914-10000-10005	10.000	9.124	0.375	\$270.30
914-11000-11005	11.000	10.124	0.375	\$350.49
914-11995-12000	11.995	11.124	0.375	\$160.44



# OK 2pc. Nylon Piston Seals - Metric



The OK style outer sealing rings are step cut, and are made from glass-filled polyamide. The rectangular energizer is a molded 70 durometer Shore A nitrile. They are primarily designed for heavy duty, double acting hydraulic applications. The sealing set is capable of passing a port and can be used up to 10,000 PSI (680 bar) with proper fitting. Its advantages are small profile, resistant to shock loads, and low breakout and running friction even after lengthy standstill under high pressures. They install easily due to the split outer sealing ring and offer high abrasion and extrusion resistance at high pressures and large clearance gaps.

Temperature: -40° to 250°F

Pressure: 0 to 10,000 PSI

**EXAMPLE: OK-50x39x4.2**

Prefix	Groove Diameter	x	Bore Diameter	x	Groove Height
OK-	50	x	39	x	4.2
	50mm		39mm		4.2mm

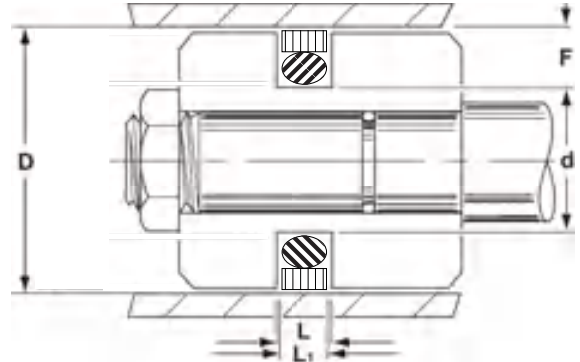
Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Dia. H9 D	Grv. Dia. f8 d	Grv. HT +.1/-0 L	Piston Dia. +0/-1 D <sub>1</sub>	Price
OK-40X29X4.2	40	29	4.2	39.2	\$24.16
OK-50X39X4.2	50	39	4.2	49.2	\$25.90
OK-50X34.5X6.3	50	34.5	6.3	49.2	\$31.52
OK-60X49X4.2	60	49	4.2	59.2	\$27.32
OK-60X44.5X6.3	60	44.5	6.3	59.8	\$31.89
OK-63X47.5X6.3	63	47.5	6.3	62.2	\$33.25
OK-70X59X4.2	70	59	4.2	69.2	\$34.93
OK-70X54.5X6.3	70	54.5	6.3	69.2	\$38.09
OK-70X51.7X7	70	51.7	7.0	69.2	\$48.91
OK-75X59.5X6.3	75	59.5	6.3	74.0	\$38.55
OK-80X64.5X6.3	80	64.5	6.3	79.0	\$32.09
OK-80X59X8	80	59	8.1	79.0	\$55.34
OK-85X69.5X6.3	85	69.5	6.3	79.0	\$37.42
OK-90X69X8	90	69	8.1	89.0	\$33.07
OK-90X74.5X6.3	90	74.5	6.3	89.0	\$33.66
OK-95X74X8	95	74	8.1	94.0	\$33.89
OK-100X84.5X6.3	100	84.5	6.3	99.0	\$43.84
OK-100X79X8	100	79	8.1	99.0	\$36.50
OK-105X89.5X6.3	105	89.5	8.1	104.0	\$39.10
OK-105X84X8.1	105	84	8.1	103.8	\$42.04
OK-110X94.5X6.3	110	94.5	6.3	108.8	\$43.84
OK-110X89X8	110	89	8.1	108.8	\$42.55
OK-115X94X8	115	94	8.1	113.8	\$47.28

Part Number	Bore Dia. H9 D	Grv. Dia. f8 d	Grv. HT +.1/-0 L	Piston Dia. +0/-1 D <sub>1</sub>	Price
OK-120X99X8	120	99	8.1	118.8	\$48.68
OK-125X109.5X6.3	125	109.5	6.3	123.8	\$52.13
OK-125X104X8	125	104	8.1	123.8	\$53.13
OK-130X109X8	130	109	8.1	128.8	\$58.24
OK-135X114X8.1	135	114	8.1	133.8	\$61.00
OK-140X119X8	140	119	8.1	138.8	\$65.41
OK-145X124X8.1	145	124	8.1	143.8	\$67.90
OK-150X129X8	150	129	8.1	148.8	\$71.44
OK-160X139X8	160	139	8.1	158.8	\$75.67
OK-165X144X8.1	165	144	8.1	163.8	\$77.75
OK-170X149X8.1	170	149	8.1	168.8	\$82.26
OK-175X154X8.1	175	154	8.1	173.8	\$83.32
OK-180X159X8	180	159	8.1	178.8	\$91.51
OK-185X164X8.1	185	164	8.1	183.8	\$93.66
OK-190X169X8	190	169	8.1	188.8	\$110.05
OK-200X179X8	200	179	8.1	198.8	\$116.05
OK-210X189X8	210	189	8.1	208.4	\$138.90
OK-220X199X8	220	199	8.1	218.4	\$148.17
OK-225X204X8.1	225	204	8.1	223.4	\$187.68
OK-230X209X8.1	230	209	8.1	228.4	\$175.01
OK-250X229X8	250	229	8.1	248.4	\$209.05
OK-280X255.5X8	280	255.5	8.1	278.4	\$296.79



# Cat® 2pc. Nylon Step-Cut Piston Seals - Inch



**ALTERNATIVE SEALS:**  
AS980

These 2 piece Cat® style outer sealing rings are step cut, and are made from glass-filled polyamide. The oval energizer is a molded 70 durometer Shore A nitrile. They are primarily designed for heavy duty, double acting hydraulic applications. The sealing set is capable of passing a port and can be used up to 10,000 psi (690 bar) with proper fitting. Its advantages are small profile, resistant to shock loads, and low breakout and running friction even after lengthy standstill under high pressures. They install easily due to the split outer sealing ring and offer high abrasion and extrusion resistance at high pressures and large clearance gaps.

Temperature: -40° to 250°F

Pressure: 0 to 10,000 PSI

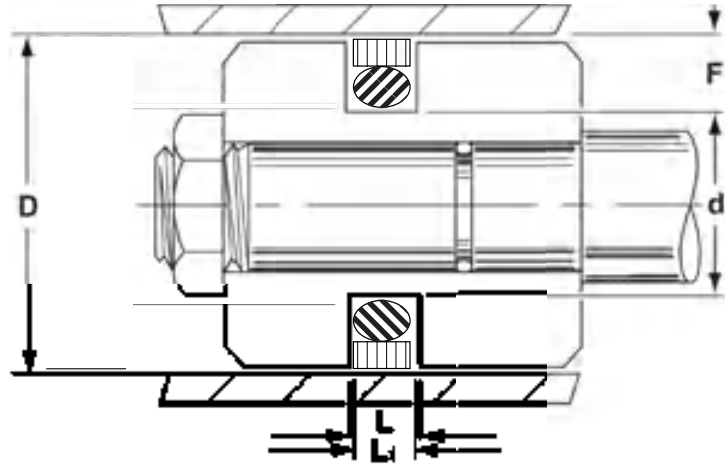
OEM NUMBERING SYSTEM

Please see Piston Seal Measurement Guide on Page 32.

Part Number	Bore Diameter +0.004 / -0 D	Groove Diameter +0 / -.004 d	Groove Height +0.004 / -0 L	Seal Height L <sub>1</sub>	Price
8C9167	2.500	2.130	0.192	0.172	\$21.00
9X7337	3.000	2.460	0.192	0.172	\$22.66
4T8054	3.500	2.960	0.192	0.172	\$29.47
9X7274	3.750	3.210	0.192	0.172	\$36.65
8C9160	4.000	3.335	0.252	0.232	\$38.12
8C9164	4.250	3.590	0.252	0.232	\$35.82
9X7269	4.500	3.840	0.252	0.232	\$55.97
4T5172	4.500	3.840	0.502	0.482	\$56.46
4T8588	4.750	4.090	0.252	0.232	\$57.56
8C5215	4.750	4.090	0.632	0.612	\$59.33
8T1787	5.000	4.230	0.632	0.612	\$73.99
8T0763	5.250	4.460	0.382	0.362	\$61.08
4T5173	5.500	4.730	0.632	0.612	\$47.50
8C9173	6.000	5.095	0.382	0.362	\$50.98
4T4144	6.000	5.090	0.632	0.612	\$54.79
8T8278	6.250	5.340	0.382	0.362	\$58.54
8T1788	6.250	5.340	0.632	0.612	\$65.19
4T8695	6.500	5.590	0.632	0.612	\$46.75
8T1789	7.000	6.090	0.632	0.612	\$57.37
8T1790	7.250	6.340	0.632	0.612	\$77.29
8T1791	7.500	6.590	0.632	0.612	\$99.75
8T1792	7.750	6.840	0.632	0.612	\$60.68
8T1793	8.250	7.260	0.632	0.612	\$73.41
9T0119	8.500	7.510	0.632	0.612	\$73.49
4T4143	9.250	8.260	0.382	0.362	\$105.06
9X7321	9.500	8.510	0.382	0.362	\$107.67
8T1794	10.000	8.880	0.692	0.672	\$109.70
8T1795	10.250	9.130	0.692	0.672	\$129.43
8T1796	10.500	9.380	0.692	0.672	\$122.90
8T1797	11.500	10.380	0.692	0.672	\$135.99
6E0307	12.500	11.380	0.692	0.672	\$202.30

*We do not imply that these seals are a product of Cat®.  
Part numbers are used for reference purposes only.*

# Cat<sup>®</sup> 2pc. Nylon Step-Cut Piston Seals - Metric



These 2 piece Cat<sup>®</sup> style outer sealing rings are step cut, and are made from glass-filled polyamide. The oval energizer is a molded 70 durometer Shore A nitrile. They are primarily designed for heavy duty, double acting hydraulic applications. The sealing set is capable of passing a port and can be used up to 10,000 psi (680 bar) with proper fitting. Its advantages are small profile, resistant to shock loads, and low breakout and running friction even after lengthy standstill under high pressures. They install easily due to the split outer sealing ring and offer high abrasion and extrusion resistance at high pressures and large clearance gaps.

Temperature: -40° to 250°F      Pressure: 0 to 10,000 PSI

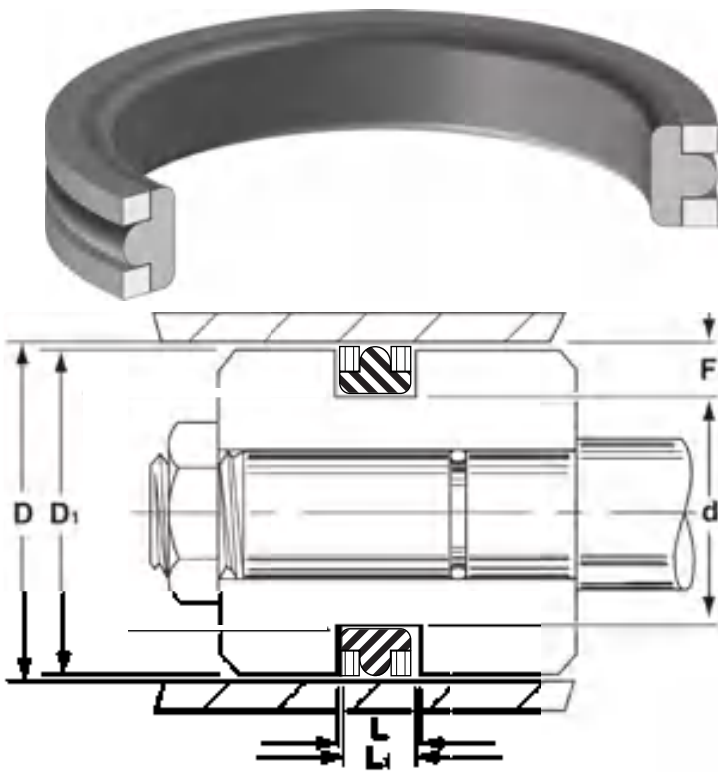
OEM NUMBERING SYSTEM

Please see Piston Seal Measurement Guide on Page 32.

*We do not imply that these seals are a product of Cat<sup>®</sup>. Part numbers are used for reference purposes only.*

Part Number	Bore Diameter +0.1/-0 D	Groove Diameter +0 / -0.1 d	Groove Height +0.1/-0 L	Seal Height L <sub>1</sub>	Price
9X7298	100	85.75	7.24	6.74	\$62.92
9X3586	105	90.75	7.24	6.74	\$64.37
9X7301	110	95.75	7.24	6.74	\$67.64
9X3589	115	100.75	7.24	6.74	\$48.88
9X3592	120	105.74	7.24	6.74	\$69.18
9X3595	130	115.74	7.24	6.74	\$70.92
1233135	140	119.13	8.13	7.63	\$83.00
9X3598	140	120.62	9.63	9.13	\$83.06
9X3601	150	130.63	9.63	9.13	\$75.99
9X3604	160	140.61	9.63	9.13	\$63.21
9X3607	170	150.62	9.63	9.13	\$82.91
9X3610	180	160.62	9.63	9.13	\$70.50
1251286	190	170.68	9.63	9.13	\$75.05
8C9179	200	174.73	9.63	9.13	\$79.53
8C9182	220	194.74	9.63	9.13	\$89.36

# TP 3pc. Piston T Seals - Inch



Piston T-seals were originally developed to replace o-rings, and retrofit into standard commercial o-ring grooves. This development ended two serious reliability problems:

1. Extrusion through the clearance gap, and;
  2. Spiral or twisting failure due to instability in their groove.
- T-seals' back-ups are hydraulically or pneumatically driven against the dynamic surface when system pressure forces the elastomer into the space beneath the back-up. This immediate response to pressure makes them very effective wipers, keeping contaminants away from the sealing line. Standard material for our T-seals is 75 durometer nitrile with moly-filled nylon back-up rings. Other materials are available upon request.

Industrial piston T-seals are also available to fit one and two back-up o-ring grooves. Please refer to Wide Base T-seals in this section.

Temperature: -40° to 225°F      Pressure: 0 to 5,000 PSI

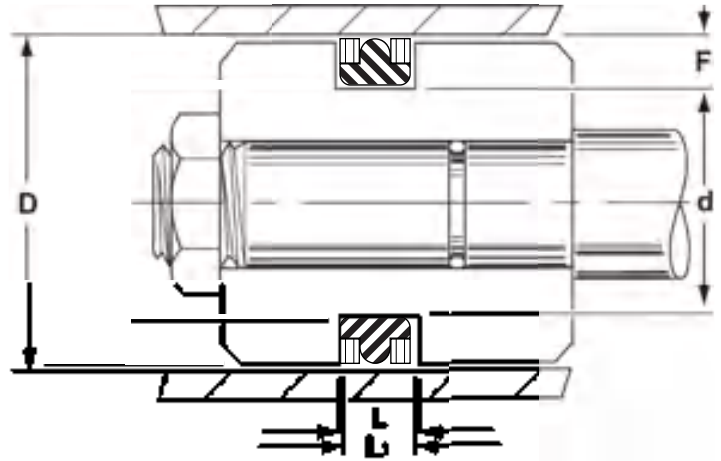
**ALTERNATIVE SEALS:**  
PSP, O-Ring, Quad-Ring, CP

Part No.	Nominal Size			Bore Dia. +0.002/-0.000 D	Groove Dia. +0.000/-0.002 d	Groove Height L	Piston Dia. +0.000/-0.001 D <sub>1</sub>	OR Size	Price
	O. D.	I. D.	Height						
TP001	3/8	3/16	5/32	0.375	0.190	0.140	0.371	-106	\$13.94
TP002	7/16	1/4	5/32	0.437	0.252	0.140	0.433	-108	\$14.18
TP003	1/2	5/16	5/32	0.500	0.315	0.140	0.496	-109	\$14.45
TP004	9/16	5/16	3/16	0.563	0.317	0.187	0.558	-203	\$14.86
TP005	5/8	3/8	3/16	0.625	0.380	0.187	0.621	-204	\$14.97
TP006	11/16	7/16	3/16	0.687	0.442	0.187	0.683	-205	\$15.25
TP007	3/4	1/2	3/16	0.750	0.505	0.187	0.746	-206	\$9.23
TP008	13/16	9/16	3/16	0.812	0.567	0.187	0.808	-207	\$16.01
TP009	7/8	5/8	3/16	0.875	0.630	0.187	0.871	-208	\$7.84
TP010	15/16	11/16	3/16	0.937	0.692	0.187	0.933	-209	\$16.50
TP011	1	3/4	3/16	1.000	0.756	0.187	0.997	-210	\$8.64
TP012	1 1/16	13/16	3/16	1.063	0.818	0.187	1.059	-211	\$10.46
TP013	1 1/8	7/8	3/16	1.125	0.881	0.187	1.122	-212	\$8.42
TP014	1 3/16	15/16	3/16	1.188	0.943	0.187	1.184	-213	\$10.58
TP015	1 1/4	1	3/16	1.250	1.006	0.187	1.247	-214	\$9.11
TP016	1 5/16	1 1/16	3/16	1.313	1.068	0.187	1.309	-215	\$12.75
TP017	1 3/8	1 1/8	3/16	1.375	1.131	0.187	1.372	-216	\$8.55
TP018	1 7/16	1 3/16	3/16	1.438	1.193	0.187	1.434	-217	\$10.67
TP019	1 1/2	1 1/4	3/16	1.500	1.256	0.187	1.497	-218	\$7.33
TP020	1 9/16	1 5/16	3/16	1.563	1.318	0.187	1.559	-219	\$14.11
TP021	1 5/8	1 3/8	3/16	1.625	1.381	0.187	1.622	-220	\$9.22
TP221	1 11/16	1 7/16	3/16	1.687	1.447	0.187	1.684	-221	\$8.30
TP022	1 3/4	1 1/2	3/16	1.750	1.506	0.187	1.747	-222	\$8.17
TP023	1 7/8	1 1/2	9/32	1.875	1.502	0.281	1.872	-325	\$10.52

TP 3pc. Piston T Seals - Inch, cont'd.

Part No.	Nominal Size			Bore Dia. +.002/-.000 D	Groove Dia. +.000/-.002 d	Groove Height L	Piston Dia. +.000/-.001 D <sub>1</sub>	OR Size	Price
	O. D.	I. D.	Width						
TP024	2	1 5/8	9/32	2.000	1.627	0.281	1.997	-326	\$8.45
TP025	2 1/8	1 3/4	9/32	2.125	1.752	0.281	2.122	-327	\$8.39
TP026	2 1/4	1 7/8	9/32	2.250	1.877	0.281	2.247	-328	\$8.96
TP027	2 3/8	2	9/32	2.375	2.002	0.281	2.372	-329	\$9.46
TP028	2 1/2	2 1/8	9/32	2.500	2.127	0.281	2.497	-330	\$10.02
TP029	2 5/8	2 1/4	9/32	2.625	2.252	0.281	2.620	-331	\$10.80
TP030	2 3/4	2 3/8	9/32	2.750	2.377	0.281	2.745	-332	\$10.97
TP031	2 7/8	2 1/2	9/32	2.875	2.502	0.281	2.870	-333	\$11.24
TP032	3	2 5/8	9/32	3.000	2.627	0.281	2.995	-334	\$11.86
TP033	3 1/8	2 3/4	9/32	3.125	2.752	0.281	3.120	-335	\$12.52
TP034	3 1/4	2 7/8	9/32	3.250	2.877	0.281	3.245	-336	\$13.74
TP035	3 1/2	3 1/8	9/32	3.500	3.128	0.281	3.496	-338	\$15.04
TP036	3 5/8	3 1/4	9/32	3.625	3.253	0.281	3.621	-339	\$16.56
TP037	3 3/4	3 3/8	9/32	3.750	3.378	0.281	3.746	-340	\$17.08
TP038	3 7/8	3 1/2	9/32	3.875	3.503	0.281	3.871	-341	\$22.23
TP039	4	3 5/8	9/32	4.000	3.628	0.281	3.996	-342	\$19.46
TP040	4 1/8	3 3/4	9/32	4.125	3.753	0.281	4.121	-343	\$30.70
TP041	4 1/4	3 7/8	9/32	4.250	3.878	0.281	4.246	-344	\$22.15
TP042	4 3/8	4	9/32	4.375	4.003	0.281	4.371	-345	\$28.53
TP043	4 1/2	4 1/8	9/32	4.500	4.128	0.281	4.496	-346	\$23.98
TP044	4 5/8	4 1/4	9/32	4.625	4.253	0.281	4.621	-347	\$30.03
TP045	4 3/4	4 3/8	9/32	4.750	4.378	0.281	4.746	-348	\$33.00
TP046	4 7/8	4 1/2	9/32	4.875	4.503	0.281	4.871	-349	\$33.69
TP047	5	4 5/8	9/32	5.000	4.629	0.281	4.997	-350	\$34.37
TP047A	5	4 1/2	3/8	5.000	4.503	0.375	4.997		\$135.97
TP048	5 1/8	4 5/8	3/8	5.125	4.649	0.375	5.122	-426	\$42.45
TP049	5 1/4	4 3/4	3/8	5.250	4.774	0.375	5.247	-427	\$38.74
TP050	5 3/8	4 7/8	3/8	5.375	4.889	0.375	5.372	-428	\$86.21
TP051	5 1/2	5	3/8	5.500	5.024	0.375	5.497	-429	\$41.27
TP052	5 5/8	5 1/8	3/8	5.625	5.149	0.375	5.622	-430	\$90.17
TP053	5 3/4	5 1/4	3/8	5.750	5.274	0.375	5.747	-431	\$43.27
TP054	5 7/8	5 3/8	3/8	5.875	5.399	0.375	5.874	-432	\$47.48
TP055	6	5 1/2	3/8	6.000	5.524	0.375	5.997	-433	\$48.31
TP056	6 1/8	5 5/8	3/8	6.125	5.649	0.375	6.122	-434	\$126.40
TP057	6 1/4	5 3/4	3/8	6.250	5.774	0.375	6.247	-435	\$48.15
TP058	6 1/2	6	3/8	6.500	6.024	0.375	6.495	-437	\$48.43
TP059	6 3/4	6 1/4	3/8	6.750	6.274	0.375	6.745	-438	\$50.13
TP060	7	6 1/2	3/8	7.000	6.524	0.375	6.995	-439	\$54.69
TP061	7 1/4	6 3/4	3/8	7.250	6.774	0.375	7.245	-440	\$82.75
TP062	7 1/2	7	3/8	7.500	7.024	0.375	7.495	-441	\$61.02
TP063	7 3/4	7 1/4	3/8	7.750	7.274	0.375	7.745	-442	\$66.19
TP064	8	7 1/2	3/8	8.000	7.524	0.375	7.995	-443	\$72.41
TP065	8 1/4	7 3/4	3/8	8.250	7.774	0.375	8.245	-444	\$80.87
TP066	8 1/2	8	3/8	8.500	8.024	0.375	8.495	-445	\$99.10
TP067	9	8 1/2	3/8	9.000	8.524	0.375	8.995	-446	\$93.59
TP068	9 1/2	9	3/8	9.500	9.024	0.375	9.495	-447	\$100.03
TP069	10	9 1/2	3/8	10.000	9.524	0.375	9.995	-448	\$104.68
TP070	10 1/2	10	3/8	10.500	10.024	0.375	10.495	-449	\$135.46
TP071	11	10 1/2	3/8	11.000	10.524	0.375	10.995	-450	\$138.45
TP073	12	11 1/2	3/8	12.000	11.524	0.375	11.995	-452	\$167.34
TP074	12 1/2	13	3/8	12.500	13.000	0.375	12.500	-453	\$202.05
TP075	13	12 1/2	3/8	13.000	12.524	0.375	12.995	-454	\$571.06

# TPS/TPT 3pc. Wide Base T Seals - Inch



**ALTERNATIVE SEALS:**

PSP-AT, PSP-AT 4300, O-Ring w/BU, Quad w/BU

**AN DASH NUMBERING SYSTEM**

TPS = O-RING + 1B/U

TPT = O-RING + 2B/U

Wide Base T-seals fit into o-ring grooves designed for 1 or 2 backup rings. TPS prefix indicates 1 backup ring groove. TPT prefix indicates a 2 backup ring groove. No suffix indicates standard industrial groove. -1 suffix indicates Mil-G-5514F groove.

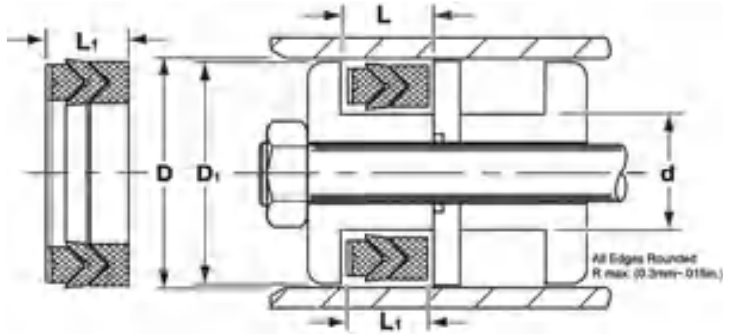
Temperature: -40° to 225°F

Pressure: 0 to 5,000 PSI

Part Number	Bore Dia. +0.004/-0 D	Groove Dia. +0/-0.004 d	Groove Height +0.004/-0 L	Price
TPT028	2.500	2.130	0.410	\$39.45
TPT028-1	2.500	2.128	0.424	\$35.60
TPT031-1	2.875	2.503	0.424	\$32.51
TPT032-1	3.000	2.628	0.424	\$36.63
TPT034-1	3.250	2.875	0.424	\$41.79
TPT035-1	3.500	3.128	0.424	\$40.17
TPT039-1	4.000	3.628	0.424	\$48.04
TPT041-1	4.250	3.878	0.424	\$113.04
TPT043-1	4.500	4.128	0.424	\$98.62
TPS047A-1	5.000	4.524	0.475	\$114.46
TPT047	5.000	4.628	0.424	\$77.40
TPT047A-1	5.000	4.524	0.579	\$100.01
TPT049-1	5.250	4.774	0.579	\$114.04
TPS051-1	5.500	5.024	0.475	\$126.24
TPT051-1	5.500	5.024	0.579	\$129.60
TPT055-1	6.000	5.524	0.579	\$101.87
TPT058-1	6.500	6.024	0.579	\$199.86

Part Number	Bore Dia. +0.004/-0 D	Groove Dia. +0/-0.004 d	Groove Height +0.004/-0 L	Price
TPS058-1	6.500	6.024	0.475	\$177.42
TPS060-1	7.000	6.524	0.475	\$139.59
TPT060-1	7.000	6.524	0.579	\$146.69
TPT062-1	7.500	7.024	0.579	\$179.08
TPS063-1	7.750	7.274	0.475	\$147.90
TPT064-1	8.000	7.524	0.579	\$147.95
TPS064-1	8.000	7.524	0.468	\$177.06
TPS065-1	8.250	7.774	0.475	\$177.95
TPT067-1	9.000	8.524	0.579	\$236.04
TPS069-1	10.000	9.524	0.475	\$405.28
TPS071-1	11.000	10.524	0.475	\$321.60
TPT072-1	11.500	11.024	0.579	\$323.30
TPS073-1	12.000	11.524	0.475	\$379.47
TPT073-1	12.000	11.524	0.579	\$380.65
TPS075-1	13.000	12.524	0.475	\$426.36
TPS077-1	14.000	13.524	0.475	\$594.70

# M4 3pc. Piston Seals - Metric



ALTERNATIVE SEALS: MA25, MA28, NO

EXAMPLE: M4-35X50X11.5					
Prefix	Groove Diameter		Bore Diameter		Groove Height
M4-	35	x	50	x	11.5
	35mm		50mm		11.5mm

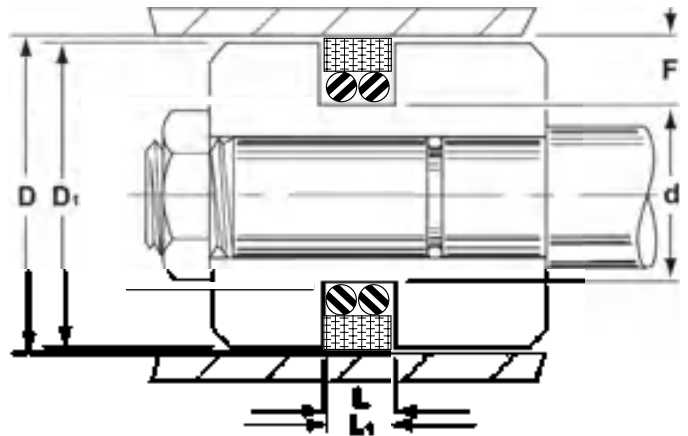
The M4 series piston seal is a 3 piece single-acting sealing set which consists of a rock-hard fabric and rubber female, a fabric-reinforced center ring, and a thermoplastic male adapter. This seal requires a 2 pc. piston for easy installation, and works well with poor surface finishes.

Temperature: -22° to 212°F

Pressure: 0 to 7,200 PSI

Part Number	Groove Dia. H 9 d	Bore Dia. f 8 D	Groove Height +.1/-0 L	Piston Dia. +0/- .1 D <sub>1</sub>	Price
M4-18x28x9.3	18	28	9.3	27.5	\$20.40
M4-20x30x9.3	20	30	9.3	29.5	\$20.96
M4-20x32x10.9	20	32	10.9	31.0	\$20.96
M4-25x40x11.5	25	40	11.5	39.0	\$25.65
M4-30x45x11.5	30	45	11.5	44.0	\$22.73
M4-35x50x11.5	35	50	11.5	49.0	\$18.20
M4-40x55x11.5	40	55	11.5	54.0	\$27.41
M4-45x60x11.5	45	60	11.5	59.0	\$29.61
M4-48x63x13	48	63	13.0	62.0	\$23.27
M4-50x70x15.2	50	70	15.2	69.0	\$39.08
M4-60x80x15.2	60	80	15.2	79.0	\$44.54
M4-70x90x21.2	70	90	21.2	89.0	\$46.11
M4-80x100x21.2	80	100	21.2	99.0	\$46.64
M4-90x110x21.2	90	110	21.2	109.0	\$69.78
M4-95x115x21.2	95	115	21.2	114.0	\$73.63
M4-100x125x25.8	100	125	25.8	124.0	\$79.82
M4-115x140x25.8	115	140	25.8	139.0	\$89.49
M4-120x150x29	120	150	29.0	148.5	\$113.61
M4-130x160x29	130	160	29.0	158.5	\$131.27
M4-150x180x31.5	150	180	31.5	178.5	\$149.10
M4-165x195x33.5	165	195	33.5	193.5	\$252.27
M4-170x200x33.5	170	200	33.5	198.5	\$195.91
M4-180x210x33.5	180	210	33.5	208.5	\$300.79
M4-190x220x33.5	190	220	33.5	218.5	\$354.20
M4-220x250x33.5	220	250	33.5	248.5	\$240.73
M4-245x275x33.5	245	275	33.5	273.5	\$348.96
M4-250x280x33.5	250	280	33.5	278.5	\$371.34
M4-270x300x33.5	270	300	33.5	298.5	\$421.64

# AS880 3pc. PTFE Piston Seals - Inch



EXAMPLE: AS880E-88	
Prefix	Bore Diameter
AS880E-	88
	5-1/2"

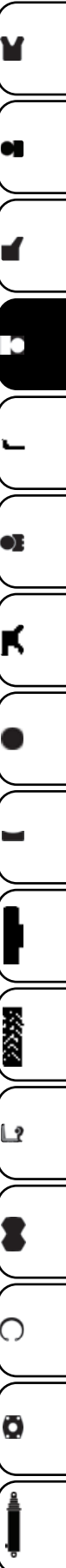
# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

AS880 style rectangular piston seal assemblies are basically double wide AS800 seals. They are manufactured from glass filled PTFE and include two 70 durometer nitrile o-ring energizers. They are used in some mobile hydraulic applications including drilling equipment and boom trucks.

Temperature: -40° to 225°F

Pressure: 0 to 3,000 PSI

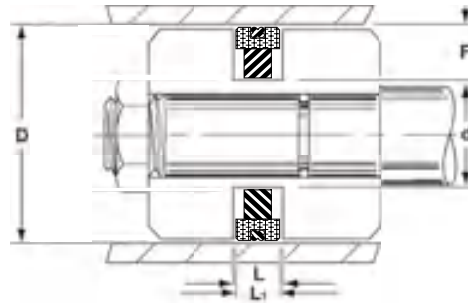
Part Number	Bore Dia. +.004/-0 D	Piston Dia. +0/--.004 D <sub>1</sub>	Groove Dia. +0/--.004 d	Groove Height +.004/-0 L	Seal Height L <sub>1</sub>	Seal Wall	Expander Cross Section	Price
AS880E-48	3.000	2.996	2.482	0.312	0.295	0.143	0.139	\$27.34
AS880E-64	4.000	3.996	3.482	0.312	0.295	0.143	0.139	\$27.48
AS880E-68	4.250	4.246	3.732	0.312	0.295	0.143	0.139	\$29.73
AS880E-72	4.500	4.496	3.982	0.312	0.295	0.143	0.139	\$35.73
AS880E-80	5.000	4.996	4.482	0.312	0.295	0.143	0.139	\$37.95
AS880E-88	5.500	5.496	4.982	0.312	0.295	0.143	0.139	\$49.59
AS880E-96	6.000	5.996	5.482	0.312	0.295	0.143	0.139	\$53.72
AS880E-104	6.500	6.496	5.982	0.312	0.295	0.143	0.139	\$75.12
AS880E-112	7.000	6.996	6.482	0.312	0.295	0.143	0.139	\$81.48
AS880E-132	8.250	8.246	7.732	0.312	0.295	0.143	0.139	\$83.23
AS880E-160	10.000	9.996	9.482	0.312	0.295	0.143	0.139	\$112.61
AS880E-176	11.000	10.996	10.482	0.312	0.295	0.143	0.139	\$124.82
AS880E-192	12.000	11.996	11.482	0.312	0.295	0.143	0.139	\$127.62
AS880E-208	13.000	12.996	12.482	0.312	0.295	0.143	0.139	\$130.04
AS880E-224	14.000	13.996	13.482	0.312	0.295	0.143	0.139	\$141.16



# ASQ 3pc. BTFE Piston Seals - Inch & Metric



ALTERNATIVE SEALS: AS7



This piston seal is a 3 piece assembly consisting of a nitrile energizer, a bronze-filled PTFE grooved cap ring, with a nitrile quad ring inserted in the groove. The ASQ seal combines low friction and positive sealing. They are often found in load holding applications where drift is unacceptable. Other configurations and materials are available.

Temperature: -40° to 225°F      Pressure: 0 to 5,000 PSI

### Standard

EXAMPLE: ASQE-24B		
Prefix	Bore Dia.	Suffix
ASQE-	24	B
	1-1/2"	BTFE

### Metric

EXAMPLE: ASQE-50MMB-6.3			
Prefix	Bore Dia.	Suffix	Ht.
ASQE-	50MM	-	6.3
	50mm	BTFE	6.3mm

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

### Inch Sizes

Part Number	Bore Dia. H 9 +.004/-0 D	Groove Dia. f 8 +0/-0.004 d	Groove Height +.004/-0 L	Price
ASQE-24B	1.500	0.884	.288	\$39.33
ASQE-28B	1.750	1.134	.288	\$51.50
ASQE-32B	2.000	1.384	.288	\$54.29
ASQE-36B	2.250	1.634	.288	\$58.14
ASQE-40B	2.500	1.884	.288	\$60.10
ASQE-44B	2.750	2.134	.288	\$61.97
ASQE-48B	3.000	2.384	.288	\$67.01
ASQE-52B	3.250	2.634	.288	\$70.58
ASQE-56B	3.500	2.884	.288	\$72.70
ASQE-60B	3.750	3.134	.288	\$76.11
ASQE-64B	4.000	3.384	.288	\$73.24
ASQE-68B	4.250	3.634	.288	\$77.61
ASQE-72B	4.500	3.884	.288	\$83.08
ASQE-76B	4.750	4.134	.288	\$88.77
ASQE-80B	5.000	4.384	.288	\$89.86
ASQE-80B-1	5.000	4.240	.375	\$95.10
ASQE-80HB	5.000	4.160	.375	\$108.05
ASQE-84B	5.250	4.634	.288	\$105.81
ASQE-88B	5.500	4.660	.375	\$109.53
ASQE-92B	5.750	4.910	.375	\$123.83
ASQE-96B	6.000	5.160	.375	\$117.41
ASQE-100B	6.250	5.410	.375	\$173.65
ASQE-104B	6.500	5.660	.375	\$141.64
ASQE-108B	6.750	5.910	.375	\$187.82
ASQE-112B	7.000	6.160	.375	\$127.35
ASQE-120B	7.500	6.660	.375	\$173.59
ASQE-128B	8.000	7.170	.375	\$139.03
ASQE-136B	8.500	7.670	.375	\$157.82
ASQE-144B	9.000	8.170	.375	\$160.78
ASQE-160B	10.000	9.165	.375	\$170.14
ASQE-176B	11.000	10.165	.375	\$277.22
ASQE-192B	12.000	11.165	.375	\$340.20
ASQE-224B-1	14.000	13.170	.318	\$454.67
ASQE-320HB	20.000	18.622	.453	\$763.20

### Metric Sizes

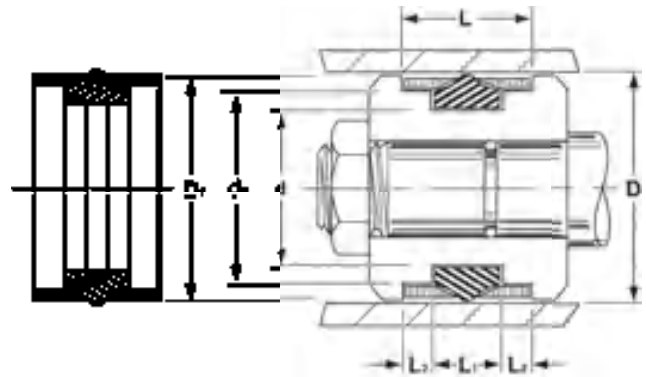
Part Number	Bore Dia. H 9 +.1/-0 D	Groove Dia. f 8 +0/-0.1 d	Groove Height +.1/-0 L	Price
ASQE-50MMB-6.3	50.0	34.5	6.3	\$42.66
ASQE-60MMB-6.3	60.0	44.5	6.3	\$48.81
ASQE-63MMB-6.3	63.0	47.5	6.3	\$36.24
ASQE-65MMB-6.3	65.0	49.5	6.3	\$43.76
ASQE-70MMB-4.2	70.0	58.0	4.2	\$38.42
ASQE-70MMB-6.3	70.0	54.5	6.3	\$51.30
ASQE-75MMB-6.3	75.0	59.5	6.3	\$94.14
ASQE-80MMB-6.3	80.0	64.5	6.3	\$56.94
ASQE-90MMB-6.3	90.0	74.5	6.3	\$66.16
ASQE-100MMB-6.3	100.0	84.5	6.3	\$76.36
ASQE-105MMB-6.3	105.0	89.5	6.3	\$80.05
ASQE-110MMB-6.3	110.0	94.5	6.3	\$88.09
ASQE-120MMB-6.3	120.0	104.5	6.3	\$94.73
ASQE-130MMB-6.3	130.0	114.5	6.3	\$96.93
ASQE-140MMB-8.1	140.0	119.0	8.1	\$122.84
ASQE-140MMHB-8.1	140.0	115.5	8.1	\$119.36
ASQE-150MMB-8.1	150.0	129.0	8.1	\$120.24
ASQE-150MMHB-8.1	150.0	125.5	8.1	\$125.23
ASQE-160MMB-8.1	160.0	139.0	8.1	\$133.70
ASQE-160MMHB-8.1	160.0	135.5	8.1	\$136.99
ASQE-170MMB-8.1	170.0	149.0	8.1	\$153.59
ASQE-180MMB-8.1	180.0	159.0	8.1	\$168.82
ASQE-180MMHB-8.1	180.0	155.5	8.1	\$174.99
ASQE-180MMB-10.5B	180.0	151.25	10.5	\$276.20
ASQE-180MMB-10.5B-H	180.0	151.25	10.5	\$342.06
ASQE-200MMB-8.1	200.0	179.0	8.1	\$249.61
ASQE-200MMHB-8.1	200.0	175.5	8.1	\$212.23
ASQE-220MMB-8.1	220.0	199.0	8.1	\$233.07
ASQE-220MMHB-8.1	220.0	195.5	8.1	\$239.59
ASQE-250MMB-8.1	250.0	229.0	8.1	\$269.08
ASQE-250MMHB-8.1	250.0	225.5	8.1	\$283.14



# DS 3pc. Delta Seals - Inch & Metric



ALTERNATIVE SEALS:  
MDL



The DS seal is a 3 piece double acting piston seal made of an elastomeric nitrile rubber sealing element with 2 special profile thermoplastic guide rings. It offers an economical solution and simple installation in small cross sections and one piece pistons.

Temperature: *Min Oils* -20°F to 220°F      *HFA/HBF* -40°F to 140°F      *HFC* -20°F to 140°F  
 Pressure: 2,100 PSI

Standard			Metric		
EXAMPLE: DS150112			EXAMPLE: DSM040030		
Prefix	Bore Diameter	Groove Diameter	Prefix	Bore Diameter	Groove Diameter
DS	150	112	DSM	040	030
	1-1/2"	1-1/8"		40mm	30mm

Part No.	Bore Dia. +.004/-0 D	Groove Dia. +0/-.004 d	Piston Dia. +0/-.004 D <sub>1</sub>	Groove Dia. d <sub>1</sub>	Groove Ht. L <sub>1</sub>	Bearing Groove Ht. L <sub>2</sub>	Overall Ht. +.004/-0 L	Price
<b>Inch</b>								
DS150112	1.500	1.125	1.437	1.325	0.437	0.150	0.737	\$10.59
DS175137	1.750	1.375	1.687	1.575	0.437	0.150	0.737	\$17.01
DS200162	2.000	1.625	1.937	1.825	0.437	0.150	0.737	\$19.00
DS225187	2.250	1.875	2.187	2.075	0.437	0.150	0.737	\$16.58
DS237200	2.375	2.000	2.312	2.200	0.437	0.150	0.737	\$14.58
DS250212	2.500	2.125	2.437	2.325	0.437	0.150	0.737	\$23.19
DS275237	2.750	2.375	2.687	2.575	0.437	0.150	0.737	\$26.20
DS300262	3.000	2.625	2.937	2.825	0.437	0.150	0.737	\$32.02
DS325287	3.250	2.875	3.187	3.075	0.437	0.150	0.737	\$34.21
DS350300	3.500	3.000	3.437	3.270	0.562	0.210	0.982	\$38.75
DS400350	4.000	3.500	3.937	3.770	0.562	0.210	0.982	\$40.05
DS425375	4.250	3.750	4.187	4.020	0.562	0.210	0.982	\$80.16
DS450400	4.500	4.000	4.437	4.270	0.562	0.210	0.982	\$56.10
DS500437	5.000	4.375	4.937	4.689	0.687	0.344	1.375	\$61.33
DS600525	6.000	5.250	5.937	5.712	1.000	0.500	2.000	\$84.48
DS800725	8.000	7.250	7.937	7.712	1.000	0.500	2.000	\$156.50
DS900825	9.000	8.250	8.937	8.712	1.000	0.500	2.000	\$214.95

Part No.	Bore Dia. +.1/-0 D	Groove Dia. +0/-.1 d	Piston Dia. +0/-.1 D <sub>1</sub>	Groove Dia. d <sub>1</sub>	Groove Ht. L <sub>1</sub>	Bearing Groove Ht. L <sub>2</sub>	Overall Ht. +.1/-0 L	Price
<b>Metric</b>								
DSM040030	40	30	39.0	35.5	11.2	3.9	19	\$12.10
DSM050040	50	40	49.0	45.5	11.2	3.9	19	\$12.62
DSM063053	63	53	61.5	58.5	11.2	3.9	19	\$16.71
DSM070060-1	70	60	68.5	65.5	11.2	5	21.2	\$40.36
DSM080070	80	70	78.5	75.5	11.2	3.9	19	\$23.14
DSM100087	100	87	98.5	93.8	14.2	5.9	26	\$32.85
DSM125112	125	112	123.5	118.8	14.2	5.9	26	\$37.14
DSM140124	140	124	138.5	132.0	17.7	8.7	35.1	\$32.12
DSM160140	160	140	158.5	151.4	25.2	12.4	50	\$54.66
DSM180160	180	160	178.5	171.4	25.2	12.4	50	\$62.45
DSM200180	200	180	198.5	191.4	25.2	12.4	50	\$78.03

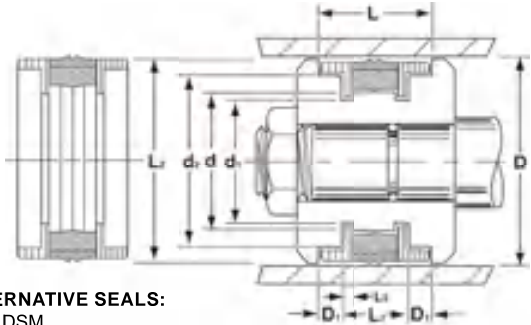
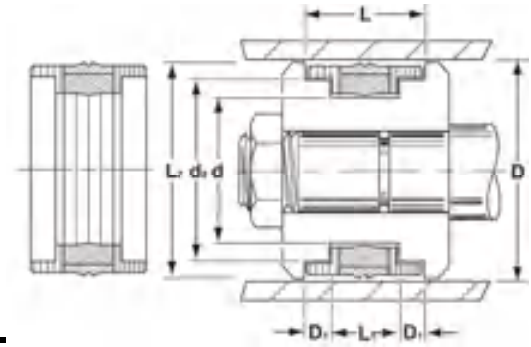
# MDL 3pc. Piston Seals - Metric



**Bore Sizes  
50mm and Over**



**Bore Sizes  
Under 50mm**



ALTERNATIVE SEALS:  
DAS, DSM

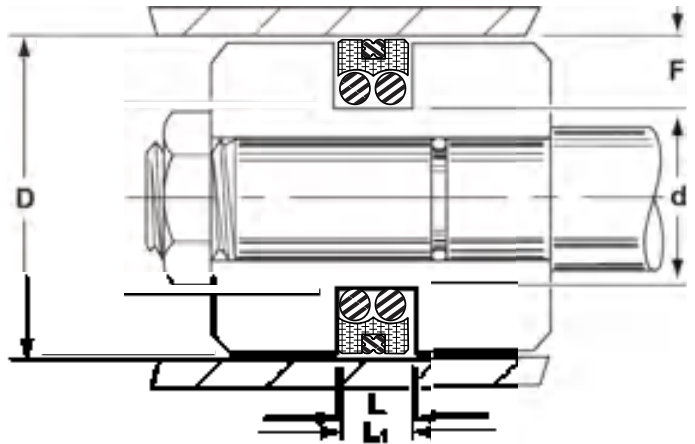
Series MDL is a 3 pc. double-acting compact piston seal consisting of one fabric-reinforced elastomeric sealing element and two split thermoplastic guide/backup rings. Product advantages are low friction, improved abrasion resistance, good dynamic and static sealing, and long service life.

	<i>Min Oils</i>	<i>HFA/HFA</i>	<i>HFC</i>
Temperature:	-20°F to 220°F	-40°F to 140°F	-20°F to 140°F
Pressure:	5,800 PSI		

EXAMPLE: MDL-25X17X13.5-PLW				
Prefix	Bore Diameter	Groove Diameter	Groove Height	Suffix
MDL-	25	x 17	x 13.5	-PLW
	25mm	17mm	13.5mm	

Part Number	Bore Dia. H11 D	Groove Dia. h11 d	Groove Height +0.1 / -0 L <sub>1</sub>	Groove Dia. d <sub>1</sub>	Bearing Dia. h8 d <sub>2</sub>	Piston Dia. D <sub>1</sub>	Bearing Groove Height L <sub>2</sub>	Overall Groove Height L	Bearing Groove Height L <sub>3</sub>	Price
MDL-25X17X13.5-PLW	25	17	13.5	14	21	24.4	3.2	19.9	2.1	\$22.42
MDL-30X22X13.5-PLW	30	22	13.5	19	26	29.4	3.2	19.9	2.1	\$22.42
MDL-32X24X15.5-PLW	32	24	15.5	21	28	31.4	3.2	21.9	3.1	\$22.52
MDL-35X27X15.5-PLW	35	27	15.5	24	31	34.4	3.2	21.9	3.1	\$24.33
MDL-40X32X15.5-PLW	40	32	15.5	29	36	39.4	3.2	21.9	3.1	\$25.40
MDL-45X37X15.5-PLW	45	37	15.5	34	41	44.4	3.2	21.9	3.1	\$26.11
MDL-50X38X20.5-PLW	50	38	20.5		46	49.4	4.2	28.9		\$22.04
MDL-60X48X20.5-PLW	60	48	20.5		56	59.4	4.2	28.9		\$31.20
MDL-63X51X20.5-PLW	63	51	20.5		59	62.4	4.2	28.9		\$32.03
MDL-65X53X20.5-PLW	65	53	20.5		61	64.4	4.2	28.9		\$32.52
MDL-70X58X20.5-PLW	70	58	20.5		66	69.4	4.2	28.9		\$30.72
MDL-80X66X22.5-PLW	80	66	22.5		76	79.4	5.2	32.9		\$38.01
MDL-90X76X22.5-PLW	90	76	22.5		86	89.4	5.2	32.9		\$35.99
MDL-100X86X22.5-PLW	100	86	22.5		96	99.4	5.2	32.9		\$43.09
MDL-110X96X22.5-PLW	110	96	22.5		106	109.4	5.2	32.9		\$45.75
MDL-120X106X22.5-PLW	120	106	22.5		116	119.4	5.2	32.9		\$48.99
MDL-125X103X26.5-PLW	125	103	26.5		121	124.4	5.2	36.9		\$55.13
MDL-140X123X26.5-PLW	140	123	26.5		136	139.4	7.2	40.9		\$68.74
MDL-160X143X26.5-PLW	160	143	26.5		156	159.4	7.2	40.9		\$94.62
MDL-180X163X26.5-PLW	180	163	26.5		176	179.4	7.2	40.9		\$116.96
MDL-200X180X31.5-PLW	200	180	31.5		196	199.4	9.2	49.9		\$123.44
MDL-220X200X31.5-PLW	220	200	31.5		216	219.4	9.2	49.9		\$146.32
MDL-250X225X31.5-PLW	250	225	31.5		246	249.4	6.6	44.7		\$160.25
MDL-250X230X31.5-PLW	250	230	31.5		246	249.4	9.2	49.9		\$157.43

# ASQ5 4pc. BTFE Piston Seals - Inch & Metric



### Standard

**EXAMPLE: ASQ5E-80B**

Prefix	Bore Diameter	Suffix
ASQ5E-	80	B
	5"	BTFE

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

### Metric

**EXAMPLE: ASQ5E-40MMB**

Prefix	Bore Diameter	Suffix
ASQ5E-	40MM	B
	40mm	BTFE

This piston seal is a 4 piece assembly consisting of 2 nitrile o-rings, a bronze-filled PTFE grooved cap ring, and a nitrile energizer inserted in the groove. The ASQ5 seal combines low friction and positive sealing. They are often found in load holding applications where drift is unacceptable. Other configurations and materials are available.

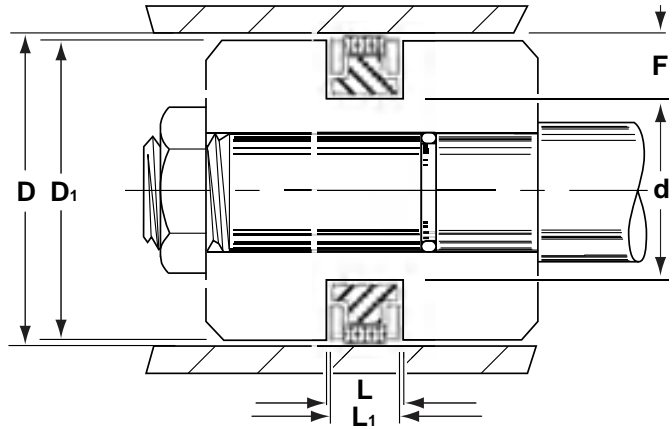
Temperature: -40° to 225°F

Pressure: 0 to 5,000 PSI

Inch				
Part Number	Bore Diameter H9 D	Groove Diameter h9 d	Groove Height +.004 / -0 L	Price
ASQ5E-80B	5.000	4.291	0.484	\$112.57

Metric				
Part Number	Bore Diameter H9 D	Groove Diameter h9 d	Groove Height +.1 / -0 L	Price
ASQ5E-40MMB	40	30	6.3	\$28.60
ASQ5E-63MMB	63	53	6.3	\$28.61
ASQ5E-80MMB	80	67	8.3	\$55.50
ASQ5E-100MMB	100	87	8.3	\$69.75
ASQ5E-110MMB	110	97	8.3	\$72.06
ASQ5E-125MMB	125	112	8.3	\$79.30
ASQ5E-130MMB	130	117	8.3	\$93.39
ASQ5E-140MMB	140	122	12.3	\$114.41
ASQ5E-150MMB	150	132	12.3	\$139.14
ASQ5E-170MMB	170	152	12.3	\$148.82
ASQ5E-190MMB	190	172	12.3	\$168.91

# 4PT 4pc. CAT®-Type PTFE Piston Seals - Inch



These "heavy-duty" seals are designed to withstand higher pressures and shock loads with less damage to the seal. T-seal principles are utilized with back-ups being used to protect the seal from contaminants. The compact design allows use of shorter pistons and larger bearing surfaces. They are commonly found in Caterpillar® cylinders.

Temperature: -40° to 225°F      Pressure: 0 to 6,000 PSI

**ALTERNATIVE SEALS: AS980**

EXAMPLE: 4PT4500-500			
Prefix	Bore Diameter	Groove Height	
4PT	4500	-	500
	4-1/2"		1/2"

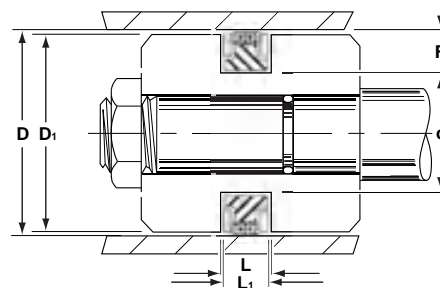
Part No.	OEM No.	Bore Dia. +.004/ -0 D	Piston Dia. +0/ -.004 D <sub>1</sub>	Groove Dia. +0/ -.004 d	Groove Height +.004/ -0 L	Price
4PT4500-500	8J3747	4.500	4.480	3.909	0.500	\$98.44
4PT5000-625	9J7868	5.000	4.980	4.230	0.625	\$127.20
4PT5500-625	8J8767	5.500	5.480	4.730	0.625	\$132.81
4PT6000-625	9J1242	6.000	5.980	5.094	0.625	\$147.44
4PT6250-625	9J5558	6.250	6.230	5.344	0.625	\$163.03
4PT6500-625	8J8703	6.500	6.480	5.594	0.625	\$168.29
4PT7000-625	8J3749	7.000	6.980	6.094	0.625	\$179.72
4PT7250-625	8J4510	7.250	7.230	6.344	0.625	\$186.69
4PT7500-625	9J5567	7.500	7.480	6.594	0.625	\$195.24
4PT7750-625	8J5644	7.750	7.730	6.844	0.625	\$204.70
4PT8250-625	8J4390	8.250	8.230	7.344	0.625	\$232.18
4PT8500-625	3G4762	8.500	8.480	7.505	0.625	\$240.79
4PT10000-687	9J3406	10.000	9.980	8.898	0.687	\$292.10
4PT10500-687	3G4765	10.500	10.480	9.398	0.687	\$311.75
4PT11500-687	9J2987	11.500	11.480	10.398	0.687	\$338.99

*We do not imply that these seals are a product of Cat®.  
Part numbers are used for reference purposes only.*

# 4PE / 4PV 4pc. PTFE Piston Seals - Inch



Standard material is Moly/Glass-Filled PTFE. The B-suffix denotes Bronze-Filled PTFE.



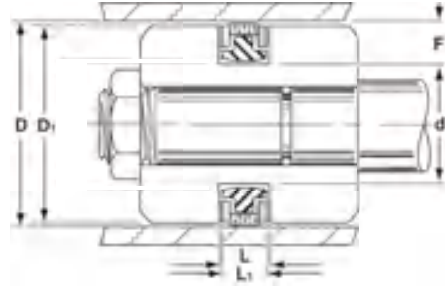
Part No.	Bore Dia. +0.004/ -0 D	Piston Dia. +0/ -.004 D <sub>1</sub>	Groove Dia. +0/ -.004 d	Groove Height +0.004/ -0 L	Price
4PC1750-295	1.750	1.743	1.254	0.295	\$66.17
4PE1750-424	1.750	1.743	1.375	0.424	\$67.00
4PE1750-424B	1.750	1.743	1.375	0.424	\$68.57
4PE2000-295B	2.000	1.993	1.442	0.295	\$58.34
4PV2000-295	2.000	1.993	1.442	0.295	\$58.34
4PE2000-424	2.000	1.993	1.625	0.424	\$71.66
4PE2000-424B	2.000	1.993	1.625	0.424	\$76.00
4PE2250-424	2.250	2.243	1.875	0.424	\$77.38
4PE2250-424B	2.250	2.243	1.875	0.424	\$78.17
4PE2500-295B	2.500	2.493	1.942	0.295	\$58.34
4PE2500-424B	2.500	2.493	2.125	0.424	\$78.28
4PE2750-295B	2.750	2.743	2.192	0.295	\$70.13
4PE2750-424	2.750	2.743	2.375	0.424	\$82.99
4PE2750-424B	2.750	2.743	2.375	0.424	\$90.30
4PE3000-420B	3.000	2.993	2.442	0.420	\$48.99
4PE3000-562B	3.000	2.993	2.522	0.579	\$88.11
4PV3250-420	3.250	3.243	2.692	0.420	\$88.53
4PE3250-562B	3.250	3.243	2.772	0.579	\$101.60
4PE3500-420B	3.500	3.495	2.942	0.420	\$68.20
4PE3500-562	3.500	3.495	3.022	0.579	\$100.13
4PE3500-562B	3.500	3.495	3.022	0.579	\$100.13
4PV3750-420	3.750	3.743	3.192	0.420	\$120.77
4PE3750-562B	3.750	3.743	3.272	0.579	\$114.38
4PE4000-420B	4.000	3.995	3.442	0.420	\$72.92
4PE4000-562B	4.000	3.995	3.522	0.579	\$103.26
4PE4250-420B	4.250	4.243	3.692	0.420	\$78.03
4PE4250-562B	4.250	4.243	3.772	0.579	\$113.29
4PE4500-562B	4.500	4.495	4.022	0.579	\$111.86
4PE4500-420B	4.500	4.495	3.942	0.420	\$81.38
4PE4750-420B	4.750	4.743	4.192	0.420	\$98.68
4PE4750-562	4.750	4.743	4.270	0.579	\$115.64
4PE4750-562B	4.750	4.743	4.270	0.579	\$129.98
4PV5000-295	5.000	4.993	4.442	0.295	\$94.09
4PE5000-420B	5.000	4.993	4.442	0.420	\$137.16
4PE5000-562B	5.000	4.993	4.520	0.579	\$185.38
4PE5000-750B	5.000	4.993	4.274	0.750	\$134.46
4PE5250-750	5.250	5.243	4.524	0.750	\$146.26
4PE5250-750B	5.250	5.243	4.524	0.750	\$149.57
4PV5500-420	5.500	5.4993	4.942	0.420	\$158.71
4PE5500-562B	5.500	5.493	5.020	0.579	\$138.64

### EXAMPLE: 4PE5000-750B

Prefix	Outside Diameter	Groove Height	Suffix
4PE	5000	- .75"	B
	5"	3/4"	BTFE

Part No.	Bore Dia. +0.004/ -0 D	Piston Dia. +0/ -.004 D <sub>1</sub>	Groove Dia. +0/ -.004 d	Groove Height +0.004/ -0 L	Price
4PE5500-750B	5.500	5.493	4.774	0.750	\$146.94
4PE5750-750B	5.750	5.743	5.021	0.750	\$182.40
4PE6000-562B	6.000	5.993	5.520	0.579	\$148.57
4PE6000-750B	6.000	5.993	5.274	0.750	\$160.45
4PE6250-750B	6.250	6.243	5.524	0.750	\$167.79
4PE6500-562	6.500	6.243	6.022	0.579	\$169.55
4PE6500-562B	6.500	6.243	6.022	0.579	\$174.98
4PE6500-750B	6.500	6.493	5.774	0.750	\$192.97
4PE6750-750B	6.750	6.743	6.021	0.750	\$207.40
4PE7000-750	7.000	6.993	6.274	0.750	\$207.08
4PE7000-750B	7.000	6.993	6.274	0.750	\$207.08
4PE7250-750B	7.250	7.243	6.521	0.750	\$215.06
4PE7500-750B	7.500	7.493	6.774	0.750	\$245.98
4PE7750-750B	7.750	7.743	7.021	0.750	\$258.33
4PE8000-750B	8.000	7.993	7.274	0.750	\$245.23
4PE8250-750B	8.250	8.243	7.521	0.750	\$260.95
4PE8500-750	8.500	8.493	7.774	0.750	\$244.73
4PE8500-750B	8.500	8.493	7.774	0.750	\$246.90
4PE8750-750B	8.750	8.743	8.021	0.750	\$277.28
4PE9000-750B	9.000	8.993	8.274	0.750	\$305.71
4PE9500-750B	9.500	9.493	8.771	0.750	\$309.60
4PE10000-750B	10.000	9.993	9.275	0.750	\$301.70
4PE11000-750	11.000	10.993	10.275	0.750	\$397.62
4PE11000-750B	11.000	10.993	10.275	0.750	\$301.09
4PE12000-750	12.000	11.993	11.275	0.750	\$336.26
4PE12000-750B	12.000	11.993	11.275	0.750	\$342.11
4PE12028-750-1	12.028	12.021	11.305	0.750	\$512.84
4PE12500-750B	12.500	12.493	11.771	0.750	\$491.40
4PE13000-750B	13.000	12.993	12.275	0.750	\$403.85
4PE13500-750B	13.500	13.593	12.771	0.750	\$428.43
4PE14000-750B	14.000	13.993	13.275	0.750	\$428.43
4PE15000-750B	15.000	14.993	14.275	0.750	\$483.42
4PE16000-750B	16.000	15.993	15.275	0.750	\$526.95

# 4PMM 4pc. PTFE Piston Seals - Metric



These "heavy-duty" seals are designed to withstand higher pressures and shock loads with less damage to the seal. T-seal principles are utilized with back-ups being used to protect the seal from contaminants. The compact design allows use of shorter pistons and larger bearing surfaces. 4 pc. piston seals come in many sizes to fit different types of equipment. 4PMMH Parts use a Hytrel® Piston Seal. 4PMMU Parts use a Urethane Piston Seal.

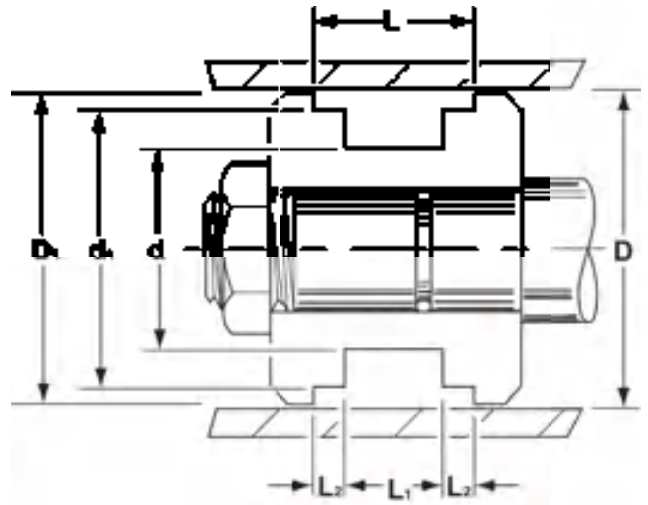
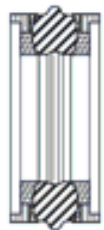
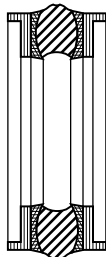
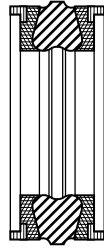
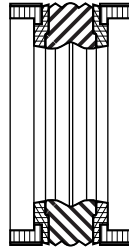
Temperature: -40° to 225°F Pressure: 0 to 6,000 PSI  
Standard Material: 40% Bronze-filled PTFE/nitrile/nylon

EXAMPLE: 4PMM-50X40X7.5					
Prefix	Bore Diameter		Groove Diameter		Seal Height
4PMM-	50	x	40	x	7.5
	50mm		40mm		7.5mm

Part Number	Bore Dia. +.1/-0 D	Grv. Dia. +0/-0.1 d	Seal HT L <sub>1</sub>	Piston Dia. D <sub>1</sub>	Grv. HT +0.1/-0 L	Price
4PMM-50X40X7.5	50	40	7.5	49.5	8	\$47.66
4PMM-50X36X8.5	50	36	8.5	49.5	9	\$47.67
4PMM-55X41X8.5	55	41	8.5	55.5	9	\$49.18
4PMM-60X50X7.5	60	50	7.5	59.5	8	\$58.75
4PMM-60X46X8.5	60	46	8.5	59.5	9	\$53.27
4PMM-63X53X7.5	63	53	7.5	62.5	8	\$64.05
4PMM-63X48X10.5	63	48	10.5	62.5	11	\$37.20
4PMM-65X51X8.5	65	51	8.5	64.5	9	\$88.77
4PMM-65X50X10.5	65	50	10.5	64.5	11	\$32.60
4PMM-70X60X7.5	70	60	7.5	69.5	8	\$53.19
4PMM-70X55X10.5	70	55	10.5	69.5	11	\$53.21
4PMM-75X60X10.5	75	60	10.5	74.5	11	\$53.45
4PMM-80X65X10.5	80	65	10.5	79.5	11	\$56.74
4PMM-80X65X12	80	65	12	79.5	12.5	\$57.93
4PMM-85X70X10.5	85	70	10.5	84.5	11	\$62.65
4PMM-85X68X13.2	85	68	13.2	84.5	14	\$110.40
4PMM-90X75X10.5	90	75	10.5	89.5	11	\$64.70
4PMM-90X75X12	90	75	12	89.5	12.5	\$65.45
4PMM-95X80X10.5	95	80	10.5	94.5	11	\$66.10
4PMM-100X85X12	100	85	12	99.5	12.5	\$64.26
4PMM-105X90X12	105	90	12	104.5	12.5	\$67.74
4PMM-110X95X12	110	95	12	109.5	12.5	\$73.18
4PMM-115X100X12	115	100	12	114.5	12.5	\$79.03
4PMM-120X100X15.5	120	100	15.5	119.5	16	\$82.17
4PMM-120X105X12	120	105	12	119.5	12.5	\$79.76
4PMM-125X102X15.5	125	102	15.5	124.5	16	\$87.02
4PMM-125X105X15.5	125	105	15.5	124.5	16	\$117.73
4PMM-125X110X12	125	110	12	124.5	12.5	\$85.06
4PMMH-125X110X15.3	125	110	15.3	124.5	15.8	\$106.54
4PMM-130X115X12	130	115	12	129.5	12.5	\$158.16
4PMM-130X110X15.5	130	110	15.5	129.5	16	\$102.17
4PMM-130X107X15.5	130	107	15.5	129.5	16	\$94.73
4PMMH-135X118X20.5	135	118	20.5	134.5	21	\$138.55
4PMM-135X112X15.5	135	112	15.5	134.5	16	\$97.00
4PMM-140X125X16-1	140	125	16	139.5	16.5	\$190.88
4PMM-140X120X15.5	140	120	15.5	139.5	16	\$130.93
4PMM-140X117X15.5	140	117	15.5	139.5	16	\$107.80
4PMM-145X122X15.5	145	122	15.5	144.5	16	\$107.80
4PMM-150X135X12	150	135	12	149.5	12.5	\$149.61
4PMMH-150X133X20	150	133	20	149.5	20.5	\$131.14
4PMMH-150X130X16	150	130	16	149.5	16.5	\$189.76

Part Number	Bore Dia. +.1/-0 D	Grv. Dia. +0/-0.1 d	Seal HT L <sub>1</sub>	Piston Dia. D <sub>1</sub>	Grv. HT +0.1/-0 L	Price
4PMM-150X127X15.5	150	127	15.5	149.5	16	\$115.00
4PMM-150X130X16.8	150	130	16.8	149.5	18	\$179.62
4PMM-160X145X12	160	145	12	159.5	12.5	\$155.05
4PMM-160X137X15.5	160	137	15.5	159.5	16	\$123.76
4PMM-160X140X15.5	160	140	15.5	159.5	16	\$120.79
4PMM-165X142X15.5	165	142	15.5	164.5	16	\$147.95
4PMM-165X145X17	165	145	17	164.5	17.5	\$211.51
4PMMH-165X145X20	165	145	20	164.5	20.5	\$239.50
4PMMU-165X145X24	165	145	24	164.5	24.5	\$391.23
4PMM-170X147X15.5	170	147	15.5	169.5	16	\$149.90
4PMMU-170X150X20	170	150	20	169.5	20.5	\$235.98
4PMM-180X165X12	180	165	12	179.5	12.5	\$183.16
4PMM-180X157X15.5	180	157	15.5	179.5	16	\$140.10
4PMM-180X155X26	180	155	26	179.5	26.5	\$239.96
4PMM-180X160X15.5	180	160	15.5	179.5	16	\$137.40
4PMM-180X160X17.5	180	160	17.5	179.5	18	\$247.12
4PMM-185X162X15.5	185	162	15.5	184.5	16	\$138.68
4PMM-190X167X15.5	190	167	15.5	189.5	16	\$174.50
4PMM-200X177X15.5	200	177	15.5	199.5	16	\$156.69
4PMM-210X187X15.5	210	187	15.5	209.5	16	\$150.28
4PMMH-220X200X20.5	220	200	20.5	219.5	21	\$255.89
4PMM-220X197X15.5	220	197	15.5	219.5	16	\$158.95
4PMMH-224X204X20.5	224	204	20.5	223.5	21	\$292.00
4PMM-225X202X15.5	225	202	15.5	224.5	16	\$179.94
4PMM-230X207X15.5	230	207	15.5	229.5	16	\$165.71
4PMMH-240X215X25	240	215	25	239.5	25.5	\$371.11
4PMM-240X217X15.5	240	217	15.5	239.5	16	\$167.63
4PMMH-250X225X25	250	225	25	249.5	25.5	\$224.65
4PMM-250X222X17	250	222	17	249.5	17.5	\$225.31
4PMM-260X232X17	260	232	17	259.5	17.5	\$227.15
4PMMH-260X235X25	260	235	25	259.5	25.5	\$420.11
4PMMH-270X245X24	270	245	24	269.5	24.5	\$437.64
4PMM-280X252X17	280	252	17	279.5	17.5	\$253.15
4PMM-280X255X25	280	255	25	279.5	25.5	\$489.48
4PMM-290X270X16	290	270	16	289.5	16.5	\$510.22
4PMM-300X272X17	300	272	17	299.5	17.5	\$338.45
4PMM-300X275X25	300	275	25	299.5	25.5	\$342.15
4PMM-320X290X30	320	290	30	319.5	32	\$373.93
4PMMH-345X315X30	345	315	30	344.5	30.5	\$497.47
4PMMH-380X350X32	380	350	32	379.5	32.5	\$584.16

# DAS 5pc. Piston Seals - Inch and Metric



Compact seal design allows for the bearings to be as close as possible to the seal for excellent protection against contaminants and assures concentricity between piston and bore. Piston seals in this section may be any one of these 5 designs pictured.

Temperature: -22° to 212°F      Pressure: 0 to 5,800 PSI

### STANDARD

ALTERNATIVE SEALS: DS

EXAMPLE: DAS15001000		
Prefix	Bore Diameter	Groove Diameter
DAS	1500	1000
	1-1/2"	1"

### METRIC

ALTERNATIVE SEALS: DSM, MDL

EXAMPLE: DAS2011		
Prefix	Bore Diameter	Groove Diameter
DAS	20	11
	20mm	11mm



# DAS 5pc. Piston Seals - Inch

Part Number	Bore Dia. H11 D	Groove					Piston Dia. h11 D <sub>1</sub>	Price
		Groove Dia. h10 d	Seal B/U Groove Ht +.005/+0.016 L <sub>1</sub>	Bearing Height +.004/-0.000 L <sub>2</sub>	Overall Groove Ht L	Bearing Groove Dia. d <sub>1</sub>		
DAS15001000	1.500	1.000	0.625	0.250	1.125	1.360	1.460	\$16.20
DAS15001125	1.500	1.125	0.437	0.156	0.750	1.320	1.440	\$28.13
DAS17501125	1.750	1.125	0.750	0.250	1.250	1.570	1.700	\$12.00
DAS17501375/1	1.750	1.375	0.500	0.250	1.000	1.640	1.710	\$41.66
DAS20001375	2.000	1.375	0.750	0.250	1.250	1.820	1.948	\$20.77
DAS20001625	2.000	1.625	0.437	0.156	0.750	1.822	1.937	\$20.92
DAS20001625/1	2.000	1.625	0.500	0.250	1.000	1.890	1.960	\$30.81
DAS21251500	2.125	1.500	0.750	0.250	1.250	1.946	2.121	\$18.13
DAS22501625	2.250	1.625	0.750	0.250	1.250	2.071	2.200	\$22.67
DAS23751750	2.375	1.750	0.750	0.250	1.250	2.194	2.325	\$15.88
DAS23752000	2.375	2.000	0.437	0.156	0.750	2.190	2.310	\$48.11
DAS25001875	2.500	1.875	0.750	0.250	1.250	2.321	2.446	\$17.54
DAS25002000	2.500	2.000	0.625	0.250	1.125	2.320	2.460	\$52.55
DAS25002125	2.500	2.125	0.437	0.228	0.893	2.323	2.446	\$28.66
DAS26252000	2.625	2.000	0.750	0.250	1.250	2.445	2.570	\$44.26
DAS27502000	2.750	2.000	0.937	0.250	1.437	2.524	2.690	\$28.30
DAS27502250	2.750	2.250	0.650	0.250	1.150	2.570	2.710	\$59.28
DAS27502375	2.750	2.375	0.437	0.156	0.750	2.570	2.690	\$45.42
DAS30002250	3.000	2.250	0.937	0.250	1.437	2.774	2.940	\$19.18
DAS30002375	3.000	2.375	0.750	0.250	1.250	2.770	2.960	\$47.62
DAS30002625	3.000	2.625	0.437	0.156	0.750	2.830	2.940	\$33.24
DAS32502500	3.250	2.500	0.937	0.250	1.437	3.023	3.190	\$32.81
DAS32502625	3.250	2.625	0.750	0.250	1.250	3.020	3.180	\$64.45
DAS35002750	3.500	2.750	0.937	0.250	1.437	3.274	3.440	\$20.88
DAS35002750/01	3.500	2.750	1.188	0.250	1.687	3.235	3.437	\$36.28
DAS35003000	3.500	3.000	0.562	0.218	1.000	3.270	3.440	\$37.37
DAS37503000	3.750	3.000	0.937	0.250	1.437	3.520	3.680	\$52.95
DAS37503250	3.750	3.250	0.562	0.218	1.000	3.520	3.690	\$71.88
DAS40003250	4.000	3.250	0.937	0.250	1.437	3.773	3.940	\$24.53
DAS40003375	4.000	3.375	0.750	0.250	1.250	3.773	3.940	\$77.46
DAS40003500	4.000	3.500	0.562	0.218	1.000	3.770	3.940	\$78.34
DAS42503500	4.250	3.500	0.937	0.250	1.437	4.024	4.187	\$43.57
DAS45003500	4.500	3.500	1.250	0.250	1.750	4.232	4.428	\$48.96
53-4500-1	4.500	3.516	0.875	0.250	1.375	4.230	4.410	\$103.21
DAS50004000	5.000	4.000	1.250	0.375	2.000	4.712	4.910	\$59.42
DAS50004000/02	5.000	4.000	1.250	0.250	1.750	4.727	4.920	\$52.00
53-5000-1	5.000	4.016	0.984	0.375	1.734	4.730	4.910	\$143.80
DAS50004250	5.000	4.250	0.937	0.250	1.437	4.770	4.960	\$101.55
DAS52504250	5.250	4.250	1.250	0.250	1.750	4.977	5.169	\$78.28
DAS55004500/01	5.500	4.500	1.250	0.250	1.750	5.213	5.402	\$80.13
DAS55004500	5.500	4.500	1.250	0.375	2.000	5.213	5.410	\$80.13
DAS60005000	6.000	5.000	1.250	0.375	2.000	5.713	5.910	\$73.94
DAS60005000/01	6.000	5.000	1.500	0.375	2.250	5.736	5.937	\$86.24
DAS65005500/1	6.500	5.500	1.250	0.250	1.750	6.213	6.402	\$86.24
DAS70006000	7.000	6.000	0.985	0.500	2.000	6.713	6.910	\$204.33
DAS70006000/01	7.000	6.000	1.250	0.250	1.750	6.713	6.910	\$99.66
DAS70006000/02	7.000	6.000	1.250	0.375	2.000	6.713	6.910	\$99.66
DAS75006500	7.500	6.500	0.985	0.500	2.000	7.213	7.410	\$226.42
DAS80006750	8.000	6.750	1.500	0.313	2.125	7.681	7.920	\$107.99
DAS80007000	8.000	7.000	1.250	0.375	2.000	7.722	7.920	\$105.35
DAS80007000/01	8.000	7.000	1.250	0.250	1.750	7.722	7.920	\$105.35



# DAS 5pc. Piston Seals - Metric

Part Number	Bore Dia. H11 D	Groove					Piston Dia. h11 D <sub>1</sub>	Price
		Groove Dia. h10 d	Seal B/U Groove Ht +.35/+ .1 L <sub>1</sub>	Bearing Height +.1/-0.0 L <sub>2</sub>	Overall Groove Ht L	Bearing Groove Dia. d <sub>1</sub>		
DAS2011	20	11	13.5	2.1	17.7	17	19	\$11.86
DAS2213	22	13	13.5	2.1	17.7	19	21	\$11.86
DAS2515/2	25	15	12.5	4	20.5	22	24	\$11.86
DAS2515/1	25	15	12.5	4	20.5	21	23	\$11.90
DAS2515	25	15	16.4	6.35	29.1	21.45	23.5	\$11.93
DAS2516	25	16	13.5	2.1	17.7	22	24	\$11.93
DAS2517	25	17	13.5	3.2	19.9	21	24.4	\$11.93
DAS2517/2	25	17	10	4	18	22	24	\$11.93
DAS2518	25	17.5	8.8	3.1	15	21.3	24	\$18.02
DAS3021	30	21	13.5	2.1	17.7	27	29	\$12.15
DAS3222/01	32	22	10	5	20	28.5	31	\$47.40
DAS3222/02	32	22	12.5	4	20.5	29.0	31.0	\$17.62
DAS3222/1	32	22	15.5	2.6	20.7	28	31	\$17.20
DAS3222	32	22	16.4	6.35	29.1	28.5	30.5	\$18.12
DAS3224/01	32	24	10	4	18	29.0	31.0	\$18.12
DAS3224	32	24	15.5	3.2	21.9	28	31.4	\$18.12
DAS3525/1	35	25	15.5	2.6	20.7	31	34	\$19.46
DAS3525	35	25	16.4	6.35	29.1	31.4	33.5	\$13.73
DAS3527	35	27	15.5	3.2	21.9	31.0	34.4	\$18.48
DAS4024	40	24	18.4	6.35	31.1	35.4	38.5	\$19.21
DAS4026	40	26	15.5	2.6	20.7	36	39	\$20.55
DAS4030/01	40	30	10	5	20	36.5	39	\$31.49
DAS4030/2	40	30	12.5	4	20.5	37	39	\$19.55
DAS4030	40	30	16.4	6.35	29.1	35.4	38.5	\$20.51
DAS4032/01	40	32	10	4	18	37	39	\$19.54
DAS4032	40	32	15.5	3.2	21.9	36	39.4	\$20.23
DAS4228	42	28	15.5	2.6	20.7	38	41	\$21.79
DAS4529	45	29	18.4	6.35	31.1	40.4	43.7	\$21.15
DAS4531	45	31	15.5	2.6	20.7	41	44	\$21.15
DAS4535	45	35	16.4	6.35	29.1	40.4	43.5	\$21.15
DAS5034	50	34	18.4	6.35	31.1	45.4	48.5	\$21.20
DAS5034/1	50	34	20.5	3.1	26.7	46	49	\$22.40
DAS5035	50	35	20	5	30	46	49	\$31.20
DAS5038	50	38	20.5	4.2	28.9	46	49.4	\$22.73
DAS5040/02	50	40	11.3	4	19.3	45.4	49	\$31.75
DAS5040	50	40	12.5	4	20.5	47	49	\$22.73
DAS5539	55	39	18.4	6.35	31.1	50.36	53.5	\$23.51
DAS5539/1	55	39	20.5	3.1	26.7	51	54	\$23.51
DAS5545/01	55	45	12.5	4	20.5	50.5	54	\$23.57
DAS5640	56	40	20.5	3.1	26.7	52	55	\$23.57
DAS6044	60	44	18.4	6.35	31.1	55.4	58.5	\$25.35
DAS6044/1	60	44	20.5	3.1	26.7	56	59	\$14.78
DAS6048	60	48	20.5	4.2	28.9	56	59.4	\$25.42
DAS6347	63	47	18.4	6.35	31.1	58.4	61.5	\$16.32
DAS6347/2	63	47	19.4	6.35	32.1	58.4	61.5	\$25.83
DAS6347/01	63	47	20.5	3.1	26.7	59	62	\$26.94
DAS6348	63	48	20	5	30	59	61.5	\$29.85
DAS6351	63	51	20.5	4.2	28.9	59	62	\$26.26
DAS6353/01	63	53	11.3	4	19.3	58.5	61.5	\$59.12
DAS6353	63	53	12.5	4	20.5	60	62	\$27.89
DAS6549	65	49	20.5	3.1	26.7	61	64	\$18.58
DAS6550	65	50	18.4	6.35	31.1	60.4	63.5	\$27.35
DAS7050	70	50	22.4	6.35	35.1	64.2	68.3	\$27.35



**DAS 5pc. Piston Seals - Metric, cont'd.**

Part Number	Bore Dia. H11 D	Groove					Piston Dia. h11 D <sub>1</sub>	Price
		Groove Dia. h10 d	Seal B/U Groove Ht +.35/+1 L <sub>1</sub>	Bearing Height +.1/-0.0 L <sub>2</sub>	Overall Groove Ht L	Bearing Groove Dia. d <sub>1</sub>		
DAS7054	70	54	20.5	3.1	26.7	66	69	\$28.52
DAS7055	70	55	20	5	30	66	69	\$29.12
DAS7058	70	58	20.5	4.2	28.9	66	69.4	\$29.37
DAS7555/01	75	55	22.4	6.35	35.1	69.2	73	\$45.61
DAS7555	75	55	22.4	6.35	35.1	69.2	73.3	\$28.72
DAS7559	75	59	20.5	3.1	26.7	71	74	\$25.06
DAS8060	80	60	22.4	6.35	35.1	74.15	78.3	\$32.85
DAS8060/01	80	60	25	6.3	37.6	75	78	\$32.85
DAS8062	80	62	22.5	3.6	29.7	76	79	\$32.85
DAS8065	80	65	20	5	30	76	78.5	\$25.57
DAS8066/01	80	66	22.5	5.2	32.9	74.2	78.3	\$32.05
DAS8066	80	66	22.4	5.2	32.8	76	79.4	\$32.45
DAS8565	85	65	22.4	6.35	35.1	79.15	83.3	\$32.45
DAS9070	90	70	22.4	6.35	35.1	84.15	88.3	\$36.32
DAS9072	90	72	22.5	3.6	29.7	86	89	\$26.74
DAS9075/01	90	75	20	5	30	86	88.5	\$30.57
DAS9076	90	76	22.5	5.2	32.9	86.0	89.4	\$34.87
DAS9575	95	75	22.4	6.35	35.1	89.15	93.3	\$38.07
DAS10075	100	75	22.4	6.35	35.1	93.13	98	\$40.13
DAS10080	100	80	25	6.35	37.7	95	98	\$41.51
DAS10080/01	100	80	25.4	6.35	38.1	95	98	\$44.37
DAS10080/02	100	80	35	9.52	54.04	92.61	97.51	\$44.92
DAS10082	100	82	22.5	3.6	29.7	96	99	\$31.09
DAS10085	100	85	20	5	30	96	98.5	\$38.59
DAS10086	100	86	22.4	5.2	32.9	96	99.4	\$30.28
DAS10580	105	80	22.4	6.35	35.1	98.1	103	\$42.31
DAS11085	110	85	22.4	6.35	35.1	103.1	108	\$43.38
DAS11085/01	110	85	25.4	6.35	38.1	103.1	108	\$43.38
DAS11090	110	90	25.4	6.35	38.1	104.1	108.3	\$35.36
DAS11092	110	92	22.5	3.6	29.7	106	109	\$32.86
DAS11095	110	95	20	5	30	105	108.5	\$33.52
DAS11096	110	96	22.4	5.2	32.9	106	109.4	\$33.52
DAS11590	115	90	22.4	6.35	35.1	108.1	113	\$45.86
DAS12095	120	95	22.4	6.35	35.1	113.1	118	\$46.60
DAS120100	120	100	35	9.5	54	112.8	117.5	\$46.60
DAS120106	120	106	22.4	5.2	32.8	116	119.4	\$47.13
DAS125100	125	100	25.4	6.35	38.1	118.1	123	\$47.13
DAS125100/01	125	100	32	10	52	119	123	\$64.18
DAS125100/02	125	100	45	12.7	70.4	116.82	122.33	\$71.80
DAS125103	125	103	26.5	5.1	36.7	121	124	\$49.34
DAS125105	125	105	25	6.35	37.6	120	123	\$66.04
DAS125105/01	125	105	25.4	6.35	38.1	120	123	\$66.04
DAS125108	125	108	26.5	7.2	40.9	121	124.4	\$49.94
DAS130105	130	105	25.4	9.52	44.4	122.6	127.5	\$50.71
DAS130105/1	130	105	25.4	6.35	38.1	123.1	128	\$61.46
DAS130105/2	130	105	25.4	9.52	44.4	123.1	128	\$61.46
DAS130113	130	113	26.5	7.2	40.9	120	129.4	\$87.93
DAS135110	135	110	25.4	9.52	44.4	127.6	132.5	\$61.51
DAS135110/01	135	110	25.4	6.35	38.1	128.1	133	\$52.79
DAS140115	140	115	25.4	9.52	44.4	132.6	137.5	\$53.29
DAS140115/1	140	115	25.4	6.35	38.1	133	138	\$53.29

### DAS 5pc. Piston Seals - Metric, cont'd.

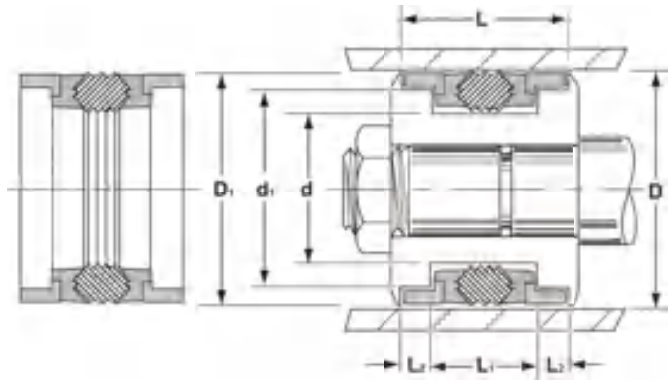
Part Number	Bore Dia. H11 D	Groove					Piston Dia. h11 D <sub>1</sub>	Price
		Groove Dia. h10 d	Seal B/U Groove Ht +.35/+1 L <sub>1</sub>	Bearing Height +.1/-0.0 L <sub>2</sub>	Overall Groove Ht L	Bearing Groove Dia. d <sub>1</sub>		
DAS140115/01	140	115	45	12.7	70.4	131.7	137.36	\$61.51
DAS140115/5	140	115	32	10	52	134	138	\$62.43
DAS140118	140	118	26.5	5.1	36.7	136	139	\$52.98
DAS140120	140	120	25	6.35	37.6	135	138	\$52.98
DAS140123	140	123	26.5	7.2	40.9	136	139	\$62.33
DAS145120	145	120	25.4	9.52	44.4	137.6	142.5	\$62.86
DAS150125	150	125	25.4	9.52	44.4	142.6	147.5	\$62.85
DAS150125/1	150	125	25.4	6.35	38.1	143	148	\$47.94
DAS150128	150	128	26.5	5.1	36.7	146	149	\$63.59
DAS150133	150	133	26.5	7.2	40.9	146	149.4	\$42.59
DAS155130/1	155	130	25.4	6.35	38.1	148	153	\$61.67
DAS155130	155	130	25.4	9.52	44.4	147.6	152.5	\$61.67
DAS160130	160	130	25.4	6.35	38.1	153	157.5	\$69.42
DAS160130/1	160	130	25.4	9.52	44.4	153	157.5	\$69.42
DAS160135	160	135	25.4	9.52	44.4	152.6	157.5	\$59.32
DAS160135/01	160	135	45	12.7	70.4	151.72	157.1	\$84.72
DAS160135/02	160	135	32	10	52	154	158	\$84.72
DAS160138	160	138	26.5	5.1	36.7	156	159	\$94.04
DAS160140	160	140	25	6.35	37.7	155	158	\$74.07
DAS160143	160	143	26.5	7.2	40.9	156	159.4	\$87.87
DAS165140	165	140	25.4	9.5	44.4	157.6	162.5	\$95.21
DAS170140	170	140	25.4	6.4	38.1	163	167.9	\$126.62
DAS170145	170	145	25.4	12.7	50.8	161.7	169	\$79.94
DAS170145/01	170	145	25.4	6.4	38.1	161.7	169.4	\$79.94
DAS170148	170	148	26.5	5.1	36.7	166	169	\$101.91
DAS175150	175	150	25.4	12.7	50.8	166.7	172.1	\$64.47
DAS180150	180	150	35.4	6.35	48.1	172.95	179	\$84.72
DAS180155	180	155	25.4	12.7	50.8	171.7	179	\$84.72
DAS180158	180	158	26.5	5.1	36.7	176	179	\$92.59
DAS185160	185	160	25.4	12.7	50.8	176.7	182.1	\$100.25
DAS190165	190	165	25.4	12.7	50.8	181.7	189	\$97.69
DAS195170	195	170	25.4	12.7	50.8	186.7	192	\$100.41
DAS200170/1	200	170	35.4	6.35	48.1	193	198	\$77.12
DAS200170/01	200	170	36	12.5	61	192	197	\$77.28
DAS200175	200	175	25.4	12.7	50.8	191.6	197	\$80.43
DAS200175/01	200	175	31.5	6.6	44.7	196	199.4	\$95.35
DAS200180	200	180	31.5	9.2	49.9	196	199.4	\$45.71
DAS210185	210	185	25.4	12.7	50.8	201.6	207	\$77.27
DAS220190	220	190	35.4	6.35	48.1	212.7	217.9	\$101.09
DAS220190/02	220	190	35.4	6.35	48.1	213.5	217.9	\$101.09
DAS220195	220	195	25.4	12.7	50.8	211.6	217	\$109.37
DAS230205	230	205	25.4	12.7	50.8	221.6	227	\$79.37
DAS240215	240	215	25.4	12.7	50.8	231.6	237	\$57.47
DAS250220	250	220	35.4	6.35	48.1	243	248	\$149.77
DAS250220/01	250	220	36	12.5	61	242	247	\$306.42
DAS250225	250	225	25.4	12.7	50.8	241.6	247	\$58.49
DAS250230	250	230	31.5	9.2	40.7	246	249.4	\$81.67
DAS280250	280	250	36.4	10	56.4	273	278	\$166.35
DAS280250/01	280	250	36	12.5	61	272.9	277.85	\$365.91
DAS280250/02	280	250	35.4	9.52	54.44	272.9	277.85	\$372.27
DAS320290/01	320	290	36	12.5	61	312	317	\$567.12



# DSM 5pc. Piston Seals - Metric



ALTERNATIVE SEALS: DAS



**EXAMPLE: DSM196133/1A**

Prefix	Bore Diameter	Groove Diameter	Suffix
DSM	196	133	/1A
	50mm	34mm	

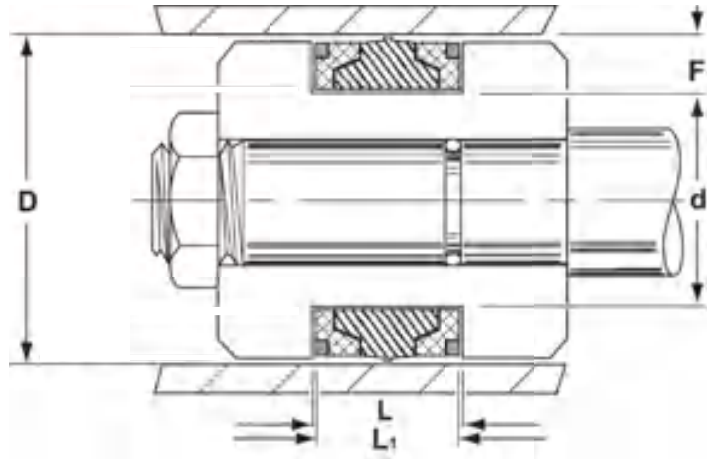
PART #'S WERE CREATED IN INCHES BUT CONVERT TO METRIC (MUST DIVIDE BY 100 THEN MULTIPLY BY 25.4)

The DSM series 5 piece piston seal is a compact seal designed for heavy duty double-acting cylinders. It consists of one multiple lip elastomeric nitrile rubber sealing element, two polyester elastomer backup rings to prevent extrusion, and two L-shaped thermoplastic guide rings that help to center the piston within the bore. This is a great high-pressure seal with low friction.

Pressure: 10,000 PSI

Part Number	Bore Dia. h11 D	Groove					Piston Dia. h11 D <sub>1</sub>	Price
		Groove Dia. h10 d	Seal B/U Groove Ht +.35/+ .1 L <sub>1</sub>	Bearing Height +.1/-0 L <sub>2</sub>	Overall Groove Ht L	Bearing Groove Dia. d <sub>1</sub>		
DSM196133/1A	50	34	32	6.35	44.70	43.77	47.85	\$51.12
DSM236173/1A	60	44	32	6.35	44.70	53.70	57.78	\$54.04
DSM248185/1A	63	47	32	6.35	44.70	56.74	60.81	\$57.49
DSM275196/1A	70	50	35	9.52	54.04	62.61	67.54	\$71.84
DSM314236/1A	80	60	35	9.52	54.04	72.62	77.54	\$79.94
DSM334255/1A	85	65	35	9.52	54.04	77.60	82.55	\$84.40
DSM354275/1A	90	70	35	9.52	54.04	82.58	87.55	\$87.22
DSM374295/1A	95	75	35	9.52	54.04	87.60	92.50	\$81.94
DSM393314/1A	100	80	35	9.52	54.04	92.61	97.51	\$73.98
DSM433354/1A	110	90	35	9.52	54.04	102.77	107.54	\$97.16
DSM472393/1A	120	100	35	9.52	54.04	112.80	117.58	\$99.07
DSM492393/1A	125	100	45	12.7	70.40	116.82	122.33	\$108.42
DSM531433/1A	130	110	35	9.52	54.04	122.70	127.30	\$112.48
DSM551472/1A	140	120	35	9.52	54.04	132.79	137.30	\$115.23
DSM590472/1A	150	120	45	9.52	63.04	143.50	147.32	\$116.82
DSM590492/1A	150	125	45	12.7	70.40	141.71	147.32	\$116.82
DSM629531/1A	160	135	45	12.7	70.40	151.72	157.10	\$122.19
DSM669551/1A	170	140	45	12.7	70.40	162.97	167.79	\$140.01
DSM708610/1A	180	155	45	12.7	70.40	171.63	177.10	\$145.60
DSM748649/1A	190	165	45	12.7	70.40	181.72	187.10	\$171.21
DSM787688/1A	200	175	45	12.7	70.40	191.72	197.10	\$176.21
DSM826728/1A	210	185	45	12.7	70.40	201.57	207.32	\$225.77
DSM866767/1A	220	195	45	12.7	70.40	211.57	217.10	\$243.93
DSM984885/1A	250	225	45	12.7	70.40	241.72	247.10	\$280.64
DSM1062965/1A	270	245	45	12.7	70.40	261.72	267.10	\$702.07
DSM11021004/1A	280	255	45	12.7	70.40	271.72	277.10	\$363.55
DSM11811082/1	300	275	45	12.7	70.40	291.72	297.10	\$454.79
DSM12601161/1A	320	295	45	12.7	70.40	311.72	317.10	\$537.68
DSM13781279/1A	350	325	45	12.7	70.40	341.72	347.10	\$551.62
DSM14171318/1A	360	335	45	12.7	70.40	351.72	357.10	\$571.26

# MHM - JCB® REPLACEMENT PISTON SEAL - Metric



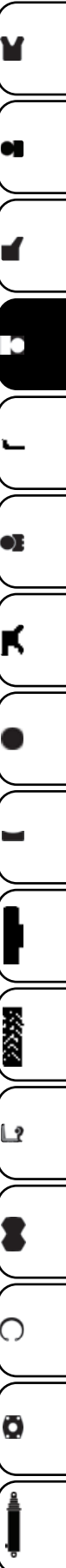
EXAMPLE: MHM-110X90X30				
Prefix	Bore Diameter		Groove Diameter	Groove Height
MHM-	110	x	90	x 30
	110 mm		90 mm	30 mm

This compact 5 piece piston seal is made specifically to replace JCB® and heavy duty equipment piston seals. NBR, Urethane, and POM

Temperature: -22° to 212°F      Pressure: 0 to 5,000 PSI

Part Number	Bore Diameter D	Groove Diameter d	Groove Height L	Price
MHM-60X45X22.5	60	45	22.5	\$43.49
MHM-70X55X22.5	70	55	22.5	\$50.96
MHM-80X65X22.5	80	65	22.5	\$53.48
MHM-85X65X22.5	85	65	22.5	\$125.74
MHM-90X70X30	90	70	30	\$61.30
MHM-100X80X30	100	80	30	\$70.80
MHM-110X90X30	110	90	30	\$77.32

*We do not imply that these seals are a product of JCB®. Part numbers are used for reference purposes only.*



# GD1KK 6pc. Piston Seals - Metric

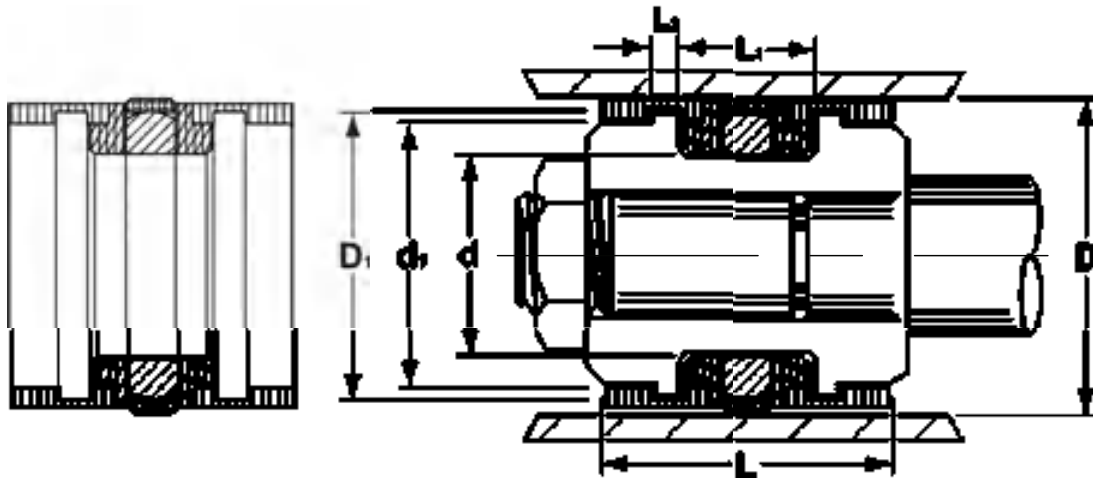


These 6 pc. piston seals are commonly found in Trojan Loader cylinders made by Hunger® Hydraulics. The outer sealing ring is made from bronze-filled PTFE and the expander ring is made from 80 Duro Nitrile. The seal assembly also includes 2 backup rings and 2 slotted nylon bearings.

Temperature: -40° to 225°F

Pressure: 0 to 4,350 PSI

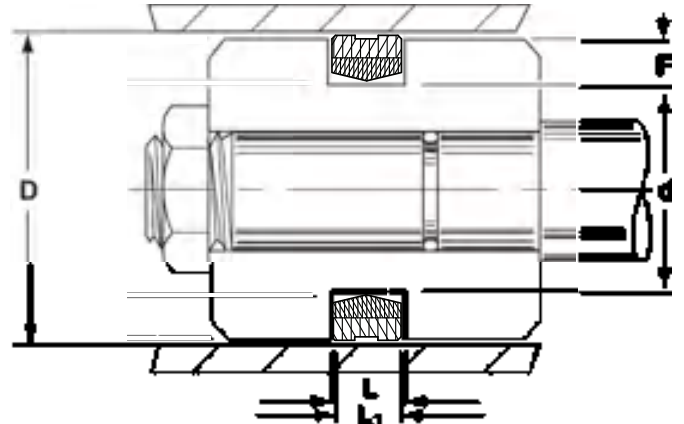
EXAMPLE: GD1KK-70x54x39					
Prefix	Bore Diameter		Groove Diameter		Overall Height
GD1KK-	70	x	54	x	39
	70mm		54mm		39mm



Part Number	Bore +./-0 D	Groove Diameter +0/-0.1 d	Groove Height L <sub>1</sub>	Slot Height L <sub>2</sub>	Overall Height L	Bearing Groove Diameter d <sub>1</sub>	Piston Diameter +0/-0.1 D <sub>1</sub>	Price
GD1KK-70X54X39	70	54	20.5	3.0	39.0	62.0	66.0	\$243.34
GD1KK-80X62X43	80	62	22.5	3.0	43.0	72.0	76.0	\$272.27
GD1KK-100X82X43	100	82	22.5	3.0	43.0	92.0	96.0	\$304.88
GD1KK-110X92X43	110	92	22.5	3.0	43.0	102.0	106.0	\$305.00
GD1KK-120X102X43	120	102	22.5	3.0	43.0	112.0	116.0	\$337.75
GD1KK-125X103X53	125	103	26.5	4.0	53.0	115.0	121.0	\$352.65
GD1KK-130X108X53	130	108	26.5	4.0	53.0	120.0	126.0	\$355.72
GD1KK-140X118X53	140	118	26.5	4.0	53.0	130.0	136.0	\$397.81
GD1KK-150X128X53	150	128	26.5	4.0	53.0	140.0	146.0	\$410.01
GD1KK-160X138X53	160	138	26.5	4.0	53.0	150.0	156.0	\$464.43
GD1KK-190X165X48	190	165	30.0	3.5	48.0	160.0	186.0	\$780.06
GD1KK-220X195X71	220	195	31.5	8.0	71.0	210.0	216.0	\$585.42
GD1KK-225X200X71	225	200	31.5	8.0	71.0	215.0	221.0	\$643.67
GD1KK-320X290X80	320	290	31.5	15.0	80.0	305.0	341.0	\$1,169.16

We do not imply that these seals are a product of Hunger®.

# Urethane Uni-Ring Seals - Inch



ALTERNATIVE SEALS: T-Seal

EXAMPLE: 12-216-204-312					
Prefix	Bore Diameter		Groove Diameter		Seal Height
12-	216	-	204	-	312
	2 1/2"		2 1/8"		5/16"

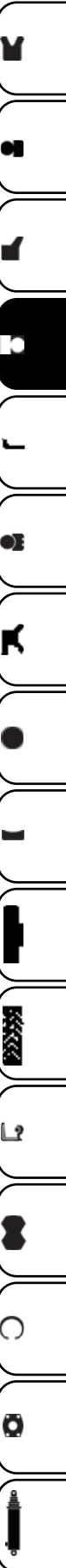
OD: 1ST DIGIT IS WHOLE # NEXT 2 DIVIDE BY 32  
 Example: (2) (16/32) = 2 1/2

ID: 1ST DIGIT IS WHOLE # NEXT 2 DIVIDE BY 32  
 Example: (2) (04/32) = 2 1/8

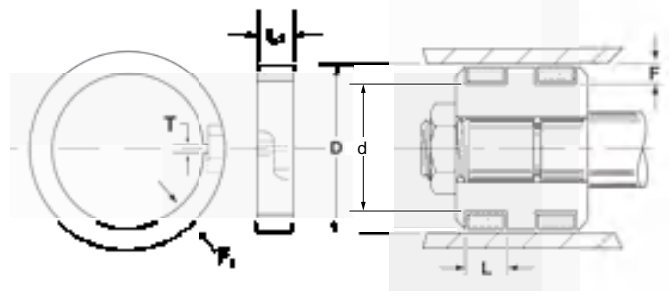
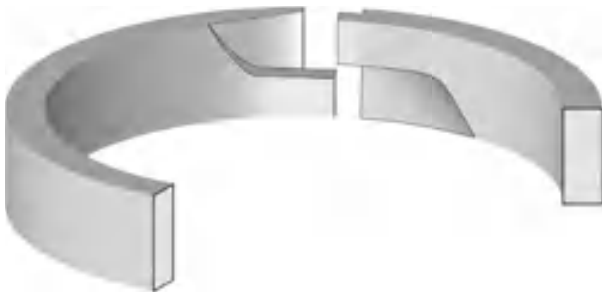
Uni-rings seals are a one pc. double acting piston seal made from 2 different durometers of urethane bonded together. The outer surface is impregnated with molybdenum disulfide (for decreasing friction) and contains a groove to hold lubricant. Some of these seals will retrofit into T-seal and wide base T-seal grooves.

Pressure: 0 to 5,000 PSI

Part No.	Bore Diameter +.004/-0 D	Groove Diameter +0/-0.004 d	Seal Height L <sub>1</sub>	Groove Height +.004/-0 L	Price
12-100-024-187	1.000	0.750	0.187	0.196	\$7.75
12-112-100-250	1.375	1.000	0.250	0.263	\$8.64
12-116-100-375	1.500	1.000	0.375	0.394	\$10.11
12-124-108-375	1.750	1.250	0.375	0.394	\$10.47
12-124-112-250	1.750	1.375	0.250	0.263	\$8.57
12-200-116-375	2.000	1.500	0.375	0.394	\$9.73
12-200-120-312	2.000	1.625	0.312	0.328	\$9.74
12-208-128-312	2.250	1.875	0.312	0.328	\$12.09
12-216-200-375	2.500	2.000	0.375	0.394	\$12.26
12-216-204-312	2.500	2.125	0.312	0.328	\$10.97
12-216-204-375	2.500	2.125	0.375	0.394	\$11.74
12-224-212-312	2.750	2.375	0.312	0.328	\$11.90
12-228-216-312	2.875	2.500	0.312	0.328	\$12.05
12-300-216-375	3.000	2.500	0.375	0.394	\$13.10
12-300-220-312	3.000	2.625	0.312	0.328	\$13.10
12-300-220-375	3.000	2.625	0.375	0.394	\$13.57
12-308-280-312	3.250	2.875	0.312	0.328	\$13.67
12-316-300-375	3.500	3.000	0.375	0.394	\$14.55
12-316-304-312	3.500	3.125	0.312	0.328	\$14.13
12-400-316-375	4.000	3.500	0.375	0.394	\$20.94
12-400-320-375	4.000	3.625	0.375	0.394	\$14.70
12-416-400-375	4.500	4.000	0.375	0.394	\$17.73
12-500-416-375	5.000	4.500	0.375	0.394	\$19.59
12-500-416-562	5.000	4.500	0.562	0.591	\$32.08



# Cast Iron Piston Rings - Inch



EXAMPLE: PR2000250C075P					
Prefix	Outside Diameter	Ring Height	Material	Max Wall	Joint
PR	2000	250	C	075	P
	2"	1/4"	CAST IRON	.075"	PERMASEAL

Cast Iron piston rings are used in applications requiring high temperatures, port passing capabilities or high pressure. Typical applications require at least 3 rings but are sometimes used in conjunction with PTFE seals.

Temperature: Consult technical service.

Pressure: 0 to 10,000 PSI

Part Number	Bore Diameter +.004/-0 D	Groove Diameter +0/-.004 d	Ring Height L <sub>1</sub>	Groove Height +.004/-0 L	Ring Wall C/S F <sub>1</sub>	Groove Depth +.004/-0 F	Price
<b>Joint Clearance (T) .005 / .010</b>							
PR788118C040B	0.788	0.628	0.118	0.1185	0.040	0.080	\$22.70
PR0875125C050S	0.875	0.695	0.125	0.1255	0.050	0.090	\$17.05
PR1000062C040B	1.000	0.840	0.062	0.0630	0.040	0.080	\$17.05
PR1000093C040B	1.000	0.840	0.093	0.0943	0.040	0.080	\$17.06
PR1000125C040S	1.000	0.840	0.125	0.1255	0.040	0.080	\$14.80
PR1062093C047B	1.062	0.888	0.093	0.0943	0.047	0.087	\$17.05
PR1241084B064S	1.241	1.033	0.084	0.0845	0.064	0.104	\$29.05
PR1250125C050S	1.250	1.070	0.125	0.1255	0.050	0.090	\$18.78
PR1250250C060S	1.250	1.050	0.250	0.2505	0.060	0.100	\$29.51
PR1375094C057B	1.375	1.181	0.093	0.0943	0.057	0.097	\$36.21
PR1375125C050S	1.375	1.195	0.125	0.1255	0.050	0.090	\$23.69
PR1375125C060S	1.375	1.175	0.125	0.1255	0.060	0.100	\$23.69
PR1378079C057B	1.378	1.164	0.078	0.0786	0.057	0.107	\$18.24
PR1495125C085P	1.495	1.245	0.125	0.1255	0.085	0.125	\$22.85
PR1500093C067P	1.500	1.286	0.093	0.0943	0.067	0.107	\$20.75
PR1500125C060B	1.500	1.300	0.125	0.1255	0.060	0.100	\$19.62
PR1500125C067P	1.500	1.286	0.125	0.1255	0.067	0.107	\$20.10
PR1625125C071P	1.625	1.403	0.125	0.1255	0.071	0.111	\$20.03
PR1625187C071P	1.625	1.403	0.187	0.1875	0.071	0.111	\$22.95
PR1693079C075B	1.693	1.463	0.079	0.0795	0.075	0.115	\$66.00
PR1750080C069B	1.750	1.532	0.080	0.0805	0.069	0.109	\$17.05
PR1750080C069P	1.750	1.512	0.080	0.0805	0.069	0.119	\$24.07
PR1750125C075P	1.750	1.500	0.125	0.1255	0.075	0.125	\$12.19
PR1750125C075P-1	1.750	1.500	0.125	0.1255	0.075	0.125	\$29.78
PR1750155C075P	1.750	1.500	0.155	0.1555	0.075	0.125	\$17.30
PR1772079C078B	1.772	1.516	0.079	0.0795	0.078	0.128	\$17.30
PR1811098D079H	1.811	1.553	0.109	0.1095	0.079	0.129	\$18.00
PR1875093C060B	1.875	1.675	0.093	0.0935	0.060	0.100	\$18.25
PR1875125C075P	1.875	1.645	0.125	0.1255	0.075	0.115	\$19.24
PR1875187C082B	1.875	1.611	0.187	0.1875	0.082	0.132	\$25.05
PR1990121C060P	1.990	1.790	0.121	0.1215	0.060	0.100	\$18.11
PR2000093C075P	2.000	1.750	0.093	0.0935	0.075	0.125	\$15.24
PR2000125C075P	2.000	1.750	0.125	0.1255	0.075	0.125	\$13.54
PR2000125C090A	2.000	1.740	0.125	0.1255	0.090	0.130	\$21.46
PR2000125C093H	2.000	1.734	0.125	0.1255	0.093	0.133	\$17.35
PR2000156C075P	2.000	1.750	0.156	0.1568	0.075	0.125	\$15.22
PR2000187C075P	2.000	1.750	0.187	0.1875	0.075	0.125	\$12.85
PR2000250C062P	2.000	1.776	0.250	0.2505	0.062	0.112	\$16.19
PR2000250C075P	2.000	1.750	0.250	0.2505	0.075	0.125	\$15.81
PR2030125C090P	2.030	1.770	0.125	0.1255	0.090	0.130	\$15.30



## Cast Iron Piston Rings - Inch, cont'd.

Part Number	Bore Diameter +.004/-0 D	Groove Diameter +0/-.004 d	Ring Height L <sub>1</sub>	Groove Height +.004/-0 L	Ring Wall C/S F <sub>1</sub>	Groove Depth +.004/-0 F	Price
<b>Joint Clearance (T) .005 / .010</b>							
PR2125093C080P	2.125	1.865	0.093	0.0935	0.080	0.130	\$20.70
PR2129187C100P	2.129	1.849	0.187	0.1875	0.100	0.140	\$21.46
PR2165098C083H	2.165	1.899	0.098	0.0985	0.083	0.133	\$20.91
PR2250093C085P	2.250	1.980	0.093	0.0935	0.085	0.135	\$26.04
PR2250125C085P	2.250	1.980	0.125	0.1255	0.085	0.135	\$15.23
PR2250152C085P	2.250	1.980	0.152	0.1525	0.085	0.135	\$18.29
PR2250187C085P	2.250	1.980	0.187	0.1875	0.085	0.135	\$15.54
PR2255121C083P	2.255	1.989	0.121	0.1215	0.083	0.133	\$18.80
PR2260125C085P	2.260	1.990	0.125	0.1255	0.085	0.135	\$18.80
PR2312094C091B	2.312	2.050	0.093	0.0935	0.091	0.131	\$84.99
PR2312187C090P	2.312	2.032	0.187	0.1875	0.090	0.140	\$83.31
PR2375125C091P	2.375	2.093	0.125	0.1255	0.091	0.141	\$16.76
PR2375125C110H	2.375	2.055	0.125	0.1255	0.110	0.160	\$17.26
PR2375187C091P	2.375	2.093	0.187	0.1875	0.091	0.141	\$46.09
PR2441099C100B	2.441	2.141	0.099	0.0995	0.100	0.150	\$17.74
PR2500093C097P	2.500	2.206	0.093	0.0935	0.097	0.147	\$18.79
PR2500125C097P	2.500	2.206	0.125	0.1255	0.097	0.147	\$12.76
PR2500187C097P	2.500	2.206	0.187	0.1875	0.097	0.147	\$12.89
PR2500250C097P	2.500	2.206	0.250	0.2505	0.097	0.147	\$12.96
PR2500250S115S	2.500	2.170	0.250	0.2505	0.115	0.165	\$88.15
PR2500373C116B	2.500	2.168	0.373	0.3735	0.116	0.166	\$31.00
PR2500375C125S	2.500	2.150	0.375	0.3755	0.125	0.175	\$24.28
PR2502312C097S	2.502	2.208	0.312	0.3125	0.097	0.147	\$21.62
PR2510187C108B	2.510	2.194	0.187	0.1875	0.108	0.158	\$14.88
PR2530125C097P	2.530	2.236	0.125	0.1255	0.097	0.147	\$12.94
PR2625093C075B	2.625	2.375	0.093	0.0935	0.075	0.125	\$18.50
PR2625125C102P	2.625	2.321	0.125	0.1255	0.102	0.152	\$18.96
PR2625187C102P	2.625	2.321	0.187	0.1875	0.102	0.152	\$16.40
PR2735156C080P	2.735	2.475	0.156	0.1565	0.080	0.130	\$16.73
PR2750125C106P	2.750	2.438	0.125	0.1255	0.106	0.156	\$20.03
PR2750156C106P	2.750	2.438	0.156	0.1568	0.106	0.156	\$12.91
PR2750187C106P	2.750	2.438	0.187	0.1875	0.106	0.156	\$15.31
PR2750250C106P	2.750	2.438	0.250	0.2505	0.106	0.156	\$18.48
PR2770094C106P	2.770	2.458	0.093	0.0935	0.106	0.156	\$21.18
PR2770125C106P	2.770	2.458	0.125	0.1255	0.106	0.156	\$21.18
PR2875125C133H	2.875	2.509	0.125	0.1255	0.133	0.183	\$16.85
PR2875187C108P	2.875	2.559	0.187	0.1875	0.108	0.158	\$13.01
PR2999333B155A	2.999	2.589	0.333	0.3335	0.155	0.205	\$263.94
PR3000125C110P	3.000	2.680	0.125	0.1255	0.110	0.160	\$20.07
PR3000187C110P	3.000	2.680	0.187	0.1875	0.110	0.160	\$12.91
PR3000250C110P	3.000	2.680	0.250	0.2505	0.110	0.160	\$13.45
PR3000250S130S	3.000	2.640	0.250	0.2505	0.130	0.180	\$79.57
PR3000312C110P	3.000	2.680	0.312	0.3125	0.110	0.160	\$14.22
PR3125187C115P	3.125	2.795	0.187	0.1875	0.115	0.165	\$15.80
PR3187125C118S	3.187	2.851	0.125	0.1255	0.118	0.168	\$40.91
PR3250093C147P	3.250	2.856	0.093	0.0935	0.147	0.197	\$19.30
PR3250125C090P	3.250	2.970	0.125	0.1255	0.090	0.140	\$12.91
PR3250125C118P	3.250	2.914	0.125	0.1255	0.118	0.168	\$20.15
PR3250156C147P	3.250	2.856	0.156	0.1568	0.147	0.197	\$13.37
PR3250187C118P	3.250	2.914	0.187	0.1875	0.118	0.168	\$12.89
PR3250250C118P	3.250	2.914	0.250	0.2505	0.118	0.168	\$12.89
PR3280187C118P	3.280	2.944	0.187	0.1875	0.118	0.168	\$19.46
PR3375125C140P	3.375	2.995	0.125	0.1255	0.140	0.190	\$17.39
PR3375187C124P	3.375	3.033	0.187	0.1875	0.124	0.171	\$20.64
PR3496500C155P	3.496	3.086	0.500	0.5005	0.155	0.205	\$39.70
PR3500122C133H	3.500	3.134	0.122	0.1225	0.133	0.183	\$13.98
PR3500125C124P	3.500	3.148	0.125	0.1255	0.124	0.176	\$13.50
PR3500156C150P	3.500	3.120	0.156	0.1568	0.150	0.190	\$36.64
PR3500187C124P	3.500	3.148	0.187	0.1875	0.124	0.176	\$13.36
PR3500250C124P	3.500	3.148	0.250	0.2505	0.124	0.176	\$13.36

## Cast Iron Piston Rings - Inch, cont'd.

Part Number	Bore Diameter +.004/-0 D	Groove Diameter +0/-.004 d	Ring Height L <sub>1</sub>	Groove Height +.004/-0 L	Ring Wall C/S F <sub>1</sub>	Groove Depth +.004/-0 F	Price
<b>Joint Clearance (T) .005 / .010</b>							
PR3500312C124P	3.500	3.148	0.312	0.3125	0.124	0.176	\$21.50
PR3625125C155B	3.625	3.215	0.125	0.1255	0.155	0.205	\$23.87
PR3625187C127P	3.625	3.271	0.187	0.1875	0.127	0.177	\$23.62
PR3750125C130P	3.750	3.380	0.125	0.1255	0.130	0.185	\$19.60
PR3750187C130P	3.750	3.380	0.187	0.1875	0.130	0.185	\$13.89
PR3750250C130P	3.750	3.380	0.250	0.2505	0.130	0.185	\$13.89
PR3780250C140P	3.780	3.400	0.250	0.2505	0.140	0.190	\$25.53
PR3800250C135P	3.800	3.430	0.250	0.2505	0.135	0.185	\$25.53
PR3810156C130P	3.810	3.450	0.156	0.1568	0.130	0.180	\$25.53
PR3990500C142P	3.990	3.602	0.500	0.5005	0.142	0.194	\$49.71
PR4000125C142P	4.000	3.612	0.125	0.1255	0.142	0.194	\$22.16
PR4000156C150B	4.000	3.596	0.156	0.1568	0.150	0.202	\$23.17
PR4000187C142P	4.000	3.612	0.187	0.1875	0.142	0.194	\$13.30
PR4000187C170B	4.000	3.556	0.187	0.1875	0.170	0.222	\$27.42
PR4000187C199P	4.000	3.502	0.187	0.1875	0.199	0.249	\$53.47
PR4000250C142P	4.000	3.612	0.250	0.2505	0.142	0.194	\$14.01
PR4000312C142P	4.000	3.612	0.312	0.3125	0.142	0.194	\$14.01
PR4007372C155P	4.007	3.593	0.372	0.3725	0.155	0.207	\$59.40
PR4010187C162P	4.010	3.580	0.187	0.1875	0.162	0.215	\$26.30
PR4018187C142P	4.018	3.630	0.187	0.1875	0.142	0.194	\$27.08
PR4030250C142P	4.030	3.642	0.250	0.2505	0.142	0.194	\$13.77
PR4050250C162P	4.050	3.620	0.250	0.2505	0.162	0.215	\$25.18
PR4075250C162P	4.075	3.645	0.250	0.2505	0.162	0.215	\$25.48
PR4250125C125B	4.250	3.900	0.125	0.1255	0.125	0.175	\$17.28
PR4250187C150P	4.250	3.844	0.187	0.1875	0.150	0.203	\$22.91
PR4250250C150P	4.250	3.844	0.250	0.2505	0.150	0.203	\$15.14
PR4260250C150P	4.260	3.854	0.250	0.2505	0.150	0.203	\$15.14
PR4375250C155P	4.375	3.961	0.250	0.2505	0.155	0.207	\$28.53
PR4437187C150P	4.437	4.033	0.187	0.1875	0.150	0.202	\$28.53
PR4500125C160P	4.500	4.074	0.125	0.1255	0.160	0.213	\$24.19
PR4500187C160P	4.500	4.074	0.187	0.1875	0.160	0.213	\$21.30
PR4500187C160S	4.500	4.074	0.187	0.1875	0.160	0.213	\$31.30
<b>Joint Clearance (T) .010 / .020</b>							
PR4500250C160P	4.500	4.074	0.250	0.2505	0.160	0.213	\$15.37
PR4500312C155P	4.500	4.074	0.312	0.3125	0.155	0.213	\$15.94
PR4500375C125S	4.500	4.150	0.375	0.3755	0.125	0.175	\$55.56
PR4625125C133B	4.625	4.251	0.125	0.1255	0.133	0.187	\$30.07
PR4662187C195B	4.662	4.172	0.187	0.1875	0.195	0.245	\$32.50
PR4750125C167P	4.750	4.310	0.125	0.1255	0.167	0.220	\$51.55
PR4750250C167P	4.750	4.310	0.250	0.2505	0.167	0.220	\$15.69
PR4750375C175P	4.750	4.290	0.375	0.3755	0.175	0.230	\$25.40
PR4865250C167P	4.865	4.423	0.250	0.2505	0.167	0.221	\$25.71
PR4875250C185P	4.875	4.399	0.250	0.2505	0.185	0.238	\$27.42
PR4921156C170S	4.921	4.481	0.156	0.1565	0.170	0.220	\$24.28
PR5000187C175BV	5.000	4.550	0.187	0.1875	0.175	0.225	\$53.05
PR5000187C175P	5.000	4.540	0.187	0.1875	0.175	0.230	\$15.67
PR5000250C175P	5.000	4.540	0.250	0.2505	0.175	0.230	\$15.67
PR5000312C175P	5.000	4.540	0.312	0.3125	0.175	0.230	\$23.03
PR5000375C175P	5.000	4.540	0.375	0.3755	0.175	0.230	\$20.71
PR5000500C195P	5.000	4.510	0.500	0.5005	0.195	0.245	\$49.80
PR5030250C175P	5.030	4.570	0.250	0.2505	0.175	0.230	\$26.46
PR5125187C195S	5.125	4.625	0.187	0.1875	0.195	0.250	\$51.33
PR5125250C180P	5.125	4.665	0.250	0.2505	0.180	0.230	\$54.62
PR5250187C181P	5.250	4.782	0.187	0.1875	0.181	0.234	\$25.10
PR5250250C181P	5.250	4.782	0.250	0.2505	0.181	0.234	\$25.10
PR5250250C200P	5.250	4.750	0.250	0.2505	0.200	0.250	\$23.98
PR5250281C175P	5.250	4.800	0.281	0.2815	0.175	0.225	\$39.35
PR5250312C181P	5.250	4.782	0.312	0.3125	0.181	0.234	\$28.10

## Cast Iron Piston Rings - Inch, cont'd.

Part Number	Bore Diameter +.004/-0 D	Groove Diameter +0/-0.004 d	Ring Height L <sub>1</sub>	Groove Height +.004/-0 L	Ring Wall C/S F <sub>1</sub>	Groove Depth +.004/-0 F	Price
<b>Joint Clearance (T) .010 /0.20</b>							
PR5260250C195P	5.260	4.770	0.250	0.2505	0.195	0.245	\$19.48
PR5285250C195P	5.285	4.795	0.250	0.2505	0.195	0.245	\$35.40
PR5375125C214S	5.375	4.837	0.125	0.1255	0.214	0.269	\$29.90
PR5375187C196S	5.375	4.883	0.187	0.1875	0.196	0.246	\$54.35
PR5496250C155P	5.496	5.086	0.250	0.2505	0.155	0.205	\$42.84
PR5500125C190P	5.500	5.020	0.125	0.1255	0.190	0.240	\$27.50
PR5500187C190P	5.500	5.020	0.187	0.1875	0.190	0.240	\$20.00
PR5500250C190P	5.500	5.020	0.250	0.2505	0.190	0.240	\$20.00
PR5500312C190P	5.500	5.020	0.312	0.3125	0.190	0.240	\$20.00
PR5500375C190P	5.500	5.020	0.375	0.3755	0.190	0.240	\$26.45
PR5520187C190B	5.520	5.040	0.187	0.1875	0.190	0.240	\$24.88
PR5625187C205P	5.625	5.111	0.187	0.1875	0.205	0.257	\$30.10
PR5687125C259S	5.687	5.061	0.125	0.1255	0.259	0.313	\$57.30
PR5717250C172P	5.717	5.273	0.250	0.2505	0.172	0.222	\$40.52
PR5750125C199P	5.750	5.252	0.125	0.1255	0.199	0.249	\$29.90
PR5750125C214P	5.750	5.234	0.125	0.1255	0.214	0.258	\$29.31
PR5750187C214P	5.750	5.234	0.187	0.1875	0.214	0.258	\$26.62
PR5750250C145P	5.750	5.360	0.250	0.2505	0.145	0.195	\$28.77
PR5750250C199P	5.750	5.252	0.250	0.2505	0.199	0.249	\$29.90
PR5750312C199P	5.750	5.252	0.312	0.3125	0.199	0.249	\$29.89
PR5875125C234H	5.875	5.267	0.125	0.1255	0.234	0.304	\$34.40
PR5895312C190P	5.895	5.415	0.312	0.3125	0.190	0.240	\$35.25
PR6000125C259S	6.000	5.376	0.125	0.1255	0.259	0.312	\$54.62
PR6000187C206P	6.000	5.488	0.187	0.1875	0.206	0.256	\$25.99
PR6000187C240A	6.000	5.420	0.187	0.1875	0.240	0.290	\$146.61
PR6000250C206P	6.000	5.488	0.250	0.2505	0.206	0.256	\$21.82
PR6000250C259S	6.000	5.382	0.250	0.2505	0.259	0.309	\$39.91
PR6000312C206P	6.000	5.488	0.312	0.3125	0.206	0.256	\$21.82
PR6000375C200P	6.000	5.500	0.375	0.3755	0.200	0.250	\$25.50
PR6000500C206P	6.000	5.488	0.500	0.5005	0.206	0.256	\$57.97
PR6025250C206P	6.025	5.513	0.250	0.2505	0.206	0.256	\$50.24
PR6040312C206P	6.040	5.528	0.312	0.3125	0.206	0.256	\$47.99
PR6125312C217P	6.125	5.609	0.312	0.3125	0.217	0.258	\$59.91
PR6156312C217P	6.156	5.640	0.312	0.3125	0.217	0.258	\$60.10
PR6250120C131H	6.250	5.888	0.120	0.1205	0.131	0.181	\$43.83
PR6250250C217P	6.250	5.734	0.250	0.2505	0.217	0.258	\$37.18
PR6250312C217P	6.250	5.734	0.312	0.3125	0.217	0.258	\$32.85
PR6250375C217P	6.250	5.734	0.375	0.3755	0.217	0.258	\$45.01
PR6260250C206P	6.260	5.748	0.250	0.2505	0.206	0.256	\$22.94
PR6299177C212S	6.299	5.775	0.177	0.1775	0.212	0.262	\$39.21
PR6375250C225S	6.375	5.825	0.250	0.2505	0.225	0.275	\$108.50
PR6496250C155P	6.496	6.086	0.250	0.2505	0.155	0.205	\$24.54
PR6496437C497S	6.496	5.402	0.437	0.4375	0.497	0.547	\$99.68
PR6500125C165H	6.500	6.070	0.125	0.1255	0.165	0.215	\$35.52
PR6500187C226P	6.500	5.948	0.187	0.1875	0.226	0.276	\$38.64
PR6500250C226P	6.500	5.948	0.250	0.2505	0.226	0.276	\$24.16
PR6500312C185P	6.500	6.030	0.312	0.3125	0.185	0.235	\$50.64
PR6500312C226P	6.500	5.948	0.312	0.3125	0.226	0.276	\$24.16
PR6500500C226P	6.500	5.948	0.500	0.5005	0.226	0.276	\$73.61
PR6525312C226P	6.525	5.973	0.312	0.3125	0.226	0.276	\$53.19
PR6565125C225B	6.565	6.013	0.125	0.1255	0.225	0.276	\$49.45
PR6740312C234P	6.740	6.172	0.312	0.3125	0.234	0.284	\$41.03
PR6750156C190B	6.750	6.270	0.156	0.1568	0.190	0.240	\$61.28
PR6750250C170P	6.750	6.310	0.250	0.2505	0.170	0.220	\$44.34
PR6750250C234P	6.750	6.182	0.250	0.2505	0.234	0.284	\$37.41
PR7000187C243P	7.000	6.414	0.187	0.1875	0.243	0.293	\$43.92
PR7000187C269H	7.000	6.376	0.187	0.1875	0.269	0.312	\$55.60
PR7000250C187B	7.000	6.526	0.250	0.2505	0.187	0.237	\$88.99

Call for pricing on sizes not listed.



## Cast Iron Piston Rings - Inch, cont'd.

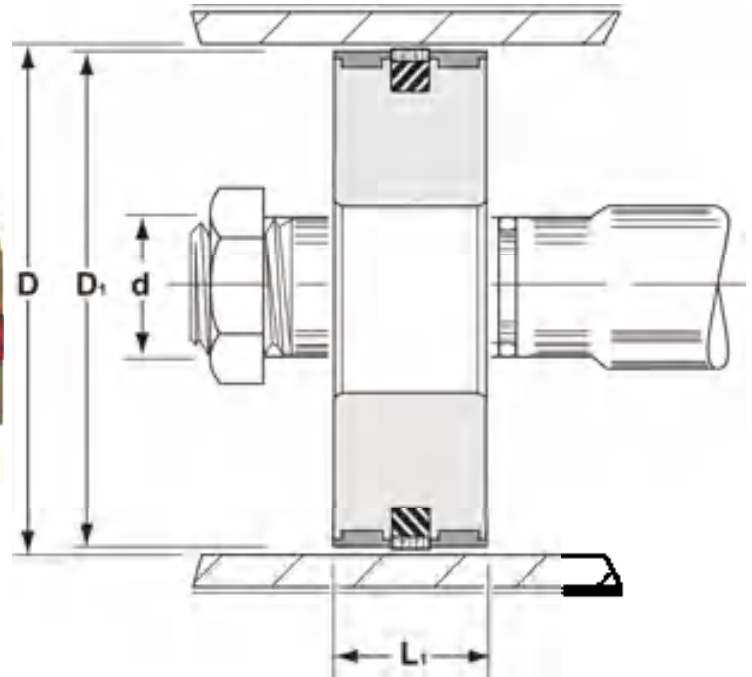
Part Number	Bore Diameter +.004/-0 D	Groove Diameter +0/-0.004 d	Ring Height L <sub>1</sub>	Groove Height +.004/-0 L	Ring Wall C/S F <sub>1</sub>	Groove Depth +.004/-0 F	Price
<b>Joint Clearance (T) .010 / .020</b>							
PR7000250C243P	7.000	6.414	0.250	0.2505	0.243	0.293	\$26.91
PR7000312C243P	7.000	6.414	0.312	0.3125	0.243	0.293	\$37.54
PR7000375C190P	7.000	6.520	0.375	0.3755	0.190	0.240	\$43.09
PR7000500C233P	7.000	6.434	0.500	0.5005	0.233	0.283	\$61.75
PR7015375C155P	7.015	6.605	0.375	0.3755	0.155	0.205	\$61.89
PR7040312C243P	7.040	6.454	0.312	0.3125	0.243	0.293	\$57.36
PR7087236C238S	7.087	6.511	0.236	0.2365	0.238	0.288	\$57.72
PR7156312C243P	7.156	6.570	0.312	0.3125	0.243	0.293	\$69.33
PR7250187C255P	7.250	6.640	0.187	0.1875	0.255	0.305	\$45.87
PR7250250C252P	7.250	6.646	0.250	0.2505	0.252	0.302	\$45.54
PR7250312C252P	7.250	6.646	0.312	0.3125	0.252	0.302	\$41.63
PR7250375B252P	7.250	6.646	0.375	0.3755	0.252	0.302	\$184.44
PR7260250C268P	7.260	6.620	0.250	0.2505	0.268	0.320	\$33.33
PR7280250C272P	7.280	6.636	0.250	0.2505	0.272	0.322	\$42.97
PR7300250C243P	7.300	6.714	0.250	0.2505	0.243	0.293	\$44.97
PR7375375C201P	7.375	6.847	0.375	0.3755	0.201	0.264	\$54.73
PR7496500C155P	7.496	7.086	0.500	0.5005	0.155	0.205	\$88.50
PR7500187C259P	7.500	6.882	0.187	0.1875	0.259	0.309	\$52.05
PR7500250C259P	7.500	6.882	0.250	0.2505	0.259	0.309	\$35.45
PR7500312C170P	7.500	7.050	0.312	0.3125	0.170	0.225	\$85.07
PR7500312C225P	7.500	6.942	0.312	0.3125	0.225	0.279	\$53.91
PR7500312C259P	7.500	6.882	0.312	0.3125	0.259	0.309	\$53.90
PR7500375C259P	7.500	6.876	0.375	0.3755	0.259	0.312	\$55.90
PR7520187C259B	7.520	6.896	0.187	0.1875	0.259	0.312	\$56.66
PR7625312C263P	7.625	6.999	0.312	0.3125	0.263	0.313	\$62.91
PR7740312C244P	7.740	7.152	0.312	0.3125	0.244	0.294	\$65.99
PR7750187C220H	7.750	7.210	0.187	0.1875	0.220	0.270	\$53.31
PR7750250C267P	7.750	7.116	0.250	0.2505	0.267	0.317	\$55.35
PR7750312C267P	7.750	7.116	0.312	0.3125	0.267	0.317	\$51.28
PR7874236C273S	7.874	7.228	0.236	0.2365	0.273	0.323	\$45.11
PR7876500C255P	7.876	7.266	0.500	0.5005	0.255	0.305	\$47.51
PR7937312C250P	7.937	7.337	0.312	0.3125	0.250	0.300	\$65.99
PR8000250C275P	8.000	7.350	0.250	0.2505	0.275	0.325	\$66.57
PR8000312C275P	8.000	7.350	0.312	0.3125	0.275	0.325	\$41.67
PR8000375C275P	8.000	7.350	0.375	0.3755	0.275	0.325	\$44.92
PR8000437C295P	8.000	7.334	0.437	0.4375	0.295	0.333	\$77.36
PR8000500C275P	8.000	7.350	0.500	0.5005	0.275	0.325	\$77.65
PR8030312C275P	8.030	7.380	0.312	0.3125	0.275	0.325	\$107.43
PR8040437C260P	8.040	7.420	0.437	0.4375	0.260	0.310	\$107.84
PR8091203C275B	8.091	7.441	0.203	0.2035	0.275	0.325	\$71.83
PR8125250C275P	8.125	7.475	0.250	0.2505	0.275	0.325	\$72.36
PR8145437C270P	8.145	7.505	0.437	0.4375	0.270	0.320	\$83.77
PR8250250C283P	8.250	7.608	0.250	0.2505	0.283	0.321	\$75.73
PR8250375C276P	8.250	7.598	0.375	0.3755	0.276	0.326	\$78.11
PR8267236C285S	8.267	7.591	0.236	0.2365	0.285	0.338	\$84.22
PR8420250C306P	8.420	7.700	0.250	0.2505	0.306	0.360	\$47.56
PR8437250C286P	8.437	7.789	0.250	0.2505	0.286	0.324	\$57.77
PR8467250C286P	8.467	7.795	0.250	0.2505	0.286	0.336	\$73.42
PR8496250C155P	8.496	8.086	0.250	0.2505	0.155	0.205	\$70.21
PR8500187C290P	8.500	7.820	0.187	0.1875	0.290	0.340	\$67.72
PR8500250C290P	8.500	7.820	0.250	0.2505	0.290	0.340	\$57.22
PR8500312C185P	8.500	8.006	0.312	0.3125	0.185	0.247	\$71.87
PR8500312C290P	8.500	7.820	0.312	0.3125	0.290	0.340	\$55.53
PR8500375C290P	8.500	7.820	0.375	0.3755	0.290	0.340	\$68.22
PR8600375C160B	8.600	8.180	0.375	0.3755	0.160	0.210	\$94.08
PR8661236C293S	8.661	7.975	0.236	0.2365	0.293	0.343	\$80.93

## Cast Iron Piston Rings - Inch, cont'd.

Part Number	Bore Diameter +.004/-0 D	Groove Diameter +0/-0.004 d	Ring Height L <sub>1</sub>	Groove Height +.004/-0 L	Ring Wall C/S F <sub>1</sub>	Groove Depth +.004/-0 F	Price
<b>Joint Clearance (T) .010 / .020</b>							
PR9000125C309P	9.000	8.282	0.125	0.1255	0.309	0.359	\$62.53
PR9000187C250B	9.000	8.400	0.187	0.1875	0.250	0.300	\$63.29
PR9000250C309P	9.000	8.282	0.250	0.2505	0.309	0.359	\$86.58
PR9000312C309P	9.000	8.282	0.312	0.3125	0.309	0.359	\$73.75
PR9000375C309P	9.000	8.282	0.375	0.3755	0.309	0.359	\$69.57
PR9000500C191P	9.000	8.518	0.500	0.5005	0.191	0.241	\$112.27
PR9000500C309P	9.000	8.282	0.500	0.5005	0.309	0.359	\$112.27
PR9040437C255P	9.040	8.430	0.437	0.4375	0.255	0.305	\$102.75
PR9055236C305S	9.055	8.345	0.236	0.2365	0.305	0.355	\$92.32
PR9170312C308P	9.170	8.454	0.312	0.3125	0.308	0.358	\$78.89
PR9170375C308P	9.170	8.454	0.375	0.3755	0.308	0.358	\$87.15
PR9250375C315P	9.250	8.520	0.375	0.3755	0.315	0.365	\$122.64
PR9315125C330S	9.315	8.555	0.125	0.1255	0.330	0.380	\$81.00
PR9375312C312P	9.375	8.651	0.312	0.3125	0.312	0.362	\$158.63
PR9375500C315S	9.375	8.645	0.500	0.5005	0.315	0.365	\$93.72
PR9500187C320P	9.500	8.760	0.187	0.1875	0.320	0.370	\$95.36
PR9500312C330P	9.500	8.740	0.312	0.3125	0.330	0.380	\$154.40
PR9500375C320P	9.500	8.760	0.375	0.3755	0.320	0.370	\$133.86
PR9625250C246P	9.625	9.033	0.250	0.2505	0.246	0.296	\$1,155.40
PR9675375C320P	9.675	8.935	0.375	0.3755	0.320	0.370	\$122.12
PR9750250C305P	9.750	9.042	0.250	0.2505	0.305	0.354	\$101.72
PR9950375C320S	9.950	9.210	0.375	0.3755	0.320	0.370	\$278.80
PR10000125C330S	10.000	9.240	0.125	0.1255	0.330	0.380	\$114.71
PR10000375C332P	10.000	9.236	0.375	0.3755	0.332	0.382	\$105.87
PR10020625C255P	10.020	9.410	0.625	0.6255	0.255	0.305	\$155.64
PR10050375C332P	10.050	9.286	0.375	0.3755	0.332	0.382	\$150.55
PR10500375C335P	10.500	9.702	0.375	0.3755	0.335	0.399	\$128.69
PR11000375C358P	11.000	10.144	0.375	0.3755	0.358	0.428	\$212.56
PR11000500C191P	11.000	10.518	0.500	0.5005	0.191	0.241	\$195.31
PR11000500C358P	11.000	10.130	0.500	0.5005	0.358	0.435	\$222.56
PR11250375C377S	11.250	10.396	0.375	0.3755	0.377	0.427	\$228.12
PR11500125C370S	11.500	10.660	0.125	0.1255	0.370	0.420	\$111.38
PR11500187C270H	11.500	10.660	0.187	0.1875	0.270	0.420	\$208.37
PR11875375C412P	11.875	11.035	0.375	0.3755	0.412	0.420	\$129.40
PR12000375C401P	12.000	11.098	0.375	0.3755	0.401	0.451	\$208.37
PR12000437C389S	12.000	11.120	0.437	0.4375	0.389	0.440	\$219.71
PR12000500C421S	12.000	11.058	0.500	0.5005	0.421	0.471	\$352.51
PR12000562C401P	12.000	11.098	0.562	0.5625	0.401	0.451	\$294.49
PR12000625C401P	12.000	11.098	0.625	0.6255	0.401	0.451	\$528.96
PR12125625C375P	12.125	11.275	0.625	0.6255	0.375	0.425	\$351.08
PR12375437C416P	12.375	11.443	0.437	0.4375	0.416	0.466	\$322.69
PR12500500C270S	12.500	11.860	0.500	0.5005	0.270	0.320	\$353.63
PR12500500C500B	12.500	11.400	0.500	0.5005	0.500	0.550	\$357.20
PR13000437C416P	13.000	12.068	0.437	0.4375	0.416	0.466	\$402.00
PR13187187C450S	13.187	12.187	0.187	0.1875	0.450	0.500	\$394.47
PR13500500C440P	13.500	12.520	0.500	0.5005	0.440	0.490	\$374.87
PR14000500C437P	14.000	13.026	0.500	0.5005	0.437	0.487	\$505.51
PR15000247C260B-1	15.000	14.380	0.247	0.2475	0.260	0.310	\$1,163.88
PR16000500C517P	16.000	14.866	0.500	0.5005	0.517	0.567	\$638.58
PR16500625C525P	16.500	15.350	0.625	0.6255	0.525	0.575	\$695.32
PR18750562C687P	18.750	17.276	0.562	0.5625	0.687	0.737	\$982.48
PR19500625C610P	19.500	18.180	0.625	0.6255	0.610	0.660	\$514.27
PR26000750C730P	26.000	24.440	0.750	0.7505	0.730	0.780	POA
PR28000750C812S	28.000	26.276	0.750	0.7505	0.812	0.862	POA
PR39500750C925SOJ	39.500	37.550	0.750	0.7505	0.925	0.975	POA

Call for pricing on sizes not listed.

# Unitized Pistons - Inch and Metric



EXAMPLE: UP-2.50X1.00X1.00					
Prefix	Bore Diameter		Groove Diameter		Overall Height
UP-	2.50	x	1.00	x	1.00
	2-1/2"		1"		1"

This piston assembly is a single entity comprised of a piston, bearing, and seal. This simplifies building cylinders by reducing the amount of parts needed for the job. It eliminates completely metal to metal contact ensuring longer seal life while reducing contamination.

Do not remove Wear Rings or will need new piston.

Part Number	Bore Diameter D	Thru Hole/Stem +0.005/-0.000 d	Overall Height +0.005/-0.005 L <sub>1</sub>	Finished Piston Diameter +0/-0.004 D <sub>1</sub>	Price
UP-2.50X1.00X1.00	2.500	x 1.000	x 1.000	2.496/2.494	\$130.95
UP-3.00X1.00X1.00	3.000	x 1.000	x 1.000	2.997/2.994	\$173.88
UP-3.50X1.00X1.50	3.500	x 1.000	x 1.500	3.496/3.494	\$184.75
UP-4.00X1.25X1.25	4.000	x 1.250	x 1.250	3.996/3.994	\$223.38

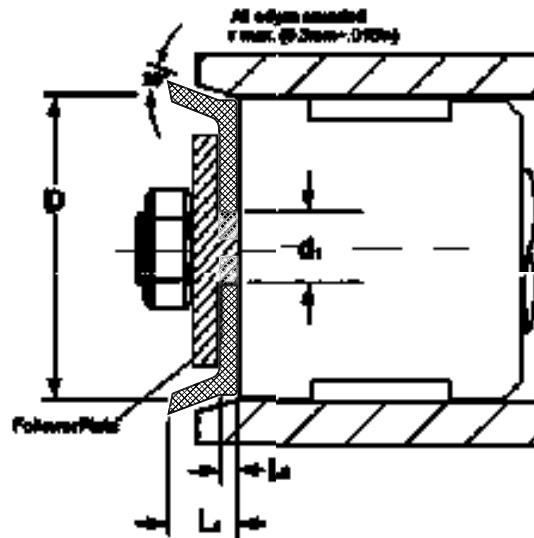
OEM NUMBERING SYSTEM					
Part Number	Bore Diameter D	Thru Hole/Stem +0.005/-0.000 d	Overall Height +0.005/-0.005 L <sub>1</sub>	Finished Piston Diameter +0/-0.004 D <sub>1</sub>	Price
AH174930	2.000	1.00		1.996/1.994	\$169.91
AH214293	3.000	0.875		2.996/2.994	\$58.99
AH169826	100mm	26mm	45mm	99/98.5	\$412.90
AH163953	125mm	42mm	45mm	124/123.5	\$247.09
AH169800	125mm	30mm	50mm	124/123.5	\$247.08

We do not imply that these seals are a product of John Deere®.

# DR Fabric and Nitrile Piston Cups - Inch



ALTERNATIVE SEALS: CS, SC, CT



EXAMPLE: DR02500-1125			
Prefix	Outside Diameter		Center Hole
DR	02500	-	1125
	2-1/2"		1-1/8"

ITEMS W/O SUFFIX = NO CENTER HOLE

EXAMPLE: PCF3000-500-125-1750				
Prefix	Outside Diameter	Total Height	Base Height	Center Hole
PCF	3000	-	500	125
	3"	1/2"	1/8"	1-3/4"

ITEMS W/O SUFFIX = NO CENTER HOLE

DR Fabric Reinforced Nitrile Piston Cups are suitable for hydraulic applications. Most cups are supplied solid. Custom center holes ("d<sub>1</sub>") and bolt holes are available at an additional charge. Many sizes are also available from stock in Fabric & FKM. Consult sales office for price and availability of non-standard sizes.

Temperature: -40° to 250°F

Pressure: 0 to 3,000 PSI

Part Number	Bore Diameter D	Cup Lip Height L <sub>1</sub>	Cup Base Height L <sub>2</sub>	Center Hole d <sub>1</sub>	Price
DR00375	0.375	0.250	0.062		\$7.23
DR00437	0.437	0.250	0.062		\$7.27
DR00500	0.500	0.250	0.062		\$7.31
DR00562	0.562	0.250	0.062		\$7.59
DR00625	0.625	0.281	0.093		\$11.85
DR00687	0.687	0.281	0.093		\$7.59
DR00750	0.750	0.313	0.093		\$7.59
DR00812	0.812	0.313	0.093		\$9.48
DR00875	0.875	0.375	0.093		\$11.60
DR00937	0.937	0.375	0.093		\$9.94
DR01000	1.000	0.437	0.093		\$10.89
DR01125	1.125	0.437	0.093		\$9.39
DR01250	1.250	0.437	0.093		\$9.39
DR01375	1.375	0.437	0.093		\$9.39
DR01500	1.500	0.500	0.125		\$11.44
DR01625	1.625	0.500	0.125		\$11.47
PCF1625-375-125	1.625	0.375	0.125		\$12.46
DR01750	1.750	0.500	0.125		\$12.70
DR01750-687	1.750	0.500	0.125	0.687	\$12.70
DR01875	1.875	0.500	0.125		\$13.23
DR02000	2.000	0.500	0.125		\$13.54
DR02000-625	2.000	0.500	0.125	0.625	\$14.46
DR02000-750	2.000	0.500	0.125	0.750	\$15.11
PCF2000-812-187-625	2.000	0.812	0.187	0.625	\$29.89
DR02000-1125	2.000	0.500	0.125	1.125	\$13.55
DR02125	2.125	0.500	0.125		\$16.06
DR02250	2.250	0.500	0.125		\$13.85
DR02250-1375	2.250	0.500	0.125	1.375	\$14.62
DR02375	2.375	0.500	0.125		\$14.19
DR02500	2.500	0.500	0.125		\$14.19
DR02500-625	2.500	0.500	0.125	0.625	\$14.73

We can cut center holes and bolt holes in your piston cups to almost any size!  
Subject to ± 1/16 tolerance or more for larger sizes.

Set up charge for custom center holes: \$15.00.

Set up charge for bolt holes: \$15.00 Bolt holes: \$.50 each

Holes up to and including 1": \$.50 per hole Holes over 1": \$1.00 per hole

## DR Fabric and Nitrile Piston Cups - Inch, cont'd.

Part Number	Bore Diameter D	Cup Lip Height L <sub>1</sub>	Cup Base Height L <sub>2</sub>	Center Hole d <sub>1</sub>	Price
DR02625	2.625	0.500	0.125		\$26.86
PCF2625-812-250-875	2.625	0.812	0.250	0.875	\$39.14
DR02750	2.750	0.500	0.125		\$16.70
DR02875	2.875	0.500	0.125		\$19.63
PCF3000-500-125	3.000	0.500	0.125		\$19.67
PCF3000-500-125-1750	3.000	0.500	0.125	1.750	\$21.16
DR03000	3.000	0.625	0.156		\$18.09
DR03000-625	3.000	0.625	0.156	0.625	\$18.09
DR03000-1000	3.000	0.625	0.156	1.000	\$18.17
DR03000-1625	3.000	0.625	0.156	1.625	\$18.17
DR03125	3.125	0.625	0.156		\$23.38
DR03250	3.250	0.625	0.156		\$22.13
PCF3250-812-218-1000	3.250	0.812	0.218	1.000	\$51.95
DR03375	3.375	0.625	0.156		\$26.79
DR03500	3.500	0.625	0.156		\$22.10
DR03625	3.625	0.625	0.156		\$29.29
DR03750	3.750	0.625	0.156		\$25.94
DR03875	3.875	0.625	0.156		\$31.76
PCF3937-500-156	3.937 (100mm)	0.500	0.156		\$70.28
DR04000	4.000	0.625	0.156		\$24.45
DR04000-1875	4.000	0.625	0.156	1.875	\$24.45
DR04000-2500	4.000	0.625	0.156	2.500	\$25.68
PCF4000-750-187	4.000	0.750	0.187		\$50.09
DR04125	4.125	0.625	0.156		\$32.36
DR04250	4.250	0.625	0.156		\$29.09
DR04250-1375	4.250	0.625	0.156	1.375	\$29.98
DR04375	4.375	0.625	0.156		\$32.87
DR04500	4.500	0.625	0.156		\$29.67
DR04500-1875	4.500	0.625	0.156	1.875	\$31.46
DR04625	4.625	0.625	0.156		\$79.88
DR04750	4.750	0.625	0.156		\$38.14
DR04875	4.875	0.625	0.156		\$40.36
DR05000	5.000	0.750	0.187		\$37.95
DR05250	5.250	0.750	0.187		\$39.71
DR05500	5.500	0.750	0.187		\$39.71
PCF5625-562-156-562	5.625	0.562	0.156	0.562	\$40.94
DR05750	5.750	0.750	0.187		\$46.88
DR05875	5.875	0.750	0.187		\$156.53
DR06000	6.000	0.750	0.187		\$52.01
DR06000-3000	6.000	0.750	0.187	3.000	\$56.36
DR06125	6.125	0.750	0.187		\$67.75
DR06250	6.250	0.750	0.187		\$53.18
DR06500	6.500	0.750	0.187		\$64.37
DR06750	6.750	0.750	0.187		\$65.91
DR07000	7.000	0.750	0.187		\$67.70
DR07250	7.250	0.750	0.187		\$75.86
DR07500	7.500	0.750	0.187		\$81.13
DR07750	7.750	0.750	0.187		\$84.92
DR08000	8.000	1.000	0.187		\$81.31
DR08500	8.500	1.000	0.187		\$101.85
DR09000	9.000	1.000	0.187		\$113.04
DR09500	9.500	1.000	0.187		\$140.25
DR09750	9.750	1.000	0.187		\$200.54
DR10000	10.000	1.000	0.187		\$136.40
DR10250	10.250	1.000	0.187		\$228.68
DR10500	10.500	1.000	0.187		\$233.81
DR11000	11.000	1.000	0.187		\$230.51
DR11500	11.500	1.000	0.187		\$242.40
DR12000	12.000	1.000	0.187		\$176.66
DR14000	14.000	1.000	0.187		\$236.13
DR16000	16.000	1.000	0.187		\$452.78
DR20000	20.000	1.250	0.187		\$1,715.48

We can cut center holes and bolt holes in your piston cups to almost any size!  
Subject to ± 1/16 tolerance or more for larger sizes.

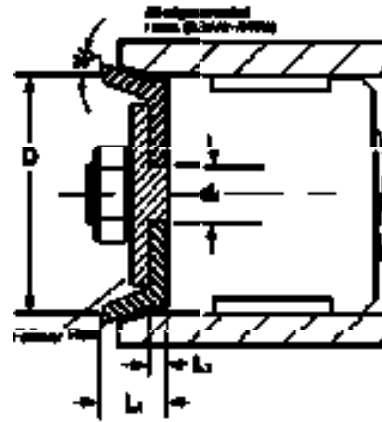
Set up charge for custom center holes: \$15.00.

Set up charge for bolt holes: \$15.00      Bolt holes: \$ .50 each

Holes up to and including 1": \$ .50 per hole      Holes over 1": \$1.00 per hole



# SC Homogeneous Nitrile Piston Cups - Inch



EXAMPLE: SC06000-1000			
Prefix	Outside Diameter		Center Hole
SC	06000	-	1000
	6"		1"

ITEMS W/O SUFFIX = NO CENTER HOLE

EXAMPLE: PCH3000-500-125-1750							
Prefix	Outside Diameter	Total Height	Base Height			Center Hole	
PCH	3000	-	500	-	125	-	1750
	3"		1/2"		1/8"		1-3/4"

ITEMS W/O SUFFIX = NO CENTER HOLE

SC Homogeneous nitrile piston cups are used primarily for pneumatic and low pressure hydraulic applications. Most cups are supplied solid. Custom center holes ("d<sub>1</sub>") and bolt holes are available at an additional charge. Consult sales for price and availability of non-standard sizes.

Temperature: -40° to 250°F

Pressure: 0 to 800 PSI

ALTERNATIVE SEALS: CT, CS, DR

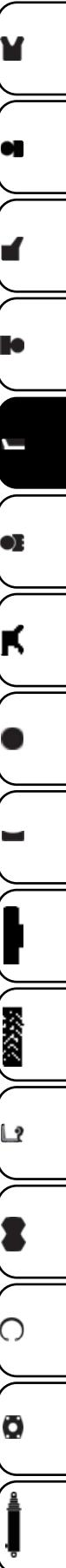
Part Number	Bore Diameter D	Cup Lip Height L <sub>1</sub>	Cup Base Height L <sub>2</sub>	Center Hole d <sub>1</sub>	Price
SC00375	0.375	0.250	0.062		\$5.41
SC00437	0.437	0.250	0.062		\$5.51
SC00500	0.500	0.250	0.062		\$5.72
SC00562	0.562	0.250	0.062		\$5.72
SC00625	0.625	0.281	0.093		\$6.12
SC00687	0.687	0.281	0.093		\$6.22
SC00750	0.750	0.281	0.093		\$5.32
SC00812	0.812	0.281	0.093		\$7.85
SC00875	0.875	0.375	0.093		\$7.38
SC00937	0.937	0.375	0.093		\$7.23
SC01000	1.000	0.437	0.093		\$5.76
SC01125	1.125	0.437	0.093		\$7.65
SC01125-280	1.125	0.437	0.093	0.280	\$8.24
SC01250	1.250	0.437	0.093		\$6.30
SC01375	1.375	0.437	0.093		\$6.57
SC01500	1.500	0.500	0.125		\$6.57
SC01625	1.625	0.500	0.125		\$6.57
SC01750	1.750	0.500	0.125		\$6.85
SC01875	1.875	0.500	0.125		\$9.87
SC02000	2.000	0.500	0.125		\$7.37
SC02000-250-CN80	2.000	0.500	0.125	0.250	\$7.93
PCH2000-625-156	2.000	0.625	0.156		\$12.41
SC02125	2.125	0.500	0.125		\$9.80
SC02125-1	2.125	0.500	0.125		\$10.17
SC02250	2.250	0.500	0.125		\$7.69
SC02250 E80	2.250	0.500	0.125		\$14.66
SC02375	2.375	0.500	0.125		\$8.25
SC02375-500	2.375	0.500	0.125	0.500	\$8.59
SC02437	2.437	0.500	0.125		\$10.52
SC02500	2.500	0.500	0.125		\$8.24

We can cut center holes and bolt holes in your piston cups to almost any size!  
Subject to ± 1/16 tolerance or more for larger sizes.

Set up charge for custom center holes: \$15.00.

Set up charge for bolt holes: \$15.00 Bolt holes: \$ .50 each

Holes up to and including 1": \$ .50 per hole Holes over 1": \$1.00 per hole



## SC Homogeneous Nitrile Piston Cups, cont'd.

Part Number	Bore Diameter D	Cup Lip Height L <sub>1</sub>	Cup Base Height L <sub>2</sub>	Center Hole d <sub>1</sub>	Price
PCH2500-375-156-875	2.500	0.375	0.156	0.875	\$12.82
SC02500-625	2.500	0.500	0.125	0.625	\$9.11
SC02625	2.625	0.500	0.125		\$8.46
SC02750	2.750	0.500	0.125		\$8.69
SC02875	2.875	0.500	0.125		\$8.95
SC03000	3.000	0.625	0.156		\$8.95
SC03000-340	3.000	0.625	0.156	0.340	\$9.28
PCH3000-0500-125	3.000	0.500	0.125		\$20.94
SC03250	3.250	0.625	0.156		\$10.82
SC03375	3.375	0.625	0.156		\$14.43
SC03500	3.500	0.625	0.156		\$18.90
SC03625	3.625	0.625	0.156		\$19.22
SC03750	3.750	0.625	0.156		\$19.54
SC03875	3.875	0.625	0.156		\$19.99
PCH4000-500-125	4.000	0.500	0.125		\$18.01
PCH4000-500-125-562	4.000	0.500	0.125	0.562	\$18.41
PCH4000-500-125-2750	4.000	0.500	0.125	2.750	\$18.41
SC04000	4.000	0.625	0.156		\$11.93
SC04000-1125	4.000	0.625	0.156	1.125	\$14.86
SC04250	4.250	0.625	0.156		\$13.54
SC04500	4.500	0.625	0.156		\$18.97
SC04750	4.750	0.625	0.156		\$16.18
PCH4875-687-187	4.875	0.687	0.187		\$20.88
PCH5000-625-125	5.000	0.625	0.125		\$76.32
SC05000	5.000	0.750	0.187		\$27.22
SC05125	5.125	0.750	0.187		\$29.31
SC05250	5.250	0.750	0.187		\$38.67
SC05375	5.375	0.750	0.187		\$37.91
SC05500	5.500	0.750	0.187		\$29.25
SC05625	5.625	0.750	0.187		\$41.80
SC05750	5.750	0.750	0.187		\$29.58
SC05875	5.875	0.750	0.187		\$60.91
SC06000	6.000	0.750	0.187		\$22.10
SC06000 V90	6.000	0.750	0.187		\$103.86
PCH6000-0875-125	6.000	0.875	0.125		\$88.50
SC06000-1000	6.000	0.750	0.187	1.000	\$22.34
SC06000-1000 V90	6.000	0.750	0.187	1.000	\$107.00
SC06125	6.125	0.750	0.187		\$63.64
SC06250	6.250	0.750	0.187		\$34.83
SC06375	6.375	0.750	0.187		\$65.84
SC06500	6.500	0.750	0.187		\$50.66
SC06625	6.625	0.750	0.187		\$61.32
SC06750	6.750	0.750	0.187		\$64.93
SC07000	7.000	0.750	0.187		\$38.11
PCH7000-0625-125	7.000	0.625	0.125		\$42.31
SC07250	7.250	0.750	0.187		\$51.63
SC07500	7.500	0.750	0.187		\$48.86
SC07750	7.750	0.750	0.187		\$49.42
PCH8000-625-125	8.000	0.625	0.125		\$82.27
PCH8000-750-187	8.000	0.750	0.187		\$111.05
PCH8000-1000-250	8.000	1.000	0.250		\$50.75
SC08000	8.000	1.000	0.187		\$39.56
SC08000-1000	8.000	1.000	0.187	1.000	\$43.93

We can cut center holes and bolt holes in your piston cups to almost any size!  
Subject to ± 1/16 tolerance or more for larger sizes.

Set up charge for custom center holes: \$15.00.

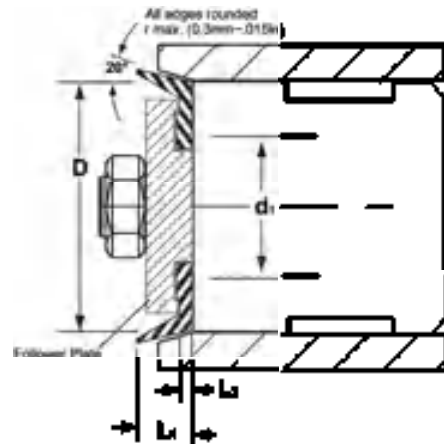
Set up charge for bolt holes: \$15.00      Bolt holes: \$ .50 each

Holes up to and including 1": \$ .50 per hole      Holes over 1": \$1.00 per hole

## SC Homogeneous Nitrile Piston Cups - Inch, cont'd.

Part Number	Bore Diameter D	Cup Lip Height L <sub>1</sub>	Cup Base Height L <sub>2</sub>	Center Hole d <sub>1</sub>	Price
PCH8500-750-187	8.500	0.750	0.187		\$53.81
SC08500	8.500	1.000	0.187		\$57.56
PCH9000-750-187	9.000	0.750	0.187		\$160.29
SC09000	9.000	1.000	0.187		\$51.21
SC09500	9.500	1.000	0.187		\$71.25
PCH9750-750-187	9.750	0.750	0.187		\$71.12
SC10000	10.000	1.000	0.187		\$45.83
SC10250	10.250	1.000	0.187		\$104.13
SC10500	10.500	1.000	0.187		\$73.31
SC11000	11.000	1.000	0.187		\$93.85
SC11500	11.500	1.000	0.187		\$84.05
SC12000	12.000	1.000	0.187		\$81.20
SC14000	14.000	1.000	0.187		\$93.75
SC16000	16.000	1.000	0.187		\$89.59
PCH20000-1250-187	20.000	1.250	0.187		\$221.84

## Nitrile Piston Cups for Miller® Cylinders - Inch



EXAMPLE: MIL-052-PS001-150	
Prefix	Outside Diameter
MIL-052-PS001	-150
	1-1/2"

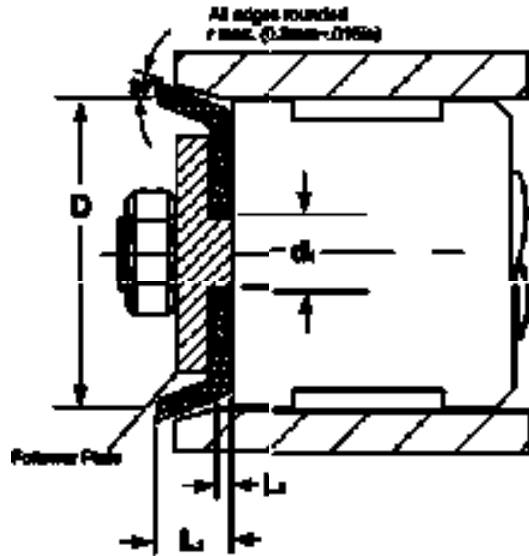
These homogeneous nitrile piston cups are found in older Miller A®, JW® & HW® cylinders. The unique base step and thin lip configuration assure stability and low friction.

Temperature: -40° to 250°F

Pressure: 0 to 800 PSI

Part Number	Bore Size D	Cup Lip Height L <sub>1</sub>	Cup Base Height L <sub>2</sub>	Center Hole d <sub>1</sub>	Price
MIL-052-PS001-150	1.500	0.375	0.125	0.875	\$21.79
MIL-052-PS001-200	2.000	0.375	0.125	1.062	\$22.36
MIL-052-PS001-250	2.500	0.437	0.125	1.562	\$34.68
MIL-052-PS001-325	3.250	0.437	0.125	2.250	\$44.50
MIL-052-PS001-400	4.000	0.437	0.125	3.062	\$52.19
MIL-052-PS001-500	5.000	0.562	0.125	3.750	\$68.00
MIL-052-PS001-600	6.000	0.562	0.125	4.750	\$78.96
MIL-052-PS001-800	8.000	0.625	0.125	6.500	\$88.53
MIL-052-PS001-1000	10.000	0.750	0.187	8.250	\$134.19
MIL-052-PS001-1200	12.000	0.750	0.187	9.750	\$172.67

# CS Urethane Piston Cups - Inch



EXAMPLE: CS1500-500			
Prefix	Outside Diameter		Total Height
CS	1500	-	500
	1-1/2"		1/2"

EXAMPLE: PCP-2500-500-125-875					
Prefix	Outside Diameter	Total Height	Base Height	Center Hole	
PCP-	2500	-	500	-	125 - 875
	2-1/2"		1/2"		1/8" - 7/8"

CS type piston cups are molded of urethane and are recommended for hydraulic applications. Most cups are supplied solid. Custom center holes ("d<sub>1</sub>") and bolt holes are available at an additional charge.

Temperature: -65° to 200°F

Pressure: 0 to 5,000 PSI

ITEMS W/O SUFFIX = NO CENTER HOLE

ALTERNATIVE SEALS: DR, SC, CT

Part Number	Bore Dia. D	Cup Lip Height L <sub>1</sub>	Cup Base Height L <sub>2</sub>	Center Hole d <sub>1</sub>	Price
PCP-0500-250-062-250	0.500	0.250	0.062	0.250	\$8.09
PCP-0625-312-093-187	0.625	0.312	0.093	0.187	\$13.87
CS0750-250	0.750	0.250	0.093		\$13.95
CS0750-375	0.750	0.375	0.093		\$13.95
CS0875-250	0.875	0.250	0.093		\$13.95
CS0875-375	0.875	0.375	0.093		\$13.95
CS1000-500	1.000	0.500	0.125		\$12.63
CS1062-500	1.062	0.500	0.125		\$17.94
PCP-1125-375-125-625	1.125	0.375	0.125	0.625	\$12.78
CS1125-500	1.125	0.500	0.125		\$16.80
CS1187-500	1.187	0.500	0.125		\$16.91
CS1250-500	1.250	0.500	0.125		\$17.04
PCP-1250-500-125-625	1.250	0.500	0.125	0.625	\$14.62
CS1375-500	1.375	0.500	0.125		\$17.80
CS1437-500	1.437	0.500	0.125		\$19.47
CS1500-500	1.500	0.500	0.125		\$19.67
PCP-1500-500-125-500	1.500	0.500	0.125	0.500	\$14.60
PCP-1500-500-125-750	1.500	0.500	0.125	0.750	\$14.60
PCP-1625-375-125-1@1	1.625	0.375	0.125	1.000	\$14.60
PCP-1625-500-125-812	1.625	0.500	0.125	0.812	\$17.01
CS1625-500	1.625	0.500	0.125		\$21.57
CS1750-500	1.750	0.500	0.125		\$20.37
CS1875-500	1.875	0.500	0.125		\$25.91

We can cut center holes and bolt holes in your piston cups to almost any size!  
Subject to ± 1/16 tolerance or more for larger sizes.

Set up charge for custom center holes: \$15.00.

Set up charge for bolt holes: \$15.00 Bolt holes: \$ .50 each

Holes up to and including 1": \$ .50 per hole Holes over 1": \$1.00 per hole

## CS Urethane Piston Cups - Inch, cont'd.

Part Number	Bore Dia. D	Cup Lip Height L <sub>1</sub>	Cup Base Height L <sub>2</sub>	Center Hole d <sub>1</sub>	Price
CS1937-500	1.937	0.500	0.125		\$27.40
CS2000-500	2.000	0.500	0.125		\$26.46
PCP-2000-500-125-750	2.000	0.500	0.125	0.750	\$19.24
CS2250-500	2.250	0.500	0.125		\$30.84
PCP-2250-500-125-1@1	2.250	0.500	0.125	1.375	\$22.52
CS2312-500	2.312	0.500	0.125		\$32.46
CS2375-500	2.375	0.500	0.125		\$32.46
CS2500-500	2.500	0.500	0.125		\$33.10
PCP-2500-500-125-875	2.500	0.500	0.125	0.875	\$23.98
CS2562-625	2.562	0.625	0.125		\$33.99
CS2625-500	2.625	0.500	0.125		\$34.33
CS2875-500	2.875	0.500	0.125		\$37.58
CS2875-625	2.875	0.625	0.187		\$37.58
PCP-3000-562-156-1@1	3.000	0.562	0.156	1.875	\$28.96
CS3000-625	3.000	0.625	0.187		\$33.02
CS3250-500	3.250	0.500	0.125		\$41.63
CS3250-625	3.250	0.625	0.187		\$41.63
PCP-3500-625-156-500	3.500	0.625	0.156	0.500	\$26.07
PCP-3500-625-156-562	3.500	0.625	0.156	0.562	\$27.50
CS3500-625	3.500	0.625	0.187		\$44.95
CS3750-625	3.750	0.625	0.187		\$49.66
CS4000-625	4.000	0.625	0.187		\$51.37
CS4250-625	4.250	0.625	0.187		\$56.95
CS4500-625	4.500	0.625	0.187		\$57.70
CS4750-750	4.750	0.750	0.187		\$62.38
CS5000-625	5.000	0.625	0.187		\$64.08
CS5000-750	5.000	0.750	0.187		\$68.35
CS5250-750	5.250	0.750	0.187		\$69.82
CS5500-750	5.500	0.750	0.187		\$70.51
CS5750-750	5.750	0.750	0.187		\$75.17
CS6000-625	6.000	0.625	0.187		\$78.82
CS6000-750	6.000	0.750	0.187		\$78.82
CS6000-1000	6.000	1.000	0.187		\$78.82
CS6500-750	6.500	0.750	0.187		\$81.86
CS6750-750	6.750	0.750	0.187		\$85.00
CS7000-750	7.000	0.750	0.187		\$86.64
CS7250-750	7.250	0.750	0.187		\$91.51
CS7500-1000	7.500	1.000	0.187		\$96.23
CS8000-750	8.000	0.750	0.187		\$101.56
CS8000-1000	8.000	1.000	0.187		\$103.13
CS9000-1000	9.000	1.000	0.187		\$114.03
CS9500-1000	9.500	1.000	0.187		\$117.52
CS10000-750	10.000	0.750	0.187		\$125.50
CS10000-1000	10.000	1.000	0.187		\$128.70
CS10250-1250	10.250	1.250	0.187		\$137.82
CS11000-1250	11.000	1.250	0.187		\$180.84
CS12000-1250	12.000	1.250	0.187		\$232.63
CS13000-1000	13.000	1.000	0.187		\$248.52
CS13000-1250	13.000	1.250	0.187		\$254.72
CS16000-1250	16.000	1.250	0.187		\$284.49

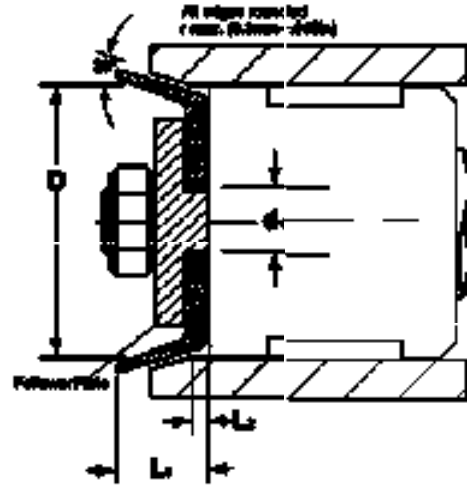
We can cut center holes and bolt holes in your piston cups to almost any size!  
Subject to ± 1/16 tolerance or more for larger sizes.

Set up charge for custom center holes: \$15.00.

Set up charge for bolt holes: \$15.00    Bolt holes: \$.50 each

Holes up to and including 1": \$.50 per hole    Holes over 1": \$1.00 per hole

# CT Thin Wall Urethane Piston Cups - Inch



ALTERNATIVE SEALS: CS, SC

EXAMPLE: CT12500-1250			
Prefix	Outside Diameter		Total Height
CT	12500	-	1250
	12-1/2"		1-1/4"

CT Series (Thin Wall) type piston cups are molded of urethane and are recommended for pneumatic applications. The thinner lip relative to base thickness results in lower friction and longer wear. Cups are supplied solid. Custom center holes ("d<sub>1</sub>") and bolt holes are available at an additional charge.

Temperature: -65° to 200°F

Pressure: 0 to 1,500 PSI

Part Number	Bore Dia. D	Cup Base Height L <sub>2</sub>	Cup Lip Height L <sub>1</sub>	Price
CT0437-187	0.437	0.093	0.187	\$8.00
CT0437-250	0.437	0.062	0.250	\$8.00
CT0500-375	0.500	0.093	0.375	\$8.13
CT0625-375	0.625	0.093	0.375	\$8.13
CT0750-375	0.750	0.093	0.375	\$8.33
CT1000-437	1.000	0.093	0.437	\$8.88
CT1125-437	1.125	0.093	0.437	\$10.48
CT1250-437	1.250	0.093	0.437	\$10.49
CT1375-437	1.375	0.093	0.437	\$11.12
CT1500-437	1.500	0.093	0.437	\$12.49
CT1625-437	1.625	0.093	0.437	\$13.61
CT1875-437	1.875	0.093	0.437	\$15.68
CT1937-437	1.937	0.093	0.437	\$16.28
CT2000-312	2.000	0.125	0.312	\$16.74
CT2000-437	2.000	0.125	0.437	\$16.74
CT2250-500	2.250	0.125	0.500	\$18.77
CT2375-500	2.375	0.125	0.500	\$19.90
CT2500-500	2.500	0.125	0.500	\$20.84
CT2750-500	2.750	0.125	0.500	\$23.94
CT2875-500	2.875	0.125	0.500	\$24.47
CT3000-625	3.000	0.125	0.625	\$26.26
CT3250-625	3.250	0.125	0.625	\$26.96
CT3500-625	3.500	0.125	0.625	\$28.92
CT4000-437	4.000	0.125	0.437	\$34.24
CT4000-625	4.000	0.125	0.625	\$34.24

We can cut center holes and bolt holes in your piston cups to almost any size!  
Subject to ± 1/16 tolerance or more for larger sizes.

Set up charge for custom center holes: \$15.00.

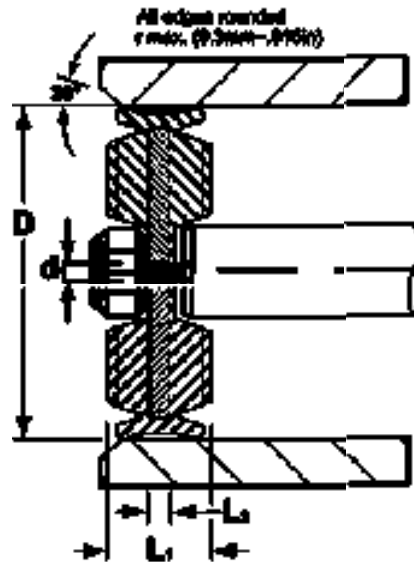
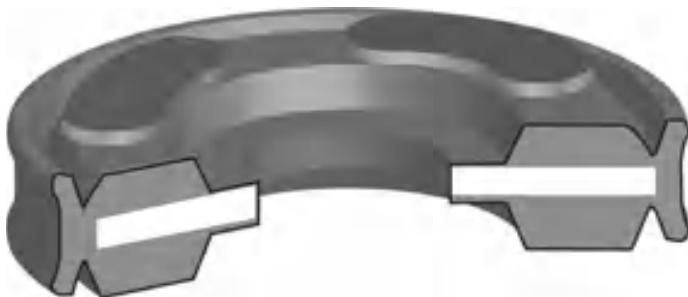
Set up charge for bolt holes: \$15.00      Bolt holes: \$ .50 each

Holes up to and including 1": \$ .50 per hole      Holes over 1": \$1.00 per hole

## CT Thin Wall Urethane Piston Cups - Inch, cont'd.

Part Number	Bore Dia. D	Cup Base Height L <sub>2</sub>	Cup Lip Height L <sub>1</sub>	Price
CT4250-625	4.250	0.125	0.625	\$35.24
CT4500-625	4.500	0.125	0.625	\$37.27
CT4750-750	4.750	0.125	0.750	\$39.27
CT5000-562	5.000	0.125	0.562	\$45.73
CT5000-750	5.000	0.125	0.750	\$45.73
CT5250-750	5.250	0.125	0.750	\$52.11
CT5500-750	5.500	0.125	0.750	\$58.63
CT5750-750	5.750	0.125	0.750	\$64.85
CT6000-750	6.000	0.125	0.750	\$71.34
CT6500-750	6.500	0.125	0.750	\$84.88
CT7000-750	7.000	0.125	0.750	\$90.60
CT8000-1000	8.000	0.125	1.000	\$103.51
CT11000-1250	11.000	0.187	1.250	\$181.53
CT13000-1250	13.000	0.187	1.250	\$255.68

## DP Double Acting Piston Cups w/ Cushion - Metric



EXAMPLE: DP-12X4.5X6X4				
Prefix	Outside Diameter	Center Hole	Total Height	Seal Lip Height
DP-	12	x 4.5	x 6	x 4
	12mm	4.5mm	6mm	4mm

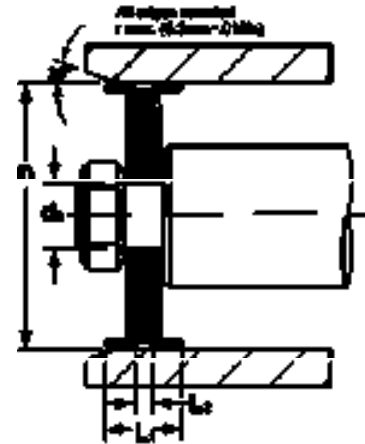
Part Number	Bore D	Center Hole d <sub>1</sub>	Overall Height L <sub>1</sub>	Lip Height	Metal Height L <sub>2</sub>	Price
DP-12X4.5X6X4	12	4.5	6	4	2	\$11.25
DP-16X4.5X6.5X4.5	16	4.5	6.5	4.5	2	\$11.25
DP-20X6X7.5X6	20	6	7.5	6	2.5	\$11.25
DP-25X7X8.8X7	25	7	8.8	7	3	\$11.25
DP-32X8X11X8	32	8	11	8	3	\$13.78
DP-40X8X11.8X8.8	40	8	11.8	8.8	4	\$16.87
DP-50X10X14X10	50	10	14	10	4	\$19.71
DP-63X12X14X10	63	12	14	10	4	\$25.38
DP-80X16X16X12	80	16	16	12	5	\$37.04
DP-100X20X18X14	100	20	18	14	6	\$48.67

This double acting complete piston is made from an aluminum plate vulcanized with elastomeric nitrile. The DP seal provides a reliable pressure application at the end of a stroke by using specially designed venting passages. It is easily installed, has low friction and runs smoothly.

Temperature: -22°F to 221°F

Pressure: ≤174 PSI

# DK Double Acting Piston Cups - Inch



ALTERNATIVE SEALS: CB

<b>EXAMPLE: DK-28278</b>	
<b>Prefix</b>	<b>Outside Diameter</b>
DK-28	278
	2-7/8"

The DK type inch piston cup is a complete pneumatic piston with a double lip seal vulcanized to a metal support disk. The lip geometry provides low breakout and running friction, and it can be used in unlubricated air after initial assembly lubrication. Because of the complete rubber covering, corrosion is not a problem.

Parts marked with suffix "V" are FKM

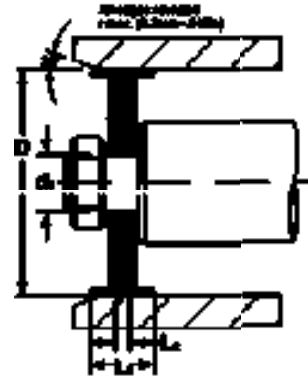
Temperature: -20° to 175°F

Pressure: 0 to 235 PSI

Part Number	Bore Dia. D	Center Hole d <sub>1</sub>	Total Height L <sub>2</sub>	Metal Thickness L <sub>1</sub>	Price
DK-28100	1.000	0.250	0.500	0.097	\$17.94
DK-28118	1.125	0.250	0.500	0.097	\$17.94
DK-28114	1.250	0.250	0.562	0.097	\$19.52
DK-28138	1.375	0.250	0.500	0.097	\$20.34
DK-28138V	1.375	0.250	0.500	0.097	\$60.61
DK-28134	1.750	0.250	0.562	0.097	\$16.23
DK-28178	1.875	0.250	0.562	0.097	\$26.03
DK-28178V	1.875	0.250	0.562	0.097	\$83.34
DK-28200	2.000	0.375	0.625	0.118	\$28.07
DK-28214	2.250	0.375	0.625	0.118	\$32.96
DK-28238	2.375	0.375	0.625	0.118	\$33.99
DK-28238V	2.375	0.375	0.625	0.118	\$94.42
DK-28212	2.500	0.375	0.625	0.118	\$36.62
DK-28234	2.750	0.375	0.750	0.156	\$42.07
DK-28278	2.875	0.375	0.750	0.156	\$43.33
DK-28300	3.000	0.500	0.750	0.156	\$45.10
DK-28314	3.250	0.500	0.750	0.156	\$48.66
DK-28317	3.250	0.875	0.750	0.156	\$53.26
DK-28312	3.500	0.500	0.875	0.197	\$60.94
DK-28334	3.750	0.500	0.875	0.197	\$69.20
DK-28400	4.000	0.500	0.875	0.197	\$79.10
DK-28414	4.250	0.500	0.875	0.197	\$84.78
DK-28412	4.500	0.750	0.875	0.197	\$88.44
DK-28500	5.000	0.750	1.000	0.236	\$120.70
DK-28534	5.750	0.750	1.000	0.236	\$182.34
DK-28600	6.000	0.750	1.000	0.236	\$161.81
DK-28612	6.500	0.750	1.000	0.236	\$206.18
DK-28700	7.000	1.250	1.125	0.315	\$268.43
DK-28800	8.000	1.250	1.125	0.315	\$305.41



# DK Double Acting Piston Cups - Metric



ALTERNATIVE SEALS: TDH

EXAMPLE: DK-63X12X22X5				
Prefix	Outside Diameter	Center Hole	Total Height	Metal Thickness
DK-	63	x 12	x 22	x 5
	63mm	12mm	22mm	5mm

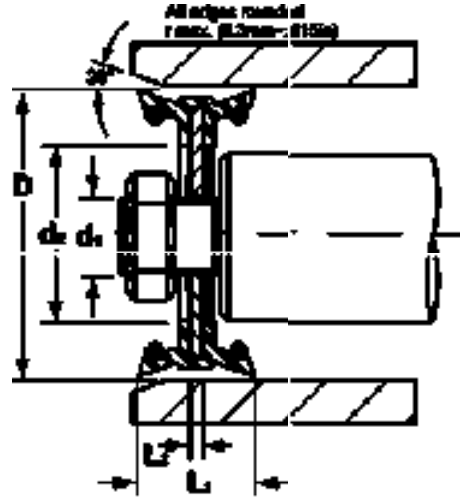
The DK type metric piston cup is a complete pneumatic piston with a double lip seal vulcanized to a metal support disk. The lip geometry provides low breakout and running friction, and it can be used in unlubricated air after initial assembly lubrication. Because of the complete rubber covering, corrosion is not a problem.

Temperature: -20° to 175°F

Pressure: 0 to 235 PSI

Part Number	Bore Diameter D	Center Hole $d_1$	Total Height $L_2$	Metal Thickness $L_1$	Price
DK-20X6X12X3	20	6	12	3	\$6.93
DK-25X6X12X3	25	6	12	3	\$9.61
DK-25X8X12X3	25	8	12	3	\$6.93
DK-32X8X15X3	32	8	15	3	\$7.55
DK-35X8X15X3	35	8	15	3	\$11.32
DK-40X10X18X4	40	10	18	4	\$9.52
DK-50X8X20X4	50	8	20	4	\$17.65
DK-50X10X18X4	50	10	18	4	\$10.98
DK-50X16X20.5X4	50	16	20.5	4	\$12.34
DK-60X12X22X5	60	12	22	5	\$19.67
DK-60X18X21X4	60	18	21	4	\$24.26
DK-63X12X22X5	63	12	22	5	\$14.02
DK-63X16X21.5X4	63	16	21.5	4	\$21.35
DK-63X16X21.5X6	63	16	21.5	6	\$32.61
DK-70X12X22X5	70	12	22	5	\$18.02
DK-75X12X22.5X5	75	12	22.5	5	\$20.41
DK-80X16X22.5X5	80	16	22.5	5	\$20.46
DK-80X16X25X5	80	16	25	5	\$21.48
DK-80X20X22.5X5	80	20	22.5	5	\$32.01
DK-90X12X24X6	90	12	24	6	\$36.18
DK-90X16X25X5	90	16	25	5	\$26.97
DK-100X12X25X6	100	12	25	6	\$26.97
DK-100X16X25X6	100	16	25	6	\$26.97
DK-100X18X25X5	100	18	25	5	\$37.95
DK-100X20X26X6	100	20	26	6	\$53.66
DK-125X20X26X9	125	20	26	9	\$47.04
DK-125X20X30X8	125	20	30	8	\$52.68
DK-140X20X30X10	140	20	30	10	\$64.26
DK-150X20X30X10	150	20	30	10	\$75.75
DK-160X20X30X10	160	20	30	10	\$83.81
DK-160X27X31X10	160	27	31	10	\$88.93
DK-180X27X31X10	180	27	31	11	\$109.29
DK-200X27X30X12	200	27	30	12	\$195.43
DK-200X20X35X12	200	20	35	12	\$132.93
DK-200X27X35X12	200	27	35	12	\$135.47
DK-250X30X35X12	250	30	35	12	\$168.53

# TDH Double Acting Piston Cups - Metric



ALTERNATIVE SEALS: DK in some cases

EXAMPLE: TDH-75X12X30X5				
Prefix	Outside Diameter	Center Hole	Total Height	Metal Thickness
TDH-	75	x 12	x 30	x 5
	75mm	12.2mm	30mm	5mm

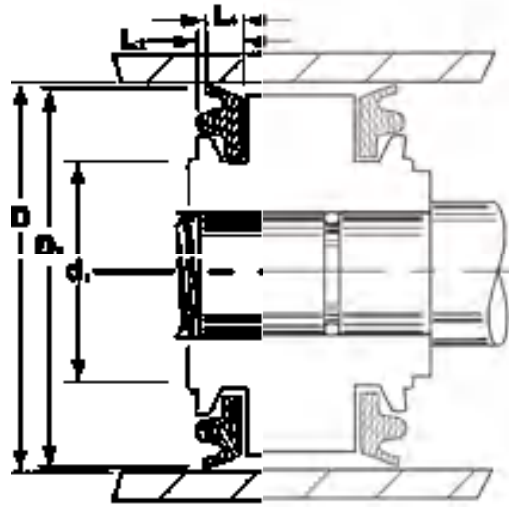
These spring-energized TDH style piston cups are designed to handle higher system pressures than non-energized cups. They are perfect for low pressure hydraulic applications. Due to the steel center, they can be bolted directly to the rod, no piston is needed.

Temperature: -20° to 212°F

Pressure: 0 to 580 PSI

Part Number	Bore Size D	Center Hole d <sub>1</sub>	Total Height L <sub>1</sub>	Metal Thickness L <sub>2</sub>	Rubber Diameter d <sub>2</sub>	Price
TDH-26X8X22X3	26	8.2	22	3	15	\$12.92
TDH-30X8X22X3	30	8.2	22	3	16	\$9.32
TDH-35X8X26X3	35	8.2	26	3	20	\$11.50
TDH-40X10X25X3	40	10.2	25	3	22	\$11.76
TDH-45X10X25X4	45	10.2	25	4	24	\$12.68
TDH-50X10X25X4	50	10.2	25	4	27	\$13.11
TDH-55X10X25X4	55	10.2	25	4	32	\$14.38
TDH-60X12X26X4	60	12.2	26	4	36	\$16.13
TDH-63X12X25X4	63	12.2	25	4	40	\$18.54
TDH-65X12X25X5	65	12.2	25	5	42	\$19.80
TDH-70X12X30X5	70	12.2	30	5	44	\$21.79
TDH-75X12X30X5	75	12.2	30	5	49	\$23.75
TDH-80X12X30X5	80	12.2	30	5	54	\$25.97
TDH-90X12X35X6	90	12.2	35	5	65	\$29.38
TDH-100X12X35X6	100	12.2	35	6	72	\$32.48
TDH-110X12X40X6	110	12.2	40	6	78	\$54.79
TDH-115X20X30X7	115	20.2	30	7	83	\$106.71
TDH-125X20X40X8	125	20.2	40	8	85	\$66.52
TDH-140X20X40X10	140	20.2	40	10	110	\$114.16
TDH-150X20X40X10	150	20.2	40	10	105	\$106.20
TDH-160X20X40X10	160	20.2	40	10	115	\$116.16
TDH-180X20X40X10	180	20.2	40	10	130	\$167.62
TDH-200X20X40X10	200	20.2	40	10	146	\$180.16
TDH-230X30X40X12	230	30	40	12	180	\$200.54
TDH-250X30X40X12	250	30	40	12	190	\$227.54
TDH-300X60X40X12	300	60	40	12	250	\$294.77

# BMP Urethane Piston Cups w/ Cushion - Inch



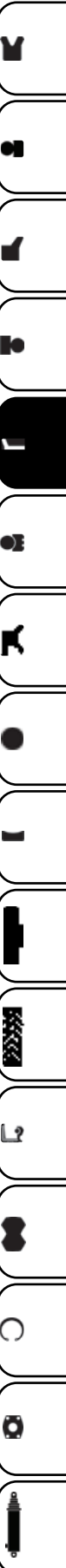
EXAMPLE: BMP8000-500			
Prefix	Outside Diameter		Total Height
BMP	8000	-	500
	8"		1/2"

The BMP seal is a combination piston/cushion seal. The design combines the lip of a pneumatic piston seal with buffers to reduce the chance of metal to metal contact at the end stroke of a cylinder. Made of 90A urethane this seal offers effective sealing and low friction while reducing cylinder noise.

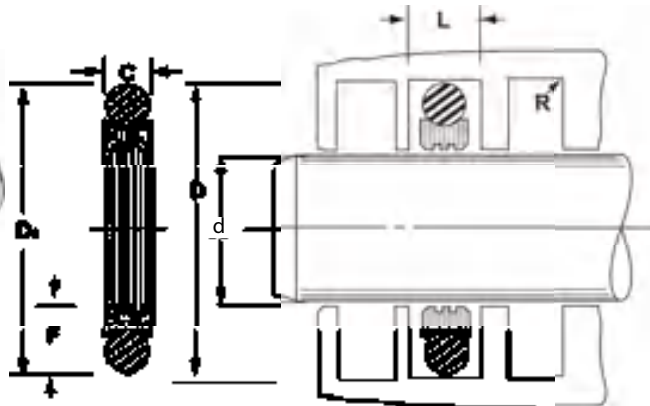
Temperature : -50° to 180°F

Pressure : 0 to 230 PSI

Part Number	Bore Dia. D	Center Hole d <sub>1</sub>	Outside Diameter D <sub>1</sub>	Seal Height L <sub>1</sub>	Seal Total Height L <sub>2</sub>	Price
BMP1500-312	1.500	0.810	1.498	0.256	0.312	\$23.95
BMP2000-312	2.000	1.202	1.998	0.256	0.312	\$26.52
BMP2500-375	2.500	1.640	2.498	0.315	0.375	\$29.08
BMP3250-375	3.250	2.150	3.247	0.315	0.375	\$33.27
BMP4000-375	4.000	2.810	3.995	0.315	0.375	\$36.69
BMP5000-500	5.000	3.525	4.995	0.375	0.500	\$61.84
BMP6000-500	6.000	4.525	5.995	0.375	0.500	\$74.66
BMP8000-500	8.000	6.525	7.995	0.375	0.500	\$106.38



# AS2 2pc. PTFE Rod Rotary Seals - Inch



EXAMPLE: AS265E-16

Prefix	Groove Height	Inside Diameter
AS2	*65E .165"	16 1"

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

\* \_\_ E- Number Refers to Groove Height  
(61 = .126", 65 = .165", 69 = .248", 73 = .319")

Allegheny York offers a large selection of PTFE rotary seals. Standard material for this series is carbon/graphite-filled PTFE. Expanders are made of 70 durometer nitrile. This material has excellent wear characteristics and low abrasion, making it suitable for rotating shafts. Also available in other compounds. Consult sales for more information.

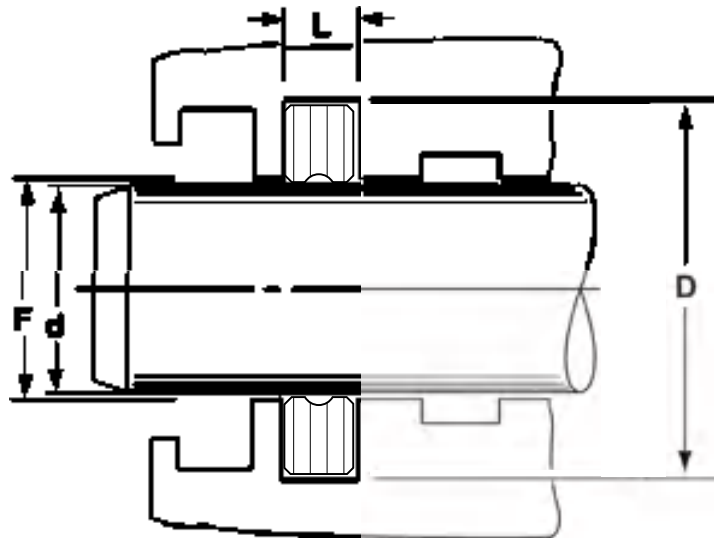
Temperature: -40°F to 225°F

Pressure: 0 to 4,350 PSI

Part Number	Rod Dia. h9 d	Groove Dia. H9 D	Groove Height +.008/-0 L	Price
AS261E-16	1.000	1.295	0.126	\$16.41
AS261E-17	1.062	1.357	0.126	\$17.44
AS261E-18	1.125	1.420	0.126	\$18.96
AS261E-19	1.187	1.482	0.126	\$20.44
AS261E-20	1.250	1.545	0.126	\$20.71
AS261E-21	1.312	1.607	0.126	\$21.34
AS261E-22	1.375	1.670	0.126	\$21.68
AS261E-24	1.500	1.795	0.126	\$21.95
AS261E-26	1.625	1.920	0.126	\$22.29
AS261E-28	1.750	2.045	0.126	\$22.56
AS261E-30	1.875	2.170	0.126	\$23.22
AS261E-32	2.000	2.295	0.126	\$23.50
AS265E-32	2.000	2.433	0.165	\$24.53
AS261E-34	2.125	2.420	0.126	\$23.91
AS265E-34	2.125	2.558	0.165	\$24.94
AS261E-36	2.250	2.545	0.126	\$24.46
AS265E-36	2.250	2.683	0.165	\$25.36
AS261E-38	2.375	2.670	0.126	\$25.36
AS265E-38	2.375	2.808	0.165	\$26.20
AS261E-40	2.500	2.795	0.126	\$26.56
AS265E-40	2.500	2.933	0.165	\$27.89
AS261E-44	2.750	3.045	0.126	\$27.39
AS265E-44	2.750	3.158	0.165	\$33.97
AS261E-48	3.000	3.295	0.126	\$31.59
AS265E-48	3.000	3.433	0.165	\$34.93
AS269E-48	3.000	3.610	0.248	\$37.46
AS265E-52	3.250	3.683	0.165	\$38.63
AS269E-52	3.250	3.860	0.248	\$41.97
AS265E-56	3.500	3.933	0.165	\$41.15
AS269E-56	3.500	4.110	0.248	\$43.28
AS265E-58	3.625	4.058	0.165	\$45.57
AS265E-60	3.750	4.183	0.165	\$46.14

Part Number	Rod Dia. h9 d	Groove Dia. H9 D	Groove Height +.008/-0 L	Price
AS269E-60	3.750	4.360	0.248	\$46.36
AS265E-64	4.000	4.433	0.165	\$47.90
AS269E-64	4.000	4.610	0.248	\$50.11
AS265E-68	4.250	4.683	0.165	\$50.56
AS265E-72	4.500	4.933	0.165	\$55.14
AS269E-72	4.500	5.110	0.248	\$58.35
AS265E-76	4.750	5.183	0.165	\$59.46
AS269E-78	4.875	5.485	0.248	\$61.83
AS269E-80	5.000	5.610	0.248	\$63.90
AS269E-88	5.500	6.110	0.248	\$66.33
AS269E-96	6.000	6.610	0.248	\$67.71
AS273E-96	6.000	6.827	0.319	\$74.29
AS269E-100	6.250	6.860	0.248	\$69.93
AS273E-100	6.250	7.077	0.319	\$76.36
AS269E-104	6.500	7.110	0.248	\$74.06
AS273E-104	6.500	7.327	0.319	\$81.00
AS273E-108	6.750	7.577	0.319	\$86.39
AS269E-112	7.000	7.610	0.248	\$81.53
AS273E-112	7.000	7.827	0.319	\$90.49
AS269E-120	7.500	8.110	0.248	\$93.94
AS273E-120	7.500	8.327	0.319	\$113.73
AS269E-128	8.000	8.610	0.248	\$103.92
AS273E-128	8.000	8.827	0.319	\$125.80
AS269E-132	8.250	8.860	0.248	\$106.57
AS269E-136	8.500	9.110	0.248	\$112.72
AS273E-136	8.500	9.327	0.319	\$138.09
AS269E-144	9.000	9.610	0.248	\$125.01
AS273E-144	9.000	9.827	0.319	\$150.31
AS269E-152	9.500	10.110	0.248	\$137.23
AS273E-152	9.500	10.327	0.319	\$174.75
AS269E-160	10.000	10.610	0.248	\$160.72
AS269E-256	16.000	16.610	0.248	\$189.76

# MSS Urethane Rod Rotary Seals - Metric

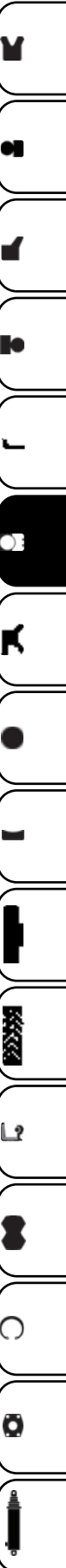


Part Number	Rod Dia. f8 d	Groove Dia. H10 D	Groove Height +.1 / -.0 L	Throat Dia. +.0 / -.1 F	Price
MSS-60X70X5	60	70	5.3	60.3	\$16.83
MSS-70X80X5	70	80	5.3	70.3	\$24.84
MSS-75X85X5	75	85	5.3	75.3	\$25.28
MSS-80X90X5	80	90	5.3	80.3	\$23.33
MSS-85X95X5	85	95	5.3	85.3	\$24.78
MSS-90X100X5	90	100	5.3	90.3	\$26.24
MSS-95X105X5	95	105	5.3	95.3	\$30.52
MSS-100X110X5	100	110	5.3	100.3	\$29.15
MSS-105X115X5	105	115	5.3	105.3	\$30.78
MSS-110X120X5	110	120	5.3	110.3	\$32.39
MSS-115X125X5	115	125	5.3	115.3	\$39.52
MSS-120X130X5	120	130	5.3	120.3	\$42.10
MSS-125X135X5	125	135	5.3	125.3	\$45.34
MSS-150X160X5	150	160	5.3	150.3	\$58.16

The MSS seal is a single piece rod rotary seal commonly used in mobile hydraulics and rotary joints. The 95 durometer urethane material is easy to install and has a high resistance to abrasion.

Temperature: -5°F to 250°F      Pressure: 0 to 5,000 PSI

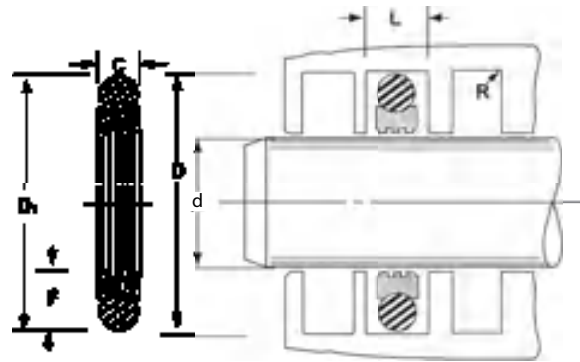
EXAMPLE: MSS-90X100X5				
Prefix	Inside Diameter		Outside Diameter	Seal Height
MSS-	90	x	100	x 5
	90mm		100mm	5mm



# AS2 2pc. PTFE Rod Rotary Seals - Metric



ALTERNATIVE SEALS: Custom



EXAMPLE: AS259E-10MM			
Prefix	Groove Height	-	Inside Diameter
AS2	*59E	-	10MM
	2.2mm		10mm

\* \_ \_ E- Number Refers to Groove Height  
 (59 = 2.2mm, 61 = 3.2mm, 65 = 4.2mm, 69 = 6.3mm, 73 = 8.1mm)

Allegheny York offers a large selection of PTFE rotary seals. Standard material for this series is carbon/graphite-filled PTFE. Expanders are made of 70 durometer nitrile. This material has excellent wear characteristics and low abrasion, making it suitable for rotating shafts. Also available in other compounds. Consult sales for more information.

Temperature: -40°F to 225°F

Pressure: 0 to 4,350 PSI

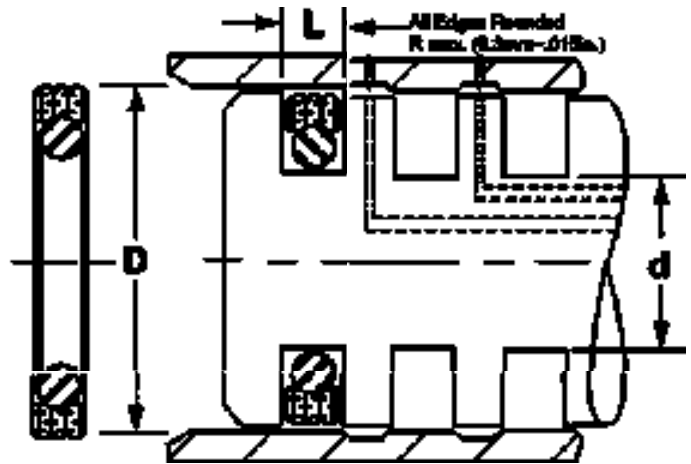
Part Number	Rod Dia. h9 d mm	Groove Dia. H9 D mm	Groove Ht + .2/-0 L mm	Price
AS259E-10MM	10	14.9	2.2	\$16.05
AS259E-12MM	12	16.9	2.2	\$16.05
AS259E-14MM	14	18.9	2.2	\$16.05
AS259E-15MM	15	19.9	2.2	\$16.05
AS259E-16MM	16	20.9	2.2	\$16.23
AS259E-18MM	18	22.9	2.2	\$17.37
AS261E-20MM	20	27.5	3.2	\$17.75
AS261E-21MM	21	28.5	3.2	\$18.26
AS261E-22MM	22	29.5	3.2	\$18.26
AS261E-24MM	24	31.5	3.2	\$18.34
AS261E-25MM	25	32.5	3.2	\$18.34
AS261E-26MM	26	33.5	3.2	\$18.49
AS261E-28MM	28	35.5	3.2	\$18.49
AS261E-30MM	30	37.5	3.2	\$18.49
AS261E-31.75MM	31.75	39.25	3.2	\$18.57
AS261E-32MM	32	39.5	3.2	\$18.81

Part Number	Rod Dia. h9 d mm	Groove Dia. H9 D mm	Groove Ht + .2/-0 L mm	Price
AS261E-35MM	35	42.5	3.2	\$19.38
AS261E-36MM	36	43.5	3.2	\$19.63
AS265E-38MM	38	49	4.2	\$21.38
AS265E-40MM	40	51	4.2	\$22.22
AS265E-42MM	42	53	4.2	\$23.06
AS265E-45MM	45	56	4.2	\$24.16
AS265E-48MM	48	59	4.2	\$25.40
AS265E-50MM	50	61	4.2	\$26.62
AS269E-50MM	50	65.5	6.3	\$27.47
AS265E-52MM	52	63	4.2	\$27.55
AS269E-52MM	52	67.5	6.3	\$36.04
AS265E-55MM	55	66	4.2	\$28.60
AS265E-56MM	56	67	4.2	\$29.26
AS265E-58MM	58	69	4.2	\$30.62
AS265E-60MM	60	71	4.2	\$31.60
AS269E-60MM	60	75.5	6.3	\$32.43

AS2 2pc. PTFE Rod Rotary Seals - Metric, cont'd.

Part Number	Rod Dia. h9 d mm	Groove Dia. H9 D mm	Groove Ht +2/-0 L mm	Price	Part Number	Rod Dia. h9 d mm	Groove Dia. H9 D mm	Groove Ht +2/-0 L mm	Price
AS269E-62.5MM	62.5	78	6.3	\$32.55	AS265E-135MM	135	146	4.2	\$73.16
AS265E-63MM	63	74	4.2	\$32.77	AS265E-140MM	140	151	4.2	\$78.19
AS265E-65MM	65	76	4.2	\$33.27	AS269E-140MM	140	155.5	6.3	\$82.44
AS265E-68MM	68	79	4.2	\$33.70	AS265E-145MM	145	156	4.2	\$80.92
AS265E-70MM	70	81	4.2	\$34.13	AS265E-150MM	150	161	4.2	\$83.84
AS269E-70MM	70	85.5	6.3	\$34.22	AS269E-150MM	150	165.5	6.3	\$88.48
AS265E-75MM	75	86	4.2	\$34.36	AS269E-160MM	160	175.5	6.3	\$91.42
AS269E-75MM	75	90.5	6.3	\$34.56	AS269E-170MM	170	185.5	6.3	\$95.01
AS265E-80MM	80	91	4.2	\$34.80	AS265E-180MM	180	191	4.2	\$93.53
AS269E-80MM	80	95.5	6.3	\$35.14	AS269E-180MM	180	195.5	6.3	\$109.01
AS265E-85MM	85	96	4.2	\$37.13	AS269E-190MM	190	205.5	6.3	\$129.23
AS269E-86MM	86	101.5	6.3	\$38.04	AS269E-200MM	200	215.5	6.3	\$137.69
AS265E-90MM	90	101	4.2	\$39.89	AS269E-210MM	210	225.5	6.3	\$144.52
AS269E-90MM	90	105.5	6.3	\$47.46	AS273E-210MM	210	231	8.1	\$154.26
AS265E-95MM	95	106	4.2	\$49.33	AS269E-220MM	220	235.5	6.3	\$157.08
AS269E-95MM	95	110.5	6.3	\$50.21	AS269E-225MM	225	240.5	6.3	\$160.74
AS265E-100MM	100	111	4.2	\$45.42	AS269E-230MM	230	245.5	6.3	\$164.54
AS269E-100MM	100	115.5	6.3	\$49.53	AS269E-240MM	240	255.5	6.3	\$170.33
AS265E-105MM	105	116	4.2	\$45.86	AS269E-250MM	250	265.5	6.3	\$182.61
AS269E-105MM	105	120.5	6.3	\$51.36	AS273E-260MM	260	281	8.1	\$213.90
AS265E-110MM	110	121	4.2	\$52.43	AS273E-270MM	270	291	8.1	\$234.70
AS269E-110MM	110	125.5	6.3	\$55.21	AS273E-280MM	280	301	8.1	\$259.53
AS265E-115MM	115	126	4.2	\$58.90	AS273E-290MM	290	311	8.1	\$278.57
AS265E-120MM	120	131	4.2	\$63.07	AS273E-300MM	300	321	8.1	\$296.84
AS269E-120MM	120	135.5	6.3	\$71.89	AS273E-310MM	310	331	8.1	\$311.24
AS265E-125MM	125	136	4.2	\$66.15	AS273E-320MM	320	341	8.1	\$322.43
AS269E-125MM	125	140.5	6.3	\$74.10	AS273E-330MM	330	351	8.1	\$333.18
AS265E-130MM	130	141	4.2	\$69.89	AS273E-340MM	340	361	8.1	\$344.25
AS269E-130MM	130	145.5	6.3	\$78.17	AS273E-350MM	350	371	8.1	\$355.08

# AS2 2pc. PTFE Piston Rotary Seals - Inch



EXAMPLE: AS274E-96			
Prefix	Groove Height		Outside Diameter
AS2	*74E	-	96
	.319"		6"

# AFTER DASH IN INCREMENTS OF 1/16 (16=1")

\*\_\_E- Number Refers to Groove Height  
(62 = .126", 66 = .165", 70 = .248", 74 = .319")

These piston rotary swivel seals are designed to be used in rotary swivels for sealing between sections. Standard material is carbon/graphite-filled PTFE for low friction and great wear properties. Expanders are made of 70 durometer nitrile. Oil grooves in the cap ensure continuous lubrication of the seal. Also available in other compounds.

Temperature: -40° to 225°F

Pressure: 0 to 4,350 PSI

Part Number	Bore Dia. H 9 D	Groove Dia. h 9 d	Groove Width +.008/-0.000 L	Price
AS262E-16	1.000	0.705	0.126	\$17.01
AS262E-17	1.062	0.767	0.126	\$19.85
AS262E-18	1.125	0.830	0.126	\$17.42
AS262E-19	1.187	0.892	0.126	\$17.66
AS262E-20	1.250	0.955	0.126	\$17.84
AS262E-21	1.312	1.017	0.126	\$18.07
AS262E-22	1.375	1.080	0.126	\$18.31
AS262E-23	1.437	1.142	0.126	\$18.48
AS262E-24	1.500	1.205	0.126	\$18.72
AS262E-25	1.562	1.267	0.126	\$18.90
AS262E-26	1.625	1.330	0.126	\$19.13
AS262E-28	1.750	1.455	0.126	\$19.37
AS262E-30	1.875	1.580	0.126	\$19.54
AS262E-32	2.000	1.705	0.126	\$19.72
AS266E-32	2.000	1.567	0.165	\$20.60
AS262E-34	2.125	1.830	0.126	\$20.07
AS266E-34	2.125	1.692	0.165	\$20.95
AS262E-36	2.250	1.955	0.126	\$20.43
AS262E-38	2.375	2.080	0.126	\$20.90
AS266E-38	2.375	1.942	0.165	\$21.66
AS262E-40	2.500	2.205	0.126	\$21.31
AS266E-40	2.500	2.067	0.165	\$22.01
AS262E-42	2.625	2.330	0.126	\$22.23
AS262E-44	2.750	2.455	0.126	\$22.48
AS266E-44	2.750	2.317	0.165	\$25.70
AS266E-46	2.875	2.442	0.165	\$26.31
AS262E-48	3.000	2.705	0.126	\$23.88
AS266E-48	3.000	2.567	0.165	\$27.53
AS270E-48	3.000	2.390	0.248	\$29.23

Part Number	Bore Dia. H 9 D	Groove Dia. h 9 d	Groove Width +.008/-0.000 L	Price
AS266E-50	3.125	2.692	0.165	\$30.28
AS266E-52	3.250	2.817	0.165	\$31.16
AS270E-52	3.250	2.640	0.248	\$31.66
AS266E-56	3.500	3.067	0.165	\$33.49
AS270E-56	3.500	2.890	0.248	\$35.73
AS266E-60	3.750	3.317	0.165	\$35.93
AS266E-64	4.000	3.567	0.165	\$37.06
AS270E-64	4.000	3.390	0.248	\$39.83
AS266E-68	4.250	3.817	0.165	\$40.43
AS270E-68	4.250	3.640	0.248	\$44.13
AS266E-72	4.500	4.067	0.165	\$42.77
AS266E-76	4.750	4.317	0.165	\$45.43
AS270E-76	4.750	4.140	0.248	\$45.95
AS266E-80	5.000	4.567	0.165	\$46.34
AS270E-80	5.000	4.390	0.248	\$49.76
AS266E-84	5.250	4.817	0.165	\$50.60
AS270E-84	5.250	4.640	0.248	\$51.76
AS266E-88B	5.500	5.067	0.165	\$52.33
AS270E-88	5.500	4.890	0.248	\$53.50
AS266E-96	6.000	5.567	0.165	\$53.30
AS270E-96	6.000	5.390	0.248	\$56.11
AS274E-96	6.000	5.173	0.319	\$58.93
AS270E-100	6.250	5.640	0.248	\$59.13
AS270E-104	6.500	5.890	0.248	\$61.21
AS270E-108	6.750	6.140	0.248	\$64.83
AS270E-112	7.000	6.390	0.248	\$68.45
AS270E-116	7.250	6.640	0.248	\$74.27
AS270E-120	7.500	6.890	0.248	\$78.41
AS270E-124	7.750	7.140	0.248	\$84.28

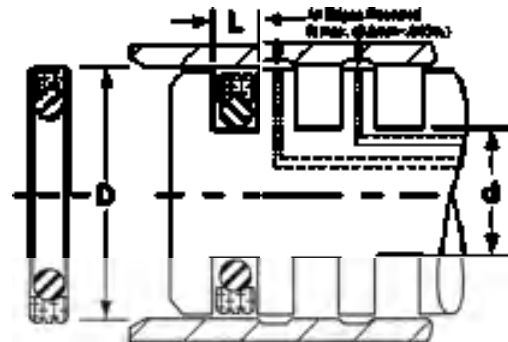


## AS2 2pc. PTFE Piston Rotary Seals - Inch, cont'd.

Part Number	Bore Dia. H 9 D	Groove Dia. f 9 d	Groove Width +.008/- .000 L	Price
AS266E-128	8.000	7.567	0.165	\$62.89
AS270E-128	8.000	7.390	0.248	\$90.16
AS274E-128	8.000	7.173	0.319	\$111.23
AS270E-132	8.250	7.640	0.248	\$97.82
AS274E-132	8.250	7.423	0.319	\$120.41
AS270E-136	8.500	7.890	0.248	\$101.83
AS274E-136	8.500	7.673	0.319	\$129.60
AS270E-140	8.750	8.140	0.248	\$107.70

Part Number	Bore Dia. H 9 D	Groove Dia. f 9 d	Groove Width +.008/- .000 L	Price
AS270E-144	9.000	8.390	0.248	\$114.96
AS274E-144	9.000	8.173	0.319	\$138.79
AS270E-148	9.250	8.640	0.248	\$122.99
AS270E-152	9.500	8.890	0.248	\$129.03
AS274E-152	9.500	8.673	0.319	\$156.63
AS270E-156	9.750	9.140	0.248	\$136.07
AS270E-160	10.000	9.390	0.248	\$148.81
AS274E-160	10.000	9.173	0.319	\$171.92

## AS2 2pc. PTFE Piston Rotary Seals - Metric



EXAMPLE: AS270E-150MM		
Prefix	Groove Height	Outside Diameter
AS2	*70E	150MM
	6.3mm	150mm

\*\_\_E- Number Refers to Groove Height  
(58 = 2.2mm, 62 = 3.2mm, 66 = 4.2mm, 70 = 6.3mm, 74 = 8.1mm)

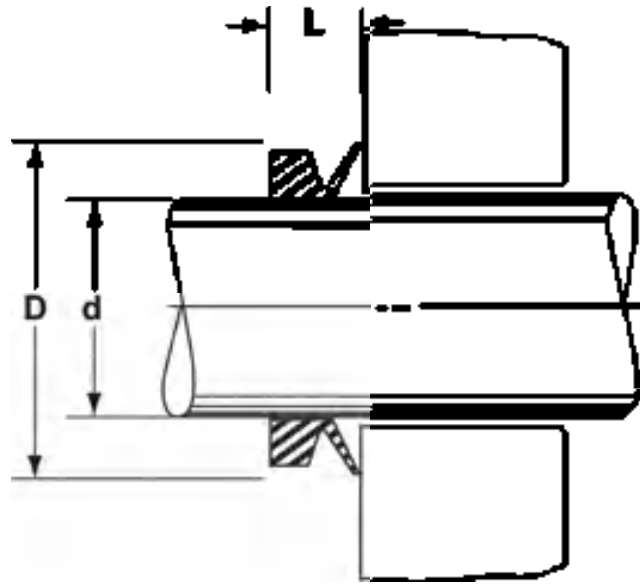
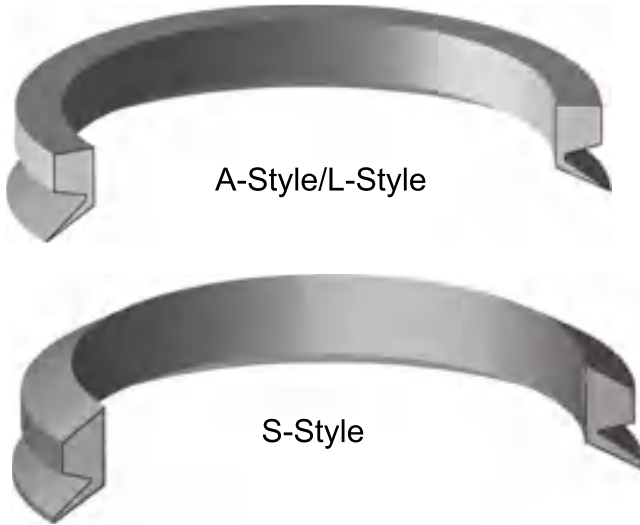
These piston rotary swivel seals are designed to be used in rotary swivels for sealing between sections. Standard material is carbon/graphite-filled PTFE for low friction and great wear properties. Expanders are made of 70 durometer nitrile. Oil grooves in the cap ensure continuous lubrication of the seal. Also available in other compounds.

Temperature: -40° to 225°F Pressure: 0 to 4,350 PSI

Part Number	Bore Dia. H 9 D	Groove Dia. h 9 d	Groove Width +.2 / -.0 L	Price
AS258E-25MM	25	20.1	2.2	\$15.28
AS258E-28MM	28	23.1	2.2	\$15.75
AS258E-30MM	30	25.1	2.2	\$18.25
AS262E-30MM	30	22.5	3.2	\$19.09
AS258E-32MM	32	27.1	2.2	\$19.25
AS258E-35MM	35	30.1	2.2	\$19.55
AS258E-36MM	36	31.1	2.2	\$19.99
AS262E-40MM	40	32.5	3.2	\$24.78
AS262E-45MM	45	37.5	3.2	\$24.87
AS262E-50MM	50	42.5	3.2	\$25.27
AS262E-52MM	52	44.5	3.2	\$26.16
AS262E-55MM	55	47.5	3.2	\$27.33
AS262E-60MM	60	52.5	3.2	\$28.51
AS262E-63MM	63	55.5	3.2	\$30.82
AS262E-65MM	65	57.5	3.2	\$31.68
AS262E-70MM	70	62.5	3.2	\$33.24
AS262E-75MM	75	67.5	3.2	\$33.96
AS266E-80MM	80	69.0	4.2	\$34.24
AS266E-85MM	85	74.0	4.2	\$34.67
AS266E-90MM	90	79.0	4.2	\$36.12
AS266E-95MM	95	84.0	4.2	\$37.04
AS266E-100MM	100	89.0	4.2	\$39.21
AS266E-105MM	105	94.0	4.2	\$40.35
AS266E-110MM	110	99.0	4.2	\$41.11
AS266E-115MM	115	104.0	4.2	\$42.94
AS266E-120MM	120	109.0	4.2	\$47.91

Part Number	Bore Dia. H 9 D	Groove Dia. h 9 d	Groove Width +.2 / -.0 L	Price
AS266E-125MM	125	114.0	4.2	\$50.68
AS266E-130MM	130	119.0	4.2	\$53.96
AS270E-135MM	135	119.5	6.3	\$60.89
AS270E-140MM	140	124.5	6.3	\$63.19
AS270E-145MM	145	129.5	6.3	\$68.28
AS270E-150MM	150	134.5	6.3	\$70.40
AS270E-155MM	155	139.5	6.3	\$74.96
AS270E-160MM	160	144.5	6.3	\$79.71
AS270E-165MM	165	149.5	6.3	\$85.12
AS270E-170MM	170	154.5	6.3	\$88.11
AS270E-175MM	175	159.5	6.3	\$91.60
AS270E-180MM	180	164.5	6.3	\$95.86
AS270E-185MM	185	169.5	6.3	\$96.23
AS270E-190MM	190	174.5	6.3	\$98.59
AS270E-195MM	195	179.5	6.3	\$104.76
AS270E-200MM	200	184.5	6.3	\$115.59
AS270E-205MM	205	189.5	6.3	\$118.78
AS270E-210MM	210	194.5	6.3	\$126.91
AS270E-220MM	220	204.5	6.3	\$135.33
AS270E-225MM	225	209.5	6.3	\$142.51
AS270E-230MM	230	214.5	6.3	\$149.08
AS270E-240MM	240	224.5	6.3	\$159.84
AS270E-250MM	250	234.5	6.3	\$173.84
AS270E-270MM	270	254.5	6.3	\$181.19

# V Style Nitrile Axial Face Seals - Metric



EXAMPLE: V-16A		
Prefix	Median Shaft Diameter	Suffix
V-	16	A
	16mm	FLAT TOP

STYLES W/SUFFIX "A" OR "L" HAVE FLAT TOP/  
"S" STYLE HAS ANGLED TOP

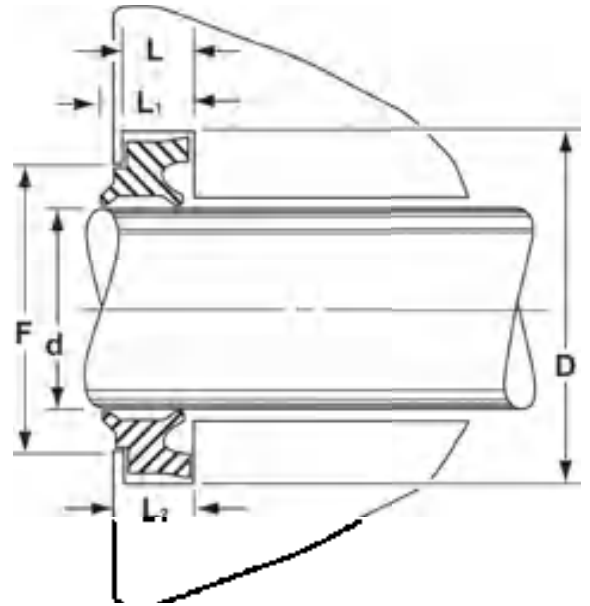
The V style axial face seal is made of 70 Shore A nitrile and one size can be used for several different diameter rotating shafts. This seal requires little space and is easily installed by just stretching over the shaft.

Temperature: 40°F to 221°F

Pressure: ≤ 4 PSI

Part Number	Rod Dia. d	Seal ID	OD Min D	Total Height L	Price	Part Number	Rod Dia. d	Seal ID	OD Min D	Total Height L	Price
V-014A	13.5 - 15.5	12.5	d + 9	5.5	\$1.81	V-100A	98-105	90	d + 18	11	\$8.22
V-016A	15.5 - 17.5	14	d + 9	5.5	\$1.81	V-100S	98-105	90	d + 18	15.5	\$10.38
V-018A	17.5 - 19.5	16	d + 9	5.5	\$1.70	V-110A	105-115	99	d + 21	12.8	\$11.28
V-020A	19-21	18	d + 12	7.5	\$1.70	V-120A	115-125	108	d + 21	12.8	\$12.03
V-022S	21-24	20	d + 12	10.5	\$2.21	V-130A	125-135	117	d + 21	12.8	\$12.86
V-025A	24-27	22	d + 12	7.5	\$2.21	V-130S	125-135	117	d + 21	20.5	\$15.79
V-030A	29-31	27	d + 12	7.5	\$2.46	V-140A	135-145	126	d + 21	12.8	\$17.32
V-030S	29-31	27	d + 12	10.5	\$3.32	V-150A	145-155	135	d + 21	12.8	\$19.51
V-032A	31-33	29	d + 12	7.5	\$3.43	V-160A	155-165	144	d + 24	14.5	\$17.39
V-035A	33-36	31	d + 12	7.5	\$3.63	V-160S	155-165	144	d + 24	20.5	\$17.78
V-038A	36-38	34	d + 12	7.5	\$4.03	V-170A	165-175	153	d + 24	14.5	\$18.95
V-040A	38-43	36	d + 12	9	\$4.22	V-170L	165-175	153	d + 20	10.5	\$23.05
V-040S	38-43	36	d + 12	13	\$4.06	V-180A	175-185	162	d + 24	14.5	\$24.06
V-045A	43-48	40	d + 15	9	\$4.06	V-190A	185-195	171	d + 24	14.5	\$28.12
V-045S	43-48	40	d + 15	13	\$4.68	V-190L	185-195	171	d + 20	10.5	\$31.49
V-050A	48-53	45	d + 15	9	\$4.35	V-200A	190-210	180	d + 45	25	\$32.90
V-055A	53-58	49	d + 15	9	\$4.72	V-220A	210-235	198	d + 45	25	\$33.20
V-055S	53-58	49	d + 15	13	\$4.91	V-220L	210-235	198	d + 20	10.5	\$33.91
V-060A	58-63	54	d + 15	9	\$4.99	V-250A	235-265	225	d + 45	25	\$40.74
V-065A	63-68	58	d + 15	9	\$5.17	V-250L	235-265	225	d + 20	10.5	\$62.55
V-065S	63-68	58	d + 15	13	\$5.98	V-275A	265-290	247	d + 45	25	\$62.66
V-070A	68-73	63	d + 18	11	\$6.68	V-300A	290-310	270	d + 45	25	\$66.29
V-075A	73-78	67	d + 18	11	\$6.68	V-325A	310-335	292	d + 45	25	\$83.68
V-080A	78-83	72	d + 18	11	\$7.35	V-350A	335-365	315	d + 45	25	\$92.41
V-085A	83-88	76	d + 18	11	\$9.06	V-350L	335-365	315	d + 20	25	\$113.50
V-090A	88-93	81	d + 18	11	\$7.30	V-450A	435-480	405	d + 45	25	\$160.05
V-095A	93-98	85	d + 18	11	\$8.11						

# EL Rod Seal / Wiper Combination - Metric



EXAMPLE: EL-10X16.1X6P						
Prefix	Inside Diameter		Outside Diameter		Total Height	Suffix
EL-	10	x	16.1	x	6	P
	10mm		16.1mm		6mm	Urethane

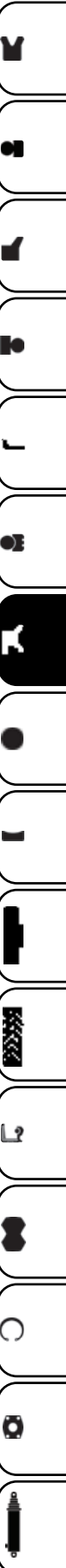
PARTS WITH NO SUFFIX = NBR  
 PARTS WITH SUFFIX "P" = URETHANE

Profile EL rod seal/wiper is used in valve shafts and small pneumatic cylinders used for printing presses and robotics. The compact design allows for a single groove for wiping and sealing. EL seals provide smooth running due to the optimal sealing lips. They can be used in dry air after initial lubrication during assembly.

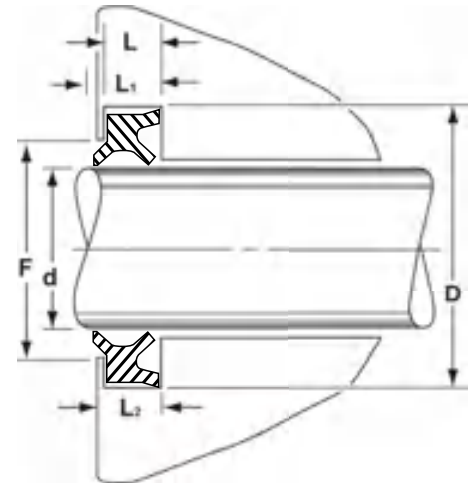
NBR: Temperature: 15°F to 175°F  
 Pressure: PSI ≤ 230  
 PU: Temperature: -30°F to 175°F  
 Pressure: PSI ≤ 230

Part Number	Rod Diameter d	Groove Diameter D	Overall Seal Ht L <sub>1</sub>	Throat Diameter F	Groove Base Height L	Total Groove Height L <sub>2</sub>	Price
EL-4X8.1X4P	4	8.1	4	6.7	3	3.8	\$3.99
EL-6X11.1X5P	6	11.1	5	9.1	3.6	4.6	\$3.99
EL-8X14X3X5 *	8	14.2	5	12.1	3.6	4.6	\$4.83
EL-8X14.1X5P	8	14.1	5	12.1	3.6	4.6	\$4.91
EL-10X16.1X6P	10	16.1	6	14.1	4.2	5.4	\$5.18
EL-12X16.5X4P	12	16.5	4	14.2	3	3.6	\$5.42
EL-12X18.1X6P	12	18.1	6	15.5	4.2	5.4	\$5.60
EL-16X23X6	16	23	6	18.8	4.2	5.4	\$10.00
EL-20X25X4.6P	20	25	4.6	22.4	3.4	4	\$6.49
EL-25X30X4.6P	25	30	4.6	27.4	3.4	4	\$7.78

\* Items marked with an asterisk are limited quantities.



# EM Rod Seal / Wiper Combination - Metric



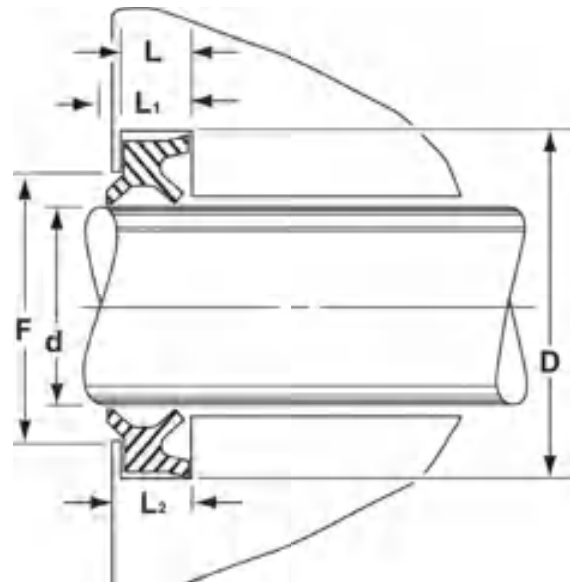
EXAMPLE: EM-25X30X4.6					
Prefix	Inside Diameter		Outside Diameter		Total Height
EM-	25	x	30	x	4.6
	25mm		30mm		4.6mm

This 92 durometer urethane rod seal wiper combination is especially wear resistant. It has a great sealing and wiping effect while maintaining low static and dynamic friction. The EM seal is excellent for compact pneumatic cylinders. Also available in 90 durometer nitrile.

Temperature: -30°F to 175°F      Pressure: PSI ≤ 225

Part Number	Rod Diameter d	Groove Diameter D	Overall Seal Ht L <sub>1</sub>	Throat Diameter F	Groove Base Height L	Total Groove Height L <sub>2</sub>	Price
EM-8X14.2X5	8	14.2	5	12.0	4	5.2	\$3.55
EM-10X14X3.7	10	14	3.7	12.6	3.4	4.5	\$3.90
EM-10X16.2X5.5	10	16.2	5.5	14.0	4.5	6.0	\$4.04
EM-12X16.5X4	12	16.5	4	13.7	3.7	4.8	\$4.45
EM-16X20.5X4	16	20.5	4	17.7	3.7	4.8	\$4.93
EM-18X22.5X4	18	22.5	4	19.7	3.7	4.8	\$5.19
EM-20X25X4.6	20	25	4.6	22.2	4.15	5.2	\$5.70
EM-25X30X4.6	25	30	4.6	26.9	4.15	5.2	\$6.23
EM-30X35.5X5	30	35.5	4.8	31.9	4.55	6.0	\$7.58
EM-32X37.5X4	32	37.5	4.6	34.1	4.55	6.0	\$16.40

# PDU Rod Seal/Wiper Combination - Metric



EXAMPLE: PDU-8	
Prefix	Rod Diameter
PDU-	8
	8mm

This 80 Shore A NBR Rod Seal Wiper Combination has superior sealing and good wiping abilities while maintaining low static and dynamic friction. The PDU Seal is excellent for compact pneumatic cylinders.

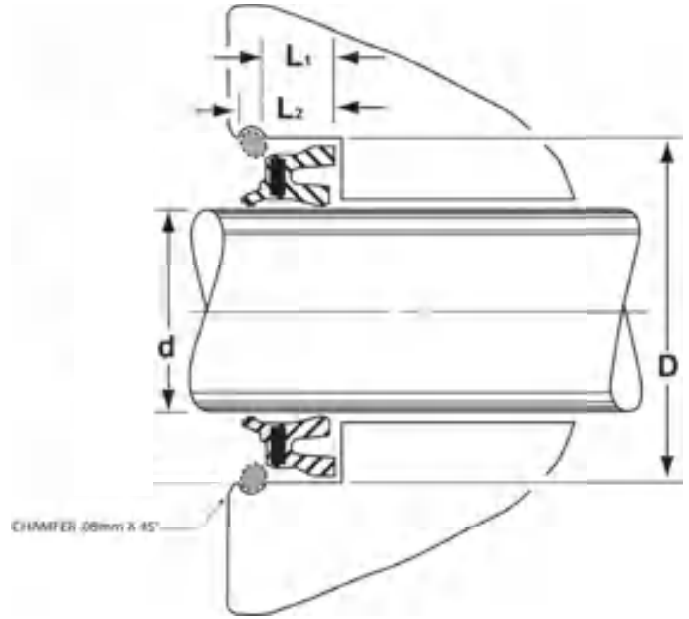
Temperature: -22°F to 220°F

Pressure: PSI ≤ 175

Part No. and Shaft Size	Rod Dia. d	Groove Dia. D	Seal Base Height L	Overall Seal Ht L <sub>1</sub>	Price
PDU-8	8	12	4	6	\$3.69
PDU-10	10	14	4	6	\$3.98
PDU-12	12	16	4	6	\$4.52
PDU-14	14	18	4	6	\$4.79
PDU-16	16	24	6	8	\$5.04
PDU-20	20	28	6	8	\$5.23
PDU-22	22	30	6	8	\$5.43
PDU-25	25	33	6	8	\$5.68
PDU-30	30	40	6	8	\$5.89
PDU-32	32	42	6	8	\$29.82
PDU-35	35	45	7	9	\$32.39
PDU-40	40	50	7	9	\$5.83
PDU-50	50	60	7	9	\$6.46



# E9 Rod Seal / Wiper Combination - Metric



PARTS W / "V" SUFFIX ARE FKM  
 ALTERNATIVE SEALS: EU, E8

EXAMPLE: E9-25X35X7X9.5				
Prefix	Inside Diameter	Outside Diameter	Base Height	Total Height
E9-	25	x 35	x 7	x 9.5
	25mm	35mm	7mm	9.5mm

This single acting combination rod wiper seal is made of metal vulcanized with 70 durometer elastometric nitrile rubber making it good at adjusting to temperature changes and harsh conditions. The E9 seal comes in a wide range of dimensions and has superior wiping and sealing capabilities. These E9 seals are typically held in place with a round section retaining ring.

Temperature: -20°F to 220°F

Pressure: PSI ≤ 224

Part Number	Rod Diameter d	Groove Diameter D	Seal Base Height L <sub>1</sub>	Total Seal Height L <sub>2</sub>	Price
E9-8X16X7X9.5	8	16	7	9.5	\$4.49
E9-10X17X7X9.5	10	17	7	9.5	\$4.75
E9-12X20X6X8.5	12	20	6	8.5	\$4.91
E9-12X22X7X9.5	12	22	7	9.5	\$5.11
E9-14X24X7X9.5	14	24	7	9.5	\$5.17
E9-16X26X7X9.5	16	26	7	9.5	\$5.46
E9-18X26X7X9	18	26	7	9.0	\$5.67
E9-20X30X7X9.5	20	30	7	9.5	\$6.43
E9-22X32X7X9.5	22	32	7	9.5	\$7.17
E9-25X35X7X9.5	25	35	7	9.5	\$7.47
E9-25X35X7X9.5V	25	35	7	9.5	\$15.64
E9-30X40X7X9.5	30	40	7	9.5	\$8.13
E9-32X42X7X9	32	42	7	9.0	\$8.17
E9-35X45X7X9.5	35	45	7	9.5	\$8.64
E9-40X50X7X9	40	50	7	9.0	\$9.97
E9-45X55X7X9.5	45	55	7	9.5	\$11.28
E9-50X60X7X9.5	50	60	7	9.5	\$12.67

# E8 Rod Seal / Wiper Combination - Metric

ALTERNATIVE SEALS: E9, EU

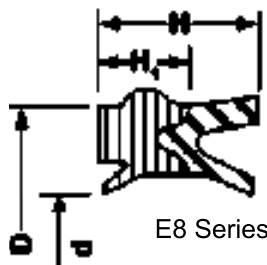
Profile E8 Rod Seal / Wiper Set is suitable for pneumatic cylinders with a circlip recess according to DIN7993 (Type B). The sealing part is mounted and retained by the wiper part locating it in the groove. No retaining ring is needed with this set. The sealing part is made from low friction, 80 durometer Shore A Nitrile. The fixing / scraping part is made from a highly wear resistant plastic material.

Temperature : -30° to 176°F

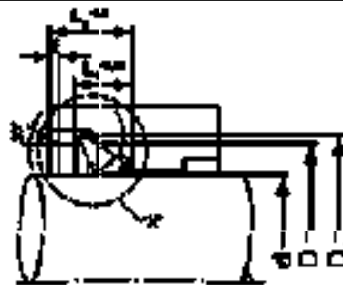
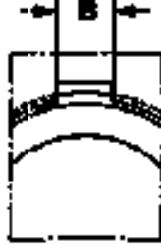
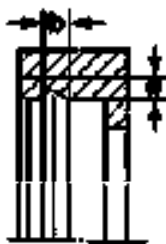
Pressure: Pneumatic

EXAMPLE: E8-25X35X11.5					
Prefix	Inside Diameter		Outside Diameter		Total Height
E8-	25	x	35	x	11.5
	25mm		35mm		11.5mm

Part Number	d	D	L	Groove Dimensions (mm)									Price
				H <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	R	a	b	B	f	
E8-12X22X11	12	22	11	5.5	24	8.8	13	1.1	1.8	2.2	4	1.5	\$15.26
E8-14X24X11	14	24	11	5.5	26	8.8	13	1.1	1.8	2.2	4	1.5	\$44.68
E8-16X26X11	16	26	11	5.5	28	8.8	13	1.1	1.8	2.2	4	1.5	\$15.65
E8-18X28X11	18	28	11	5.5	30	8.8	13	1.1	1.8	2.2	5	1.5	\$19.08
E8-20X30X11	20	30	11	5.5	32	8.8	13	1.1	1.8	2.2	5	1.5	\$19.55
E8-25X35X11.5	25	35	11.5	6.45	37.5	9.4	14	1.4	2	2.8	7.5	2	\$21.71
E8-30X40X11.5	30	40	11.5	6.45	42.5	9.4	14	1.4	2	2.8	7.5	2	\$22.48
E8-32X42X11	32	42	11	6.45	44.5	9.4	14	1.4	2	2.8	7.5	2	\$22.93
E8-35X45X11.5	35	45	11.5	6.45	47.5	9.4	14	1.4	2	2.8	7.5	2	\$23.09
E8-40X50X12	40	50	12	6.45	52.5	9.4	14	1.4	2	2.8	7.5	2	\$23.24
E8-63X75X13	63	75	13	7.45	78.2	11.4	16	1.8	2	2.8	7.5	2	\$26.56



E8 Series



EU Series

# EU Rod Seal / Wiper Combination - Metric

Profile EU Rod Seal / Wiper is suitable for pneumatic cylinders with a circlip recess according to DIN7993 (Type B). It is retained by the rounded outside diameter which makes it easy to snap into the groove. No retaining ring is needed. EU style seals are made from a highly wear resistant, low compression set 90 durometer polyurethane.

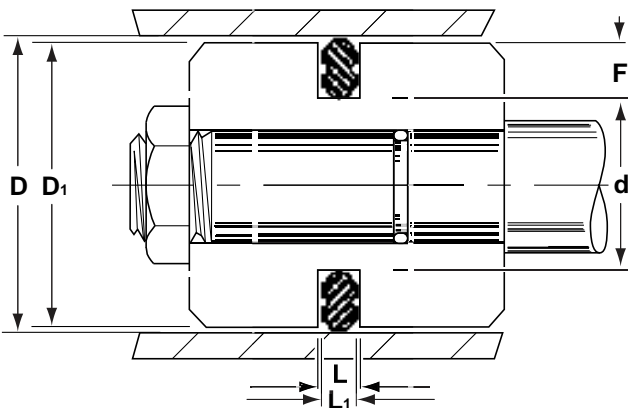
Temperature: 0° to 176°F

Pressure: Pneumatic

EXAMPLE: EU-32X42X11.2					
Prefix	Inside Diameter		Outside Diameter		Total Height
EU-	32	x	42	x	10.4
	32mm		42mm		10.4mm

Part Number	d	D	L	Groove Dimensions (mm)								Price
				D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	R	a	b	B	f	
EU-12X20X10.4	12	20	10.4	22	7.7	13	1.1	1.8	2.2	4	1.5	\$8.18
EU-12X22X10.7	12	22	10.7	24	8.8	13	1.1	1.8	2.2	4	1.5	\$9.79
EU-16X26X10.7	16	26	10.7	28	8.8	13	1.1	1.8	2.2	5	1.5	\$10.02
EU-18X26X10.7	18	26	10.7	28	8.8	13	1.1	1.8	2.2	5	1.5	\$10.48
EU-18X28X10.7	18	28	10.7	30	8.8	13	1.1	1.8	2.2	5	1.5	\$10.59
EU-20X30X10.7	20	30	10.7	32	8.8	13	1.1	1.8	2.2	5	1.5	\$11.28
EU-22X32X11.2	22	32	11.2	35	9.4	14	1.4	2	2.8	7.5	2.0	\$12.13
EU-25X35X10.4	25	35	10.4	38	9.4	13	1.4	2	2.8	7.5	2.0	\$12.45
EU-30X40X11.2	30	40	11.2	43	9.4	14	1.4	2	2.8	7.5	2.0	\$12.89
EU-32X42X10.4	32	42	10.4	45	9.4	13	1.4	2	2.8	7.5	2.0	\$13.29
EU-40X50X10.4	40	50	10.4	53	9.4	14	1.4	2	2.8	7.5	2.0	\$17.51
EU-45X55X10.4	45	55	10.4	58	8.8	13	1.8	2.5	3.6	10	2.0	\$18.66
EU-50X60X10.4	50	60	10.4	63	10.4	15	1.8	2.5	3.6	10	2.0	\$18.96

## PSD Nitrile Piston Seals - Metric



This double acting piston seal is designed for short stroke pneumatic cylinders and valves. This easy to install seal is made of 70 durometer nitrile rubber giving it superior sealing with low friction.

Temperature:  $-20^{\circ}\text{F}$  to  $220^{\circ}\text{F}$

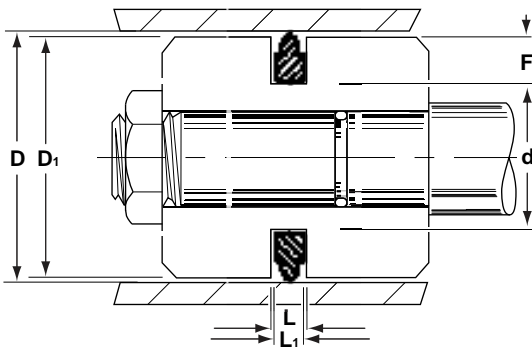
Pressure: PSI  $\leq$  168

PARTS W / "V" SUFFIX ARE FKM  
ALTERNATIVE SEALS: PPD, PZ

EXAMPLE: PSD-20	
Prefix	Bore Size
PSD-	20
	20mm

Part Number and Bore Size (D)	Groove Diameter d	Groove Height L (+0.2/-0)	Piston Diameter D <sub>1</sub> (+0/- 0.1)	Price
PSD-20	14	2.4	19.5	\$6.07
PSD-25	17	3.2	24.5	\$6.07
PSD-32	24	3.2	31.5	\$6.07
PSD-32-V	24	3.2	31.5	\$13.94
PSD-40	32	3.2	39.5	\$6.63
PSD-50	40	4.0	49.5	\$8.08
PSD-50-V	40	4.0	49.5	\$18.58
PSD-60	48	4.0	59.5	\$8.92
PSD-63	53	4.0	62.4	\$9.58
PSD-80	65	6.0	79.4	\$10.78
PSD-100	85	6.0	99.4	\$11.97
PSD-125	110	5.6	124.4	\$16.72
PSD-140	125	5.6	139.4	\$98.28
PSD-160	140	7.6	159.3	\$124.90
PSD-160-1	145	6.6	159.3	\$24.62
PSD-180	160	7.6	179.3	\$129.13
PSD-200	180	8.0	199.3	\$27.64

## PPD Nitrile Piston Seals - Metric



ALTERNATIVE SEALS: PSD, PZ

ALTERNATIVE SEALS: PSD, PZ

EXAMPLE: PPD-160	
Prefix	Bore Size
PPD-	160
	160mm

Part Number and Bore Size (D)	Groove Diameter d	Groove Height L (+.2/-0)	Piston Diameter D <sub>1</sub> (+0/- 0.1)	Price
PPD-12	7.4	1.8	11.7	\$3.74
PPD-16	11.4	1.8	15.7	\$3.97
PPD-20	14.0	2.4	19.5	\$4.36
PPD-25	17.0	3.2	24.5	\$4.94
PPD-30	22.0	3.2	29.5	\$5.13
PPD-32	24.0	3.2	31.5	\$5.42
PPD-40	32.0	3.2	39.5	\$6.02
PPD-50	40.0	4	49.5	\$7.09
PPD-63	53.0	4	62.5	\$8.52
PPD-80	65.0	6	79.5	\$10.44
PPD-100	85.0	6	99.5	\$12.61
PPD-125	110.0	6	124.5	\$17.28
PPD-160	140.0	8	159.3	\$27.51

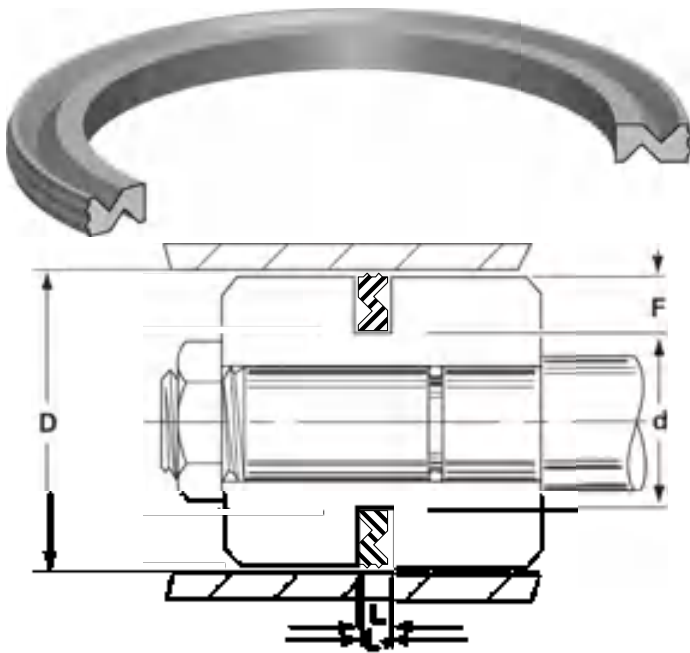
The PPD seal is a double acting piston seal designed to work in low axial housing heights. Its low friction, easy installation and superior sealing make it ideal for certain short stroke applications.

Temperature:  $-20^{\circ}\text{F}$  to  $220^{\circ}\text{F}$

Pressure: PSI  $\leq$  168



## PZ Nitrile Piston Seals - Metric



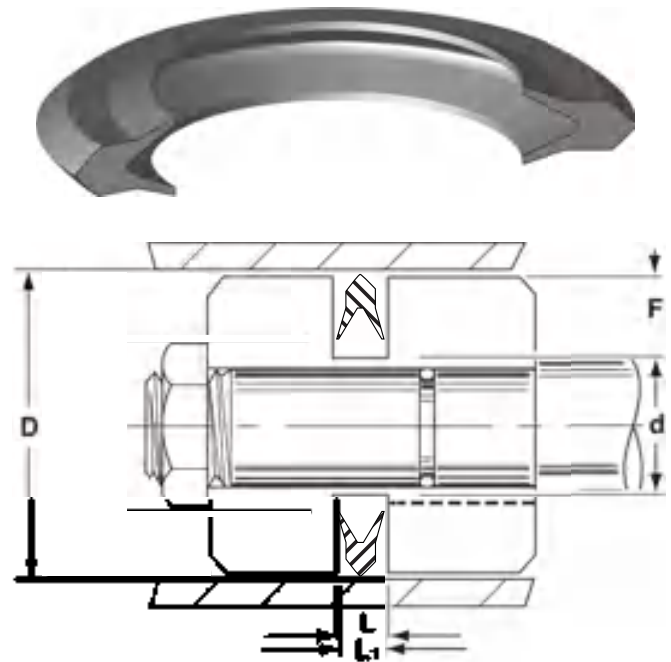
This dual action pneumatic cylinder seal uses the smallest possible sections to create low static and dynamic friction. It requires small housing dimensions and is easily assembled into the seal grooves.

Temperature: -5°F to 212°F

Pressure: PSI ≤ 175

ALTERNATIVE SEALS: PSD, PPD

## KSP Nitrile Piston Seals - Metric



KSP is a double acting pneumatic piston seal designed to work in low axial housing heights. Mostly used in short stroke pneumatic cylinders and valves, this 70A nitrile seal is easily installed and offers low friction with superior sealability.

Temperature: -20°F to 220°F

Pressure: 0 to 145 PSI

Vent bar hole helps at low pressures (<15 PSI) otherwise makes seal single acting

EXAMPLE: PZ-25X18X2.1

Prefix	Outside Diameter		Groove Diameter		Seal Height
PZ-	25	x	18	x	2.1
	25mm		18mm		2.1mm

EXAMPLE: KSP-25X15X2.3

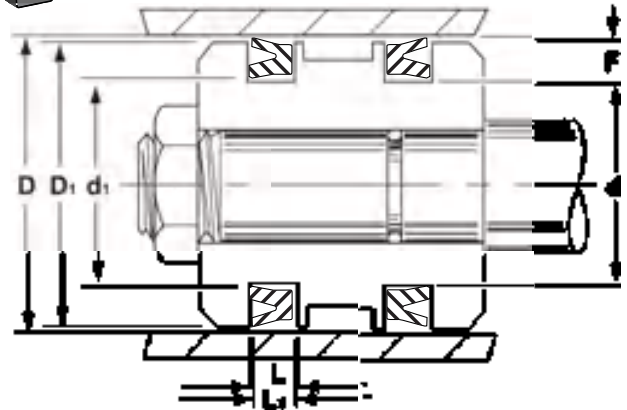
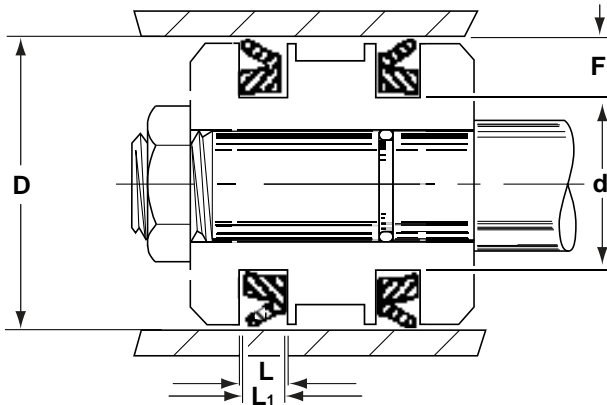
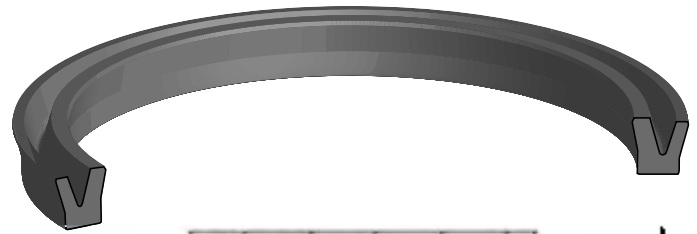
Prefix	Outside Diameter		Groove Diameter		Groove Height
KSP-	25	x	15	x	2.3
	25mm		14.5mm		2.3mm

Part Number	Bore Diameter D	Groove Diameter d	Seal Height L <sub>1</sub>	Groove Height L	Price
PZ-12X7X2	12	7	2	2.4	\$2.43
PZ-16X9X2.1	16	9	2.1	2.5	\$2.90
PZ-20X13X2.1	20	13	2.1	2.5	\$3.18
PZ-25X18X2.1	25	18	2.1	2.5	\$3.76
PZ-28X19X2.5	28	19	2.5	3	\$3.91
PZ-30X21X2.5	30	21	2.5	3	\$4.19
PZ-32X23X2.5	32	23	2.5	3	\$4.19
PZ-35X26X3	35	26	2.5	3	\$4.49
PZ-40X31X2.5	40	31	2.5	3	\$4.62
PZ-50X41X2.5	50	41	2.5	3	\$5.74
PZ-60X44X3.4	60	44	3.4	4	\$6.34
PZ-63X51X3.4	63	51	3.4	4	\$6.51
PZ-70X58X3.4	70	58	3.4	4	\$7.14
PZ-80X68X3.4	80	68	3.4	4	\$7.68
PZ-100X88X3.4	100	88	3.4	4	\$8.66
PZ-125X110X4.4	125	110	4.4	5	\$11.23

Part Number	Bore Diameter D	Groove Diameter d	Groove Height L	Price
KSP-25X15X2.3	25	15.0	2.3	\$5.04
KSP-30X20X2.3	30	20.0	2.3	\$5.25
KSP-35X22.5X3	35	22.5	3.0	\$5.56
KSP-40X27.5X3	40	27.5	3.0	\$6.45
KSP-42X29.5X3	42	29.5	3.0	\$6.80
KSP-50X37.5X3	50	37.5	3.0	\$7.20
KSP-60X44X3.5	60	44.0	3.5	\$7.79
KSP-63X47X3.5	63	47.0	3.5	\$7.91
KSP-70X55.5X3.5	70	55.5	3.5	\$9.24
KSP-80X61X4.1	80	61.0	4.1	\$9.96
KSP-90X71X4.1	90	71.0	4.1	\$10.48
KSP-100X79X4.6	100	79.0	4.6	\$11.10
KSP-125X101X5.1	125	101.0	5.1	\$14.49
KSP-140X113.5X5.6	140	113.5	5.6	\$15.28
KSP-160X131.5X6.2	160	131.5	6.2	\$26.84
KSP-200X163X8.8	200	163.0	8.8	\$39.31

## Z8 Pneumatic Piston U-Cups - Metric

## E4 Pneumatic Piston U-Cups - Metric



Z8 is a single acting pneumatic non-symmetrical piston seal with shorter and thinner dynamic lip. This seal, made from 80A nitrile (no suffix) or 90 durometer urethane (marked P90), offers high sealing effect with very low friction.

The E4 pneumatic piston seal is a single acting pneumatic piston seal which delivers good sealing performance with very little friction due to the rounded dynamic lip.

**NBR:** Temperature: 22°F to 220°F Pressure: PSI ≤ 175  
**PU:** Temperature: -22°F to 175°F Pressure: PSI ≤ 230

**NBR:** Temperature: 22°F to 220°F Pressure: PSI ≤ 175 No Suffix  
**PU:** Temperature: -22°F to 175°F Pressure: PSI ≤ 230 Suffix: P90

**ALTERNATIVE SEALS:** C2  
 PARTS WITH NO SUFFIX ARE NBR

**ALTERNATIVE SEALS:** C2, MUPH  
 PARTS WITH NO SUFFIX ARE NBR

EXAMPLE: Z8-105X125X4.25 P90				
Prefix	Inside Diameter	Outside Diameter	Seal Height	Suffix
Z8-	105	x 125	x 4.25	P90
	105mm	125mm	4.25mm	Urethane

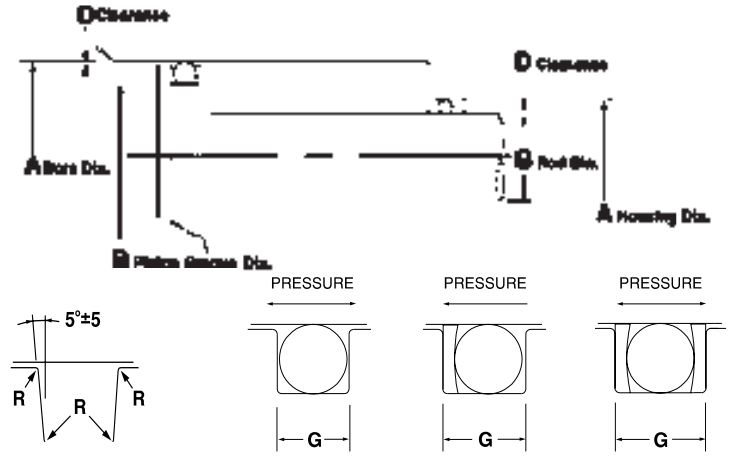
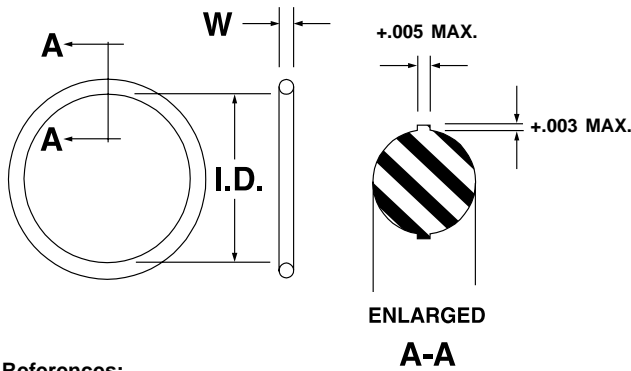
EXAMPLE: E4-53X63X7				
Prefix	Inside Diameter	Outside Diameter	Seal Height	Suffix
E4-	53	x 63	x 7	
	53mm	63mm	7mm	NBR

Part Number	Groove Dia. d	Bore Dia. D	Seal Height L <sub>1</sub>	Price
Z8-6X10X2.5	6	10	2.5	\$3.50
Z8-7X12X2.55 P90	7	12	2.5	\$4.66
Z8-10X16X2.55	10	16	2.55	\$4.20
Z8-14X20X2.6	14	20	2.6	\$5.02
Z8-19X25X3.5	19	25	3.5	\$5.30
Z8-24X32X3.25	24	32	3.25	\$5.47
Z8-32X40X3.25 P90	32	40	3.25	\$8.07
Z8-42X50X3.25	42	50	3.25	\$7.02
Z8-53X63X4.25	53	63	4.25	\$9.49
Z8-53X63X4.25 P90	53	63	4.25	\$12.27
Z8-70X80X4.25 P90	70	80	4.25	\$11.12
Z8-90X100X4.25	90	100	4.25	\$11.67
Z8-90X100X4.25 P90	90	100	4.25	\$13.30
Z8-105X125X8.25 P90	105	125	4.25	\$18.25

Part Number	Groove Dia. d	Bore Dia. D	Seal Height L <sub>1</sub>	Price
E4-17X25X5.5	17	25	5.5	\$5.37
E4-30X40X7	30	40	7	\$5.23
E4-53X63X7	53	63	7	\$8.01
E4-53X63X7 P90	53	63	7	\$12.28
E4-145X160X10 P80	145	160	7	\$31.27
E4-295X320X17 P90	295	320	17	\$120.59

# O-Ring Size and Installation Chart

## O-Ring Size Chart and Installation Data



References:

AS568A Uniform Numbering System

Selection and Size

See groove width dimensions below



Groove Width Dimensions								
AS568A Dash Nos.	A Tolerance	B Tolerance	D Dia. Clearance		G +.005/-000			R Radius
			Reciprocating/Static	Rotary	No Backup	1 Backup	2 Backup	
004-012	+0.001/-0.000	+0.000/-0.001	+0.002/-0.004	+0.012/.016	.093	.138	.205	.005-.015
013-050	+0.002/-0.000	+0.000/-0.001	+0.002/-0.005	+0.012/.016	.093	.138	.205	.005-.015
102-129	+0.002/-0.000	+0.000/-0.002	+0.002/-0.005	+0.012/.016	.140	.171	.238	.005-.015
130-178	+0.002/-0.000	+0.000/-0.002	+0.002/-0.006	+0.012/.016	.140	.171	.238	.005-.015
201-284	+0.002/-0.000	+0.000/-0.002	+0.002/-0.006	+0.016/.020	.187	.208	.275	.010-.025
309-395	+0.002/-0.000	+0.000/-0.002	+0.003/-0.007	+0.016/.020	.281	.311	.410	.020-.030
425-475	+0.003/-0.000	+0.000/-0.003	+0.004/-0.010	+0.016/.020	.375	.408	.538	.020-.030

SIZE CHART						INSTALLATION DATA - GROOVE DIMENSIONS									
UNIVERSAL SERIES AS568A DASH NOS.	NOMINAL SIZE			ACTUAL SIZE		RECIPROCATING SEALS				STATIC SEALS				ROTARY SEALS	
	I.D.	O.D.	W.	I.D.	W.	I.D. SEALING		O.D. SEALING		I.D. SEALING		O.D. SEALING		I.D. SEALING	
						A	B	A	B	A	B	A	B	A	B
2-001	1/32	3/32	1/32	0.029 ±.004	0.040 ±.003					0.101	0.040	0.105	0.044		
2-001.5	1/16	1/8	1/32	0.070 ±.004	0.040 ±.003					0.142	0.081	0.146	0.085		
2-002	3/64	9/64	3/64	0.042 ±.004	0.050 ±.003					0.132	0.053	0.138	0.059		
2-003	1/16	3/16	1/16	0.056 ±.004	0.060 ±.003					0.162	0.067	0.172	0.077		
2-004	5/64	13/64	1/16	0.070 ±.005	0.070 ±.003					0.181	0.081	0.206	0.106	0.202	0.072
2-005	3/32	7/32	1/16	0.101 ±.005	0.070 ±.003					0.212	0.112	0.237	0.137	0.233	0.103
2-006	1/8	1/4	1/16	0.114 ±.005	0.070 ±.003	0.234	0.124	0.249	0.139	0.225	0.125	0.250	0.150	0.246	0.116
2-007	5/32	9/32	1/16	0.145 ±.005	0.070 ±.003	0.265	0.155	0.280	0.170	0.256	0.156	0.281	0.181	0.277	0.147
2-008	3/16	5/16	1/16	0.176 ±.005	0.070 ±.003	0.296	0.186	0.311	0.201	0.287	0.187	0.312	0.212	0.308	0.178
2-009	7/32	11/32	1/16	0.208 ±.005	0.070 ±.003	0.328	0.218	0.343	0.233	0.318	0.218	0.343	0.243	0.340	0.210
2-010	1/4	3/8	1/16	0.239 ±.005	0.070 ±.003	0.359	0.249	0.374	0.264	0.350	0.250	0.375	0.275	0.371	0.241
2-011	5/16	7/16	1/16	0.301 ±.005	0.070 ±.003	0.421	0.311	0.436	0.326	0.412	0.312	0.437	0.337	0.433	0.303
2-012	3/8	1/2	1/16	0.364 ±.005	0.070 ±.003	0.484	0.374	0.499	0.389	0.475	0.375	0.500	0.400	0.496	0.366
2-013	7/16	9/16	1/16	0.426 ±.005	0.070 ±.003					0.537	0.437	0.562	0.462	0.558	0.428
2-014	1/2	5/8	1/16	0.489 ±.005	0.070 ±.003					0.600	0.500	0.625	0.525	0.621	0.491
2-015	9/16	11/16	1/16	0.551 ±.007	0.070 ±.003					0.662	0.562	0.687	0.587	0.683	0.553
2-016	5/8	3/4	1/16	0.614 ±.009	0.070 ±.003					0.725	0.625	0.750	0.650	0.746	0.616
2-017	11/16	13/16	1/16	0.676 ±.009	0.070 ±.003					0.787	0.687	0.812	0.712	0.808	0.678
2-018	3/4	7/8	1/16	0.739 ±.009	0.070 ±.003					0.850	0.750	0.875	0.775	0.871	0.741
2-019	13/16	15/16	1/16	0.801 ±.009	0.070 ±.003					0.912	0.812	0.937	0.837	0.933	0.803
2-020	7/8	1	1/16	0.864 ±.009	0.070 ±.003					0.975	0.875	1.000	0.900	0.996	0.866
2-021	15/16	1-1/16	1/16	0.926 ±.009	0.070 ±.003					1.037	0.937	1.062	0.962	1.058	0.928
2-022	1	1-1/8	1/16	0.989 ±.010	0.070 ±.003					1.100	1.000	1.125	1.025	1.121	0.991
2-023	1-1/16	1-3/16	1/16	1.051 ±.010	0.070 ±.003					1.162	1.062	1.187	1.087	1.183	1.053
2-024	1-1/8	1-1/4	1/16	1.114 ±.010	0.070 ±.003					1.225	1.125	1.250	1.150	1.246	1.116
2-025	1-3/16	1-5/16	1/16	1.176 ±.011	0.070 ±.003					1.287	1.187	1.312	1.212	1.308	1.178

**O-Ring Size and Installation Chart, cont'd.**

SIZE CHART						INSTALLATION DATA - GROOVE DIMENSIONS									
UNIVERSAL SERIES A5568A DASH NOS.	NOMINAL SIZE			ACTUAL SIZE		RECIPROCATING SEALS				STATIC SEALS				ROTARY SEALS	
	I.D.	O.D.	W.	I.D.	W.	I.D. SEALING		O.D. SEALING		I.D. SEALING		O.D. SEALING		I.D. SEALING	
						A	B	A	B	A	B	A	B	A	B
2-026	1-1/4	1-3/8	1/16	1.239 ±0.011	0.070 ±0.003					1.350	1.250	1.375	1.275	1.371	1.241
2-027	1-5/16	1-7/16	1/16	1.301 ±0.011	0.070 ±0.003					1.412	1.312	1.437	1.337	1.433	1.303
2-028	1-3/8	1-1/2	1/16	1.364 ±0.013	0.070 ±0.003					1.475	1.375	1.500	1.400	1.496	1.366
2-029	1-1/2	1-5/8	1/16	1.489 ±0.013	0.070 ±0.003					1.600	1.500	1.625	1.525	1.621	1.491
2-030	1-5/8	1-3/4	1/16	1.614 ±0.013	0.070 ±0.003					1.725	1.625	1.750	1.650	1.746	1.616
2-031	1-3/4	1-7/8	1/16	1.739 ±0.015	0.070 ±0.003					1.850	1.750	1.875	1.775	1.871	1.741
2-032	1-7/8	2	1/16	1.864 ±0.015	0.070 ±0.003					1.975	1.875	2.000	1.900	1.996	1.866
2-033	2	2-1/8	1/16	1.989 ±0.018	0.070 ±0.003					2.100	2.000	2.125	2.025	2.121	1.991
2-034	2-1/8	2-1/4	1/16	2.114 ±0.018	0.070 ±0.003					2.225	2.125	2.250	2.150	2.246	2.116
2-035	2-1/4	2-3/8	1/16	2.239 ±0.018	0.070 ±0.003					2.350	2.250	2.375	2.275	2.371	2.241
2-036	2-3/8	2-1/2	1/16	2.364 ±0.018	0.070 ±0.003					2.475	2.375	2.500	2.400	2.496	2.366
2-037	2-1/2	2-5/8	1/16	2.489 ±0.010	0.070 ±0.003					2.600	2.500	2.625	2.525	2.621	2.491
2-038	2-5/8	2-3/4	1/16	2.614 ±0.020	0.070 ±0.003					2.725	2.625	2.750	2.650	2.746	2.616
2-039	2-3/4	2-7/8	1/16	2.739 ±0.020	0.070 ±0.003					2.850	2.750	2.875	2.775	2.871	2.741
2-040	2-7/8	3	1/16	2.864 ±0.020	0.070 ±0.003					2.975	2.875	3.000	2.900	2.996	2.866
2-041	3	3-1/8	1/16	2.989 ±0.024	0.070 ±0.003					3.100	3.000	3.125	3.025	3.121	2.991
2-042	3-1/4	3-3/8	1/16	3.239 ±0.024	0.070 ±0.003					3.350	3.250	3.375	3.275	3.371	3.241
2-043	3-1/2	3-5/8	1/16	3.489 ±0.024	0.070 ±0.003					3.600	3.500	3.625	3.525	3.621	3.491
2-044	3-3/4	3-7/8	1/16	3.739 ±0.027	0.070 ±0.003					3.850	3.750	3.875	3.775	3.871	3.741
2-045	4	4-1/8	1/16	3.989 ±0.027	0.070 ±0.003					4.100	4.000	4.125	4.025	4.121	3.991
2-046	4-1/4	4-3/8	1/16	4.239 ±0.030	0.070 ±0.003					4.350	4.250	4.375	4.275		
2-047	4-1/2	4-5/8	1/16	4.489 ±0.030	0.070 ±0.003					4.600	4.500	4.625	4.525		
2-048	4-3/4	4-7/8	1/16	4.739 ±0.030	0.070 ±0.003					4.850	4.750	4.875	4.775		
2-049	5	5-1/8	1/16	4.989 ±0.037	0.070 ±0.003					5.100	5.000	5.125	5.025		
2-050	5-1/4	5-3/8	1/16	5.239 ±0.037	0.070 ±0.003					5.350	5.250	5.375	5.275		
2-102	1/16	1/4	3/32	0.049 ±0.005	0.103 ±0.003					0.220	0.057	0.221	0.057	0.243	0.051
2-103	3/32	9/32	3/32	0.081 ±0.005	0.103 ±0.003					0.256	0.090	0.257	0.090	0.275	0.083
2-104	1/8	5/16	3/32	0.112 ±0.005	0.103 ±0.003	0.293	0.123	0.322	0.138	0.287	0.121	0.288	0.121	0.305	0.114
2-105	5/32	11/32	3/32	0.143 ±0.005	0.103 ±0.003	0.323	0.153	0.340	0.170	0.319	0.153	0.320	0.153	0.336	0.145
2-106	3/16	3/8	3/32	0.174 ±0.005	0.103 ±0.003	0.356	0.186	0.371	0.201	0.351	0.185	0.352	0.185	0.367	0.176
2-107	7/32	13/32	3/32	0.206 ±0.005	0.103 ±0.003	0.376	0.216	0.401	0.231	0.383	0.217	0.384	0.217	0.399	0.208
2-108	1/4	7/16	3/32	0.237 ±0.005	0.103 ±0.003	0.417	0.247	0.432	0.262	0.416	0.250	0.417	0.250	0.440	0.239
2-109	5/16	1/2	3/32	0.299 ±0.005	0.103 ±0.003	0.479	0.309	0.494	0.324	0.479	0.313	0.480	0.313	0.492	0.301
2-110	3/8	9/16	3/32	0.362 ±0.005	0.103 ±0.003	0.550	0.374	0.562	0.386	0.537	0.375	0.562	0.400	0.558	0.364
2-111	7/16	5/8	3/32	0.424 ±0.005	0.103 ±0.003	0.612	0.436	0.624	0.448	0.599	0.437	0.625	0.463	0.620	0.426
2-112	1/2	11/16	3/32	0.487 ±0.005	0.103 ±0.003	0.675	0.499	0.687	0.511	0.662	0.500	0.687	0.525	0.683	0.489
2-113	9/16	3/4	3/32	0.549 ±0.007	0.103 ±0.003	0.737	0.561	0.749	0.573	0.724	0.562	0.750	0.588	0.745	0.551
2-114	5/8	13/16	3/32	0.612 ±0.009	0.103 ±0.003	0.800	0.624	0.812	0.636	0.787	0.625	0.812	0.650	0.808	0.614
2-115	11/16	7/8	3/32	0.674 ±0.009	0.103 ±0.003	0.862	0.686	0.874	0.698	0.849	0.687	0.875	0.713	0.870	0.676
2-116	3/4	15/16	3/32	0.737 ±0.009	0.103 ±0.003	0.925	0.749	0.937	0.761	0.912	0.750	0.937	0.775	0.933	0.739
2-117	13/16	1	3/32	0.799 ±0.010	0.103 ±0.003					0.974	0.812	1.000	0.838	0.995	0.801
2-118	7/8	1-1/16	3/32	0.862 ±0.010	0.103 ±0.003					1.037	0.875	1.062	0.900	1.058	0.864
2-119	15/16	1-1/8	3/32	0.924 ±0.010	0.103 ±0.003					1.099	0.937	1.125	0.963	1.120	0.926
2-120	1	1-3/16	3/32	0.987 ±0.010	0.103 ±0.003					1.162	1.000	1.187	1.025	1.183	0.989
2-121	1-1/16	1-1/4	3/32	1.049 ±0.010	0.103 ±0.003					1.224	1.062	1.250	1.088	1.245	1.051
2-122	1-1/8	1-5/16	3/32	1.112 ±0.010	0.103 ±0.003					1.287	1.125	1.312	1.150	1.308	1.114
2-123	1-3/16	1-3/8	3/32	1.174 ±0.012	0.103 ±0.003					1.349	1.187	1.375	1.213	1.370	1.176
2-124	1-1/4	1-7/16	3/32	1.237 ±0.012	0.103 ±0.003					1.412	1.250	1.437	1.275	1.433	1.239
2-125	1-5/16	1-1/2	3/32	1.299 ±0.012	0.103 ±0.003					1.474	1.312	1.500	1.338	1.495	1.301
2-126	1-3/8	1-9/16	3/32	1.362 ±0.012	0.103 ±0.003					1.537	1.375	1.562	1.400	1.558	1.364
2-127	1-7/16	1-5/8	3/32	1.424 ±0.012	0.103 ±0.003					1.599	1.437	1.625	1.463	1.620	1.426
2-128	1-1/2	1-11/16	3/32	1.487 ±0.012	0.103 ±0.003					1.662	1.500	1.687	1.525	1.683	1.489
2-129	1-9/16	1-3/4	3/32	1.549 ±0.015	0.103 ±0.003					1.724	1.562	1.750	1.588	1.745	1.551
2-130	1-5/8	1-13/16	3/32	1.612 ±0.015	0.103 ±0.003					1.787	1.625	1.812	1.650	1.808	1.614
2-131	1-11/16	1-7/8	3/32	1.674 ±0.015	0.103 ±0.003					1.849	1.687	1.875	1.713	1.870	1.676
2-132	1-3/4	1-15/16	3/32	1.737 ±0.015	0.103 ±0.003					1.912	1.750	1.937	1.775	1.933	1.739
2-133	1-13/16	2	3/32	1.799 ±0.015	0.103 ±0.003					1.974	1.812	2.000	1.838	1.995	1.801
2-134	1-7/8	2-1/16	3/32	1.862 ±0.015	0.103 ±0.003					2.037	1.875	2.062	1.900	2.058	1.864
2-135	1-15/16	2-1/8	3/32	1.925 ±0.017	0.103 ±0.003					2.099	1.937	2.125	1.963	2.121	1.927
2-136	2	2-3/16	3/32	1.987 ±0.017	0.103 ±0.003					2.162	2.000	2.187	2.025	2.183	1.989
2-137	2-1/16	2-1/4	3/32	2.050 ±0.017	0.103 ±0.003					2.224	2.062	2.250	2.088	2.246	2.052
2-138	2-1/8	2-5/16	3/32	2.112 ±0.017	0.103 ±0.003					2.287	2.125	2.312	2.150	2.308	2.114
2-139	2-3/16	2-3/8	3/32	2.175 ±0.017	0.103 ±0.003					2.349	2.187	2.375	2.213	2.371	2.177
2-140	2-1/4	2-7/16	3/32	2.237 ±0.017	0.103 ±0.003					2.412	2.250	2.437	2.275	2.433	2.239
2-141	2-5/16	2-1/2	3/32	2.300 ±0.020	0.103 ±0.003					2.474	2.312	2.500	2.338	2.496	2.302
2-142	2-3/8	2-9/16	3/32	2.362 ±0.020	0.103 ±0.003					2.537	2.375	2.562	2.400	2.558	2.364
2-143	2-7/16	2-5/8	3/32	2.425 ±0.020	0.103 ±0.003					2.599	2.437	2.625	2.463	2.621	2.427
2-144	2-1/2	2-11/16	3/32	2.487 ±0.020	0.103 ±0.003					2.662	2.500	2.687	2.525	2.683	2.489
2-145	2-9/16	2-3/4	3/32	2.550 ±0.020	0.103 ±0.003					2.724	2.562	2.750	2.588	2.746	2.552
2-146	2-5/8	2-13/16	3/32	2.612 ±0.020	0.103 ±0.003					2.787	2.625	2.812	2.650	2.808	2.614

### O-Ring Size and Installation Chart, cont'd.

SIZE CHART						INSTALLATION DATA - GROOVE DIMENSIONS									
UNIVERSAL SERIES ASS68A DASH NOS.	NOMINAL SIZE			ACTUAL SIZE		RECIPROCATING SEALS				STATIC SEALS				ROTARY SEALS	
	I.D.	O.D.	W.	I.D.	W.	I.D. SEALING		O.D. SEALING		I.D. SEALING		O.D. SEALING		I.D. SEALING	
						A	B	A	B	A	B	A	B	A	B
2-147	2-11/16	2-7/8	3/32	2.675 ±.022	0.103 ±.003					2.849	2.687	2.875	2.713	2.871	2.677
2-148	2-3/4	2-15/16	3/32	2.737 ±.022	0.103 ±.003					2.912	2.750	2.937	2.775	2.933	2.739
2-149	2-13/16	3	3/32	2.800 ±.022	0.103 ±.003					2.974	2.812	3.000	2.838	2.996	2.802
2-150	2-7/8	3-1/16	3/32	2.862 ±.022	0.103 ±.003					2.037	2.875	3.062	2.900	3.058	2.864
2-151	3	3-3/16	3/32	2.987 ±.024	0.103 ±.003					3.162	3.000	3.187	3.025	3.183	2.989
2-152	3-1/4	3-7/16	3/32	3.237 ±.024	0.103 ±.003					3.412	3.250	3.437	3.275	3.433	3.239
2-153	3-1/2	3-11/16	3/32	3.487 ±.024	0.103 ±.003					3.662	3.500	3.687	3.525	3.683	3.489
2-154	3-3/4	3-15/16	3/32	3.737 ±.028	0.103 ±.003					3.912	3.750	3.937	3.775	3.933	3.739
2-155	4	4-3/16	3/32	3.987 ±.028	0.103 ±.003					4.162	4.000	4.187	4.025	4.183	3.989
2-156	4-1/4	4-7/16	3/32	4.237 ±.030	0.103 ±.003					4.412	4.250	4.437	4.275	4.433	4.239
2-157	4-1/2	4-11/16	3/32	4.487 ±.030	0.103 ±.003					4.662	4.500	4.687	4.525	4.683	4.489
2-158	4-3/4	4-15/16	3/32	4.737 ±.035	0.103 ±.003					4.912	4.750	4.937	4.775	4.933	4.739
2-159	5	5-3/16	3/32	4.987 ±.035	0.103 ±.003					5.162	5.000	5.187	5.025	5.183	4.989
2-160	5-1/4	5-7/16	3/32	5.237 ±.035	0.103 ±.003					5.412	5.250	5.437	5.275	5.433	5.239
2-161	5-1/2	5-11/16	3/32	5.487 ±.035	0.103 ±.003					5.662	5.500	5.687	5.525	5.683	5.489
2-162	5-3/4	5-15/16	3/32	5.737 ±.035	0.103 ±.003					5.912	5.750	5.937	5.775	5.933	5.739
2-163	6	6-3/16	3/32	5.987 ±.040	0.103 ±.003					6.162	6.000	6.187	6.025	6.183	5.989
2-164	6-1/4	6-7/16	3/32	6.237 ±.040	0.103 ±.003					6.412	6.250	6.437	6.275		
2-165	6-1/2	6-11/16	3/32	6.487 ±.040	0.103 ±.003					6.662	6.500	6.687	6.525		
2-166	6-3/4	6-15/16	3/32	6.737 ±.040	0.103 ±.003					6.912	6.750	6.937	6.775		
2-167	7	7-3/16	3/32	6.987 ±.040	0.103 ±.003					7.162	7.000	7.187	7.025		
2-168	7-1/4	7-7/16	3/32	7.237 ±.045	0.103 ±.003					7.412	7.250	7.437	7.275		
2-169	7-1/2	7-11/16	3/32	7.487 ±.045	0.103 ±.003					7.662	7.500	7.687	7.525		
2-170	7-3/4	7-15/16	3/32	7.737 ±.045	0.103 ±.003					7.912	7.750	7.937	7.775		
2-171	8	8-3/16	3/32	7.987 ±.045	0.103 ±.003					8.162	8.000	8.187	8.025		
2-172	8-1/4	8-7/16	3/32	8.237 ±.050	0.103 ±.003					8.412	8.250	8.437	8.275		
2-173	8-1/2	8-11/16	3/32	8.487 ±.050	0.103 ±.003					8.662	8.500	8.687	8.525		
2-174	8-3/4	8-15/16	3/32	8.737 ±.050	0.103 ±.003					8.912	8.750	8.937	8.775		
2-175	9	9-3/16	3/32	8.987 ±.050	0.103 ±.003					9.162	9.000	9.187	9.025		
2-176	9-1/4	9-7/16	3/32	9.237 ±.055	0.103 ±.003					9.412	9.250	9.437	9.275		
2-177	9-1/2	9-11/16	3/32	9.487 ±.055	0.103 ±.003					9.662	9.500	9.687	9.525		
2-178	9-3/4	9-15/16	3/32	9.737 ±.055	0.103 ±.003					9.912	9.750	9.937	9.775		
2-201	3/16	7/16	1/8	0.171 ±.005	0.139 ±.004	0.427	0.181	0.442	0.196	0.408	0.182	0.408	0.182	0.440	0.172
2-202	1/4	1/2	1/8	0.234 ±.005	0.139 ±.004	0.490	0.244	0.505	0.259	0.474	0.247	0.474	0.247	0.503	0.235
2-203	5/16	9/16	1/8	0.296 ±.005	0.139 ±.004	0.552	0.306	0.568	0.322	0.539	0.310	0.539	0.310	0.565	0.297
2-204	3/8	5/8	1/8	0.359 ±.005	0.139 ±.004	0.615	0.369	0.630	0.384	0.601	0.374	0.601	0.374	0.628	0.360
2-205	7/16	11/16	1/8	0.421 ±.005	0.139 ±.004	0.679	0.433	0.691	0.445	0.664	0.438	0.664	0.438	0.690	0.422
2-206	1/2	3/4	1/8	0.484 ±.005	0.139 ±.004	0.742	0.496	0.754	0.508	0.729	0.502	0.729	0.502	0.753	0.485
2-207	9/16	13/16	1/8	0.546 ±.007	0.139 ±.004	0.803	0.557	0.815	0.569	0.792	0.565	0.792	0.565	0.815	0.547
2-208	5/8	7/8	1/8	0.609 ±.009	0.139 ±.004	0.867	0.621	0.879	0.633	0.858	0.631	0.858	0.631	0.878	0.610
2-209	11/16	15/16	1/8	0.671 ±.009	0.139 ±.004	0.927	0.681	0.940	0.694	0.921	0.695	0.921	0.695	0.940	0.672
2-210	3/4	1	1/8	0.734 ±.010	0.139 ±.004	0.990	0.748	1.000	0.758	0.972	0.750	1.000	0.778	1.002	0.736
2-211	13/16	1-1/16	1/8	0.796 ±.010	0.139 ±.004	1.052	0.810	1.062	0.820	1.034	0.812	1.062	0.840	1.064	0.798
2-212	7/8	1-1/8	1/8	0.859 ±.010	0.139 ±.004	1.115	0.873	1.125	0.883	1.097	0.875	1.125	0.903	1.127	0.861
2-213	15/16	1-3/16	1/8	0.921 ±.010	0.139 ±.004	1.177	0.935	1.187	0.945	1.159	0.937	1.187	0.965	1.189	0.923
2-214	1	1-1/4	1/8	0.984 ±.010	0.139 ±.004	1.240	0.998	1.250	1.008	1.222	1.000	1.250	1.028	1.252	0.986
2-215	1-1/16	1-5/16	1/8	1.046 ±.010	0.139 ±.004	1.302	1.060	1.312	1.070	1.284	1.062	1.312	1.090	1.314	1.048
2-216	1-1/8	1-3/8	1/8	1.109 ±.012	0.139 ±.004	1.365	1.123	1.375	1.133	1.347	1.125	1.375	1.153	1.377	1.111
2-217	1-3/16	1-7/16	1/8	1.171 ±.012	0.139 ±.004	1.427	1.185	1.437	1.195	1.409	1.187	1.437	1.215	1.439	1.173
2-218	1-1/4	1-1/2	1/8	1.234 ±.012	0.139 ±.004	1.490	1.248	1.500	1.258	1.472	1.250	1.500	1.278	1.502	1.236
2-219	1-5/16	1-9/16	1/8	1.296 ±.012	0.139 ±.004	1.552	1.310	1.562	1.320	1.534	1.312	1.562	1.340	1.564	1.298
2-220	1-3/8	1-5/8	1/8	1.359 ±.012	0.139 ±.004	1.615	1.373	1.625	1.383	1.597	1.375	1.625	1.403	1.627	1.361
2-221	1-7/16	1-11/16	1/8	1.421 ±.012	0.139 ±.004	1.677	1.435	1.687	1.445	1.659	1.437	1.687	1.465	1.689	1.423
2-222	1-1/2	1-3/4	1/8	1.484 ±.015	0.139 ±.004	1.740	1.498	1.750	1.508	1.722	1.500	1.750	1.528	1.752	1.486
2-223	1-5/8	1-7/8	1/8	1.609 ±.015	0.139 ±.004					1.847	1.625	1.875	1.653	1.877	1.611
2-224	1-3/4	2	1/8	1.734 ±.015	0.139 ±.004					1.972	1.750	2.000	1.778	2.002	1.736
2-225	1-7/8	2-1/8	1/8	1.859 ±.018	0.139 ±.004					2.097	1.875	2.125	1.903	2.127	1.861
2-226	2	2-1/4	1/8	1.984 ±.018	0.139 ±.004					2.222	2.000	2.250	2.028	2.252	1.986
2-227	2-1/8	2-3/8	1/8	2.109 ±.018	0.139 ±.004					2.347	2.125	2.375	2.153	2.377	2.111
2-228	2-1/4	2-1/2	1/8	2.234 ±.020	0.139 ±.004					2.472	2.250	2.500	2.278	2.502	2.236
2-229	2-3/8	2-5/8	1/8	2.359 ±.020	0.139 ±.004					2.597	2.375	2.625	2.403	2.627	2.361
2-230	2-1/2	2-3/4	1/8	2.484 ±.020	0.139 ±.004					2.722	2.500	2.750	2.528	2.752	2.486
2-231	2-5/8	2-7/8	1/8	2.609 ±.020	0.139 ±.004					2.847	2.625	2.875	2.653	2.877	2.611
2-232	2-3/4	3	1/8	2.734 ±.024	0.139 ±.004					2.972	2.750	3.000	2.778	3.002	2.736
2-233	2-7/8	3-1/8	1/8	2.859 ±.024	0.139 ±.004					3.097	2.875	3.125	2.903	3.127	2.861
2-234	3	3-1/4	1/8	2.984 ±.024	0.139 ±.004					3.222	3.000	3.250	3.028	3.252	2.986
2-235	3-1/8	3-3/8	1/8	3.109 ±.024	0.139 ±.004					3.347	3.125	3.375	3.153	3.377	3.111
2-236	3-1/4	3-1/2	1/8	3.234 ±.024	0.139 ±.004					3.472	3.250	3.500	3.278	3.502	3.236
2-237	3-3/8	3-5/8	1/8	3.359 ±.024	0.139 ±.004					3.597	3.375	3.625	3.403	3.627	3.361
2-238	3-1/2	3-3/4	1/8	3.484 ±.024	0.139 ±.004					3.722	3.500	3.750	3.528	3.752	3.486



## O-Ring Size and Installation Chart, cont'd.

SIZE CHART						INSTALLATION DATA - GROOVE DIMENSIONS									
UNIVERSAL SERIES AS568A DASH NOS.	NOMINAL SIZE			ACTUAL SIZE		RECIPROCATING SEALS				STATIC SEALS				ROTARY SEALS	
	I.D.	O.D.	W.	I.D.	W.	I.D. SEALING		O.D. SEALING		I.D. SEALING		O.D. SEALING		I.D. SEALING	
						A	B	A	B	A	B	A	B		
2-239	3-5/8	3-7/8	1/8	3.609 ±.028	0.139 ±.004					3.847	3.625	3.875	3.653	3.877	3.611
2-240	3-3/4	4	1/8	3.734 ±.028	0.139 ±.004					3.972	3.750	4.000	3.778	4.002	3.736
2-241	3-7/8	4-1/8	1/8	3.859 ±.028	0.139 ±.004					4.097	3.875	4.125	3.903	4.127	3.861
2-242	4	4-1/4	1/8	3.984 ±.028	0.139 ±.004					4.222	4.000	4.250	4.028	4.252	3.986
2-243	4-1/8	4-3/8	1/8	4.109 ±.028	0.139 ±.004					4.347	4.125	4.375	4.153	4.377	4.111
2-244	4-1/4	4-1/2	1/8	4.234 ±.030	0.139 ±.004					4.472	4.250	4.500	4.278	4.502	4.236
2-245	4-3/8	4-5/8	1/8	4.359 ±.030	0.139 ±.004					4.597	4.375	4.625	4.403	4.627	4.361
2-246	4-1/2	4-3/4	1/8	4.484 ±.030	0.139 ±.004					4.722	4.500	4.750	4.528	4.752	4.486
2-247	4-5/8	4-7/8	1/8	4.609 ±.030	0.139 ±.004					4.847	4.625	4.875	4.653	4.877	4.611
2-248	4-3/4	5	1/8	4.734 ±.030	0.139 ±.004					4.972	4.750	5.000	4.778	5.002	4.736
2-249	4-7/8	5-1/8	1/8	4.859 ±.035	0.139 ±.004					5.097	4.875	5.125	4.903	5.127	4.861
2-250	5	5-1/4	1/8	4.984 ±.035	0.139 ±.004					5.222	5.000	5.250	5.028	5.252	4.986
2-251	5-1/8	5-3/8	1/8	5.109 ±.035	0.139 ±.004					5.347	5.125	5.375	5.153	5.377	5.111
2-252	5-1/4	5-1/2	1/8	5.234 ±.035	0.139 ±.004					5.472	5.250	5.500	5.278	5.502	5.236
2-253	5-3/8	5-5/8	1/8	5.359 ±.035	0.139 ±.004					5.597	5.375	5.625	5.403	5.627	5.361
2-254	5-1/2	5-3/4	1/8	5.484 ±.035	0.139 ±.004					5.722	5.500	5.750	5.528	5.752	5.486
2-255	5-5/8	5-7/8	1/8	5.609 ±.035	0.139 ±.004					5.847	5.625	5.875	5.653	5.877	5.611
2-256	5-3/4	6	1/8	5.734 ±.035	0.139 ±.004					5.972	5.750	6.000	5.778	6.002	5.736
2-257	5-7/8	6-1/8	1/8	5.859 ±.035	0.139 ±.004					6.097	5.875	6.125	5.903	6.127	5.861
2-258	6	6-1/4	1/8	5.984 ±.035	0.139 ±.004					6.222	6.000	6.250	6.028	6.252	5.986
2-259	6-1/4	6-1/2	1/8	6.234 ±.040	0.139 ±.004					6.472	6.250	6.500	6.278		
2-260	6-1/2	6-3/4	1/8	6.484 ±.040	0.139 ±.004					6.722	6.500	6.750	6.528		
2-261	6-3/4	7	1/8	6.734 ±.040	0.139 ±.004					6.972	6.750	7.000	6.778		
2-262	7	7-1/4	1/8	6.984 ±.040	0.139 ±.004					7.222	7.000	7.250	7.028		
2-263	7-1/4	7-1/2	1/8	7.234 ±.045	0.139 ±.004					7.472	7.250	7.500	7.278		
2-264	7-1/2	7-3/4	1/8	7.484 ±.045	0.139 ±.004					7.722	7.500	7.750	7.528		
2-265	7-3/4	8	1/8	7.734 ±.045	0.139 ±.004					7.972	7.750	8.000	7.778		
2-266	8	8-1/4	1/8	7.984 ±.045	0.139 ±.004					8.222	8.000	8.250	8.028		
2-267	8-1/4	8-1/2	1/8	8.234 ±.050	0.139 ±.004					8.472	8.250	8.500	8.278		
2-268	8-1/2	8-3/4	1/8	8.484 ±.050	0.139 ±.004					8.722	8.500	8.750	8.528		
2-269	8-3/4	9	1/8	8.734 ±.050	0.139 ±.004					8.972	8.750	9.000	8.778		
2-270	9	9-1/4	1/8	8.984 ±.050	0.139 ±.004					9.222	9.000	9.250	9.028		
2-271	9-1/4	9-1/2	1/8	9.234 ±.055	0.139 ±.004					9.472	9.250	9.500	9.278		
2-272	9-1/2	9-3/4	1/8	9.484 ±.055	0.139 ±.004					9.722	9.500	9.750	9.528		
2-273	9-3/4	10	1/8	9.734 ±.055	0.139 ±.004					9.972	9.750	10.000	9.778		
2-274	10	10-1/4	1/8	9.984 ±.055	0.139 ±.004					10.222	10.000	10.250	10.028		
2-275	10-1/2	10-3/4	1/8	10.484 ±.055	0.139 ±.004					10.722	10.500	10.750	10.528		
2-276	11	11-1/4	1/8	10.984 ±.065	0.139 ±.004					11.222	11.000	11.250	11.028		
2-277	11-1/2	11-3/4	1/8	11.484 ±.065	0.139 ±.004					11.722	11.500	11.750	11.528		
2-278	12	12-1/4	1/8	11.984 ±.065	0.139 ±.004					12.222	12.000	12.250	12.028		
2-279	13	13-1/4	1/8	12.984 ±.065	0.139 ±.004					13.222	13.000	13.250	13.028		
2-280	14	14-1/4	1/8	13.984 ±.065	0.139 ±.004					14.222	14.000	14.250	14.028		
2-281	15	15-1/4	1/8	14.984 ±.065	0.139 ±.004					15.222	15.000	15.250	15.028		
2-282	16	16-1/4	1/8	15.955 ±.075	0.139 ±.004					16.222	16.000	16.250	16.028		
2-283	17	17-1/4	1/8	16.955 ±.080	0.139 ±.004					17.222	17.000	17.250	17.028		
2-284	18	18-1/4	1/8	17.955 ±.085	0.139 ±.004					18.222	18.000	18.250	18.028		
2-309	7/16	13/16	3/16	0.412 ±.005	0.210 ±.005	0.800	0.424	0.812	0.436	0.773	0.428	0.774	0.430		
2-310	1/2	7/8	3/16	0.475 ±.005	0.210 ±.005	0.863	0.487	0.875	0.499	0.837	0.493	0.833	0.495		
2-311	9/16	15/16	3/16	0.537 ±.007	0.210 ±.005	0.925	0.549	0.937	0.561	0.900	0.556	0.901	0.558		
2-312	5/8	1	3/16	0.600 ±.009	0.210 ±.005	0.988	0.612	1.000	0.624	0.966	0.622	0.969	0.624		
2-313	11/16	1-1/16	3/16	0.662 ±.009	0.210 ±.005	1.050	0.674	1.062	0.686	1.029	0.685	1.030	0.687		
2-314	3/4	1-1/8	3/16	0.725 ±.010	0.210 ±.005	1.113	0.737	1.125	0.749	1.096	0.751	1.097	0.753		
2-315	13/16	1-3/16	3/16	0.787 ±.010	0.210 ±.005	1.177	0.801	1.187	0.811	1.158	0.814	1.159	0.816		
2-316	7/8	1-1/4	3/16	0.850 ±.010	0.210 ±.005	1.240	0.864	1.250	0.874	1.223	0.878	1.224	0.880		
2-317	15/16	1-5/16	3/16	0.912 ±.010	0.210 ±.005	1.302	0.926	1.312	0.936	1.285	0.941	1.286	0.943		
2-318	1	1-3/8	3/16	0.975 ±.010	0.210 ±.005	1.365	0.989	1.375	0.999	1.351	1.006	1.352	1.008		
2-319	1-1/16	1-7/16	3/16	1.037 ±.010	0.210 ±.005	1.427	1.051	1.437	1.061	1.414	1.069	1.415	1.071		
2-320	1-1/8	1-1/2	3/16	1.100 ±.012	0.210 ±.005	1.490	1.114	1.500	1.124	1.479	1.135	1.480	1.137		
2-321	1-3/16	1-9/16	3/16	1.162 ±.012	0.210 ±.005	1.552	1.176	1.562	1.186	1.543	1.198	1.544	1.200		
2-322	1-1/4	1-5/8	3/16	1.225 ±.012	0.210 ±.005	1.615	1.239	1.625	1.249	1.608	1.263	1.609	1.265		
2-323	1-5/16	1-11/16	3/16	1.287 ±.012	0.210 ±.005	1.677	1.301	1.687	1.311	1.670	1.326	1.671	1.328		
2-324	1-3/8	1-3/4	3/16	1.350 ±.012	0.210 ±.005	1.740	1.364	1.750	1.374	1.734	1.390	1.135	1.392		
2-325	1-1/2	1-7/8	3/16	1.475 ±.015	0.210 ±.005	1.868	1.498	1.875	1.505	1.840	1.500	1.875	1.535		
2-326	1-5/8	2	3/16	1.600 ±.015	0.210 ±.005	1.993	1.623	2.000	1.630	1.965	1.625	2.000	1.660		
2-327	1-3/4	2-1/8	3/16	1.725 ±.015	0.210 ±.005	2.118	1.748	2.125	1.755	2.090	1.750	2.125	1.785		
2-328	1-7/8	2-1/4	3/16	1.850 ±.015	0.210 ±.005	2.243	1.873	2.250	1.880	2.215	1.875	2.250	1.910		
2-329	2	2-3/8	3/16	1.975 ±.018	0.210 ±.005	2.368	1.998	2.375	2.005	2.340	2.000	2.375	2.035		
2-330	2-1/8	2-1/2	3/16	2.100 ±.018	0.210 ±.005	2.493	2.123	2.500	2.130	2.465	2.125	2.500	2.160		
2-331	2-1/4	2-5/8	3/16	2.225 ±.018	0.210 ±.005	2.618	2.248	2.625	2.255	2.590	2.250	2.625	2.285		
2-332	2-3/8	2-3/4	3/16	2.350 ±.020	0.210 ±.005	2.743	2.373	2.750	2.380	2.715	2.375	2.750	2.410		

## O-Ring Size and Installation Chart, cont'd.

SIZE CHART						INSTALLATION DATA - GROOVE DIMENSIONS									
UNIVERSAL SERIES ASS68A DASH NOS.	NOMINAL SIZE			ACTUAL SIZE		RECIPROCATING SEALS				STATIC SEALS				ROTARY SEALS	
	I.D.	O.D.	W.	I.D.	W.	I.D. SEALING		O.D. SEALING		I.D. SEALING		O.D. SEALING		I.D. SEALING	
						A	B	A	B	A	B	A	B	A	B
2-333	2-1/2	2-7/8	3/16	2.475 ±.020	0.210 ±.005	2.868	2.498	2.875	2.505	2.840	2.500	2.875	2.535		
2-334	2-5/8	3	3/16	2.600 ±.020	0.210 ±.005	2.993	2.623	3.000	2.630	2.965	2.625	3.000	2.660		
2-335	2-3/4	3-1/8	3/16	2.725 ±.020	0.210 ±.005	3.118	2.748	3.125	2.755	3.090	2.750	3.125	2.785		
2-336	2-7/8	3-1/4	3/16	2.850 ±.020	0.210 ±.005	3.243	2.873	3.250	2.880	3.215	2.875	3.250	2.910		
2-337	3	3-3/8	3/16	2.975 ±.024	0.210 ±.005	3.368	2.998	3.375	3.005	3.340	3.000	3.375	3.035		
2-338	3-1/4	3-1/2	3/16	3.100 ±.024	0.210 ±.005	3.493	3.123	3.500	3.130	3.465	3.125	3.500	3.160		
2-339	3-1/8	3-5/8	3/16	3.225 ±.024	0.210 ±.005	3.618	3.248	3.625	3.255	3.590	3.250	3.625	3.285		
2-340	3-3/8	3-3/4	3/16	3.350 ±.024	0.210 ±.005	3.743	3.373	3.750	3.380	3.715	3.375	3.750	3.410		
2-341	3-1/2	3-7/8	3/16	3.475 ±.024	0.210 ±.005	3.868	3.498	3.875	3.505	3.840	3.500	3.875	3.535		
2-342	3-5/8	4	3/16	3.600 ±.028	0.210 ±.005	3.993	3.623	4.000	3.630	3.965	3.625	4.000	3.660		
2-343	3-3/4	4-1/8	3/16	3.725 ±.028	0.210 ±.005	4.118	3.748	4.125	3.755	4.090	3.750	4.125	3.785		
2-344	3-7/8	4-1/4	3/16	3.850 ±.028	0.210 ±.005	4.243	3.873	4.250	3.880	4.215	3.875	4.250	3.910		
2-345	4	4-3/8	3/16	3.975 ±.028	0.210 ±.005	4.368	3.998	4.375	4.005	4.340	4.000	4.375	4.035		
2-346	4-1/8	4-1/2	3/16	4.100 ±.028	0.210 ±.005	4.493	4.123	4.500	4.130	4.465	4.125	4.500	4.160		
2-347	4-1/4	4-5/8	3/16	4.225 ±.030	0.210 ±.005	4.618	4.248	4.625	4.255	4.590	4.250	4.625	4.285		
2-348	4-3/8	4-3/4	3/16	4.350 ±.030	0.210 ±.005	4.743	4.373	4.750	4.380	4.715	4.375	4.750	4.410		
2-349	4-1/2	4-7/8	3/16	4.475 ±.030	0.210 ±.005	4.868	4.498	4.875	4.505	4.840	4.500	4.875	4.535		
2-350	4-5/8	5	3/16	4.600 ±.030	0.210 ±.005					4.965	4.625	5.000	4.660		
2-351	4-3/4	5-1/8	3/16	4.725 ±.030	0.210 ±.005					5.090	4.750	5.125	4.785		
2-352	4-7/8	5-1/4	3/16	4.850 ±.030	0.210 ±.005					5.215	4.875	5.250	4.910		
2-353	5	5-3/8	3/16	4.975 ±.037	0.210 ±.005					5.340	5.000	5.375	5.035		
2-354	5-1/8	5-1/2	3/16	5.100 ±.037	0.210 ±.005					5.465	5.125	5.500	5.160		
2-355	5-1/4	5-5/8	3/16	5.225 ±.037	0.210 ±.005					5.590	5.250	5.625	5.285		
2-356	5-3/8	5-3/4	3/16	5.350 ±.037	0.210 ±.005					5.715	5.375	5.750	5.410		
2-357	5-1/2	5-7/8	3/16	5.475 ±.037	0.210 ±.005					5.840	5.500	5.875	5.535		
2-358	5-5/8	6	3/16	5.600 ±.037	0.210 ±.005					5.965	5.625	6.000	5.660		
2-359	5-3/4	6-1/8	3/16	5.725 ±.037	0.210 ±.005					6.090	5.750	6.125	5.785		
2-360	5-7/8	6-1/4	3/16	5.850 ±.037	0.210 ±.005					6.215	5.875	6.250	5.910		
2-361	6	6-3/8	3/16	5.975 ±.037	0.210 ±.005					6.340	6.000	6.375	6.035		
2-362	6-1/4	6-5/8	3/16	6.225 ±.040	0.210 ±.005					6.590	6.250	6.625	6.285		
2-363	6-1/2	6-7/8	3/16	6.475 ±.040	0.210 ±.005					6.840	6.500	6.875	6.535		
2-364	6-3/4	7-1/8	3/16	6.725 ±.040	0.210 ±.005					7.090	6.750	7.125	6.785		
2-365	7	7-3/8	3/16	6.975 ±.040	0.210 ±.005					7.340	7.000	7.375	7.035		
2-366	7-1/4	7-5/8	3/16	7.225 ±.045	0.210 ±.005					7.590	7.250	7.625	7.285		
2-367	7-1/2	7-7/8	3/16	7.475 ±.045	0.210 ±.005					7.840	7.500	7.875	7.535		
2-368	7-3/4	8-1/8	3/16	7.725 ±.045	0.210 ±.005					8.090	7.750	8.125	7.785		
2-369	8	8-3/8	3/16	7.975 ±.045	0.210 ±.005					8.340	8.000	8.375	8.035		
2-370	8-1/4	8-5/8	3/16	8.225 ±.050	0.210 ±.005					8.590	8.250	8.625	8.285		
2-371	8-1/2	8-7/8	3/16	8.475 ±.050	0.210 ±.005					8.840	8.500	8.875	8.535		
2-372	8-3/4	9-1/8	3/16	8.725 ±.050	0.210 ±.005					9.090	8.750	9.125	8.785		
2-373	9	9-3/8	3/16	8.975 ±.050	0.210 ±.005					9.340	9.000	9.375	9.035		
2-374	9-1/4	9-5/8	3/16	9.225 ±.050	0.210 ±.005					9.590	9.250	9.625	9.285		
2-375	9-1/2	9-7/8	3/16	9.475 ±.050	0.210 ±.005					9.840	9.500	9.875	9.535		
2-376	9-3/4	10-1/8	3/16	9.725 ±.050	0.210 ±.005					10.090	9.750	10.125	9.785		
2-377	10	10-3/8	3/16	9.975 ±.050	0.210 ±.005					10.340	10.000	10.375	10.035		
2-378	10-1/2	10-7/8	3/16	10.475 ±.060	0.210 ±.005					10.840	10.500	10.875	10.535		
2-379	11	11-3/8	3/16	10.975 ±.060	0.210 ±.005					11.340	11.000	11.375	11.035		
2-380	11-1/2	11-7/8	3/16	11.475 ±.065	0.210 ±.005					11.840	11.500	11.875	11.535		
2-381	12	12-3/8	3/16	11.975 ±.065	0.210 ±.005					12.340	12.000	12.375	12.035		
2-382	13	13-3/8	3/16	12.975 ±.065	0.210 ±.005					13.340	13.000	13.375	13.035		
2-383	14	14-3/8	3/16	13.975 ±.070	0.210 ±.005					14.340	14.000	14.375	14.035		
2-384	15	15-3/8	3/16	14.975 ±.070	0.210 ±.005					15.340	15.000	15.375	15.035		
2-385	16	16-3/8	3/16	15.955 ±.075	0.210 ±.005					16.340	16.000	16.375	16.035		
2-386	17	17-3/8	3/16	16.955 ±.080	0.210 ±.005					17.340	17.000	17.375	17.035		
2-387	18	18-3/8	3/16	17.955 ±.085	0.210 ±.005					18.340	18.000	18.375	18.035		
2-388	19	19-3/8	3/16	18.955 ±.090	0.210 ±.005					19.340	19.000	19.375	19.035		
2-389	20	20-3/8	3/16	19.955 ±.095	0.210 ±.005					20.340	20.000	20.375	20.035		
2-390	21	21-3/8	3/16	20.955 ±.095	0.210 ±.005					21.340	21.000	21.375	21.035		
2-391	22	22-3/8	3/16	21.955 ±.100	0.210 ±.005					22.340	22.000	22.375	22.035		
2-392	23	23-3/8	3/16	22.940 ±.105	0.210 ±.005					23.340	23.000	23.375	23.035		
2-393	24	24-3/8	3/16	23.940 ±.110	0.210 ±.005					24.340	24.000	24.375	24.035		
2-394	25	25-3/8	3/16	24.940 ±.115	0.210 ±.005					25.340	25.000	25.375	25.035		
2-395	26	26-3/8	3/16	25.940 ±.120	0.210 ±.005					26.340	26.000	26.375	26.035		
2-401	1-1/2	2	1/4	1.475 ±.015	0.275 ±.006										
2-402	1-5/8	2-1/8	1/4	1.600 ±.015	0.275 ±.006										
2-403	1-3/4	2-1/4	1/4	1.725 ±.015	0.275 ±.006										
2-404	1-7/8	2-3/8	1/4	1.850 ±.015	0.275 ±.006										
2-405	2	2-1/2	1/4	1.975 ±.018	0.275 ±.006										
2-406	2-1/8	2-5/8	1/4	2.100 ±.018	0.275 ±.006										
2-407	2-1/4	2-3/4	1/4	2.225 ±.018	0.275 ±.006										



**O-Ring Size and Installation Chart, cont'd.**

UNIVERSAL SERIES AS568A DASH NOS.	SIZE CHART						INSTALLATION DATA - GROOVE DIMENSIONS										
	NOMINAL SIZE			ACTUAL SIZE			RECIPROCATING SEALS				STATIC SEALS				ROTARY SEALS		
	I.D.	O.D.	W.	I.D.	W.		I.D. SEALING		O.D. SEALING		I.D. SEALING		O.D. SEALING		I.D. SEALING		
							A	B	A	B	A	B	A	B	A	B	
2-408	2-3/8	2-7/8	1/4	2.350 ±.020	0.275 ±.006												
2-409	2-1/2	3	1/4	2.475 ±.020	0.275 ±.006												
2-410	2-5/8	3-1/8	1/4	2.600 ±.020	0.275 ±.006												
2-411	2-3/4	3-1/4	1/4	2.725 ±.020	0.275 ±.006												
2-412	2-7/8	3-3/8	1/4	2.850 ±.020	0.275 ±.006												
2-413	3	3-1/2	1/4	2.975 ±.024	0.275 ±.006												
2-414	3-1/8	3-5/8	1/4	3.100 ±.024	0.275 ±.006												
2-415	3-1/4	3-3/4	1/4	3.225 ±.024	0.275 ±.006												
2-416	3-3/8	3-7/8	1/4	3.350 ±.024	0.275 ±.006												
2-417	3-1/2	4	1/4	3.475 ±.024	0.275 ±.006												
2-418	3-5/8	4-1/8	1/4	3.600 ±.028	0.275 ±.006												
2-419	3-3/4	4-1/4	1/4	3.725 ±.028	0.275 ±.006												
2-420	3-7/8	4-3/8	1/4	3.850 ±.028	0.275 ±.006												
2-421	4	4-1/2	1/4	3.975 ±.028	0.275 ±.006												
2-422	4-1/8	4-5/8	1/4	4.100 ±.028	0.275 ±.006												
2-423	4-1/4	4-3/4	1/4	4.225 ±.030	0.275 ±.006												
2-424	4-3/8	4-7/8	1/4	4.350 ±.030	0.275 ±.006												
2-425	4-1/2	5	1/4	4.475 ±.033	0.275 ±.006												
2-426	4-5/8	5-1/8	1/4	4.600 ±.033	0.275 ±.006	5.096	4.622	5.127	4.653	5.077	4.625	5.125	4.673				
2-427	4-3/4	5-1/4	1/4	4.725 ±.033	0.275 ±.006	5.221	4.747	5.252	4.778	5.202	4.750	5.250	4.798				
2-428	4-7/8	5-3/8	1/4	4.850 ±.033	0.275 ±.006	5.346	4.872	5.377	4.903	5.327	4.875	5.373	4.923				
2-429	5	5-1/2	1/4	4.975 ±.037	0.275 ±.006	5.471	4.997	5.502	5.028	5.452	5.000	5.500	5.048				
2-430	5-1/8	5-5/8	1/4	5.100 ±.037	0.275 ±.006	5.596	5.122	5.627	5.153	5.577	5.125	5.625	5.173				
2-431	5-1/4	5-3/4	1/4	5.225 ±.037	0.275 ±.006	5.721	5.247	5.752	5.278	5.702	5.250	5.750	5.298				
2-432	5-3/8	5-7/8	1/4	5.350 ±.037	0.275 ±.006	5.846	5.372	5.877	5.403	5.827	5.375	5.875	5.423				
2-433	5-1/2	6	1/4	5.475 ±.037	0.275 ±.006	5.971	5.497	6.002	5.528	5.952	5.500	6.000	5.548				
2-434	5-5/8	6-1/8	1/4	5.600 ±.037	0.275 ±.006	6.096	5.622	6.127	5.653	6.077	5.625	6.125	5.673				
2-435	5-3/4	6-1/4	1/4	5.725 ±.037	0.275 ±.006	6.221	5.747	6.252	5.778	6.202	5.750	6.250	5.798				
2-436	5-7/8	6-3/8	1/4	5.850 ±.037	0.275 ±.006	6.346	5.872	6.377	5.903	6.327	5.875	6.375	5.923				
2-437	6	6-1/2	1/4	5.975 ±.037	0.275 ±.006	6.471	5.997	6.502	6.028	6.452	6.000	6.500	6.048				
2-438	6-1/4	6-3/4	1/4	6.225 ±.040	0.275 ±.006	6.721	6.247	6.752	6.278	6.702	6.250	6.750	6.298				
2-439	6-1/2	7	1/4	6.475 ±.040	0.275 ±.006	6.971	6.497	7.002	6.528	6.952	6.500	7.000	6.548				
2-440	6-3/4	7-1/4	1/4	6.725 ±.040	0.275 ±.006	7.221	6.747	7.252	6.778	7.202	6.750	7.250	6.798				
2-441	7	7-1/2	1/4	6.975 ±.040	0.275 ±.006	7.471	6.997	7.502	7.028	7.452	7.000	7.500	7.048				
2-442	7-1/4	7-3/4	1/4	7.225 ±.045	0.275 ±.006	7.721	7.247	7.752	7.278	7.702	7.250	7.750	7.298				
2-443	7-1/2	8	1/4	7.475 ±.045	0.275 ±.006	7.971	7.497	8.002	7.528	7.952	7.500	8.000	7.548				
2-444	7-3/4	8-1/4	1/4	7.725 ±.045	0.275 ±.006	8.221	7.747	8.252	7.778	8.202	7.750	8.250	7.798				
2-445	8	8-1/2	1/4	7.975 ±.045	0.275 ±.006	8.471	7.997	8.502	8.028	8.452	8.000	8.500	8.048				
2-446	8-1/2	9	1/4	8.475 ±.055	0.275 ±.006	8.971	8.497	9.002	8.528	8.952	8.500	9.000	8.548				
2-447	9	9-1/2	1/4	8.975 ±.055	0.275 ±.006	9.471	8.997	9.502	9.028	9.452	9.000	9.500	9.048				
2-448	9-1/2	10	1/4	9.475 ±.055	0.275 ±.006	9.971	9.497	10.002	9.528	9.952	9.500	10.000	9.548				
2-449	10	10-1/2	1/4	9.975 ±.055	0.275 ±.006	10.471	9.997	10.502	10.028	10.452	10.000	10.500	10.048				
2-450	10-1/2	11	1/4	10.475 ±.060	0.275 ±.006	10.971	10.497	11.002	10.528	10.952	10.500	11.000	10.548				
2-451	11	11-1/2	1/4	10.975 ±.060	0.275 ±.006	11.471	10.997	11.502	11.028	11.452	11.000	11.500	11.048				
2-452	11-1/2	12	1/4	11.475 ±.060	0.275 ±.006	11.971	11.497	12.002	11.528	11.952	11.500	12.000	11.548				
2-453	12	12-1/2	1/4	11.975 ±.060	0.275 ±.006	12.471	11.997	12.502	12.028	12.452	12.000	12.500	12.048				
2-454	12-1/2	13	1/4	12.475 ±.060	0.275 ±.006	12.971	12.497	13.002	12.528	12.952	12.500	13.000	12.548				
2-455	13	13-1/2	1/4	12.975 ±.060	0.275 ±.006	13.471	12.997	13.502	13.028	13.452	13.000	13.500	13.048				
2-456	13-1/2	14	1/4	13.475 ±.070	0.275 ±.006	13.971	13.497	14.002	13.528	13.952	13.500	14.000	13.548				
2-457	14	14-1/2	1/4	13.975 ±.070	0.275 ±.006	14.471	13.997	14.502	14.028	14.452	14.000	14.500	14.048				
2-458	14-1/2	15	1/4	14.475 ±.070	0.275 ±.006	14.971	14.497	15.002	14.528	14.952	14.500	15.000	14.548				
2-459	15	15-1/2	1/4	14.975 ±.070	0.275 ±.006	15.471	14.997	15.502	15.028	15.452	15.000	15.500	15.048				
2-460	15-1/2	16	1/4	15.475 ±.070	0.275 ±.006	15.971	15.497	16.000	15.528	15.952	15.500	16.000	15.548				
2-461	16	16-1/2	1/4	15.955 ±.075	0.275 ±.006					16.452	16.000	16.500	16.048				
2-462	16-1/2	17	1/4	16.455 ±.075	0.275 ±.006					16.952	16.500	17.000	16.548				
2-463	17	17-1/2	1/4	16.955 ±.085	0.275 ±.006					17.452	17.000	17.500	17.048				
2-464	17-1/2	18	1/4	17.455 ±.085	0.275 ±.006					17.952	17.500	18.000	17.548				
2-465	18	18-1/2	1/4	17.955 ±.085	0.275 ±.006					18.452	18.000	18.500	18.048				
2-466	18-1/2	19	1/4	18.455 ±.090	0.275 ±.006					18.952	18.500	19.000	18.548				
2-467	19	19-1/2	1/4	18.955 ±.090	0.275 ±.006					19.452	19.000	19.500	19.048				
2-468	19-1/2	20	1/4	19.455 ±.090	0.275 ±.006					19.952	19.500	20.000	19.548				
2-469	20	20-1/2	1/4	19.955 ±.095	0.275 ±.006					20.452	20.000	20.500	20.048				
2-470	21	21-1/2	1/4	20.955 ±.095	0.275 ±.006					21.452	21.000	21.500	21.048				
2-471	22	22-1/2	1/4	21.955 ±.100	0.275 ±.006					22.452	22.000	22.500	22.048				
2-472	23	23-1/2	1/4	22.940 ±.105	0.275 ±.006					23.452	23.000	23.500	23.048				
2-473	24	24-1/2	1/4	23.940 ±.110	0.275 ±.006					24.452	24.000	24.500	24.048				
2-474	25	25-1/2	1/4	24.940 ±.115	0.275 ±.006					25.452	25.000	25.500	25.048				
2-475	26	26-1/2	1/4	25.940 ±.120	0.275 ±.006					26.452	26.000	26.500	26.048				



# O-Ring Size Comparison Chart

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
2-001	0.029	0.040	0.74	1.02	X		X			
2-002	0.042	0.050	1.07	1.27	X		X			
M115-100	0.045	0.039	1.15	1.00				X		
2-102	0.049	0.103	1.24	2.62	X		X			
2-003	0.056	0.060	1.42	1.52	X		X			
M178-102	0.070	0.040	1.78	1.02			X			
2-004	0.070	0.070	1.78	1.78	X		X			
M180-180	0.071	0.071	1.80	1.80	X					
M200-180	0.079	0.071	2.00	1.80	X					
2-103	0.081	0.103	2.06	2.62	X		X			
M220-160	0.087	0.063	2.20	1.60				X		
M224-180	0.088	0.071	2.24	1.80	X					
M240-190	0.094	0.075	2.40	1.90				X		S3
M250-150	0.098	0.059	2.50	1.50						
M250-180	0.098	0.071	2.50	1.80	X					
M254-102	0.100	0.040	2.54	1.02			X			
2-005	0.101	0.070	2.57	1.78	X		X			
M260-190	0.102	0.075	2.60	1.90				X		
M280-180	0.110	0.071	2.80	1.80	X					P3
M280-190	0.110	0.075	2.80	1.90						
2-104	0.112	0.103	2.84	2.62	X		X			
2-006	0.114	0.070	2.90	1.78	X		X			
M300-150	0.118	0.059	3.00	1.50		X				
M300-200	0.118	0.079	3.00	2.00		X				
M300-300	0.118	0.118	3.00	3.00		X				
M310-160	0.122	0.063	3.10	1.60		X	X			
M315-180	0.124	0.071	3.15	1.80	X					
M317-178	0.125	0.070	3.17	1.78			X			
M330-240	0.130	0.094	3.30	2.40		X				
M340-190	0.134	0.075	3.40	1.90				X		
M350-150	0.138	0.059	3.50	1.50						S4
M355-180	0.140	0.071	3.55	1.80	X					
M360-240	0.141	0.094	3.60	2.40			X			
2-105	0.143	0.103	3.63	2.62	X		X			
2-007	0.145	0.070	3.68	1.78	X		X			
M375-180	0.148	0.071	3.75	1.80	X					
M380-190	0.150	0.075	3.80	1.90						P4
M400-150	0.157	0.059	4.00	1.50			X			
M400-180	0.157	0.071	4.00	1.80	X					
M400-200	0.157	0.079	4.00	2.00			X			
M400-250	0.157	0.098	4.00	2.50			X			
M400-300	0.157	0.118	4.00	3.00			X			
M400-400	0.157	0.157	4.00	4.00			X			
M400-500	0.157	0.197	4.00	5.00			X			
M410-160	0.161	0.063	4.10	1.60		X	X			
M420-190	0.165	0.075	4.20	1.90				X		
M430-240	0.169	0.094	4.30	2.40		X				
2-201	0.171	0.139	4.34	3.53	X		X			
2-106	0.174	0.103	4.42	2.62	X		X			
2-008	0.176	0.070	4.47	1.78	X		X			
M450-150	0.177	0.059	4.50	1.50						S5
M450-180	0.177	0.071	4.50	1.80	X					
M450-265	0.177	0.104	4.50	2.65	X					
M460-240	0.181	0.094	4.60	2.40			X			
3-901	0.185	0.056	4.70	1.42	X		X			
M476-178	0.187	0.070	4.76	1.78			X			
M480-190	0.189	0.075	4.80	1.90						P5
M487-180	0.192	0.071	4.87	1.80						
M490-190	0.193	0.075	4.90	1.90				X		
M500-150	0.197	0.059	5.00	1.50						
M500-180	0.197	0.071	5.00	1.80	X					
M500-200	0.197	0.079	5.00	2.00			X			
M500-250	0.197	0.098	5.00	2.50			X			
M500-300	0.197	0.118	5.00	3.00			X			
M500-400	0.197	0.157	5.00	4.00			X			
M500-500	0.197	0.197	5.00	5.00			X			
M510-160	0.201	0.063	5.10	1.60		X	X			
M515-180	0.203	0.071	5.15	1.80	X					
2-107	0.206	0.103	5.23	2.62	X		X			
2-009	0.208	0.070	5.28	1.78	X		X			
M530-180	0.209	0.071	5.30	1.80	X					
M530-240	0.209	0.094	5.30	2.40		X				
M530-265	0.209	0.104	5.30	2.65	X					
M550-150	0.217	0.059	5.50	1.50						
M560-180	0.220	0.071	5.60	1.80	X					
M560-240	0.220	0.094	5.60	2.40				X		
M570-190	0.224	0.075	5.70	1.90				X		
M576-240	0.226	0.094	5.76	2.40			X			
M580-190	0.228	0.075	5.80	1.90						P6
2-202	0.234	0.139	5.94	3.53	X		X			
M596-240	0.235	0.094	5.96	2.40			X			
M600-150	0.236	0.059	6.00	1.50			X			
M600-180	0.236	0.071	6.00	1.80	X					
M600-200	0.236	0.079	6.00	2.00			X			
M600-220	0.236	0.087	6.00	2.20				X		
M600-250	0.236	0.098	6.00	2.50			X			
M600-265	0.236	0.104	6.00	2.65	X					
M600-300	0.236	0.118	6.00	3.00			X			
M600-400	0.236	0.157	6.00	4.00			X			
M600-500	0.236	0.197	6.00	5.00			X			
2-108	0.237	0.103	6.02	2.62	X		X			
3-902	0.239	0.064	6.07	1.63	X		X			
2-010	0.239	0.070	6.07	1.78	X		X			
M610-160	0.240	0.063	6.10	1.60		X	X			
M630-180	0.248	0.071	6.30	1.80	X					
M630-240	0.248	0.094	6.30	2.40		X				
M635-178	0.250	0.070	6.35	1.78				X		
M640-190	0.252	0.075	6.40	1.90				X		
M650-150	0.256	0.059	6.50	1.50						S7
M660-240	0.260	0.094	6.60	2.40			X			
M670-180	0.264	0.071	6.70	1.80	X					
M675-178	0.266	0.070	6.75	1.78			X			
M680-190	0.268	0.075	6.80	1.90						P7
M690-180	0.272	0.071	6.90	1.80	X					
M690-265	0.272	0.104	6.90	2.65	X					
M700-150	0.276	0.059	7.00	1.50			X			
M700-200	0.276	0.079	7.00	2.00			X			
M700-250	0.276	0.098	7.00	2.50			X			
M700-300	0.276	0.118	7.00	3.00			X			
M700-400	0.276	0.157	7.00	4.00			X			
M700-500	0.276	0.197	7.00	5.00			X			
M710-160	0.280	0.063	7.10	1.60		X	X			
M710-180	0.280	0.071	7.10	1.80	X					
M720-190	0.283	0.075	7.20	1.90				X		

*\*Chart for comparison only. Not all sizes stocked.*



### O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
					ISO	ISO	ISO	ISO	ISO	ISO						ISO	ISO	ISO			
M730-240	0.287	0.094	7.30	2.40		X					M1000-250	0.394	0.098	10.00	2.50			X			
M750-150	0.295	0.059	7.50	1.50						S8	M1000-265	0.394	0.104	10.00	2.65	X					
M750-180	0.295	0.071	7.50	1.80	X						M1000-300	0.394	0.118	10.00	3.00			X			
2-203	0.296	0.139	7.52	3.53	X		X				M1000-350	0.394	0.138	10.00	3.50			X			
M760-240	0.299	0.094	7.60	2.40			X				M1000-400	0.394	0.157	10.00	4.00			X			
2-109	0.299	0.103	7.59	2.62	X		X				M1000-500	0.394	0.197	10.00	5.00			X			
3-903	0.301	0.064	7.65	1.63	X		X				M1010-160	0.398	0.063	10.10	1.60		X	X			
2-011	0.301	0.070	7.65	1.78	X		X				M1030-240	0.406	0.094	10.30	2.40			X			
M780-190	0.307	0.075	7.80	1.90						P8	2-309	0.412	0.210	10.46	5.33	X			X		
M794-178	0.313	0.070	7.94	1.78			X				M1050-270	0.413	0.106	10.50	2.70				X		
M800-150	0.315	0.059	8.00	1.50			X				3-905	0.414	0.072	10.52	1.83	X			X		
M800-180	0.315	0.071	8.00	1.80	X						M1060-180	0.417	0.071	10.60	1.80		X				
M800-190	0.315	0.075	8.00	1.90				X			M1060-240	0.417	0.094	10.60	2.40				X		
M800-200	0.315	0.079	8.00	2.00			X				M1060-265	0.417	0.104	10.60	2.65		X				
M800-250	0.315	0.098	8.00	2.50			X				2-205	0.421	0.139	10.69	3.53	X			X		
M800-265	0.315	0.104	8.00	2.65	X						M1070-150	0.421	0.059	10.70	1.50						S11.2
M800-300	0.315	0.118	8.00	3.00			X				2-111	0.424	0.103	10.77	2.62	X			X		
M800-350	0.315	0.138	8.00	3.50			X				M1080-240	0.425	0.094	10.80	2.40						P11
M800-400	0.315	0.157	8.00	4.00			X				2-013	0.426	0.070	10.82	1.78	X			X		
M800-500	0.315	0.197	8.00	5.00			X				M1100-150	0.433	0.059	11.00	1.50			X			
M806-178	0.317	0.070	8.06	1.78				X			M1100-200	0.433	0.079	11.00	2.00			X			
M810-160	0.319	0.063	8.10	1.60		X	X				M1100-240	0.433	0.094	11.00	2.40						P11.2
M830-240	0.327	0.094	8.30	2.40		X					M1100-250	0.433	0.098	11.00	2.50				X		
M850-150	0.335	0.059	8.50	1.50						S9	M1100-300	0.433	0.118	11.00	3.00			X			
M850-180	0.335	0.071	8.50	1.80	X						M1100-350	0.433	0.138	11.00	3.50			X			
M860-240	0.339	0.094	8.60	2.40			X				M1100-400	0.433	0.157	11.00	4.00			X			
M873-178	0.344	0.070	8.73	1.78			X				M1100-500	0.433	0.197	11.00	5.00			X			
M875-180	0.344	0.071	8.75	1.80	X						M1110-160	0.437	0.063	11.10	1.60		X	X			
M880-190	0.346	0.075	8.80	1.90						P9	M1111-178	0.437	0.070	11.11	1.78				X		
M890-190	0.350	0.075	8.90	1.90				X			M1120-180	0.441	0.071	11.20	1.80	X					
M890-270	0.350	0.106	8.90	2.70				X			M1120-265	0.441	0.104	11.20	2.65	X					
3-904	0.351	0.072	8.92	1.83	X		X				M1130-240	0.445	0.094	11.30	2.40		X				
M900-150	0.354	0.059	9.00	1.50			X				M1150-150	0.453	0.059	11.50	1.50						S12
M900-180	0.354	0.071	9.00	1.80	X						M1160-240	0.457	0.094	11.60	2.40				X		
M900-200	0.354	0.079	9.00	2.00			X				M1180-180	0.465	0.071	11.80	1.80	X					
M900-220	0.354	0.087	9.00	2.20				X			M1180-240	0.465	0.094	11.80	2.40						P12
M900-250	0.354	0.098	9.00	2.50			X				M1180-265	0.465	0.104	11.80	2.65	X					
M900-265	0.354	0.104	9.00	2.65	X						3-906	0.468	0.078	11.89	1.98	X			X		
M900-300	0.354	0.118	9.00	3.00			X				M1191-262	0.469	0.103	11.91	2.62				X		
M900-350	0.354	0.138	9.00	3.50			X				M1200-150	0.472	0.059	12.00	1.50			X			
M900-400	0.354	0.157	9.00	4.00			X				M1200-200	0.472	0.079	12.00	2.00			X			
M900-500	0.354	0.197	9.00	5.00			X				M1200-250	0.472	0.098	12.00	2.50			X			
M910-160	0.358	0.063	9.10	1.60		X	X				M1200-300	0.472	0.118	12.00	3.00			X			
2-204	0.359	0.139	9.12	3.53	X		X				M1200-350	0.472	0.138	12.00	3.50			X			
2-110	0.362	0.103	9.19	2.62	X		X				M1200-400	0.472	0.157	12.00	4.00			X			
2-012	0.364	0.070	9.25	1.78	X		X				M1200-500	0.472	0.197	12.00	5.00			X			
M930-240	0.366	0.094	9.30	2.40		X					2-310	0.475	0.210	12.07	5.33	X			X		
M950-150	0.374	0.059	9.50	1.50						S10	M1210-160	0.476	0.063	12.10	1.60		X	X			
M950-180	0.374	0.071	9.50	1.80	X						M1210-270	0.476	0.106	12.10	2.70					X	
M950-265	0.374	0.104	9.50	2.65	X						M1230-240	0.484	0.094	12.30	2.40		X				P12.5
M952-178	0.375	0.070	9.52	1.78				X			2-206	0.484	0.139	12.29	3.53	X			X		
M960-240	0.378	0.094	9.60	2.40			X				2-112	0.487	0.103	12.37	2.62	X			X		
M980-190	0.386	0.075	9.80	1.90						P10	2-014	0.489	0.070	12.42	1.78	X			X		
M980-240	0.386	0.094	9.80	2.40						P10A	M1250-150	0.492	0.059	12.50	1.50						S12.5
M992-262	0.391	0.103	9.92	2.62			X				M1250-180	0.492	0.071	12.50	1.80	X					
M1000-150	0.394	0.059	10.00	1.50			X				M1250-265	0.492	0.104	12.50	2.65	X					
M1000-180	0.394	0.071	10.00	1.80	X						M1260-240	0.496	0.094	12.60	2.40				X		
M1000-200	0.394	0.079	10.00	2.00			X				M1270-262	0.500	0.103	12.70	2.62				X		

\*Chart for comparison only. Not all sizes stocked.

### O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M1300-150	0.512	0.059	13.00	1.50			X			
M1300-200	0.512	0.079	13.00	2.00			X			
M1300-250	0.512	0.098	13.00	2.50			X			
M1300-300	0.512	0.118	13.00	3.00			X			
M1300-350	0.512	0.138	13.00	3.50			X			
M1300-400	0.512	0.157	13.00	4.00			X			
M1300-500	0.512	0.197	13.00	5.00			X			
M1310-160	0.516	0.063	13.10	1.60		X	X			
M1310-262	0.516	0.103	13.10	2.62			X			
M1320-180	0.520	0.071	13.20	1.80	X					
M1320-265	0.520	0.104	13.20	2.65	X					
M1330-240	0.524	0.094	13.30	2.40		X				
3-907	0.530	0.082	13.46	2.08	X		X			
M1350-150	0.531	0.059	13.50	1.50						S14
M1360-240	0.535	0.094	13.60	2.40			X			
M1360-270	0.535	0.106	13.60	2.70				X		
2-311	0.537	0.210	13.64	5.33	X		X			
M1380-240	0.543	0.094	13.80	2.40						P14
2-207	0.546	0.139	13.87	3.53	X		X			
2-113	0.549	0.103	13.94	2.62	X		X			
M1400-150	0.551	0.059	14.00	1.50			X			
2-015	0.551	0.070	14.00	1.78	X		X			
M1400-180	0.551	0.071	14.00	1.80	X					
M1400-200	0.551	0.079	14.00	2.00			X			
M1400-250	0.551	0.098	14.00	2.50			X			
M1400-265	0.551	0.104	14.00	2.65	X					
M1400-300	0.551	0.118	14.00	3.00			X			
M1400-350	0.551	0.138	14.00	3.50			X			
M1400-355	0.551	0.140	14.00	3.55	X					
M1400-400	0.551	0.157	14.00	4.00			X			
M1400-500	0.551	0.197	14.00	5.00			X			
M1410-160	0.555	0.063	14.10	1.60		X	X			
M1430-240	0.563	0.094	14.30	2.40		X				
M1450-150	0.571	0.059	14.50	1.50						S15
M1450-400	0.571	0.157	14.50	4.00						V15
M1460-240	0.575	0.094	14.60	2.40			X			
M1480-240	0.583	0.094	14.80	2.40						P15
M1500-150	0.591	0.059	15.00	1.50			X			
M1500-180	0.591	0.071	15.00	1.80	X					
M1500-200	0.591	0.079	15.00	2.00			X			
M1500-250	0.591	0.098	15.00	2.50			X			
M1500-265	0.591	0.104	15.00	2.65	X					
M1500-300	0.591	0.118	15.00	3.00			X			
M1500-350	0.591	0.138	15.00	3.50			X			
M1500-355	0.591	0.140	15.00	3.55	X					
M1500-400	0.591	0.157	15.00	4.00			X			
M1500-500	0.591	0.197	15.00	5.00			X			
M1510-160	0.594	0.063	15.10	1.60		X	X			
M1508-262	0.594	0.103	15.08	2.62			X			
M1510-270	0.594	0.106	15.10	2.70				X		
2-312	0.600	0.210	15.24	5.33	X		X			
M1530-240	0.602	0.094	15.30	2.40		X				
2-208	0.609	0.139	15.47	3.53	X		X			
M1550-150	0.610	0.059	15.50	1.50						S16
2-114	0.612	0.103	15.54	2.62	X		X			
2-016	0.614	0.070	15.60	1.78	X		X			
M1560-240	0.614	0.094	15.60	2.40			X			
M1580-240	0.622	0.094	15.80	2.40						P16
M1588-262	0.625	0.103	15.88	2.62				X		
M1600-150	0.630	0.059	16.00	1.50			X			
M1600-180	0.630	0.071	16.00	1.80	X					
M1600-190	0.630	0.075	16.00	1.90					X	
M1600-200	0.630	0.079	16.00	2.00			X			
M1600-250	0.630	0.098	16.00	2.50			X			
M1600-265	0.630	0.104	16.00	2.65	X					
M1600-300	0.630	0.118	16.00	3.00			X			
M1600-350	0.630	0.138	16.00	3.50			X			
M1600-355	0.630	0.140	16.00	3.55	X					
M1600-400	0.630	0.157	16.00	4.00			X			
M1600-500	0.630	0.197	16.00	5.00			X			
M1610-160	0.634	0.063	16.10	1.60		X	X			
M1630-240	0.642	0.094	16.30	2.40		X				
3-908	0.644	0.087	16.36	2.21	X		X			
M1660-240	0.654	0.094	16.60	2.40				X		
2-313	0.662	0.210	16.81	5.33	X		X			
M1690-270	0.665	0.106	16.90	2.70				X		
M1700-150	0.669	0.059	17.00	1.50			X			
M1700-180	0.669	0.071	17.00	1.80	X					
M1700-200	0.669	0.079	17.00	2.00			X			
M1700-250	0.669	0.098	17.00	2.50			X			
M1700-265	0.669	0.104	17.00	2.65	X					
M1700-300	0.669	0.118	17.00	3.00			X			
M1700-350	0.669	0.138	17.00	3.50			X			
M1700-355	0.669	0.140	17.00	3.55	X					
M1700-400	0.669	0.157	17.00	4.00			X			
M1700-500	0.669	0.197	17.00	5.00			X			
2-209	0.671	0.139	17.04	3.53	X		X			
M1710-160	0.673	0.063	17.10	1.60		X	X			
2-115	0.674	0.103	17.12	2.62	X		X			
2-017	0.676	0.070	17.17	1.78	X		X			
M1720-300	0.677	0.118	17.20	3.00		X				
M1730-240	0.681	0.094	17.30	2.40		X				
M1746-262	0.687	0.103	17.46	2.62			X			
M1750-150	0.689	0.059	17.50	1.50						S18
M1760-240	0.693	0.094	17.60	2.40			X			
M1780-240	0.701	0.094	17.80	2.40						P18
M1786-262	0.703	0.103	17.86	2.62			X			
3-909	0.706	0.097	17.93	2.46	X		X			
M1800-150	0.709	0.059	18.00	1.50			X			
M1800-180	0.709	0.071	18.00	1.80	X					
M1800-200	0.709	0.079	18.00	2.00			X			
M1800-250	0.709	0.098	18.00	2.50			X			
M1800-265	0.709	0.104	18.00	2.65	X					
M1800-300	0.709	0.118	18.00	3.00			X			
M1800-350	0.709	0.138	18.00	3.50			X			
M1800-355	0.709	0.140	18.00	3.55	X					
M1800-400	0.709	0.157	18.00	4.00			X			
M1800-500	0.709	0.197	18.00	5.00			X			
M1810-160	0.713	0.063	18.10	1.60		X	X			
M1820-300	0.717	0.118	18.20	3.00		X				
M1830-240	0.720	0.094	18.30	2.40		X				
M1830-360	0.720	0.142	18.30	3.60				X		
M1840-270	0.724	0.106	18.40	2.70				X		
2-314	0.725	0.210	18.42	5.33	X		X			
M1860-240	0.732	0.094	18.60	2.40			X			
2-210	0.734	0.139	18.64	3.53	X		X			

\*Chart for comparison only. Not all sizes stocked.



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
2-116	0.737	0.103	18.72	2.62	X			X		
2-018	0.739	0.070	18.77	1.78	X			X		
M1900-150	0.748	0.059	19.00	1.50			X			
M1900-180	0.748	0.071	19.00	1.80	X					
M1900-200	0.748	0.079	19.00	2.00			X			
M1900-250	0.748	0.098	19.00	2.50			X			
M1900-265	0.748	0.104	19.00	2.65	X					
M1900-300	0.748	0.118	19.00	3.00			X			
M1900-350	0.748	0.138	19.00	3.50			X			
M1900-355	0.748	0.140	19.00	3.55	X					
M1900-400	0.748	0.157	19.00	4.00			X			
M1900-500	0.748	0.197	19.00	5.00			X			
M1910-160	0.752	0.063	19.10	1.60		X	X			
3-910	0.755	0.097	19.77	2.46	X			X		
M1920-300	0.756	0.118	19.20	3.00		X				
M1930-240	0.760	0.094	19.30	2.40		X				
M1950-150	0.768	0.059	19.50	1.50						S20
M1960-240	0.772	0.094	19.60	2.40				X		
M1980-240	0.780	0.094	19.80	2.40						P20
M1980-360	0.780	0.142	19.80	3.60				X		
M2000-150	0.787	0.059	20.00	1.50			X			
M2000-180	0.787	0.071	20.00	1.80	X					
M2000-200	0.787	0.079	20.00	2.00			X			
M2000-250	0.787	0.098	20.00	2.50			X			
M2000-265	0.787	0.104	20.00	2.65	X					
M2000-300	0.787	0.118	20.00	3.00			X			
M2000-350	0.787	0.138	20.00	3.50			X			
M2000-355	0.787	0.140	20.00	3.55	X					
M2000-400	0.787	0.157	20.00	4.00			X			
M2000-500	0.787	0.197	20.00	5.00			X			
2-315	0.787	0.210	19.99	5.33	X			X		
M2010-160	0.791	0.063	20.10	1.60		X	X			
M2020-300	0.795	0.118	20.20	3.00		X				
2-211	0.796	0.139	20.22	3.53	X			X		
M2030-240	0.799	0.094	20.30	2.40		X				
2-117	0.799	0.103	20.29	2.62	X			X		
2-019	0.801	0.070	20.35	1.78	X			X		
M2064-262	0.813	0.103	20.64	2.62				X		
M2080-240	0.819	0.094	20.80	2.40						P21
M2100-150	0.827	0.059	21.00	1.50			X			
M2100-200	0.827	0.079	21.00	2.00			X			
M2100-250	0.827	0.098	21.00	2.50			X			
M2100-300	0.827	0.118	21.00	3.00			X			
M2100-350	0.827	0.138	21.00	3.50			X			
M2100-400	0.827	0.157	21.00	4.00			X			
M2100-500	0.827	0.197	21.00	5.00			X			
M2110-160	0.831	0.063	21.10	1.60		X		X		
M2120-180	0.835	0.071	21.20	1.80	X					
M2120-265	0.835	0.104	21.20	2.65	X					
M2120-300	0.835	0.118	21.20	3.00		X				
M2120-355	0.835	0.140	21.20	3.55	X					
M2130-240	0.839	0.094	21.30	2.40		X				
M2130-360	0.839	0.142	21.30	3.60				X		
M2150-150	0.846	0.059	21.50	1.50						S22
M2160-240	0.850	0.094	21.60	2.40				X		
2-316	0.850	0.210	21.59	5.33	X			X		
M2170-350	0.854	0.138	21.70	3.50						P22A
M2180-240	0.858	0.094	21.80	2.40						P22
2-212	0.859	0.139	21.82	3.53	X			X		
M2190-200	0.862	0.079	21.90	2.00						S22.4
2-118	0.862	0.103	21.89	2.62	X			X		
3-911	0.863	0.116	21.92	2.95	X			X		
2-020	0.864	0.070	21.95	1.78	X			X		
M2200-150	0.866	0.059	22.00	1.50			X			
M2200-200	0.866	0.079	22.00	2.00			X			
M2200-250	0.866	0.098	22.00	2.50			X			
M2200-300	0.866	0.118	22.00	3.00			X			
M2200-350	0.866	0.138	22.00	3.50			X			
M2200-400	0.866	0.157	22.00	4.00			X			
M2200-500	0.866	0.197	22.00	5.00			X			
M2210-160	0.870	0.063	22.10	1.60		X		X		
M2210-350	0.870	0.138	22.10	3.50						P22.4
M2220-300	0.874	0.118	22.20	3.00		X				
M2222-262	0.875	0.103	22.22	2.62				X		
M2230-240	0.878	0.094	22.30	2.40			X			
M2240-180	0.882	0.071	22.40	1.80		X				
M2240-265	0.882	0.104	22.40	2.65	X					
M2240-355	0.882	0.140	22.40	3.55	X					
M2300-150	0.906	0.059	23.00	1.50			X			
M2300-200	0.906	0.079	23.00	2.00			X			
M2300-250	0.906	0.098	23.00	2.50			X			
M2300-300	0.906	0.118	23.00	3.00			X			
M2300-350	0.906	0.138	23.00	3.50			X			
M2300-360	0.906	0.142	23.00	3.60					X	
M2300-400	0.906	0.157	23.00	4.00				X		
M2300-500	0.906	0.197	23.00	5.00			X			
2-317	0.912	0.210	23.16	5.33	X			X		
M2330-240	0.917	0.094	23.30	2.40		X				
2-213	0.921	0.139	23.39	3.53	X			X		
2-119	0.924	0.103	23.47	2.62	X			X		
3-912	0.924	0.116	23.47	2.95	X			X		
M2350-200	0.925	0.079	23.50	2.00						S24
M2350-400	0.925	0.157	23.50	4.00						V24
2-021	0.926	0.070	23.52	1.78	X			X		
M2360-180	0.929	0.071	23.60	1.80		X				
M2360-265	0.929	0.104	23.60	2.65		X				
M2360-355	0.929	0.140	23.60	3.55		X				
M2370-350	0.933	0.138	23.70	3.50						P24
M2381-262	0.937	0.103	23.81	2.62				X		
M2400-150	0.945	0.059	24.00	1.50				X		
M2400-200	0.945	0.079	24.00	2.00				X		
M2400-250	0.945	0.098	24.00	2.50				X		
M2400-300	0.945	0.118	24.00	3.00				X		
M2400-350	0.945	0.138	24.00	3.50				X		
M2400-400	0.945	0.157	24.00	4.00				X		
M2400-500	0.945	0.197	24.00	5.00				X		
M2420-300	0.953	0.118	24.20	3.00		X				
M2440-310	0.961	0.122	24.40	3.10		X				G25
M2450-200	0.965	0.079	24.50	2.00						S25
M2460-240	0.969	0.094	24.60	2.40				X		
M2460-360	0.969	0.142	24.60	3.60					X	
M2470-350	0.972	0.138	24.70	3.50						P25
2-318	0.975	0.210	24.77	5.33	X			X		
M2500-150	0.984	0.059	25.00	1.50				X		
M2500-180	0.984	0.071	25.00	1.80		X				
M2500-200	0.984	0.079	25.00	2.00				X		

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## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M2500-240	0.984	0.094	25.00	2.40				X		
M2500-250	0.984	0.098	25.00	2.50			X			
M2500-265	0.984	0.104	25.00	2.65	X					
M2500-300	0.984	0.118	25.00	3.00			X			
M2500-350	0.984	0.138	25.00	3.50			X			
2-214	0.984	0.139	24.99	3.53	X			X		
M2500-355	0.984	0.140	25.00	3.55	X					
M2500-400	0.984	0.157	25.00	4.00			X			
M2500-500	0.984	0.197	25.00	5.00			X			
3-913	0.986	0.116	25.04	2.95	X			X		
2-120	0.987	0.103	25.07	2.62	X			X		
M2510-160	0.988	0.063	25.10	1.60		X		X		
2-022	0.989	0.070	25.12	1.78	X			X		
M2520-300	0.992	0.118	25.20	3.00		X				
M2520-350	0.992	0.138	35.20	3.50						P25.5
M2530-240	0.996	0.094	25.30	2.40		X				
M2550-200	1.004	0.079	25.50	2.00						S26
M2570-350	1.012	0.138	25.70	3.50						P26
M2580-180	1.016	0.071	25.80	1.80	X					
M2580-265	1.016	0.104	25.80	2.65	X					
M2580-353	1.016	0.139	25.80	3.53				X		
M2580-355	1.016	0.140	25.80	3.55	X					
M2600-150	1.024	0.059	26.00	1.50			X			
M2600-200	1.024	0.079	26.00	2.00			X			
M2600-250	1.024	0.098	26.00	2.50			X			
M2600-300	1.024	0.118	26.00	3.00			X			
M2600-350	1.024	0.138	26.00	3.50			X			
M2600-400	1.024	0.157	26.00	4.00			X			
M2600-500	1.024	0.197	26.00	5.00			X			
M2620-300	1.031	0.118	26.20	3.00		X				
M2620-360	1.031	0.142	26.20	3.60					X	
2-319	1.037	0.210	26.34	5.33	X			X		
M2650-180	1.043	0.071	26.50	1.80	X					
M2650-265	1.043	0.104	26.50	2.65	X					
M2650-355	1.043	0.140	26.50	3.55	X					
2-215	1.046	0.139	26.57	3.53	X			X		
3-914	1.047	0.116	26.59	2.95	X			X		
2-121	1.049	0.103	26.64	2.62	X			X		
2-023	1.051	0.070	26.70	1.78	X			X		
M2700-150	1.063	0.059	27.00	1.50			X			
M2700-200	1.063	0.079	27.00	2.00			X			
M2700-250	1.063	0.098	27.00	2.50			X			
M2700-300	1.063	0.118	27.00	3.00			X			
M2700-350	1.063	0.138	27.00	3.50			X			
M2700-400	1.063	0.157	27.00	4.00			X			
M2700-500	1.063	0.197	27.00	5.00			X			
M2710-160	1.067	0.063	27.10	1.60		X		X		
M2730-240	1.075	0.094	27.30	2.40		X				
M2730-270	1.075	0.106	27.30	2.70					X	
M2750-200	1.083	0.079	27.50	2.00						S28
M2760-240	1.087	0.094	27.60	2.40				X		
M2770-350	1.091	0.138	27.70	3.50						P28
M2780-360	1.094	0.142	27.80	3.60					X	
2-320	1.100	0.210	27.94	5.33	X			X		
M2800-150	1.102	0.059	28.00	1.50			X			
M2800-180	1.102	0.071	28.00	1.80	X					
M2800-200	1.102	0.079	28.00	2.00			X			
M2800-250	1.102	0.098	28.00	2.50			X			
M2800-265	1.102	0.104	28.00	2.65						
M2800-300	1.102	0.118	28.00	3.00						
M2800-350	1.102	0.138	28.00	3.50						
M2800-355	1.102	0.140	28.00	3.55						
M2800-400	1.102	0.157	28.00	4.00						
M2800-500	1.102	0.197	28.00	5.00						
2-216	1.109	0.139	28.17	3.53	X			X		
M2820-300	1.110	0.118	28.20	3.00		X				
2-122	1.112	0.103	28.24	2.62	X			X		
2-024	1.114	0.070	28.30	1.78	X			X		
M2850-200	1.122	0.079	28.50	2.00						S29 P29
M2870-350	1.130	0.138	28.70	3.50						
M2900-150	1.142	0.059	29.00	1.50			X			
M2900-200	1.142	0.079	29.00	2.00			X			
M2900-250	1.142	0.098	29.00	2.50			X			
M2900-300	1.142	0.118	29.00	3.00			X			
M2900-350	1.142	0.138	29.00	3.50			X			
M2900-400	1.142	0.157	29.00	4.00			X			
M2900-500	1.142	0.197	29.00	5.00			X			
M2910-160	1.146	0.063	29.10	1.60		X		X		
M2910-255	1.146	0.100	29.10	2.55					X	
M2920-300	1.150	0.118	29.20	3.00		X				
M2920-350	1.150	0.138	29.20	3.50						P29.5
M2930-360	1.154	0.142	29.30	3.60				X		
M2940-310	1.157	0.122	29.40	3.10						G30 S30
M2950-200	1.161	0.079	29.50	2.00						
2-321	1.162	0.210	29.51	5.33	X			X		
M2960-240	1.165	0.094	29.60	2.40				X		
M2970-350	1.169	0.138	29.70	3.50						P30
3-916	1.171	0.116	29.74	2.95	X			X		
2-217	1.171	0.139	29.74	3.53	X			X		
2-123	1.174	0.103	29.82	2.62	X			X		
2-025	1.176	0.070	29.87	1.78	X			X		
M3000-150	1.181	0.059	30.00	1.50			X			
M3000-180	1.181	0.071	30.00	1.80		X				
M3000-200	1.181	0.079	30.00	2.00			X			
M3000-250	1.181	0.098	30.00	2.50			X			
M3000-265	1.181	0.104	30.00	2.65		X				
M3000-300	1.181	0.118	30.00	3.00			X			
M3000-350	1.181	0.138	30.00	3.50			X			
M3000-355	1.181	0.140	30.00	3.55		X				
M3000-400	1.181	0.157	30.00	4.00			X			
M3000-500	1.181	0.197	30.00	5.00			X			
M3020-300	1.189	0.118	30.20	3.00		X				
M3030-240	1.193	0.094	30.30	2.40		X				
M3070-350	1.209	0.138	30.70	3.50						P31
M3080-360	1.213	0.142	30.80	3.60					X	
M3100-150	1.220	0.059	31.00	1.50			X			
M3100-200	1.220	0.079	31.00	2.00			X			S31.5
M3100-250	1.220	0.098	31.00	2.50			X			
M3100-300	1.220	0.118	31.00	3.00			X			
M3100-350	1.220	0.138	31.00	3.50			X			
M3100-400	1.220	0.157	31.00	4.00			X			
M3100-500	1.220	0.197	31.00	5.00			X			
2-322	1.225	0.210	31.12	5.33	X			X		
M3120-300	1.228	0.118	31.20	3.00		X				
M3120-350	1.228	0.138	31.20	3.50						P31.5
2-218	1.234	0.139	31.34	3.53	X			X		

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**O-Ring Size Comparison Chart, cont'd.**

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN	FRANCE	JAPAN
2-124	1.237	0.103	31.42	2.62	X		X		
2-026	1.239	0.070	31.47	1.78	X		X		
M3150-180	1.240	0.071	31.50	1.80	X				
M3150-200	1.240	0.079	31.50	2.00					S32
M3150-265	1.240	0.104	31.50	2.65	X				
M3150-355	1.240	0.140	31.50	3.55	X				
M3160-240	1.244	0.094	31.60	2.40			X		P32
M3170-350	1.248	0.138	31.70	3.50					
M3200-150	1.260	0.059	32.00	1.50		X			
M3200-200	1.260	0.079	32.00	2.00		X			
M3200-250	1.260	0.098	32.00	2.50		X			
M3200-300	1.260	0.118	32.00	3.00		X			
M3200-350	1.260	0.138	32.00	3.50		X			
M3200-400	1.260	0.157	32.00	4.00		X			
M3200-500	1.260	0.197	32.00	5.00		X			
M3210-160	1.264	0.063	32.10	1.60		X	X		
M3220-300	1.268	0.118	32.20	3.00		X			
M3250-180	1.280	0.071	32.50	1.80	X				
M3250-265	1.280	0.104	32.50	2.65	X				
M3250-355	1.280	0.140	32.50	3.55	X				
M3250-360	1.280	0.142	32.50	3.60				X	
2-323	1.287	0.210	32.69	5.33	X		X		
2-219	1.296	0.139	32.92	3.53	X		X		
M3300-150	1.299	0.059	33.00	1.50		X			
M3300-200	1.299	0.079	33.00	2.00		X			
M3300-250	1.299	0.098	33.00	2.50		X			
2-125	1.299	0.103	32.99	2.62	X		X		
M3300-300	1.299	0.118	33.00	3.00		X			
M3300-350	1.299	0.138	33.00	3.50		X			
M3300-400	1.299	0.157	33.00	4.00		X			
M3300-500	1.299	0.197	33.00	5.00		X			
2-027	1.301	0.070	33.05	1.78	X		X		
M3330-240	1.311	0.094	33.30	2.40		X			
M3350-180	1.319	0.071	33.50	1.80	X				
M3350-200	1.319	0.079	33.50	2.00					S34
M3350-265	1.319	0.104	33.50	2.65	X				
M3350-355	1.319	0.140	33.50	3.55	X				
M3350-400	1.319	0.157	33.50	4.00					V34
M3370-350	1.327	0.138	33.70	3.50					P34
M3400-150	1.339	0.059	34.00	1.50		X			
M3400-200	1.339	0.079	34.00	2.00		X			
M3400-250	1.339	0.098	34.00	2.50		X			
M3400-300	1.339	0.118	34.00	3.00		X			
M3400-350	1.339	0.138	34.00	3.50		X			
M3400-400	1.339	0.157	34.00	4.00		X			
M3400-500	1.339	0.197	34.00	5.00		X			
M3410-360	1.343	0.142	34.10	3.60				X	
M3420-300	1.346	0.118	34.20	3.00		X			
2-324	1.350	0.210	34.29	5.33	X		X		
M3440-310	1.354	0.122	34.40	3.10					G35
3-918	1.355	0.116	34.42	2.95	X		X		
M3450-180	1.358	0.071	34.50	1.80	X				
M3450-200	1.358	0.079	34.50	2.00					S35
M3450-265	1.358	0.104	34.50	2.65	X				
M3450-355	1.358	0.140	34.50	3.55	X				
2-220	1.359	0.139	34.52	3.53	X		X		
M3460-240	1.362	0.094	34.60	2.40			X		
2-126	1.362	0.103	34.59	2.62	X		X		

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN	FRANCE	JAPAN
2-028	1.364	0.070	34.65	1.78	X		X		
M3470-350	1.366	0.138	34.70	3.50					P35
M3500-150	1.378	0.059	35.00	1.50		X			
M3500-200	1.378	0.079	35.00	2.00		X			S35.5
M3500-250	1.378	0.098	35.00	2.50		X			
M3500-300	1.378	0.118	35.00	3.00		X			
M3500-350	1.378	0.138	35.00	3.50		X			
M3500-400	1.378	0.157	35.00	4.00		X			
M3500-500	1.378	0.197	35.00	5.00		X			
M3510-160	1.382	0.063	35.10	1.60		X	X		
M3520-300	1.386	0.118	35.20	3.00		X			
M3520-350	1.386	0.138	35.20	3.50					P35.5
M3520-570	1.386	0.224	35.20	5.70		X	X		
M3550-180	1.398	0.071	35.50	1.80	X				
M3550-200	1.398	0.079	35.50	2.00					S36
M3550-265	1.398	0.104	35.50	2.65	X				
M3550-355	1.398	0.140	35.50	3.55	X				
M3560-360	1.402	0.142	35.60	3.60				X	
M3570-350	1.406	0.138	35.70	3.50					P36
M3600-150	1.417	0.059	36.00	1.50			X		
M3600-200	1.417	0.079	36.00	2.00			X		
M3600-250	1.417	0.098	36.00	2.50			X		
M3600-300	1.417	0.118	36.00	3.00			X		
M3600-350	1.417	0.138	36.00	3.50			X		
M3600-400	1.417	0.157	36.00	4.00			X		
M3600-500	1.417	0.197	36.00	5.00			X		
2-221	1.421	0.139	36.09	3.53	X		X		
2-127	1.424	0.103	36.17	2.62	X		X		
M3620-300	1.425	0.118	36.20	3.00		X			
M3620-570	1.425	0.224	36.20	5.70		X			
M3650-180	1.437	0.071	36.50	1.80	X				
M3650-265	1.437	0.104	36.50	2.65	X				
M3650-355	1.437	0.140	36.50	3.55	X				
M3700-150	1.457	0.059	37.00	1.50			X		
M3700-200	1.457	0.079	37.00	2.00			X		
M3700-250	1.457	0.098	37.00	2.50			X		
M3700-300	1.457	0.118	37.00	3.00			X		
M3700-350	1.457	0.138	37.00	3.50			X		
M3700-400	1.457	0.157	37.00	4.00			X		
M3700-500	1.457	0.197	37.00	5.00			X		
M3710-160	1.461	0.063	37.10	1.60		X	X		
M3720-300	1.465	0.118	37.20	3.00		X			
M3720-570	1.465	0.224	37.20	5.70		X			
M3730-360	1.469	0.142	37.30	3.60				X	
3-920	1.475	0.118	37.47	3.00	X		X		
2-325	1.475	0.210	37.47	5.33	X		X	X	
2-401	1.475	0.275	37.47	6.99	X				
M3750-180	1.476	0.071	37.50	1.80	X				
M3750-200	1.476	0.079	37.50	2.00					S38
M3750-265	1.476	0.104	37.50	2.65	X				
M3750-355	1.476	0.140	37.50	3.55	X				
M3750-530	1.476	0.209	37.50	5.30	X				
M3760-240	1.480	0.094	37.60	2.40			X		
M3770-350	1.484	0.138	37.70	3.50					P38
2-222	1.484	0.139	37.69	3.53	X		X		
2-128	1.487	0.103	37.77	2.62	X		X		
2-029	1.489	0.070	37.82	1.78	X		X		
M3800-150	1.496	0.059	38.00	1.50		X			

*\*Chart for comparison only. Not all sizes stocked.*

## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN FRANCE	JAPAN
M3800-200	1.496	0.079	38.00	2.00		X			M4128-353	1.625	0.139	41.28	3.53			X	
M3800-250	1.496	0.098	38.00	2.50		X			M4140-530	1.630	0.209	41.40	5.30				X
M3800-300	1.496	0.118	38.00	3.00		X			M4150-200	1.634	0.079	41.50	2.00				S42
M3800-350	1.496	0.138	38.00	3.50		X			M4160-240	1.638	0.094	41.60	2.40			X	
M3800-400	1.496	0.157	38.00	4.00		X			M4170-350	1.642	0.138	41.70	3.50				P42
M3800-500	1.496	0.197	38.00	5.00		X			M4200-150	1.654	0.059	42.00	1.50			X	
M3850-200	1.516	0.079	38.50	2.00				S39	M4200-200	1.654	0.079	42.00	2.00			X	
M3870-180	1.524	0.071	38.70	1.80	X				M4200-250	1.654	0.098	42.00	2.50			X	
M3870-265	1.524	0.104	38.70	2.65	X				M4200-300	1.654	0.118	42.00	3.00			X	
M3870-350	1.524	0.138	38.70	3.50				P39	M4200-350	1.654	0.138	42.00	3.50			X	
M3870-355	1.524	0.140	38.70	3.55	X				M4200-400	1.654	0.157	42.00	4.00			X	
M3870-530	1.524	0.209	38.70	5.30	X				M4200-500	1.654	0.197	42.00	5.00			X	
M3900-150	1.535	0.059	39.00	1.50		X			M4220-300	1.661	0.118	42.20	3.00		X		
M3900-200	1.535	0.079	39.00	2.00		X			M4250-180	1.673	0.071	42.50	1.80	X			
M3900-250	1.535	0.098	39.00	2.50		X			M4250-265	1.673	0.104	42.50	2.65	X			
M3900-300	1.535	0.118	39.00	3.00		X			M4250-355	1.673	0.140	42.50	3.55	X			
M3900-350	1.535	0.138	39.00	3.50		X			M4250-530	1.673	0.209	42.50	5.30	X			
M3900-400	1.535	0.157	39.00	4.00		X			2-131	1.674	0.103	42.52	2.62	X		X	
M3900-500	1.535	0.197	39.00	5.00		X			M4286-353	1.687	0.139	42.86	3.53			X	
M3920-300	1.543	0.118	39.20	3.00		X			M4300-150	1.693	0.059	43.00	1.50			X	
M3920-570	1.543	0.224	39.20	5.70		X			M4300-200	1.693	0.079	43.00	2.00			X	
2-129	1.549	0.103	39.34	2.62	X		X		M4300-250	1.693	0.098	43.00	2.50			X	
M3940-310	1.551	0.122	39.40	3.10				G40	M4300-300	1.693	0.118	43.00	3.00			X	
M3950-200	1.555	0.079	39.50	2.00				S40	M4300-350	1.693	0.138	43.00	3.50			X	
M3950-400	1.555	0.157	39.50	4.00				V40	M4300-400	1.693	0.157	43.00	4.00			X	
M3960-240	1.559	0.094	39.60	2.40			X		M4300-500	1.693	0.197	43.00	5.00			X	
M3970-350	1.563	0.138	39.70	3.50				P40	M4340-360	1.709	0.142	43.40	3.60				X
M3969-353	1.563	0.139	39.69	3.53			X		M4350-200	1.713	0.079	43.50	2.00				S44
M4000-150	1.575	0.059	40.00	1.50		X			M4370-180	1.720	0.071	43.70	1.80	X			
M4000-180	1.575	0.071	40.00	1.80	X				M4370-265	1.720	0.104	43.70	2.65	X			
M4000-200	1.575	0.079	40.00	2.00		X			3-924	1.720	0.118	43.69	3.00	X		X	
M4000-250	1.575	0.098	40.00	2.50		X			M4370-350	1.720	0.138	43.70	3.50				P44
M4000-265	1.575	0.104	40.00	2.65	X				M4370-355	1.720	0.140	43.70	3.55			X	
M4000-300	1.575	0.118	40.00	3.00		X			M4370-530	1.720	0.209	43.70	5.30	X			
M4000-350	1.575	0.138	40.00	3.50		X			2-327	1.725	0.210	43.82	5.33	X		X	X
M4000-355	1.575	0.140	40.00	3.55	X				2-403	1.725	0.275	43.82	6.99	X			
M4000-400	1.575	0.157	40.00	4.00		X			M4400-150	1.732	0.059	44.00	1.50			X	
M4000-500	1.575	0.197	40.00	5.00		X			M4400-200	1.732	0.079	44.00	2.00			X	
M4000-530	1.575	0.209	40.00	5.30	X				M4400-250	1.732	0.098	44.00	2.50			X	
M4020-300	1.583	0.118	40.20	3.00		X			M4400-300	1.732	0.118	44.00	3.00			X	
2-326	1.600	0.210	40.64	5.33	X		X	X	M4400-350	1.732	0.138	44.00	3.50			X	
2-402	1.600	0.275	40.64	6.99	X				M4400-400	1.732	0.157	44.00	4.00			X	
M4070-350	1.602	0.138	40.70	3.50				P41	M4400-500	1.732	0.197	44.00	5.00			X	
2-223	1.609	0.139	40.87	3.53	X		X		2-224	1.734	0.139	44.04	3.53	X		X	
2-130	1.612	0.103	40.94	2.62	X		X		2-132	1.737	0.103	44.12	2.62	X		X	
M4100-150	1.614	0.059	41.00	1.50		X			2-031	1.739	0.070	44.17	1.78	X		X	
2-030	1.614	0.070	41.00	1.78	X		X		M4420-300	1.740	0.118	44.20	3.00		X		
M4100-200	1.614	0.079	41.00	2.00		X			M4430-570	1.744	0.224	44.30	5.70		X	X	
M4100-250	1.614	0.098	41.00	2.50		X			M4440-310	1.748	0.122	44.40	3.10				G45
M4100-300	1.614	0.118	41.00	3.00		X			M4445-353	1.750	0.139	44.45	3.53			X	
M4100-350	1.614	0.138	41.00	3.50		X			M4450-200	1.752	0.079	44.50	2.00				S45
M4100-400	1.614	0.157	41.00	4.00		X			M4460-240	1.756	0.094	44.60	2.40			X	
M4100-500	1.614	0.197	41.00	5.00		X			M4470-350	1.760	0.138	44.70	3.50				P45
M4120-180	1.622	0.071	41.20	1.80	X				M4500-150	1.772	0.059	45.00	1.50			X	
M4120-265	1.622	0.104	41.20	2.65	X				M4500-180	1.772	0.071	45.00	1.80	X			
M4120-355	1.622	0.140	41.20	3.55	X				M4500-200	1.772	0.079	45.00	2.00			X	
M4120-530	1.622	0.209	41.20	5.30	X				M4500-250	1.772	0.098	45.00	2.50			X	
M4120-570	1.622	0.224	41.20	5.70		X			M4500-265	1.772	0.104	45.00	2.65	X			

**\*Chart for comparison only. Not all sizes stocked.**



### O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M4500-300	1.772	0.118	45.00	3.00			X			
M4500-350	1.772	0.138	45.00	3.50			X			
M4500-355	1.772	0.140	45.00	3.55	X					
M4500-400	1.772	0.157	45.00	4.00			X			
M4500-500	1.772	0.197	45.00	5.00			X			
M4500-530	1.772	0.209	45.00	5.30	X					
M4520-300	1.780	0.118	45.20	3.00		X				
M4530-570	1.783	0.224	45.30	5.70		X	X			
M4550-200	1.791	0.079	45.50	2.00						S46
2-133	1.799	0.103	45.69	2.62	X			X		
M4570-350	1.799	0.138	45.70	3.50						P46
M4600-150	1.811	0.059	46.00	1.50			X			
M4600-200	1.811	0.079	46.00	2.00			X			
M4600-250	1.811	0.098	46.00	2.50			X			
M4600-300	1.811	0.118	46.00	3.00			X			
M4600-350	1.811	0.138	46.00	3.50			X			
M4600-400	1.811	0.157	46.00	4.00			X			
M4600-500	1.811	0.197	46.00	5.00			X			
M4604-353	1.813	0.139	46.04	3.53				X		
M4620-265	1.819	0.104	46.20	2.65	X					
M4620-300	1.819	0.118	46.20	3.00		X				
M4620-355	1.819	0.140	46.20	3.55	X					
M4620-530	1.819	0.209	46.20	5.30	X					
M4700-150	1.850	0.059	47.00	1.50			X			
M4700-200	1.850	0.079	47.00	2.00			X			
M4700-250	1.850	0.098	47.00	2.50			X			
M4700-300	1.850	0.118	47.00	3.00			X			
M4700-350	1.850	0.138	47.00	3.50			X			
M4700-400	1.850	0.157	47.00	4.00			X			
M4700-500	1.850	0.197	47.00	5.00			X			
2-328	1.850	0.210	46.99	5.33	X			X	X	
2-404	1.850	0.275	46.99	6.99	X					
2-225	1.859	0.139	47.22	3.53	X		X			
2-134	1.862	0.103	47.29	2.62	X		X			
M4730-570	1.862	0.224	47.30	5.70		X	X			
2-032	1.864	0.070	47.35	1.78	X		X			
M4750-180	1.870	0.071	47.50	1.80	X					
M4750-200	1.870	0.079	47.50	2.00						S48
M4750-265	1.870	0.104	47.50	2.65	X					
M4750-355	1.870	0.140	47.50	3.55	X					
M4750-530	1.870	0.209	47.50	5.30	X					
M4760-240	1.874	0.094	47.60	2.40			X			
M4760-570	1.874	0.224	47.60	5.70						P48A
M4763-353	1.875	0.139	47.63	3.53			X			
M4770-350	1.878	0.138	47.70	3.50						P48
M4800-150	1.890	0.059	48.00	1.50			X			
M4800-200	1.890	0.079	48.00	2.00			X			
M4800-250	1.890	0.098	48.00	2.50			X			
M4800-300	1.890	0.118	48.00	3.00			X			
M4800-350	1.890	0.138	48.00	3.50			X			
M4800-400	1.890	0.157	48.00	4.00			X			
M4800-500	1.890	0.197	48.00	5.00			X			
M4870-265	1.917	0.104	48.70	2.65	X					
M4870-350	1.917	0.138	48.70	3.50						P49
M4870-355	1.917	0.140	48.70	3.55	X					
M4870-530	1.917	0.209	48.70	5.30	X					
2-135	1.925	0.103	48.90	2.62	X		X			
M4900-150	1.929	0.059	49.00	1.50			X			
M4900-200	1.929	0.079	49.00	2.00			X			
M4900-250	1.929	0.098	49.00	2.50			X			
M4900-300	1.929	0.118	49.00	3.00			X			
M4900-350	1.929	0.138	49.00	3.50			X			
M4900-400	1.929	0.157	49.00	4.00			X			
M4900-500	1.929	0.197	49.00	5.00			X			
M4921-353	1.937	0.139	49.21	3.53				X		
M4930-570	1.941	0.224	49.30	5.70		X	X			
M4940-310	1.945	0.122	49.40	3.10						G50
M4950-200	1.949	0.079	49.50	2.00						S50
M4950-300	1.949	0.118	49.50	3.00		X	X			
M4960-240	1.953	0.094	49.60	2.40			X			
M4960-570	1.953	0.224	49.60	5.70						P50A
M4970-350	1.957	0.138	49.70	3.50						P50
M5000-150	1.969	0.059	50.00	1.50			X			
M5000-180	1.969	0.071	50.00	1.80	X					
M5000-200	1.969	0.079	50.00	2.00			X			
M5000-250	1.969	0.098	50.00	2.50			X			
M5000-265	1.969	0.104	50.00	2.65	X					
M5000-300	1.969	0.118	50.00	3.00			X			
M5000-350	1.969	0.138	50.00	3.50			X			
M5000-355	1.969	0.140	50.00	3.55	X					
M5000-400	1.969	0.157	50.00	4.00			X			
M5000-500	1.969	0.197	50.00	5.00			X			
M5000-530	1.969	0.209	50.00	5.30	X					
2-329	1.975	0.210	50.17	5.33	X			X	X	
2-405	1.975	0.275	50.17	6.99	X					
M5020-300	1.976	0.118	50.20	3.00		X				
2-226	1.984	0.139	50.39	3.53	X			X		
2-136	1.987	0.103	50.47	2.62	X			X		
2-033	1.989	0.070	50.52	1.78	X			X		
M5080-353	2.000	0.139	50.80	3.53				X		
M5100-150	2.008	0.059	51.00	1.50			X			
M5100-200	2.008	0.079	51.00	2.00			X			
M5100-250	2.008	0.098	51.00	2.50			X			
M5100-300	2.008	0.118	51.00	3.00			X			
M5100-350	2.008	0.138	51.00	3.50			X			
M5100-400	2.008	0.157	51.00	4.00			X			
M5100-500	2.008	0.197	51.00	5.00			X			
M5130-570	2.020	0.224	51.30	5.70		X	X			
M5150-265	2.028	0.104	51.50	2.65	X					
M5150-355	2.028	0.140	51.50	3.55	X					
M5150-530	2.028	0.209	51.50	5.30	X					
M5160-240	2.031	0.094	51.60	2.40			X			
M5160-570	2.031	0.224	51.60	5.70						P52
M5200-150	2.047	0.059	52.00	1.50			X			
M5200-200	2.047	0.079	52.00	2.00			X			
M5200-250	2.047	0.098	52.00	2.50			X			
M5200-300	2.047	0.118	52.00	3.00			X			
M5200-350	2.047	0.138	52.00	3.50			X			
M5200-400	2.047	0.157	52.00	4.00			X			
M5200-500	2.047	0.197	52.00	5.00			X			
2-137	2.050	0.103	52.07	2.62	X			X		
M5230-570	2.059	0.224	52.30	5.70		X	X			
M5239-353	2.063	0.139	52.39	3.53			X			
M5250-200	2.067	0.079	52.50	2.00						S53
M5260-570	2.071	0.224	52.60	5.70						P53
M5300-150	2.087	0.059	53.00	1.50			X			

*\*Chart for comparison only. Not all sizes stocked.*



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	A5668A ISO	SWEDEN GERMANY	BRITAIN FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	A5668A ISO	SWEDEN GERMANY	BRITAIN FRANCE	JAPAN
M5300-180	2.087	0.071	53.00	1.80	X				M5620-300	2.213	0.118	56.20	3.00		X		
M5300-200	2.087	0.079	53.00	2.00		X			2-331	2.225	0.210	56.52	5.33	X		X	X
M5300-250	2.087	0.098	53.00	2.50		X			2-407	2.225	0.275	56.52	6.99	X		X	
M5300-265	2.087	0.104	53.00	2.65	X				2-228	2.234	0.139	56.74	3.53	X		X	
M5300-300	2.087	0.118	53.00	3.00		X			2-140	2.237	0.103	56.82	2.62	X		X	
M5300-350	2.087	0.138	53.00	3.50		X			2-035	2.239	0.070	56.87	1.78	X		X	
M5300-355	2.087	0.140	53.00	3.55	X				M5700-150	2.244	0.059	57.00	1.50		X		
M5300-400	2.087	0.157	53.00	4.00		X			M5700-200	2.244	0.079	57.00	2.00		X		
M5300-500	2.087	0.197	53.00	5.00		X			M5700-250	2.244	0.098	57.00	2.50		X		
M5300-530	2.087	0.209	53.00	5.30	X				M5700-300	2.244	0.118	57.00	3.00		X		
3-928	2.090	0.118	53.09	3.00	X		X		M5700-350	2.244	0.138	57.00	3.50		X		
2-330	2.100	0.210	53.34	5.33	X		X X		M5700-400	2.244	0.157	57.00	4.00		X		
2-406	2.100	0.275	53.34	6.99	X				M5700-500	2.244	0.197	57.00	5.00		X		
2-227	2.109	0.139	53.57	3.53	X		X		M5715-353	2.250	0.139	57.15	3.53			X	
2-138	2.112	0.103	53.64	2.62	X		X		M5720-300	2.252	0.118	57.20	3.00		X		
2-034	2.114	0.070	53.70	1.78	X		X		M5730-570	2.256	0.224	57.30	5.70		X	X	
M5398-353	2.125	0.139	53.98	3.53		X			M5760-240	2.268	0.094	57.60	2.40			X	
M5400-150	2.126	0.059	54.00	1.50		X			M5760-570	2.268	0.224	57.60	5.70				P58
M5400-200	2.126	0.079	54.00	2.00		X			M5800-150	2.283	0.059	58.00	1.50		X		
M5400-250	2.126	0.098	54.00	2.50		X			M5800-200	2.283	0.079	58.00	2.00		X		
M5400-300	2.126	0.118	54.00	3.00		X			M5800-250	2.283	0.098	58.00	2.50		X		
M5400-350	2.126	0.138	54.00	3.50		X			M5800-265	2.283	0.104	58.00	2.65	X			
M5400-400	2.126	0.157	54.00	4.00		X			M5800-300	2.283	0.118	58.00	3.00		X		
M5400-500	2.126	0.197	54.00	5.00		X			M5800-350	2.283	0.138	58.00	3.50		X		
M5430-570	2.138	0.224	54.30	5.70		X X			M5800-355	2.283	0.140	58.00	3.55	X			
M5440-310	2.142	0.122	54.40	3.10				G55	M5800-400	2.283	0.157	58.00	4.00		X		
M5440-530	2.142	0.209	54.40	5.30			X		M5800-500	2.283	0.197	58.00	5.00		X		
M5450-200	2.146	0.079	54.50	2.00				S55	M5800-530	2.283	0.209	58.00	5.30	X			
M5450-265	2.146	0.104	54.50	2.65	X				2-141	2.300	0.103	58.42	2.62	X		X	
M5450-300	2.146	0.118	54.50	3.00		X X			M5874-353	2.313	0.139	58.74	3.53			X	
M5450-355	2.146	0.140	54.50	3.55	X				M5900-150	2.323	0.059	59.00	1.50		X		
M5450-400	2.146	0.157	54.50	4.00				V55	M5900-200	2.323	0.079	59.00	2.00		X		
M5450-530	2.146	0.209	54.50	5.30	X				M5900-250	2.323	0.098	59.00	2.50		X		
M5460-240	2.150	0.094	54.60	2.40		X			M5900-300	2.323	0.118	59.00	3.00		X		
M5460-570	2.150	0.224	54.60	5.70				P55	M5900-350	2.323	0.138	59.00	3.50		X		
M5500-150	2.165	0.059	55.00	1.50		X			M5900-400	2.323	0.157	59.00	4.00		X		
M5500-200	2.165	0.079	55.00	2.00		X			M5900-500	2.323	0.197	59.00	5.00		X		
M5500-250	2.165	0.098	55.00	2.50		X			M5930-570	2.335	0.224	59.30	5.70		X	X	
M5500-300	2.165	0.118	55.00	3.00		X			3-932	2.337	0.118	59.36	3.00	X		X	
M5500-350	2.165	0.138	55.00	3.50		X			M5940-310	2.339	0.122	59.40	3.10				G60
M5500-400	2.165	0.157	55.00	4.00		X			M5950-200	2.343	0.079	59.50	2.00				S60
M5500-500	2.165	0.197	55.00	5.00		X			M5950-300	2.343	0.118	59.50	3.00		X	X	
M5520-300	2.173	0.118	55.20	3.00		X			M5960-240	2.346	0.094	59.60	2.40			X	
2-139	2.175	0.103	55.25	2.62	X		X		M5960-570	2.346	0.224	59.60	5.70				P60
M5550-200	2.185	0.079	55.50	2.00				S56	2-332	2.350	0.210	59.69	5.33	X		X X	
M5556-353	2.187	0.139	55.56	3.53		X			2-408	2.350	0.275	59.69	6.99	X			
M5560-570	2.189	0.224	55.60	5.70				P56	2-229	2.359	0.139	59.92	3.53	X		X	
M5600-150	2.205	0.059	56.00	1.50		X			M6000-150	2.362	0.059	60.00	1.50			X	
M5600-180	2.205	0.071	56.00	1.80	X				M6000-180	2.362	0.071	60.00	1.80	X			
M5600-200	2.205	0.079	56.00	2.00		X			M6000-200	2.362	0.079	60.00	2.00			X	
M5600-250	2.205	0.098	56.00	2.50		X			M6000-250	2.362	0.098	60.00	2.50			X	
M5600-265	2.205	0.104	56.00	2.65	X				2-142	2.362	0.103	59.99	2.62	X		X	
M5600-300	2.205	0.118	56.00	3.00		X			M6000-265	2.362	0.104	60.00	2.65	X			
M5600-350	2.205	0.138	56.00	3.50		X			M6000-300	2.362	0.118	60.00	3.00			X	
M5600-355	2.205	0.140	56.00	3.55	X				M6000-350	2.362	0.138	60.00	3.50			X	
M5600-400	2.205	0.157	56.00	4.00		X			M6000-355	2.362	0.140	60.00	3.55	X			
M5600-500	2.205	0.197	56.00	5.00		X			M6000-400	2.362	0.157	60.00	4.00			X	
M5600-530	2.205	0.209	56.00	5.30	X				M6000-500	2.362	0.197	60.00	5.00			X	

\*Chart for comparison only. Not all sizes stocked.



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M6000-530	2.362	0.209	60.00	5.30		X				
2-036	2.364	0.070	60.05	1.78	X		X			
M6033-353	2.375	0.139	60.33	3.53			X			
M6050-300	2.382	0.118	60.50	3.00		X	X			
M6100-150	2.402	0.059	61.00	1.50			X			
M6100-200	2.402	0.079	61.00	2.00			X			
M6100-250	2.402	0.098	61.00	2.50			X			
M6100-300	2.402	0.118	61.00	3.00			X			
M6100-350	2.402	0.138	61.00	3.50			X			
M6100-400	2.402	0.157	61.00	4.00			X			
M6100-500	2.402	0.197	61.00	5.00			X			
M6130-570	2.413	0.224	61.30	5.70		X	X			
M6150-265	2.421	0.104	61.50	2.65	X					
M6150-355	2.421	0.140	61.50	3.55	X					
M6150-530	2.421	0.209	61.50	5.30	X					
M6160-240	2.425	0.000	61.60	2.40			X			
2-143	2.425	0.103	61.60	2.62	X		X			
M6160-570	2.425	0.224	61.60	5.70					P62	
M6191-353	2.437	0.139	61.91	3.53			X			
M6200-150	2.441	0.059	62.00	1.50			X			
M6200-200	2.441	0.079	62.00	2.00			X			
M6200-250	2.441	0.098	62.00	2.50			X			
M6200-300	2.441	0.118	62.00	3.00			X			
M6200-350	2.441	0.138	62.00	3.50			X			
M6200-400	2.441	0.157	62.00	4.00			X			
M6200-500	2.441	0.197	62.00	5.00			X			
M6220-300	2.449	0.118	62.20	3.00		X				
M6230-570	2.453	0.224	62.30	5.70		X	X			
M6250-200	2.461	0.079	62.50	2.00					S63	
M6260-570	2.465	0.224	62.60	5.70					P63	
2-333	2.475	0.210	62.87	5.33	X		X	X		
2-409	2.475	0.275	62.87	6.99	X					
M6300-150	2.480	0.059	63.00	1.50		X				
M6300-180	2.480	0.071	63.00	1.80	X					
M6300-200	2.480	0.079	63.00	2.00		X				
M6300-250	2.480	0.098	63.00	2.50		X				
M6300-265	2.480	0.104	63.00	2.65	X					
M6300-300	2.480	0.118	63.00	3.00		X				
M6300-350	2.480	0.138	63.00	3.50		X				
M6300-355	2.480	0.140	63.00	3.55	X					
M6300-400	2.480	0.157	63.00	4.00		X				
M6300-500	2.480	0.197	63.00	5.00		X				
M6300-530	2.480	0.209	63.00	5.30	X					
2-230	2.484	0.139	63.09	3.53	X		X			
2-144	2.487	0.103	63.17	2.62	X		X			
2-037	2.489	0.070	63.22	1.78	X		X			
M6350-353	2.500	0.139	63.50	3.53			X			
M6400-150	2.520	0.059	64.00	1.50		X				
M6400-200	2.520	0.079	64.00	2.00		X				
M6400-250	2.520	0.098	64.00	2.50		X				
M6400-300	2.520	0.118	64.00	3.00		X				
M6400-350	2.520	0.138	64.00	3.50		X				
M6400-400	2.520	0.157	64.00	4.00		X				
M6400-500	2.520	0.197	64.00	5.00		X				
M6430-570	2.531	0.224	64.30	5.70		X	X			
M6440-310	2.535	0.122	64.40	3.10					G65	
M6450-200	2.539	0.079	64.50	2.00					S65	
M6450-300	2.539	0.118	64.50	3.00		X	X			

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M6460-570	2.543	0.224	64.60	5.70						P65
2-145	2.550	0.103	64.77	2.62	X			X		
M6500-150	2.559	0.059	65.00	1.50			X			
M6500-200	2.559	0.079	65.00	2.00			X			
M6500-250	2.559	0.098	65.00	2.50			X			
M6500-265	2.559	0.104	65.00	2.65	X					
M6500-300	2.559	0.118	65.00	3.00			X			
M6500-350	2.559	0.138	65.00	3.50			X			
M6500-355	2.559	0.140	65.00	3.55	X					
M6500-400	2.559	0.157	65.00	4.00			X			
M6500-500	2.559	0.197	65.00	5.00			X			
M6500-530	2.559	0.209	65.00	5.30	X					
M6510-353	2.563	0.139	65.10	3.53				X		
M6600-150	2.598	0.059	66.00	1.50			X			
M6600-200	2.598	0.079	66.00	2.00			X			
M6600-250	2.598	0.098	66.00	2.50			X			
M6600-300	2.598	0.118	66.00	3.00			X			
M6600-350	2.598	0.138	66.00	3.50			X			
M6600-400	2.598	0.157	66.00	4.00			X			
M6600-500	2.598	0.197	66.00	5.00			X			
2-334	2.600	0.210	66.04	5.33	X			X	X	
2-410	2.600	0.275	66.04	6.99	X					
2-231	2.609	0.139	66.27	3.53	X		X			
2-146	2.612	0.103	66.34	2.62	X			X		
2-038	2.614	0.070	66.40	1.78	X			X		
M6650-200	2.618	0.079	66.50	2.00						S67
M6660-570	2.622	0.224	66.60	5.70						P67
M6667-353	2.625	0.139	66.67	3.53				X		
M6700-150	2.638	0.059	67.00	1.50			X			
M6700-180	2.638	0.071	67.00	1.80	X					
M6700-200	2.638	0.079	67.00	2.00			X			
M6700-250	2.638	0.098	67.00	2.50			X			
M6700-265	2.638	0.104	67.00	2.65	X					
M6700-300	2.638	0.118	67.00	3.00			X			
M6700-350	2.638	0.138	67.00	3.50			X			
M6700-355	2.638	0.140	67.00	3.55	X					
M6700-400	2.638	0.157	67.00	4.00			X			
M6700-500	2.638	0.197	67.00	5.00			X			
M6700-530	2.638	0.209	67.00	5.30	X					
M6730-570	2.650	0.224	67.30	5.70		X	X			
M6760-240	2.661	0.094	67.60	2.40				X		
2-147	2.675	0.103	67.95	2.62	X			X		
M6800-150	2.677	0.059	68.00	1.50			X			
M6800-200	2.677	0.079	68.00	2.00			X			
M6800-250	2.677	0.098	68.00	2.50			X			
M6800-300	2.677	0.118	68.00	3.00			X			
M6800-350	2.677	0.138	68.00	3.50			X			
M6800-400	2.677	0.157	68.00	4.00			X			
M6800-500	2.677	0.197	68.00	5.00			X			
M6826-353	2.687	0.139	68.26	3.53				X		
M6900-150	2.717	0.059	69.00	1.50			X			
M6900-200	2.717	0.079	69.00	2.00			X			
M6900-250	2.717	0.098	69.00	2.50			X			
M6900-265	2.717	0.104	69.00	2.65	X					
M6900-300	2.717	0.118	69.00	3.00			X			
M6900-350	2.717	0.138	69.00	3.50			X			
M6900-355	2.717	0.140	69.00	3.55	X					
M6900-400	2.717	0.157	69.00	4.00			X			V70

*\*Chart for comparison only. Not all sizes stocked.*

### O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
					ISO					
M6900-500	2.717	0.197	69.00	5.00		X				
M6900-530	2.717	0.209	69.00	5.30	X					
2-335	2.725	0.210	69.22	5.33	X		X	X		
2-411	2.725	0.275	69.22	6.99	X					
M6930-570	2.728	0.224	69.30	5.70		X	X			
M6940-310	2.732	0.122	69.40	3.10						G70
2-232	2.734	0.139	69.44	3.53	X		X			
M6950-200	2.736	0.079	69.50	2.00						S70
M6950-300	2.736	0.118	69.50	3.00		X	X			
2-148	2.737	0.103	69.52	2.62	X		X			
2-039	2.739	0.070	69.57	1.78	X		X			
M6960-240	2.740	0.000	69.60	2.40			X			
M6960-570	2.740	0.224	69.60	5.70						P70
M6985-353	2.750	0.139	69.85	3.53			X			
M7000-150	2.756	0.059	70.00	1.50			X			
M7000-200	2.756	0.079	70.00	2.00			X			
M7000-250	2.756	0.098	70.00	2.50			X			
M7000-300	2.756	0.118	70.00	3.00			X			
M7000-350	2.756	0.138	70.00	3.50			X			
M7000-400	2.756	0.157	70.00	4.00			X			
M7000-500	2.756	0.197	70.00	5.00			X			
M7050-200	2.776	0.079	70.50	2.00						S71
M7060-570	2.780	0.224	70.60	5.70						P71
M7100-150	2.795	0.059	71.00	1.50			X			
M7100-180	2.795	0.071	71.00	1.80	X					
M7100-200	2.795	0.079	71.00	2.00			X			
M7100-250	2.795	0.098	71.00	2.50			X			
M7100-265	2.795	0.104	71.00	2.65	X					
M7100-300	2.795	0.118	71.00	3.00			X			
M7100-350	2.795	0.138	71.00	3.50			X			
M7100-355	2.795	0.140	71.00	3.55	X					
M7100-400	2.795	0.157	71.00	4.00			X			
M7100-500	2.795	0.197	71.00	5.00			X			
M7100-530	2.795	0.209	71.00	5.30	X					
2-149	2.800	0.103	71.12	2.62	X		X			
M7130-570	2.807	0.224	71.30	5.70		X	X			
M7144-353	2.813	0.139	71.44	3.53			X			
M7200-150	2.835	0.059	72.00	1.50			X			
M7200-200	2.835	0.079	72.00	2.00			X			
M7200-250	2.835	0.098	72.00	2.50			X			
M7200-300	2.835	0.118	72.00	3.00			X			
M7200-350	2.835	0.138	72.00	3.50			X			
M7200-400	2.835	0.157	72.00	4.00			X			
M7200-500	2.835	0.197	72.00	5.00			X			
M7230-570	2.846	0.224	72.30	5.70		X	X			
2-336	2.850	0.210	72.39	5.33	X		X	X		
2-412	2.850	0.275	72.39	6.99	X					
2-233	2.859	0.139	72.62	3.53	X		X			
2-150	2.862	0.103	72.69	2.62	X		X			
2-040	2.864	0.070	72.75	1.78	X		X			
M7300-150	2.874	0.059	73.00	1.50			X			
M7300-200	2.874	0.079	73.00	2.00			X			
M7300-250	2.874	0.098	73.00	2.50			X			
M7300-265	2.874	0.104	73.00	2.65	X					
M7300-300	2.874	0.118	73.00	3.00			X			
M7300-350	2.874	0.138	73.00	3.50			X			
M7300-355	2.874	0.140	73.00	3.55	X					
M7300-400	2.874	0.157	73.00	4.00			X			
M7300-500	2.874	0.197	73.00	5.00			X			
M7300-530	2.874	0.209	73.00	5.30	X					
M7302-353	2.875	0.139	73.02	3.53			X			
M7400-150	2.913	0.059	74.00	1.50			X			
M7400-200	2.913	0.079	74.00	2.00			X			
M7400-250	2.913	0.098	74.00	2.50			X			
M7400-300	2.913	0.118	74.00	3.00			X			
M7400-350	2.913	0.138	74.00	3.50			X			
M7400-400	2.913	0.157	74.00	4.00			X			
M7400-500	2.913	0.197	74.00	5.00			X			
M7430-262	2.925	0.103	74.30	2.62				X		
M7430-570	2.925	0.224	74.30	5.70		X	X			
M7440-310	2.929	0.122	74.40	3.10						G75
M7450-200	2.933	0.079	74.50	2.00						S75
M7450-300	2.933	0.118	74.50	3.00		X	X			
M7461-353	2.937	0.139	74.61	3.53			X			
M7460-570	2.937	0.224	74.60	5.70						P75
M7463-533	2.938	0.210	74.63	5.33				X		
M7500-150	2.953	0.059	75.00	1.50			X			
M7500-180	2.953	0.071	75.00	1.80	X					
M7500-200	2.953	0.079	75.00	2.00			X			
M7500-250	2.953	0.098	75.00	2.50			X			
M7500-265	2.953	0.104	75.00	2.65	X					
M7500-300	2.953	0.118	75.00	3.00			X			
M7500-350	2.953	0.138	75.00	3.50			X			
M7500-355	2.953	0.140	75.00	3.55	X					
M7500-400	2.953	0.157	75.00	4.00			X			
M7500-500	2.953	0.197	75.00	5.00			X			
M7500-530	2.953	0.209	75.00	5.30		X				
2-337	2.975	0.210	75.57	5.33	X			X	X	
2-413	2.975	0.275	75.57	6.99	X					
2-234	2.984	0.139	75.79	3.53	X		X			
2-151	2.987	0.103	75.87	2.62	X		X			
2-041	2.989	0.070	75.92	1.78	X		X			
M7600-150	2.992	0.059	76.00	1.50			X			
M7600-200	2.992	0.079	76.00	2.00			X			
M7600-250	2.992	0.098	76.00	2.50			X			
M7600-300	2.992	0.118	76.00	3.00			X			
M7600-350	2.992	0.138	76.00	3.50			X			
M7600-400	2.992	0.157	76.00	4.00			X			
M7600-500	2.992	0.197	76.00	5.00			X			
M7700-150	3.031	0.059	77.00	1.50			X			
M7700-200	3.031	0.079	77.00	2.00			X			
M7700-250	3.031	0.098	77.00	2.50			X			
M7700-300	3.031	0.118	77.00	3.00			X			
M7700-350	3.031	0.138	77.00	3.50			X			
M7700-400	3.031	0.157	77.00	4.00			X			
M7700-500	3.031	0.197	77.00	5.00			X			
M7730-570	3.043	0.224	77.30	5.70		X	X			
M7750-355	3.051	0.140	77.50	3.55	X					
M7750-530	3.051	0.209	77.50	5.30	X					
M7800-150	3.071	0.059	78.00	1.50			X			
M7800-200	3.071	0.079	78.00	2.00			X			
M7800-250	3.071	0.098	78.00	2.50			X			
M7800-300	3.071	0.118	78.00	3.00			X			
M7800-350	3.071	0.138	78.00	3.50			X			
M7800-400	3.071	0.157	78.00	4.00			X			
M7800-500	3.071	0.197	78.00	5.00			X			

*\*Chart for comparison only. Not all sizes stocked.*



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
2-338	3.100	0.210	78.74	5.33	X			X	X	
2-414	3.100	0.275	78.74	6.99	X					
2-235	3.109	0.139	78.97	3.53	X			X		
M7900-150	3.110	0.059	79.00	1.50			X			
M7900-200	3.110	0.079	79.00	2.00			X			
M7900-250	3.110	0.098	79.00	2.50			X			
M7900-300	3.110	0.118	79.00	3.00			X			
M7900-350	3.110	0.138	79.00	3.50			X			
M7900-400	3.110	0.157	79.00	4.00			X			
M7900-500	3.110	0.197	79.00	5.00			X			
M7930-570	3.122	0.224	79.30	5.70		X		X		
M7940-310	3.126	0.122	79.40	3.10						G80
M7950-200	3.130	0.079	79.50	2.00						S80
M7950-300	3.130	0.118	79.50	3.00		X		X		
M7960-570	3.134	0.224	79.60	5.70						P80
M7977-533	3.141	0.210	79.77	5.33				X		
M8000-150	3.150	0.059	80.00	1.50			X			
M8000-180	3.150	0.071	80.00	1.80		X				
M8000-200	3.150	0.079	80.00	2.00			X			
M8000-250	3.150	0.098	80.00	2.50			X			
M8000-265	3.150	0.104	80.00	2.65		X				
M8000-300	3.150	0.118	80.00	3.00			X			
M8000-350	3.150	0.138	80.00	3.50			X			
M8000-355	3.150	0.140	80.00	3.55		X				
M8000-400	3.150	0.157	80.00	4.00			X			
M8000-500	3.150	0.197	80.00	5.00			X			
M8000-530	3.150	0.209	80.00	5.30		X				
M8100-150	3.189	0.059	81.00	1.50			X			
M8100-200	3.189	0.079	81.00	2.00			X			
M8100-250	3.189	0.098	81.00	2.50			X			
M8100-300	3.189	0.118	81.00	3.00			X			
M8100-350	3.189	0.138	81.00	3.50			X			
M8100-400	3.189	0.157	81.00	4.00			X			
M8100-500	3.189	0.197	81.00	5.00			X			
M8130-570	3.201	0.224	81.30	5.70		X		X		
2-339	3.225	0.210	81.92	5.33	X			X	X	
2-415	3.225	0.275	81.92	6.99	X					
M8200-150	3.228	0.059	82.00	1.50			X			
M8200-200	3.228	0.079	82.00	2.00			X			
M8200-250	3.228	0.098	82.00	2.50			X			
M8200-300	3.228	0.118	82.00	3.00			X			
M8200-350	3.228	0.138	82.00	3.50			X			
M8200-400	3.228	0.157	82.00	4.00			X			
M8200-500	3.228	0.197	82.00	5.00			X			
2-236	3.234	0.139	82.14	3.53	X			X		
2-152	3.237	0.103	82.22	2.62	X			X		
2-042	3.239	0.070	82.27	1.78	X			X		
M8230-570	3.240	0.224	82.30	5.70		X		X		
M8250-355	3.248	0.140	82.50	3.55		X				
M8250-530	3.248	0.209	82.50	5.30		X				
M8300-150	3.268	0.059	83.00	1.50			X			
M8300-200	3.268	0.079	83.00	2.00			X			
M8300-250	3.268	0.098	83.00	2.50			X			
M8300-300	3.268	0.118	83.00	3.00			X			
M8300-350	3.268	0.138	83.00	3.50			X			
M8300-400	3.268	0.157	83.00	4.00			X			
M8300-500	3.268	0.197	83.00	5.00			X			
M8380-262	3.299	0.103	83.80	2.62				X		
M8400-150	3.307	0.059	84.00	1.50						
M8400-200	3.307	0.079	84.00	2.00				X		
M8400-250	3.307	0.098	84.00	2.50				X		
M8400-300	3.307	0.118	84.00	3.00				X		
M8400-350	3.307	0.138	84.00	3.50				X		
M8400-400	3.307	0.157	84.00	4.00				X		V85
M8400-500	3.307	0.197	84.00	5.00				X		
M8430-570	3.319	0.224	84.30	5.70		X		X		
M8440-310	3.323	0.122	84.40	3.10						G85
M8450-200	3.327	0.079	84.50	2.00						S85
M8450-300	3.327	0.118	84.50	3.00		X		X		
M8460-570	3.331	0.224	84.60	5.70						P85
M8500-150	3.346	0.059	85.00	1.50			X			
M8500-180	3.346	0.071	85.00	1.80		X				
M8500-200	3.346	0.079	85.00	2.00			X			
M8500-250	3.346	0.098	85.00	2.50			X			
M8500-265	3.346	0.104	85.00	2.65		X				
M8500-300	3.346	0.118	85.00	3.00			X			
M8500-350	3.346	0.138	85.00	3.50			X			
M8500-355	3.346	0.140	85.00	3.55		X				
M8500-400	3.346	0.157	85.00	4.00			X			
M8500-500	3.346	0.197	85.00	5.00			X			
M8500-530	3.346	0.209	85.00	5.30		X				
2-340	3.350	0.210	85.09	5.33	X			X	X	
2-416	3.350	0.275	85.09	6.99	X					
2-237	3.359	0.139	85.32	3.53	X			X		
M8600-150	3.386	0.059	86.00	1.50			X			
M8600-200	3.386	0.079	86.00	2.00			X			
M8600-250	3.386	0.098	86.00	2.50			X			
M8600-300	3.386	0.118	86.00	3.00			X			
M8600-350	3.386	0.138	86.00	3.50			X			
M8600-400	3.386	0.157	86.00	4.00			X			
M8600-500	3.386	0.197	86.00	5.00			X			
M8700-150	3.425	0.059	87.00	1.50			X			
M8700-200	3.425	0.079	87.00	2.00			X			
M8700-250	3.425	0.098	87.00	2.50			X			
M8700-300	3.425	0.118	87.00	3.00			X			
M8700-350	3.425	0.138	87.00	3.50			X			
M8700-400	3.425	0.157	87.00	4.00			X			
M8700-500	3.425	0.197	87.00	5.00			X			
M8730-570	3.437	0.224	87.30	5.70			X	X		
M8750-355	3.445	0.140	87.50	3.55		X				
M8750-530	3.445	0.209	87.50	5.30		X				
M8800-150	3.465	0.059	88.00	1.50			X			
M8800-200	3.465	0.079	88.00	2.00			X			
M8800-250	3.465	0.098	88.00	2.50			X			
M8800-300	3.465	0.118	88.00	3.00			X			
M8800-350	3.465	0.138	88.00	3.50			X			
M8800-400	3.465	0.157	88.00	4.00			X			
M8800-500	3.465	0.197	88.00	5.00			X			
2-341	3.475	0.210	88.27	5.33	X			X	X	
2-417	3.475	0.275	88.27	6.99	X					
2-238	3.484	0.139	88.49	3.53	X			X		
2-153	3.487	0.103	88.57	2.62	X			X		
2-043	3.489	0.070	88.62	1.78	X			X		
M8900-150	3.504	0.059	89.00	1.50			X			
M8900-200	3.504	0.079	89.00	2.00			X			
M8900-250	3.504	0.098	89.00	2.50			X			

**\*Chart for comparison only. Not all sizes stocked.**

**O-Ring Size Comparison Chart, cont'd.**

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	A5668A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M8900-300	3.504	0.118	89.00	3.00			X			
M8900-350	3.504	0.138	89.00	3.50			X			
M8900-400	3.504	0.157	89.00	4.00			X			
M8900-500	3.504	0.197	89.00	5.00			X			
M8930-570	3.516	0.224	89.30	5.70		X	X			
M8940-310	3.520	0.122	89.40	3.10						G90
M8950-200	3.524	0.079	89.50	2.00						S90
M8950-300	3.524	0.118	89.50	3.00		X	X			
M8960-570	3.528	0.224	89.60	5.70						P90
M8969-533	3.531	0.210	89.69	5.33				X		
M9000-150	3.543	0.059	90.00	1.50			X			
M9000-180	3.543	0.071	90.00	1.80	X					
M9000-200	3.543	0.079	90.00	2.00		X				
M9000-250	3.543	0.098	90.00	2.50		X				
M9000-265	3.543	0.104	90.00	2.65	X					
M9000-300	3.543	0.118	90.00	3.00		X				
M9000-350	3.543	0.138	90.00	3.50		X				
M9000-355	3.543	0.140	90.00	3.55	X					
M9000-400	3.543	0.157	90.00	4.00		X				
M9000-500	3.543	0.197	90.00	5.00		X				
M9000-530	3.543	0.209	90.00	5.30	X					
M9100-150	3.583	0.059	91.00	1.50		X				
M9100-200	3.583	0.079	91.00	2.00		X				
M9100-250	3.583	0.098	91.00	2.50		X				
M9100-300	3.583	0.118	91.00	3.00		X				
M9100-350	3.583	0.138	91.00	3.50		X				
M9100-400	3.583	0.157	91.00	4.00		X				
M9100-500	3.583	0.197	91.00	5.00		X				
2-342	3.600	0.210	91.44	5.33	X		X	X		
2-418	3.600	0.275	91.44	6.99	X					
2-239	3.609	0.139	91.67	3.53	X		X			
M9200-150	3.622	0.059	92.00	1.50		X				
M9200-200	3.622	0.079	92.00	2.00		X				
M9200-250	3.622	0.098	92.00	2.50		X				
M9200-300	3.622	0.118	92.00	3.00		X				
M9200-350	3.622	0.138	92.00	3.50		X				
M9200-400	3.622	0.157	92.00	4.00		X				
M9200-500	3.622	0.197	92.00	5.00		X				
M9230-570	3.634	0.224	92.30	5.70		X	X			
M9250-355	3.642	0.140	92.50	3.55	X					
M9250-530	3.642	0.209	92.50	5.30	X					
M9300-150	3.661	0.059	93.00	1.50		X				
M9300-200	3.661	0.079	93.00	2.00		X				
M9300-250	3.661	0.098	93.00	2.50		X				
M9300-300	3.661	0.118	93.00	3.00		X				
M9300-350	3.661	0.138	93.00	3.50		X				
M9300-400	3.661	0.157	93.00	4.00		X				
M9300-500	3.661	0.197	93.00	5.00		X				
M9400-150	3.701	0.059	94.00	1.50		X				
M9400-200	3.701	0.079	94.00	2.00		X				
M9400-250	3.701	0.098	94.00	2.50		X				
M9400-300	3.701	0.118	94.00	3.00		X				
M9400-350	3.701	0.138	94.00	3.50		X				
M9400-400	3.701	0.157	94.00	4.00		X				
M9400-500	3.701	0.197	94.00	5.00		X				
M9430-570	3.713	0.224	94.30	5.70		X	X			
M9440-310	3.717	0.122	94.40	3.10						G95
M9450-200	3.720	0.079	94.50	2.00						S95
M9450-300	3.720	0.118	94.50	3.00						
M9460-570	3.724	0.224	94.60	5.70						P95
2-343	3.725	0.210	94.62	5.33	X			X	X	
2-419	3.725	0.275	94.62	6.99	X					
2-240	3.734	0.139	94.84	3.53	X			X		
2-154	3.737	0.103	94.92	2.62	X			X		
2-044	3.739	0.070	94.97	1.78	X			X		
M9500-150	3.740	0.059	95.00	1.50			X			
M9500-180	3.740	0.071	95.00	1.80		X				
M9500-200	3.740	0.079	95.00	2.00			X			
M9500-250	3.740	0.098	95.00	2.50			X			
M9500-265	3.740	0.104	95.00	2.65		X				
M9500-300	3.740	0.118	95.00	3.00			X			
M9500-350	3.740	0.138	95.00	3.50			X			
M9500-355	3.740	0.140	95.00	3.55		X				
M9500-400	3.740	0.157	95.00	4.00			X			
M9500-500	3.740	0.197	95.00	5.00			X			
M9500-530	3.740	0.209	95.00	5.30		X				
M9600-150	3.780	0.059	96.00	1.50			X			
M9600-200	3.780	0.079	96.00	2.00			X			
M9600-250	3.780	0.098	96.00	2.50			X			
M9600-300	3.780	0.118	96.00	3.00			X			
M9600-350	3.780	0.138	96.00	3.50			X			
M9600-400	3.780	0.157	96.00	4.00			X			
M9600-500	3.780	0.197	96.00	5.00			X			
M9700-150	3.819	0.059	97.00	1.50			X			
M9700-200	3.819	0.079	97.00	2.00			X			
M9700-250	3.819	0.098	97.00	2.50			X			
M9700-300	3.819	0.118	97.00	3.00			X			
M9700-350	3.819	0.138	97.00	3.50			X			
M9700-400	3.819	0.157	97.00	4.00			X			
M9700-500	3.819	0.197	97.00	5.00			X			
M9730-570	3.831	0.224	97.30	5.70			X	X		
M9750-355	3.839	0.140	97.50	3.55		X				
M9750-530	3.839	0.209	97.50	5.30		X				
2-344	3.850	0.210	97.79	5.33	X			X	X	
2-420	3.850	0.275	97.79	6.99	X					
M9800-150	3.858	0.059	98.00	1.50			X			
M9800-200	3.858	0.079	98.00	2.00			X			
M9800-250	3.858	0.098	98.00	2.50			X			
M9800-300	3.858	0.118	98.00	3.00			X			
M9800-350	3.858	0.138	98.00	3.50			X			
M9800-400	3.858	0.157	98.00	4.00			X			
M9800-500	3.858	0.197	98.00	5.00			X			
2-241	3.859	0.139	98.02	3.53	X			X		
M9900-150	3.898	0.059	99.00	1.50			X			
M9900-200	3.898	0.079	99.00	2.00			X			
M9900-250	3.898	0.098	99.00	2.50			X			
M9900-300	3.898	0.118	99.00	3.00			X			
M9900-350	3.898	0.138	99.00	3.50			X			
M9900-400	3.898	0.157	99.00	4.00			X			V100
M9900-500	3.898	0.197	99.00	5.00			X			
M9930-570	3.909	0.224	99.30	5.70		X		X		
M9940-310	3.913	0.122	99.40	3.10						G100
M9950-200	3.917	0.079	99.50	2.00						S100
M9950-300	3.917	0.118	99.50	3.00			X	X		
M9960-570	3.921	0.224	99.60	5.70						P100
M10000-150	3.937	0.059	100.00	1.50						



\*Chart for comparison only. Not all sizes stocked.

## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN	FRANCE	JAPAN
M10000-180	3.937	0.071	100.00	1.80	X				
M10000-200	3.937	0.079	100.00	2.00		X			
M10000-250	3.937	0.098	100.00	2.50		X			
M10000-265	3.937	0.104	100.00	2.65	X				
M10000-300	3.937	0.118	100.00	3.00		X			
M10000-350	3.937	0.138	100.00	3.50		X			
M10000-355	3.937	0.140	100.00	3.55	X				
M10000-400	3.937	0.157	100.00	4.00		X			
M10000-500	3.937	0.197	100.00	5.00		X			
M10000-530	3.937	0.209	100.00	5.30	X				
M10000-533	3.937	0.210	100.00	5.33			X		
2-345	3.975	0.210	100.97	5.33	X		X X		
2-421	3.975	0.275	100.97	6.99	X				
M10100-250	3.976	0.098	101.00	2.50		X			
M10100-300	3.976	0.118	101.00	3.00		X			
M10100-350	3.976	0.138	101.00	3.50		X			
M10100-400	3.976	0.157	101.00	4.00		X			
M10100-500	3.976	0.197	101.00	5.00		X			
2-242	3.984	0.139	101.19	3.53	X		X		
2-155	3.987	0.103	101.27	2.62	X		X		
2-045	3.989	0.070	101.32	1.78	X		X		
M10160-570	4.000	0.224	101.60	5.70					P102
M10200-250	4.016	0.098	102.00	2.50		X			
M10200-300	4.016	0.118	102.00	3.00		X			
M10200-350	4.016	0.138	102.00	3.50		X			
M10200-400	4.016	0.157	102.00	4.00		X			
M10200-500	4.016	0.197	102.00	5.00		X			
M10300-250	4.055	0.098	103.00	2.50		X			
M10300-300	4.055	0.118	103.00	3.00		X			
M10300-350	4.055	0.138	103.00	3.50		X			
M10300-355	4.055	0.140	103.00	3.55	X				
M10300-400	4.055	0.157	103.00	4.00		X			
M10300-500	4.055	0.197	103.00	5.00		X			
M10300-530	4.055	0.209	103.00	5.30	X				
M10400-250	4.094	0.098	104.00	2.50		X			
M10400-300	4.094	0.118	104.00	3.00		X			
M10400-350	4.094	0.138	104.00	3.50		X			
M10400-400	4.094	0.157	104.00	4.00		X			
M10400-500	4.094	0.197	104.00	5.00		X			
2-346	4.100	0.210	104.14	5.33	X		X X		
2-422	4.100	0.275	104.14	6.99	X				
M10430-570	4.106	0.224	104.30	5.70		X X			
2-243	4.109	0.139	104.37	3.53	X		X		
M10440-310	4.110	0.122	104.40	3.10					G105
M10450-200	4.114	0.079	104.50	2.00					S105
M10450-300	4.114	0.118	104.50	3.00		X X			
M10460-570	4.118	0.224	104.60	5.70					P105
M10500-250	4.134	0.098	105.00	2.50		X			
M10500-300	4.134	0.118	105.00	3.00		X			
M10500-350	4.134	0.138	105.00	3.50		X			
M10500-400	4.134	0.157	105.00	4.00		X			
M10500-500	4.134	0.197	105.00	5.00		X			
M10600-180	4.173	0.071	106.00	1.80	X				
M10600-250	4.173	0.098	106.00	2.50		X			
M10600-265	4.173	0.104	106.00	2.65	X				
M10600-300	4.173	0.118	106.00	3.00		X			
M10600-350	4.173	0.138	106.00	3.50		X			
M10600-355	4.173	0.140	106.00	3.55	X				

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN	FRANCE	JAPAN
M10600-400	4.173	0.157	106.00	4.00					X
M10600-500	4.173	0.197	106.00	5.00					X
M10600-530	4.173	0.209	106.00	5.30	X				
M10700-250	4.213	0.098	107.00	2.50					X
M10700-300	4.213	0.118	107.00	3.00					X
M10700-350	4.213	0.138	107.00	3.50					X
M10700-400	4.213	0.157	107.00	4.00					X
M10700-500	4.213	0.197	107.00	5.00					X
2-347	4.225	0.210	107.32	5.33	X		X X		
2-423	4.225	0.275	107.32	6.99	X				
2-244	4.234	0.139	107.54	3.53	X		X		
2-156	4.237	0.103	107.62	2.62	X		X		
2-046	4.239	0.070	107.67	1.78	X		X		
M10800-250	4.252	0.098	108.00	2.50			X		
M10800-300	4.252	0.118	108.00	3.00			X		
M10800-350	4.252	0.138	108.00	3.50			X		
M10800-400	4.252	0.157	108.00	4.00			X		
M10800-500	4.252	0.197	108.00	5.00			X		
M10900-250	4.291	0.098	109.00	2.50			X		
M10900-300	4.291	0.118	109.00	3.00			X		
M10900-350	4.291	0.138	109.00	3.50			X		
M10900-355	4.291	0.140	109.00	3.55	X				
M10900-400	4.291	0.157	109.00	4.00			X		
M10900-500	4.291	0.197	109.00	5.00			X		
M10900-530	4.291	0.209	109.00	5.30	X				
M10900-700	4.291	0.276	109.00	7.00	X				
M10930-570	4.303	0.224	109.30	5.70		X X			
M10940-310	4.307	0.122	109.40	3.10					G110
M10950-200	4.311	0.079	109.50	2.00					S110
M10950-300	4.311	0.118	109.50	3.00		X X			
M10950-533	4.311	0.210	109.50	5.33			X		
M10960-570	4.315	0.224	109.60	5.70					P110
M11000-250	4.331	0.098	110.00	2.50			X		
M11000-300	4.331	0.118	110.00	3.00			X		
M11000-350	4.331	0.138	110.00	3.50			X		
M11000-400	4.331	0.157	110.00	4.00			X		
M11000-500	4.331	0.197	110.00	5.00			X		
2-348	4.350	0.210	110.49	5.33	X		X X		
2-424	4.350	0.275	110.49	6.99	X				
2-245	4.359	0.139	110.72	3.53	X		X		
M11100-250	4.370	0.098	111.00	2.50			X		
M11100-300	4.370	0.118	111.00	3.00			X		
M11100-350	4.370	0.138	111.00	3.50			X		
M11100-400	4.370	0.157	111.00	4.00			X		
M11100-500	4.370	0.197	111.00	5.00			X		
M11150-200	4.390	0.079	111.50	2.00					S112
M11160-570	4.394	0.224	111.60	5.70					P112
M11200-180	4.409	0.071	112.00	1.80	X				
M11200-250	4.409	0.098	112.00	2.50			X		
M11200-265	4.409	0.104	112.00	2.65	X				
M11200-300	4.409	0.118	112.00	3.00			X		
M11200-350	4.409	0.138	112.00	3.50			X		
M11200-355	4.409	0.140	112.00	3.55	X				
M11200-400	4.409	0.157	112.00	4.00			X		
M11200-500	4.409	0.197	112.00	5.00			X		
M11200-700	4.409	0.276	112.00	7.00	X				
M11300-250	4.449	0.098	113.00	2.50			X		
M11300-300	4.449	0.118	113.00	3.00			X		

**\*Chart for comparison only. Not all sizes stocked.**

# O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M11300-350	4.449	0.138	113.00	3.50		X				
M11300-400	4.449	0.157	113.00	4.00		X				
M11300-500	4.449	0.197	113.00	5.00		X				
2-349	4.475	0.210	113.67	5.33	X		X	X		
2-425	4.475	0.275	113.67	6.99	X		X			
2-246	4.484	0.139	113.89	3.53	X		X			
2-157	4.487	0.103	113.97	2.62	X		X			
M11400-250	4.488	0.098	114.00	2.50		X				
M11400-300	4.488	0.118	114.00	3.00		X				
M11400-350	4.488	0.138	114.00	3.50		X				
M11400-400	4.488	0.157	114.00	4.00		X				
M11400-500	4.488	0.197	114.00	5.00		X				
2-047	4.489	0.070	114.02	1.78	X		X			
M11430-570	4.500	0.224	114.30	5.70		X	X			
M11440-310	4.504	0.122	114.40	3.10						G115
M11450-200	4.508	0.079	114.50	2.00						S115
M11450-300	4.508	0.118	114.50	3.00		X	X			
M11460-570	4.512	0.224	114.60	5.70						P115
M11470-699	4.516	0.275	114.70	6.99			X			
M11500-250	4.528	0.098	115.00	2.50		X				
M11500-300	4.528	0.118	115.00	3.00		X				
M11500-350	4.528	0.138	115.00	3.50		X				
M11500-355	4.528	0.140	115.00	3.55	X					
M11500-400	4.528	0.157	115.00	4.00		X				
M11500-500	4.528	0.197	115.00	5.00		X				
M11500-530	4.528	0.209	115.00	5.30	X					
M11500-700	4.528	0.276	115.00	7.00	X					
M11600-250	4.567	0.098	116.00	2.50		X				
M11600-300	4.567	0.118	116.00	3.00		X				
M11600-350	4.567	0.138	116.00	3.50		X				
M11600-400	4.567	0.157	116.00	4.00		X				
M11600-500	4.567	0.197	116.00	5.00		X				
2-350	4.600	0.210	116.84	5.33	X	X				
2-426	4.600	0.275	116.84	6.99	X	X				
M11700-250	4.606	0.098	117.00	2.50		X				
M11700-300	4.606	0.118	117.00	3.00		X				
M11700-350	4.606	0.138	117.00	3.50		X				
M11700-400	4.606	0.157	117.00	4.00		X				
M11700-500	4.606	0.197	117.00	5.00		X				
2-247	4.609	0.139	117.07	3.53	X		X			
M11748-533	4.625	0.210	117.48	5.33			X			
M11800-180	4.646	0.071	118.00	1.80	X					
M11800-250	4.646	0.098	118.00	2.50		X				
M11800-265	4.646	0.104	118.00	2.65	X					
M11800-300	4.646	0.118	118.00	3.00		X				
M11800-350	4.646	0.138	118.00	3.50		X				
M11800-355	4.646	0.140	118.00	3.55	X					
M11800-400	4.646	0.157	118.00	4.00		X				
M11800-500	4.646	0.197	118.00	5.00		X				
M11800-530	4.646	0.209	118.00	5.30	X					
M11800-700	4.646	0.276	118.00	7.00	X					
M11900-250	4.685	0.098	119.00	2.50		X				
M11900-300	4.685	0.118	119.00	3.00		X				
M11900-350	4.685	0.138	119.00	3.50		X				
M11900-400	4.685	0.157	119.00	4.00		X				V120
M11900-500	4.685	0.197	119.00	5.00		X				
M11930-570	4.697	0.224	119.30	5.70		X	X			
M11940-310	4.701	0.122	119.40	3.10						G120
M11950-200	4.705	0.079	119.50	2.00						S120
M11950-300	4.705	0.118	119.50	3.00		X	X			
M11960-570	4.709	0.224	119.60	5.70						P120
M12000-250	4.724	0.098	120.00	2.50			X			
M12000-300	4.724	0.118	120.00	3.00			X			
M12000-350	4.724	0.138	120.00	3.50			X			
M12000-400	4.724	0.157	120.00	4.00			X			
M12000-500	4.724	0.197	120.00	5.00			X			
2-351	4.725	0.210	120.02	5.33	X		X			
2-427	4.725	0.275	120.02	6.99	X		X			
2-248	4.734	0.139	120.24	3.53	X		X			
2-158	4.737	0.103	120.32	2.62	X		X			
2-048	4.739	0.070	120.37	1.78	X		X			
M12065-533	4.750	0.210	120.65	5.33			X			
M12100-250	4.764	0.098	121.00	2.50			X			
M12100-300	4.764	0.118	121.00	3.00			X			
M12100-350	4.764	0.138	121.00	3.50			X			
M12100-400	4.764	0.157	121.00	4.00			X			
M12100-500	4.764	0.197	121.00	5.00			X			
M12200-250	4.803	0.098	122.00	2.50			X			
M12200-300	4.803	0.118	122.00	3.00			X			
M12200-350	4.803	0.138	122.00	3.50			X			
M12200-355	4.803	0.140	122.00	3.55		X				
M12200-400	4.803	0.157	122.00	4.00			X			
M12200-500	4.803	0.197	122.00	5.00			X			
M12200-530	4.803	0.209	122.00	5.30		X				
M12200-700	4.803	0.276	122.00	7.00		X				
M12300-250	4.843	0.098	123.00	2.50			X			
M12300-300	4.843	0.118	123.00	3.00			X			
M12300-350	4.843	0.138	123.00	3.50			X			
M12300-400	4.843	0.157	123.00	4.00			X			
M12300-500	4.843	0.197	123.00	5.00			X			
2-352	4.850	0.210	123.19	5.33	X		X			
2-428	4.850	0.275	123.19	6.99	X		X			
2-249	4.859	0.139	123.42	3.53	X		X			
M12383-533	4.875	0.210	123.83	5.33			X			
M12400-250	4.882	0.098	124.00	2.50			X			
M12400-300	4.882	0.118	124.00	3.00			X			
M12400-350	4.882	0.138	124.00	3.50			X			
M12400-400	4.882	0.157	124.00	4.00			X			
M12400-500	4.882	0.197	124.00	5.00			X			
M12430-570	4.894	0.224	124.30	5.70		X	X			
M12440-310	4.898	0.122	124.40	3.10						G125
M12450-200	4.902	0.079	124.50	2.00						S125
M12450-300	4.902	0.118	124.50	3.00		X	X			
M12460-570	4.906	0.224	124.60	5.70						P125
M12460-699	4.906	0.275	124.60	6.99			X			
M12500-180	4.921	0.071	125.00	1.80		X				
M12500-250	4.921	0.098	125.00	2.50			X			
M12500-265	4.921	0.104	125.00	2.65		X				
M12500-300	4.921	0.118	125.00	3.00			X			
M12500-350	4.921	0.138	125.00	3.50			X			
M12500-355	4.921	0.140	125.00	3.55		X				
M12500-400	4.921	0.157	125.00	4.00			X			
M12500-500	4.921	0.197	125.00	5.00			X			
M12500-530	4.921	0.209	125.00	5.30		X				
M12500-700	4.921	0.276	125.00	7.00		X				
M12600-250	4.961	0.098	126.00	2.50			X			

\*Chart for comparison only. Not all sizes stocked.

**O-Ring Size Comparison Chart, cont'd.**

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M12600-300	4.961	0.118	126.00	3.00			X				2-355	5.225	0.210	132.72	5.33	X			X		
M12600-350	4.961	0.138	126.00	3.50			X				2-431	5.225	0.275	132.72	6.99	X			X	X	
M12600-400	4.961	0.157	126.00	4.00			X				2-252	5.234	0.139	132.94	3.53	X			X		
M12600-500	4.961	0.197	126.00	5.00			X				M13300-250	5.236	0.098	133.00	2.50			X			
2-353	4.975	0.210	126.37	5.33	X			X			M13300-300	5.236	0.118	133.00	3.00			X			
2-429	4.975	0.275	126.37	6.99	X			X	X		M13300-350	5.236	0.138	133.00	3.50			X			
2-250	4.984	0.139	126.59	3.53	X			X			M13300-400	5.236	0.157	133.00	4.00			X			
2-159	4.987	0.103	126.67	2.62	X			X			M13300-500	5.236	0.197	133.00	5.00			X			
2-049	4.989	0.070	126.72	1.78	X			X			2-160	5.237	0.103	133.02	2.62	X			X		
M12700-250	5.000	0.098	127.00	2.50			X				2-050	5.239	0.070	133.07	1.78	X			X		
M12700-300	5.000	0.118	127.00	3.00			X				M13335-533	5.250	0.210	133.35	5.33				X		
M12700-350	5.000	0.138	127.00	3.50			X				M13400-250	5.276	0.098	134.00	2.50			X			
M12700-400	5.000	0.157	127.00	4.00			X				M13400-300	5.276	0.118	134.00	3.00			X			
M12700-500	5.000	0.197	127.00	5.00			X				M13400-350	5.276	0.138	134.00	3.50			X			
M12700-533	5.000	0.210	127.00	5.33					X		M13400-400	5.276	0.157	134.00	4.00			X			
M12800-250	5.039	0.098	128.00	2.50			X				M13400-500	5.276	0.197	134.00	5.00			X			
M12800-300	5.039	0.118	128.00	3.00			X				M13430-570	5.287	0.224	134.30	5.70			X	X		
M12800-350	5.039	0.138	128.00	3.50			X				M13440-310	5.291	0.122	134.40	3.10						G135
M12800-355	5.039	0.140	128.00	3.55	X						M13450-200	5.295	0.079	134.50	2.00						S135
M12800-400	5.039	0.157	128.00	4.00			X				M13450-300	5.295	0.118	134.50	3.00			X	X		
M12800-500	5.039	0.197	128.00	5.00			X				M13450-699	5.295	0.275	134.50	6.99				X		
M12800-530	5.039	0.209	128.00	5.30	X						M13460-570	5.299	0.224	134.60	5.70						P135
M12800-700	5.039	0.276	128.00	7.00	X						M13500-250	5.315	0.098	135.00	2.50			X			
M12900-250	5.079	0.098	129.00	2.50			X				M13500-300	5.315	0.118	135.00	3.00			X			
M12900-300	5.079	0.118	129.00	3.00			X				M13500-350	5.315	0.138	135.00	3.50			X			
M12900-350	5.079	0.138	129.00	3.50			X				M13500-400	5.315	0.157	135.00	4.00			X			
M12900-400	5.079	0.157	129.00	4.00			X				M13500-500	5.315	0.197	135.00	5.00			X			
M12900-500	5.079	0.197	129.00	5.00			X				2-356	5.350	0.210	135.89	5.33	X			X		
M12930-570	5.091	0.224	129.30	5.70		X		X			2-432	5.350	0.275	135.89	6.99	X			X	X	
M12940-310	5.094	0.122	129.40	3.10						G130	M13600-250	5.354	0.098	136.00	2.50			X			
M12950-200	5.098	0.079	129.50	2.00						S130	M13600-300	5.354	0.118	136.00	3.00			X			
M12950-300	5.098	0.118	129.50	3.00		X	X				M13600-350	5.354	0.138	136.00	3.50			X			
2-354	5.100	0.210	129.54	5.33	X		X				M13600-355	5.354	0.140	136.00	3.55		X		X		
2-430	5.100	0.275	129.54	6.99	X		X	X			M13600-400	5.354	0.157	136.00	4.00			X			
M12960-570	5.102	0.224	129.60	5.70						P130	M13600-500	5.354	0.197	136.00	5.00			X			
2-251	5.109	0.139	129.77	3.53	X			X			M13600-530	5.354	0.209	136.00	5.30		X		X		
M13000-250	5.118	0.098	130.00	2.50			X				M13600-700	5.354	0.276	136.00	7.00		X		X		
M13000-300	5.118	0.118	130.00	3.00			X				2-253	5.359	0.139	136.12	3.53	X			X		
M13000-350	5.118	0.138	130.00	3.50			X				M13653-533	5.375	0.210	136.53	5.33				X		
M13000-400	5.118	0.157	130.00	4.00			X				M13700-250	5.394	0.098	137.00	2.50			X			
M13000-500	5.118	0.197	130.00	5.00			X				M13700-300	5.394	0.118	137.00	3.00			X			
M13018-533	5.125	0.210	130.18	5.33				X			M13700-350	5.394	0.138	137.00	3.50			X			
M13100-250	5.157	0.098	131.00	2.50			X				M13700-400	5.394	0.157	137.00	4.00			X			
M13100-300	5.157	0.118	131.00	3.00			X				M13700-500	5.394	0.197	137.00	5.00			X			
M13100-350	5.157	0.138	131.00	3.50			X				M13800-250	5.433	0.098	138.00	2.50			X			
M13100-400	5.157	0.157	131.00	4.00			X				M13800-300	5.433	0.118	138.00	3.00			X			
M13100-500	5.157	0.197	131.00	5.00			X				M13800-350	5.433	0.138	138.00	3.50			X			
M13150-200	5.177	0.079	131.50	2.00						S132	M13800-400	5.433	0.157	138.00	4.00			X			
M13160-570	5.181	0.224	131.60	5.70						P132	M13800-500	5.433	0.197	138.00	5.00			X			
M13200-250	5.197	0.098	132.00	2.50			X				M13900-250	5.472	0.098	139.00	2.50			X			
M13200-265	5.197	0.104	132.00	2.65	X						M13900-300	5.472	0.118	139.00	3.00			X			
M13200-300	5.197	0.118	132.00	3.00			X				M13900-350	5.472	0.138	139.00	3.50			X			
M13200-350	5.197	0.138	132.00	3.50			X				M13900-400	5.472	0.157	139.00	4.00			X			
M13200-355	5.197	0.140	132.00	3.55	X						M13900-500	5.472	0.197	139.00	5.00			X			
M13200-400	5.197	0.157	132.00	4.00			X				2-357	5.475	0.210	139.07	5.33	X			X		
M13200-500	5.197	0.197	132.00	5.00			X				2-433	5.475	0.275	139.07	6.99	X			X	X	
M13200-530	5.197	0.209	132.00	5.30	X						2-254	5.484	0.139	139.29	3.53	X			X		
M13200-700	5.197	0.276	132.00	7.00	X						M13930-570	5.484	0.224	139.30	5.70			X	X		

\*Chart for comparison only. Not all sizes stocked.



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN	FRANCE	JAPAN
2-161	5.487	0.103	139.37	2.62	X		X		
M13940-310	5.488	0.122	139.40	3.10					G140
M13950-200	5.492	0.079	139.50	2.00					S140
M13950-300	5.492	0.118	139.50	3.00		X	X		
M13960-570	5.496	0.224	139.60	5.70					P140
M13970-533	5.500	0.210	139.70	5.33			X		
M14000-250	5.512	0.098	140.00	2.50		X			
M14000-265	5.512	0.104	140.00	2.65	X				
M14000-300	5.512	0.118	140.00	3.00		X			
M14000-350	5.512	0.138	140.00	3.50		X			
M14000-355	5.512	0.140	140.00	3.55	X				
M14000-400	5.512	0.157	140.00	4.00		X			
M14000-500	5.512	0.197	140.00	5.00		X			
M14000-530	5.512	0.209	140.00	5.30	X				
M14000-700	5.512	0.276	140.00	7.00	X				
M14100-250	5.551	0.098	141.00	2.50		X			
M14100-300	5.551	0.118	141.00	3.00		X			
M14100-350	5.551	0.138	141.00	3.50		X			
M14100-400	5.551	0.157	141.00	4.00		X			
M14100-500	5.551	0.197	141.00	5.00		X			
M14200-250	5.591	0.098	142.00	2.50		X			
M14200-300	5.591	0.118	142.00	3.00		X			
M14200-350	5.591	0.138	142.00	3.50		X			
M14200-400	5.591	0.157	142.00	4.00		X			
M14200-500	5.591	0.197	142.00	5.00		X			
2-358	5.600	0.210	142.24	5.33	X		X		
2-434	5.600	0.275	142.24	6.99	X		X	X	
2-255	5.609	0.139	142.47	3.53	X		X		
M14288-533	5.625	0.210	142.88	5.33			X		
M14300-250	5.630	0.098	143.00	2.50		X			
M14300-300	5.630	0.118	143.00	3.00		X			
M14300-350	5.630	0.138	143.00	3.50		X			
M14300-400	5.630	0.157	143.00	4.00		X			
M14300-500	5.630	0.197	143.00	5.00		X			
M14400-250	5.669	0.098	144.00	2.50		X			
M14400-300	5.669	0.118	144.00	3.00		X			
M14400-350	5.669	0.138	144.00	3.50		X			
M14400-400	5.669	0.157	144.00	4.00		X			
M14400-500	5.669	0.197	144.00	5.00		X			
M14410-840	5.673	0.331	144.10	8.40		X	X		
M14430-570	5.681	0.224	144.30	5.70		X	X		
M14440-310	5.685	0.122	144.40	3.10					G145
M14450-200	5.689	0.079	144.50	2.00					S145
M14450-300	5.689	0.118	144.50	3.00		X	X		
M14460-570	5.693	0.224	144.60	5.70					P145
M14500-250	5.709	0.098	145.00	2.50		X			
M14500-300	5.709	0.118	145.00	3.00		X			
M14500-350	5.709	0.138	145.00	3.50		X			
M14500-355	5.709	0.140	145.00	3.55	X				
M14500-400	5.709	0.157	145.00	4.00		X			
M14500-500	5.709	0.197	145.00	5.00		X			
M14500-530	5.709	0.209	145.00	5.30	X				
M14500-700	5.709	0.276	145.00	7.00	X				
2-359	5.725	0.210	145.42	5.33	X		X		
2-435	5.725	0.275	145.42	6.99	X		X	X	
2-256	5.734	0.139	145.64	3.53	X		X		
2-162	5.737	0.103	145.72	2.62	X		X		
M14600-250	5.748	0.098	146.00	2.50		X			
M14600-300	5.748	0.118	146.00	3.00					
M14600-350	5.748	0.138	146.00	3.50					
M14600-400	5.748	0.157	146.00	4.00					
M14600-500	5.748	0.197	146.00	5.00					
M14605-533	5.750	0.210	146.05	5.33				X	
M14700-250	5.787	0.098	147.00	2.50				X	
M14700-300	5.787	0.118	147.00	3.00				X	
M14700-350	5.787	0.138	147.00	3.50				X	
M14700-400	5.787	0.157	147.00	4.00				X	
M14700-500	5.787	0.197	147.00	5.00				X	
M14800-250	5.827	0.098	148.00	2.50				X	
M14800-300	5.827	0.118	148.00	3.00				X	
M14800-350	5.827	0.138	148.00	3.50				X	
M14800-400	5.827	0.157	148.00	4.00				X	
M14800-500	5.827	0.197	148.00	5.00				X	
M14850-400	5.846	0.157	148.50	4.00					V150
2-360	5.850	0.210	148.59	5.33	X			X	
2-436	5.850	0.275	148.59	6.99	X			X	X
2-257	5.859	0.139	148.82	3.53	X			X	
M14900-250	5.866	0.098	149.00	2.50				X	
M14900-300	5.866	0.118	149.00	3.00				X	
M14900-350	5.866	0.138	149.00	3.50				X	
M14900-400	5.866	0.157	149.00	4.00				X	
M14900-500	5.866	0.197	149.00	5.00				X	
M14910-840	5.870	0.331	149.10	8.40		X		X	
M14923-533	5.875	0.210	149.23	5.33				X	
M14930-570	5.878	0.224	149.30	5.70		X		X	
M14950-200	5.886	0.079	149.50	2.00					G150
M14950-840	5.886	0.331	149.50	8.40					S150
M14960-570	5.890	0.224	149.60	5.70					P150A
M15000-250	5.906	0.098	150.00	2.50				X	
M15000-265	5.906	0.104	150.00	2.65		X			
M15000-300	5.906	0.118	150.00	3.00				X	
M15000-350	5.906	0.138	150.00	3.50				X	
M15000-355	5.906	0.140	150.00	3.55		X			
M15000-400	5.906	0.157	150.00	4.00				X	
M15000-500	5.906	0.197	150.00	5.00				X	
M15000-530	5.906	0.209	150.00	5.30		X			
M15000-700	5.906	0.276	150.00	7.00		X			
M15100-300	5.945	0.118	151.00	3.00				X	
M15100-350	5.945	0.138	151.00	3.50				X	
M15100-400	5.945	0.157	151.00	4.00				X	
M15100-500	5.945	0.197	151.00	5.00				X	
2-361	5.975	0.210	151.77	5.33	X			X	
2-437	5.975	0.275	151.77	6.99	X			X	X
M15200-300	5.984	0.118	152.00	3.00				X	
M15200-350	5.984	0.138	152.00	3.50				X	
2-258	5.984	0.139	151.99	3.53	X			X	
M15200-400	5.984	0.157	152.00	4.00				X	
M15200-500	5.984	0.197	152.00	5.00				X	
2-163	5.987	0.103	152.07	2.62	X			X	
M15300-300	6.024	0.118	153.00	3.00				X	
M15300-350	6.024	0.138	153.00	3.50				X	
M15300-400	6.024	0.157	153.00	4.00				X	
M15300-500	6.024	0.197	153.00	5.00				X	
M15400-300	6.063	0.118	154.00	3.00				X	
M15400-350	6.063	0.138	154.00	3.50				X	
M15400-400	6.063	0.157	154.00	4.00				X	

*\*Chart for comparison only. Not all sizes stocked.*



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M15400-500	6.063	0.197	154.00	5.00			X			
M15410-840	6.067	0.331	154.10	8.40		X	X			
M15430-570	6.075	0.224	154.30	5.70		X	X			G155
M15450-840	6.083	0.331	154.50	8.40						P155
M15500-300	6.102	0.118	155.00	3.00			X			
M15500-350	6.102	0.138	155.00	3.50			X			
M15500-355	6.102	0.140	155.00	3.55	X					
M15500-400	6.102	0.157	155.00	4.00			X			
M15500-500	6.102	0.197	155.00	5.00			X			
M15500-530	6.102	0.209	155.00	5.30	X					
M15500-533	6.102	0.210	155.00	5.33			X			
M15500-700	6.102	0.276	155.00	7.00	X					
M15560-699	6.126	0.275	155.60	6.99			X			
M15600-300	6.142	0.118	156.00	3.00			X			
M15600-350	6.142	0.138	156.00	3.50			X			
M15600-400	6.142	0.157	156.00	4.00			X			
M15600-500	6.142	0.197	156.00	5.00			X			
M15700-300	6.181	0.118	157.00	3.00			X			
M15700-350	6.181	0.138	157.00	3.50			X			
M15700-400	6.181	0.157	157.00	4.00			X			
M15700-500	6.181	0.197	157.00	5.00			X			
M15800-300	6.220	0.118	158.00	3.00			X			
M15800-350	6.220	0.138	158.00	3.50			X			
M15800-400	6.220	0.157	158.00	4.00			X			
M15800-500	6.220	0.197	158.00	5.00			X			
2-362	6.225	0.210	158.12	5.33	X		X			
2-438	6.225	0.275	158.12	6.99	X		X	X		
2-259	6.234	0.139	158.34	3.53	X		X			
2-164	6.237	0.103	158.42	2.62	X		X			
M15900-300	6.260	0.118	159.00	3.00			X			
M15900-350	6.260	0.138	159.00	3.50			X			
M15900-400	6.260	0.157	159.00	4.00			X			
M15900-500	6.260	0.197	159.00	5.00			X			
M15910-840	6.264	0.331	159.10	8.40		X	X			
M15930-570	6.272	0.224	159.30	5.70		X	X			G160
M15950-699	6.280	0.275	159.50	6.99			X			
M15950-840	6.280	0.331	159.50	8.40						P160
M16000-265	6.299	0.104	160.00	2.65	X					
M16000-300	6.299	0.118	160.00	3.00			X			
M16000-350	6.299	0.138	160.00	3.50			X			
M16000-355	6.299	0.140	160.00	3.55	X					
M16000-400	6.299	0.157	160.00	4.00			X			
M16000-500	6.299	0.197	160.00	5.00			X			
M16000-530	6.299	0.209	160.00	5.30	X					
M16000-700	6.299	0.276	160.00	7.00	X					
M16100-300	6.339	0.118	161.00	3.00			X			
M16100-350	6.339	0.138	161.00	3.50			X			
M16100-400	6.339	0.157	161.00	4.00			X			
M16100-500	6.339	0.197	161.00	5.00			X			
M16130-533	6.350	0.210	161.30	5.33			X			
M16190-699	6.374	0.275	161.90	6.99			X			
M16200-300	6.378	0.118	162.00	3.00			X			
M16200-350	6.378	0.138	162.00	3.50			X			
M16200-400	6.378	0.157	162.00	4.00			X			
M16200-500	6.378	0.197	162.00	5.00			X			
M16300-300	6.417	0.118	163.00	3.00			X			
M16300-350	6.417	0.138	163.00	3.50			X			
M16300-400	6.417	0.157	163.00	4.00			X			
M16300-500	6.417	0.197	163.00	5.00			X			
M16400-300	6.457	0.118	164.00	3.00			X			
M16400-350	6.457	0.138	164.00	3.50			X			
M16400-400	6.457	0.157	164.00	4.00			X			
M16400-500	6.457	0.197	164.00	5.00			X			
M16410-840	6.461	0.331	164.10	8.40		X	X			
M16430-570	6.469	0.224	164.30	5.70		X	X			G165
2-363	6.475	0.210	164.47	5.33	X		X			
2-439	6.475	0.275	164.47	6.99	X		X	X		
M16450-840	6.476	0.331	164.50	8.40						P165
2-260	6.484	0.139	164.69	3.53	X		X			
2-165	6.487	0.103	164.77	2.62	X		X			
M16500-300	6.496	0.118	165.00	3.00			X			
M16500-350	6.496	0.138	165.00	3.50			X			
M16500-355	6.496	0.140	165.00	3.55		X				
M16500-400	6.496	0.157	165.00	4.00			X			
M16500-500	6.496	0.197	165.00	5.00			X			
M16500-530	6.496	0.209	165.00	5.30		X				
M16500-700	6.496	0.276	165.00	7.00		X				
M16600-300	6.535	0.118	166.00	3.00			X			
M16600-350	6.535	0.138	166.00	3.50			X			
M16600-400	6.535	0.157	166.00	4.00			X			
M16600-500	6.535	0.197	166.00	5.00			X			
M16670-699	6.563	0.275	166.70	6.99				X		
M16700-300	6.575	0.118	167.00	3.00			X			
M16700-350	6.575	0.138	167.00	3.50			X			
M16700-400	6.575	0.157	167.00	4.00			X			
M16700-500	6.575	0.197	167.00	5.00			X			
M16770-533	6.602	0.210	167.70	5.33				X		
M16800-300	6.614	0.118	168.00	3.00			X			
M16800-350	6.614	0.138	168.00	3.50			X			
M16800-400	6.614	0.157	168.00	4.00			X			
M16800-500	6.614	0.197	168.00	5.00			X			
M16830-699	6.626	0.275	168.30	6.99				X		
M16900-300	6.654	0.118	169.00	3.00			X			
M16900-350	6.654	0.138	169.00	3.50			X			
M16900-400	6.654	0.157	169.00	4.00			X			
M16900-500	6.654	0.197	169.00	5.00			X			
M16910-840	6.657	0.331	169.10	8.40		X	X			
M16930-570	6.665	0.224	169.30	5.70		X	X			G170
M16950-840	6.673	0.331	169.50	8.40						P170
M17000-265	6.693	0.104	170.00	2.65		X				
M17000-300	6.693	0.118	170.00	3.00			X			
M17000-350	6.693	0.138	170.00	3.50			X			
M17000-355	6.693	0.140	170.00	3.55		X				
M17000-400	6.693	0.157	170.00	4.00			X			
M17000-500	6.693	0.197	170.00	5.00			X			
M17000-530	6.693	0.209	170.00	5.30		X				
M17000-700	6.693	0.276	170.00	7.00		X				
2-364	6.725	0.210	170.82	5.33	X			X		
2-440	6.725	0.275	170.82	6.99	X			X	X	
M17100-300	6.732	0.118	171.00	3.00			X			
M17100-350	6.732	0.138	171.00	3.50			X			
M17100-400	6.732	0.157	171.00	4.00			X			
M17100-500	6.732	0.197	171.00	5.00			X			
2-261	6.734	0.139	171.04	3.53	X			X		
2-166	6.737	0.103	171.12	2.62	X			X		
M17200-300	6.772	0.118	172.00	3.00			X			

*\*Chart for comparison only. Not all sizes stocked.*

## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M17200-350	6.772	0.138	172.00	3.50			X				M18200-300	7.165	0.118	182.00	3.00			X			
M17200-400	6.772	0.157	172.00	4.00			X				M18200-350	7.165	0.138	182.00	3.50			X			
M17200-500	6.772	0.197	172.00	5.00			X				M18200-400	7.165	0.157	182.00	4.00			X			
M17300-300	6.811	0.118	173.00	3.00			X				M18200-500	7.165	0.197	182.00	5.00			X			
M17300-350	6.811	0.138	173.00	3.50			X				M18300-300	7.205	0.118	183.00	3.00			X			
M17300-400	6.811	0.157	173.00	4.00			X			V175	M18300-350	7.205	0.138	183.00	3.50			X			
M17300-500	6.811	0.197	173.00	5.00			X				M18300-400	7.205	0.157	183.00	4.00			X			
M17400-300	6.850	0.118	174.00	3.00			X				M18300-500	7.205	0.197	183.00	5.00			X			
M17400-350	6.850	0.138	174.00	3.50			X				2-366	7.225	0.210	183.52	5.33	X			X		
M17400-400	6.850	0.157	174.00	4.00			X				2-442	7.225	0.275	183.52	6.99	X			X	X	
M17400-500	6.850	0.197	174.00	5.00			X				2-263	7.234	0.139	183.74	3.53	X			X		
M17400-533	6.850	0.210	174.00	5.33				X			2-168	7.237	0.103	183.82	2.62	X			X		
M17410-840	6.854	0.331	174.10	8.40		X	X				M18400-300	7.244	0.118	184.00	3.00			X			
M17430-570	6.862	0.224	174.30	5.70		X	X			G175	M18400-350	7.244	0.138	184.00	3.50			X			
M17450-840	6.870	0.331	174.50	8.40						P175	M18400-400	7.244	0.157	184.00	4.00			X			
M17460-699	6.874	0.275	174.60	6.99				X			M18400-500	7.244	0.197	184.00	5.00			X			
M17500-300	6.890	0.118	175.00	3.00			X				M18410-840	7.248	0.331	184.10	8.40		X		X		
M17500-350	6.890	0.138	175.00	3.50			X				M18430-570	7.256	0.224	184.30	5.70		X		X		G185
M17500-355	6.890	0.140	175.00	3.55	X						M18450-840	7.264	0.331	184.50	8.40						P185
M17500-400	6.890	0.157	175.00	4.00			X				M18500-300	7.283	0.118	185.00	3.00			X			
M17500-500	6.890	0.197	175.00	5.00			X				M18500-350	7.283	0.138	185.00	3.50			X			
M17500-700	6.890	0.276	175.00	7.00	X						M18500-355	7.283	0.140	185.00	3.55	X					
M17600-300	6.929	0.118	176.00	3.00			X				M18500-400	7.283	0.157	185.00	4.00			X			
M17600-350	6.929	0.138	176.00	3.50			X				M18500-500	7.283	0.197	185.00	5.00			X			
M17600-400	6.929	0.157	176.00	4.00			X				M18500-530	7.283	0.209	185.00	5.30	X					
M17600-500	6.929	0.197	176.00	5.00			X				M18500-700	7.283	0.276	185.00	7.00	X					
M17700-300	6.969	0.118	177.00	3.00			X				M18600-300	7.323	0.118	186.00	3.00			X			
M17700-350	6.969	0.138	177.00	3.50			X				M18600-350	7.323	0.138	186.00	3.50			X			
M17700-400	6.969	0.157	177.00	4.00			X				M18600-400	7.323	0.157	186.00	4.00			X			
M17700-500	6.969	0.197	177.00	5.00			X				M18600-500	7.323	0.197	186.00	5.00			X			
2-365	6.975	0.210	177.17	5.33	X		X				M18700-300	7.362	0.118	187.00	3.00			X			
2-441	6.975	0.275	177.17	6.99	X		X	X			M18700-350	7.362	0.138	187.00	3.50			X			
2-262	6.984	0.139	177.39	3.53	X		X				M18700-400	7.362	0.157	187.00	4.00			X			
2-167	6.987	0.103	177.47	2.62	X		X				M18700-500	7.362	0.197	187.00	5.00			X			
M17800-300	7.008	0.118	178.00	3.00			X				M18730-699	7.374	0.275	187.30	6.99				X		
M17800-350	7.008	0.138	178.00	3.50			X				M18800-300	7.402	0.118	188.00	3.00			X			
M17800-400	7.008	0.157	178.00	4.00			X				M18800-350	7.402	0.138	188.00	3.50			X			
M17800-500	7.008	0.197	178.00	5.00			X				M18800-400	7.402	0.157	188.00	4.00			X			
M17900-300	7.047	0.118	179.00	3.00			X				M18800-500	7.402	0.197	188.00	5.00			X			
M17900-350	7.047	0.138	179.00	3.50			X				M18900-300	7.441	0.118	189.00	3.00			X			
M17900-400	7.047	0.157	179.00	4.00			X				M18900-350	7.441	0.138	189.00	3.50			X			
M17900-500	7.047	0.197	179.00	5.00			X				M18900-400	7.441	0.157	189.00	4.00			X			
M17910-840	7.051	0.331	179.10	8.40		X	X				M18900-500	7.441	0.197	189.00	5.00			X			
M17930-570	7.059	0.224	179.30	5.70		X	X			G180	M18910-840	7.445	0.331	189.10	8.40		X		X		
M17950-840	7.067	0.331	179.50	8.40						P180	M18930-570	7.453	0.224	189.30	5.70		X		X		G190
M18000-265	7.087	0.104	180.00	2.65	X						M18950-840	7.461	0.331	189.50	8.40						P190
M18000-300	7.087	0.118	180.00	3.00			X				2-367	7.475	0.210	189.87	5.33	X			X		
M18000-350	7.087	0.138	180.00	3.50			X				2-443	7.475	0.275	189.87	6.99	X			X	X	
M18000-355	7.087	0.140	180.00	3.55	X						M19000-265	7.480	0.104	190.00	2.65		X				
M18000-400	7.087	0.157	180.00	4.00			X				M19000-300	7.480	0.118	190.00	3.00			X			
M18000-500	7.087	0.197	180.00	5.00			X				M19000-350	7.480	0.138	190.00	3.50			X			
M18000-530	7.087	0.209	180.00	5.30	X						M19000-355	7.480	0.140	190.00	3.55	X					
M18000-700	7.087	0.276	180.00	7.00	X						M19000-400	7.480	0.157	190.00	4.00			X			
M18100-300	7.126	0.118	181.00	3.00			X				M19000-500	7.480	0.197	190.00	5.00			X			
M18100-350	7.126	0.138	181.00	3.50			X				M19000-530	7.480	0.209	190.00	5.30	X					
M18100-400	7.126	0.157	181.00	4.00			X				M19000-700	7.480	0.276	190.00	7.00	X					
M18100-500	7.126	0.197	181.00	5.00			X				2-264	7.484	0.139	190.09	3.53	X			X		
M18100-699	7.126	0.275	181.00	6.99				X			2-169	7.487	0.103	190.17	2.62	X			X		

\*Chart for comparison only. Not all sizes stocked.



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M19100-300	7.520	0.118	191.00	3.00			X				M20000-700	7.874	0.276	200.00	7.00	X					
M19100-350	7.520	0.138	191.00	3.50			X				M20100-300	7.913	0.118	201.00	3.00			X			
M19100-400	7.520	0.157	191.00	4.00			X				M20100-350	7.913	0.138	201.00	3.50			X			
M19100-500	7.520	0.197	191.00	5.00			X				M20100-400	7.913	0.157	201.00	4.00			X			
M19200-300	7.559	0.118	192.00	3.00			X				M20100-500	7.913	0.197	201.00	5.00			X			
M19200-350	7.559	0.138	192.00	3.50			X				M20200-300	7.953	0.118	202.00	3.00			X			
M19200-400	7.559	0.157	192.00	4.00			X				M20200-350	7.953	0.138	202.00	3.50			X			
M19200-500	7.559	0.197	192.00	5.00			X				M20200-400	7.953	0.157	202.00	4.00			X			
M19300-300	7.598	0.118	193.00	3.00			X				M20200-500	7.953	0.197	202.00	5.00			X			
M19300-350	7.598	0.138	193.00	3.50			X				2-369	7.975	0.210	202.57	5.33	X			X		
M19300-400	7.598	0.157	193.00	4.00			X				2-445	7.975	0.275	202.57	6.99	X			X	X	
M19300-500	7.598	0.197	193.00	5.00			X				2-266	7.984	0.139	202.79	3.53	X			X		
M19370-699	7.626	0.275	193.70	6.99				X			2-171	7.987	0.103	202.87	2.62	X			X		
M19400-300	7.638	0.118	194.00	3.00			X				M20300-300	7.992	0.118	203.00	3.00			X			
M19400-350	7.638	0.138	194.00	3.50			X				M20300-350	7.992	0.138	203.00	3.50			X			
M19400-400	7.638	0.157	194.00	4.00			X				M20300-400	7.992	0.157	203.00	4.00			X			
M19400-500	7.638	0.197	194.00	5.00			X				M20300-500	7.992	0.197	203.00	5.00			X			
M19410-840	7.642	0.331	194.10	8.40			X	X			M20400-300	8.031	0.118	204.00	3.00			X			
M19430-570	7.650	0.224	194.30	5.70			X	X		G195 P195	M20400-350	8.031	0.138	204.00	3.50			X			
M19450-840	7.657	0.331	194.50	8.40							M20400-400	8.031	0.157	204.00	4.00			X			
M19500-300	7.677	0.118	195.00	3.00			X				M20400-500	8.031	0.197	204.00	5.00			X			
M19500-350	7.677	0.138	195.00	3.50			X				M20430-570	8.043	0.224	204.30	5.70			X	X		
M19500-355	7.677	0.140	195.00	3.55	X						M20450-840	8.051	0.331	204.50	8.40						P205
M19500-400	7.677	0.157	195.00	4.00			X				M20500-300	8.071	0.118	205.00	3.00			X			
M19500-500	7.677	0.197	195.00	5.00			X				M20500-350	8.071	0.138	205.00	3.50			X			
M19500-530	7.677	0.209	195.00	5.30	X						M20500-400	8.071	0.157	205.00	4.00			X			
M19500-700	7.677	0.276	195.00	7.00	X						M20500-500	8.071	0.197	205.00	5.00			X			
M19600-300	7.717	0.118	196.00	3.00			X				M20600-300	8.110	0.118	206.00	3.00			X			
M19600-350	7.717	0.138	196.00	3.50			X				M20600-350	8.110	0.138	206.00	3.50			X			
M19600-400	7.717	0.157	196.00	4.00			X				M20600-400	8.110	0.157	206.00	4.00			X			
M19600-500	7.717	0.197	196.00	5.00			X				M20600-500	8.110	0.197	206.00	5.00			X			
2-368	7.725	0.210	196.22	5.33	X		X				M20600-530	8.110	0.209	206.00	5.30	X					
2-444	7.725	0.275	196.22	6.99	X		X	X			M20600-700	8.110	0.276	206.00	7.00	X					
2-265	7.734	0.139	196.44	3.53	X		X				M20700-300	8.150	0.118	207.00	3.00			X			
2-170	7.737	0.103	196.52	2.62	X		X				M20700-350	8.150	0.138	207.00	3.50			X			
M19700-300	7.756	0.118	197.00	3.00			X				M20700-400	8.150	0.157	207.00	4.00			X			
M19700-350	7.756	0.138	197.00	3.50			X				M20700-500	8.150	0.197	207.00	5.00			X			
M19700-400	7.756	0.157	197.00	4.00			X				M20800-300	8.189	0.118	208.00	3.00			X			
M19700-500	7.756	0.197	197.00	5.00			X				M20800-350	8.189	0.138	208.00	3.50			X			
M19800-300	7.795	0.118	198.00	3.00			X				M20800-400	8.189	0.157	208.00	4.00			X			
M19800-350	7.795	0.138	198.00	3.50			X				M20800-500	8.189	0.197	208.00	5.00			X			
M19800-400	7.795	0.157	198.00	4.00			X				M20850-840	8.209	0.331	208.50	8.40						P209
M19800-500	7.795	0.197	198.00	5.00			X				2-370	8.225	0.210	208.92	5.33	X			X		
M19900-300	7.835	0.118	199.00	3.00			X				M20892-699	8.225	0.275	208.92	6.99				X		
M19900-350	7.835	0.138	199.00	3.50			X				M20900-300	8.228	0.118	209.00	3.00			X			
M19900-400	7.835	0.157	199.00	4.00			X				M20900-350	8.228	0.138	209.00	3.50			X			
M19900-500	7.835	0.197	199.00	5.00			X				M20900-400	8.228	0.157	209.00	4.00			X			
M19910-840	7.839	0.331	199.10	8.40			X	X			M20900-500	8.228	0.197	209.00	5.00			X			
M19930-570	7.846	0.224	199.30	5.70			X	X		G200 P200	M20910-840	8.232	0.331	209.10	8.40			X	X		
M19950-840	7.854	0.331	199.50	8.40							2-267	8.234	0.139	209.14	3.53	X			X		
M20000-265	7.874	0.104	200.00	2.65	X						2-172	8.237	0.103	209.22	2.62	X			X		
M20000-300	7.874	0.118	200.00	3.00			X				M20930-570	8.240	0.224	209.30	5.70			X	X		G210 P210
M20000-350	7.874	0.138	200.00	3.50			X				M20950-840	8.248	0.331	209.50	8.40						
M20000-355	7.874	0.140	200.00	3.55	X						M21000-300	8.268	0.118	210.00	3.00			X			
M20000-400	7.874	0.157	200.00	4.00			X				M21000-350	8.268	0.138	210.00	3.50			X			
M20000-500	7.874	0.197	200.00	5.00			X				M21000-400	8.268	0.157	210.00	4.00			X			
M20000-530	7.874	0.209	200.00	5.30	X						M21000-500	8.268	0.197	210.00	5.00			X			
M20000-699	7.874	0.275	200.00	6.99				X			M21100-300	8.307	0.118	211.00	3.00			X			

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## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M21100-350	8.307	0.138	211.00	3.50			X				M22162-699	8.725	0.275	221.62	6.99				X		
M21100-400	8.307	0.157	211.00	4.00			X				2-269	8.734	0.139	221.84	3.53	X			X		
M21100-500	8.307	0.197	211.00	5.00			X				2-174	8.737	0.103	221.92	2.62	X			X		
M21200-265	8.346	0.104	212.00	2.65	X						M22200-300	8.740	0.118	222.00	3.00			X			
M21200-300	8.346	0.118	212.00	3.00			X				M22200-350	8.740	0.138	222.00	3.50			X			
M21200-350	8.346	0.138	212.00	3.50			X				M22200-400	8.740	0.157	222.00	4.00			X			
M21200-355	8.346	0.140	212.00	3.55	X						M22200-500	8.740	0.197	222.00	5.00			X			
M21200-400	8.346	0.157	212.00	4.00			X				M22300-300	8.780	0.118	223.00	3.00			X			
M21200-500	8.346	0.197	212.00	5.00			X				M22300-350	8.780	0.138	223.00	3.50			X			
M21200-530	8.346	0.209	212.00	5.30	X						M22300-400	8.780	0.157	223.00	4.00			X			
M21200-700	8.346	0.276	212.00	7.00	X						M22300-500	8.780	0.197	223.00	5.00			X			
M21300-300	8.386	0.118	213.00	3.00			X				M22400-265	8.819	0.104	224.00	2.65	X					
M21300-350	8.386	0.138	213.00	3.50			X				M22400-300	8.819	0.118	224.00	3.00			X			
M21300-400	8.386	0.157	213.00	4.00			X				M22400-350	8.819	0.138	224.00	3.50			X			
M21300-500	8.386	0.197	213.00	5.00			X				M22400-355	8.819	0.140	224.00	3.55	X					
M21400-300	8.425	0.118	214.00	3.00			X				M22400-400	8.819	0.157	224.00	4.00			X			
M21400-350	8.425	0.138	214.00	3.50			X				M22400-500	8.819	0.197	224.00	5.00			X			
M21400-400	8.425	0.157	214.00	4.00			X				M22400-530	8.819	0.209	224.00	5.30	X					
M21400-500	8.425	0.197	214.00	5.00			X				M22400-700	8.819	0.276	224.00	7.00	X					
M21450-840	8.445	0.331	214.50	8.40					P215		M22450-840	8.839	0.331	224.50	8.40					P225	
M21500-300	8.465	0.118	215.00	3.00			X				M22500-300	8.858	0.118	225.00	3.00			X			
M21500-350	8.465	0.138	215.00	3.50			X				M22500-350	8.858	0.138	225.00	3.50			X			
M21500-400	8.465	0.157	215.00	4.00			X				M22500-400	8.858	0.157	225.00	4.00			X			
M21500-500	8.465	0.197	215.00	5.00			X				M22500-500	8.858	0.197	225.00	5.00			X			
2-371	8.475	0.210	215.27	5.33	X		X				M22500-600	8.858	0.236	225.00	6.00					V225	
2-446	8.475	0.275	215.27	6.99	X		X	X			M22600-300	8.898	0.118	226.00	3.00			X			
2-268	8.484	0.139	215.49	3.53	X		X				M22600-350	8.898	0.138	226.00	3.50			X			
2-173	8.487	0.103	215.57	2.62	X		X				M22600-400	8.898	0.157	226.00	4.00			X			
M21600-300	8.504	0.118	216.00	3.00			X				M22600-500	8.898	0.197	226.00	5.00			X			
M21600-350	8.504	0.138	216.00	3.50			X				M22700-300	8.937	0.118	227.00	3.00			X			
M21600-400	8.504	0.157	216.00	4.00			X				M22700-350	8.937	0.138	227.00	3.50			X			
M21600-500	8.504	0.197	216.00	5.00			X				M22700-400	8.937	0.157	227.00	4.00			X			
M21700-300	8.543	0.118	217.00	3.00			X				M22700-500	8.937	0.197	227.00	5.00			X			
M21700-350	8.543	0.138	217.00	3.50			X				2-373	8.975	0.210	227.97	5.33	X			X		
M21700-400	8.543	0.157	217.00	4.00			X				2-447	8.975	0.275	227.97	6.99	X			X	X	
M21700-500	8.543	0.197	217.00	5.00			X				M22800-300	8.976	0.118	228.00	3.00			X			
M21800-300	8.583	0.118	218.00	3.00			X				M22800-350	8.976	0.138	228.00	3.50			X			
M21800-350	8.583	0.138	218.00	3.50			X				M22800-400	8.976	0.157	228.00	4.00			X			
M21800-400	8.583	0.157	218.00	4.00			X				M22800-500	8.976	0.197	228.00	5.00			X			
M21800-500	8.583	0.197	218.00	5.00			X				2-270	8.984	0.139	228.19	3.53	X			X		
M21800-530	8.583	0.209	218.00	5.30	X						2-175	8.987	0.103	228.27	2.62	X			X		
M21800-700	8.583	0.276	218.00	7.00	X						M22900-300	9.016	0.118	229.00	3.00			X			
M21900-300	8.622	0.118	219.00	3.00			X				M22900-350	9.016	0.138	229.00	3.50			X			
M21900-350	8.622	0.138	219.00	3.50			X				M22900-400	9.016	0.157	229.00	4.00			X			
M21900-400	8.622	0.157	219.00	4.00			X				M22900-500	9.016	0.197	229.00	5.00			X			
M21900-500	8.622	0.197	219.00	5.00			X				M22910-840	9.020	0.331	229.10	8.40		X		X		
M21910-840	8.626	0.331	219.10	8.40		X	X				M22930-570	9.028	0.224	229.30	5.70		X		X		G230
M21930-570	8.634	0.224	219.30	5.70		X	X		G220		M22950-840	9.035	0.331	229.50	8.40					P230	
M21950-840	8.642	0.331	219.50	8.40					P220		M23000-300	9.055	0.118	230.00	3.00			X			
M22000-300	8.661	0.118	220.00	3.00			X				M23000-350	9.055	0.138	230.00	3.50			X			
M22000-350	8.661	0.138	220.00	3.50			X				M23000-400	9.055	0.157	230.00	4.00			X			
M22000-400	8.661	0.157	220.00	4.00			X				M23000-500	9.055	0.197	230.00	5.00			X			
M22000-500	8.661	0.197	220.00	5.00			X				M23000-530	9.055	0.209	230.00	5.30		X				
M22100-300	8.701	0.118	221.00	3.00			X				M23000-700	9.055	0.276	230.00	7.00		X				
M22100-350	8.701	0.138	221.00	3.50			X				M23100-300	9.094	0.118	231.00	3.00			X			
M22100-400	8.701	0.157	221.00	4.00			X				M23100-350	9.094	0.138	231.00	3.50			X			
M22100-500	8.701	0.197	221.00	5.00			X				M23100-400	9.094	0.157	231.00	4.00			X			
2-372	8.725	0.210	221.62	5.33	X		X				M23100-500	9.094	0.197	231.00	5.00			X			

\*Chart for comparison only. Not all sizes stocked.



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M23200-300	9.134	0.118	232.00	3.00			X				M24200-400	9.528	0.157	242.00	4.00			X			
M23200-350	9.134	0.138	232.00	3.50			X				M24200-500	9.528	0.197	242.00	5.00			X			
M23200-400	9.134	0.157	232.00	4.00			X				M24300-300	9.567	0.118	243.00	3.00			X			
M23200-500	9.134	0.197	232.00	5.00			X				M24300-350	9.567	0.138	243.00	3.50			X			
M23300-300	9.173	0.118	233.00	3.00			X				M24300-400	9.567	0.157	243.00	4.00			X			
M23300-350	9.173	0.138	233.00	3.50			X				M24300-500	9.567	0.197	243.00	5.00			X			
M23300-400	9.173	0.157	233.00	4.00			X				M24300-530	9.567	0.209	243.00	5.30	X					
M23300-500	9.173	0.197	233.00	5.00			X				M24300-700	9.567	0.276	243.00	7.00	X					
M23400-300	9.213	0.118	234.00	3.00			X				M24400-300	9.606	0.118	244.00	3.00			X			
M23400-350	9.213	0.138	234.00	3.50			X				M24400-350	9.606	0.138	244.00	3.50			X			
M23400-400	9.213	0.157	234.00	4.00			X				M24400-400	9.606	0.157	244.00	4.00			X			
M23400-500	9.213	0.197	234.00	5.00			X				M24400-500	9.606	0.197	244.00	5.00			X			
2-374	9.225	0.210	234.32	5.33	X			X			M24450-840	9.626	0.331	244.50	8.40						P245
M23432-699	9.225	0.275	234.32	6.99				X			M24500-300	9.646	0.118	245.00	3.00			X			
M23450-840	9.232	0.331	234.50	8.40						P235	M24500-350	9.646	0.138	245.00	3.50			X			
2-271	9.234	0.139	234.54	3.53	X			X			M24500-400	9.646	0.157	245.00	4.00			X			
2-176	9.237	0.103	234.62	2.62	X			X			M24500-500	9.646	0.197	245.00	5.00			X			
M23500-300	9.252	0.118	235.00	3.00			X				M24600-300	9.685	0.118	246.00	3.00			X			
M23500-350	9.252	0.138	235.00	3.50			X				M24600-350	9.685	0.138	246.00	3.50			X			
M23500-400	9.252	0.157	235.00	4.00			X				M24600-400	9.685	0.157	246.00	4.00			X			
M23500-500	9.252	0.197	235.00	5.00			X				M24600-500	9.685	0.197	246.00	5.00			X			
M23600-265	9.291	0.104	236.00	2.65	X						M24700-300	9.724	0.118	247.00	3.00			X			
M23600-300	9.291	0.118	236.00	3.00			X				M24700-350	9.724	0.138	247.00	3.50			X			
M23600-350	9.291	0.138	236.00	3.50			X				M24700-400	9.724	0.157	247.00	4.00			X			
M23600-355	9.291	0.140	236.00	3.55	X						M24700-500	9.724	0.197	247.00	5.00			X			
M23600-400	9.291	0.157	236.00	4.00			X				M24700-699	9.724	0.275	247.00	6.99				X		
M23600-500	9.291	0.197	236.00	5.00			X				2-376	9.725	0.210	247.02	5.33	X			X		
M23600-530	9.291	0.209	236.00	5.30	X						2-273	9.734	0.139	247.24	3.53	X			X		
M23600-700	9.291	0.276	236.00	7.00	X						2-178	9.737	0.103	247.32	2.62	X			X		
M23700-300	9.331	0.118	237.00	3.00			X				M24800-300	9.764	0.118	248.00	3.00			X			
M23700-350	9.331	0.138	237.00	3.50			X				M24800-350	9.764	0.138	248.00	3.50			X			
M23700-400	9.331	0.157	237.00	4.00			X				M24800-400	9.764	0.157	248.00	4.00			X			
M23700-500	9.331	0.197	237.00	5.00			X				M24800-500	9.764	0.197	248.00	5.00			X			
M23800-300	9.370	0.118	238.00	3.00			X				M24900-300	9.803	0.118	249.00	3.00			X			
M23800-350	9.370	0.138	238.00	3.50			X				M24900-350	9.803	0.138	249.00	3.50			X			
M23800-400	9.370	0.157	238.00	4.00			X				M24900-400	9.803	0.157	249.00	4.00			X			
M23800-500	9.370	0.197	238.00	5.00			X				M24900-500	9.803	0.197	249.00	5.00			X			
M23900-300	9.409	0.118	239.00	3.00			X				M24910-840	9.807	0.331	249.10	8.40		X		X		
M23900-350	9.409	0.138	239.00	3.50			X				M24930-570	9.815	0.224	249.30	5.70		X		X		G250
M23900-400	9.409	0.157	239.00	4.00			X				M24950-840	9.823	0.331	249.50	8.40						P250
M23900-500	9.409	0.197	239.00	5.00			X				M25000-265	9.843	0.104	250.00	2.65	X					
M23910-840	9.413	0.331	239.10	8.40		X		X			M25000-300	9.843	0.118	250.00	3.00			X			
M23930-570	9.421	0.224	239.30	5.70		X		X		G240	M25000-350	9.843	0.138	250.00	3.50			X			
M23950-840	9.429	0.331	239.50	8.40						P240	M25000-355	9.843	0.140	250.00	3.55	X					
M24000-300	9.449	0.118	240.00	3.00			X				M25000-400	9.843	0.157	250.00	4.00			X			
M24000-350	9.449	0.138	240.00	3.50			X				M25000-500	9.843	0.197	250.00	5.00			X			
M24000-400	9.449	0.157	240.00	4.00			X				M25000-530	9.843	0.209	250.00	5.30	X					
M24000-500	9.449	0.197	240.00	5.00			X				M25000-700	9.843	0.276	250.00	7.00	X					
2-375	9.475	0.210	240.67	5.33	X			X			M25100-350	9.882	0.138	251.00	3.50			X			
2-448	9.475	0.275	240.67	6.99	X			X	X		M25100-400	9.882	0.157	251.00	4.00			X			
2-272	9.484	0.139	240.89	3.53	X			X			M25100-500	9.882	0.197	251.00	5.00			X			
2-177	9.487	0.103	240.97	2.62	X			X			M25200-350	9.921	0.138	252.00	3.50			X			
M24100-300	9.488	0.118	241.00	3.00			X				M25200-400	9.921	0.157	252.00	4.00			X			
M24100-350	9.488	0.138	241.00	3.50			X				M25200-500	9.921	0.197	252.00	5.00			X			
M24100-400	9.488	0.157	241.00	4.00			X				M25300-350	9.961	0.138	253.00	3.50			X			
M24100-500	9.488	0.197	241.00	5.00			X				M25300-400	9.961	0.157	253.00	4.00			X			
M24200-300	9.528	0.118	242.00	3.00			X				M25300-500	9.961	0.197	253.00	5.00			X			
M24200-350	9.528	0.138	242.00	3.50			X				2-377	9.975	0.210	253.37	5.33	X			X		

**\*Chart for comparison only. Not all sizes stocked.**

**O-Ring Size Comparison Chart, cont'd.**

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN FRANCE	JAPAN
2-449	9.975	0.275	253.37	6.99	X		X X	
2-274	9.984	0.139	253.59	3.53	X		X	
M25400-350	10.000	0.138	254.00	3.50		X		
M25400-400	10.000	0.157	254.00	4.00		X		
M25400-500	10.000	0.197	254.00	5.00		X		
M25430-570	10.012	0.224	254.30	5.70				G255
M25450-840	10.020	0.331	254.50	8.40				P255
M25500-350	10.039	0.138	255.00	3.50		X		
M25500-400	10.039	0.157	255.00	4.00		X		
M25500-500	10.039	0.197	255.00	5.00		X		
M25600-350	10.079	0.138	256.00	3.50		X		
M25600-400	10.079	0.157	256.00	4.00		X		
M25600-500	10.079	0.197	256.00	5.00		X		
M25700-350	10.118	0.138	257.00	3.50		X		
M25700-400	10.118	0.157	257.00	4.00		X		
M25700-500	10.118	0.197	257.00	5.00		X		
M25800-350	10.157	0.138	258.00	3.50		X		
M25800-400	10.157	0.157	258.00	4.00		X		
M25800-500	10.157	0.197	258.00	5.00		X		
M25800-530	10.157	0.209	258.00	5.30	X			
M25800-700	10.157	0.276	258.00	7.00	X			
M25900-350	10.197	0.138	259.00	3.50		X		
M25900-400	10.197	0.157	259.00	4.00		X		
M25900-500	10.197	0.197	259.00	5.00		X		
M25930-570	10.209	0.224	259.30	5.70		X X		G260
M25950-840	10.217	0.331	259.50	8.40				P260
M25970-699	10.224	0.275	259.70	6.99			X	
M26000-350	10.236	0.138	260.00	3.50		X		
M26000-400	10.236	0.157	260.00	4.00		X		
M26000-500	10.236	0.197	260.00	5.00		X		
M26100-350	10.276	0.138	261.00	3.50		X		
M26100-400	10.276	0.157	261.00	4.00		X		
M26100-500	10.276	0.197	261.00	5.00		X		
M26200-350	10.315	0.138	262.00	3.50		X		
M26200-400	10.315	0.157	262.00	4.00		X		
M26200-500	10.315	0.197	262.00	5.00		X		
M26300-350	10.354	0.138	263.00	3.50		X		
M26300-400	10.354	0.157	263.00	4.00		X		
M26300-500	10.354	0.197	263.00	5.00		X		
M26400-350	10.394	0.138	264.00	3.50		X		
M26400-400	10.394	0.157	264.00	4.00		X		
M26400-500	10.394	0.197	264.00	5.00		X		
M26450-840	10.413	0.331	264.50	8.40				P265
M26500-350	10.433	0.138	265.00	3.50		X		
M26500-355	10.433	0.140	265.00	3.55	X			
M26500-400	10.433	0.157	265.00	4.00		X		
M26500-500	10.433	0.197	265.00	5.00		X		
M26500-530	10.433	0.209	265.00	5.30	X			
M26500-700	10.433	0.276	265.00	7.00	X			
M26600-350	10.472	0.138	266.00	3.50		X		
M26600-400	10.472	0.157	266.00	4.00		X		
M26600-500	10.472	0.197	266.00	5.00		X		
2-378	10.475	0.210	266.07	5.33	X		X	
2-450	10.475	0.275	266.07	6.99	X		X X	
2-275	10.484	0.139	266.29	3.53	X		X	
M26700-350	10.512	0.138	267.00	3.50		X		
M26700-400	10.512	0.157	267.00	4.00		X		
M26700-500	10.512	0.197	267.00	5.00		X		

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN FRANCE	JAPAN
M26800-350	10.551	0.138	268.00	3.50			X	
M26800-400	10.551	0.157	268.00	4.00			X	
M26800-500	10.551	0.197	268.00	5.00			X	
M26900-350	10.591	0.138	269.00	3.50			X	
M26900-400	10.591	0.157	269.00	4.00			X	
M26900-500	10.591	0.197	269.00	5.00			X	
M26930-570	10.602	0.224	269.30	5.70		X	X	G270
M26950-840	10.610	0.331	269.50	8.40				P270
M27000-350	10.630	0.138	270.00	3.50			X	
M27000-400	10.630	0.157	270.00	4.00			X	
M27000-500	10.630	0.197	270.00	5.00			X	
M27100-350	10.669	0.138	271.00	3.50			X	
M27100-400	10.669	0.157	271.00	4.00			X	
M27100-500	10.669	0.197	271.00	5.00			X	
M27200-350	10.709	0.138	272.00	3.50			X	
M27200-400	10.709	0.157	272.00	4.00			X	
M27200-500	10.709	0.197	272.00	5.00			X	
M27200-530	10.709	0.209	272.00	5.30	X			
M27200-600	10.709	0.236	272.00	6.00				V75
M27200-700	10.709	0.276	272.00	7.00	X			
M27240-699	10.724	0.275	272.40	6.99			X	
M27300-350	10.748	0.138	273.00	3.50			X	
M27300-400	10.748	0.157	273.00	4.00			X	
M27300-500	10.748	0.197	273.00	5.00			X	
M27400-350	10.787	0.138	274.00	3.50			X	
M27400-400	10.787	0.157	274.00	4.00			X	
M27400-500	10.787	0.197	274.00	5.00			X	
M27450-840	10.807	0.331	274.50	8.40				P275
M27500-350	10.827	0.138	275.00	3.50			X	
M27500-400	10.827	0.157	275.00	4.00			X	
M27500-500	10.827	0.197	275.00	5.00			X	
M27600-350	10.866	0.138	276.00	3.50			X	
M27600-400	10.866	0.157	276.00	4.00			X	
M27600-500	10.866	0.197	276.00	5.00			X	
M27700-350	10.906	0.138	277.00	3.50			X	
M27700-400	10.906	0.157	277.00	4.00			X	
M27700-500	10.906	0.197	277.00	5.00			X	
M27800-350	10.945	0.138	278.00	3.50			X	
M27800-400	10.945	0.157	278.00	4.00			X	
M27800-500	10.945	0.197	278.00	5.00			X	
2-379	10.975	0.210	278.77	5.33	X		X	
2-451	10.975	0.275	278.77	6.99	X		X X	
M27900-350	10.984	0.138	279.00	3.50			X	
2-276	10.984	0.139	278.99	3.53	X		X	
M27900-400	10.984	0.157	279.00	4.00			X	
M27900-500	10.984	0.197	279.00	5.00			X	
M27930-570	10.996	0.224	279.30	5.70		X	X	G280
M27950-840	11.004	0.331	279.50	8.40				P280
M28000-350	11.024	0.138	280.00	3.50			X	
M28000-355	11.024	0.140	280.00	3.55	X			
M28000-400	11.024	0.157	280.00	4.00			X	
M28000-500	11.024	0.197	280.00	5.00			X	
M28000-530	11.024	0.209	280.00	5.30	X			
M28000-700	11.024	0.276	280.00	7.00	X			
M28100-350	11.063	0.138	281.00	3.50			X	
M28100-400	11.063	0.157	281.00	4.00			X	
M28100-500	11.063	0.197	281.00	5.00			X	
M28200-350	11.102	0.138	282.00	3.50			X	

**\*Chart for comparison only. Not all sizes stocked.**

## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M28200-400	11.102	0.157	282.00	4.00			X				M29800-350	11.732	0.138	298.00	3.50			X			
M28200-500	11.102	0.197	282.00	5.00			X				M29800-400	11.732	0.157	298.00	4.00			X			
M28300-350	11.142	0.138	283.00	3.50			X				M29800-500	11.732	0.197	298.00	5.00			X			
M28300-400	11.142	0.157	283.00	4.00			X				M29900-350	11.772	0.138	299.00	3.50			X			
M28300-500	11.142	0.197	283.00	5.00			X				M29900-400	11.772	0.157	299.00	4.00			X			
M28400-350	11.181	0.138	284.00	3.50			X				M29900-500	11.772	0.197	299.00	5.00			X			
M28400-400	11.181	0.157	284.00	4.00			X				M29930-570	11.783	0.224	299.30	5.70		X	X			G300
M28400-500	11.181	0.197	284.00	5.00			X				M29950-840	11.791	0.331	299.50	8.40						P300
M28450-840	11.201	0.331	284.50	8.40						P285	M30000-350	11.811	0.138	300.00	3.50			X			
M28500-350	11.220	0.138	285.00	3.50			X				M30000-355	11.811	0.140	300.00	3.55	X					
M28500-400	11.220	0.157	285.00	4.00			X				M30000-400	11.811	0.157	300.00	4.00			X			
M28500-500	11.220	0.197	285.00	5.00			X				M30000-500	11.811	0.197	300.00	5.00			X			
M28510-699	11.224	0.275	285.10	6.99				X			M30000-530	11.811	0.209	300.00	5.30	X					
M28600-350	11.260	0.138	286.00	3.50			X				M30000-700	11.811	0.276	300.00	7.00	X					
M28600-400	11.260	0.157	286.00	4.00			X				M30100-350	11.850	0.138	301.00	3.50			X			
M28600-500	11.260	0.197	286.00	5.00			X				M30100-400	11.850	0.157	301.00	4.00			X			
M28700-350	11.299	0.138	287.00	3.50			X				M30100-500	11.850	0.197	301.00	5.00			X			
M28700-400	11.299	0.157	287.00	4.00			X				M30200-350	11.890	0.138	302.00	3.50			X			
M28700-500	11.299	0.197	287.00	5.00			X				M30200-400	11.890	0.157	302.00	4.00			X			
M28800-350	11.339	0.138	288.00	3.50			X				M30200-500	11.890	0.197	302.00	5.00			X			
M28800-400	11.339	0.157	288.00	4.00			X				M30300-350	11.929	0.138	303.00	3.50			X			
M28800-500	11.339	0.197	288.00	5.00			X				M30300-400	11.929	0.157	303.00	4.00			X			
M28900-350	11.378	0.138	289.00	3.50			X				M30300-500	11.929	0.197	303.00	5.00			X			
M28900-400	11.378	0.157	289.00	4.00			X				M30400-350	11.969	0.138	304.00	3.50			X			
M28900-500	11.378	0.197	289.00	5.00			X				M30400-400	11.969	0.157	304.00	4.00			X			
M28930-570	11.390	0.224	289.30	5.70		X	X			G290	M30400-500	11.969	0.197	304.00	5.00			X			
M28950-840	11.398	0.331	289.50	8.40						P290	2-381	11.975	0.210	304.17	5.33	X			X		
M29000-350	11.417	0.138	290.00	3.50			X				2-453	11.975	0.275	304.17	6.99	X			X	X	
M29000-400	11.417	0.157	290.00	4.00			X				2-278	11.984	0.139	304.39	3.53	X			X		
M29000-500	11.417	0.197	290.00	5.00			X				M30500-350	12.008	0.138	305.00	3.50			X			
M29000-530	11.417	0.209	290.00	5.30		X					M30500-400	12.008	0.157	305.00	4.00			X			
M29000-700	11.417	0.276	290.00	7.00		X					M30500-500	12.008	0.197	305.00	5.00			X			
M29100-350	11.457	0.138	291.00	3.50			X				M30600-350	12.047	0.138	306.00	3.50			X			
M29100-400	11.457	0.157	291.00	4.00			X				M30600-400	12.047	0.157	306.00	4.00			X			
M29100-500	11.457	0.197	291.00	5.00			X				M30600-500	12.047	0.197	306.00	5.00			X			
2-380	11.475	0.210	291.47	5.33	X			X			M30700-350	12.087	0.138	307.00	3.50			X			
2-452	11.475	0.275	291.47	6.99	X			X	X		M30700-400	12.087	0.157	307.00	4.00			X			
2-277	11.484	0.139	291.69	3.53	X			X			M30700-500	12.087	0.197	307.00	5.00			X			
M29200-350	11.496	0.138	292.00	3.50			X				M30700-530	12.087	0.209	307.00	5.30		X				
M29200-400	11.496	0.157	292.00	4.00			X				M30700-700	12.087	0.276	307.00	7.00		X				
M29200-500	11.496	0.197	292.00	5.00			X				M30800-350	12.126	0.138	308.00	3.50			X			
M29300-350	11.535	0.138	293.00	3.50			X				M30800-400	12.126	0.157	308.00	4.00			X			
M29300-400	11.535	0.157	293.00	4.00			X				M30800-500	12.126	0.197	308.00	5.00			X			
M29300-500	11.535	0.197	293.00	5.00			X				M30900-350	12.165	0.138	309.00	3.50			X			
M29400-350	11.575	0.138	294.00	3.50			X				M30900-400	12.165	0.157	309.00	4.00			X			
M29400-400	11.575	0.157	294.00	4.00			X				M30900-500	12.165	0.197	309.00	5.00			X			
M29400-500	11.575	0.197	294.00	5.00			X				M31000-350	12.205	0.138	310.00	3.50			X			
M29450-840	11.594	0.331	294.50	8.40						P295	M31000-400	12.205	0.157	310.00	4.00			X			
M29500-350	11.614	0.138	295.00	3.50			X				M31000-500	12.205	0.197	310.00	5.00			X			
M29500-400	11.614	0.157	295.00	4.00			X				M31050-699	12.224	0.275	310.50	6.99				X		
M29500-500	11.614	0.197	295.00	5.00			X				M31100-350	12.244	0.138	311.00	3.50			X			
M29600-350	11.654	0.138	296.00	3.50			X				M31100-400	12.244	0.157	311.00	4.00			X			
M29600-400	11.654	0.157	296.00	4.00			X				M31100-500	12.244	0.197	311.00	5.00			X			
M29600-500	11.654	0.197	296.00	5.00			X				M31200-350	12.283	0.138	312.00	3.50			X			
M29700-350	11.693	0.138	297.00	3.50			X				M31200-400	12.283	0.157	312.00	4.00			X			
M29700-400	11.693	0.157	297.00	4.00			X				M31200-500	12.283	0.197	312.00	5.00			X			
M29700-500	11.693	0.197	297.00	5.00			X				M31300-350	12.323	0.138	313.00	3.50			X			
M29780-699	11.724	0.275	297.80	6.99				X			M31300-400	12.323	0.157	313.00	4.00			X			

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## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M31300-500	12.323	0.197	313.00	5.00			X				M32900-400	12.953	0.157	329.00	4.00			X			
M31400-350	12.362	0.138	314.00	3.50			X				M32900-500	12.953	0.197	329.00	5.00			X			
M31400-400	12.362	0.157	314.00	4.00			X				2-382	12.975	0.210	329.57	5.33	X			X		
M31400-500	12.362	0.197	314.00	5.00			X				2-455	12.975	0.275	329.57	6.99	X			X	X	
M31450-840	12.382	0.331	314.50	8.40						P315	2-279	12.984	0.139	329.79	3.53	X			X		
M31500-350	12.402	0.138	315.00	3.50			X				M33000-350	12.992	0.138	330.00	3.50			X			
M31500-355	12.402	0.140	315.00	3.55	X						M33000-400	12.992	0.157	330.00	4.00			X			
M31500-400	12.402	0.157	315.00	4.00			X				M33000-500	12.992	0.197	330.00	5.00			X			
M31500-500	12.402	0.197	315.00	5.00			X				M33100-350	13.031	0.138	331.00	3.50			X			
M31500-530	12.402	0.209	315.00	5.30	X						M33100-400	13.031	0.157	331.00	4.00			X			
M31500-700	12.402	0.276	315.00	7.00	X						M33100-500	13.031	0.197	331.00	5.00			X			
M31600-350	12.441	0.138	316.00	3.50			X				M33200-350	13.071	0.138	332.00	3.50			X			
M31600-400	12.441	0.157	316.00	4.00			X				M33200-400	13.071	0.157	332.00	4.00			X			
M31600-500	12.441	0.197	316.00	5.00			X				M33200-500	13.071	0.197	332.00	5.00			X			
2-454	12.475	0.275	316.87	6.99	X			X	X		M33300-350	13.110	0.138	333.00	3.50			X			
M31700-350	12.480	0.138	317.00	3.50			X				M33300-400	13.110	0.157	333.00	4.00			X			
M31700-400	12.480	0.157	317.00	4.00			X				M33300-500	13.110	0.197	333.00	5.00			X			
M31700-500	12.480	0.197	317.00	5.00			X				M33400-350	13.150	0.138	334.00	3.50			X			
M31800-350	12.520	0.138	318.00	3.50			X				M33400-400	13.150	0.157	334.00	4.00			X			
M31800-400	12.520	0.157	318.00	4.00			X				M33400-500	13.150	0.197	334.00	5.00			X			
M31800-500	12.520	0.197	318.00	5.00			X				M33450-840	13.169	0.331	334.50	8.40						P335
M31900-350	12.559	0.138	319.00	3.50			X				M33500-350	13.189	0.138	335.00	3.50			X			
M31900-400	12.559	0.157	319.00	4.00			X				M33500-355	13.189	0.140	335.00	3.55	X					
M31900-500	12.559	0.197	319.00	5.00			X				M33500-400	13.189	0.157	335.00	4.00			X			
M31930-570	12.571	0.224	319.30	5.70		X	X				M33500-500	13.189	0.197	335.00	5.00			X			
M31950-840	12.578	0.331	319.50	8.40						P320	M33500-530	13.189	0.209	335.00	5.30	X					
M32000-350	12.598	0.138	320.00	3.50			X				M33500-700	13.189	0.276	335.00	7.00	X					
M32000-400	12.598	0.157	320.00	4.00			X				M33600-350	13.228	0.138	336.00	3.50			X			
M32000-500	12.598	0.197	320.00	5.00			X				M33600-400	13.228	0.157	336.00	4.00			X			
M32100-350	12.638	0.138	321.00	3.50			X				M33600-500	13.228	0.197	336.00	5.00			X			
M32100-400	12.638	0.157	321.00	4.00			X				M33700-350	13.268	0.138	337.00	3.50			X			
M32100-500	12.638	0.197	321.00	5.00			X				M33700-400	13.268	0.157	337.00	4.00			X			
M32150-600	12.657	0.236	321.50	6.00							M33700-500	13.268	0.197	337.00	5.00			X			
M32200-350	12.677	0.138	322.00	3.50			X				M33800-350	13.307	0.138	338.00	3.50			X			
M32200-400	12.677	0.157	322.00	4.00			X				M33800-400	13.307	0.157	338.00	4.00			X			
M32200-500	12.677	0.197	322.00	5.00			X				M33800-500	13.307	0.197	338.00	5.00			X			
M32300-350	12.717	0.138	323.00	3.50			X				M33900-350	13.346	0.138	339.00	3.50			X			
M32300-400	12.717	0.157	323.00	4.00			X				M33900-400	13.346	0.157	339.00	4.00			X			
M32300-500	12.717	0.197	323.00	5.00			X				M33900-500	13.346	0.197	339.00	5.00			X			
M32320-699	12.724	0.275	323.20	6.99				X			M33930-570	13.358	0.224	339.30	5.70		X		X		
M32400-350	12.756	0.138	324.00	3.50			X				M33950-840	13.366	0.331	339.50	8.40						P340
M32400-400	12.756	0.157	324.00	4.00			X				M34000-350	13.386	0.138	340.00	3.50			X			
M32400-500	12.756	0.197	324.00	5.00			X				M34000-500	13.386	0.197	340.00	5.00			X			
M32500-350	12.795	0.138	325.00	3.50			X				M34100-350	13.425	0.138	341.00	3.50			X			
M32500-400	12.795	0.157	325.00	4.00			X				M34100-400	13.425	0.157	341.00	4.00			X			
M32500-500	12.795	0.197	325.00	5.00			X				M34100-500	13.425	0.197	341.00	5.00			X			
M32500-530	12.795	0.209	325.00	5.30	X						M34200-350	13.465	0.138	342.00	3.50			X			
M32500-700	12.795	0.276	325.00	7.00	X						M34200-400	13.465	0.157	342.00	4.00			X			
M32600-350	12.835	0.138	326.00	3.50			X				M34200-500	13.465	0.197	342.00	5.00			X			
M32600-400	12.835	0.157	326.00	4.00			X				2-456	13.475	0.275	342.27	6.99	X			X	X	
M32600-500	12.835	0.197	326.00	5.00			X				M34300-350	13.504	0.138	343.00	3.50			X			
M32700-350	12.874	0.138	327.00	3.50			X				M34300-400	13.504	0.157	343.00	4.00			X			
M32700-400	12.874	0.157	327.00	4.00			X				M34300-500	13.504	0.197	343.00	5.00			X			
M32700-500	12.874	0.197	327.00	5.00			X				M34400-350	13.543	0.138	344.00	3.50			X			
M32800-350	12.913	0.138	328.00	3.50			X				M34400-400	13.543	0.157	344.00	4.00			X			
M32800-400	12.913	0.157	328.00	4.00			X				M34400-500	13.543	0.197	344.00	5.00			X			
M32800-500	12.913	0.197	328.00	5.00			X				M34500-350	13.583	0.138	345.00	3.50			X			
M32900-350	12.953	0.138	329.00	3.50			X				M34500-400	13.583	0.157	345.00	4.00			X			

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## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M34500-500	13.583	0.197	345.00	5.00			X				M36100-400	14.213	0.157	361.00	4.00			X			
M34500-530	13.583	0.209	345.00	5.30	X						M36100-500	14.213	0.197	361.00	5.00			X			
M34500-700	13.583	0.276	345.00	7.00	X						M36200-350	14.252	0.138	362.00	3.50			X			
M34600-350	13.622	0.138	346.00	3.50			X				M36200-400	14.252	0.157	362.00	4.00			X			
M34600-400	13.622	0.157	346.00	4.00			X				M36200-500	14.252	0.197	362.00	5.00			X			
M34600-500	13.622	0.197	346.00	5.00			X				M36300-350	14.291	0.138	363.00	3.50			X			
M34700-350	13.661	0.138	347.00	3.50			X				M36300-400	14.291	0.157	363.00	4.00			X			
M34700-400	13.661	0.157	347.00	4.00			X				M36300-500	14.291	0.197	363.00	5.00			X			
M34700-500	13.661	0.197	347.00	5.00			X				M36400-350	14.331	0.138	364.00	3.50			X			
M34800-350	13.701	0.138	348.00	3.50			X				M36400-400	14.331	0.157	364.00	4.00			X			
M34800-400	13.701	0.157	348.00	4.00			X				M36400-500	14.331	0.197	364.00	5.00			X			
M34800-500	13.701	0.197	348.00	5.00			X				M36500-350	14.370	0.138	365.00	3.50			X			
M34900-350	13.740	0.138	349.00	3.50			X				M36500-400	14.370	0.157	365.00	4.00			X			
M34900-400	13.740	0.157	349.00	4.00			X				M36500-500	14.370	0.197	365.00	5.00			X			
M34900-500	13.740	0.197	349.00	5.00			X				M36500-530	14.370	0.209	365.00	5.30	X					
M35000-350	13.780	0.138	350.00	3.50			X				M36500-700	14.370	0.276	365.00	7.00	X					
M35000-400	13.780	0.157	350.00	4.00			X				M36600-350	14.409	0.138	366.00	3.50			X			
M35000-500	13.780	0.197	350.00	5.00			X				M36600-400	14.409	0.157	366.00	4.00			X			
M35100-350	13.819	0.138	351.00	3.50			X				M36600-500	14.409	0.197	366.00	5.00			X			
M35100-400	13.819	0.157	351.00	4.00			X				M36700-350	14.449	0.138	367.00	3.50			X			
M35100-500	13.819	0.197	351.00	5.00			X				M36700-400	14.449	0.157	367.00	4.00			X			
M35200-350	13.858	0.138	352.00	3.50			X				M36700-500	14.449	0.197	367.00	5.00			X			
M35200-400	13.858	0.157	352.00	4.00			X				2-458	14.475	0.275	367.67	6.99	X			X	X	
M35200-500	13.858	0.197	352.00	5.00			X				M36800-350	14.488	0.138	368.00	3.50			X			
M35300-350	13.898	0.138	353.00	3.50			X				M36800-400	14.488	0.157	368.00	4.00			X			
M35300-400	13.898	0.157	353.00	4.00			X				M36800-500	14.488	0.197	368.00	5.00			X			
M35300-500	13.898	0.197	353.00	5.00			X				M36900-350	14.528	0.138	369.00	3.50			X			
M35400-350	13.937	0.138	354.00	3.50			X				M36900-400	14.528	0.157	369.00	4.00			X			
M35400-400	13.937	0.157	354.00	4.00			X				M36900-500	14.528	0.197	369.00	5.00			X			
M35400-500	13.937	0.197	354.00	5.00			X				M37000-350	14.567	0.138	370.00	3.50			X			
M35450-840	13.957	0.331	354.50	8.40						P355	M37000-400	14.567	0.157	370.00	4.00			X			
2-383	13.975	0.210	354.97	5.33	X			X			M37000-500	14.567	0.197	370.00	5.00			X			
2-457	13.975	0.275	354.97	6.99	X			X	X		M37100-350	14.606	0.138	371.00	3.50			X			
M35500-350	13.976	0.138	355.00	3.50			X				M37100-400	14.606	0.157	371.00	4.00			X			
M35500-355	13.976	0.140	355.00	3.55		X					M37100-500	14.606	0.197	371.00	5.00			X			
M35500-400	13.976	0.157	355.00	4.00			X				M37200-350	14.646	0.138	372.00	3.50			X			
M35500-500	13.976	0.197	355.00	5.00			X				M37200-400	14.646	0.157	372.00	4.00			X			
M35500-530	13.976	0.209	355.00	5.30		X					M37200-500	14.646	0.197	372.00	5.00			X			
M35500-700	13.976	0.276	355.00	7.00		X					M37300-350	14.685	0.138	373.00	3.50			X			
2-280	13.984	0.139	355.19	3.53	X			X			M37300-400	14.685	0.157	373.00	4.00			X			
M35600-350	14.016	0.138	356.00	3.50			X				M37300-500	14.685	0.197	373.00	5.00			X			
M35600-400	14.016	0.157	356.00	4.00			X				M37400-350	14.724	0.138	374.00	3.50			X			
M35600-500	14.016	0.197	356.00	5.00			X				M37400-400	14.724	0.157	374.00	4.00			X			
M35700-350	14.055	0.138	357.00	3.50			X				M37400-500	14.724	0.197	374.00	5.00			X			
M35700-400	14.055	0.157	357.00	4.00			X				M37450-840	14.744	0.331	374.50	8.40						P375
M35700-500	14.055	0.197	357.00	5.00			X				M37500-350	14.764	0.138	375.00	3.50			X			
M35800-350	14.094	0.138	358.00	3.50			X				M37500-400	14.764	0.157	375.00	4.00			X			
M35800-400	14.094	0.157	358.00	4.00			X				M37500-500	14.764	0.197	375.00	5.00			X			
M35800-500	14.094	0.197	358.00	5.00			X				M37500-530	14.764	0.209	375.00	5.30	X					
M35900-350	14.134	0.138	359.00	3.50			X				M37500-700	14.764	0.276	375.00	7.00	X					
M35900-400	14.134	0.157	359.00	4.00			X				M37600-350	14.803	0.138	376.00	3.50			X			
M35900-500	14.134	0.197	359.00	5.00			X				M37600-400	14.803	0.157	376.00	4.00			X			
M35930-570	14.146	0.224	359.30	5.70		X		X			M37600-500	14.803	0.197	376.00	5.00			X			
M35950-840	14.154	0.331	359.50	8.40						P360	M37600-600	14.803	0.236	376.00	6.00						V380
M36000-350	14.173	0.138	360.00	3.50			X				M37700-350	14.843	0.138	377.00	3.50			X			
M36000-400	14.173	0.157	360.00	4.00			X				M37700-400	14.843	0.157	377.00	4.00			X			
M36000-500	14.173	0.197	360.00	5.00			X				M37700-500	14.843	0.197	377.00	5.00			X			
M36100-350	14.213	0.138	361.00	3.50			X				M37800-350	14.882	0.138	378.00	3.50			X			

\*Chart for comparison only. Not all sizes stocked.

## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN GERMANY	BRITAIN FRANCE	JAPAN
M37800-400	14.882	0.157	378.00	4.00		X			M39450-840	15.531	0.331	394.50	8.40				X
M37800-500	14.882	0.197	378.00	5.00		X			M39500-350	15.551	0.138	395.00	3.50		X		
M37900-350	14.921	0.138	379.00	3.50		X			M39500-400	15.551	0.157	395.00	4.00		X		
M37900-400	14.921	0.157	379.00	4.00		X			M39500-500	15.551	0.197	395.00	5.00		X		
M37900-500	14.921	0.197	379.00	5.00		X			M39600-350	15.591	0.138	396.00	3.50		X		
M37930-570	14.933	0.224	379.30	5.70		X	X		M39600-400	15.591	0.157	396.00	4.00		X		
M38000-350	14.961	0.138	380.00	3.50		X			M39600-500	15.591	0.197	396.00	5.00		X		
M38000-400	14.961	0.157	380.00	4.00		X			M39700-350	15.630	0.138	397.00	3.50		X		
M38000-500	14.961	0.197	380.00	5.00		X			M39700-400	15.630	0.157	397.00	4.00		X		
2-384	14.975	0.210	380.37	5.33	X		X		M39700-500	15.630	0.197	397.00	5.00		X		
2-459	14.975	0.275	380.37	6.99	X		X X		M39800-350	15.669	0.138	398.00	3.50		X		
2-281	14.984	0.139	380.59	3.53	X		X		M39800-400	15.669	0.157	398.00	4.00		X		
M38100-350	15.000	0.138	381.00	3.50		X			M39800-500	15.669	0.197	398.00	5.00		X		
M38100-400	15.000	0.157	381.00	4.00		X			M39900-350	15.709	0.138	399.00	3.50		X		
M38100-500	15.000	0.197	381.00	5.00		X			M39900-400	15.709	0.157	399.00	4.00		X		
M38200-350	15.039	0.138	382.00	3.50		X			M39930-570	15.720	0.224	399.30	5.70		X	X	
M38200-400	15.039	0.157	382.00	4.00		X			M39950-840	15.728	0.331	399.50	8.40				P400
M38200-500	15.039	0.197	382.00	5.00		X			M40000-350	15.748	0.138	400.00	3.50		X		
M38300-350	15.079	0.138	383.00	3.50		X			M40000-400	15.748	0.157	400.00	4.00		X		
M38300-400	15.079	0.157	383.00	4.00		X			M40000-530	15.748	0.209	400.00	5.30	X			
M38300-500	15.079	0.197	383.00	5.00		X			M40000-700	15.748	0.276	400.00	7.00	X			
M38400-350	15.118	0.138	384.00	3.50		X			M40100-350	15.787	0.138	401.00	3.50		X		
M38400-400	15.118	0.157	384.00	4.00		X			M40100-400	15.787	0.157	401.00	4.00		X		
M38400-500	15.118	0.197	384.00	5.00		X			M40200-350	15.827	0.138	402.00	3.50		X		
M38450-840	15.138	0.331	384.50	8.40				P385	M40200-400	15.827	0.157	402.00	4.00		X		
M38500-350	15.157	0.138	385.00	3.50		X			M40300-350	15.866	0.138	403.00	3.50		X		
M38500-400	15.157	0.157	385.00	4.00		X			M40300-400	15.866	0.157	403.00	4.00		X		
M38500-500	15.157	0.197	385.00	5.00		X			M40400-350	15.906	0.138	404.00	3.50		X		
M38600-350	15.197	0.138	386.00	3.50		X			M40400-400	15.906	0.157	404.00	4.00		X		
M38600-400	15.197	0.157	386.00	4.00		X			M40500-350	15.945	0.138	405.00	3.50		X		
M38600-500	15.197	0.197	386.00	5.00		X			M40500-400	15.945	0.157	405.00	4.00		X		
M38700-350	15.236	0.138	387.00	3.50		X			2-282	15.955	0.139	405.26	3.53	X		X	
M38700-400	15.236	0.157	387.00	4.00		X			2-385	15.955	0.210	405.26	5.33	X		X	
M38700-500	15.236	0.197	387.00	5.00		X			2-461	15.955	0.275	405.26	6.99	X		X	
M38700-530	15.236	0.209	387.00	5.30	X				M40600-350	15.984	0.138	406.00	3.50		X		
M38700-700	15.236	0.276	387.00	7.00	X				M40600-400	15.984	0.157	406.00	4.00		X		
M38800-350	15.276	0.138	388.00	3.50		X			M40700-350	16.024	0.138	407.00	3.50		X		
M38800-400	15.276	0.157	388.00	4.00		X			M40700-400	16.024	0.157	407.00	4.00		X		
M38800-500	15.276	0.197	388.00	5.00		X			M40800-350	16.063	0.138	408.00	3.50		X		
M38900-350	15.315	0.138	389.00	3.50		X			M40800-400	16.063	0.157	408.00	4.00		X		
M38900-400	15.315	0.157	389.00	4.00		X			M40900-350	16.102	0.138	409.00	3.50		X		
M38900-500	15.315	0.197	389.00	5.00		X			M40900-400	16.102	0.157	409.00	4.00		X		
M39000-350	15.354	0.138	390.00	3.50		X			M41000-350	16.142	0.138	410.00	3.50		X		
M39000-400	15.354	0.157	390.00	4.00		X			M41000-400	16.142	0.157	410.00	4.00		X		
M39000-500	15.354	0.197	390.00	5.00		X			M41100-350	16.181	0.138	411.00	3.50		X		
M39100-350	15.394	0.138	391.00	3.50		X			M41100-400	16.181	0.157	411.00	4.00		X		
M39100-400	15.394	0.157	391.00	4.00		X			M41200-350	16.220	0.138	412.00	3.50		X		
M39100-500	15.394	0.197	391.00	5.00		X			M41200-400	16.220	0.157	412.00	4.00		X		
M39200-350	15.433	0.138	392.00	3.50		X			M41200-700	16.220	0.276	412.00	7.00	X			
M39200-400	15.433	0.157	392.00	4.00		X			M41300-350	16.260	0.138	413.00	3.50		X		
M39200-500	15.433	0.197	392.00	5.00		X			M41300-400	16.260	0.157	413.00	4.00		X		
M39300-350	15.472	0.138	393.00	3.50		X			M41400-350	16.299	0.138	414.00	3.50		X		
M39300-400	15.472	0.157	393.00	4.00		X			M41400-400	16.299	0.157	414.00	4.00		X		
M39300-500	15.472	0.197	393.00	5.00		X			M41500-350	16.339	0.138	415.00	3.50		X		
2-460	15.475	0.275	393.07	6.99	X		X X		M41500-400	16.339	0.157	415.00	4.00		X		
M39400-350	15.512	0.138	394.00	3.50		X			M41600-350	16.378	0.138	416.00	3.50		X		
M39400-400	15.512	0.157	394.00	4.00		X			M41600-400	16.378	0.157	416.00	4.00		X		
M39400-500	15.512	0.197	394.00	5.00		X			M41700-350	16.417	0.138	417.00	3.50		X		

\*Chart for comparison only. Not all sizes stocked.



## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN	Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)	AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M41700-400	16.417	0.157	417.00	4.00			X				2-464	17.455	0.275	443.36	6.99	X			X		
2-462	16.455	0.275	417.96	6.99	X			X			M44400-400	17.480	0.157	444.00	4.00			X			
M41800-350	16.457	0.138	418.00	3.50			X				M44500-400	17.520	0.157	445.00	4.00			X			
M41800-400	16.457	0.157	418.00	4.00			X				M44600-400	17.559	0.157	446.00	4.00			X			
M41900-350	16.496	0.138	419.00	3.50			X				M44700-400	17.598	0.157	447.00	4.00			X			
M41900-400	16.496	0.157	419.00	4.00			X				M44800-400	17.638	0.157	448.00	4.00			X			
M41930-570	16.508	0.224	419.30	5.70		X	X				M44900-400	17.677	0.157	449.00	4.00			X			
M42000-350	16.535	0.138	420.00	3.50			X				M45000-400	17.717	0.157	450.00	4.00			X			
M42000-400	16.535	0.157	420.00	4.00			X				M45000-700	17.717	0.276	450.00	7.00	X					
M42100-350	16.575	0.138	421.00	3.50			X				M45100-400	17.756	0.157	451.00	4.00			X			
M42100-400	16.575	0.157	421.00	4.00			X				M45200-400	17.795	0.157	452.00	4.00			X			
M42200-350	16.614	0.138	422.00	3.50			X				M45300-400	17.835	0.157	453.00	4.00			X			
M42200-400	16.614	0.157	422.00	4.00			X				M45400-400	17.874	0.157	454.00	4.00			X			
M42300-350	16.654	0.138	423.00	3.50			X				M45500-400	17.913	0.157	455.00	4.00			X			
M42300-400	16.654	0.157	423.00	4.00			X				M45600-400	17.953	0.157	456.00	4.00			X			
M42400-350	16.693	0.138	424.00	3.50			X				2-284	17.955	0.139	456.06	3.53	X			X		
M42400-400	16.693	0.157	424.00	4.00			X				2-387	17.955	0.210	456.06	5.33	X			X		
M42500-350	16.732	0.138	425.00	3.50			X				2-465	17.955	0.275	456.06	6.99	X			X		
M42500-400	16.732	0.157	425.00	4.00			X				M45700-400	17.992	0.157	457.00	4.00			X			
M42550-600	16.752	0.236	425.50	6.00						V430	M45800-400	18.031	0.157	458.00	4.00			X			
M42600-350	16.772	0.138	426.00	3.50			X				M45900-400	18.071	0.157	459.00	4.00			X			
M42600-400	16.772	0.157	426.00	4.00			X				M45930-570	18.083	0.224	459.30	5.70		X	X			
M42700-350	16.811	0.138	427.00	3.50			X				M46000-400	18.110	0.157	460.00	4.00			X			
M42700-400	16.811	0.157	427.00	4.00			X				M46100-400	18.150	0.157	461.00	4.00			X			
M42800-350	16.850	0.138	428.00	3.50			X				M46200-400	18.189	0.157	462.00	4.00			X			
M42800-400	16.850	0.157	428.00	4.00			X				M46200-700	18.189	0.276	462.00	7.00	X					
M42900-350	16.890	0.138	429.00	3.50			X				M46300-400	18.228	0.157	463.00	4.00			X			
M42900-400	16.890	0.157	429.00	4.00			X				M46400-400	18.268	0.157	464.00	4.00			X			
M43000-350	16.929	0.138	430.00	3.50			X				M46500-400	18.307	0.157	465.00	4.00			X			
M43000-400	16.929	0.157	430.00	4.00			X				M46600-400	18.346	0.157	466.00	4.00			X			
2-283	16.955	0.139	430.66	3.53	X			X			M46700-400	18.386	0.157	467.00	4.00			X			
2-386	16.955	0.210	430.66	5.33	X			X			M46800-400	18.425	0.157	468.00	4.00			X			
2-463	16.955	0.275	430.66	6.99	X			X			2-466	18.455	0.275	468.76	6.99	X			X		
M43100-350	16.969	0.138	431.00	3.50			X				M46900-400	18.465	0.157	469.00	4.00			X			
M43100-400	16.969	0.157	431.00	4.00			X				M47000-400	18.504	0.157	470.00	4.00			X			
M43200-350	17.008	0.138	432.00	3.50			X				M47100-400	18.543	0.157	471.00	4.00			X			
M43200-400	17.008	0.157	432.00	4.00			X				M47200-400	18.583	0.157	472.00	4.00			X			
M43300-350	17.047	0.138	433.00	3.50			X				M47300-400	18.622	0.157	473.00	4.00			X			
M43300-400	17.047	0.157	433.00	4.00			X				M47400-400	18.661	0.157	474.00	4.00			X			
M43400-350	17.087	0.138	434.00	3.50			X				M47500-1000	18.701	0.394	475.00	10.00						V480
M43400-400	17.087	0.157	434.00	4.00			X				M47500-700	18.701	0.276	475.00	7.00		X				
M43500-350	17.126	0.138	435.00	3.50			X				M47700-400	18.780	0.157	477.00	4.00			X			
M43500-400	17.126	0.157	435.00	4.00			X				M47800-400	18.819	0.157	478.00	4.00			X			
M43600-350	17.165	0.138	436.00	3.50			X				M47900-400	18.858	0.157	479.00	4.00			X			
M43600-400	17.165	0.157	436.00	4.00			X				M47930-570	18.870	0.224	479.30	5.70		X	X			
M43700-350	17.205	0.138	437.00	3.50			X				M48000-400	18.898	0.157	480.00	4.00			X			
M43700-400	17.205	0.157	437.00	4.00			X				M48100-400	18.937	0.157	481.00	4.00			X			
M43700-700	17.205	0.276	437.00	7.00		X					2-388	18.955	0.210	481.46	5.33	X			X		
M43800-350	17.244	0.138	438.00	3.50			X				2-467	18.955	0.275	481.46	6.99	X			X		
M43800-400	17.244	0.157	438.00	4.00			X				M48200-400	18.976	0.157	482.00	4.00			X			
M43900-350	17.283	0.138	439.00	3.50			X				M48300-400	19.016	0.157	483.00	4.00			X			
M43900-400	17.283	0.157	439.00	4.00			X				M48400-400	19.055	0.157	484.00	4.00			X			
M43930-570	17.295	0.224	439.30	5.70		X	X				M48500-400	19.094	0.157	485.00	4.00			X			
M44000-350	17.323	0.138	440.00	3.50			X				M48600-400	19.134	0.157	486.00	4.00			X			
M44000-400	17.323	0.157	440.00	4.00			X				M48700-400	19.173	0.157	487.00	4.00			X			
M44100-400	17.362	0.157	441.00	4.00			X				M48700-700	19.173	0.276	487.00	7.00		X				
M44200-400	17.402	0.157	442.00	4.00			X				M48800-400	19.213	0.157	488.00	4.00			X			
M44300-400	17.441	0.157	443.00	4.00			X				M48900-400	19.252	0.157	489.00	4.00			X			

\*Chart for comparison only. Not all sizes stocked.

## O-Ring Size Comparison Chart, cont'd.

Part Numbers	ID (Inch)	Cross Sect. (Inch)	ID (MM)	Cross Sect. (MM)						
					AS568A ISO	SWEDEN	GERMANY	BRITAIN	FRANCE	JAPAN
M49000-400	19.291	0.157	490.00	4.00			X			
M49100-400	19.331	0.157	491.00	4.00			X			
M49200-400	19.370	0.157	492.00	4.00			X			
M49300-400	19.409	0.157	493.00	4.00			X			
M49400-400	19.449	0.157	494.00	4.00			X			
2-468	19.455	0.275	494.16	6.99	X			X		
M49500-400	19.488	0.157	495.00	4.00			X			
M49600-400	19.528	0.157	496.00	4.00			X			
M49700-400	19.567	0.157	497.00	4.00			X			
M49800-400	19.606	0.157	498.00	4.00			X			
M49900-400	19.646	0.157	499.00	4.00			X			
M49930-570	19.657	0.224	499.30	5.70		X		X		
M50000-400	19.685	0.157	500.00	4.00			X			
M50000-700	19.685	0.276	500.00	7.00		X				
2-389	19.955	0.210	506.86	5.33	X			X		
2-469	19.955	0.275	506.86	6.99	X			X		
M51500-700	20.276	0.276	515.00	7.00		X				
M52450-1000	20.650	0.394	524.50	10.00						V530
M53000-700	20.866	0.276	530.00	7.00		X				
2-390	20.955	0.210	532.26	5.33	X			X		
2-470	20.955	0.275	532.26	6.99	X			X		
M54500-700	21.457	0.276	545.00	7.00		X				
2-391	21.955	0.210	557.66	5.33	X			X		
2-471	21.955	0.275	557.66	6.99	X			X		
M56000-700	22.047	0.276	560.00	7.00		X				
M57900-1000	22.795	0.394	579.00	10.00						V585
M58000-700	22.835	0.276	580.00	7.00		X				
2-392	22.940	0.210	582.68	5.33	X			X		
2-472	22.940	0.275	582.68	6.99	X			X		
M60000-700	23.622	0.276	600.00	7.00		X				
2-393	23.940	0.210	608.08	5.33	X			X		
2-473	23.940	0.275	608.08	6.99	X			X		
M61500-700	24.213	0.276	615.00	7.00		X				
M63000-700	24.803	0.276	630.00	7.00		X				
2-394	24.940	0.210	633.48	5.33	X			X		
2-474	24.940	0.275	633.48	6.99	X			X		
M63350-1000	24.941	0.394	633.50	10.00						V640
M65000-700	25.591	0.276	650.00	7.00		X				
2-395	25.940	0.210	658.88	5.33	X			X		
2-475	25.940	0.275	658.88	6.99	X			X		
M67000-700	26.378	0.276	670.00	7.00		X				

*\*Chart for comparison only. Not all sizes stocked.*

## O-Rings For Boss Fittings (Sizing)

SIZE CHART			
UNIVERSAL SERIES DASH NOS.	FITTING SIZE	ACTUAL SIZE	
		I.D.	W.
3-901	3/32	0.185 ±.005	0.056 ±.003
3-902	1/8	0.239 ±.005	0.064 ±.003
3-903	3/16	0.301 ±.005	0.064 ±.003
3-904	1/4	0.351 ±.005	0.072 ±.003
3-905	5/16	0.414 ±.005	0.072 ±.003
3-906	3/8	0.468 ±.005	0.078 ±.003
3-907	7/16	0.530 ±.007	0.082 ±.003
3-908	1/2	0.644 ±.009	0.087 ±.003
3-909	9/16	0.706 ±.009	0.097 ±.003
3-910	5/8	0.755 ±.009	0.097 ±.004
3-911	11/16	0.863 ±.009	0.116 ±.004
3-912	3/4	0.924 ±.009	0.116 ±.004
3-913	13/16	0.986 ±.010	0.116 ±.004
3-914	7/8	1.047 ±.010	0.116 ±.004
3-916	1	1.171 ±.006	0.116 ±.003
3-918	1-1/8	1.355 ±.012	0.116 ±.004
3-920	1-1/4	1.475 ±.014	0.118 ±.004
3-924	1-1/2	1.720 ±.014	0.118 ±.004
3-928	1-3/4	2.090 ±.018	0.118 ±.004
3-932	2	2.337 ±.018	0.118 ±.004

# Standard Nitrile and FKM O-Ring Pricing

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
2-001	\$0.06	\$0.15	\$0.42
2-002	\$0.06	\$0.15	\$0.42
2-003	\$0.06	\$0.15	\$0.42
2-004	\$0.06	\$0.15	\$0.43
2-005	\$0.06	\$0.12	\$0.43
2-006	\$0.03	\$0.12	\$0.43
2-007	\$0.03	\$0.12	\$0.44
2-008	\$0.03	\$0.12	\$0.44
2-009	\$0.03	\$0.12	\$0.44
2-010	\$0.07	\$0.12	\$0.45
2-011	\$0.07	\$0.12	\$0.46
2-012	\$0.07	\$0.12	\$0.48
2-013	\$0.07	\$0.13	\$0.51
2-014	\$0.07	\$0.13	\$0.52
2-015	\$0.08	\$0.15	\$0.57
2-016	\$0.08	\$0.16	\$0.57
2-017	\$0.10	\$0.19	\$0.58
2-018	\$0.10	\$0.20	\$0.60
2-019	\$0.11	\$0.23	\$0.62
2-020	\$0.11	\$0.24	\$0.70
2-021	\$0.11	\$0.28	\$0.73
2-022	\$0.12	\$0.28	\$0.79
2-023	\$0.13	\$0.30	\$0.81
2-024	\$0.14	\$0.31	\$0.91
2-025	\$0.20	\$0.32	\$0.98
2-026	\$0.22	\$0.33	\$1.05
2-027	\$0.22	\$0.34	\$1.11
2-028	\$0.22	\$0.35	\$1.24
2-029	\$0.24	\$0.40	\$1.35
2-030	\$0.27	\$0.43	\$1.45
2-031	\$0.30	\$0.52	\$1.61
2-032	\$0.34	\$0.60	\$1.73
2-033	\$0.39	\$0.66	\$2.07
2-034	\$0.41	\$0.68	\$2.15
2-035	\$0.43	\$0.77	\$2.24
2-036	\$0.43	\$0.80	\$2.64
2-037	\$0.49	\$0.86	\$2.70
2-038	\$0.53	\$0.92	\$2.79
2-039	\$0.56	\$0.97	\$2.96
2-040	\$0.61	\$0.99	\$3.03
2-041	\$0.67	\$1.05	\$3.47
2-042	\$0.77	\$1.19	\$4.07
2-043	\$0.80	\$1.41	\$4.26
2-044	\$0.94	\$1.53	\$4.44
2-045	\$0.96	\$1.56	\$4.72
2-046	\$1.04	\$1.91	\$4.94
2-047	\$1.14	\$2.00	\$5.17
2-048	\$1.33	\$2.15	\$6.13
2-049	\$1.45	\$2.55	\$8.12
2-050	\$1.63	\$2.98	\$8.64
2-102	\$0.11	\$0.19	\$0.51
2-103	\$0.11	\$0.19	\$0.52
2-104	\$0.08	\$0.13	\$0.53
2-105	\$0.07	\$0.13	\$0.56
2-106	\$0.07	\$0.13	\$0.58
2-107	\$0.07	\$0.13	\$0.58
2-108	\$0.07	\$0.13	\$0.61
2-109	\$0.07	\$0.13	\$0.65
2-110	\$0.08	\$0.13	\$0.67
2-111	\$0.08	\$0.13	\$0.72
2-112	\$0.08	\$0.17	\$0.83
2-113	\$0.08	\$0.17	\$0.84

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
2-114	\$0.11	\$0.17	\$0.84
2-115	\$0.11	\$0.17	\$0.93
2-116	\$0.11	\$0.19	\$0.97
2-117	\$0.11	\$0.26	\$1.08
2-118	\$0.13	\$0.27	\$1.11
2-119	\$0.13	\$0.30	\$1.19
2-120	\$0.13	\$0.31	\$1.23
2-121	\$0.14	\$0.31	\$1.37
2-122	\$0.14	\$0.33	\$1.45
2-123	\$0.14	\$0.34	\$1.53
2-124	\$0.23	\$0.35	\$1.59
2-125	\$0.23	\$0.37	\$1.64
2-126	\$0.24	\$0.40	\$1.78
2-127	\$0.26	\$0.42	\$1.83
2-128	\$0.27	\$0.46	\$1.94
2-129	\$0.28	\$0.46	\$2.09
2-130	\$0.32	\$0.51	\$2.13
2-131	\$0.33	\$0.53	\$2.14
2-132	\$0.33	\$0.53	\$2.21
2-133	\$0.37	\$0.56	\$2.24
2-134	\$0.37	\$0.59	\$2.32
2-135	\$0.37	\$0.64	\$2.42
2-136	\$0.38	\$0.67	\$2.59
2-137	\$0.38	\$0.68	\$2.69
2-138	\$0.44	\$0.72	\$2.78
2-139	\$0.44	\$0.73	\$2.92
2-140	\$0.44	\$0.74	\$2.96
2-141	\$0.49	\$0.78	\$3.04
2-142	\$0.50	\$0.79	\$3.07
2-143	\$0.50	\$0.81	\$3.21
2-144	\$0.56	\$0.83	\$3.21
2-145	\$0.56	\$0.85	\$3.28
2-146	\$0.57	\$0.90	\$3.41
2-147	\$0.57	\$0.92	\$3.47
2-148	\$0.57	\$0.92	\$3.61
2-149	\$0.58	\$0.96	\$3.74
2-150	\$0.59	\$1.02	\$3.97
2-151	\$0.64	\$1.04	\$4.28
2-152	\$0.76	\$1.25	\$4.74
2-153	\$0.79	\$1.33	\$5.17
2-154	\$0.80	\$1.53	\$5.59
2-155	\$1.02	\$2.07	\$6.00
2-156	\$1.23	\$2.04	\$6.46
2-157	\$1.25	\$2.29	\$7.23
2-158	\$1.28	\$2.57	\$7.50
2-159	\$1.33	\$2.96	\$8.45
2-160	\$1.57	\$3.16	\$9.65
2-161	\$1.78	\$3.53	\$10.70
2-162	\$1.91	\$3.58	\$11.39
2-163	\$2.04	\$3.63	\$12.08
2-164	\$2.07	\$3.78	\$13.00
2-165	\$2.25	\$3.99	\$13.96
2-166	\$2.33	\$4.39	\$14.08
2-167	\$2.43	\$4.86	\$14.66
2-168	\$2.68	\$5.84	\$15.12
2-169	\$2.78	\$6.01	\$15.51
2-170	\$2.87	\$6.08	\$16.97
2-171	\$3.41	\$5.95	\$17.39
2-172	\$3.53	\$5.98	\$19.51
2-173	\$3.79	\$6.13	\$20.18
2-174	\$3.99	\$6.34	\$21.51
2-175	\$4.36	\$6.40	\$21.98

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
2-176	\$4.69	\$6.58	\$22.56
2-177	\$5.05	\$6.70	\$23.13
2-178	\$5.43	\$6.99	\$23.44
2-201	\$0.08	\$0.17	\$0.82
2-202	\$0.08	\$0.17	\$0.91
2-203	\$0.08	\$0.17	\$0.99
2-204	\$0.08	\$0.17	\$1.08
2-205	\$0.08	\$0.17	\$1.12
2-206	\$0.11	\$0.24	\$1.20
2-207	\$0.11	\$0.24	\$1.24
2-208	\$0.12	\$0.28	\$1.26
2-209	\$0.12	\$0.29	\$1.35
2-210	\$0.12	\$0.30	\$1.41
2-211	\$0.14	\$0.30	\$1.53
2-212	\$0.14	\$0.32	\$1.64
2-213	\$0.14	\$0.33	\$1.81
2-214	\$0.21	\$0.35	\$1.96
2-215	\$0.23	\$0.37	\$2.08
2-216	\$0.23	\$0.39	\$2.20
2-217	\$0.23	\$0.44	\$2.22
2-218	\$0.24	\$0.48	\$2.37
2-219	\$0.25	\$0.50	\$2.51
2-220	\$0.27	\$0.53	\$2.62
2-221	\$0.29	\$0.56	\$2.74
2-222	\$0.32	\$0.59	\$2.97
2-223	\$0.35	\$0.63	\$3.06
2-224	\$0.40	\$0.71	\$3.35
2-225	\$0.40	\$0.73	\$3.72
2-226	\$0.48	\$0.78	\$4.11
2-227	\$0.48	\$0.87	\$4.41
2-228	\$0.50	\$0.91	\$4.58
2-229	\$0.57	\$0.96	\$4.78
2-230	\$0.62	\$1.02	\$5.10
2-231	\$0.63	\$1.10	\$5.37
2-232	\$0.64	\$1.17	\$5.44
2-233	\$0.67	\$1.20	\$5.77
2-234	\$0.70	\$1.21	\$6.21
2-235	\$0.75	\$1.27	\$6.54
2-236	\$0.79	\$1.34	\$6.72
2-237	\$0.80	\$1.39	\$6.97
2-238	\$0.84	\$1.44	\$7.40
2-239	\$0.85	\$1.47	\$7.65
2-240	\$0.87	\$1.55	\$7.83
2-241	\$0.90	\$1.60	\$8.11
2-242	\$0.96	\$1.71	\$8.29
2-243	\$1.03	\$1.75	\$8.69
2-244	\$1.08	\$1.82	\$8.79
2-245	\$1.17	\$1.94	\$9.40
2-246	\$1.30	\$2.28	\$9.75
2-247	\$1.37	\$2.46	\$9.92
2-248	\$1.45	\$2.60	\$10.17
2-249	\$1.50	\$2.60	\$10.32
2-250	\$1.52	\$2.63	\$10.88
2-251	\$1.56	\$2.70	\$10.99
2-252	\$1.58	\$2.97	\$11.68
2-253	\$1.63	\$3.04	\$12.20
2-254	\$1.78	\$3.28	\$12.90
2-255	\$1.80	\$3.51	\$13.28
2-256	\$1.88	\$3.74	\$13.37
2-257	\$1.93	\$4.13	\$13.41
2-258	\$2.10	\$4.26	\$13.84
2-259	\$2.29	\$4.31	\$14.40

## Standard Nitrile and FKM O-Ring Pricing, cont'd.

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
2-260	\$2.38	\$4.49	\$15.21
2-261	\$2.50	\$4.75	\$15.80
2-262	\$2.60	\$5.15	\$16.71
2-263	\$2.88	\$5.57	\$18.44
2-264	\$2.96	\$5.69	\$19.49
2-265	\$3.17	\$6.09	\$20.00
2-266	\$3.29	\$6.28	\$21.60
2-267	\$3.39	\$6.73	\$22.68
2-268	\$3.46	\$7.31	\$23.58
2-269	\$3.77	\$7.47	\$24.52
2-270	\$3.94	\$8.10	\$25.48
2-271	\$3.98	\$8.33	\$26.35
2-272	\$3.99	\$8.36	\$27.32
2-273	\$4.02	\$9.17	\$26.80
2-274	\$4.02	\$9.21	\$29.33
2-275	\$4.29	\$9.47	\$30.15
2-276	\$4.75	\$9.53	\$30.82
2-277	\$4.77	\$10.61	\$32.24
2-278	\$5.25	\$10.83	\$33.09
2-279	\$6.35	\$11.04	\$34.79
2-280	\$7.75	\$11.17	\$36.11
2-281	\$9.05	\$11.31	\$38.95
2-282	\$9.99	\$11.81	\$42.80
2-283	\$11.13	\$15.16	\$45.32
2-284	\$12.85	\$12.32	\$46.24
2-309	\$0.21	\$0.37	\$3.31
2-310	\$0.23	\$0.39	\$3.36
2-311	\$0.23	\$0.40	\$3.60
2-312	\$0.27	\$0.45	\$3.81
2-313	\$0.27	\$0.51	\$3.91
2-314	\$0.27	\$0.52	\$4.11
2-315	\$0.29	\$0.53	\$4.31
2-316	\$0.29	\$0.56	\$4.36
2-317	\$0.29	\$0.59	\$4.47
2-318	\$0.29	\$0.60	\$4.51
2-319	\$0.34	\$0.62	\$4.68
2-320	\$0.35	\$0.65	\$4.80
2-321	\$0.37	\$0.72	\$4.83
2-322	\$0.37	\$0.73	\$4.72
2-323	\$0.37	\$0.78	\$5.30
2-324	\$0.37	\$0.81	\$5.57
2-325	\$0.40	\$0.85	\$6.00
2-326	\$0.40	\$0.87	\$6.36
2-327	\$0.52	\$0.91	\$6.52
2-328	\$0.57	\$0.98	\$6.95
2-329	\$0.61	\$1.12	\$7.93
2-330	\$0.68	\$1.19	\$8.43
2-331	\$0.73	\$1.25	\$8.71
2-332	\$0.80	\$1.33	\$9.60
2-333	\$0.87	\$1.47	\$10.03
2-334	\$0.90	\$1.56	\$10.27
2-335	\$0.96	\$1.58	\$11.17
2-336	\$1.03	\$1.73	\$12.07
2-337	\$1.05	\$1.75	\$12.75
2-338	\$1.08	\$1.86	\$13.31
2-339	\$1.21	\$1.95	\$13.70
2-340	\$1.29	\$2.02	\$15.08
2-341	\$1.29	\$2.15	\$15.13
2-342	\$1.37	\$2.22	\$15.92
2-343	\$1.41	\$2.28	\$16.51
2-344	\$1.46	\$2.32	\$16.57
2-345	\$1.59	\$2.38	\$16.97
2-346	\$1.59	\$2.47	\$17.80

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
2-347	\$1.59	\$2.73	\$18.53
2-348	\$1.59	\$2.89	\$19.01
2-349	\$1.76	\$2.99	\$19.48
2-350	\$1.84	\$3.02	\$20.00
2-351	\$1.84	\$3.07	\$20.83
2-352	\$1.92	\$3.31	\$20.86
2-353	\$2.01	\$3.62	\$21.65
2-354	\$2.15	\$3.68	\$21.92
2-355	\$2.38	\$3.83	\$22.19
2-356	\$2.38	\$4.04	\$24.27
2-357	\$2.45	\$4.11	\$25.63
2-358	\$2.62	\$4.32	\$26.60
2-359	\$2.62	\$4.39	\$27.35
2-360	\$2.76	\$4.81	\$27.87
2-361	\$2.88	\$4.84	\$30.54
2-362	\$2.91	\$5.18	\$30.98
2-363	\$3.04	\$5.34	\$31.92
2-364	\$3.17	\$5.55	\$32.47
2-365	\$3.31	\$6.05	\$33.28
2-366	\$3.35	\$6.11	\$36.91
2-367	\$3.35	\$6.17	\$39.15
2-368	\$3.35	\$6.42	\$40.59
2-369	\$3.64	\$7.26	\$41.14
2-370	\$3.95	\$7.35	\$42.63
2-371	\$4.26	\$7.44	\$44.56
2-372	\$4.32	\$7.49	\$45.12
2-373	\$4.73	\$7.51	\$46.96
2-374	\$4.87	\$7.64	\$48.58
2-375	\$4.93	\$8.15	\$49.34
2-376	\$5.02	\$8.94	\$51.44
2-377	\$5.05	\$9.23	\$53.19
2-378	\$6.33	\$10.36	\$54.98
2-379	\$6.66	\$10.73	\$58.03
2-380	\$6.93	\$11.13	\$60.65
2-381	\$7.18	\$11.61	\$70.77
2-382	\$7.18	\$11.70	\$77.79
2-383	\$9.49	\$13.30	\$81.96
2-384	\$9.57	\$13.32	\$85.38
2-385	\$11.09	\$13.70	\$86.73
2-386	\$12.13	\$20.85	\$92.54
2-387	\$13.49	\$23.68	\$96.52
2-388	\$13.83	\$30.95	\$105.77
2-389	\$13.90	\$37.26	\$109.96
2-390	\$14.04	\$39.75	\$112.80
2-391	\$14.36	\$42.20	\$115.05
2-392	\$14.39	\$44.28	\$117.40
2-393	\$22.89	\$47.28	\$122.78
2-394	\$23.05	\$51.05	\$128.32
2-395	\$25.40	\$53.22	\$138.08
2-401	\$3.73	POA	\$30.36
2-402	\$3.95	POA	\$30.78
2-403	\$3.97	POA	\$31.69
2-404	\$3.98	POA	\$32.73
2-405	\$4.04	POA	\$33.21
2-406	\$4.09	POA	\$33.40
2-407	\$4.14	POA	\$33.74
2-408	\$4.21	POA	\$34.02
2-409	\$4.31	POA	\$34.78
2-410	\$4.36	POA	\$35.31
2-411	\$4.44	POA	\$36.29
2-412	\$4.48	POA	\$36.98
2-413	\$4.54	POA	\$37.11
2-414	\$4.58	POA	\$37.87

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
2-415	\$4.68	POA	\$38.35
2-416	\$4.72	POA	\$38.85
2-417	\$4.77	POA	\$39.65
2-418	\$4.83	POA	\$40.42
2-419	\$4.89	POA	\$40.84
2-420	\$4.94	POA	\$41.59
2-421	\$5.03	POA	\$42.42
2-422	\$5.08	POA	\$43.59
2-423	\$5.19	POA	\$44.75
2-424	\$5.33	POA	\$45.72
2-425	\$2.01	\$3.91	\$26.95
2-426	\$2.01	\$4.00	\$27.09
2-427	\$2.01	\$4.10	\$27.41
2-428	\$2.15	\$4.17	\$29.43
2-429	\$2.25	\$4.28	\$29.76
2-430	\$2.25	\$4.43	\$30.01
2-431	\$2.56	\$4.48	\$30.22
2-432	\$2.60	\$4.72	\$30.95
2-433	\$2.60	\$4.83	\$32.53
2-434	\$2.62	\$4.94	\$33.33
2-435	\$2.76	\$5.05	\$34.10
2-436	\$2.78	\$5.22	\$36.59
2-437	\$2.99	\$5.61	\$36.76
2-438	\$3.20	\$5.88	\$37.20
2-439	\$3.31	\$6.18	\$38.69
2-440	\$3.57	\$6.27	\$40.41
2-441	\$3.92	\$6.75	\$42.86
2-442	\$3.98	\$7.07	\$45.27
2-443	\$4.14	\$7.34	\$46.85
2-444	\$4.37	\$7.60	\$47.35
2-445	\$4.55	\$8.00	\$51.02
2-446	\$4.70	\$8.47	\$53.14
2-447	\$4.94	\$8.75	\$55.58
2-448	\$4.97	\$9.14	\$60.43
2-449	\$5.08	\$10.23	\$64.40
2-450	\$5.97	\$12.72	\$69.93
2-451	\$6.23	\$13.66	\$71.37
2-452	\$6.78	\$15.74	\$74.98
2-453	\$7.17	\$16.46	\$77.59
2-454	\$7.58	\$16.97	\$80.25
2-455	\$9.22	\$17.35	\$82.79
2-456	\$9.28	\$17.53	\$85.00
2-457	\$9.41	\$17.98	\$88.61
2-458	\$9.54	\$18.21	\$90.26
2-459	\$9.85	\$18.48	\$93.00
2-460	\$10.34	\$18.86	\$94.92
2-461	\$11.56	\$22.76	\$120.91
2-462	\$12.12	\$23.22	\$124.31
2-463	\$12.70	\$23.83	\$128.98
2-464	\$13.66	\$24.13	\$130.71
2-465	\$15.18	\$25.03	\$135.07
2-466	\$15.51	\$25.47	\$137.28
2-467	\$15.67	\$25.91	\$142.29
2-468	\$15.99	\$27.90	\$145.91
2-469	\$16.02	\$29.31	\$157.28
2-470	\$16.16	\$32.29	\$164.95
2-471	\$16.28	\$32.76	\$168.09
2-472	\$16.25	\$38.99	\$172.63
2-473	\$16.31	\$40.05	\$176.82
2-474	\$16.63	\$41.14	\$181.29
2-475	\$18.09	\$42.24	\$186.95

# O-Rings For Boss Fittings (Pricing)

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
3-901	\$0.10	\$0.18	\$0.91
3-902	\$0.10	\$0.18	\$0.95
3-903	\$0.10	\$0.20	\$0.99
3-904	\$0.10	\$0.23	\$1.06
3-905	\$0.10	\$0.25	\$1.19
3-906	\$0.10	\$0.26	\$1.27
3-907	\$0.11	\$0.27	\$1.31

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
3-908	\$0.13	\$0.29	\$1.47
3-909	\$0.14	\$0.31	\$1.81
3-910	\$0.16	\$0.32	\$2.02
3-911	\$0.21	\$0.35	\$2.37
3-912	\$0.25	\$0.40	\$2.63
3-913	\$0.27	\$0.42	\$2.94
3-914	\$0.30	\$0.47	\$3.23

Part No.	70 Duro Nitrile	90 Duro Nitrile	75 Duro FKM
	Price	Price	Price
3-916	\$0.32	\$0.49	\$3.61
3-918	\$0.37	\$0.57	\$3.77
3-920	\$0.41	\$0.61	\$4.38
3-924	\$0.48	\$0.77	\$6.20
3-928	\$0.65	\$0.99	\$7.12
3-932	\$0.73	\$1.19	\$8.32

# O-Ring Cord Stock 70 Durometer Nitrile

Cord Types can be square or round (SOLD BY THE FOOT)

ROUND CROSS SECTION			
Part Number.	Actual Cross Section	Nominal Cross Section	Price/ft.
050 O-CORD N70	0.050	1.25mm	\$1.10
063 O-CORD N70	0.063	1.6mm	\$0.73
070 O-CORD N70	0.070	1/16"	\$0.75
079 O-CORD N70	0.079	2mm	\$0.88
094 O-CORD N70	0.094	2.4mm	\$0.90
098 O-CORD N70	0.098	2.5mm	\$0.95
103 O-CORD N70	0.103	3/32"	\$0.99
118 O-CORD N70	0.118	3mm	\$1.16
125 O-CORD N70	0.125	1/8"	\$0.99
138 O-CORD N70	0.138	3.5mm	\$1.16
139 O-CORD N70	0.139	1/8"	\$1.03
157 O-CORD N70	0.157	4mm	\$1.49
187 O-CORD N70	0.187	3/16"	\$1.32
197 O-CORD N70	0.197	5mm	\$1.74
210 O-CORD N70	0.210	3/16"	\$1.44
224 O-CORD N70	0.224	5.7mm	\$1.87
236 O-CORD N70	0.236	6mm	\$2.05
250 O-CORD N70	0.250	1/4"	\$1.80
275 O-CORD N70	0.275	1/4"	\$2.05
312 O-CORD N70	0.312	5/16	\$2.22
315 O-CORD N70	0.315	8mm	\$3.08

STANDARD EXAMPLE: 125 O-CORD N70		
Cross Section	Cord Type	Material
125	O-CORD	N70
1/8"	O-RING CORD	70A NBR

ROUND CROSS SECTION			
Part Number.	Actual Cross Section	Nominal Cross Section	Price/ft.
331 O-CORD N70	0.331	8.4mm	\$3.27
375 O-CORD N70	0.375	3/8"	\$3.45
394 O-CORD N70	0.394	10mm	\$4.48
437 O-CORD N70	0.437	7/16"	\$3.77
472 O-CORD N70	0.472	12mm	\$6.13
500 O-CORD N70	0.500	1/2"	\$4.56
625 O-CORD N70	0.625	5/8"	\$8.80
709 O-CORD N70	0.709	18mm	\$20.16
750 O-CORD N70	0.750	3/4"	\$15.57

SQUARE CROSS SECTION			
Part Number.	Actual Cross Section	Nominal Cross Section	Price/ft.
099 SQ-CORD N70	0.099	3/32"	\$1.07
203 SQ-CORD N70	0.203	3/16"	\$1.57
266 SQ-CORD N70	0.266	1/4"	\$2.45
375 SQ-CORD N70	0.375	3/8"	\$5.07
394 SQ-CORD N70	0.394	10mm	\$6.20
500 SQ-CORD N70	0.500	1/2"	\$13.81



# Metric O-Rings - 70 Durometer Nitrile

EXAMPLE: M125-140 N70			
Prefix	Inside Diameter	Cross Section	Material
M	125	-	N70
	1.25mm	1.40mm	70A NBR

Part No.	Price
M125-140 N70	\$0.15
M150-100 N70	\$0.17
M178-102 N70	\$0.19
M180-100 N70	\$0.19
M190-125 N70	\$0.19
M200-100 N70	\$0.19
M200-150 N70	\$0.19
M220-160 N70	\$0.14
M240-190 N70	\$0.14
M250-100 N70	\$0.15
M250-150 N70	\$0.19
M260-190 N70	\$0.13
M280-190 N70	\$0.11
M300-100 N70	\$0.11
M300-150 N70	\$0.15
M300-200 N70	\$0.11
M310-160 N70	\$0.15
M330-240 N70	\$0.11
M350-100 N70	\$0.25
M350-120 N70	\$0.27
M350-150 N70	\$0.15
M360-240 N70	\$0.27
M380-190 N70	\$0.11
M400-100 N70	\$0.21
M400-150 N70	\$0.21
M400-180 N70	\$0.21
M400-200 N70	\$0.22
M400-250 N70	\$0.24
M400-300 N70	\$0.25
M410-160 N70	\$0.15
M430-240 N70	\$0.34
M450-100 N70	\$0.35
M450-150 N70	\$0.35
M450-180 N70	\$0.37
M450-200 N70	\$0.37
M460-200 N70	\$0.38
M460-240 N70	\$0.33
M476-178 N70	\$0.33
M480-190 N70	\$0.11
M490-190 N70	\$0.13
M500-100 N70	\$0.28
M500-120 N70	\$0.28
M500-150 N70	\$0.28
M500-200 N70	\$0.11
M500-250 N70	\$0.24
M500-300 N70	\$0.24
M510-160 N70	\$0.23
M530-240 N70	\$0.35
M550-100 N70	\$0.35
M550-150 N70	\$0.35
M550-160 N70	\$0.35
M560-180 N70	\$0.35
M560-240 N70	\$0.35
M580-190 N70	\$0.11
M600-100 N70	\$0.11

Part No.	Price
M600-150 N70	\$0.11
M600-200 N70	\$0.11
M600-220 N70	\$0.40
M600-250 N70	\$0.11
M600-300 N70	\$0.15
M610-160 N70	\$0.23
M620-100 N70	\$0.23
M630-240 N70	\$0.38
M640-190 N70	\$0.30
M650-150 N70	\$0.26
M650-160 N70	\$0.26
M650-300 N70	\$0.35
M660-240 N70	\$0.34
M675-178 N70	\$0.24
M680-190 N70	\$0.15
M700-100 N70	\$0.17
M700-120 N70	\$0.21
M700-150 N70	\$0.24
M700-200 N70	\$0.11
M700-250 N70	\$0.25
M700-300 N70	\$0.39
M700-400 N70	\$0.34
M710-160 N70	\$0.34
M730-240 N70	\$0.37
M750-150 N70	\$0.41
M750-180 N70	\$0.41
M757-114 N70	\$0.47
M760-240 N70	\$0.41
M780-190 N70	\$0.15
M794-178 N70	\$0.25
M800-100 N70	\$0.11
M800-125 N70	\$0.37
M800-150 N70	\$0.25
M800-190 N70	\$0.29
M800-200 N70	\$0.11
M800-250 N70	\$0.11
M800-300 N70	\$0.15
M800-350 N70	\$0.39
M800-400 N70	\$0.56
M800-500 N70	\$0.73
M810-160 N70	\$0.33
M830-240 N70	\$0.35
M850-150 N70	\$0.27
M850-180 N70	\$0.30
M850-200 N70	\$0.30
M860-240 N70	\$0.37
M873-178 N70	\$0.31
M880-190 N70	\$0.15
M900-100 N70	\$0.19
M900-120 N70	\$0.30
M900-150 N70	\$0.11
M900-200 N70	\$0.24
M900-250 N70	\$0.11
M900-300 N70	\$0.16
M900-350 N70	\$0.55

Part No.	Price
M900-400 N70	\$0.22
M910-160 N70	\$0.32
M930-240 N70	\$0.34
M950-180 N70	\$0.37
M960-120 N70	\$0.37
M960-240 N70	\$0.37
M980-190 N70	\$0.14
M980-240 N70	\$0.12
M992-262 N70	\$0.68
M1000-100 N70	\$0.17
M1000-150 N70	\$0.11
M1000-200 N70	\$0.11
M1000-250 N70	\$0.13
M1000-300 N70	\$0.16
M1000-350 N70	\$0.37
M1000-400 N70	\$0.57
M1000-450 N70	\$0.70
M1010-160 N70	\$0.74
M1030-240 N70	\$0.38
M1050-150 N70	\$0.28
M1050-180 N70	\$0.33
M1060-240 N70	\$0.38
M1080-240 N70	\$0.11
M1100-150 N70	\$0.29
M1100-200 N70	\$0.13
M1100-250 N70	\$0.14
M1100-300 N70	\$0.16
M1100-400 N70	\$0.28
M1110-160 N70	\$0.33
M1120-180 N70	\$0.33
M1120-240 N70	\$0.33
M1130-240 N70	\$0.37
M1150-114 N70	\$0.42
M1150-130 N70	\$0.49
M1150-150 N70	\$0.30
M1150-200 N70	\$0.32
M1160-240 N70	\$0.38
M1180-180 N70	\$1.01
M1180-240 N70	\$0.38
M1191-262 N70	\$0.40
M1200-100 N70	\$0.35
M1200-120 N70	\$0.35
M1200-150 N70	\$0.11
M1200-200 N70	\$0.28
M1200-250 N70	\$0.14
M1200-300 N70	\$0.34
M1200-400 N70	\$0.29
M1200-450 N70	\$0.83
M1210-160 N70	\$0.41
M1230-240 N70	\$0.41
M1250-200 N70	\$0.31
M1250-265 N70	\$0.39
M1252-114 N70	\$0.44
M1260-240 N70	\$0.41
M1300-100 N70	\$0.41

Part No.	Price
M1300-150 N70	\$0.11
M1300-200 N70	\$0.15
M1300-250 N70	\$0.16
M1300-300 N70	\$0.24
M1310-160 N70	\$0.41
M1310-262 N70	\$0.41
M1320-178 N70	\$0.41
M1320-180 N70	\$0.41
M1330-240 N70	\$0.41
M1350-130 N70	\$0.48
M1350-150 N70	\$0.34
M1360-240 N70	\$0.37
M1380-240 N70	\$0.14
M1400-100 N70	\$0.31
M1400-125 N70	\$0.51
M1400-150 N70	\$0.32
M1400-200 N70	\$0.14
M1400-250 N70	\$0.15
M1400-265 N70	\$0.28
M1400-300 N70	\$0.24
M1400-350 N70	\$0.48
M1400-400 N70	\$0.31
M1410-160 N70	\$0.48
M1430-240 N70	\$0.50
M1460-240 N70	\$0.50
M1480-240 N70	\$0.52
M1500-100 N70	\$0.11
M1500-150 N70	\$0.11
M1500-200 N70	\$0.14
M1500-250 N70	\$0.15
M1500-300 N70	\$0.28
M1500-350 N70	\$0.48
M1500-400 N70	\$0.31
M1500-500 N70	\$0.44
M1500-700 N70	\$6.17
M1508-262 N70	\$0.40
M1510-160 N70	\$0.44
M1530-240 N70	\$0.44
M1550-150 N70	\$0.28
M1550-250 N70	\$0.46
M1550-450 N70	\$0.79
M1560-240 N70	\$0.42
M1580-240 N70	\$0.14
M1600-100 N70	\$0.42
M1600-125 N70	\$0.42
M1600-150 N70	\$0.12
M1600-180 N70	\$0.28
M1600-200 N70	\$0.14
M1600-250 N70	\$0.40
M1600-300 N70	\$0.29
M1600-350 N70	\$0.55
M1600-400 N70	\$0.67
M1600-500 N70	\$0.75
M1610-160 N70	\$0.42
M1630-240 N70	\$0.48

Metric O-Rings - 70 Durometer Nitrile, cont'd.

Part No.	Price
M1660-240 N70	\$0.50
M1700-150 N70	\$0.48
M1700-200 N70	\$0.14
M1700-250 N70	\$0.16
M1700-300 N70	\$0.29
M1700-400 N70	\$0.72
M1700-600 N70	\$0.94
M1710-160 N70	\$0.46
M1717-119 N70	\$0.95
M1730-240 N70	\$0.55
M1760-240 N70	\$0.39
M1780-240 N70	\$0.14
M1786-262 N70	\$0.40
M1800-150 N70	\$0.15
M1800-200 N70	\$0.14
M1800-250 N70	\$0.46
M1800-265 N70	\$0.34
M1800-300 N70	\$0.31
M1800-350 N70	\$0.75
M1800-355 N70	\$0.87
M1800-400 N70	\$0.93
M1810-160 N70	\$0.42
M1820-300 N70	\$1.00
M1830-240 N70	\$0.42
M1840-270 N70	\$1.25
M1860-240 N70	\$0.49
M1900-100 N70	\$0.42
M1900-150 N70	\$0.15
M1900-200 N70	\$0.16
M1900-250 N70	\$0.47
M1900-265 N70	\$0.61
M1900-300 N70	\$0.32
M1900-350 N70	\$1.44
M1900-400 N70	\$0.37
M1900-500 N70	\$0.55
M1900-700 N70	\$2.69
M1910-160 N70	\$0.61
M1920-300 N70	\$0.31
M1930-220 N70	\$0.56
M1930-240 N70	\$0.58
M1950-150 N70	\$0.51
M1950-200 N70	\$0.51
M1950-300 N70	\$0.55
M1960-240 N70	\$0.61
M1980-240 N70	\$0.61
M2000-100 N70	\$0.64
M2000-150 N70	\$0.14
M2000-160 N70	\$0.25
M2000-200 N70	\$0.28
M2000-250 N70	\$0.50
M2000-265 N70	\$0.57
M2000-300 N70	\$0.33
M2000-400 N70	\$0.39
M2000-500 N70	\$0.58
M2000-600 N70	\$1.03
M2000-800 N70	\$2.35
M2010-160 N70	\$0.51
M2030-240 N70	\$0.64
M2064-262 N70	\$0.65
M2080-240 N70	\$0.16
M2100-100 N70	\$0.46
M2100-150 N70	\$0.48

Part No.	Price
M2100-200 N70	\$0.28
M2100-250 N70	\$0.23
M2100-300 N70	\$0.49
M2100-350 N70	\$0.34
M2100-400 N70	\$0.40
M2100-500 N70	\$0.58
M2120-240 N70	\$0.68
M2150-200 N70	\$0.29
M2150-250 N70	\$0.47
M2150-300 N70	\$0.62
M2160-240 N70	\$0.62
M2170-350 N70	\$0.43
M2180-240 N70	\$0.17
M2190-200 N70	\$0.39
M2200-150 N70	\$0.14
M2200-200 N70	\$0.51
M2200-250 N70	\$0.28
M2200-300 N70	\$0.35
M2200-350 N70	\$0.44
M2200-400 N70	\$0.76
M2200-500 N70	\$0.61
M2210-160 N70	\$0.61
M2220-300 N70	\$0.41
M2250-300 N70	\$0.63
M2300-150 N70	\$0.14
M2300-200 N70	\$0.28
M2300-250 N70	\$0.29
M2300-300 N70	\$0.41
M2300-350 N70	\$0.61
M2300-400 N70	\$0.41
M2300-500 N70	\$1.41
M2360-265 N70	\$0.57
M2370-350 N70	\$0.74
M2381-262 N70	\$0.72
M2400-150 N70	\$0.72
M2400-200 N70	\$0.31
M2400-250 N70	\$0.31
M2400-300 N70	\$0.40
M2400-400 N70	\$0.44
M2400-500 N70	\$0.73
M2400-600 N70	\$7.26
M2440-310 N70	\$0.44
M2450-180 N70	\$0.52
M2450-300 N70	\$0.64
M2460-240 N70	\$0.69
M2470-350 N70	\$0.45
M2500-100 N70	\$0.51
M2500-150 N70	\$0.17
M2500-200 N70	\$0.59
M2500-250 N70	\$0.34
M2500-300 N70	\$0.43
M2500-350 N70	\$0.43
M2500-400 N70	\$0.53
M2500-500 N70	\$1.03
M2500-600 N70	\$1.17
M2500-800 N70	\$2.86
M2510-160 N70	\$0.70
M2520-300 N70	\$0.78
M2530-240 N70	\$0.70
M2550-300 N70	\$0.94
M2570-350 N70	\$0.59
M2600-150 N70	\$0.62

Part No.	Price
M2600-200 N70	\$0.35
M2600-250 N70	\$0.33
M2600-300 N70	\$0.43
M2600-350 N70	\$0.55
M2600-400 N70	\$0.92
M2620-300 N70	\$0.76
M2620-360 N70	\$0.76
M2650-265 N70	\$0.76
M2650-300 N70	\$0.76
M2700-150 N70	\$0.16
M2700-200 N70	\$0.37
M2700-250 N70	\$0.79
M2700-300 N70	\$0.44
M2700-350 N70	\$0.67
M2700-400 N70	\$0.52
M2700-500 N70	\$0.75
M2710-160 N70	\$0.77
M2750-300 N70	\$0.77
M2760-240 N70	\$1.03
M2770-350 N70	\$0.62
M2800-100 N70	\$0.57
M2800-150 N70	\$0.23
M2800-200 N70	\$0.39
M2800-250 N70	\$0.29
M2800-300 N70	\$0.44
M2800-350 N70	\$0.80
M2800-400 N70	\$0.55
M2800-500 N70	\$0.73
M2850-200 N70	\$0.62
M2870-350 N70	\$0.59
M2900-200 N70	\$0.60
M2900-250 N70	\$0.38
M2900-300 N70	\$0.51
M2900-350 N70	\$0.99
M2900-400 N70	\$1.25
M2910-160 N70	\$0.85
M2920-300 N70	\$0.85
M2930-360 N70	\$1.16
M2940-100 N70	\$0.85
M2940-310 N70	\$0.60
M2950-300 N70	\$0.74
M2960-240 N70	\$0.83
M2970-350 N70	\$0.59
M2990-100 N70	\$0.80
M3000-150 N70	\$0.60
M3000-200 N70	\$0.45
M3000-250 N70	\$0.38
M3000-265 N70	\$0.51
M3000-300 N70	\$0.51
M3000-350 N70	\$0.60
M3000-355 N70	\$0.75
M3000-400 N70	\$0.60
M3000-500 N70	\$0.88
M3070-350 N70	\$0.62
M3100-150 N70	\$0.68
M3100-200 N70	\$0.45
M3100-250 N70	\$0.79
M3100-300 N70	\$0.50
M3100-400 N70	\$0.94
M3100-500 N70	\$1.15
M3150-200 N70	\$0.68
M3150-300 N70	\$1.13

Part No.	Price
M3160-240 N70	\$1.06
M3170-350 N70	\$0.61
M3200-150 N70	\$0.76
M3200-200 N70	\$0.83
M3200-250 N70	\$0.35
M3200-300 N70	\$0.55
M3200-350 N70	\$0.69
M3200-400 N70	\$0.70
M3200-450 N70	\$0.82
M3200-500 N70	\$0.93
M3210-160 N70	\$0.73
M3220-300 N70	\$0.96
M3250-300 N70	\$0.75
M3300-150 N70	\$0.67
M3300-200 N70	\$0.68
M3300-250 N70	\$0.88
M3300-300 N70	\$0.55
M3300-350 N70	\$1.03
M3300-400 N70	\$0.69
M3300-600 N70	\$2.93
M3330-240 N70	\$0.74
M3350-265 N70	\$1.32
M3350-300 N70	\$1.21
M3370-350 N70	\$0.74
M3400-200 N70	\$0.43
M3400-250 N70	\$0.84
M3400-300 N70	\$0.53
M3400-350 N70	\$1.13
M3400-400 N70	\$0.70
M3400-500 N70	\$1.32
M3400-700 N70	\$5.03
M3420-300 N70	\$0.79
M3440-310 N70	\$0.75
M3450-300 N70	\$0.96
M3460-240 N70	\$1.26
M3470-350 N70	\$1.35
M3500-150 N70	\$0.74
M3500-200 N70	\$0.76
M3500-250 N70	\$0.78
M3500-300 N70	\$0.60
M3500-350 N70	\$0.70
M3500-400 N70	\$0.75
M3500-500 N70	\$1.00
M3510-160 N70	\$0.94
M3550-200 N70	\$0.87
M3570-350 N70	\$1.43
M3600-150 N70	\$0.85
M3600-200 N70	\$0.44
M3600-250 N70	\$0.87
M3600-300 N70	\$0.60
M3600-350 N70	\$1.30
M3600-400 N70	\$1.65
M3600-500 N70	\$1.98
M3600-600 N70	\$1.87
M3620-300 N70	\$0.66
M3650-200 N70	\$0.82
M3650-265 N70	\$0.80
M3650-300 N70	\$1.14
M3700-150 N70	\$0.73
M3700-200 N70	\$0.53
M3700-250 N70	\$0.53
M3700-300 N70	\$0.80

## Metric O-Rings - 70 Durometer Nitrile, cont'd.

Part No.	Price
M3700-350 N70	\$0.80
M3700-400 N70	\$0.82
M3700-500 N70	\$1.41
M3710-160 N70	\$1.98
M3750-300 N70	\$0.69
M3760-240 N70	\$1.26
M3770-350 N70	\$0.77
M3800-150 N70	\$0.80
M3800-200 N70	\$0.83
M3800-250 N70	\$0.58
M3800-300 N70	\$0.69
M3800-350 N70	\$0.82
M3800-400 N70	\$0.82
M3800-500 N70	\$1.55
M3870-265 N70	\$1.06
M3870-350 N70	\$0.80
M3900-150 N70	\$1.45
M3900-200 N70	\$0.62
M3900-250 N70	\$0.65
M3900-300 N70	\$0.67
M3900-500 N70	\$1.93
M3920-300 N70	\$1.39
M3920-570 N70	\$1.96
M3940-310 N70	\$0.80
M3950-150 N70	\$0.78
M3950-200 N70	\$0.82
M3950-300 N70	\$0.96
M3960-240 N70	\$1.08
M3970-350 N70	\$0.99
M3970-353 N70	\$1.31
M4000-150 N70	\$0.82
M4000-200 N70	\$0.83
M4000-250 N70	\$0.68
M4000-300 N70	\$0.70
M4000-350 N70	\$1.11
M4000-355 N70	\$1.48
M4000-400 N70	\$0.82
M4000-450 N70	\$1.55
M4000-500 N70	\$1.26
M4000-530 N70	\$1.26
M4000-800 N70	\$5.59
M4070-350 N70	\$0.96
M4100-200 N70	\$1.16
M4100-300 N70	\$1.02
M4100-400 N70	\$1.88
M4120-570 N70	\$2.42
M4128-353 N70	\$1.45
M4150-300 N70	\$1.35
M4170-350 N70	\$0.80
M4200-100 N70	\$0.82
M4200-150 N70	\$1.04
M4200-200 N70	\$0.58
M4200-250 N70	\$0.68
M4200-300 N70	\$0.77
M4200-350 N70	\$0.93
M4200-400 N70	\$0.82
M4200-500 N70	\$1.25
M4220-300 N70	\$1.05
M4250-300 N70	\$1.05
M4286-353 N70	\$1.11
M4300-150 N70	\$0.39
M4300-200 N70	\$0.57

Part No.	Price
M4300-250 N70	\$1.03
M4300-300 N70	\$0.77
M4300-400 N70	\$1.92
M4370-350 N70	\$1.03
M4400-200 N70	\$0.61
M4400-250 N70	\$0.94
M4400-300 N70	\$0.80
M4400-350 N70	\$0.92
M4400-400 N70	\$0.82
M4400-500 N70	\$1.27
M4420-300 N70	\$1.47
M4430-570 N70	\$1.47
M4440-310 N70	\$1.52
M4445-353 N70	\$1.55
M4450-300 N70	\$1.59
M4460-240 N70	\$1.37
M4470-350 N70	\$1.87
M4500-100 N70	\$2.62
M4500-150 N70	\$0.41
M4500-200 N70	\$0.57
M4500-250 N70	\$0.70
M4500-300 N70	\$0.78
M4500-350 N70	\$2.29
M4500-355 N70	\$1.94
M4500-400 N70	\$0.83
M4500-500 N70	\$1.28
M4500-530 N70	\$1.55
M4530-570 N70	\$1.46
M4550-150 N70	\$1.17
M4570-350 N70	\$1.06
M4600-150 N70	\$1.06
M4600-200 N70	\$0.79
M4600-250 N70	\$1.57
M4600-300 N70	\$0.86
M4600-350 N70	\$1.38
M4600-450 N70	\$1.55
M4700-150 N70	\$1.03
M4700-200 N70	\$1.03
M4700-250 N70	\$0.75
M4700-300 N70	\$0.82
M4700-350 N70	\$1.06
M4700-400 N70	\$1.11
M4720-570 N70	\$2.32
M4760-240 N70	\$1.74
M4760-570 N70	\$2.60
M4770-350 N70	\$1.05
M4800-200 N70	\$0.82
M4800-250 N70	\$0.76
M4800-300 N70	\$0.82
M4800-350 N70	\$2.05
M4800-400 N70	\$1.05
M4800-450 N70	\$2.92
M4800-500 N70	\$2.93
M4870-350 N70	\$1.15
M4900-200 N70	\$0.96
M4900-300 N70	\$1.15
M4900-350 N70	\$1.69
M4900-400 N70	\$1.93
M4920-570 N70	\$2.10
M4930-570 N70	\$2.22
M4940-310 N70	\$1.68
M4950-200 N70	\$1.94

Part No.	Price
M4950-300 N70	\$0.93
M4950-650 N70	\$9.49
M4960-240 N70	\$1.67
M4960-570 N70	\$2.08
M4970-350 N70	\$1.11
M5000-150 N70	\$0.94
M5000-200 N70	\$0.78
M5000-250 N70	\$0.75
M5000-300 N70	\$1.06
M5000-350 N70	\$1.05
M5000-400 N70	\$1.16
M5000-500 N70	\$1.41
M5000-530 N70	\$1.52
M5000-600 N70	\$2.49
M5080-353 N70	\$1.93
M5100-200 N70	\$1.15
M5100-300 N70	\$1.01
M5100-400 N70	\$3.11
M5160-240 N70	\$1.78
M5160-570 N70	\$2.81
M5200-200 N70	\$0.78
M5200-250 N70	\$1.33
M5200-300 N70	\$0.91
M5200-350 N70	\$1.03
M5200-400 N70	\$1.17
M5200-500 N70	\$1.46
M5230-570 N70	\$2.56
M5260-570 N70	\$2.74
M5300-150 N70	\$0.72
M5300-250 N70	\$0.82
M5300-300 N70	\$1.28
M5300-350 N70	\$3.04
M5300-355 N70	\$2.77
M5300-400 N70	\$1.71
M5400-250 N70	\$0.82
M5400-300 N70	\$1.00
M5400-400 N70	\$1.29
M5400-500 N70	\$2.89
M5430-570 N70	\$2.89
M5440-310 N70	\$1.17
M5450-200 N70	\$1.39
M5450-300 N70	\$1.00
M5460-570 N70	\$2.63
M5500-150 N70	\$1.26
M5500-200 N70	\$0.92
M5500-250 N70	\$0.92
M5500-300 N70	\$0.95
M5500-350 N70	\$1.54
M5500-400 N70	\$1.22
M5500-500 N70	\$1.53
M5500-800 N70	\$7.31
M5530-570 N70	\$4.55
M5560-570 N70	\$2.91
M5600-200 N70	\$0.96
M5600-300 N70	\$1.00
M5600-350 N70	\$1.12
M5600-400 N70	\$1.17
M5600-530 N70	\$3.79
M5700-150 N70	\$0.79
M5700-200 N70	\$0.97
M5700-250 N70	\$0.97
M5700-300 N70	\$0.97

Part No.	Price
M5700-350 N70	\$1.98
M5700-400 N70	\$1.17
M5700-500 N70	\$2.63
M5700-800 N70	\$6.44
M5720-570 N70	\$3.28
M5740-310 N70	\$1.40
M5760-240 N70	\$1.89
M5760-570 N70	\$2.45
M5800-100 N70	\$3.67
M5800-200 N70	\$0.96
M5800-250 N70	\$0.96
M5800-300 N70	\$1.02
M5800-350 N70	\$1.17
M5800-400 N70	\$1.28
M5800-500 N70	\$1.53
M5874-353 N70	\$1.79
M5900-200 N70	\$1.22
M5900-250 N70	\$0.99
M5900-300 N70	\$1.03
M5900-400 N70	\$2.20
M5920-570 N70	\$2.33
M5930-500 N70	\$2.52
M5930-570 N70	\$2.52
M5940-310 N70	\$1.41
M5950-200 N70	\$1.79
M5950-300 N70	\$1.06
M5960-240 N70	\$1.82
M5960-570 N70	\$2.62
M6000-100 N70	\$1.90
M6000-200 N70	\$1.45
M6000-250 N70	\$0.85
M6000-300 N70	\$1.00
M6000-350 N70	\$1.13
M6000-355 N70	\$2.62
M6000-400 N70	\$1.45
M6000-500 N70	\$1.69
M6000-800 N70	\$6.25
M6100-150 N70	\$3.38
M6100-350 N70	\$3.37
M6100-500 N70	\$2.06
M6160-240 N70	\$2.42
M6160-570 N70	\$4.48
M6200-200 N70	\$1.34
M6200-300 N70	\$1.06
M6200-400 N70	\$1.44
M6200-600 N70	\$3.52
M6230-570 N70	\$3.76
M6260-570 N70	\$4.47
M6300-100 N70	\$1.16
M6300-200 N70	\$0.93
M6300-250 N70	\$1.25
M6300-300 N70	\$1.17
M6300-350 N70	\$1.38
M6300-400 N70	\$3.10
M6300-500 N70	\$3.22
M6300-530 N70	\$3.32
M6400-150 N70	\$2.35
M6400-200 N70	\$1.48
M6400-250 N70	\$1.52
M6400-300 N70	\$1.22
M6400-350 N70	\$2.27
M6400-400 N70	\$1.52



Metric O-Rings - 70 Durometer Nitrile, cont'd.

Part No.	Price
M6400-500 N70	\$2.89
M6430-570 N70	\$3.25
M6440-310 N70	\$1.41
M6450-200 N70	\$1.05
M6450-300 N70	\$1.25
M6460-240 N70	\$2.31
M6460-570 N70	\$3.03
M6500-150 N70	\$0.83
M6500-200 N70	\$2.06
M6500-250 N70	\$1.26
M6500-300 N70	\$1.29
M6500-350 N70	\$1.46
M6500-355 N70	\$3.90
M6500-400 N70	\$1.52
M6500-500 N70	\$1.85
M6510-353 N70	\$2.82
M6600-200 N70	\$1.37
M6600-300 N70	\$1.46
M6600-400 N70	\$1.69
M6600-500 N70	\$4.51
M6600-600 N70	\$6.44
M6650-200 N70	\$6.77
M6660-570 N70	\$4.52
M6700-200 N70	\$1.37
M6700-250 N70	\$1.26
M6700-300 N70	\$1.45
M6700-350 N70	\$1.50
M6700-400 N70	\$1.81
M6720-570 N70	\$4.71
M6760-240 N70	\$2.54
M6800-150 N70	\$2.39
M6800-200 N70	\$1.32
M6800-250 N70	\$2.74
M6800-300 N70	\$1.99
M6800-400 N70	\$1.70
M6800-500 N70	\$1.84
M6800-600 N70	\$5.64
M6800-800 N70	\$8.50
M6900-300 N70	\$1.44
M6900-350 N70	\$1.50
M6930-570 N70	\$2.93
M6940-310 N70	\$1.73
M6950-200 N70	\$1.45
M6960-240 N70	\$2.42
M6960-570 N70	\$3.18
M7000-200 N70	\$1.36
M7000-250 N70	\$1.40
M7000-300 N70	\$1.41
M7000-400 N70	\$1.73
M7000-500 N70	\$1.87
M7060-570 N70	\$3.81
M7100-150 N70	\$2.41
M7100-200 N70	\$1.62
M7100-350 N70	\$1.65
M7100-400 N70	\$1.55
M7100-530 N70	\$3.99
M7120-570 N70	\$4.38
M7200-150 N70	\$1.01
M7200-200 N70	\$1.36
M7200-250 N70	\$1.45
M7200-300 N70	\$1.48
M7200-350 N70	\$2.19

Part No.	Price
M7200-400 N70	\$1.83
M7220-570 N70	\$4.86
M7300-200 N70	\$1.45
M7300-300 N70	\$2.62
M7300-350 N70	\$1.69
M7300-400 N70	\$3.15
M7300-500 N70	\$2.08
M7400-200 N70	\$1.39
M7400-300 N70	\$1.44
M7400-350 N70	\$3.86
M7400-400 N70	\$2.85
M7420-570 N70	\$6.81
M7430-570 N70	\$2.54
M7440-310 N70	\$2.01
M7450-300 N70	\$1.49
M7460-570 N70	\$5.21
M7500-150 N70	\$2.06
M7500-200 N70	\$2.09
M7500-250 N70	\$1.41
M7500-300 N70	\$1.54
M7500-355 N70	\$2.98
M7500-400 N70	\$1.82
M7500-500 N70	\$2.08
M7500-530 N70	\$2.93
M7600-150 N70	\$2.09
M7600-200 N70	\$1.47
M7600-250 N70	\$1.44
M7600-300 N70	\$1.57
M7600-400 N70	\$2.10
M7600-500 N70	\$2.61
M7700-400 N70	\$2.68
M7720-570 N70	\$3.44
M7800-250 N70	\$1.85
M7800-300 N70	\$1.59
M7800-350 N70	\$2.73
M7800-400 N70	\$2.03
M7800-500 N70	\$2.34
M7900-200 N70	\$3.55
M7900-250 N70	\$4.93
M7900-300 N70	\$1.63
M7900-350 N70	\$2.46
M7905-262 N70	\$3.51
M7920-570 N70	\$5.21
M7930-570 N70	\$2.85
M7940-310 N70	\$2.11
M7950-300 N70	\$1.63
M7960-570 N70	\$3.78
M7977-533 N70	\$4.21
M8000-150 N70	\$3.09
M8000-200 N70	\$1.51
M8000-250 N70	\$1.69
M8000-300 N70	\$1.58
M8000-350 N70	\$3.03
M8000-400 N70	\$2.06
M8000-500 N70	\$2.28
M8000-530 N70	\$4.18
M8000-700 N70	\$11.57
M8100-150 N70	\$3.15
M8100-250 N70	\$3.47
M8100-400 N70	\$3.65
M8120-570 N70	\$7.16
M8200-300 N70	\$1.75

Part No.	Price
M8200-350 N70	\$2.25
M8200-400 N70	\$2.09
M8200-500 N70	\$2.23
M8220-570 N70	\$4.86
M8300-150 N70	\$2.51
M8300-300 N70	\$2.64
M8300-350 N70	\$2.80
M8300-400 N70	\$3.56
M8300-450 N70	\$3.80
M8400-300 N70	\$2.11
M8400-500 N70	\$4.91
M8420-570 N70	\$4.93
M8430-570 N70	\$2.80
M8440-310 N70	\$3.25
M8450-300 N70	\$2.27
M8460-570 N70	\$5.08
M8500-200 N70	\$1.57
M8500-250 N70	\$1.71
M8500-300 N70	\$1.73
M8500-350 N70	\$3.08
M8500-355 N70	\$3.35
M8500-400 N70	\$3.48
M8500-450 N70	\$5.60
M8500-500 N70	\$2.32
M8600-200 N70	\$1.57
M8600-250 N70	\$4.45
M8600-300 N70	\$1.83
M8600-350 N70	\$2.04
M8600-400 N70	\$2.11
M8700-200 N70	\$2.89
M8700-300 N70	\$4.10
M8720-570 N70	\$5.59
M8800-200 N70	\$2.23
M8800-300 N70	\$1.87
M8800-350 N70	\$3.26
M8800-400 N70	\$4.48
M8800-500 N70	\$5.40
M8800-840 N70	\$11.73
M8822-262 N70	\$2.24
M8900-300 N70	\$1.87
M8900-400 N70	\$2.22
M8900-500 N70	\$5.08
M8910-570 N70	\$3.35
M8930-570 N70	\$2.82
M8940-310 N70	\$2.14
M8960-570 N70	\$3.73
M9000-200 N70	\$1.58
M9000-250 N70	\$1.76
M9000-300 N70	\$1.83
M9000-350 N70	\$3.88
M9000-400 N70	\$2.06
M9000-500 N70	\$2.52
M9000-530 N70	\$5.64
M9000-700 N70	\$7.33
M9000-800 N70	\$8.16
M9100-400 N70	\$4.01
M9200-200 N70	\$2.35
M9200-300 N70	\$1.86
M9200-350 N70	\$2.90
M9200-400 N70	\$2.34
M9200-500 N70	\$2.50
M9220-570 N70	\$5.78

Part No.	Price
M9300-200 N70	\$1.70
M9300-300 N70	\$3.35
M9300-350 N70	\$5.15
M9300-400 N70	\$3.94
M9400-200 N70	\$2.16
M9400-250 N70	\$1.82
M9400-300 N70	\$3.06
M9400-350 N70	\$4.12
M9400-400 N70	\$5.81
M9410-570 N70	\$4.68
M9430-570 N70	\$3.51
M9440-310 N70	\$2.91
M9450-300 N70	\$2.70
M9460-570 N70	\$5.74
M9500-150 N70	\$3.96
M9500-200 N70	\$3.06
M9500-250 N70	\$2.80
M9500-300 N70	\$1.85
M9500-355 N70	\$3.28
M9500-400 N70	\$2.28
M9500-450 N70	\$4.01
M9500-500 N70	\$2.70
M9600-200 N70	\$2.50
M9600-300 N70	\$1.88
M9600-350 N70	\$2.57
M9600-400 N70	\$2.63
M9700-500 N70	\$2.85
M9730-570 N70	\$6.10
M9800-300 N70	\$2.69
M9800-400 N70	\$2.54
M9800-500 N70	\$3.37
M9800-840 N70	\$13.02
M9900-300 N70	\$2.11
M9930-570 N70	\$3.52
M9940-310 N70	\$2.34
M9950-300 N70	\$2.33
M9960-570 N70	\$4.18
M10000-200 N70	\$1.86
M10000-250 N70	\$2.08
M10000-300 N70	\$2.07
M10000-400 N70	\$2.62
M10000-500 N70	\$3.03
M10000-530 N70	\$5.41
M10000-570 N70	\$5.26
M10000-600 N70	\$5.68
M10000-800 N70	\$4.64
M10000-1000 N70	\$14.91
M10100-250 N70	\$3.95
M10100-300 N70	\$4.86
M10100-400 N70	\$5.29
M10100-430 N70	\$9.68
M10160-570 N70	\$5.17
M10200-300 N70	\$1.90
M10200-400 N70	\$2.70
M10200-500 N70	\$3.59
M10200-840 N70	\$16.14
M10300-200 N70	\$2.35
M10300-250 N70	\$2.52
M10300-350 N70	\$3.37
M10300-400 N70	\$4.72
M10400-300 N70	\$2.19
M10400-400 N70	\$2.70

Metric O-Rings - 70 Durometer Nitrile, cont'd.

Part No.	Price
M10400-500 N70	\$6.12
M10410-570 N70	\$3.88
M10430-570 N70	\$3.64
M10440-310 N70	\$2.58
M10450-300 N70	\$2.11
M10460-570 N70	\$4.33
M10500-150 N70	\$11.17
M10500-200 N70	\$3.28
M10500-250 N70	\$2.91
M10500-300 N70	\$3.20
M10500-350 N70	\$2.70
M10500-400 N70	\$2.81
M10500-500 N70	\$3.04
M10600-240 N70	\$2.63
M10600-300 N70	\$2.10
M10600-355 N70	\$4.28
M10600-500 N70	\$5.12
M10700-250 N70	\$4.28
M10700-300 N70	\$4.38
M10700-400 N70	\$4.46
M10700-500 N70	\$3.12
M10800-300 N70	\$2.10
M10800-400 N70	\$2.75
M10800-500 N70	\$3.10
M10900-200 N70	\$3.52
M10900-300 N70	\$3.95
M10900-350 N70	\$5.35
M10930-570 N70	\$3.87
M10940-310 N70	\$3.57
M10950-300 N70	\$2.04
M10960-570 N70	\$6.73
M11000-200 N70	\$2.08
M11000-250 N70	\$2.08
M11000-300 N70	\$2.11
M11000-350 N70	\$3.49
M11000-400 N70	\$2.79
M11000-450 N70	\$6.51
M11000-500 N70	\$3.18
M11000-600 N70	\$7.38
M11000-800 N70	\$10.44
M11050-240 N70	\$3.14
M11100-400 N70	\$6.80
M11100-500 N70	\$7.09
M11160-570 N70	\$6.77
M11200-350 N70	\$2.85
M11200-400 N70	\$2.89
M11200-450 N70	\$7.15
M11200-500 N70	\$3.22
M11200-530 N70	\$8.50
M11200-600 N70	\$9.87
M11300-350 N70	\$4.30
M11300-500 N70	\$6.17
M11400-300 N70	\$5.61
M11400-400 N70	\$2.96
M11400-500 N70	\$6.39
M11400-600 N70	\$6.53
M11430-570 N70	\$4.64
M11440-310 N70	\$3.16
M11450-300 N70	\$2.11
M11460-570 N70	\$5.80
M11500-250 N70	\$3.64
M11500-300 N70	\$2.07

Part No.	Price
M11500-350 N70	\$4.12
M11500-400 N70	\$2.76
M11500-450 N70	\$5.39
M11500-500 N70	\$5.27
M11600-350 N70	\$4.37
M11600-500 N70	\$4.53
M11700-400 N70	\$2.81
M11710-178 N70	\$4.40
M11800-200 N70	\$4.62
M11800-250 N70	\$2.97
M11800-300 N70	\$2.12
M11800-350 N70	\$2.86
M11800-355 N70	\$4.84
M11800-400 N70	\$2.95
M11800-500 N70	\$3.16
M11800-600 N70	\$5.62
M11900-300 N70	\$3.33
M11930-570 N70	\$4.27
M11940-310 N70	\$3.38
M11950-300 N70	\$3.08
M11960-570 N70	\$4.59
M12000-200 N70	\$4.55
M12000-250 N70	\$2.62
M12000-300 N70	\$2.31
M12000-350 N70	\$3.00
M12000-400 N70	\$3.00
M12000-500 N70	\$3.52
M12000-600 N70	\$4.05
M12100-300 N70	\$4.21
M12100-400 N70	\$6.66
M12100-500 N70	\$3.58
M12200-200 N70	\$3.18
M12200-300 N70	\$4.26
M12200-500 N70	\$6.29
M12200-600 N70	\$7.53
M12300-300 N70	\$3.23
M12400-200 N70	\$4.71
M12400-300 N70	\$4.19
M12400-400 N70	\$3.70
M12430-570 N70	\$4.21
M12440-310 N70	\$3.71
M12450-300 N70	\$3.74
M12460-570 N70	\$5.10
M12500-300 N70	\$2.08
M12500-350 N70	\$5.18
M12500-500 N70	\$3.66
M12500-530 N70	\$5.67
M12600-300 N70	\$4.86
M12600-400 N70	\$3.14
M12600-500 N70	\$7.03
M12700-300 N70	\$3.42
M12700-400 N70	\$3.17
M12800-300 N70	\$2.39
M12800-400 N70	\$3.27
M12800-500 N70	\$4.88
M12800-600 N70	\$5.27
M12900-250 N70	\$3.03
M12900-350 N70	\$4.03
M12900-400 N70	\$3.27
M12930-570 N70	\$4.10
M12940-178 N70	\$6.61
M12940-310 N70	\$3.43

Part No.	Price
M12950-300 N70	\$3.45
M12960-570 N70	\$6.02
M13000-250 N70	\$4.61
M13000-300 N70	\$2.38
M13000-400 N70	\$3.13
M13000-500 N70	\$3.76
M13160-570 N70	\$6.16
M13200-300 N70	\$2.58
M13200-350 N70	\$3.69
M13200-500 N70	\$5.73
M13200-600 N70	\$10.59
M13200-1000 N70	\$82.58
M13300-400 N70	\$3.26
M13400-300 N70	\$3.80
M13400-400 N70	\$3.17
M13400-570 N70	\$5.45
M13400-600 N70	\$8.44
M13430-570 N70	\$4.69
M13440-310 N70	\$2.23
M13450-300 N70	\$3.84
M13460-570 N70	\$6.14
M13500-300 N70	\$2.54
M13500-400 N70	\$5.62
M13500-500 N70	\$5.77
M13600-250 N70	\$3.96
M13600-300 N70	\$3.98
M13600-400 N70	\$4.09
M13700-250 N70	\$4.22
M13700-300 N70	\$4.41
M13700-400 N70	\$4.05
M13800-500 N70	\$4.05
M13900-500 N70	\$5.88
M13900-600 N70	\$10.12
M13930-570 N70	\$4.76
M13940-310 N70	\$2.58
M13960-570 N70	\$6.55
M14000-250 N70	\$2.86
M14000-300 N70	\$4.52
M14000-350 N70	\$4.61
M14000-355 N70	\$4.73
M14000-400 N70	\$3.23
M14000-450 N70	\$7.30
M14000-500 N70	\$4.11
M14000-530 N70	\$9.87
M14100-300 N70	\$8.16
M14200-300 N70	\$7.05
M14200-400 N70	\$3.39
M14200-600 N70	\$7.87
M14200-700 N70	\$7.35
M14300-150 N70	\$5.67
M14300-500 N70	\$8.79
M14400-400 N70	\$5.49
M14400-500 N70	\$6.92
M14410-840 N70	\$13.38
M14430-570 N70	\$4.90
M14440-310 N70	\$4.05
M14460-570 N70	\$5.46
M14500-300 N70	\$2.60
M14500-350 N70	\$4.04
M14500-400 N70	\$6.65
M14500-500 N70	\$6.80
M14600-300 N70	\$8.76

Part No.	Price
M14600-400 N70	\$3.45
M14700-350 N70	\$6.47
M14800-250 N70	\$10.38
M14800-300 N70	\$5.95
M14800-500 N70	\$6.92
M14800-600 N70	\$9.99
M14800-1000 N70	\$19.55
M14900-300 N70	\$2.80
M14910-840 N70	\$12.91
M14930-570 N70	\$5.95
M14950-300 N70	\$4.75
M14950-840 N70	\$14.53
M14960-570 N70	\$7.72
M15000-250 N70	\$4.23
M15000-300 N70	\$2.62
M15000-350 N70	\$8.33
M15000-400 N70	\$3.63
M15000-450 N70	\$8.00
M15000-500 N70	\$3.79
M15000-530 N70	\$4.58
M15212-178 N70	\$5.45
M15164-178 N70	\$5.97
M15200-200 N70	\$5.68
M15200-400 N70	\$8.20
M15200-500 N70	\$8.63
M15300-200 N70	\$9.32
M15300-300 N70	\$6.87
M15300-350 N70	\$6.87
M15400-300 N70	\$6.07
M15430-570 N70	\$6.25
M15450-840 N70	\$13.88
M15500-250 N70	\$6.40
M15500-300 N70	\$3.80
M15500-400 N70	\$3.56
M15500-500 N70	\$5.07
M15600-250 N70	\$13.46
M15600-300 N70	\$4.75
M15800-400 N70	\$8.79
M15800-500 N70	\$5.19
M15900-400 N70	\$8.40
M15900-500 N70	\$10.68
M15930-570 N70	\$6.87
M15950-840 N70	\$15.00
M16000-300 N70	\$3.96
M16000-400 N70	\$3.63
M16000-500 N70	\$5.24
M16000-600 N70	\$6.12
M16100-300 N70	\$7.80
M16200-450 N70	\$17.49
M16300-300 N70	\$8.57
M16400-400 N70	\$3.64
M16430-570 N70	\$7.05
M16440-310 N70	\$13.11
M16450-300 N70	\$5.61
M16450-840 N70	\$14.50
M16500-300 N70	\$8.56
M16500-400 N70	\$9.62
M16500-450 N70	\$11.43
M16500-500 N70	\$5.28
M16600-300 N70	\$6.21
M16600-600 N70	\$14.81
M16700-400 N70	\$10.73



## Metric O-Rings - 70 Durometer Nitrile, cont'd.

Part No.	Price
M16700-500 N70	\$11.30
M16800-300 N70	\$6.47
M16800-350 N70	\$7.56
M16800-600 N70	\$15.12
M16830-699 N70	\$9.06
M16930-570 N70	\$7.10
M16950-840 N70	\$15.07
M17000-300 N70	\$4.01
M17000-350 N70	\$4.67
M17000-355 N70	\$8.50
M17000-400 N70	\$3.99
M17000-500 N70	\$9.99
M17000-530 N70	\$6.95
M17000-1000 N70	\$18.53
M17100-300 N70	\$5.90
M17100-400 N70	\$14.16
M17100-500 N70	\$16.66
M17200-400 N70	\$6.85
M17300-400 N70	\$8.42
M17400-300 N70	\$5.92
M17400-350 N70	\$10.14
M17400-400 N70	\$10.00
M17430-570 N70	\$9.05
M17440-310 N70	\$14.29
M17450-840 N70	\$18.35
M17500-300 N70	\$4.61
M17500-350 N70	\$5.20
M17500-500 N70	\$5.59
M17600-300 N70	\$6.00
M17700-300 N70	\$10.70
M17700-400 N70	\$7.47
M17700-500 N70	\$13.93
M17700-600 N70	\$13.45
M17800-200 N70	\$9.99
M17800-400 N70	\$10.79
M17900-500 N70	\$14.46
M17930-570 N70	\$12.50
M17940-310 N70	\$14.76
M17950-840 N70	\$16.02
M18000-300 N70	\$4.47
M18000-350 N70	\$4.81
M18000-400 N70	\$6.97
M18000-500 N70	\$5.67
M18000-530 N70	\$10.88
M18000-1000 N70	\$63.00
M18100-700 N70	\$14.22
M18200-500 N70	\$8.33
M18400-300 N70	\$9.54
M18400-400 N70	\$13.17
M18400-500 N70	\$13.90
M18430-570 N70	\$9.44
M18450-300 N70	\$9.89
M18450-840 N70	\$15.98
M18500-300 N70	\$12.68
M18500-400 N70	\$13.17
M18500-500 N70	\$13.41
M18500-1000 N70	\$63.41
M18600-300 N70	\$15.78
M18700-300 N70	\$16.19
M18700-500 N70	\$17.93
M18800-300 N70	\$13.34
M18800-500 N70	\$19.45

Part No.	Price
M18900-300 N70	\$7.50
M18930-570 N70	\$9.49
M18950-300 N70	\$7.87
M18950-840 N70	\$16.68
M19000-530 N70	\$11.60
M19000-600 N70	\$14.94
M19000-700 N70	\$16.88
M19100-350 N70	\$13.22
M19100-500 N70	\$14.79
M19200-400 N70	\$14.96
M19300-350 N70	\$15.57
M19370-699 N70	\$15.76
M19400-300 N70	\$5.23
M19430-570 N70	\$9.62
M19450-840 N70	\$19.59
M19500-300 N70	\$11.47
M19500-400 N70	\$12.36
M19500-500 N70	\$6.63
M19700-300 N70	\$11.46
M19700-400 N70	\$11.50
M19900-600 N70	\$18.21
M19930-570 N70	\$11.04
M19950-840 N70	\$17.04
M20000-300 N70	\$13.78
M20000-350 N70	\$7.52
M20000-400 N70	\$8.75
M20000-500 N70	\$6.77
M20000-600 N70	\$16.60
M20000-1000 N70	\$23.26
M20200-350 N70	\$6.97
M20300-300 N70	\$6.89
M20410-840 N70	\$18.43
M20440-310 N70	\$28.57
M20450-840 N70	\$17.04
M20500-300 N70	\$5.09
M20500-400 N70	\$11.26
M20500-500 N70	\$12.03
M20500-600 N70	\$13.50
M20600-350 N70	\$18.70
M20600-700 N70	\$26.20
M20850-840 N70	\$18.84
M20892-699 N70	\$19.72
M20900-300 N70	\$21.37
M20930-570 N70	\$11.94
M20940-310 N70	\$16.42
M20950-840 N70	\$20.64
M21000-200 N70	\$10.57
M21000-300 N70	\$10.57
M21000-350 N70	\$7.59
M21000-500 N70	\$14.55
M21100-350 N70	\$23.13
M21200-500 N70	\$18.04
M21400-400 N70	\$18.60
M21450-840 N70	\$18.99
M21500-300 N70	\$6.79
M21500-400 N70	\$15.92
M21500-500 N70	\$19.95
M21600-500 N70	\$20.83
M21700-500 N70	\$11.63
M21800-300 N70	\$18.15
M21800-530 N70	\$41.56
M21900-300 N70	\$11.75

Part No.	Price
M21930-570 N70	\$12.01
M21950-840 N70	\$18.78
M22000-300 N70	\$12.05
M22000-400 N70	\$19.80
M22000-500 N70	\$10.13
M22000-800 N70	\$27.46
M22000-1000 N70	\$36.10
M22000-1400 N70	\$65.46
M22200-500 N70	\$19.89
M22400-350 N70	\$12.96
M22400-700 N70	\$20.75
M22450-840 N70	\$18.78
M22500-300 N70	\$7.33
M22500-500 N70	\$10.79
M22800-400 N70	\$16.04
M22900-500 N70	\$21.44
M22930-570 N70	\$12.13
M22950-300 N70	\$18.82
M22950-840 N70	\$35.23
M23000-500 N70	\$12.70
M23300-300 N70	\$7.93
M23400-300 N70	\$26.89
M23430-570 N70	\$13.18
M23432-699 N70	\$27.77
M23450-840 N70	\$29.12
M23500-400 N70	\$23.84
M23500-500 N70	\$11.75
M23500-600 N70	\$16.25
M23600-500 N70	\$18.13
M23600-700 N70	\$29.72
M23900-350 N70	\$26.36
M23930-570 N70	\$13.07
M23950-840 N70	\$30.02
M24000-200 N70	\$25.42
M24000-300 N70	\$8.22
M24000-400 N70	\$11.69
M24000-500 N70	\$12.87
M24200-250 N70	\$33.92
M24200-300 N70	\$33.95
M24200-400 N70	\$17.61
M24200-600 N70	\$14.28
M24300-500 N70	\$23.36
M24400-700 N70	\$27.71
M24450-840 N70	\$30.82
M24500-300 N70	\$18.21
M24500-500 N70	\$12.75
M24700-699 N70	\$22.49
M24900-400 N70	\$20.98
M24930-570 N70	\$13.97
M24950-840 N70	\$30.93
M25000-300 N70	\$13.03
M25000-400 N70	\$11.18
M25000-500 N70	\$12.09
M25400-300 N70	\$16.32
M25440-310 N70	\$17.47
M25450-840 N70	\$29.21
M25500-300 N70	\$8.99
M25500-400 N70	\$16.25
M25500-500 N70	\$12.91
M25500-800 N70	\$37.00
M25930-570 N70	\$14.89
M25950-840 N70	\$29.06

Part No.	Price
M25970-699 N70	\$26.44
M26000-400 N70	\$25.54
M26000-500 N70	\$25.94
M26100-533 N70	\$29.44
M26300-400 N70	\$26.11
M26430-570 N70	\$27.62
M26450-840 N70	\$37.40
M26500-400 N70	\$12.11
M26500-500 N70	\$13.54
M26800-600 N70	\$28.53
M26900-300 N70	\$32.00
M26930-570 N70	\$15.52
M26950-840 N70	\$33.30
M27000-300 N70	\$18.18
M27000-400 N70	\$12.05
M27000-500 N70	\$20.64
M27200-700 N70	\$32.28
M27240-699 N70	\$25.97
M27400-300 N70	\$16.29
M27400-350 N70	\$16.29
M27450-840 N70	\$30.36
M27500-500 N70	\$13.55
M27800-400 N70	\$16.52
M27800-1200 N70	\$90.27
M27930-570 N70	\$15.50
M27950-840 N70	\$31.12
M28000-300 N70	\$14.24
M28000-500 N70	\$25.48
M28200-350 N70	\$25.50
M28200-600 N70	\$26.45
M28450-840 N70	\$37.69
M28500-300 N70	\$14.79
M28500-400 N70	\$14.70
M28500-500 N70	\$22.17
M28510-699 N70	\$27.10
M28700-500 N70	\$34.64
M28930-570 N70	\$17.17
M28950-840 N70	\$34.68
M29000-250 N70	\$15.27
M29000-500 N70	\$16.81
M29000-600 N70	\$22.92
M29100-500 N70	\$36.61
M29100-800 N70	\$36.04
M29200-200 N70	\$30.23
M29450-840 N70	\$37.96
M29700-400 N70	\$25.22
M29780-699 N70	\$14.04
M29930-570 N70	\$17.37
M29950-840 N70	\$36.49
M30000-300 N70	\$13.60
M30000-350 N70	\$28.93
M30000-400 N70	\$22.82
M30000-500 N70	\$16.41
M30000-800 N70	\$104.55
M30400-570 N70	\$49.32
M30900-400 N70	\$74.84
M31000-500 N70	\$29.14
M31050-699 N70	\$34.45
M31400-400 N70	\$31.64
M31450-840 N70	\$42.71
M31700-500 N70	\$24.27
M31930-570 N70	\$28.32

## Metric O-Rings - 70 Durometer Nitrile, cont'd.

Part No.	Price
M31950-840 N70	\$46.85
M32000-350 N70	\$30.85
M32000-400 N70	\$21.94
M32320-699 N70	\$36.43
M32500-700 N70	\$41.58
M32930-570 N70	\$32.96
M33000-500 N70	\$16.65
M33500-300 N70	\$14.83
M33500-500 N70	\$21.45
M33500-600 N70	\$27.78
M33600-600 N70	\$28.31
M33900-300 N70	\$28.32
M33930-570 N70	\$35.71
M34000-400 N70	\$27.32
M34000-800 N70	\$58.56
M34200-500 N70	\$28.34
M34500-350 N70	\$23.89
M34500-500 N70	\$19.68
M34800-353 N70	\$25.40
M34950-840 N70	\$46.76
M35000-300 N70	\$22.10
M35000-500 N70	\$26.00
M35000-600 N70	\$39.20
M35500-600 N70	\$40.20

Part No.	Price
M35900-700 N70	\$55.03
M35930-570 N70	\$23.76
M36000-400 N70	\$25.15
M36400-500 N70	\$33.68
M36500-500 N70	\$34.25
M36500-700 N70	\$46.10
M36700-350 N70	\$38.46
M36800-300 N70	\$29.37
M36800-353 N70	\$29.49
M37500-500 N70	\$28.07
M37500-840 N70	\$47.24
M37600-600 N70	\$23.96
M37930-570 N70	\$26.96
M38000-300 N70	\$19.91
M38200-800 N70	\$128.77
M38450-840 N70	\$72.41
M38930-570 N70	\$71.55
M39200-350 N70	\$21.93
M39200-400 N70	\$23.09
M39300-350 N70	\$22.14
M39400-350 N70	\$22.36
M39500-350 N70	\$25.51
M39930-570 N70	\$28.90
M39950-840 N70	\$77.63

Part No.	Price
M40000-700 N70	\$61.48
M40200-200 N70	\$72.74
M40500-1500 N70	\$171.99
M41200-700 N70	\$54.11
M41500-200 N70	\$46.41
M41900-350 N70	\$38.78
M42300-570 N70	\$41.72
M42430-570 N70	\$42.40
M42950-840 N70	\$115.93
M43000-400 N70	\$40.24
M43930-570 N70	\$46.03
M44000-500 N70	\$47.44
M44000-1000 N70	\$141.12
M45000-300 N70	\$43.44
M45930-570 N70	\$37.47
M46300-1000 N70	\$60.72
M46500-530 N70	\$163.20
M46950-840 N70	\$44.11
M47000-800 N70	\$144.33
M47000-1000 N70	\$76.60
M48200-400 N70	\$28.30
M49000-800 N70	\$108.04
M49100-400 N70	\$98.54
M49430-570 N70	\$48.42

Part No.	Price
M49500-570 N70	\$49.05
M49500-840 N70	\$208.00
M49900-500 N70	\$88.67
M49950-840 N70	\$103.43
M51000-600 N70	\$69.90
M51600-600 N70	\$47.76
M51800-570 N70	\$52.40
M51930-570 N70	\$114.89
M52200-840 N70	\$107.12
M52500-570 N70	\$82.54
M52500-800 N70	\$90.21
M52700-800 N70	\$93.77
M54400-600 N70	\$71.85
M54500-700 N70	\$63.17
M57000-1000 N70	\$114.38
M58700-500 N70	\$47.80
M59627-700 N70	\$96.78
M62500-570 N70	\$97.60
M66500-600 N70	\$98.64
M68000-700 N70	\$171.36
M73600-700 N70	\$123.82
M74500-600 N70	\$174.08
M81000-840 N70	\$227.93

## Metric O-Rings - 90 Durometer Nitrile

Part No.	Price
M380-190 N90	\$0.11
M480-190 N90	\$0.14
M500-150 N90	\$0.21
M510-160 N90	\$0.23
M580-190 N90	\$0.23
M700-150 N90	\$0.29
M720-190 N90	\$0.29
M730-240 N90	\$0.29
M780-190 N90	\$0.29
M800-190 N90	\$0.29
M800-250 N90	\$0.29
M880-190 N90	\$0.29
M890-270 N90	\$0.29
M900-150 N90	\$0.29
M900-200 N90	\$0.23
M980-190 N90	\$0.23
M1000-200 N90	\$0.23
M1000-250 N90	\$0.30
M1030-240 N90	\$0.34
M1100-200 N90	\$0.36
M1130-240 N90	\$0.54
M1150-150 N90	\$0.35
M1200-200 N90	\$0.23
M1230-240 N90	\$0.66
M1300-250 N90	\$0.31
M1380-240 N90	\$0.68
M1400-200 N90	\$0.27
M1430-240 N90	\$0.68
M1500-150 N90	\$0.68
M1510-270 N90	\$0.68
M1530-240 N90	\$0.68
M1580-240 N90	\$0.68
M1600-200 N90	\$0.27

Part No.	Price
M1610-160 N90	\$0.31
M1630-240 N90	\$0.73
M1730-240 N90	\$0.73
M1780-240 N90	\$0.67
M1786-262 N90	\$0.87
M1800-200 N90	\$0.52
M1800-250 N90	\$0.49
M1900-200 N90	\$0.32
M1900-250 N90	\$0.51
M1900-300 N90	\$0.61
M1950-200 N90	\$0.32
M2000-200 N90	\$0.40
M2000-250 N90	\$0.57
M2030-240 N90	\$0.81
M2080-240 N90	\$0.85
M2100-150 N90	\$0.32
M2100-250 N90	\$0.64
M2100-300 N90	\$0.95
M2130-240 N90	\$0.87
M2160-350 N90	\$0.66
M2170-350 N90	\$0.58
M2180-240 N90	\$0.90
M2200-250 N90	\$0.47
M2200-300 N90	\$0.55
M2210-350 N90	\$0.82
M2370-350 N90	\$0.88
M2400-200 N90	\$0.75
M2400-300 N90	\$0.87
M2440-310 N90	\$0.48
M2470-350 N90	\$0.86
M2500-200 N90	\$1.69
M2500-250 N90	\$0.52
M2600-300 N90	\$0.65

Part No.	Price
M2770-350 N90	\$1.21
M2800-300 N90	\$0.82
M2870-350 N90	\$1.40
M2900-250 N90	\$1.01
M2920-300 N90	\$0.96
M2940-310 N90	\$0.69
M2970-350 N90	\$1.38
M3000-400 N90	\$1.98
M3030-240 N90	\$2.02
M3170-350 N90	\$1.54
M3200-300 N90	\$1.05
M3300-400 N90	\$2.19
M3400-300 N90	\$1.69
M3400-350 N90	\$1.71
M3440-310 N90	\$0.82
M3470-350 N90	\$1.64
M3500-300 N90	\$1.26
M3620-300 N90	\$1.63
M3720-570 N90	\$3.22
M3770-350 N90	\$1.70
M3800-180 N90	\$0.92
M3800-300 N90	\$2.13
M3940-310 N90	\$0.85
M3970-353 N90	\$3.98
M4100-300 N90	\$2.87
M4190-300 N90	\$1.52
M4200-300 N90	\$2.88
M4200-500 N90	\$2.39
M4400-300 N90	\$1.59
M4440-310 N90	\$1.66
M4445-353 N90	\$3.31
M4450-300 N90	\$1.75
M4700-200 N90	\$1.01

Part No.	Price
M4870-350 N90	\$2.53
M4940-310 N90	\$1.77
M4960-570 N90	\$2.83
M4970-350 N90	\$2.58
M5400-300 N90	\$2.71
M5420-300 N90	\$2.04
M5440-310 N90	\$1.98
M5500-400 N90	\$3.66
M5600-300 N90	\$2.61
M5700-500 N90	\$3.21
M5940-310 N90	\$2.16
M6200-300 N90	\$2.36
M6220-300 N90	\$2.43
M6300-300 N90	\$3.52
M6400-300 N90	\$2.78
M6430-570 N90	\$4.61
M6440-310 N90	\$2.23
M6450-300 N90	\$2.83
M6660-570 N90	\$5.13
M6800-300 N90	\$3.01
M6800-400 N90	\$3.05
M6900-300 N90	\$3.31
M6930-570 N90	\$5.06
M6940-310 N90	\$2.29
M6960-570 N90	\$5.10
M7000-400 N90	\$4.65
M7060-570 N90	\$5.28
M7200-400 N90	\$4.92
M7440-310 N90	\$2.90
M7940-310 N90	\$2.81
M7960-570 N90	\$5.60
M8000-400 N90	\$6.28
M8410-570 N90	\$10.43

## Metric O-Rings - 90 Durometer Nitrile, cont'd.

Part No.	Price
M8430-570 N90	\$12.65
M8440-310 N90	\$2.84
M8900-570 N90	\$6.48
M8910-570 N90	\$11.30
M8930-570 N90	\$11.30
M8940-310 N90	\$2.76
M8960-570 N90	\$6.58
M9200-300 N90	\$3.40
M9440-310 N90	\$2.83
M9930-570 N90	\$7.25
M9940-310 N90	\$3.07
M9960-570 N90	\$7.36
M10000-500 N90	\$6.29
M10420-570 N90	\$8.08
M10440-310 N90	\$3.12
M10930-570 N90	\$8.17
M10940-310 N90	\$3.16
M10950-300 N90	\$3.49
M10960-570 N90	\$8.18

Part No.	Price
M11200-400 N90	\$10.37
M11420-570 N90	\$8.97
M11440-310 N90	\$3.23
M11460-570 N90	\$8.47
M11700-400 N90	\$9.47
M11940-310 N90	\$3.59
M11960-570 N90	\$8.81
M12430-570 N90	\$8.87
M12440-310 N90	\$3.68
M12460-570 N90	\$8.97
M12930-570 N90	\$9.36
M12940-310 N90	\$3.72
M12960-570 N90	\$8.90
M13000-400 N90	\$12.65
M13430-570 N90	\$9.65
M13440-310 N90	\$4.40
M13460-570 N90	\$9.07
M13930-570 N90	\$11.14
M13940-310 N90	\$7.73

Part No.	Price
M13960-570 N90	\$9.01
M14430-570 N90	\$11.06
M14440-310 N90	\$4.61
M14460-570 N90	\$9.29
M14930-570 N90	\$9.64
M14950-840 N90	\$30.50
M14960-570 N90	\$10.85
M15000-840 N90	\$30.54
M15430-570 N90	\$11.28
M15930-570 N90	\$11.72
M16430-570 N90	\$13.48
M16550-400 N90	\$10.99
M16930-570 N90	\$13.41
M17400-400 N90	\$13.65
M17430-570 N90	\$14.13
M17930-570 N90	\$16.06
M18200-300 N90	\$23.99
M18450-840 N90	\$38.62
M18930-570 N90	\$16.25

Part No.	Price
M19200-400 N90	\$33.08
M20430-570 N90	\$22.68
M20930-570 N90	\$24.99
M20950-840 N90	\$32.74
M21930-570 N90	\$29.57
M22930-570 N90	\$29.69
M23450-840 N90	\$48.07
M24930-570 N90	\$32.02
M25930-570 N90	\$38.40
M25950-840 N90	\$55.70
M26930-570 N90	\$38.69
M27500-250 N90	\$70.84
M29930-570 N90	\$42.03
M33930-570 N90	\$58.59
M35400-250 N90	\$102.62
M51500-840 N90	\$166.21

## Metric O-Rings - 75 Durometer FKM

These O-Rings may be Black or Brown

Part No.	Price
M340-190 V75	\$1.10
M350-100 V75	\$0.60
M360-240 V75	\$1.29
M400-100 V75	\$1.52
M400-150 V75	\$0.61
M430-240 V75	\$1.32
M450-150 V75	\$2.20
M500-150 V75	\$0.65
M510-160 V75	\$0.95
M530-240 V75	\$1.35
M550-100 V75	\$0.74
M550-150 V75	\$0.74
M580-190 V75	\$0.74
M600-100 V75	\$0.67
M600-120 V75	\$0.74
M600-150 V75	\$0.74
M600-200 V75	\$0.75
M600-300 V75	\$1.75
M630-240 V75	\$1.39
M700-150 V75	\$0.78
M700-175 V75	\$5.17
M700-200 V75	\$0.88
M710-160 V75	\$0.88
M730-240 V75	\$1.40
M750-200 V75	\$0.91
M800-100 V75	\$2.85
M800-150 V75	\$0.86
M800-150 V75	\$0.84
M800-200 V75	\$1.20
M830-240 V75	\$1.42
M880-190 V75	\$1.00
M890-190 V75	\$0.70
M900-120 V75	\$0.96

Part No.	Price
M930-220 V75	\$1.04
M930-240 V75	\$1.45
M950-250 V75	\$1.54
M980-240 V75	\$1.70
M1000-200 V75	\$1.26
M1000-200 V75	\$1.26
M1000-250 V75	\$1.68
M1000-400 V75	\$4.04
M1010-160 V75	\$1.20
M1030-240 V75	\$1.71
M1050-200 V75	\$1.36
M1100-150 V75	\$1.15
M1100-200 V75	\$1.38
M1100-250 V75	\$1.75
M1110-150 V75	\$3.98
M1110-160 V75	\$1.76
M1130-220 V75	\$1.28
M1130-240 V75	\$1.72
M1160-240 V75	\$1.87
M1180-240 V75	\$1.94
M1200-150 V75	\$1.14
M1200-200 V75	\$1.51
M1200-250 V75	\$1.84
M1200-300 V75	\$2.17
M1210-160 V75	\$1.35
M1300-100 V75	\$1.94
M1300-100 V75	\$1.94
M1300-250 V75	\$1.89
M1330-240 V75	\$1.92
M1360-240 V75	\$2.14
M1400-150 V75GR	\$1.56
M1400-200 V70GR	\$1.66
M1400-400 V75	\$5.64

Part No.	Price
M1410-160 V75	\$1.99
M1480-240 V75	\$2.19
M1500-150 V75	\$1.13
M1500-300 V75	\$2.38
M1500-500 V75	\$9.52
M1530-240 V75	\$2.21
M1600-150 V75	\$0.63
M1600-200 V75	\$1.78
M1600-200 V75	\$1.78
M1600-400 V75	\$6.27
M1630-240 V75	\$2.26
M1700-200 V75	\$1.89
M1700-250 V75	\$2.25
M1700-300 V75	\$2.54
M1700-400 V75	\$6.66
M1750-150 V75	\$2.51
M1760-240 V75	\$2.57
M1786-262 V75	\$2.86
M1800-300 V75	\$2.65
M1810-160 V75	\$2.65
M1900-100 V75	\$2.65
M1900-175 V75	\$3.95
M1900-180 V75	\$3.78
M1900-300 V75	\$2.81
M1950-300 V75	\$2.92
M2000-200 V75	\$2.01
M2000-300 V75	\$3.44
M2100-200 V75	\$2.22
M2130-240 V75	\$2.90
M2200-150 V75	\$1.40
M2200-150 V75	\$1.40
M2200-250 V75	\$2.75
M2250-200 V75	\$2.85

Part No.	Price
M2250-300 V75	\$3.03
M2300-200 V75	\$2.78
M2350-300 V75	\$3.13
M2370-350 V75	\$7.35
M2400-150 V75	\$1.59
M2400-175 V75	\$11.73
M2400-300 V75	\$3.31
M2130-240 V75	\$2.61
M2450-300 V75	\$3.36
M2460-300 V75	\$3.33
M2500-150 V75	\$2.70
M2500-200 V75	\$2.30
M2500-250 V75	\$3.11
M2500-400 V75	\$7.13
M2600-200 V75	\$2.42
M2600-300 V75	\$4.54
M2600-300 V75	\$3.36
M2600-500 V75	\$11.92
M2700-200 V75	\$2.55
M2710-160 V75	\$3.78
M2750-300 V75	\$3.68
M2800-200 V75	\$2.99
M2800-300 V75	\$3.83
M2910-160 V75	\$3.87
M2940-310 V75	\$5.29
M3000-200 V75	\$3.41
M3000-250 V75	\$3.74
M3000-350 V75	\$10.53
M3100-200 V75	\$3.75
M3200-200 V75	\$3.04
M3200-200 V75	\$3.04
M3200-300 V75	\$4.26
M3300-150 V75	\$2.52



**Metric O-Rings - 75 Durometer FKM, cont'd.**

Part No.	Price
M3300-400 V75	\$5.38
M3350-200 V75	\$3.15
M3400-150 V75	\$3.22
M3400-200 V75	\$3.29
M3420-300 V75	\$4.72
M3440-310 V75	\$5.51
M3500-150 V75	\$3.28
M3500-300 V75	\$4.85
M3520-570 V75	\$11.12
M3600-200 V75	\$3.77
M3600-250 V75	\$4.13
M3600-500 V75	\$16.51
M3700-300 V75	\$5.22
M3730-360 V75	\$11.10
M3800-200 V75	\$4.20
M3800-250 V75	\$4.93
M3800-400 V75	\$7.38
M3800-600 V75	\$23.64
M3900-250 V75	\$4.99
M3900-300 V75	\$5.27
M3920-300 V75	\$5.37
M3940-310 V75	\$6.72
M3970-353 V75	\$7.69
M4000-200 V75	\$4.34
M4000-250 V75	\$5.64
M4000-500 V75	\$18.37
M4100-300 V75	\$5.53
M4160-240 V75	\$5.09
M4200-200 V75	\$4.59
M4200-300 V75	\$5.57
M4200-500 V75	\$19.28

Part No.	Price
M4300-150 V75	\$4.98
M4370-350 V75	\$13.38
M4400-400 V75	\$8.40
M4500-300 V75	\$5.71
M4500-400 V75	\$9.08
M4600-200 V75	\$5.78
M4700-300 V75	\$5.98
M5000-200 V75	\$4.80
M5000-300 V75	\$6.13
M5000-400 V75	\$9.61
M5200-250 V75	\$5.70
M5200-300 V75	\$6.49
M5200-350 V75	\$13.79
M5200-500 V75	\$23.15
M5300-250 V75	\$7.47
M5300-300 V75	\$6.30
M5400-300 V75	\$6.61
M5450-300 V75	\$6.79
M5500-150 V75	\$6.57
M5700-300 V75	\$6.89
M5760-570 V75	\$21.67
M6000-300 V75	\$7.50
M6100-500 V75	\$27.16
M6300-400 V75	\$12.11
M6440-310 V75	\$12.27
M6500-200 V75	\$6.85
M6500-300 V75	\$7.87
M6700-400 V75	\$11.64
M6940-310 V75	\$11.73
M7200-400 V75	\$13.83
M7430-570 V75	\$16.29

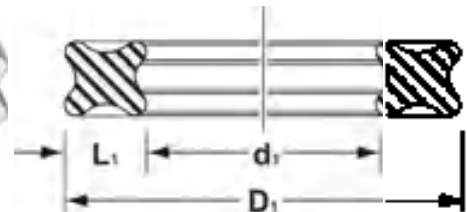
Part No.	Price
M7450-300 V75	\$8.98
M7500-300 V75	\$9.40
M7500-300 V75	\$9.40
M7500-500 V75	\$33.38
M7600-300 V75	\$9.86
M7600-400 V75	\$12.64
M7900-250 V75	\$11.13
M8000-250 V75	\$13.47
M8400-500 V75	\$34.77
M8500-300 V75	\$11.04
M8500-350 V75	\$22.55
M8500-400 V75	\$11.54
M8534-178 V75	\$13.88
M8600-300 V75	\$12.02
M8920-570 V75	\$28.40
M9000-350 V75	\$24.41
M9200-400 V75	\$17.67
M9450-300 V75	\$12.27
M9500-450 V75	\$33.77
M9600-300 V75	\$12.50
M9600-400 V75	\$18.44
M9700-400 V75	\$18.75
M9940-310 V75	\$16.11
M9960-570 V75	\$29.98
M10000-250 V75	\$16.24
M10000-400 V75	\$19.70
M10500-200 V75	\$11.05
M10500-800 V75	\$58.01
M10700-300 V75	\$13.93
M10700-500 V75	\$32.44
M10800-500 V75	\$44.71

Part No.	Price
M11300-300 V75	\$14.70
M11450-300 V75	\$16.31
M11500-400 V75	\$22.94
M11500-400 V75	\$22.94
M11800-500 V75	\$54.66
M12450-300 V75	\$17.96
M13000-300 V75	\$18.85
M14000-300 V75	\$22.35
M14900-300 V75	\$30.03
M15200-400 V75	\$30.32
M15500-300 V75	\$34.26
M15950-300 V75	\$38.53
M16600-300 V75	\$50.26
M16700-400 V75	\$33.57
M16930-570 V75	\$57.52
M18400-300 V75	\$52.64
M20000-300 V75	\$54.54
M20300-350 V75	\$55.05
M20320-942 V75	\$388.69
M20600-350 V75	\$55.86
M20600-500 V75	\$82.52
M21930-570 V75	\$86.59
M22500-500 V75	\$90.14
M23000-570 V75	\$101.96
M23600-700 V75	\$92.56
M24930-570 V75	\$110.53
M32000-500 V75	\$140.22
M36500-600 V75	\$230.79
M46200-700 V75	\$212.92

**Quad Rings - 70 Durometer Nitrile - Inch**

**ALTERNATIVE SEALS:** Can interchange with Standard AS568A Series O-Rings or Lathe Cuts. If static application can use DR or HS (Head Seal)

EXAMPLE: 4209 366Y		
Prefix	AS568A DASH #	Material
*4_ _ _	209	366Y
		N70



\* 40\_ \_ = 1/16" C/S, 41\_ \_ = 3/32" C/S, 42\_ \_ = 1/8" C/S, 43\_ \_ = 3/16" C/S, 44\_ \_ = 1/4" C/S

Quad rings are four-lobed seals that provide twice the sealing surface of an o-ring. They are free of mold parting lines (flash) or blemishes on those surfaces. The quad design resists spiral twist as is common with o-rings in reciprocating situations. Standard material is 70 durometer nitrile. Other materials available upon request.

Part No.	Price
4003 366Y	\$1.33
4004 366Y	\$1.33
4005 366Y	\$1.33
4006 366Y	\$1.33
4007 366Y	\$1.36
4008 366Y	\$1.37
4009 366Y	\$1.38
4010 366Y	\$1.37
4011 366Y	\$1.38
4012 366Y	\$1.39
4013 366Y	\$1.39
4014 366Y	\$1.40
4015 366Y	\$1.41

Part No.	Price
4016 366Y	\$1.68
4017 366Y	\$1.69
4018 366Y	\$1.71
4019 366Y	\$1.75
4020 366Y	\$1.77
4021 366Y	\$1.76
4022 366Y	\$2.13
4023 366Y	\$2.14
4024 366Y	\$2.14
4025 366Y	\$2.28
4026 366Y	\$2.35
4027 366Y	\$2.53
4028 366Y	\$2.57

Part No.	Price
4029 366Y	\$2.63
4030 366Y	\$2.80
4031 366Y	\$2.80
4032 366Y	\$2.92
4033 366Y	\$2.75
4034 366Y	\$2.78
4035 366Y	\$2.83
4036 366Y	\$3.37
4037 366Y	\$3.12
4038 366Y	\$3.71
4039 366Y	\$3.59
4041 366Y	\$3.68
4042 366Y	\$3.78

Part No.	Price
4043 366Y	\$4.27
4044 366Y	\$5.98
4045 366Y	\$5.57
4046 366Y	\$5.87
4047 366Y	\$6.74
4048 366Y	\$7.09
4049 366Y	\$9.80
4050 366Y	\$8.88
4104 366Y	\$1.13
4105 366Y	\$1.14
4106 366Y	\$1.15
4107 366Y	\$1.16
4108 366Y	\$1.24

## Quad Rings - 70 Durometer Nitrile, cont'd.

Part No.	Price
4109 366Y	\$1.37
4110 366Y	\$1.45
4111 366Y	\$1.55
4112 366Y	\$1.60
4113 366Y	\$1.62
4114 366Y	\$1.64
4115 366Y	\$1.66
4116 366Y	\$1.71
4117 366Y	\$1.75
4118 366Y	\$1.85
4119 366Y	\$1.89
4120 366Y	\$1.89
4121 366Y	\$1.89
4122 366Y	\$1.91
4123 366Y	\$1.95
4124 366Y	\$1.97
4125 366Y	\$1.99
4126 366Y	\$2.01
4127 366Y	\$2.03
4128 366Y	\$2.05
4129 366Y	\$2.08
4130 366Y	\$2.10
4131 366Y	\$2.22
4132 366Y	\$2.25
4133 366Y	\$2.27
4134 366Y	\$2.32
4135 366Y	\$2.82
4136 366Y	\$2.93
4137 366Y	\$3.11
4138 366Y	\$3.25
4139 366Y	\$3.44
4140 366Y	\$3.60
4141 366Y	\$3.78
4142 366Y	\$3.92
4143 366Y	\$3.68
4144 366Y	\$4.17
4145 366Y	\$4.23
4146 366Y	\$4.34
4147 366Y	\$4.43
4148 366Y	\$4.47
4149 366Y	\$4.39
4150 366Y	\$4.75
4151 366Y	\$4.58
4152 366Y	\$4.60
4153 366Y	\$4.67
4154 366Y	\$4.69
4155 366Y	\$4.95
4156 366Y	\$4.71
4157 366Y	\$4.78
4158 366Y	\$5.61
4159 366Y	\$5.78
4160 366Y	\$10.03
4161 366Y	\$8.22
4162 366Y	\$10.49
4163 366Y	\$10.63
4164 366Y	\$11.01
4165 366Y	\$13.29
4166 366Y	\$15.03
4167 366Y	\$15.23
4169 366Y	\$15.71
4170 366Y	\$15.86
4171 366Y	\$62.03
4172 366Y	\$63.03
4173 366Y	\$70.91
4174 366Y	\$71.94
4177 366Y	\$79.50

Part No.	Price
4178 366Y	\$81.06
4201 366Y	\$1.78
4202 366Y	\$1.78
4203 366Y	\$2.39
4204 366Y	\$1.78
4205 366Y	\$1.78
4206 366Y	\$1.78
4207 366Y	\$1.78
4208 366Y	\$1.78
4209 366Y	\$1.78
4210 366Y	\$1.78
4211 366Y	\$1.78
4212 366Y	\$1.79
4213 366Y	\$1.83
4214 366Y	\$1.86
4215 366Y	\$1.88
4216 366Y	\$1.93
4217 366Y	\$2.00
4218 366Y	\$2.10
4219 366Y	\$2.14
4220 366Y	\$2.35
4221 366Y	\$2.35
4222 366Y	\$2.36
4223 366Y	\$2.78
4224 366Y	\$2.80
4225 366Y	\$2.81
4226 366Y	\$2.83
4227 366Y	\$2.85
4228 366Y	\$3.08
4229 366Y	\$3.12
4230 366Y	\$3.20
4231 366Y	\$3.23
4232 366Y	\$3.24
4233 366Y	\$3.24
4234 366Y	\$3.24
4235 366Y	\$3.24
4236 366Y	\$3.24
4237 366Y	\$3.24
4238 366Y	\$5.10
4239 366Y	\$5.29
4240 366Y	\$5.49
4241 366Y	\$5.68
4242 366Y	\$5.68
4243 366Y	\$5.88
4244 366Y	\$5.90
4245 366Y	\$5.89
4246 366Y	\$5.89
4247 366Y	\$5.91
4248 366Y	\$6.08
4249 366Y	\$6.10
4250 366Y	\$6.13
4251 366Y	\$6.16
4252 366Y	\$7.24
4253 366Y	\$9.16
4254 366Y	\$9.20
4255 366Y	\$9.56
4256 366Y	\$9.95
4257 366Y	\$11.11
4258 366Y	\$11.33
4259 366Y	\$11.70
4260 366Y	\$11.48
4261 366Y	\$13.03
4262 366Y	\$13.71
4263 366Y	\$14.07
4264 366Y	\$14.50
4265 366Y	\$14.12

Part No.	Price
4266 366Y	\$15.22
4267 366Y	\$19.23
4268 366Y	\$21.18
4269 366Y	\$22.85
4270 366Y	\$24.03
4271 366Y	\$25.30
4272 366Y	\$26.47
4273 366Y	\$27.00
4274 366Y	\$28.34
4275 366Y	\$31.23
4276 366Y	\$31.42
4277 366Y	\$42.51
4279 366Y	\$57.79
4310 366Y	\$4.02
4311 366Y	\$4.02
4312 366Y	\$2.35
4313 366Y	\$2.35
4314 366Y	\$2.35
4315 366Y	\$2.39
4316 366Y	\$2.40
4317 366Y	\$2.46
4318 366Y	\$2.50
4319 366Y	\$2.61
4320 366Y	\$2.69
4321 366Y	\$2.72
4322 366Y	\$2.76
4323 366Y	\$2.81
4324 366Y	\$2.81
4325 366Y	\$2.97
4326 366Y	\$3.02
4327 366Y	\$3.07
4328 366Y	\$3.14
4329 366Y	\$3.41
4330 366Y	\$3.48
4331 366Y	\$3.49
4332 366Y	\$3.42
4333 366Y	\$3.77
4334 366Y	\$3.82
4335 366Y	\$4.06
4336 366Y	\$4.23
4337 366Y	\$4.36
4338 366Y	\$4.36
4339 366Y	\$4.42
4340 366Y	\$5.79
4341 366Y	\$6.19
4342 366Y	\$6.53
4343 366Y	\$6.59
4344 366Y	\$7.73
4345 366Y	\$8.59
4346 366Y	\$9.98
4347 366Y	\$10.24
4348 366Y	\$9.99
4349 366Y	\$10.02
4350 366Y	\$10.20
4351 366Y	\$11.02
4352 366Y	\$11.14
4353 366Y	\$11.41
4354 366Y	\$12.91
4355 366Y	\$13.23
4356 366Y	\$13.77
4357 366Y	\$14.21
4358 366Y	\$14.56
4359 366Y	\$15.55
4360 366Y	\$16.14
4361 366Y	\$16.79
4362 366Y	\$17.95

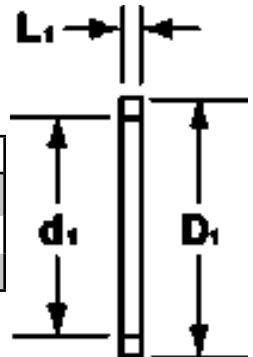
Part No.	Price
4363 366Y	\$18.33
4364 366Y	\$20.41
4365 366Y	\$21.53
4366 366Y	\$22.48
4367 366Y	\$23.07
4368 366Y	\$24.85
4369 366Y	\$26.50
4370 366Y	\$28.41
4371 366Y	\$29.55
4372 366Y	\$30.70
4373 366Y	\$33.02
4374 366Y	\$30.54
4375 366Y	\$36.28
4376 366Y	\$38.62
4378 366Y	\$44.29
4379 366Y	\$45.01
4380 366Y	\$46.50
4388 366Y	\$67.50
4425 366Y	\$9.53
4426 366Y	\$9.58
4427 366Y	\$9.66
4428 366Y	\$9.81
4429 366Y	\$10.79
4430 366Y	\$10.82
4431 366Y	\$11.08
4432 366Y	\$11.95
4433 366Y	\$11.95
4434 366Y	\$12.17
4435 366Y	\$12.20
4436 366Y	\$12.22
4437 366Y	\$12.68
4438 366Y	\$12.81
4439 366Y	\$13.02
4440 366Y	\$13.84
4441 366Y	\$14.14
4442 366Y	\$14.82
4443 366Y	\$15.24
4444 366Y	\$17.66
4445 366Y	\$20.61
4446 366Y	\$21.91
4447 366Y	\$22.02
4448 366Y	\$31.84
4449 366Y	\$34.63
4450 366Y	\$38.35
4451 366Y	\$41.41
4452 366Y	\$41.54
4453 366Y	\$43.18
4454 366Y	\$58.01
4455 366Y	\$50.43
4456 366Y	\$62.84
4457 366Y	\$64.12
4458 366Y	\$50.14
4459 366Y	\$66.66
4460 366Y	\$71.32
4461 366Y	\$74.77
4462 366Y	\$77.99
4463 366Y	\$86.27
4464 366Y	\$87.24
4465 366Y	\$108.00
4466 366Y	\$105.83
4470 366Y	\$109.34
4471 366Y	\$152.03
4472 366Y	\$154.47

# Square Cut Ring - 70 Durometer Nitrile - Inch



ALTERNATIVE SEALS: Will interchange with Standard AS568A Series O-Rings & Quad Rings

EXAMPLE: -252S N70			
Prefix	AS568 DASH #	Material	
-	252	S	N70
		70A NBR	



\*All measurements are nominal

Part Number	I.D. d <sub>1</sub>	O.D. D <sub>1</sub>	HT L <sub>1</sub>	Price
-006S N70	1/8	1/4	0.066	\$0.66
-007S N70	5/32	9/32	0.066	\$0.66
-008S N70	3/16	5/16	0.066	\$0.66
-009S N70	7/32	11/32	0.066	\$0.66
-011S N70	5/16	7/16	0.066	\$0.65
-012S N70	3/8	1/2	0.066	\$0.28
-013S N70	7/16	9/16	0.066	\$0.65
-014S N70	1/2	5/8	0.066	\$0.27
-015S N70	9/16	11/16	0.066	\$0.27
-016S N70	5/8	3/4	0.066	\$0.27
-017S N70	11/16	13/16	0.066	\$0.30
-018S N70	3/4	7/8	0.066	\$0.31
-019S N70	13/16	15/16	0.066	\$0.32
-020S N70	7/8	1	0.066	\$0.34
-021S N70	15/16	1 1/16	0.066	\$0.34
-022S N70	1	1 1/8	0.066	\$0.34
-023S N70	1 1/16	1 3/16	0.066	\$0.35
-024S N70	1 1/8	1 1/4	0.066	\$0.37
-025S N70	1 3/16	1 5/16	0.066	\$0.38
-026S N70	1 1/4	1 3/8	0.066	\$0.39
-027S N70	1 5/16	1 7/16	0.066	\$0.39
-028S N70	1 3/8	1 1/2	0.066	\$0.40
-029S N70	1 1/2	1 5/8	0.066	\$0.40
-030S N70	1 5/8	1 3/4	0.066	\$0.52
-031S N70	1 3/4	1 7/8	0.066	\$0.69
-032S N70	1 7/8	2	0.066	\$0.71
-033S N70	2	2 1/8	0.066	\$0.72
-034S N70	2 1/8	2 1/4	0.066	\$0.73
-035S N70	2 1/4	2 3/8	0.066	\$0.78
-036S N70	2 3/8	2 1/2	0.066	\$0.79
-037S N70	2 1/2	2 5/8	0.066	\$0.80
-038S N70	2 5/8	2 3/4	0.066	\$0.81
-039S N70	2 3/4	2 7/8	0.066	\$0.83
-040S N70	2 7/8	3	0.066	\$0.91
-041S N70	3	3 1/8	0.066	\$1.07

Part Number	I.D. d <sub>1</sub>	O.D. D <sub>1</sub>	HT L <sub>1</sub>	Price
-042S N70	3 1/4	3 3/8	0.066	\$1.08
-043S N70	3 1/2	3 5/8	0.066	\$1.13
-044S N70	3 3/4	3 7/8	0.066	\$1.15
-045S N70	4	4 1/8	0.066	\$1.23
-046S N70	4 1/4	4 3/8	0.066	\$1.31
-047S N70	4 1/2	4 5/8	0.066	\$1.46
-048S N70	4 3/4	4 7/8	0.066	\$1.92
-049S N70	5	5 1/8	0.066	\$1.99
-109S N70	5/16	1/2	0.099	\$0.34
-110S N70	3/8	9/16	0.099	\$0.35
-111S N70	7/16	5/8	0.099	\$0.35
-112S N70	1/2	11/16	0.099	\$0.40
-113S N70	9/16	3/4	0.099	\$0.40
-114S N70	5/8	13/16	0.099	\$0.71
-115S N70	11/16	7/8	0.099	\$0.76
-116S N70	3/4	15/16	0.099	\$0.56
-117S N70	13/16	1	0.099	\$0.34
-118S N70	7/8	1 1/16	0.099	\$0.34
-119S N70	15/16	1 1/8	0.099	\$0.34
-120S N70	1	1 3/16	0.099	\$0.35
-121S N70	1 1/16	1 1/4	0.099	\$0.35
-122S N70	1 1/8	1 5/16	0.099	\$0.67
-123S N70	1 3/16	1 3/8	0.099	\$0.71
-124S N70	1 1/4	1 7/16	0.099	\$0.94
-125S N70	1 5/16	1 1/2	0.099	\$0.95
-126S N70	1 3/8	1 9/16	0.099	\$0.95
-127S N70	1 7/16	1 5/8	0.099	\$0.95
-128S N70	1 1/2	1 11/16	0.099	\$0.95
-129S N70	1 9/16	1 3/4	0.099	\$0.95
-130S N70	1 5/8	1 13/16	0.099	\$0.95
-131S N70	1 11/16	1 7/8	0.099	\$0.95
-132S N70	1 3/4	1 15/16	0.099	\$0.98
-133S N70	1 13/16	2	0.099	\$0.98
-134S N70	1 7/8	2 1/16	0.099	\$0.98
-135S N70	1 15/16	2 1/8	0.099	\$0.99

Square Ring - 70 Durometer Nitrile, cont'd.

Part Number	I.D. d <sub>1</sub>	O.D. D <sub>1</sub>	HT L <sub>1</sub>	Price
-136S N70	2	2 3/16	0.099	\$0.99
-137S N70	2 1/16	2 1/4	0.099	\$0.99
-138S N70	2 1/8	2 5/16	0.099	\$0.99
-139S N70	2 3/16	2 3/8	0.099	\$0.98
-140S N70	2 1/4	2 7/16	0.099	\$0.99
-141S N70	2 5/16	2 1/2	0.099	\$0.99
-142S N70	2 3/8	2 9/16	0.099	\$0.99
-143S N70	2 7/16	2 5/8	0.099	\$0.99
-144S N70	2 1/2	2 11/16	0.099	\$1.01
-145S N70	2 9/16	2 3/4	0.099	\$1.01
-146S N70	2 5/8	2 13/16	0.099	\$1.01
-147S N70	2 11/16	2 7/8	0.099	\$1.01
-148S N70	2 3/4	2 15/16	0.099	\$1.02
-149S N70	2 13/16	3	0.099	\$1.03
-150S N70	2 7/8	3 1/16	0.099	\$1.03
-151S N70	3	3 3/16	0.099	\$1.03
-152S N70	3 1/4	3 7/16	0.099	\$1.04
-153S N70	3 1/2	3 11/16	0.099	\$1.05
-154S N70	3 3/4	3 15/16	0.099	\$1.09
-155S N70	4	4 3/16	0.099	\$1.29
-156S N70	4 1/4	4 7/16	0.099	\$1.53
-157S N70	4 1/2	4 11/16	0.099	\$1.76
-158S N70	4 3/4	4 15/16	0.099	\$2.15
-159S N70	5	5 3/16	0.099	\$2.25
-160S N70	5 1/4	5 7/16	0.099	\$2.55
-162S N70	5 3/4	5 15/16	0.099	\$2.70
-163S N70	6	6 3/16	0.099	\$3.24
-164S N70	6 1/4	6 7/16	0.099	\$3.36
-165S N70	6 1/2	6 11/16	0.099	\$3.51
-166S N70	6 3/4	6 15/16	0.099	\$4.97
-167S N70	7	7 3/16	0.099	\$6.15
-203S N70	5/16	9/16	0.134	\$1.03
-204S N70	3/8	5/8	0.134	\$1.08
-205S N70	7/16	11/16	0.134	\$1.09
-206S N70	1/2	3/4	0.134	\$0.52
-207S N70	9/16	13/16	0.134	\$0.52
-208S N70	5/8	7/8	0.134	\$0.53
-209S N70	11/16	15/16	0.134	\$0.53
-210S N70	3/4	1	0.134	\$0.53
-211S N70	13/16	1 1/16	0.134	\$0.54
-212S N70	7/8	1 1/8	0.134	\$0.55
-213S N70	15/16	1 3/16	0.134	\$0.55
-214S N70	1	1 1/4	0.134	\$0.55
-215S N70	1 1/16	1 5/16	0.134	\$0.55
-216S N70	1 1/8	1 3/8	0.134	\$0.55
-217S N70	1 3/16	1 7/16	0.134	\$0.66
-218S N70	1 1/4	1 1/2	0.134	\$0.67

Part Number	I.D. d <sub>1</sub>	O.D. D <sub>1</sub>	HT L <sub>1</sub>	Price
-219S N70	1 5/16	1 9/16	0.134	\$0.67
-220S N70	1 3/8	1 5/8	0.134	\$0.67
-221S N70	1 7/16	1 11/16	0.134	\$0.67
-222S N70	1 1/2	1 3/4	0.134	\$0.69
-223S N70	1 5/8	1 7/8	0.134	\$0.69
-224S N70	1 3/4	2	0.134	\$0.70
-225S N70	1 7/8	2 1/8	0.134	\$0.70
-226S N70	2	2 1/4	0.134	\$0.69
-227S N70	2 1/8	2 3/8	0.134	\$0.72
-228S N70	2 1/4	2 1/2	0.134	\$0.75
-229S N70	2 3/8	2 5/8	0.134	\$0.75
-230S N70	2 1/2	2 3/4	0.134	\$0.75
-231S N70	2 5/8	2 7/8	0.134	\$0.75
-232S N70	2 3/4	3	0.134	\$0.75
-233S N70	2 7/8	3 1/8	0.134	\$0.75
-234S N70	3	3 1/4	0.134	\$0.77
-235S N70	3 1/8	3 3/8	0.134	\$0.77
-236S N70	3 1/4	3 1/2	0.134	\$0.95
-237S N70	3 3/8	3 5/8	0.134	\$0.95
-238S N70	3 1/2	3 3/4	0.134	\$0.95
-239S N70	3 5/8	3 7/8	0.134	\$0.98
-240S N70	3 3/4	4	0.134	\$1.07
-241S N70	3 7/8	4 1/8	0.134	\$1.07
-242S N70	4	4 1/4	0.134	\$1.07
-243S N70	4 1/8	4 3/8	0.134	\$1.07
-244S N70	4 1/4	4 1/2	0.134	\$1.07
-245S N70	4 3/8	4 5/8	0.134	\$1.32
-246S N70	4 1/2	4 3/4	0.134	\$1.37
-247S N70	4 5/8	4 7/8	0.134	\$1.77
-248S N70	4 3/4	5	0.134	\$1.89
-249S N70	4 7/8	5 1/8	0.134	\$2.06
-250S N70	5	5 1/4	0.134	\$2.13
-251S N70	5 1/8	5 3/8	0.134	\$2.26
-252S N70	5 1/4	5 1/2	0.134	\$2.33
-253S N70	5 3/8	5 5/8	0.134	\$2.46
-254S N70	5 1/2	5 3/4	0.134	\$2.52
-256S N70	5 3/4	6	0.134	\$2.60
-258S N70	6	6 1/4	0.134	\$2.79
-259S N70	6 1/4	6 1/2	0.134	\$3.05
-260S N70	6 1/2	6 3/4	0.134	\$3.31
-261S N70	6 3/4	7	0.134	\$3.46
-262S N70	7	7 1/4	0.134	\$3.53
-263S N70	7 1/4	7 1/2	0.134	\$3.59
-264S N70	7 1/2	7 3/4	0.134	\$3.69
-265S N70	7 3/4	8	0.134	\$3.78
-266S N70	8	8 1/4	0.134	\$3.86
-270S N70	9	9 1/4	0.134	\$4.08

Square Ring - 70 Durometer Nitrile, cont'd.

Part Number	I.D. d <sub>1</sub>	O.D. D <sub>1</sub>	HT L <sub>1</sub>	Price
-273S N70	9 3/4	10	0.134	\$4.92
-274S N70	10	10 1/4	0.134	\$28.69
-310S N70	1/2	7/8	0.204	\$2.50
-312S N70	5/8	1	0.204	\$2.55
-316S N70	7/8	1 1/4	0.204	\$3.06
-317S N70	15/16	1 5/16	0.204	\$3.81
-318S N70	1	1 3/8	0.204	\$3.82
-319S N70	1 1/16	1 7/16	0.204	\$3.86
-320S N70	1 1/8	1 1/2	0.204	\$4.51
-322S N70	1 1/4	1 5/8	0.204	\$0.99
-323S N70	1 5/16	1 11/16	0.204	\$1.05
-324S N70	1 3/8	1 3/4	0.204	\$1.18
-325S N70	1 1/2	1 7/8	0.204	\$1.18
-326S N70	1 5/8	2	0.204	\$1.18
-327S N70	1 3/4	2 1/8	0.204	\$1.18
-328S N70	1 7/8	2 1/4	0.204	\$1.04
-329S N70	2	2 3/8	0.204	\$1.18
-330S N70	2 1/8	2 1/2	0.204	\$1.28
-331S N70	2 1/4	2 5/8	0.204	\$1.36
-332S N70	2 3/8	2 3/4	0.204	\$1.36
-333S N70	2 1/2	2 7/8	0.204	\$1.36
-334S N70	2 5/8	3	0.204	\$1.36
-335S N70	2 3/4	3 1/8	0.204	\$1.55
-336S N70	2 7/8	3 1/4	0.204	\$1.55
-337S N70	3	3 3/8	0.204	\$1.55
-338S N70	3 1/8	3 1/2	0.204	\$1.70
-339S N70	3 1/4	3 5/8	0.204	\$1.70
-340S N70	3 3/8	3 3/4	0.204	\$1.70
-341S N70	3 1/2	3 7/8	0.204	\$1.70
-342S N70	3 5/8	4	0.204	\$1.78
-343S N70	3 3/4	4 1/8	0.204	\$1.78
-344S N70	3 7/8	4 1/4	0.204	\$1.78
-345S N70	4	4 3/8	0.204	\$1.78
-346S N70	4 1/8	4 1/2	0.204	\$1.97
-347S N70	4 1/4	4 5/8	0.204	\$2.00
-348S N70	4 3/8	4 3/4	0.204	\$2.12
-349S N70	4 1/2	4 7/8	0.204	\$2.15
-350S N70	4 5/8	5	0.204	\$2.25
-351S N70	4 3/4	5 1/8	0.204	\$2.33
-352S N70	4 7/8	5 1/4	0.204	\$2.33
-353S N70	5	5 3/8	0.204	\$2.69
-354S N70	5 1/8	5 1/2	0.204	\$2.72
-355S N70	5 1/4	5 5/8	0.204	\$2.77
-356S N70	5 3/8	5 3/4	0.204	\$2.80
-357S N70	5 1/2	5 7/8	0.204	\$2.81
-358S N70	5 5/8	6	0.204	\$2.85
-359S N70	5 3/4	6 1/8	0.204	\$3.76

Part Number	I.D. d <sub>1</sub>	O.D. D <sub>1</sub>	HT L <sub>1</sub>	Price
-361S N70	6	6 3/8	0.204	\$4.29
-362S N70	6 1/4	6 5/8	0.204	\$4.91
-363S N70	6 1/2	6 7/8	0.204	\$7.05
-366S N70	7 1/4	7 5/8	0.204	\$3.07
-371S N70	8 1/2	8 7/8	0.204	\$5.88
-373S N70	9	9 3/8	0.204	\$15.61
-378S N70	10 1/2	10 7/8	0.204	\$29.03
-422S N70	4	4 1/2	0.204	\$29.05
-424S N70	4 3/8	4 7/8	0.204	\$3.41
-425S N70	4 1/2	5	0.266	\$3.41
-426S N70	4 5/8	5 1/8	0.266	\$3.41
-427S N70	4 3/4	5 1/4	0.266	\$3.41
-428S N70	4 7/8	5 3/8	0.266	\$3.41
-429S N70	5	5 1/2	0.266	\$3.41
-430S N70	5 1/8	5 5/8	0.266	\$3.41
-431S N70	5 1/4	5 3/4	0.266	\$3.41
-432S N70	5 3/8	5 7/8	0.266	\$3.48
-433S N70	5 1/2	6	0.266	\$3.48
-434S N70	5 5/8	6 1/8	0.266	\$3.48
-435S N70	5 3/4	6 1/4	0.266	\$4.43
-436S N70	5 7/8	6 3/8	0.266	\$4.49
-437S N70	6	6 1/2	0.266	\$5.46
-438S N70	6 1/4	6 3/4	0.266	\$4.33
-439S N70	6 1/2	7	0.266	\$4.54
-440S N70	6 3/4	7 1/4	0.266	\$4.78
-441S N70	7	7 1/2	0.266	\$5.97
-442S N70	7 1/4	7 3/4	0.266	\$6.56
-443S N70	7 1/2	8	0.266	\$6.89
-444S N70	7 3/4	8 1/4	0.266	\$7.13
-445S N70	8	8 1/2	0.266	\$7.14
-446S N70	8 1/2	9	0.266	\$6.76
-447S N70	9	9 1/2	0.266	\$7.06
-448S N70	9 1/2	10	0.266	\$8.40
-449S N70	10	10 1/2	0.266	\$16.78
-450S N70	10 1/2	11	0.266	\$25.32
-451S N70	11	11 1/2	0.266	\$29.28
-452S N70	11 1/2	12	0.266	\$41.25
-453S N70	12	12 1/2	0.266	\$47.31
-455S N70	13	13 1/2	0.266	\$47.65
-456S N70	13 1/2	14	0.266	\$48.95
-457S N70	14	14 1/2	0.266	\$52.89
-458S N70	14 1/2	15	0.266	\$54.38
-459S N70	15	15 1/2	0.266	\$56.75
-464S N70	17 1/2	18	0.266	\$58.72
-467S N70	19	19 1/2	0.266	\$67.29



# Backup Ring Interchange Guide

O-Ring Specifications				Contoured Backup Nitrile	Leather AN6244 AN6246	PTFE Solid MS27595/ Split MS28774	PTFE Spiral MS28782 MS28783	Leather MS35803 Dash No.
Dash #	ID (Nom)	OD (Nom)	CS (Nom)					
004	5/64	13/64	1/16	8-004 N90		004		004
005	3/32	7/32	1/16	8-005 N90		005		005
006	1/8	1/4	1/16	8-006 N90	AN6246-1	006	MS28782-1	006
007	5/32	9/32	1/16	8-007 N90	AN6246-2	007	MS28782-2	007
008	3/16	5/16	1/16	8-008 N90	AN6246-3	008	MS28782-3	008
009	7/32	11/32	1/16	8-009 N90	AN6246-4	009	MS28782-4	009
010	1/4	3/8	1/16	8-010 N90	AN6246-5	010	MS28782-5	010
011	5/16	7/16	1/16	8-011 N90	AN6246-6	011	MS28782-6	011
012	3/8	1/2	1/16	8-012 N90	AN6246-7	012	MS28782-7	012
013	7/16	9/16	1/16	8-013 N90		013		013
014	1/2	5/8	1/16	8-014 N90		014		014
015	9/16	11/16	1/16	8-015 N90		015		015
016	5/8	3/4	1/16	8-016 N90		016		016
017	11/16	13/16	1/16	8-017 N90		017		017
018	3/4	7/8	1/16	8-018 N90		018		018
019	13/16	15/16	1/16	8-019 N90		019		019
020	7/8	1	1/16	8-020 N90		020		020
021	15/16	1-1/16	1/16	8-021 N90		021		021
022	1	1-1/8	1/16	8-022 N90		022		022
023	1-1/16	1-3/16	1/16	8-023 N90		023		023
024	1-1/8	1-1/4	1/16	8-024 N90		024		024
025	1-3/16	1-5/16	1/16	8-025 N90		025		025
026	1-1/4	1-3/8	1/16	8-026 N90		026		026
027	1-5/16	1-7/16	1/16	8-027 N90		027		027
028	1-3/8	1-1/2	1/16	8-028 N90		028		028
110	3/8	9/16	3/32	8-110 N90	AN6246-8	110	MS28782-8	110
111	7/16	5/8	3/32	8-111 N90	AN6246-9	111	MS28782-9	111
112	1/2	11/16	3/32	8-112 N90	AN6246-10	112	MS28782-10	112
113	9/16	3/4	3/32	8-113 N90	AN6246-11	113	MS28782-11	113
114	5/8	13/16	3/32	8-114 N90	AN6246-12	114	MS28782-12	114
115	11/16	7/8	3/32	8-115 N90	AN6246-13	115	MS28782-13	115
116	3/4	15/16	3/32	8-116 N90	AN6246-14	116	MS28782-14	116
117	13/16	1	3/32	8-117 N90		117		117
118	7/8	1-1/16	3/32	8-118 N90		118		118
119	15/16	1-1/8	3/32	8-119 N90		119		119
120	1	1-3/16	3/32	8-120 N90		120		120
121	1-1/16	1-1/4	3/32	8-121 N90		121		121
122	1-1/8	1-5/16	3/32	8-122 N90		122		122
123	1-3/16	1-3/8	3/32	8-123 N90		123		123
124	1-1/4	1-7/16	3/32	8-124 N90		124		124
125	1-5/16	1-1/2	3/32	8-125 N90		125		125
126	1-3/8	1-9/16	3/32	8-126 N90		126		126
127	1-7/16	1-5/8	3/32	8-127 N90		127		127
128	1-1/2	1-11/16	3/32	8-128 N90		128		128
129	1-9/16	1-3/4	3/32	8-129 N90		129		129
130	1-5/8	1-13/16	3/32	8-130 N90		130		130
131	1-11/16	1-7/8	3/32	8-131 N90		131		131
132	1-3/4	1-15/16	3/32	8-132 N90		132		132
133	1-13/16	2	3/32	8-133 N90		133		133
134	1-7/8	2-1/16	3/32	8-134 N90		134		134
135	1-15/16	2-1/8	3/32	8-135 N90		135		135

## Backup Ring Interchange Guide, cont'd.

O-Ring Specifications				Contoured Backup Nitrile	Leather AN6244 AN6246	PTFE Solid MS27595/ Split MS28774	PTFE Spiral MS28782 MS28783	Leather MS35803 Dash No.
Dash #	ID (Nom)	OD (Nom)	CS (Nom)					
136	2	2-3/16	3/32	8-136 N90		136		136
137	2-1/16	2-1/4	3/32	8-137 N90		137		137
138	2-1/8	2-5/16	3/32	8-138 N90		138		138
139	2-3/16	2-3/8	3/32	8-139 N90		139		139
140	2-1/4	2-7/16	3/32	8-140 N90		140		140
141	2-5/16	2-1/2	3/32	8-141 N90		141		141
142	2-3/8	2-9/16	3/32	8-142 N90		142		142
143	2-7/16	2-5/8	3/32	8-143 N90		143		143
144	2-1/2	2-11/16	3/32	8-144 N90		144		144
145	2-9/16	2-3/4	3/32	8-145 N90		145		145
146	2-5/8	2-13/16	3/32	8-146 N90		146		146
147	2-11/16	2-7/8	3/32	8-147 N90		147		147
148	2-3/4	2-15/16	3/32	8-148 N90		148		148
149	2-13/16	3	3/32	8-149 N90		149		149
210	3/4	1	1/8	8-210 N90	AN6246-15	210	MS28782-15	210
211	13/16	1-1/16	1/8	8-211 N90	AN6246-16	211	MS28782-16	211
212	7/8	1-1/8	1/8	8-212 N90	AN6246-17	212	MS28782-17	212
213	15/16	1-3/16	1/8	8-213 N90	AN6246-18	213	MS28782-18	213
214	1	1-1/4	1/8	8-214 N90	AN6246-19	214	MS28782-19	214
215	1-1/16	1-5/16	1/8	8-215 N90	AN6246-20	215	MS28782-20	215
216	1-1/8	1-3/8	1/8	8-216 N90	AN6246-21	216	MS28782-21	216
217	1-3/16	1-7/16	1/8	8-217 N90	AN6246-22	217	MS28782-22	217
218	1-1/4	1-1/2	1/8	8-218 N90	AN6246-23	218	MS28782-23	218
219	1-5/16	1-9/16	1/8	8-219 N90	AN6246-24	219	MS28782-24	219
220	1-3/8	1-5/8	1/8	8-220 N90	AN6246-25	220	MS28782-25	220
221	1-7/16	1-11/16	1/8	8-221 N90	AN6246-26	221	MS28782-26	221
222	1-1/2	1-3/4	1/8	8-222 N90	AN6246-27	222	MS28782-27	222
223	1-5/8	1-7/8	1/8	8-223 N90	AN6244-1	223	MS28783-1	223
224	1-3/4	2	1/8	8-224 N90	AN6244-2	224	MS28783-2	224
225	1-7/8	2-1/8	1/8	8-225 N90	AN6244-3	225	MS28783-3	225
226	2	2-1/4	1/8	8-226 N90	AN6244-4	226	MS28783-4	226
227	2-1/8	2-3/8	1/8	8-227 N90	AN6244-5	227	MS28783-5	227
228	2-1/4	2-1/2	1/8	8-228 N90	AN6244-6	228	MS28783-6	228
229	2-3/8	2-5/8	1/8	8-229 N90	AN6244-7	229	MS28783-7	229
230	2-1/2	2-3/4	1/8	8-230 N90	AN6244-8	230	MS28783-8	230
231	2-5/8	2-7/8	1/8	8-231 N90	AN6244-9	231	MS28783-9	231
232	2-3/4	3	1/8	8-232 N90	AN6244-10	232	MS28783-10	232
233	2-7/8	3-1/8	1/8	8-233 N90	AN6244-11	233	MS28783-11	233
234	3	3-1/4	1/8	8-234 N90	AN6244-12	234	MS28783-12	234
235	3-1/8	3-3/8	1/8	8-235 N90	AN6244-13	235	MS28783-13	235
236	3-1/4	3-1/2	1/8	8-236 N90	AN6244-14	236	MS28783-14	236
237	3-3/8	3-5/8	1/8	8-237 N90	AN6244-15	237	MS28783-15	237
238	3-1/2	3-3/4	1/8	8-238 N90	AN6244-16	238	MS28783-16	238
239	3-5/8	3-7/8	1/8	8-239 N90	AN6244-17	239	MS28783-17	239
240	3-3/4	4	1/8	8-240 N90	AN6244-18	240	MS28783-18	240
241	3-7/8	4-1/8	1/8	8-241 N90	AN6244-19	241	MS28783-19	241
242	4	4-1/4	1/8	8-242 N90	AN6244-20	242	MS28783-20	242
243	4-1/8	4-3/8	1/8	8-243 N90	AN6244-21	243	MS28783-21	243
244	4-1/4	4-1/2	1/8	8-244 N90	AN6244-22	244	MS28783-22	244
245	4-3/8	4-5/8	1/8	8-245 N90	AN6244-23	245	MS28783-23	245
246	4-1/2	4-3/4	1/8	8-246 N90	AN6244-24	246	MS28783-24	246

## Backup Ring Interchange Guide, cont'd.

O-Ring Specifications				Contoured Backup Nitrile	Leather AN6244 AN6246	PTFE Solid MS27595/ Split MS28774	PTFE Spiral MS28782 MS28783	Leather MS35803 Dash No.
Dash #	ID (Nom)	OD (Nom)	CS (Nom)					
247	4-5/8	4-7/8	1/8	8-247 N90	AN6244-25	247	MS28783-25	247
248	4-3/4	5	1/8	8-248 N90	AN6244-26	248	MS28783-26	248
249	4-7/8	5-1/8	1/8	8-249 N90	AN6244-27	249		249
250	5	5-1/4	1/8	8-250 N90	AN6244-28	250		250
251	5-1/8	5-3/8	1/8	8-251 N90	AN6244-29	251		251
252	5-1/4	5-1/2	1/8	8-252 N90	AN6244-30	252		252
253	5-3/8	5-5/8	1/8	8-253 N90	AN6244-31	253		253
254	5-1/2	5-3/4	1/8	8-254 N90	AN6244-32	254		254
255	5-5/8	5-7/8	1/8	8-255 N90	AN6244-33	255		255
256	5-3/4	6	1/8	8-256 N90	AN6244-34	256		256
257	5-7/8	6-1/8	1/8	8-257 N90	AN6244-35	257		257
258	6	6-1/4	1/8	8-258 N90	AN6244-36	258	MS28783-36	258
259	6-1/4	6-1/2	1/8	8-259 N90	AN6244-37	259		259
260	6-1/2	6-3/4	1/8	8-260 N90	AN6244-38	260		260
261	6-3/4	7	1/8	8-261 N90	AN6244-39	261		261
262	7	7-1/4	1/8	8-262 N90	AN6244-40	262		262
263	7-1/4	7-1/2	1/8	8-263 N90	AN6244-41	263		263
264	7-1/2	7-3/4	1/8	8-264 N90	AN6244-42	264		264
265	7-3/4	8	1/8	8-265 N90	AN6244-43	265		265
266	8	8-1/4	1/8	8-266 N90	AN6244-44	266		266
267	8-1/4	8-1/2	1/8	8-267 N90	AN6244-45	267		267
268	8-1/2	8-3/4	1/8	8-268 N90	AN6244-46	268		268
269	8-3/4	9	1/8	8-269 N90	AN6244-47	269		269
270	9	9-1/4	1/8	8-270 N90	AN6244-48	270		270
271	9-1/4	9-1/2	1/8	8-271 N90	AN6244-49	271		271
272	9-1/2	9-3/4	1/8	8-272 N90	AN6244-50	272		272
273	9-3/4	10	1/8	8-273 N90	AN6244-51	273		273
274	10	10-1/4	1/8	8-274 N90	AN6244-52	274		274
325	1-1/2	1-7/8	3/16	8-325 N90	AN6246-28	325	MS28782-28	325
326	1-5/8	2	3/16	8-326 N90	AN6246-29	326	MS28782-29	326
327	1-3/4	2-1/8	3/16	8-327 N90	AN6246-30	327	MS28782-30	327
328	1-7/8	2-1/4	3/16	8-328 N90	AN6246-31	328	MS28782-31	328
329	2	2-3/8	3/16	8-329 N90	AN6246-32	329	MS28782-32	329
330	2-1/8	2-1/2	3/16	8-330 N90	AN6246-33	330	MS28782-33	330
331	2-1/4	2-5/8	3/16	8-331 N90	AN6246-34	331	MS28782-34	331
332	2-3/8	2-3/4	3/16	8-332 N90	AN6246-35	332	MS28782-35	332
333	2-1/2	2-7/8	3/16	8-333 N90	AN6246-36	333	MS28782-36	333
334	2-5/8	3	3/16	8-334 N90	AN6246-37	334	MS28782-37	334
335	2-3/4	3-1/8	3/16	8-335 N90	AN6246-38	335	MS28782-38	335
336	2-7/8	3-1/4	3/16	8-336 N90	AN6246-39	336	MS28782-39	336
337	3	3-3/8	3/16	8-337 N90	AN6246-40	337	MS28782-40	337
338	3-1/8	3-1/2	3/16	8-338 N90	AN6246-41	338	MS28782-41	338
339	3-1/4	3-5/8	3/16	8-339 N90	AN6246-42	339	MS28782-42	339
340	3-3/8	3-3/4	3/16	8-340 N90	AN6246-43	340	MS28782-43	340
341	3-1/2	3-7/8	3/16	8-341 N90	AN6246-44	341	MS28782-44	341
342	3-5/8	4	3/16	8-342 N90	AN6246-45	342	MS28782-45	342
343	3-3/4	4-1/8	3/16	8-343 N90	AN6246-46	343	MS28782-46	343
344	3-7/8	4-1/4	3/16	8-344 N90	AN6246-47	344	MS28782-47	344
345	4	4-3/8	3/16	8-345 N90	AN6246-48	345	MS28782-48	345
346	4-1/8	4-1/2	3/16	8-346 N90	AN6246-49	346	MS28782-49	346
347	4-1/4	4-5/8	3/16	8-347 N90	AN6246-50	347	MS28782-50	347

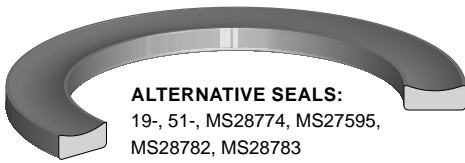


## Backup Ring Interchange Guide, cont'd.

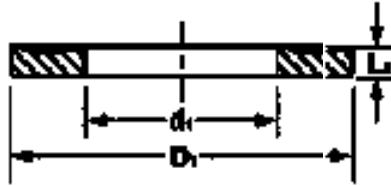
O-Ring Specifications				Contoured Backup Nitrile	Leather AN6244 AN6246	PTFE Solid MS27595/ Split MS28774	PTFE Spiral MS28782 MS28783	Leather MS35803 Dash No.
Dash #	ID (Nom)	OD (Nom)	CS (Nom)					
348	4-3/8	4-3/4	3/16	8-348 N90	AN6246-51	348	MS28782-51	348
349	4-1/2	4-7/8	3/16	8-349 N90	AN6246-52	349	MS28782-52	349
425	4-1/2	5	1/4	8-425 N90	AN6246-88	425	MS28782-88	425
426	4-5/8	5-1/8	1/4	8-426 N90	AN6246-53	426	MS28782-53	426
427	4-3/4	5-1/4	1/4	8-427 N90	AN6246-54	427	MS28782-54	427
428	4-7/8	5-3/8	1/4	8-428 N90	AN6246-55	428	MS28782-55	428
429	5	5-1/2	1/4	8-429 N90	AN6246-56	429	MS28782-56	429
430	5-1/8	5-5/8	1/4	8-430 N90	AN6246-57	430	MS28782-57	430
431	5-1/4	5-3/4	1/4	8-431 N90	AN6246-58	431	MS28782-58	431
432	5-3/8	5-7/8	1/4	8-432 N90	AN6246-59	432	MS28782-59	432
433	5-1/2	6	1/4	8-433 N90	AN6246-60	433	MS28782-60	433
434	5-5/8	6-1/8	1/4	8-434 N90	AN6246-61	434	MS28782-61	434
435	5-3/4	6-1/4	1/4	8-435 N90	AN6246-62	435	MS28782-62	435
436	5-7/8	6-3/8	1/4	8-436 N90	AN6246-63	436	MS28782-63	436
437	6	6-1/2	1/4	8-437 N90	AN6246-64	437	MS28782-64	437
438	6-1/4	6-3/4	1/4	8-438 N90	AN6246-65	438	MS28782-65	438
439	6-1/2	7	1/4	8-439 N90	AN6246-66	439	MS28782-66	439
440	6-3/4	7-1/4	1/4	8-440 N90	AN6246-67	440	MS28782-67	440
441	7	7-1/2	1/4	8-441 N90	AN6246-68	441	MS28782-68	441
442	7-1/4	7-3/4	1/4	8-442 N90	AN6246-69	442	MS28782-69	442
443	7-1/2	8	1/4	8-443 N90	AN6246-70	443	MS28782-70	443
444	7-3/4	8-1/4	1/4	8-444 N90	AN6246-71	444	MS28782-71	444
445	8	8-1/2	1/4	8-445 N90	AN6246-72	445	MS28782-72	445
446	8-1/2	9	1/4	8-446 N90	AN6246-73	446	MS28782-73	446
447	9	9-1/2	1/4	8-447 N90	AN6246-74	447	MS28782-74	447
448	9-1/2	10	1/4	8-448 N90	AN6246-75	448	MS28782-75	448
449	10	10-1/2	1/4	8-449 N90	AN6246-76	449	MS28782-76	449
450	10-1/2	11	1/4	8-450 N90	AN6246-77	450	MS28782-77	450
451	11	11-1/2	1/4	8-451 N90	AN6246-78	451	MS28782-78	451
452	11-1/2	12	1/4	8-452 N90	AN6246-79	452	MS28782-79	452
453	12	12-1/2	1/4	8-453 N90	AN6246-80	453	MS28782-80	453
454	12-1/2	13	1/4	8-454 N90	AN6246-81	454	MS28782-81	454
455	13	13-1/2	1/4	8-455 N90	AN6246-82	455	MS28782-82	455
456	13-1/2	14	1/4	8-456 N90	AN6246-83	456	MS28782-83	456
457	14	14-1/2	1/4	8-457 N90	AN6246-84	457	MS28782-84	457
458	14-1/2	15	1/4	8-458 N90	AN6246-85	458	MS28782-85	458
459	15	15-1/2	1/4	8-459 N90	AN6246-86	459	MS28782-86	459
460	15-1/2	16	1/4	8-460 N90	AN6246-87	460	MS28782-87	460



# 90 Duro. Nitrile Contoured Backup Rings - Inch



**ALTERNATIVE SEALS:**  
19-, 51-, MS28774, MS27595,  
MS28782, MS28783



Molded from a high modulus 90 durometer nitrile material, these contoured backup rings can be easily stretched for installation. The contoured design allows the ring to mate with the o-ring. Dash sizes are equivalent to AS568A o-ring sizes. For metric sizes see MBH type backups in this section.

**EXAMPLE: 8-352 N90**

Prefix	AS568 DASH #	Material
8-	352	N90
		90A NBR

Part No.	Price
8-004 N90	\$0.49
8-005 N90	\$0.50
8-006 N90	\$0.42
8-007 N90	\$0.42
8-008 N90	\$0.43
8-009 N90	\$0.43
8-010 N90	\$0.43
8-011 N90	\$0.43
8-012 N90	\$0.45
8-013 N90	\$0.45
8-014 N90	\$0.46
8-015 N90	\$0.48
8-016 N90	\$0.50
8-017 N90	\$0.51
8-018 N90	\$0.52
8-019 N90	\$0.52
8-020 N90	\$0.54
8-021 N90	\$0.57
8-022 N90	\$0.58
8-023 N90	\$0.60
8-024 N90	\$0.61
8-025 N90	\$0.62
8-026 N90	\$0.65
8-027 N90	\$0.69
8-028 N90	\$0.70
8-029 N90	\$0.75
8-030 N90	\$0.84
8-031 N90	\$0.85
8-032 N90	\$0.87
8-033 N90	\$0.90
8-034 N90	\$1.05
8-035 N90	\$1.10
8-036 N90	\$1.11
8-037 N90	\$1.17
8-038 N90	\$1.24
8-039 N90	\$1.35
8-040 N90	\$1.55
8-041 N90	\$1.88
8-042 N90	\$1.98

Part No.	Price
8-043 N90	\$2.02
8-044 N90	\$2.69
8-045 N90	\$2.81
8-046 N90	\$2.92
8-047 N90	\$2.95
8-048 N90	\$3.28
8-049 N90	\$3.33
8-050 N90	\$3.43
8-102 N90	\$0.43
8-103 N90	\$0.43
8-104 N90	\$0.43
8-105 N90	\$0.43
8-106 N90	\$0.43
8-107 N90	\$0.43
8-108 N90	\$0.43
8-109 N90	\$0.44
8-110 N90	\$0.44
8-111 N90	\$0.45
8-112 N90	\$0.45
8-113 N90	\$0.46
8-114 N90	\$0.46
8-115 N90	\$0.46
8-116 N90	\$0.48
8-117 N90	\$0.50
8-118 N90	\$0.51
8-119 N90	\$0.52
8-120 N90	\$0.54
8-121 N90	\$0.60
8-122 N90	\$0.61
8-123 N90	\$0.62
8-124 N90	\$0.65
8-125 N90	\$0.69
8-126 N90	\$0.73
8-127 N90	\$0.74
8-128 N90	\$0.74
8-129 N90	\$0.76
8-130 N90	\$0.79
8-131 N90	\$0.83
8-132 N90	\$0.83

Part No.	Price
8-133 N90	\$0.83
8-134 N90	\$0.86
8-135 N90	\$0.89
8-136 N90	\$0.92
8-137 N90	\$0.94
8-138 N90	\$1.03
8-139 N90	\$1.08
8-140 N90	\$1.11
8-141 N90	\$1.12
8-142 N90	\$1.16
8-143 N90	\$1.18
8-144 N90	\$1.21
8-145 N90	\$1.23
8-146 N90	\$1.28
8-147 N90	\$1.31
8-148 N90	\$1.31
8-149 N90	\$1.32
8-150 N90	\$1.50
8-151 N90	\$1.61
8-152 N90	\$2.15
8-153 N90	\$2.38
8-154 N90	\$3.05
8-155 N90	\$3.43
8-156 N90	\$3.91
8-157 N90	\$4.05
8-158 N90	\$4.17
8-159 N90	\$4.25
8-160 N90	\$4.34
8-161 N90	\$4.45
8-162 N90	\$4.56
8-163 N90	\$5.44
8-164 N90	\$5.48
8-165 N90	\$5.62
8-166 N90	\$5.66
8-167 N90	\$5.73
8-168 N90	\$5.78
8-169 N90	\$6.87
8-170 N90	\$7.26
8-171 N90	\$7.95

Part No.	Price
8-172 N90	\$7.95
8-173 N90	\$8.06
8-174 N90	\$6.38
8-175 N90	\$6.59
8-176 N90	\$9.56
8-177 N90	\$9.65
8-178 N90	\$9.98
8-201 N90	\$0.45
8-202 N90	\$0.45
8-203 N90	\$0.45
8-204 N90	\$0.45
8-205 N90	\$0.47
8-206 N90	\$0.47
8-207 N90	\$0.47
8-208 N90	\$0.50
8-209 N90	\$0.50
8-210 N90	\$0.50
8-211 N90	\$0.51
8-212 N90	\$0.52
8-213 N90	\$0.56
8-214 N90	\$0.57
8-215 N90	\$0.58
8-216 N90	\$0.60
8-217 N90	\$0.61
8-218 N90	\$0.62
8-219 N90	\$0.69
8-220 N90	\$0.72
8-221 N90	\$0.72
8-222 N90	\$0.75
8-223 N90	\$0.80
8-224 N90	\$0.88
8-225 N90	\$0.97
8-226 N90	\$1.04
8-227 N90	\$1.12
8-228 N90	\$1.19
8-229 N90	\$1.27
8-230 N90	\$1.28
8-231 N90	\$1.37
8-232 N90	\$1.54

90 Durometer Nitrile Contoured Backup Rings - Inch, cont'd.

Part No.	Price
8-233 N90	\$1.58
8-234 N90	\$1.67
8-235 N90	\$1.82
8-236 N90	\$1.85
8-237 N90	\$1.91
8-238 N90	\$1.93
8-239 N90	\$1.93
8-240 N90	\$2.14
8-241 N90	\$2.18
8-242 N90	\$2.35
8-243 N90	\$2.43
8-244 N90	\$2.45
8-245 N90	\$2.66
8-246 N90	\$2.76
8-247 N90	\$3.02
8-248 N90	\$3.19
8-249 N90	\$3.24
8-250 N90	\$3.67
8-251 N90	\$3.87
8-252 N90	\$4.04
8-253 N90	\$4.15
8-254 N90	\$4.45
8-255 N90	\$4.57
8-256 N90	\$4.78
8-257 N90	\$5.04
8-258 N90	\$5.09
8-259 N90	\$5.36
8-260 N90	\$5.48
8-261 N90	\$5.80
8-262 N90	\$6.33
8-263 N90	\$6.65
8-264 N90	\$7.64
8-265 N90	\$7.75
8-266 N90	\$8.14
8-267 N90	\$8.49
8-268 N90	\$8.76
8-269 N90	\$8.96
8-270 N90	\$9.39
8-271 N90	\$9.76
8-272 N90	\$10.12
8-273 N90	\$10.48
8-274 N90	\$10.87
8-275 N90	\$11.36
8-276 N90	\$11.46
8-277 N90	\$11.69
8-278 N90	\$11.79
8-279 N90	\$11.84
8-280 N90	\$12.34

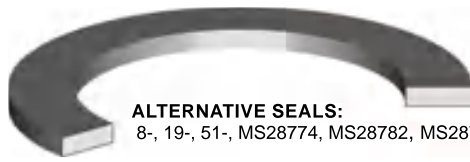
Part No.	Price
8-281 N90	\$12.64
8-282 N90	\$14.44
8-283 N90	\$16.89
8-284 N90	\$18.79
8-309 N90	\$0.50
8-310 N90	\$0.52
8-311 N90	\$0.53
8-312 N90	\$0.54
8-313 N90	\$0.58
8-314 N90	\$0.60
8-315 N90	\$0.62
8-316 N90	\$0.62
8-317 N90	\$0.66
8-318 N90	\$0.70
8-319 N90	\$0.72
8-320 N90	\$0.75
8-321 N90	\$0.80
8-322 N90	\$0.85
8-323 N90	\$0.88
8-324 N90	\$0.93
8-325 N90	\$1.03
8-326 N90	\$1.10
8-327 N90	\$1.14
8-328 N90	\$1.24
8-329 N90	\$1.37
8-330 N90	\$1.45
8-331 N90	\$1.50
8-332 N90	\$1.54
8-333 N90	\$1.60
8-334 N90	\$1.69
8-335 N90	\$1.80
8-336 N90	\$1.82
8-337 N90	\$1.92
8-338 N90	\$1.94
8-339 N90	\$2.04
8-340 N90	\$2.19
8-341 N90	\$2.22
8-342 N90	\$2.37
8-343 N90	\$2.62
8-344 N90	\$2.78
8-345 N90	\$2.89
8-346 N90	\$3.00
8-347 N90	\$3.05
8-348 N90	\$3.29
8-349 N90	\$3.31
8-350 N90	\$3.53
8-351 N90	\$3.58
8-352 N90	\$3.63

Part No.	Price
8-353 N90	\$3.87
8-354 N90	\$4.15
8-355 N90	\$4.39
8-356 N90	\$4.51
8-357 N90	\$4.80
8-358 N90	\$5.02
8-359 N90	\$5.08
8-360 N90	\$5.19
8-361 N90	\$5.26
8-362 N90	\$6.01
8-363 N90	\$6.40
8-364 N90	\$6.55
8-365 N90	\$6.94
8-366 N90	\$6.97
8-367 N90	\$6.98
8-368 N90	\$7.15
8-369 N90	\$7.39
8-370 N90	\$7.45
8-371 N90	\$7.52
8-372 N90	\$7.56
8-373 N90	\$7.60
8-374 N90	\$9.24
8-375 N90	\$9.27
8-376 N90	\$9.78
8-377 N90	\$9.71
8-378 N90	\$9.74
8-379 N90	\$9.82
8-380 N90	\$9.85
8-381 N90	\$9.95
8-382 N90	\$10.09
8-383 N90	\$10.11
8-384 N90	\$10.36
8-385 N90	\$15.66
8-386 N90	\$16.89
8-387 N90	\$17.25
8-388 N90	\$18.72
8-389 N90	\$20.30
8-390 N90	\$23.45
8-391 N90	\$24.33
8-392 N90	\$30.97
8-393 N90	\$35.27
8-394 N90	\$37.36
8-395 N90	\$40.74
8-425 N90	\$4.22
8-426 N90	\$4.31
8-427 N90	\$4.35
8-428 N90	\$4.43
8-429 N90	\$4.49

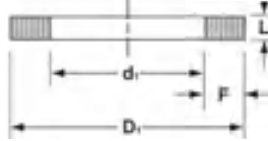
Part No.	Price
8-430 N90	\$5.16
8-431 N90	\$5.38
8-432 N90	\$5.52
8-433 N90	\$5.72
8-434 N90	\$5.75
8-435 N90	\$5.80
8-436 N90	\$5.88
8-437 N90	\$6.37
8-438 N90	\$7.50
8-439 N90	\$7.56
8-440 N90	\$7.68
8-441 N90	\$8.14
8-442 N90	\$8.53
8-443 N90	\$9.00
8-444 N90	\$9.06
8-445 N90	\$9.11
8-446 N90	\$9.17
8-447 N90	\$9.27
8-448 N90	\$9.31
8-449 N90	\$9.41
8-450 N90	\$9.51
8-451 N90	\$9.58
8-452 N90	\$9.66
8-453 N90	\$9.82
8-454 N90	\$9.97
8-455 N90	\$10.44
8-456 N90	\$10.50
8-457 N90	\$10.64
8-458 N90	\$11.15
8-459 N90	\$12.92
8-460 N90	\$13.09
8-461 N90	\$13.79
8-462 N90	\$14.54
8-463 N90	\$14.79
8-464 N90	\$15.08
8-465 N90	\$15.59
8-466 N90	\$16.33
8-467 N90	\$16.80
8-468 N90	\$17.58
8-469 N90	\$20.07
8-470 N90	\$21.52
8-471 N90	\$22.90
8-472 N90	\$24.35
8-473 N90	\$25.77
8-474 N90	\$28.48
8-475 N90	\$32.49



# MS27595 Solid PTFE Backups - Inch



**ALTERNATIVE SEALS:**  
8-, 19-, 51-, MS28774, MS28782, MS28783



These solid PTFE backup rings are machined from virgin PTFE to military drawings and are popular in commercial applications requiring low friction, fluid compatibility or high temperature. The solid design is easier to install in larger bore sizes as there are no ends to catch. These parts do not meet Mil-Spec testing requirements. Prices can be quoted for military applications requiring additional testing and certification.

**EXAMPLE: MS27595-352**

Prefix	AS568 DASH #
MS27595 -	352

Part No.	Price
MS27595-004	\$1.12
MS27595-005	\$1.12
MS27595-006	\$0.81
MS27595-007	\$1.12
MS27595-008	\$0.97
MS27595-009	\$0.98
MS27595-010	\$1.00
MS27595-011	\$1.12
MS27595-012	\$1.11
MS27595-013	\$1.16
MS27595-014	\$1.21
MS27595-015	\$1.30
MS27595-016	\$1.37
MS27595-017	\$1.40
MS27595-018	\$1.41
MS27595-019	\$1.47
MS27595-020	\$1.55
MS27595-021	\$1.84
MS27595-022	\$1.97
MS27595-023	\$2.02
MS27595-024	\$2.17
MS27595-025	\$2.20
MS27595-026	\$2.44
MS27595-027	\$2.56
MS27595-028	\$2.64
MS27595-032	\$2.77
MS27595-035	\$3.14
MS27595-036	\$9.06
MS27595-038	\$9.10
MS27595-040	\$10.98
MS27595-041	\$11.36
MS27595-044	\$12.12
MS27595-049	\$12.12
MS27595-106	\$1.16
MS27595-108	\$1.17
MS27595-109	\$1.25
MS27595-110	\$1.29
MS27595-111	\$1.28
MS27595-112	\$1.47
MS27595-113	\$1.50
MS27595-114	\$1.58
MS27595-115	\$1.64
MS27595-116	\$1.71
MS27595-117	\$1.78
MS27595-118	\$1.85
MS27595-119	\$1.89
MS27595-120	\$2.00
MS27595-121	\$2.11
MS27595-122	\$2.25
MS27595-123	\$2.46

Part No.	Price
MS27595-124	\$2.50
MS27595-125	\$2.71
MS27595-126	\$2.87
MS27595-127	\$2.90
MS27595-128	\$3.08
MS27595-129	\$3.27
MS27595-130	\$3.46
MS27595-131	\$2.55
MS27595-132	\$3.49
MS27595-133	\$1.96
MS27595-134	\$4.13
MS27595-135	\$4.20
MS27595-136	\$4.29
MS27595-137	\$4.41
MS27595-138	\$4.51
MS27595-139	\$6.63
MS27595-140	\$6.91
MS27595-141	\$7.20
MS27595-142	\$7.29
MS27595-143	\$7.48
MS27595-144	\$7.67
MS27595-145	\$8.18
MS27595-146	\$8.92
MS27595-147	\$9.04
MS27595-148	\$9.12
MS27595-149	\$9.22
MS27595-150	\$10.57
MS27595-151	\$10.93
MS27595-152	\$11.36
MS27595-154	\$12.11
MS27595-156	\$15.57
MS27595-157	\$16.86
MS27595-158	\$17.05
MS27595-166	\$21.43
MS27595-210	\$2.05
MS27595-211	\$2.31
MS27595-212	\$2.42
MS27595-213	\$2.43
MS27595-214	\$2.23
MS27595-215	\$2.75
MS27595-216	\$2.96
MS27595-217	\$3.16
MS27595-218	\$3.08
MS27595-219	\$3.75
MS27595-220	\$2.78
MS27595-221	\$4.04
MS27595-222	\$4.19
MS27595-223	\$4.43
MS27595-224	\$4.58
MS27595-225	\$4.74

Part No.	Price
MS27595-226	\$4.82
MS27595-227	\$5.00
MS27595-228	\$5.06
MS27595-229	\$6.13
MS27595-230	\$6.80
MS27595-231	\$6.89
MS27595-232	\$7.08
MS27595-233	\$7.13
MS27595-234	\$7.44
MS27595-235	\$7.48
MS27595-236	\$7.57
MS27595-237	\$7.75
MS27595-238	\$8.11
MS27595-239	\$8.11
MS27595-240	\$8.30
MS27595-241	\$8.75
MS27595-242	\$9.41
MS27595-243	\$9.88
MS27595-244	\$10.27
MS27595-245	\$10.33
MS27595-246	\$10.47
MS27595-247	\$10.74
MS27595-248	\$12.84
MS27595-249	\$14.01
MS27595-250	\$15.14
MS27595-251	\$15.73
MS27595-252	\$16.43
MS27595-253	\$16.60
MS27595-254	\$17.59
MS27595-255	\$18.79
MS27595-256	\$19.07
MS27595-257	\$20.97
MS27595-258	\$21.63
MS27595-259	\$23.21
MS27595-260	\$23.46
MS27595-261	\$26.90
MS27595-262	\$32.63
MS27595-263	\$33.46
MS27595-264	\$33.78
MS27595-265	\$34.41
MS27595-266	\$44.37
MS27595-267	\$35.66
MS27595-268	\$45.45
MS27595-269	\$40.85
MS27595-270	\$59.58
MS27595-272	\$60.30

Part No.	Price
MS27595-273	\$66.32
MS27595-277	\$68.29
MS27595-278	\$68.68
MS27595-319	\$8.40
MS27595-321	\$8.45
MS27595-324	\$8.46
MS27595-325	\$8.50
MS27595-326	\$8.59
MS27595-327	\$9.14
MS27595-328	\$9.18
MS27595-329	\$9.21
MS27595-330	\$9.89
MS27595-331	\$9.99
MS27595-332	\$10.01
MS27595-333	\$10.09
MS27595-334	\$10.16
MS27595-335	\$10.78
MS27595-336	\$10.99
MS27595-337	\$11.97
MS27595-338	\$9.74
MS27595-339	\$11.53
MS27595-340	\$11.73
MS27595-341	\$11.82
MS27595-342	\$11.93
MS27595-343	\$12.32
MS27595-344	\$12.71
MS27595-345	\$13.12
MS27595-346	\$13.51
MS27595-347	\$13.91
MS27595-348	\$14.30
MS27595-349	\$14.59
MS27595-350	\$19.17
MS27595-351	\$23.43
MS27595-354	\$23.87
MS27595-357	\$27.24
MS27595-358	\$24.19
MS27595-359	\$24.99
MS27595-360	\$24.28
MS27595-361	\$30.67
MS27595-363	\$35.07
MS27595-364	\$27.97
MS27595-365	\$30.13
MS27595-366	\$42.85
MS27595-367	\$46.33
MS27595-368	\$50.90
MS27595-369	\$59.00

## MS27595 Solid PTFE Backups, cont'd.

Part No.	Price
MS27595-370	\$64.15
MS27595-377	\$68.17
MS27595-378	\$70.02
MS27595-379	\$55.66
MS27595-382	\$73.54
MS27595-383	\$80.12
MS27595-425	\$25.83
MS27595-426	\$27.36
MS27595-427	\$28.60
MS27595-428	\$30.40
MS27595-429	\$32.08
MS27595-430	\$34.16

Part No.	Price
MS27595-431	\$35.56
MS27595-432	\$35.94
MS27595-433	\$36.49
MS27595-434	\$37.38
MS27595-435	\$38.31
MS27595-436	\$40.62
MS27595-437	\$43.14
MS27595-438	\$45.67
MS27595-439	\$48.20
MS27595-440	\$49.48
MS27595-441	\$50.75
MS27595-442	\$52.02

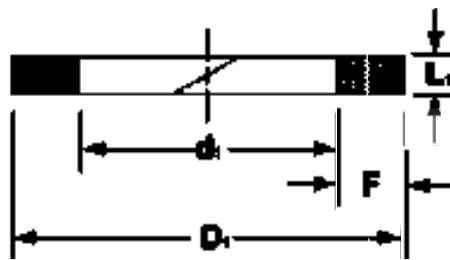
Part No.	Price
MS27595-443	\$53.29
MS27595-444	\$54.55
MS27595-445	\$55.82
MS27595-446	\$63.42
MS27595-447	\$71.04
MS27595-448	\$67.21
MS27595-449	\$77.65
MS27595-450	\$78.72
MS27595-451	\$84.73
MS27595-452	\$88.19
MS27595-453	\$94.87
MS27595-454	\$94.63

Part No.	Price
MS27595-455	\$108.44
MS27595-456	\$118.76
MS27595-457	\$125.95
MS27595-458	\$145.07
MS27595-459	\$147.00
MS27595-460	\$148.93
MS27595-462	\$153.56
MS27595-465	\$157.93
MS27595-468	\$161.15
MS27595-469	\$378.10
MS27595-472	\$214.05

## MS28774 Split PTFE Backups - Inch



EXAMPLE: MS28774-352	
Prefix	AS568 DASH #
MS28774 -	352



These split PTFE backup rings are machined from virgin PTFE to military specifications and are popular in commercial applications requiring low friction, fluid compatibility or high temperature. These parts do not meet Mil-Spec testing requirements. Prices can be quoted for Mil-Spec applications requiring additional testing and certification.

Part No.	Price
MS28774-004	\$1.38
MS28774-005	\$1.38
MS28774-006	\$1.38
MS28774-007	\$1.42
MS28774-008	\$1.44
MS28774-009	\$1.47
MS28774-010	\$1.47
MS28774-011	\$1.59
MS28774-012	\$1.65
MS28774-013	\$1.75
MS28774-014	\$1.89
MS28774-015	\$2.01
MS28774-016	\$2.02
MS28774-017	\$2.04
MS28774-018	\$2.09
MS28774-019	\$2.14
MS28774-020	\$2.35
MS28774-021	\$2.38
MS28774-022	\$2.41
MS28774-023	\$2.54
MS28774-024	\$2.60
MS28774-025	\$2.72
MS28774-026	\$2.82
MS28774-027	\$3.04
MS28774-028	\$3.34
MS28774-029	\$3.43
MS28774-031	\$3.97
MS28774-036	\$4.88
MS28774-042	\$5.92
MS28774-108	\$1.14
MS28774-109	\$1.23
MS28774-110	\$1.32
MS28774-111	\$1.47
MS28774-112	\$1.70
MS28774-113	\$1.97

Part No.	Price
MS28774-114	\$2.22
MS28774-115	\$2.48
MS28774-116	\$2.65
MS28774-117	\$2.81
MS28774-118	\$3.05
MS28774-119	\$3.22
MS28774-120	\$3.43
MS28774-121	\$3.56
MS28774-122	\$3.72
MS28774-123	\$3.87
MS28774-124	\$3.93
MS28774-125	\$4.02
MS28774-126	\$4.25
MS28774-127	\$4.38
MS28774-128	\$4.59
MS28774-129	\$4.80
MS28774-130	\$4.94
MS28774-131	\$5.04
MS28774-132	\$5.32
MS28774-133	\$5.56
MS28774-134	\$5.72
MS28774-135	\$5.93
MS28774-136	\$6.15
MS28774-137	\$6.50
MS28774-138	\$6.82
MS28774-139	\$7.25
MS28774-140	\$7.52
MS28774-141	\$7.77
MS28774-142	\$8.00
MS28774-143	\$8.21
MS28774-144	\$8.32
MS28774-145	\$8.74
MS28774-146	\$9.35
MS28774-154	\$11.25
MS28774-162	\$14.73

Part No.	Price
MS28774-204	\$2.59
MS28774-206	\$2.69
MS28774-208	\$2.96
MS28774-210	\$3.10
MS28774-211	\$3.36
MS28774-212	\$3.48
MS28774-213	\$3.58
MS28774-214	\$3.67
MS28774-215	\$3.72
MS28774-216	\$3.74
MS28774-217	\$4.01
MS28774-218	\$4.10
MS28774-219	\$4.20
MS28774-220	\$4.40
MS28774-221	\$4.56
MS28774-222	\$4.70
MS28774-223	\$4.86
MS28774-224	\$4.96
MS28774-225	\$5.18
MS28774-226	\$5.34
MS28774-227	\$5.54
MS28774-228	\$5.67
MS28774-229	\$5.91
MS28774-230	\$6.07
MS28774-231	\$6.48
MS28774-232	\$6.75
MS28774-233	\$7.15
MS28774-234	\$7.50
MS28774-235	\$7.83
MS28774-236	\$8.13
MS28774-237	\$8.38
MS28774-238	\$8.64
MS28774-239	\$8.99
MS28774-240	\$9.31
MS28774-241	\$9.54

Part No.	Price
MS28774-242	\$9.81
MS28774-243	\$10.14
MS28774-244	\$10.60
MS28774-245	\$10.92
MS28774-246	\$11.28
MS28774-247	\$11.82
MS28774-271	\$49.28
MS28774-272	\$50.52
MS28774-324	\$7.29
MS28774-325	\$7.90
MS28774-326	\$7.94
MS28774-327	\$8.09
MS28774-328	\$8.08
MS28774-329	\$8.55
MS28774-330	\$8.84
MS28774-331	\$9.05
MS28774-332	\$9.46
MS28774-333	\$9.73
MS28774-334	\$10.11
MS28774-335	\$10.86
MS28774-336	\$10.99
MS28774-337	\$11.25
MS28774-338	\$11.80
MS28774-339	\$12.06
MS28774-340	\$12.34
MS28774-341	\$12.60
MS28774-342	\$12.76
MS28774-343	\$13.04
MS28774-344	\$13.15
MS28774-345	\$13.20
MS28774-346	\$13.74
MS28774-347	\$18.09
MS28774-348	\$18.20
MS28774-349	\$19.11
MS28774-355	\$20.72

## MS28774 Split PTFE Backups, cont'd.

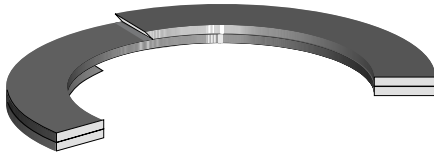
Part No.	Price
MS28774-360	\$23.86
MS28774-362	\$29.00
MS28774-367	\$36.47
MS28774-379	\$84.26
MS28774-425	\$26.24
MS28774-426	\$26.24
MS28774-427	\$27.64
MS28774-428	\$30.49

Part No.	Price
MS28774-429	\$31.67
MS28774-430	\$31.35
MS28774-431	\$33.29
MS28774-432	\$35.21
MS28774-433	\$39.20
MS28774-434	\$53.45
MS28774-435	\$42.74
MS28774-436	\$43.70

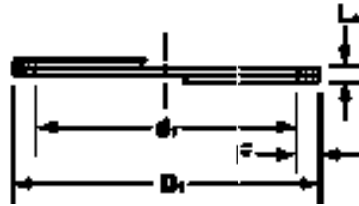
Part No.	Price
MS28774-437	\$44.67
MS28774-438	\$46.31
MS28774-439	\$46.95
MS28774-440	\$48.28
MS28774-441	\$65.57
MS28774-442	\$74.50
MS28774-443	\$77.19
MS28774-444	\$77.73

Part No.	Price
MS28774-446	\$81.66
MS28774-447	\$93.29
MS28774-448	\$100.62
MS28774-450	\$140.18
MS28774-451	\$142.41
MS28774-452	\$146.03
MS28774-454	\$150.00
MS28774-455	\$165.18

## MS28782 Spiral PTFE Backups - Inch



**ALTERNATIVE SEALS:**  
8-, 19-, 51-, MS28774, MS28783, MS27595



EXAMPLE: MS28782-15	
Prefix	AN # System
MS28782 -	15

These spiral PTFE backup rings are machined from virgin PTFE to military drawings and are popular in commercial applications requiring low friction, fluid compatibility or high temperature. The spiral design allows for ease of installation. These parts do not meet Mil-Spec testing requirements. Prices can be quoted for Mil-Spec applications requiring additional testing and certification.

Part No.	O-Ring Dash #	Price
MS28782-1	-006	\$3.73
MS28782-2	-007	\$3.83
MS28782-3	-008	\$6.15
MS28782-4	-009	\$3.98
MS28782-5	-010	\$6.41
MS28782-6	-011	\$6.54
MS28782-7	-012	\$4.05
MS28782-8	-110	\$6.61
MS28782-9	-111	\$6.67
MS28782-10	-112	\$5.35
MS28782-11	-113	\$6.81
MS28782-12	-114	\$5.74
MS28782-13	-115	\$5.87
MS28782-14	-116	\$5.93
MS28782-15	-210	\$6.06
MS28782-16	-211	\$6.65
MS28782-17	-212	\$6.80
MS28782-18	-213	\$6.86

Part No.	O-Ring Dash #	Price
MS28782-19	-214	\$6.96
MS28782-20	-215	\$7.00
MS28782-21	-216	\$8.30
MS28782-22	-217	\$7.12
MS28782-23	-218	\$7.13
MS28782-24	-219	\$6.88
MS28782-25	-220	\$6.97
MS28782-26	-221	\$9.17
MS28782-27	-222	\$6.56
MS28782-28	-325	\$16.21
MS28782-29	-326	\$6.84
MS28782-30	-327	\$10.14
MS28782-31	-328	\$10.25
MS28782-32	-329	\$6.45
MS28782-33	-330	\$12.87
MS28782-34	-331	\$13.48
MS28782-35	-332	\$9.39
MS28782-36	-333	\$10.66

Part No.	O-Ring Dash #	Price
MS28782-37	-334	\$19.66
MS28782-38	-335	\$11.18
MS28782-39	-336	\$21.23
MS28782-40	-337	\$12.90
MS28782-41	-338	\$13.49
MS28782-42	-339	\$13.82
MS28782-43	-340	\$15.33
MS28782-44	-341	\$15.62
MS28782-45	-342	\$15.67
MS28782-46	-343	\$15.82
MS28782-47	-344	\$16.19
MS28782-48	-345	\$21.94
MS28782-49	-346	\$17.51
MS28782-50	-347	\$18.77
MS28782-51	-348	\$23.39
MS28782-52	-349	\$24.03
MS28782-53	-426	\$32.54
MS28782-54	-427	\$23.32
MS28782-55	-428	\$25.44
MS28782-56	-429	\$27.65
MS28782-57	-430	\$27.90
MS28782-58	-431	\$29.36
MS28782-59	-432	\$30.39
MS28782-60	-433	\$47.60

Part No.	O-Ring Dash #	Price
MS28782-61	-434	\$33.53
MS28782-62	-435	\$47.15
MS28782-63	-436	\$37.62
MS28782-64	-437	\$43.02
MS28782-65	-438	\$40.69
MS28782-66	-439	\$43.31
MS28782-67	-440	\$47.05
MS28782-68	-441	\$47.32
MS28782-69	-442	\$47.89
MS28782-70	-443	\$70.48
MS28782-71	-444	\$51.15
MS28782-72	-445	\$52.38
MS28782-73	-446	\$53.03
MS28782-74	-447	\$53.76
MS28782-75	-448	\$54.48
MS28782-76	-449	\$55.14
MS28782-78	-451	\$57.31
MS28782-79	-452	\$57.96
MS28782-80	-453	\$74.14
MS28782-81	-454	\$58.80
MS28782-82	-455	\$58.91
MS28782-83	-456	\$59.28
MS28782-84	-457	\$59.98
MS28782-85	-458	\$60.62
MS28782-86	-459	\$61.31
MS28782-87	-460	\$62.72
MS28782-88	-425	\$32.87

## MS28783 Spiral PTFE Backups - Inch

Part No.	O-Ring Dash #	Price
MS28783-1	-223	\$9.51
MS28783-2	-224	\$9.69
MS28783-3	-225	\$10.84
MS28783-4	-226	\$6.43
MS28783-5	-227	\$11.07
MS28783-6	-228	\$11.90
MS28783-7	-229	\$12.27

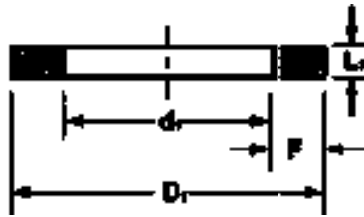
Part No.	O-Ring Dash #	Price
MS28783-8	-230	\$12.83
MS28783-9	-231	\$13.31
MS28783-10	-232	\$11.06
MS28783-11	-233	\$13.96
MS28783-12	-234	\$14.04
MS28783-13	-235	\$14.68
MS28783-14	-236	\$14.97

Part No.	O-Ring Dash #	Price
MS28783-15	-237	\$15.25
MS28783-16	-238	\$13.63
MS28783-17	-239	\$16.13
MS28783-18	-240	\$12.12
MS28783-19	-241	\$16.69
MS28783-20	-242	\$17.10
MS28783-21	-243	\$17.38

Part No.	O-Ring Dash #	Price
MS28783-22	-244	\$17.68
MS28783-23	-245	\$18.32
MS28783-24	-246	\$18.60
MS28783-25	-247	\$21.84
MS28783-26	-248	\$21.50
MS28783-30	-252	\$23.49
MS28783-36	-258	\$30.19

# PTFE Backup Rings for U-Cups - Inch

EXAMPLE: BU-2000-2375-062-T				
Prefix	ID	OD	HT	Material
BU-	2000	- 2375	- 062	- T
	2"	2-3/8"	1/16"	PTFE



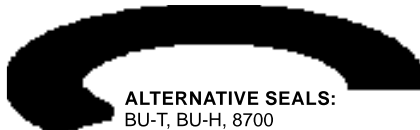
These solid backup rings are machined from virgin PTFE and are normally used with 8400 and 6226 series U-Cups when additional extrusion resistance is required. Parts marked with suffix "S" are split.

ALTERNATIVE SEALS: 8700, BU-N, BU-H

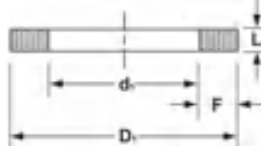
Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
BU-0395-0554-050-T	0.395	0.554	0.050	\$4.62
BU-0500-1000-062-T	0.500	1.000	0.062	\$10.60
BU-0625-0875-062-T	0.625	0.875	0.062	\$10.60
BU-0750-1000-031-T	0.750	1.000	0.031	\$12.67
BU-0750-1000-062-T	0.750	1.000	0.062	\$14.16
BU-0875-1125-020-T	0.875	1.125	0.020	\$10.62
BU-0875-1120-060-1@1	0.875	1.125	0.060	\$12.55
BU-1000-1250-060-T	1.000	1.250	0.060	\$8.93
BU-1000-1312-062-T	1.000	1.312	0.062	\$8.75
BU-1125-1381-062-1@1	1.125	1.381	0.062	\$15.15
BU-1187-1500-062-T	1.187	1.500	0.062	\$16.07
BU-1250-1750-062-T	1.250	1.750	0.062	\$16.20
BU-1375-1625-093-T	1.375	1.625	0.093	\$15.30
BU-1375-1687-062-T	1.375	1.687	0.062	\$15.98
BU-1375-1750-062-T	1.375	1.750	0.062	\$16.14
BU-1500-1875-062-T	1.500	1.875	0.062	\$18.48
BU-1625-2000-062-T	1.625	2.000	0.062	\$15.77
BU-1750-2125-062-T	1.750	2.125	0.062	\$17.27
BU-1875-2250-092-T	1.875	2.250	0.092	\$18.11
BU-2000-2375-062-T	2.000	2.375	0.062	\$17.34
BU-2125-2500-062-T	2.125	2.500	0.062	\$18.05
BU-2250-2750-062-T	2.250	2.750	0.062	\$18.50
BU-2250-2750-125-T	2.250	2.750	0.125	\$33.02
BU-2499-2730-150-T	2.499	2.730	0.150	\$18.60
BU-2500-2875-062-T	2.500	2.875	0.062	\$31.92
BU-2500-2937-062-T	2.500	2.937	0.062	\$18.87
BU-2500-3000-062-T	2.500	3.000	0.062	\$17.55
BU-2562-3000-062-T	2.562	3.000	0.062	\$19.06
BU-2750-3250-062-T	2.750	3.250	0.062	\$20.86
BU-2812-3250-062-T	2.812	3.250	0.062	\$12.67
BU-3000-3437-062-T	3.000	3.437	0.062	\$19.30
BU-3000-3500-062-T	3.000	3.500	0.062	\$20.06
BU-3250-3750-062-T	3.250	3.750	0.062	\$21.36
BU-3250-3875-062-T	3.250	3.875	0.062	\$21.87
BU-3500-3875-062-T	3.500	3.875	0.062	\$34.44
BU-3500-4000-062-T	3.500	4.000	0.062	\$21.62

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
BU-3625-4000-062-T	3.625	4.000	0.062	\$30.84
BU-3875-4500-125-T	3.875	4.500	0.125	\$53.79
BU-4000-4500-062-T	4.000	4.500	0.062	\$23.84
BU-4250-4500-062-T	4.250	4.500	0.062	\$22.76
BU-4250-4750-062-T	4.250	4.750	0.062	\$25.68
BU-4250-5000-125-T	4.250	5.000	0.125	\$37.64
BU-4437-5000-062-T	4.437	5.000	0.062	\$29.83
BU-4500-4875-125-T	4.500	4.875	0.125	\$37.72
BU-4500-5000-062-T	4.500	5.000	0.062	\$27.53
BU-4500-5000-108-T-S	4.500	5.000	0.108	\$31.08
BU-5000-5562-062-T	5.000	5.562	0.062	\$32.62
BU-5125-6000-125-T-S	5.125	6.000	0.125	\$57.18
BU-5250-5750-125-T-S	5.250	5.750	0.125	\$46.24
BU-5250-6000-062-T	5.250	6.000	0.062	\$43.33
BU-5375-6000-062-T	5.375	6.000	0.062	\$38.98
BU-5437-6000-062-T	5.437	6.000	0.062	\$44.12
BU-5500-6000-125-T	5.500	6.000	0.125	\$55.83
BU-6125-7000-125-T-S	6.125	7.000	0.125	\$69.80
BU-6375-7000-062-T	6.375	7.000	0.062	\$40.15
BU-6437-7000-062-T	6.437	7.000	0.062	\$46.89
BU-6500-7250-125-T	6.500	7.250	0.125	\$84.79
BU-7000-7625-062-T	7.000	7.625	0.062	\$63.02
BU-7000-8000-125-T	7.000	8.000	0.125	\$77.59
BU-7375-8000-062-T	7.375	8.000	0.062	\$45.85
BU-7500-8250-125-TFE	7.500	8.250	0.125	\$58.03
BU-7500-8500-125-T	7.500	8.500	0.125	\$59.98
BU-8000-8750-062-T	8.000	8.750	0.062	\$54.68
BU-8375-9375-187-T	8.375	9.375	0.187	\$64.81
BU-8500-9500-187-T	8.500	9.500	0.187	\$118.14
BU-9312-10000-062-T	9.312	10.000	0.062	\$59.01
BU-9375-10000-062-T	9.375	10.000	0.062	\$61.66
BU-11000-12000-062-T	11.000	12.000	0.062	\$62.62
BU-11250-12000-062-T	11.250	12.000	0.062	\$58.51
BU-13000-14000-062-T	13.000	14.000	0.062	\$80.51
BU-13187-14000-062-T	13.187	14.000	0.062	\$83.12
BU-27528-28000-108-T	27.528	28.000	0.108	\$341.71

# Nylon Backup Rings for U-Cups - Inch



ALTERNATIVE SEALS:  
BU-T, BU-H, 8700



EXAMPLE: BU-0875-1250-187-N1				
Prefix	Inside Dia	Outside Dia	Height	Material
BU-	0875	- 1250	- 187"	- N1
	7/8"	1 1/4"	3/16"	Nylon

These nylon backup rings are used to increase the pressure rating for u-cups, and are machined to close tolerances. Some sizes are stocked solid and may be split with a sharp razor knife for ease of installation. Parts marked with Suffix "S" and "@1" are split. Please consult with sales for more information. Temperature range is -40°F to +225°F.

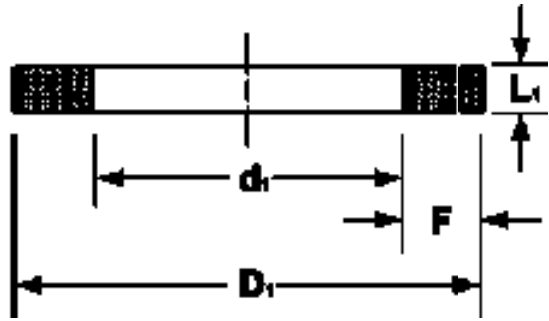
Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
BU-0875-1250-187-N1	0.875	1.250	0.187	\$7.85
BU-2500-3000-075-N@1	2.500	3.000	0.075	\$6.80
BU-2750-3375-062-N1	2.750	3.375	0.062	\$5.69
BU-3500-4000-075-N@1	3.500	4.000	0.075	\$8.42
BU-3750-4375-062-N1	3.750	4.375	0.062	\$6.20
BU-4000-4500-075-N@1	4.000	4.500	0.075	\$9.11
BU-4250-4750-075-N@1	4.250	4.750	0.075	\$10.56
BU-4500-5000-125-N@1	4.500	5.000	0.125	\$12.32
BU-4750-5375-062-N1	4.750	5.375	0.062	\$8.59

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
BU-4890-5350-156-Z@1	4.890	5.350	0.156	\$24.17
BU-5000-6000-125-N1	5.000	6.000	0.125	\$18.77
BU-5750-6375-062-N1	5.750	6.375	0.062	\$8.45
BU-6000-6500-062-N1	6.000	6.500	0.062	\$16.76
BU-6000-6750-125-N-S	6.000	6.750	0.125	\$28.41
BU-6750-7375-062-N1	6.750	7.375	0.062	\$9.94
BU-7905-8543-062-N1	7.905	8.543	0.062	\$11.49
BU-8500-9500-125-N-S	8.500	9.500	0.125	\$35.14
BU-9375-10000-062-N1	9.375	10.000	0.062	\$14.25

# 8700 Hytrel® Backup Rings - Inch



ALTERNATIVE SEALS: BU-T, BU-N



EXAMPLE: 8708-0150			
Prefix	Cross Section		Inside Diameter
87	*08	-	0150
	1/4"		1-1/2"

\* REFERS TO #/32 FOR C/S

(Coordinates with 8400 U-Cup Part# 8408-0150)

These Hytrel® rings are supplied solid and are normally used to backup 8400 series U-Cups. They are highly extrusion resistant and are compatible with water and petroleum based fluids up to temperatures of 275° F. Unlike PTFE, they can be stretched over larger diameters and will quickly return to their original size.

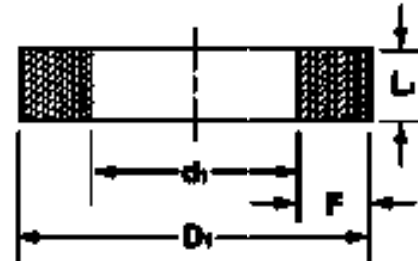
Temperature: -40° to 275°F

Part Number	Inside Diameter $d_1$	Outside Diameter $D_1$	Height $L_1$	Price
8704-0037	0.375	0.625	0.062	\$1.70
8704-0062	0.625	0.875	0.062	\$1.74
8704-0075	0.750	1.000	0.062	\$1.82
8704-0100	1.000	1.250	0.062	\$1.85
8705-0100	1.000	1.312	0.062	\$2.22
8705-0118	1.187	1.500	0.062	\$2.29
BU-1187-1687-062-H	1.187	1.687	0.062	\$4.95
8708-0125	1.250	1.750	0.062	\$3.10
8705-0137	1.375	1.687	0.062	\$2.38
8706-0137	1.375	1.750	0.062	\$2.70
8705-0150	1.500	1.812	0.062	\$2.73
8706-0150	1.500	1.875	0.062	\$2.78
8708-0150	1.500	2.000	0.062	\$3.26
8706-0162	1.625	2.000	0.062	\$2.86
8706-0175	1.750	2.125	0.062	\$2.98
8708-0175	1.750	2.250	0.062	\$18.52
8706-0200	2.000	2.375	0.062	\$3.19
8708-0200	2.000	2.500	0.062	\$3.62
BU-2062-2562-093-H	2.062	2.562	0.093	\$8.49
8706-0212	2.125	2.500	0.062	\$3.22
8706-0215	2.156	2.531	0.062	\$3.34
8708-0225	2.250	2.750	0.062	\$13.50

Part Number	Inside Diameter $d_1$	Outside Diameter $D_1$	Height $L_1$	Price
BU-2500-2875-062-H	2.500	2.875	0.062	\$3.45
8707-0250	2.500	2.937	0.062	\$3.66
8707-0281	2.812	3.250	0.062	\$3.82
BU-3000-3750-093-H	3.000	3.750	0.093	\$9.60
8708-0350	3.500	4.000	0.062	\$6.15
8709-0443	4.437	5.000	0.062	\$20.07
8709-0446	4.468	5.031	0.062	\$9.82
8708-0450	4.500	5.000	0.062	\$6.71
8709-0500	5.000	5.562	0.062	\$7.71
8710-0537	5.375	6.000	0.062	\$7.87
8710-0540	5.406	6.031	0.062	\$8.00
8709-0543	5.437	6.000	0.062	\$9.70
8710-0550	5.500	6.125	0.062	\$12.21
8710-0637	6.375	7.000	0.062	\$33.75
8709-0643	6.437	7.000	0.062	\$41.62
8710-0700	7.000	7.625	0.062	\$43.39
8710-0737	7.375	8.000	0.062	\$38.36
8711-0931	9.312	10.000	0.062	\$56.77
8716-1100	11.000	12.000	0.062	\$73.62
8712-1125	11.250	12.000	0.062	\$55.94
8713-1318	13.187	14.000	0.062	\$65.91



# Urethane Modular Backup Rings - Inch



EXAMPLE: 25002750-MB			
Cross Section	Inside Diameter		Suffix
250	02750	-	MB
1/4	2-3/4"		

Made from 65 D durometer urethane, these devices are designed to absorb shock loads and are used to prevent extrusion of loaded lip seals at high pressure. Please contact Sales for other compounds and sizes. Parts with a 4652 suffix are manufactured from polymite.

Temperature: -65° to 200°F

Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	Height $L_1$	Price
<b>1/8" CROSS SECTION ("F")</b>				
12500250-MB	0.250	0.500	0.125	\$7.05
12500312-MB	0.312	0.562	0.125	\$28.54
12500500-MB	0.500	0.750	0.125	\$7.05
12500625-MB	0.625	0.875	0.125	\$7.68
12500687-MB	0.687	0.937	0.125	\$7.79
12500812-MB	0.812	1.062	0.125	\$22.44
12500937-MB	0.937	1.187	0.125	\$8.30
12501000-MB	1.000	1.250	0.125	\$8.45
12501375-MB	1.375	1.625	0.125	\$35.74
12501500-MB	1.500	1.750	0.125	\$9.51
<b>3/16" CROSS SECTION ("F")</b>				
18701250-MB	1.250	1.625	0.187	\$10.42
18701500-MB	1.500	1.875	0.187	\$10.52
18701625-MB	1.625	2.000	0.187	\$10.79
18701875-MB	1.875	2.250	0.187	\$11.39
18702000-MB	2.000	2.375	0.187	\$11.42
18702500-MB	2.500	2.875	0.187	\$12.83
18702625-MB	2.625	3.000	0.187	\$13.20
18702750-MB	2.750	3.125	0.187	\$13.81
18703000-MB	3.000	3.375	0.187	\$15.32
18703125-MB	3.125	3.500	0.187	\$17.95
18703250-MB	3.250	3.625	0.187	\$33.97
18703500-MB	3.500	3.875	0.187	\$19.16
18703625-MB	3.625	4.000	0.187	\$20.07

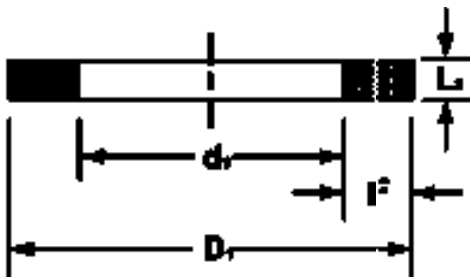
Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	Height $L_1$	Price
<b>1/4" CROSS SECTION ("F")</b>				
25000750-MB	0.750	1.250	0.250	\$9.92
25000875-MB	0.875	1.375	0.250	\$10.01
25001000-MB	1.000	1.500	0.250	\$10.40
25001250-MB	1.250	1.750	0.250	\$11.15
25001375-MB	1.375	1.875	0.250	\$12.12
25001500-MB	1.500	2.000	0.250	\$21.30
25001750-MB	1.750	2.250	0.250	\$21.80
25002000-MB	2.000	2.500	0.250	\$15.49
25002250-MB	2.250	2.750	0.250	\$16.64
25002500-MB	2.500	3.000	0.250	\$18.19
25002750-MB	2.750	3.250	0.250	\$36.93
25002875-MB	2.875	3.375	0.250	\$38.57
25003000-MB	3.000	3.500	0.250	\$19.21
25003500-MB	3.500	4.000	0.250	\$19.52
25003750-MB	3.750	4.250	0.250	\$26.44
25004000-MB	4.000	4.500	0.250	\$25.80
25004250-MB	4.250	4.750	0.250	\$27.76
25004500-MB	4.500	5.000	0.250	\$29.23
25005000-MB	5.000	5.500	0.250	\$60.64
25005250-187MB	5.250	5.750	0.187	\$46.88
25005250-MB	5.250	5.750	0.250	\$34.21
25005500-MB	5.500	6.000	0.250	\$37.23
25007500-MB	7.500	8.000	0.250	\$55.84
25007750-MB	7.750	8.250	0.250	\$57.21

**Urethane Modular Backup Rings - Inch, cont'd.**

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
<b>5/16" CROSS SECTION ("F")</b>				
31201250-MB	1.250	1.875	0.312	\$12.91
31201500-MB	1.500	2.125	0.312	\$30.93
31201750-MB	1.750	2.375	0.312	\$30.93
31202000-MB	2.000	2.625	0.312	\$30.83
31202375-MB	2.375	3.000	0.312	\$20.09
31202500-MB	2.500	3.125	0.312	\$22.15
31203000-MB	3.000	3.625	0.312	\$39.41
31203125-MB	3.125	3.750	0.312	\$44.78
31203500-MB	3.500	4.125	0.312	\$41.46
31203750-MB	3.750	4.375	0.312	\$30.51
31204125-MB	4.125	4.750	0.312	\$30.96
31204375-MB	4.375	5.000	0.312	\$36.79
31204500-MB	4.500	5.125	0.312	\$34.90
31205375-MB	5.375	6.000	0.312	\$44.61
<b>3/8" CROSS SECTION ("F")</b>				
37501000-MB	1.000	1.750	0.375	\$45.82
37501250-MB	1.250	2.000	0.375	\$17.20
37501375-MB	1.375	2.125	0.375	\$17.85
37501500-MB	1.500	2.250	0.375	\$19.40
37501750-MB	1.750	2.500	0.375	\$22.24
37502000-MB	2.000	2.750	0.375	\$25.24
37502250-MB	2.250	3.000	0.375	\$28.34
37502375-MB	2.375	3.125	0.375	\$29.16
37502500-MB	2.500	3.250	0.375	\$29.37
37502625-MB	2.625	3.375	0.375	\$30.90
37502750-MB	2.750	3.500	0.375	\$33.73
37502750-250MB	2.750	3.500	0.250	\$45.14
37503000-MB	3.000	3.750	0.375	\$32.21
37503500-MB	3.500	4.250	0.375	\$45.70
37503750-MB	3.750	4.500	0.375	\$43.37
37504250-MB	4.250	5.000	0.375	\$51.00
37504500-MB	4.500	5.250	0.375	\$51.47
37504750-MB	4.750	5.500	0.375	\$58.34
37505000-250MB	5.000	5.750	0.250	\$78.33
37505000-MB	5.000	5.750	0.375	\$60.82
37505250-MB	5.250	6.000	0.375	\$60.64
37506000-MB	6.000	6.750	0.375	\$77.58
37506250-MB	6.250	7.000	0.375	\$82.08
37506500-MB	6.500	7.250	0.375	\$94.02

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
<b>3/8" CROSS SECTION ("F")</b>				
37507000-MB	7.000	7.750	0.375	\$76.10
37507250-MB	7.250	8.000	0.375	\$98.91
37507500-MB	7.500	8.250	0.375	\$103.00
37507750-MB	7.750	8.500	0.375	\$114.37
37508000-MB	8.000	8.750	0.375	\$123.22
37509000-MB	9.000	9.750	0.375	\$115.52
37509250-MB	9.250	10.000	0.375	\$115.82
37511000-MB	11.000	11.750	0.375	\$123.63
37511250-MB	11.250	12.000	0.375	\$129.96
<b>7/16" CROSS SECTION ("F")</b>				
43703875-266MB	3.875	4.750	0.266	\$47.50
<b>1/2" CROSS SECTION ("F")</b>				
50002000-MB	2.000	3.000	0.500	\$36.00
50002250-MB	2.250	3.250	0.500	\$39.44
50002500-MB	2.500	3.500	0.500	\$43.10
50003000-MB	3.000	4.000	0.500	\$52.27
50003500-MB	3.500	4.500	0.500	\$56.91
50004000-MB	4.000	5.000	0.500	\$64.49
50004500-MB	4.500	5.500	0.500	\$71.51
50005000-MB	5.000	6.000	0.500	\$78.65
50005500-MB	5.500	6.500	0.500	\$85.43
50006000-MB	6.000	7.000	0.500	\$89.78
50007000-MB	7.000	8.000	0.500	\$105.90
50008000-MB	8.000	9.000	0.500	\$108.04
50008000-MB 4652	8.000	9.000	0.500	\$128.75
50008500-MB	8.500	9.500	0.500	\$117.78
50009000-MB	9.000	10.000	0.500	\$120.20
50009500-MB	9.500	10.500	0.500	\$167.44
50010000-MB	10.000	11.000	0.500	\$133.41
50010500-MB	10.500	11.500	0.500	\$139.86
50010500-MB 4652	10.500	11.500	0.500	\$171.48
50011500-MB	11.500	12.500	0.500	\$152.88
50012000-MB	12.000	13.000	0.500	\$159.38
50013000-MB 4652	13.000	14.000	0.500	\$201.69
50013500-MB	13.500	14.500	0.500	\$207.24
50015000-MB	15.000	16.000	0.500	\$251.66
50019000-MB	19.000	20.000	0.500	\$312.57
<b>5/8" CROSS SECTION ("F")</b>				
62512750-MB	12.750	14.000	0.625	\$252.91

# MBH Hytrel® Backup Rings - Metric



Made from 55 shore D Hytrel®, these rings are extremely resistant to extrusion, compatible with water and petroleum based fluids, and can be used at temperatures to 275°F. Unlike PTFE, they can be stretched over larger diameters and will return quickly to their original size.



Temperature: -40° to 275°F  
ALTERNATIVE SEALS: MBT, MBN

EXAMPLE: MBH-50X55X1.5				
Prefix	Inside Diameter		Outside Diameter	Height
MBH-	50	x	55	x 1.5
	50mm		55mm	1.5mm

Part Number	ID d <sub>1</sub>	OD D <sub>1</sub>	HT L <sub>1</sub>	Price
MBH-15X19X1.2	15	19	1.2	\$2.90
MBH-16X20X1.2	16	20	1.2	\$2.96
MBH-20X25X1.5	20	25	1.5	\$3.32
MBH-22X30X1.5	22	30	1.5	\$3.78
MBH-25X30X1.5	25	30	1.5	\$1.28
MBH-25X33X1.5	25	33	1.5	\$2.00
MBH-30X35X1.5	30	35	1.5	\$1.28
MBH-30X40X1.5	30	40	1.5	\$1.35
MBH-35X40X1.5	35	40	1.5	\$2.03
MBH-35.5X45X1.5	35.5	45	1.5	\$1.42
MBH-38X50X1.5	38	50	1.5	\$1.23
MBH-40X45X1.5	40	45	1.5	\$1.50
MBH-40X50X1.5	40	50	1.5	\$1.66
MBH-40X53X2.5	40	53	2.5	\$2.43
MBH-42X55X2*	42	55	2	\$2.42
MBH-42X55X2.5	42	55	2.5	\$2.43
MBH-44X50X1.5	44	50	1.5	\$2.79
MBH-45X50X1.5	45	50	1.5	\$3.22
MBH-45X55X1.5	45	55	1.5	\$1.74
MBH-49X55X1.5	49	55	1.5	\$1.87
MBH-50X55X1.5	50	55	1.5	\$1.87
MBH-50X60X1.5	50	60	1.5	\$1.87
MBH-50X63X2*	50	63	2	\$1.93
MBH-50X63X2.5	50	63	2.5	\$3.22
MBH-50X65X2.5	50	65	2.5	\$2.05
MBH-53X63X1.5	53	63	1.5	\$1.51
MBH-55X60X1.5	55	60	1.5	\$1.79
MBH-55X65X1.5	55	65	1.5	\$2.23
MBH-55X70X2.5*	55	70	2.5	\$2.12
MBH-55X70X3	55	70	3	\$1.84
MBH-56X66X1.5	56	66	1.5	\$2.28
MBH-58X63X1.5	58	63	1.5	\$2.46
MBH-60X65X1.5	60	65	1.5	\$1.74
MBH-60X70X1.5	60	70	1.5	\$1.84
MBH-60X73X3	60	73	3	\$3.18
MBH-60X75X2.5*	60	75	2.5	\$3.28
MBH-60X75X3	60	75	3	\$3.34
MBH-65X70X1.5	65	70	1.5	\$1.85
MBH-65X75X2	65	75	2	\$1.61
MBH-65X75X3	65	75	3	\$7.36
MBH-65X78X3	65	78	3	\$2.25
MBH-65X80X2.5*	65	80	2.5	\$3.38
MBH-65X80X3	65	80	3	\$2.52
MBH-70X75X1.5	70	75	1.5	\$2.60
MBH-70X80X2	70	80	2	\$5.51
MBH-70X83X3	70	83	3	\$2.32
MBH-70X85X3	70	85	3	\$1.75
MBH-75X80X1.5	75	80	1.5	\$2.11

Part Number	ID d <sub>1</sub>	OD D <sub>1</sub>	HT L <sub>1</sub>	Price
MBH-75X85X2	75	85	2	\$2.91
MBH-75X88X3	75	88	3	\$2.97
MBH-75X90X2.5*	75	90	2.5	\$3.51
MBH-75X90X3	75	90	3	\$2.33
MBH-80X85X1.5	80	85	1.5	\$2.38
MBH-80X90X2	80	90	2	\$2.66
MBH-80X93X3	80	93	3	\$3.06
MBH-80X95X2.5*	80	95	2.5	\$2.45
MBH-80X95X3	80	95	3	\$1.96
MBH-80X100X3	80	100	3	\$3.59
MBH-85X90X1.5	85	90	1.5	\$2.47
MBH-85X95X2	85	95	2	\$1.92
MBH-85X100X3	85	100	3	\$3.08
MBH-90X95X1.5	90	95	1.5	\$2.78
MBH-90X100X2	90	100	2	\$2.16
MBH-90X105X3	90	105	3	\$2.64
MBH-90X110X3	90	110	3	\$5.42
MBH-95X100X1.5	95	100	1.5	\$2.47
MBH-95X105X2	95	105	2	\$1.92
MBH-95X110X2.5*	95	110	2.5	\$1.95
MBH-95X110X3	95	110	3	\$1.63
MBH-95X115X3	95	115	3	\$3.86
MBH-100X105X1.5	100	105	1.5	\$3.11
MBH-100X110X2	100	110	2	\$1.95
MBH-100X115X3	100	115	3	\$1.69
MBH-100X120X3	100	120	3	\$3.96
MBH-105X110X1.5	105	110	1.5	\$1.91
MBH-105X115X2	105	115	2	\$2.34
MBH-105X120X3	105	120	3	\$2.65
MBH-105X125X3	105	125	3	\$4.05
MBH-110X115X1.5	110	115	1.5	\$2.13
MBH-110X120X2	110	120	2	\$3.00
MBH-110X125X3	110	125	3	\$2.99
MBH-110X130X3	110	130	3	\$1.56
MBH-115X120X1.5	115	120	1.5	\$2.33
MBH-115X125X2	115	125	2	\$2.32
MBH-120X125X1.5	120	125	1.5	\$3.04
MBH-120X130X2	120	130	2	\$3.04
MBH-120X135X3	120	135	3	\$2.96
MBH-120X140X3	120	140	3	\$4.36
MBH-125X130X1.5	125	130	1.5	\$4.05
MBH-125X135X2	125	135	2	\$2.58
MBH-125X140X2.75	125	140	2.75	\$3.03
MBH-130X135X1.5	130	135	1.5	\$3.49
MBH-130X140X2	130	140	2	\$3.00
MBH-130X145X2.75	130	145	2.75	\$2.56
MBH-130X150X3	130	150	3	\$4.56
MBH-135X140X1.5	135	140	1.5	\$2.11

Part Number	ID d <sub>1</sub>	OD D <sub>1</sub>	HT L <sub>1</sub>	Price
MBH-135X145X2	135	145	2	\$3.18
MBH-135X150X2.75	135	150	2.75	\$3.60
MBH-140X145X1.5	140	145	1.5	\$2.69
MBH-140X150X2	140	150	2	\$2.75
MBH-140X155X2.75	140	155	2.75	\$3.03
MBH-140X160X3	140	160	3	\$2.91
MBH-145X150X1.5	145	150	1.5	\$2.08
MBH-145X155X2	145	155	2	\$2.85
MBH-145X160X2.75	145	160	2.75	\$3.02
MBH-150X160X2	150	160	2	\$2.64
MBH-150X165X2.75	150	165	2.75	\$2.76
MBH-150X170X3	150	170	3	\$4.98
MBH-155X165X2	155	165	2	\$4.33
MBH-155X170X2.75	155	170	2.75	\$4.72
MBH-160X170X2	160	170	2	\$4.99
MBH-160X175X2.75	160	175	2.75	\$11.42
MBH-160X180X3	160	180	3	\$16.90
MBH-165X175X2	165	175	2	\$7.63
MBH-165X180X2.75	165	180	2.75	\$12.37
MBH-170X180X2	170	180	2	\$5.25
MBH-170X185X2.75	170	185	2.75	\$12.63
MBH-175X185X2	175	185	2	\$12.99
MBH-175X190X2*	175	190	2	\$4.98
MBH-175X190X2.75	175	190	2.75	\$12.91
MBH-180X190X2	180	190	2	\$5.35
MBH-180X195X2.75	180	195	2.75	\$12.58
MBH-180X200X3	180	200	3	\$8.90
MBH-185X195X2	185	195	2	\$8.29
MBH-185X200X2.75	185	200	2.75	\$5.48
MBH-190X200X2	190	200	2	\$5.53
MBH-190X205X2.75	190	205	2.75	\$13.14
MBH-200X210X2	200	210	2	\$13.25
MBH-200X215X2.75	200	215	2.75	\$13.52
MBH-205X220X2.75	205	220	2.75	\$9.17
MBH-210X220X2	210	220	2	\$9.21
MBH-210X225X2.75	210	225	2.75	\$14.15
MBH-220X230X2	220	230	2	\$15.42
MBH-225X240X2.75	225	240	2.75	\$15.48
MBH-230X240X2	230	240	2	\$15.50
MBH-235X250X2.75	235	250	2.75	\$15.53
MBH-240X250X2	240	250	2	\$10.41
MBH-245X260X2.75	245	260	2.75	\$16.16
MBH-250X260X2	250	260	2	\$17.79
MBH-260X270X2	260	270	2	\$18.20
MBH-265X280X2.75	265	280	2.75	\$18.90
MBH-270X280X2	270	280	2	\$19.60
MBH-280X290X2	280	290	2	\$19.71
MBH-290X300X2	290	300	2	\$19.88

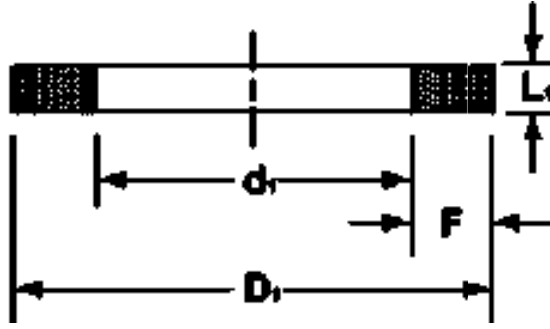
\* Items marked with an asterisk indicate limited quantity.

# MBT Solid Teflon® Backups - Metric



EXAMPLE: MBT-25X31X1.25

Prefix	Inside Diameter		Outside Diameter		Height
MBT-	25	x	31	x	1.25
	25mm		31mm		1.25mm



These solid PTFE backup rings are popular in commercial applications requiring low friction, fluid compatibility and / or high temperature. The solid design is easier to install in larger bore sizes as there are no ends to catch.

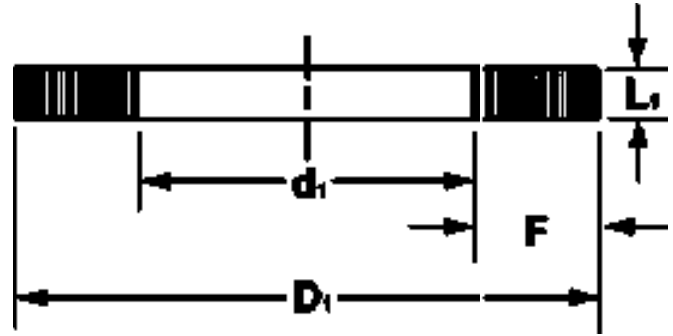
Part Number	ID d <sub>1</sub>	OD D <sub>1</sub>	Height L <sub>1</sub>	Price
MBT-8X11X1.25	8	11	1.25	\$2.55
MBT-9X12X1.25	9	12	1.25	\$2.55
MBT-10X13X1.25	10	13	1.25	\$2.55
MBT-12X16X1.25	12	16	1.25	\$2.57
MBT-14X18X1.25	14	18	1.25	\$2.57
MBT-18X22X1.25	18	22	1.25	\$2.63
MBT-20X24X1.25	20	24	1.25	\$2.63
MBT-21X25X1.25	21	25	1.25	\$2.63
MBT-22X26X1.25	22	26	1.25	\$2.62
MBT-22X28X1.25	22	28	1.25	\$2.62
MBT-24X30X1.25	24	30	1.25	\$2.71
MBT-25X30X1.25	25	30	1.25	\$1.97
MBT-25X31X1.25	25	31	1.25	\$2.71
MBT-26X32X1.25	26	32	1.25	\$2.77
MBT-28X34X1.25	28	34	1.25	\$2.77
MBT-29X35X1.25	29	35	1.25	\$2.77
MBT-30X35X1.25	30	35	1.25	\$3.40
MBT-30X36X1.25	30	36	1.25	\$2.80
MBT-31X37X1.25	31	37	1.25	\$2.80
MBT-32X38X1.25	32	38	1.25	\$2.80
MBT-34X40X1.25	34	40	1.25	\$3.02
MBT-35X40X1.25	35	40	1.25	\$2.67
MBT-35X41X1.25	35	41	1.25	\$3.02
MBT-36X42X1.25	36	42	1.25	\$3.24
MBT-38X44X1.25	38	44	1.25	\$3.24
MBT-39X45X1.25	39	45	1.25	\$3.24
MBT-40X45X1.25	40	45	1.25	\$3.24
MBT-40X50X1.9	40	50	1.90	\$3.43
MBT-41X47X1.25	41	47	1.25	\$3.46
MBT-42X48X1.25	42	48	1.25	\$3.46
MBT-44X50X1.25	44	50	1.25	\$3.89
MBT-45X50X1.25	45	50	1.25	\$3.08
MBT-45X51X1.25	45	51	1.25	\$3.93
MBT-45X55X1.9	45	55	1.90	\$6.07
MBT-48X54X1.25	48	54	1.25	\$3.98
MBT-48X58X1.9	48	58	1.90	\$6.09
MBT-50X55X1.25	50	55	1.25	\$3.83
MBT-50X56X1.25	50	56	1.25	\$4.01
MBT-50X60X1.9	50	60	1.90	\$6.12
MBT-52X57X1.25	52	57	1.25	\$6.15
MBT-53X63X1.9	53	63	1.90	\$6.21
MBT-55X60X1.25	55	60	1.25	\$6.22
MBT-55X65X1.9	55	65	1.90	\$6.27
MBT-56X66X1.9	56	66	1.90	\$6.66
MBT-58X68X1.9	58	68	1.90	\$6.76
MBT-60X70X1.9	60	70	1.90	\$6.81
MBT-62X67X1.25	62	67	1.25	\$6.84
MBT-62X72X1.9	62	72	1.90	\$6.88
MBT-65X75X1.9	65	75	1.90	\$7.25
MBT-70X75X1.25	70	75	1.25	\$6.77
MBT-70X80X1.9	70	80	1.90	\$8.03
MBT-75X80X1.25	75	80	1.25	\$8.11
MBT-75X85X1.9	75	85	1.90	\$8.38
MBT-80X90X1.9	80	90	1.90	\$9.01
MBT-85X90X1.25	85	90	1.25	\$9.06

Part Number	ID d <sub>1</sub>	OD D <sub>1</sub>	Height L <sub>1</sub>	Price
MBT-85X95X1.9	85	95	1.90	\$9.24
MBT-90X95X1.25	90	95	1.25	\$10.14
MBT-90X100X1.9	90	100	1.90	\$10.23
MBT-95X100X1.25	95	100	1.25	\$10.31
MBT-95X105X1.9	95	105	1.90	\$10.61
MBT-100X105X1.25	100	105	1.25	\$10.79
MBT-100X110X1.9	100	110	1.90	\$11.02
MBT-102X112X1.9	102	112	1.90	\$11.44
MBT-105X110X1.25	105	110	1.25	\$9.69
MBT-105X115X1.9	105	115	1.90	\$11.89
MBT-110X115X1.25	110	115	1.25	\$9.93
MBT-110X120X1.9	110	120	1.90	\$12.09
MBT-112X122X1.9	112	122	1.90	\$12.34
MBT-115X120X1.25	115	120	1.25	\$10.19
MBT-115X125X1.9	115	125	1.90	\$12.43
MBT-120X125X1.25	120	125	1.25	\$10.44
MBT-120X130X1.9	120	130	1.90	\$13.00
MBT-125X130X1.25	125	130	1.25	\$10.71
MBT-125X135X1.9	125	135	1.90	\$13.59
MBT-128X133X1.25	128	133	1.25	\$11.23
MBT-130X135X1.25	130	135	1.25	\$11.36
MBT-130X140X1.9	130	140	1.90	\$13.84
MBT-135X140X1.25	135	140	1.25	\$12.75
MBT-135X145X1.9	135	145	1.90	\$14.42
MBT-140X145X1.25	140	145	1.25	\$11.85
MBT-140X150X1.9	140	150	1.90	\$15.03
MBT-145X150X1.25	145	150	1.25	\$13.52
MBT-145X155X1.9	145	155	1.90	\$15.53
MBT-150X160X1.9	150	160	1.90	\$15.86
MBT-155X165X1.9	155	165	1.90	\$16.37
MBT-160X170X1.9	160	170	1.90	\$17.48
MBT-165X175X1.9	165	175	1.90	\$17.76
MBT-170X180X1.9	170	180	1.90	\$18.16
MBT-175X185X1.9	175	185	1.90	\$18.48
MBT-180X190X1.9	180	190	1.90	\$19.21
MBT-185X195X1.9	185	195	1.90	\$19.49
MBT-190X200X1.9	190	200	1.90	\$20.08
MBT-195X205X1.9	195	205	1.90	\$20.62
MBT-200X210X1.9	200	210	1.90	\$21.21
MBT-205X215X1.9	205	215	1.90	\$21.59
MBT-210X220X1.9	210	220	1.90	\$22.09
MBT-215X225X1.9	215	225	1.90	\$27.61
MBT-220X230X1.9	220	230	1.90	\$23.14
MBT-225X235X1.9	225	235	1.90	\$23.33
MBT-230X240X1.9	230	240	1.90	\$24.05
MBT-235X245X1.9	235	245	1.90	\$24.57
MBT-240X250X1.9	240	250	1.90	\$25.41
MBT-245X255X1.9	245	255	1.90	\$25.92
MBT-260X270X1.9	260	270	1.90	\$28.31
MBT-270X280X1.9	270	280	1.90	\$30.12
MBT-280X290X1.9	280	290	1.90	\$33.15
MBT-290X300X1.9	290	300	1.90	\$37.45
MBT-295X305X1.9	295	305	1.90	\$41.97
MBT-300X310X1.9	300	310	1.90	\$48.27

# MBN Nylon Backup Rings - Metric



ALTERNATIVE SEALS: MBH, MBT



**EXAMPLE: MBN-35X45X1.5**

Prefix	Inside Diameter		Outside Diameter		Height
MBN-	35	x	45	x	1.5
	35mm		45mm		1.5mm

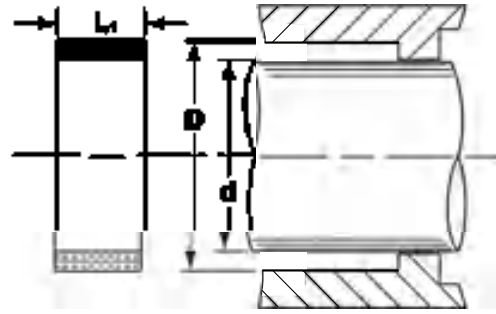
These nylon backup rings are used to increase the pressure rating for u-cups, and are machined to close tolerances. Some sizes are stocked solid and may be split with a sharp razor knife for ease of installation. Many sizes are already split. Please consult with sales for more information.

Temperature range is -65°F to +225°F.

Part Number	ID $d_1$	OD $D_1$	Height $L_1$	Price
MBN-35X45X1.5	35	45	1.5	\$6.50
MBN-36X46X3	36	46	3	\$6.70
MBN-40X50X1.5	40	50	1.5	\$7.32
MBN-40X50X3	40	50	3	\$7.13
MBN-45X60X3	45	60	3	\$13.39
MBN-50X63X2	50	63	2	\$5.83
MBN-50X63X3	50	63	3	\$5.57
MBN-50X65X3	50	65	3	\$10.14
MBN-55X68X3	55	68	3	\$10.22
MBN-55X70X3	55	70	3	\$10.33
MBN-55X71X3	55	71	3	\$9.87
MBN-60X70X4	60	70	4	\$10.80
MBN-60X73X3	60	73	3	\$10.81
MBN-60X75X3	60	75	3	\$10.81
MBN-63X78X3	63	78	3	\$10.90
MBN-65X75X3	65	75	3	\$10.90
MBN-65X78X3	65	78	3	\$10.90
MBN-65X80X3	65	80	3	\$10.90
MBN-70X80X3	70	80	3	\$11.44
MBN-70X83X3	70	83	3	\$10.90
MBN-70X85X3	70	85	3	\$10.90
MBN-70X90X3	70	90	3	\$10.90
MBN-75X85X3	75	85	3	\$12.52
MBN-75X88X3	75	88	3	\$10.90
MBN-75X90X3	75	90	3	\$10.90
MBN-75X95X3	75	95	3	\$10.90
MBN-75X100X3	75	100	3	\$19.95
MBN-80X90X3	80	90	3	\$13.17
MBN-80X93X3	80	93	3	\$12.51
MBN-80X95X3	80	95	3	\$12.51
MBN-80X100X3	80	100	3	\$12.51
MBN-85X100X3	85	100	3	\$12.51
MBN-85X105X3	85	105	3	\$12.51

Part Number	ID $d_1$	OD $D_1$	Height $L_1$	Price
MBN-90X100X3	90	100	3	\$14.46
MBN-90X105X3	90	105	3	\$12.44
MBN-90X110X3	90	110	3	\$13.03
MBN-95X110X3	95	110	3	\$12.94
MBN-95X110X4	95	110	4	\$12.94
MBN-95X115X3	95	115	3	\$12.94
MBN-98X112X3	98	112	3	\$12.94
MBN-100X115X3	100	115	3	\$13.44
MBN-100X120X3	100	120	3	\$14.12
MBN-100X125X3	100	125	3	\$24.76
MBN-105X115X3	105	115	3	\$13.72
MBN-105X120X3	105	120	3	\$13.70
MBN-105X125X3	105	125	3	\$14.73
MBN-110X125X3	110	125	3	\$14.17
MBN-110X130X3	110	130	3	\$15.13
MBN-115X130X3	115	130	3	\$14.54
MBN-115X135X3	115	135	3	\$16.34
MBN-120X135X3	120	135	3	\$14.98
MBN-120X140X3	120	140	3	\$16.33
MBN-130X145X3	130	145	3	\$16.42
MBN-130x150x3	130	150	3	\$20.03
MBN-140X150X3	140	150	3	\$21.59
MBN-140X155X3	140	155	3	\$20.30
MBN-140X160X3	140	160	3	\$26.31
MBN-150X165X3	150	165	3	\$20.10
MBN-150X170X3	150	170	3	\$28.11
MBN-160X175X3	160	175	3	\$21.43
MBN-160X180X3	160	180	3	\$29.82
MBN-160X185X3	160	185	3	\$36.77
MBN-180X200X4	180	200	4	\$38.86
MBN-190X210X5	190	210	5	\$39.20
MBN-200X215X3	200	215	3	\$21.87
MBN-200X225X4	200	225	4	\$49.50

# MDU Metal Rod Bushings - Metric



**EXAMPLE: MDU-75X80X30**

Prefix	Inside Diameter		Outside Diameter		Height
MDU-	75	x	80	x	30
	75mm		80mm		30mm

Allegheny York offers a wide variety of metric DU bushings that are commonly found in Asian-built heavy equipment. These bushings are self-lubricating and made from a bronze alloy with a PTFE lining. They are split for ease of installation. Other sizes are available upon request. Contact sales for more information.

Part Number	Rod Diameter d	Groove Diameter D	Height L <sub>1</sub>	Price
MDU-6X8X6	6	8	6	\$1.89
MDU-6X8X8	6	8	8	\$1.89
MDU-8X10X10	8	10	10	\$2.82
MDU-8X10X12	8	10	12	\$2.88
MDU-8X10X15	8	10	15	\$3.07
MDU-10X12X10	10	12	10	\$1.64
MDU-10X12X12	10	12	12	\$1.70
MDU-12X14X10	12	14	10	\$2.77
MDU-12X14X20	12	14	20	\$1.99
MDU-16X18X12	16	18	12	\$2.62
MDU-16X18X15	16	18	15	\$2.67
MDU-16X18X20	16	18	20	\$2.91
MDU-16X18X25	16	18	25	\$3.02
MDU-18X20X20	18	20	20	\$3.21
MDU-20X23X15	20	23	15	\$4.00
MDU-20X23X25	20	23	25	\$5.32
MDU-20X23X30	20	23	30	\$5.72
MDU-20X23X40	20	23	40	\$7.40
MDU-22X25X20	22	25	20	\$4.46
MDU-22X25X25	22	25	25	\$5.97
MDU-25X28X15	25	28	15	\$4.40
MDU-25X28X20	25	28	20	\$4.56
MDU-25X28X25	25	28	25	\$6.02
MDU-25X28X30	25	28	30	\$6.70
MDU-25X28X40	25	28	40	\$8.28
MDU-28X32X25	28	32	25	\$8.34
MDU-30X34X12	30	34	12	\$6.77
MDU-30X34X20	30	34	20	\$6.95
MDU-30X34X25	30	34	25	\$9.97
MDU-30X34X30	30	34	30	\$10.35
MDU-30X34X35	30	34	35	\$10.58
MDU-30X34X40	30	34	40	\$11.06
MDU-32X36X40	32	36	40	\$10.57
MDU-35X39X12	35	39	12	\$4.40
MDU-35X39X20	35	39	20	\$6.36
MDU-35X39X25	35	39	25	\$8.80

Part Number	Rod Diameter d	Groove Diameter D	Height L <sub>1</sub>	Price
MDU-35X39X30	35	39	30	\$10.34
MDU-35X39X40	35	39	40	\$13.23
MDU-35X39X50	35	39	50	\$15.85
MDU-38X42X32	38	42	32	\$11.30
MDU-40X44X12	40	44	12	\$5.03
MDU-40X44X15	40	44	15	\$6.65
MDU-40X44X20	40	44	20	\$4.20
MDU-40X44X25	40	44	25	\$9.80
MDU-40X44X30	40	44	30	\$11.34
MDU-40X44X40	40	44	40	\$12.23
MDU-40X44X50	40	44	50	\$17.78
MDU-40X45X25	40	45	25	\$11.04
MDU-40X45X30	40	45	30	\$15.52
MDU-45X50X12	45	50	12	\$5.65
MDU-45X50X20	45	50	20	\$10.49
MDU-45X50X25	45	50	25	\$12.09
MDU-45X50X30	45	50	30	\$14.22
MDU-45X50X40	45	50	40	\$17.75
MDU-45X50X50	45	50	50	\$20.01
MDU-50X55X12	50	55	12	\$9.13
MDU-50X55X20	50	55	20	\$14.24
MDU-50X55X25	50	55	25	\$14.41
MDU-50X55X30	50	55	30	\$17.25
MDU-50X55X35	50	55	35	\$18.80
MDU-50X55X40	50	55	40	\$20.57
MDU-50X55X50	50	55	50	\$23.84
MDU-50X55X60	50	55	60	\$27.86
MDU-55X60X12	55	60	12	\$9.58
MDU-55X60X20	55	60	20	\$12.63
MDU-55X60X25	55	60	25	\$14.98
MDU-55X60X30	55	60	30	\$18.80
MDU-55X60X35	55	60	35	\$21.31
MDU-55X60X40	55	60	40	\$21.52
MDU-55X60X50	55	60	50	\$26.23
MDU-55X60X60	55	60	60	\$29.37
MDU-60X65X15	60	65	15	\$9.85

## MDU Metal Rod Bushings - Metric, cont'd.

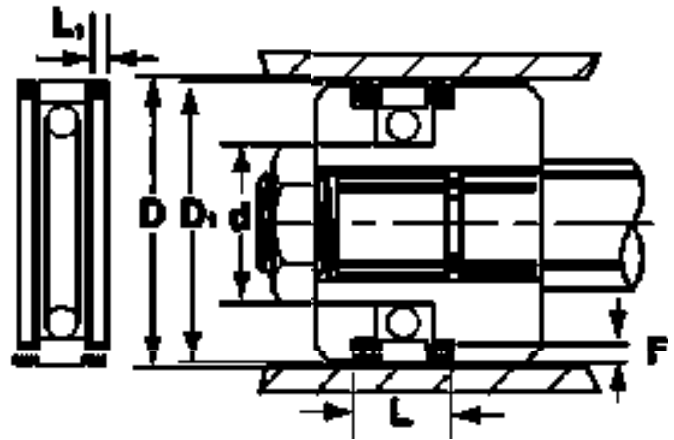
Part Number	Rod Diameter d	Groove Diameter D	Height L <sub>1</sub>	Price	Part Number	Rod Diameter d	Groove Diameter D	Height L <sub>1</sub>	Price
MDU-60X65X30	60	65	30	\$20.41	MDU-95X100X60	95	100	60	\$65.53
MDU-60X65X35	60	65	35	\$22.94	MDU-95X100X100	95	100	100	\$82.38
MDU-60X65X40	60	65	40	\$27.23	MDU-100X105X15	100	105	15	\$21.97
MDU-60X65X50	60	65	50	\$29.15	MDU-100X105X20	100	105	20	\$27.35
MDU-60X65X60	60	65	60	\$37.56	MDU-100X105X30	100	105	30	\$36.69
MDU-60X65X70	60	65	70	\$39.61	MDU-100X105X35	100	105	35	\$44.54
MDU-65X70X15	65	70	15	\$13.23	MDU-100X105X40	100	105	40	\$46.78
MDU-65X70X30	65	70	30	\$22.64	MDU-100X105X50	100	105	50	\$59.88
MDU-65X70X35	65	70	35	\$24.53	MDU-100X105X60	100	105	60	\$67.92
MDU-65X70X40	65	70	40	\$26.99	MDU-100X105X70	100	105	70	\$70.81
MDU-65X70X50	65	70	50	\$35.86	MDU-100X105X80	100	105	80	\$75.24
MDU-65X70X60	65	70	60	\$36.15	MDU-105X110X30	105	110	30	\$31.76
MDU-70X75X15	70	75	15	\$17.11	MDU-105X110X35	105	110	35	\$41.20
MDU-70X75X20	70	75	20	\$19.18	MDU-105X110X40	105	110	40	\$45.57
MDU-70X75X25	70	75	25	\$20.19	MDU-105X110X45	105	110	45	\$47.64
MDU-70X75X30	70	75	30	\$24.86	MDU-105X110X50	105	110	50	\$62.14
MDU-70X75X35	70	75	35	\$25.30	MDU-105X110X60	105	110	60	\$66.76
MDU-70X75X40	70	75	40	\$31.02	MDU-110X115X20	110	115	20	\$29.25
MDU-70X75X50	70	75	50	\$35.07	MDU-110X115X30	110	115	30	\$37.43
MDU-70X75X60	70	75	60	\$47.59	MDU-110X115X35	110	115	35	\$40.90
MDU-70X75X70	70	75	70	\$52.09	MDU-110X115X40	110	115	40	\$52.78
MDU-75X80X30	75	80	30	\$29.47	MDU-110X115X45	110	115	45	\$58.59
MDU-75X80X40	75	80	40	\$33.99	MDU-110X115X50	110	115	50	\$68.79
MDU-75X80X50	75	80	50	\$37.45	MDU-110X115X55	110	115	55	\$69.07
MDU-75X80X60	75	80	60	\$44.09	MDU-110X115X60	110	115	60	\$75.87
MDU-75X80X80	75	80	80	\$63.73	MDU-110X115X70	110	115	70	\$81.73
MDU-80X85X15	80	85	15	\$22.51	MDU-110X115X95	110	115	95	\$110.52
MDU-80X85X25	80	85	25	\$24.69	MDU-110X115X115	110	115	115	\$127.37
MDU-80X85X30	80	85	30	\$29.27	MDU-115X120X35	115	120	35	\$52.39
MDU-80X85X40	80	85	40	\$36.96	MDU-115X120X45	115	120	45	\$57.13
MDU-80X85X50	80	85	50	\$40.83	MDU-115X120X50	115	120	50	\$63.10
MDU-80X85X60	80	85	60	\$48.09	MDU-115X120X60	115	120	60	\$75.49
MDU-80X85X70	80	85	70	\$67.70	MDU-115X120X70	115	120	70	\$84.07
MDU-80X85X100	80	85	100	\$81.78	MDU-120X125X20	120	125	20	\$37.00
MDU-85X90X30	85	90	30	\$34.04	MDU-120X125X35	120	125	35	\$49.48
MDU-85X90X40	85	90	40	\$38.94	MDU-120X125X40	120	125	40	\$55.49
MDU-85X90X50	85	90	50	\$44.72	MDU-120X125X50	120	125	50	\$68.66
MDU-85X90X60	85	90	60	\$55.19	MDU-120X125X60	120	125	60	\$80.72
MDU-85X90X70	85	90	70	\$58.54	MDU-120X125X70	120	125	70	\$84.23
MDU-85X90X100	85	90	100	\$80.64	MDU-120X125X95	120	125	95	\$129.33
MDU-85X90X125	85	90	125	\$100.79	MDU-125X130X35	125	130	35	\$54.10
MDU-90X95X20	90	95	20	\$32.80	MDU-125X130X50	125	130	50	\$65.57
MDU-90X95X30	90	95	30	\$33.76	MDU-125X130X60	125	130	60	\$75.11
MDU-90X95X35	90	95	35	\$35.72	MDU-125X130X70	125	130	70	\$87.65
MDU-90X95X40	90	95	40	\$41.91	MDU-125X130X100	125	130	100	\$125.19
MDU-90X95X45	90	95	45	\$43.28	MDU-130X135X35	130	135	35	\$62.76
MDU-90X95X50	90	95	50	\$51.70	MDU-130X135X40	130	135	40	\$64.52
MDU-90X95X60	90	95	60	\$58.05	MDU-130X135X50	130	135	50	\$77.31
MDU-90X95X100	90	95	100	\$91.46	MDU-130X135X60	130	135	60	\$92.17
MDU-95X100X30	95	100	30	\$40.36	MDU-130X135X65	130	135	65	\$92.99
MDU-95X100X35	95	100	35	\$40.59	MDU-130X135X80	130	135	80	\$96.74
MDU-95X100X40	95	100	40	\$46.77	MDU-135X140X60	135	140	60	\$97.33
MDU-95X100X45	95	100	45	\$47.35	MDU-135X140X80	135	140	80	\$107.88
MDU-95X100X50	95	100	50	\$52.47	MDU-140X145X35	140	145	35	\$58.51

**MDU Metal Rod Bushings - Metric, cont'd.**

Part Number	Rod Diameter d	Groove Diameter D	Height L <sub>1</sub>	Price
MDU-140X145X40	140	145	40	\$68.44
MDU-140X145X50	140	145	50	\$73.90
MDU-140X145X55	140	145	55	\$79.81
MDU-140X145X60	140	145	60	\$95.11
MDU-140X145X70	140	145	70	\$99.73
MDU-140X145X80	140	145	80	\$111.70
MDU-145X150X60	145	150	60	\$86.69
MDU-150X155X40	150	155	40	\$77.91
MDU-150X155X50	150	155	50	\$80.43
MDU-150X155X60	150	155	60	\$89.55

Part Number	Rod Diameter d	Groove Diameter D	Height L <sub>1</sub>	Price
MDU-150X155X80	150	155	80	\$133.20
MDU-150X155X100	150	155	100	\$149.24
MDU-160X165X40	160	165	40	\$94.53
MDU-160X165X50	160	165	50	\$120.59
MDU-160X165X100	160	165	100	\$189.56
MDU-170X175X35	170	175	35	\$77.81
MDU-170X175X50	170	175	50	\$88.23
MDU-180X185X50	180	185	50	\$92.08
MDU-180X185X90	180	185	90	\$170.01
MDU-200X205X32	200	205	32	\$71.11

**PSBU Nylon Piston Seal Backup Rings - Metric**



**EXAMPLE: PSBU-120X3X3**

Prefix	Outside Diameter	Cross Section	Height
PSBU-	120	x 3	x 3
	120mm	3mm	3mm

This nylon backup ring is used next to PTFE piston seals for added extrusion resistance, and can boost pressure ratings for the seal. They are commonly found on Asian-manufactured construction equipment. They are used in pairs, but sold individually.

See piston seal section page 182 for the seals.

Other sizes are available upon request. Contact sales for more information.

\* Seal not included

Temperature: -65° to 220°F

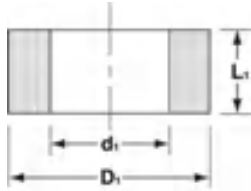
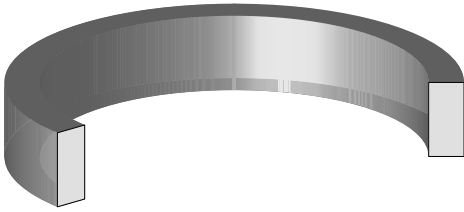
Pressure: 0 to 7,500 PSI

Part Number	Bore Dia. D	C/S F	Height L <sub>1</sub>	Price
PSBU-90X2.5X2.5	90	2.5	2.5	\$10.25
PSBU-95X2.5X2.5	95	2.5	2.5	\$10.36
PSBU-100X2.5X2.5	100	2.5	2.5	\$10.40
PSBU-105X2.5X2.5	105	2.5	2.5	\$11.10
PSBU-110X2.5X2.5	110	2.5	2.5	\$11.10
PSBU-110X3X3	110	3	3	\$11.65
PSBU-115X2.5X2.5	115	2.5	2.5	\$15.66
PSBU-115X3X3	115	3	3	\$13.16
PSBU-120X3X3	120	3	3	\$13.20
PSBU-125X3X3	125	3	3	\$14.27
PSBU-130X3X3	130	3	3	\$14.27

Part Number	Bore Dia. D	C/S F	Height L <sub>1</sub>	Price
PSBU-135X3X3	135	3	3	\$16.19
PSBU-140X3X3	140	3	3	\$16.86
PSBU-145X3X3	145	3	3	\$16.86
PSBU-150X3X3	150	3	3	\$18.14
PSBU-160X3X3	160	3	3	\$20.51
PSBU-165X3X3	165	3	3	\$25.72
PSBU-170X3X3	170	3	3	\$21.90
PSBU-180X3X3	180	3	3	\$23.54
PSBU-190X3X3	190	3	3	\$25.72
PSBU-215X3X3	215	3	3	\$27.39



# NRB Nylon Rod Bearings - Inch



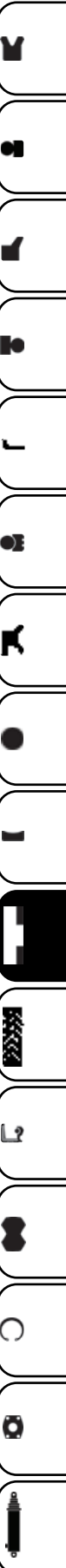
EXAMPLE: NRB-2250-2750-750

Prefix	Inside Diameter	Outside Diameter	Height
NRB-	2250	- 2750	750
	2-1/4"	2-3/4"	3/4"

These bearings are manufactured from a special filled nylon material offering high compressive strength and dimensional stability. They are an ideal replacement for many bronze and phenolic applications and can be split for use in piston bearing applications.

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
NRB-0425-0866-260	0.425	0.866	0.260	\$7.78
NRB-875-1250-187	0.875	1.250	0.187	\$8.49
NRB-875-1375-250	0.875	1.375	0.250	\$14.24
NRB-1000-1500-750	1.000	1.500	0.750	\$19.14
NRB-1250-1750-750	1.250	1.750	0.750	\$15.88
NRB-1250-1875-500	1.250	1.875	0.500	\$12.91
NRB-1500-1750-1000	1.500	1.750	1.000	\$15.60
NRB-1500-2000-750	1.500	2.000	0.750	\$18.97
NRB-1750-2000-1000	1.750	2.000	1.000	\$8.03
NRB-1750-2250-437	1.750	2.250	0.437	\$24.09
NRB-1750-2250-750	1.750	2.250	0.750	\$15.14
NRB-1750-2375-500	1.750	2.375	0.500	\$18.30
NRB-1750-2500-500	1.750	2.500	0.500	\$15.78
NRB-1875-2250-1000	1.875	2.250	1.000	\$17.53
NRB-2000-2250-1000	2.000	2.250	1.000	\$15.98
NRB-2000-2375-875	2.000	2.375	0.875	\$14.33
NRB-2000-2500-580	2.000	2.500	0.580	\$16.60
NRB-2000-2500-750	2.000	2.500	0.750	\$18.05
NRB-2000-2500-1000	2.000	2.500	1.000	\$19.63
NRB-2000-2750-500	2.000	2.750	0.500	\$15.24
NRB-2125-2625-1000	2.125	2.625	1.000	\$21.21
NRB-2250-2500-1250	2.250	2.500	1.250	\$11.77
NRB-2250-2500-1562	2.250	2.500	1.562	\$26.18
NRB-2250-2500-2250	2.250	2.500	2.250	\$32.98
NRB-2250-2750-750	2.250	2.750	0.750	\$26.07
NRB-2375-2875-1000	2.375	2.875	1.000	\$21.62
NRB-2500-2750-1250	2.500	2.750	1.250	\$13.85
NRB-2500-2750-1546	2.500	2.750	1.546	\$13.99
NRB-2500-2750-1562	2.500	2.750	1.562	\$24.73
NRB-2500-3000-250	2.500	3.000	0.250	\$10.72
NRB-2500-3000-375	2.500	3.000	0.375	\$20.71
NRB-2500-3000-625	2.500	3.000	0.625	\$21.16
NRB-2500-3000-750	2.500	3.000	0.750	\$14.48
NRB-2500-3000-1000	2.500	3.000	1.000	\$30.33
NRB-2500-3000-1500	2.500	3.000	1.500	\$30.70
NRB-2625-3375-500	2.625	3.375	0.500	\$16.44
NRB-2625-3375-562	2.625	3.375	0.562	\$17.05
NRB-2750-3000-1547	2.750	3.000	1.547	\$20.89
NRB-2750-3250-500	2.750	3.250	0.500	\$21.01
NRB-2750-3250-750	2.750	3.250	0.750	\$21.73
NRB-2750-3250-B750	2.750	3.250	0.750	\$21.73
NRB-2750-3250-1000	2.750	3.250	1.000	\$23.86
NRB-2970-3520-810	2.970	3.520	0.810	\$24.06
NRB-3000-3500-250	3.000	3.500	0.250	\$22.06
NRB-3000-3500-500	3.000	3.500	0.500	\$10.15

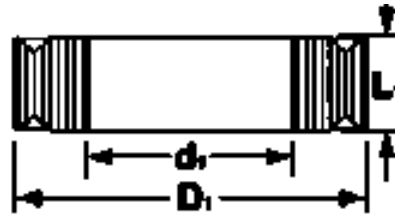
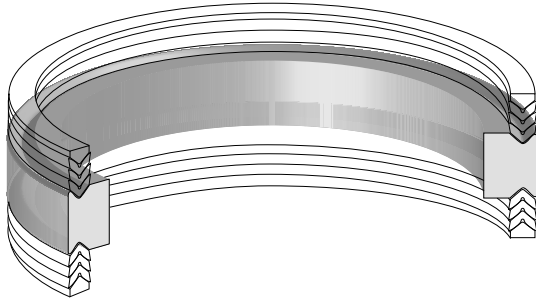
Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
NRB-3000-3500-750	3.000	3.500	0.750	\$16.79
NRB-3000-3500-1000	3.000	3.500	1.000	\$20.30
NRB-3000-3500-1500	3.000	3.500	1.500	\$26.10
NRB-3125-3500-750	3.125	3.500	0.750	\$21.73
NRB-3125-3500-875	3.125	3.500	0.875	\$20.12
NRB-3187-3687-750	3.187	3.687	0.750	\$24.94
NRB-3250-3625-375	3.250	3.625	0.375	\$22.26
NRB-3250-3625-375B	3.250	3.625	0.375	\$21.45
NRB-3250-3625-500B	3.250	3.625	0.500	\$22.48
NRB-3250-3625-1000	3.250	3.625	1.000	\$34.71
NRB-3500-3750-250	3.500	3.750	0.250	\$19.19
NRB-3500-4000-250	3.500	4.000	0.250	\$7.83
NRB-3500-4000-750	3.500	4.000	0.750	\$28.04
NRB-3500-4125-1100	3.500	4.125	1.100	\$28.42
NRB-3625-4375-500	3.625	4.375	0.500	\$29.92
NRB-3750-4250-1000	3.750	4.250	1.000	\$26.68
NRB-3750-4375-1000	3.750	4.375	1.000	\$22.15
NRB-3970-4520-810	3.970	4.520	0.810	\$22.52
NRB-3970-4520-1000	3.970	4.520	1.000	\$22.65
NRB-4000-4375-203	4.000	4.375	0.203	\$11.28
NRB-4000-4500-250	4.000	4.500	0.250	\$8.82
NRB-4000-4500-750	4.000	4.500	0.750	\$17.11
NRB-4000-4500-875	4.000	4.500	0.875	\$20.45
NRB-4000-4500-875B	4.000	4.500	0.875	\$20.45
NRB-4000-4500-937	4.000	4.500	0.937	\$26.84
NRB-4000-4500-1000	4.000	4.500	1.000	\$22.93
NRB-4000-4525-750	4.000	4.525	0.750	\$25.48
NRB-4500-5000-750	4.500	5.000	0.750	\$26.90
NRB-4750-5125-203	4.750	5.125	0.203	\$12.80
NRB-4750-5250-1000	4.750	5.250	1.000	\$27.80
NRB-4750-5250-2000	4.750	5.250	2.000	\$44.46
NRB-4750-5375-1000	4.750	5.375	1.000	\$32.50
NRB-4750-5375-1100	4.750	5.375	1.100	\$51.92
NRB-4970-5520-750	4.970	5.520	0.750	\$24.48
NRB-4970-5520-1000	4.970	5.520	1.000	\$26.26
NRB-5000-5500-750	5.000	5.500	0.750	\$17.06
NRB-5000-5500-937	5.000	5.500	0.937	\$27.98
NRB-5000-5500-1000	5.000	5.500	1.000	\$28.72
NRB-5000-5525-750	5.000	5.525	0.750	\$22.39
NRB-5000-5525-875	5.000	5.525	0.875	\$29.00
NRB-5500-5875-203	5.500	5.875	0.203	\$13.87
NRB-5500-6000-750	5.500	6.000	0.750	\$26.55
NRB-5500-6000-1000	5.500	6.000	1.000	\$27.34
NRB-5500-6250-437	5.500	6.250	0.437	\$15.68
NRB-5750-6250-1000	5.750	6.250	1.000	\$26.36



## NRB Nylon Rod Bearings - Inch, cont'd.

Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	Height $L_1$	Price	Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	Height $L_1$	Price
NRB-5750-6375-1000	5.750	6.375	1.000	\$33.04	NRB-7875-8875-937	7.875	8.875	0.937	\$53.54
NRB-5970-6520-800	5.970	6.520	0.800	\$28.33	NRB-7900-8575-1000	7.900	8.575	1.000	\$53.24
NRB-6000-6500-750	6.000	6.500	0.750	\$19.83	NRB-7905-8543-1000	7.905	8.543	1.000	\$41.90
NRB-6000-6500-937	6.000	6.500	0.937	\$28.42	NRB-7970-8520-750	7.970	8.520	0.750	\$34.72
NRB-6000-6500-1000	6.000	6.500	1.000	\$26.25	NRB-7970-8520-1000	7.970	8.520	1.000	\$34.72
NRB-6000-6525-750	6.000	6.525	0.750	\$25.97	NRB-8000-8500-750	8.000	8.500	0.750	\$23.49
NRB-6000-6525-875	6.000	6.525	0.875	\$32.50	NRB-8000-8500-1000	8.000	8.500	1.000	\$31.05
NRB-6000-6625-1100	6.000	6.625	1.100	\$49.58	NRB-8000-8525-750	8.000	8.525	0.750	\$31.66
NRB-6375-6875-203	6.375	6.875	0.203	\$15.96	NRB-8000-8750-1000	8.000	8.750	1.000	\$48.40
NRB-6750-7250-1000	6.750	7.250	1.000	\$34.36	NRB-8250-9000-750	8.250	9.000	0.750	\$48.65
NRB-6750-7375-1000	6.750	7.375	1.000	\$34.56	NRB-8250-9250-500	8.250	9.250	0.500	\$75.73
NRB-6970-7520-835	6.970	7.520	0.835	\$33.28	NRB-9000-9750-750	9.000	9.750	0.750	\$79.84
NRB-6970-7520-1000	6.970	7.520	1.000	\$33.28	NRB-9125-9750-750	9.125	9.750	0.750	\$84.49
NRB-7000-7500-750	7.000	7.500	0.750	\$23.33	NRB-10750-11375-1000	10.750	11.375	1.000	\$146.18
NRB-7000-7500-1000	7.000	7.500	1.000	\$27.75	NRB-10750-11500-750	10.750	11.500	0.750	\$149.21
NRB-7000-7525-750	7.000	7.525	0.750	\$28.45	NRB-10750-11500-1000	10.750	11.500	1.000	\$151.58
NRB-7250-7750-203	7.250	7.750	0.203	\$17.79					

## FCB Nylon Female Center Bearings - Inch & Metric



FCB bearings are made from glass filled nylon giving them excellent compressive strength. They are used in double acting piston applications between sets of vee packing.

EXAMPLE: FCB-4000-625			
Prefix	Outside Diameter		Height
FCB-	4000	-	625
	4"		5/8"

EXAMPLE: FCB-90MM-17			
Prefix	Outside Diameter		Height
FCB-	90	MM-	17
	90mm		17mm

Part Number	Bearing Size			Packing Size		Price
	I.D. $d_1$	O.D. $D_1$	Height $L_1$	I.D.	O.D.	
FCB-2500-625	1.500	2.500	0.625	2.000	2.500	\$22.28
FCB-3000-625	2.000	3.000	0.625	2.500	3.000	\$24.30
FCB-4000-625	3.000	4.000	0.625	3.500	4.000	\$28.26
FCB-4500-625-1	3.500	4.500	0.625	4.000	4.500	\$66.81
FCB-7000-1000	5.750	7.000	1.000	6.250	7.000	\$272.10
FCB-8000-625	6.750	8.000	0.625	7.250	8.000	\$317.31

Part Number	Bearing Size			Packing Size		Price
	I.D. $d_1$	O.D. $D_1$	Height $L_1$	I.D.	O.D.	
FCB-80MM-17	55	80	17	65	80	\$26.60
FCB-90MM-17	65	90	17	75	90	\$27.24
FCB-100MM-17	75	100	17	85	100	\$28.50
FCB-110MM-17	85	110	17	95	110	\$30.90
FCB-115MM-17	90	115	17	100	115	\$32.70
FCB-125MM-17	100	125	17	110	125	\$35.00
FCB-150MM-17	125	150	17	135	150	\$36.80

# Wearband Formulas

## Calculating Piston Wearband Grooves

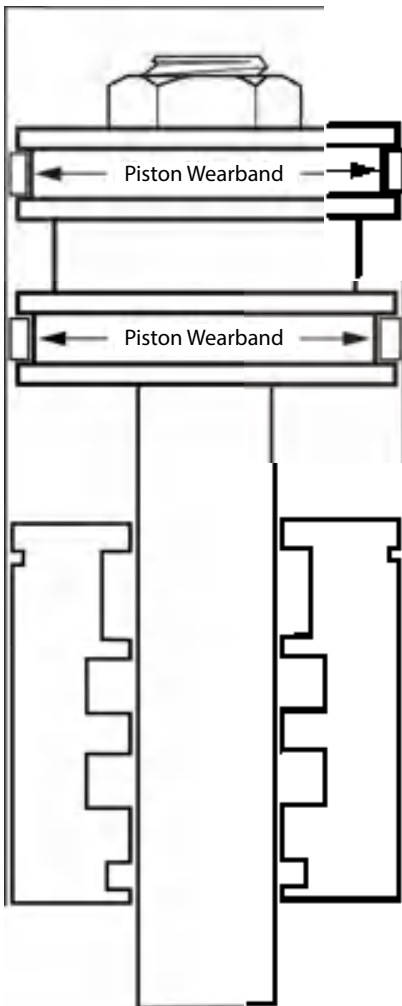
$$\begin{aligned} \text{Maximum Groove Diameter} &= \text{Minimum Bore Diameter} - 2x \text{Maximum Wearband Cross Section} \\ \text{Tolerance} &= \begin{matrix} +.000'' \\ -.005'' \end{matrix} \end{aligned}$$

$$\begin{aligned} \text{Groove Length} &= \text{Actual Part Length} + .010'' \\ \text{Tolerance} &= \begin{matrix} +.010'' \\ -.000'' \end{matrix} \end{aligned}$$

**NOTES:**

1 - The piston diameter will not correspond to diameters called out for piston seals. Additional clearances are required for wearband use. Piston seal material should provide sufficient extrusion resistance to prevent extrusion of the piston seal with the increase in diametral clearance caused by wearband use.

2 - Radii MUST NOT EXCEED .010" MAXIMUM at corners on bottom of piston wearband groove.



## Calculating Rod Wearband Grooves

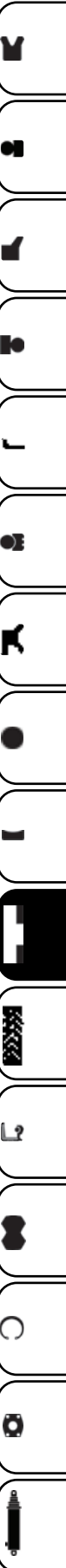
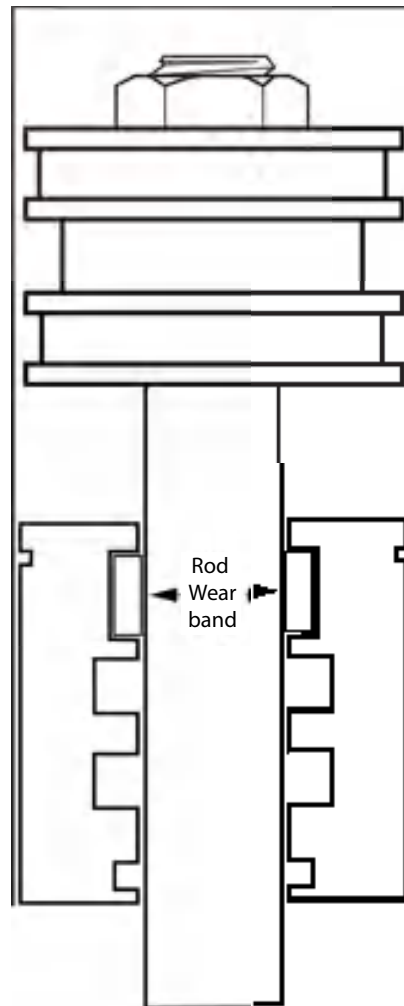
$$\begin{aligned} \text{Minimum Groove Diameter} &= \text{Maximum Rod Diameter} + 2x \text{Maximum Wearband Cross Section} \\ \text{Tolerance} &= \begin{matrix} +.003'' \\ -.000'' \end{matrix} \end{aligned}$$

$$\begin{aligned} \text{Groove Length} &= \text{Actual Part Length} + .010'' \\ \text{Tolerance} &= \begin{matrix} +.010'' \\ -.000'' \end{matrix} \end{aligned}$$

**NOTES:**

1 - The rod throat diameter is a new diameter over and above the diameter which is called out for the rod seal. Additional diametral clearances are required as noted for the wear ring to function properly. Since a larger clearance gap results, an extrusion resistant material should be specified for the rod seal when using wearbands.

2 - Radii MUST NOT EXCEED .010" MAXIMUM at corners on bottom of rod wearband gland.



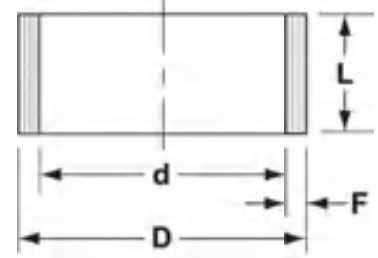
# WB Nylon & Phenolic Wearbands - Inch



### ALTERNATIVE SEALS:

Wearband Tape

Wearbands numbered for Piston.  
For Rod Application deduct C/Sx2  
from O.D.



### EXAMPLE: WB0425-1750-125-N1-B

Prefix	Bore Diameter	Groove Height	Cross Section	Material	Cut
WB	0425	- 1750	- 125	N1	B
	4-1/4"	1-3/4"	1/8"	NYLON	BUTT

Wear rings are used to prevent metal to metal contact of moving parts in hydraulic and pneumatic cylinders. They also center the piston and rod for optimal seal life. The glass-filled nylon or phenolic material offer compressive strengths similar to most metals used for this purpose and will ingest contaminants such as metal chips, thus avoiding scoring and seal damage. Nylon wearbands are easily cut down from larger sizes to fit any size piston or rod. Consult sales for sizes not shown

"N1" Suffix = Nylon "N2" Suffix = Tight Tolerance Nylon "P1" Suffix = Phenolic "A" Suffix = Angle Cut "B" Suffix = Butt Cut "S" Suffix = Step Cut

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0091-0375-080-N1-A	0.750	0.910	0.375	0.080	\$5.29
WB0100-0125-045-N1-B	0.910	1.000	0.125	0.045	\$4.01
WB0100-0187-093-N1-B	0.813	1.000	0.187	0.093	\$4.13
WB0100-0500-125-N1-B	0.750	1.000	0.500	0.125	\$5.48
WB0115-0375-078-P1-A	1.000	1.156	0.375	0.078	\$6.05
WB0116-0500-080-N1-B	1.000	1.160	0.500	0.080	\$8.37
WB0116-0625-080-N1-A	1.000	1.160	0.625	0.080	\$8.37
WB0125-0187-093-N1-B	1.063	1.250	0.187	0.093	\$4.33
WB0125-0250-076-N1-B	1.098	1.250	0.250	0.076	\$4.27
WB0125-0250-125-N1-B	1.000	1.250	0.250	0.125	\$4.29
WB0125-0375-093-N1-B	1.063	1.250	0.375	0.093	\$4.55
WB0125-0375-125-N1-B	1.000	1.250	0.375	0.125	\$4.81
WB0125-0437-125-N1-B	1.000	1.250	0.437	0.125	\$5.02
WB0125-0500-080-N1-B	1.090	1.250	0.500	0.080	\$6.99
WB0125-0500-125-N1-B	1.000	1.250	0.500	0.125	\$4.81
WB0125-1000-125-N1-B	1.000	1.250	1.000	0.125	\$5.66
WB0125-1500-062-N1-B	1.125	1.250	1.500	0.062	\$5.93
WB0137-0375-062-P1-A	1.250	1.375	0.375	0.062	\$5.04
WB0137-0500-062-N1-B	1.250	1.375	0.500	0.062	\$5.85
WB0137-1000-062-P1-A	1.250	1.375	1.000	0.062	\$11.76
WB0141-0625-080-N1-A	1.250	1.410	0.625	0.080	\$8.86
WB0143-0500-125-N1-B	1.180	1.430	0.500	0.125	\$8.70
WB0150-0093-032-N-A	1.437	1.500	0.093	0.032	\$10.83
WB0150-0160-125-P1-A	1.250	1.500	0.160	0.125	\$5.22
WB0150-0187-091-N1-B	1.318	1.500	0.187	0.091	\$4.91
WB0150-0250-125-N1-B	1.250	1.500	0.250	0.125	\$3.84
WB0150-0375-125-N1-B	1.250	1.500	0.375	0.125	\$4.81
WB0150-0500-125-N1-B	1.250	1.500	0.500	0.125	\$4.81
WB0150-0750-125-N1-B	1.250	1.500	0.750	0.125	\$5.22
WB0150-1000-125-N1-B	1.250	1.500	1.000	0.125	\$6.00
WB0150-0375-062-P1-A	1.375	1.500	0.375	0.062	\$12.34
WB0150-0500-062-N1-B	1.375	1.500	0.500	0.062	\$6.08
WB0153-0250-062-N1-B	1.405	1.530	0.250	0.062	\$5.28
WB0153-0250-125-N1-B	1.280	1.530	0.250	0.125	\$5.56
WB0153-0750-080-N1-B	1.370	1.530	0.750	0.080	\$8.74
WB0162-0500-125-N1-B	1.375	1.625	0.500	0.125	\$4.74

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0162-0750-085-N1-B	1.455	1.625	0.750	0.085	\$15.88
WB0162-1000-062-N1-A	1.500	1.625	1.000	0.062	\$7.30
WB0162-1000-125-N1-B	1.375	1.625	1.000	0.125	\$7.34
WB0162-1250-062-P1-A	1.500	1.625	1.250	0.062	\$31.44
WB0166-0500-080-P1-A	1.500	1.660	0.500	0.080	\$5.31
WB0166-0625-080-N1-A	1.500	1.660	0.625	0.080	\$22.65
WB0167-0500-085-N1-B	1.500	1.670	0.500	0.085	\$6.13
WB0168-0187-098-N1-B	1.491	1.687	0.187	0.098	\$5.07
WB0175-0160-125-P1-A	1.500	1.750	0.160	0.125	\$5.22
WB0175-0165-125-P1-A	1.500	1.750	0.165	0.125	\$22.84
WB0175-0190-125-N1-B	1.500	1.750	0.190	0.125	\$4.81
WB0175-0354-128-N1-B	1.494	1.750	0.354	0.128	\$4.87
WB0175-0375-125-N1-B	1.500	1.750	0.375	0.125	\$4.87
WB0175-0500-125-N1-B	1.500	1.750	0.500	0.125	\$4.88
WB0175-0625-125-N1-B	1.500	1.750	0.625	0.125	\$5.90
WB0175-0750-125-N1-B	1.500	1.750	0.750	0.125	\$5.99
WB0175-1000-125-N1-B	1.500	1.750	1.000	0.125	\$6.62
WB0177-0375-093-N1-B	1.583	1.770	0.375	0.093	\$5.82
WB0187-0190-125-N1-B	1.625	1.875	0.190	0.125	\$5.07
WB0187-0193-098-N1-B	1.679	1.875	0.193	0.098	\$5.59
WB0187-0375-125-N1-B	1.625	1.875	0.375	0.125	\$4.96
WB0187-0500-125-N1-B	1.625	1.875	0.500	0.125	\$4.96
WB0187-0750-125-N1-B	1.625	1.875	0.750	0.125	\$5.25
WB0187-1000-062-N1-A	1.750	1.875	1.000	0.062	\$5.92
WB0200-0187-125-N1-B	1.750	2.000	0.187	0.125	\$5.09
WB0200-0193-098-N1-B	1.804	2.000	0.193	0.098	\$5.50
WB0200-0250-062-P1-A	1.875	2.000	0.250	0.062	\$5.61
WB0200-0250-125-N1-B	1.750	2.000	0.250	0.125	\$4.25
WB0200-0312-125-N1-B	1.750	2.000	0.312	0.125	\$5.35
WB0200-0375-125-N1-B	1.750	2.000	0.375	0.125	\$4.87
WB0200-0500-125-N1-B	1.750	2.000	0.500	0.125	\$5.09
WB0200-0500-125-P1-A	1.750	2.000	0.500	0.125	\$8.95
WB0200-0625-125-P1-A	1.750	2.000	0.625	0.125	\$5.40
WB0200-0720-062-P1-A	1.875	2.000	0.720	0.062	\$9.92
WB0200-0750-125-N1-B	1.750	2.000	0.750	0.125	\$5.44
WB0200-0984-062-P1-A	1.875	2.000	0.984	0.062	\$12.73

**WB Nylon & Phenolic Wearbands - Inch, cont'd.**

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price	Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0200-1000-062-P1-A	1.875	2.000	1.000	0.062	\$10.88	WB0262-1250-062-P1-A	2.500	2.625	1.250	0.062	\$22.25
WB0200-1000-125-P1-A	1.750	2.000	1.000	0.125	\$9.37	WB0262-1500-062-N1-A	2.500	2.625	1.500	0.062	\$7.96
WB0200-1500-125-N1-B	1.750	2.000	1.500	0.125	\$10.06	WB0262-1687-062-P1-A	2.500	2.625	1.687	0.062	\$19.67
WB0203-0250-093-N1-B	1.843	2.030	0.250	0.093	\$5.09	WB0262-0256-062-P1-A	2.500	2.625	0.256	0.062	\$19.39
WB0203-0250-093-P1-A	1.843	2.030	0.250	0.093	\$5.09	WB0262-1687-062-N1-A	2.500	2.625	1.687	0.062	\$19.40
WB0212-0375-125-N1-B	1.875	2.125	0.375	0.125	\$5.10	WB0268-0268-062-P1-A	2.562	2.687	0.268	0.062	\$20.65
WB0212-0750-125-N1-B	1.875	2.125	0.750	0.125	\$5.38	WB0275-0250-125-N1-B	2.500	2.750	0.250	0.125	\$5.63
WB0212-1000-062-N1-A	2.000	2.125	1.000	0.062	\$6.68	WB0275-0312-093-N1-A	2.563	2.750	0.312	0.093	\$13.16
WB0212-1250-062-N1-B	2.000	2.125	1.250	0.062	\$27.55	WB0275-0312-125-N1-B	2.500	2.750	0.312	0.125	\$5.34
WB0212-0980-062-P1-A	2.000	2.125	0.980	0.062	\$11.04	WB0275-0375-125-N1-B	2.500	2.750	0.375	0.125	\$5.37
WB0212-0500-125-P1-A	1.875	2.125	0.500	0.125	\$5.58	WB0275-0437-125-N1-B	2.500	2.750	0.437	0.125	\$5.61
WB0218-0187-125-N1-B	1.937	2.187	0.187	0.125	\$4.61	WB0275-0500-125-N1-B	2.500	2.750	0.500	0.125	\$5.37
WB0225-0125-125-N1-B	2.000	2.250	0.125	0.125	\$4.92	WB0275-0625-125-N1-B	2.500	2.750	0.625	0.125	\$5.69
WB0225-0187-125-N1-B	2.000	2.250	0.187	0.125	\$5.31	WB0275-0750-125-N1-B	2.500	2.750	0.750	0.125	\$6.51
WB0225-0250-125-N1-B	2.000	2.250	0.250	0.125	\$4.31	WB0275-0937-125-P1-A	2.500	2.750	0.937	0.125	\$15.65
WB0225-0312-125-N1-B	2.000	2.250	0.312	0.125	\$4.94	WB0275-1000-125-N1-B	2.500	2.750	1.000	0.125	\$6.93
WB0225-0375-125-N1-B	2.000	2.250	0.375	0.125	\$5.11	WB0275-1250-125-N1-B	2.500	2.750	1.250	0.125	\$9.55
WB0225-0500-125-N1-B	2.000	2.250	0.500	0.125	\$5.13	WB0275-1500-125-N1-B	2.500	2.750	1.500	0.125	\$10.53
WB0225-0625-125-N1-B	2.000	2.250	0.625	0.125	\$5.38	WB0275-2000-125-N1-B	2.500	2.750	2.000	0.125	\$19.90
WB0225-0750-125-N1-B	2.000	2.250	0.750	0.125	\$5.38	WB0287-0750-127-N1-A	2.621	2.875	0.750	0.127	\$8.08
WB0225-0750-127-N1-A	1.996	2.250	0.750	0.127	\$8.79	WB0287-1000-062-N1-A	2.750	2.875	1.000	0.062	\$9.60
WB0225-0875-125-N1-A	2.000	2.250	0.875	0.125	\$9.63	WB0287-1000-062-P1-A	2.750	2.875	1.000	0.062	\$11.10
WB0225-1000-062-P1-A	2.125	2.250	1.000	0.062	\$9.72	WB0287-1000-125-N1-B	2.625	2.875	1.000	0.125	\$6.96
WB0225-1000-125-N1-B	2.000	2.250	1.000	0.125	\$10.76	WB0287-1500-062-P1-A	2.750	2.875	1.500	0.062	\$10.92
WB0225-1500-125-P1-A	2.000	2.250	1.500	0.125	\$11.64	WB0287-0500-125-P1-A	2.625	2.875	0.500	0.125	\$7.14
WB0236-0250-125-N1-B	2.110	2.360	0.250	0.125	\$10.52	WB0295-1960-100-P1-A	2.750	2.950	1.960	0.100	\$25.32
WB0237-0500-125-N1-B	2.125	2.375	0.500	0.125	\$5.29	WB0295-0375-125-N1-B	2.703	2.953	0.375	0.125	\$9.69
WB0237-0750-125-N1-B	2.125	2.375	0.750	0.125	\$6.32	WB0300-0125-125-N1-B	2.750	3.000	0.125	0.125	\$4.97
WB0237-1000-062-N1-A	2.250	2.375	1.000	0.062	\$9.53	WB0300-0212-096-N1-B	2.808	3.000	0.212	0.096	\$5.53
WB0237-1000-125-N1-B	2.125	2.375	1.000	0.125	\$7.80	WB0300-0250-125-N1-B	2.750	3.000	0.250	0.125	\$4.94
WB0237-1187-062-P1-A	2.250	2.375	1.187	0.062	\$17.85	WB0300-0312-125-N1-B	2.750	3.000	0.312	0.125	\$5.30
WB0237-1500-062-N1-A	2.250	2.375	1.500	0.062	\$7.66	WB0300-0375-125-N1-B	2.750	3.000	0.375	0.125	\$5.37
WB0237-0187-125-N1-B	2.125	2.375	0.187	0.125	\$5.11	WB0300-0500-125-N1-B	2.750	3.000	0.500	0.125	\$5.44
WB0250-0165-125-P1-A	2.250	2.500	0.165	0.125	\$11.61	WB0300-0500-187-P1-A	2.625	3.000	0.500	0.187	\$42.22
WB0250-0187-125-N1-B	2.250	2.500	0.187	0.125	\$5.31	WB0300-0625-125-N1-B	2.750	3.000	0.625	0.125	\$8.14
WB0250-0250-125-N1-B	2.250	2.500	0.250	0.125	\$4.76	WB0300-0750-125-N1-B	2.750	3.000	0.750	0.125	\$6.25
WB0250-0312-062-N1-B	2.375	2.500	0.312	0.062	\$17.69	WB0300-0990-100-P1-A	2.800	3.000	0.990	0.100	\$17.84
WB0250-0312-091-N1-A	2.318	2.500	0.312	0.091	\$11.39	WB0300-1000-125-N1-B	2.750	3.000	1.000	0.125	\$6.07
WB0250-0312-093-P1-A	2.313	2.500	0.312	0.093	\$11.39	WB0300-1250-125-N1-B	2.750	3.000	1.250	0.125	\$17.50
WB0250-0312-125-N1-B	2.250	2.500	0.312	0.125	\$4.82	WB0300-0160-125-P1-A	2.750	3.000	0.160	0.125	\$7.65
WB0250-0375-125-N1-B	2.250	2.500	0.375	0.125	\$5.23	WB0300-0875-125-N1-A	2.750	3.000	0.875	0.125	\$13.13
WB0250-0375-127-N1-A	2.246	2.500	0.375	0.127	\$6.58	WB0300-0160-128-N1-B	2.744	3.000	0.160	0.128	\$7.87
WB0250-0500-125-N1-B	2.250	2.500	0.500	0.125	\$5.33	WB0312-0500-125-N1-B	2.875	3.125	0.500	0.125	\$5.61
WB0250-0625-125-N1-B	2.250	2.500	0.625	0.125	\$5.62	WB0312-1000-062-P1-A	3.000	3.125	1.000	0.062	\$18.05
WB0250-0750-125-N1-B	2.250	2.500	0.750	0.125	\$6.32	WB0312-1000-187-P1-A	2.750	3.125	1.000	0.187	\$31.84
WB0250-1000-125-N1-B	2.250	2.500	1.000	0.125	\$7.04	WB0312-1250-062-P1-A	3.000	3.125	1.250	0.062	\$22.09
WB0250-1500-125-N1-B	2.250	2.500	1.500	0.125	\$14.53	WB0312-1250-187-P1-A	2.750	3.125	1.250	0.187	\$35.99
WB0250-1562-125-P1-E	2.250	2.500	1.562	0.125	\$29.25	WB0312-1500-062-N1-A	3.000	3.125	1.500	0.062	\$31.21
WB0250-1250-062-P1-A	2.375	2.500	1.250	0.062	\$12.73	WB0312-1562-062-P1-A	3.000	3.125	1.562	0.062	\$32.86
WB0253-0250-062-N1-B	2.405	2.530	0.250	0.062	\$5.30	WB0312-1625-062-P1-A	3.000	3.125	1.625	0.062	\$33.17
WB0262-0500-125-N1-B	2.375	2.625	0.500	0.125	\$9.18	WB0318-0875-093-PSOL	3.000	3.187	0.875	0.093	\$27.61
WB0262-0750-125-P1-A	2.375	2.625	0.750	0.125	\$6.44	WB0318-1500-093-P1-A	3.000	3.187	1.500	0.093	\$34.34
WB0262-1000-062-N1-A	2.500	2.625	1.000	0.062	\$7.53	WB0320-1187-100-P1-A	3.000	3.200	1.187	0.100	\$34.49



WB Nylon & Phenolic Wearbands - Inch, cont'd.

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0322-0625-125-N1-B	2.970	3.220	0.625	0.125	\$8.13
WB0325-0212-096-N1-B	3.058	3.250	0.212	0.096	\$6.64
WB0325-0250-125-N1-B	3.000	3.250	0.250	0.125	\$5.27
WB0325-0312-125-N1-B	3.000	3.250	0.312	0.125	\$5.35
WB0325-0375-125-N1-B	3.000	3.250	0.375	0.125	\$5.48
WB0325-0500-125-N1-B	3.000	3.250	0.500	0.125	\$5.53
WB0325-0500-187-N1-B	2.875	3.250	0.500	0.187	\$8.15
WB0325-0625-125-N1-B	3.000	3.250	0.625	0.125	\$6.09
WB0325-0750-125-N1-B	3.000	3.250	0.750	0.125	\$6.27
WB0325-1000-125-N1-B	3.000	3.250	1.000	0.125	\$6.74
WB0325-1125-125-P1-A	3.000	3.250	1.125	0.125	\$16.22
WB0325-1250-125-N1-B	3.000	3.250	1.250	0.125	\$17.50
WB0325-1500-125-N1-B	3.000	3.250	1.500	0.125	\$18.46
WB0325-1960-100-P1-A	3.050	3.250	1.960	0.100	\$44.07
WB0325-2000-125-N1-B	3.000	3.250	2.000	0.125	\$21.00
WB0325-0750-125-N1@1	3.000	3.250	0.750	0.125	\$8.13
WB0325-0160-128-N1-B	2.994	3.250	0.160	0.128	\$5.31
WB0331-0625-093-N1-B	3.125	3.312	0.625	0.093	\$7.83
WB0337-0750-125-N1-B	3.125	3.375	0.750	0.125	\$6.28
WB0337-1740-062-P1-A	3.250	3.375	1.740	0.062	\$37.56
WB0343-1000-125-N1-B	3.187	3.437	1.000	0.125	\$8.90
WB0345-1625-100-P1-A	3.250	3.450	1.625	0.100	\$32.31
WB0345-1990-100-P1-A	3.250	3.450	1.990	0.100	\$34.88
WB0345-2750-100-P1-A	3.250	3.450	2.750	0.100	\$42.70
WB0345-2375-100-P1-A	3.250	3.450	2.375	0.100	\$39.55
WB0350-0212-095-N1-B	3.310	3.500	0.212	0.095	\$6.77
WB0350-0250-125-N1-B	3.250	3.500	0.250	0.125	\$5.91
WB0350-0312-125-N1-B	3.250	3.500	0.312	0.125	\$6.04
WB0350-0375-125-N1-B	3.250	3.500	0.375	0.125	\$5.62
WB0350-0437-125-N1-B	3.250	3.500	0.437	0.125	\$6.18
WB0350-0500-095-N1-B	3.310	3.500	0.500	0.095	\$7.12
WB0350-0500-125-N1-B	3.250	3.500	0.500	0.125	\$5.59
WB0350-0500-187-N1-B	3.125	3.500	0.500	0.187	\$11.48
WB0350-0625-125-N1-B	3.250	3.500	0.625	0.125	\$6.03
WB0350-0750-093-N1-B	3.313	3.500	0.750	0.093	\$9.89
WB0350-0750-125-N1-B	3.250	3.500	0.750	0.125	\$6.30
WB0350-1000-125-N1-B	3.250	3.500	1.000	0.125	\$6.83
WB0350-1000-187-N1-B	3.125	3.500	1.000	0.187	\$13.97
WB0350-1125-125-N1-A	3.250	3.500	1.125	0.125	\$15.57
WB0350-1250-125-P1-A	3.250	3.500	1.250	0.125	\$17.55
WB0350-1500-125-N1-B	3.250	3.500	1.500	0.125	\$19.20
WB0350-0160-125-P1-A	3.250	3.500	0.160	0.125	\$5.75
WB0350-0875-125-P1-A	3.250	3.500	0.875	0.125	\$17.42
WB0362-0500-125-N1-B	3.375	3.625	0.500	0.125	\$7.88
WB0362-1000-125-N1-B	3.375	3.625	1.000	0.125	\$9.31
WB0362-1050-062-P1-A	3.500	3.625	1.050	0.062	\$21.94
WB0362-1250-187-P1-A	3.250	3.625	1.250	0.187	\$35.01
WB0370-1770-100-P1-A	3.500	3.700	1.770	0.100	\$37.87
WB0370-1890-100-P1-A	3.500	3.700	1.890	0.100	\$39.82
WB0370-2375-100-P1-A	3.500	3.700	2.375	0.100	\$45.76
WB0375-0250-125-N1-B	3.500	3.750	0.250	0.125	\$6.79
WB0375-0312-125-N1-B	3.500	3.750	0.312	0.125	\$6.94
WB0375-0375-125-N1-B	3.500	3.750	0.375	0.125	\$7.25

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0375-0500-125-N1-B	3.500	3.750	0.500	0.125	\$5.72
WB0375-0625-125-N1-B	3.500	3.750	0.625	0.125	\$6.43
WB0375-0750-125-N1-B	3.500	3.750	0.750	0.125	\$6.62
WB0375-1000-125-N1-B	3.500	3.750	1.000	0.125	\$6.86
WB0375-1250-125-P1-A	3.500	3.750	1.250	0.125	\$21.85
WB0375-1500-125-N1-B	3.500	3.750	1.500	0.125	\$22.92
WB0375-2000-125-P1-A	3.500	3.750	2.000	0.125	\$53.80
WB0387-1000-062-P1-A	3.750	3.875	1.000	0.062	\$14.53
WB0387-1000-125-P1-A	3.625	3.875	1.000	0.125	\$17.89
WB0387-1250-187-P1-A	3.500	3.875	1.250	0.187	\$28.91
WB0387-1562-062-P1-A	3.750	3.875	1.562	0.062	\$32.62
WB0387-1750-187-P1-A	3.500	3.875	1.750	0.187	\$45.04
WB0393-0212-095-N1-B	3.747	3.937	0.212	0.095	\$8.06
WB0395-2437-100-P1-A	3.750	3.950	2.437	0.100	\$62.60
WB0400-0250-125-N1-B	3.750	4.000	0.250	0.125	\$6.13
WB0400-0312-125-N1-B	3.750	4.000	0.312	0.125	\$6.25
WB0400-0320-062-P1-A	3.875	4.000	0.320	0.062	\$16.85
WB0400-0375-125-N1-B	3.750	4.000	0.375	0.125	\$6.54
WB0400-0500-125-N1-B	3.750	4.000	0.500	0.125	\$6.06
WB0400-0500-187-N1-B	3.625	4.000	0.500	0.187	\$17.72
WB0400-0625-125-N1-B	3.750	4.000	0.625	0.125	\$6.68
WB0400-0750-125-N1-B	3.750	4.000	0.750	0.125	\$6.32
WB0400-0875-125-N1-B	3.750	4.000	0.875	0.125	\$12.57
WB0400-0875-187-N1-B	3.625	4.000	0.875	0.187	\$18.52
WB0400-1000-125-N1-B	3.750	4.000	1.000	0.125	\$7.38
WB0400-1000-187-N1-B	3.625	4.000	1.000	0.187	\$19.21
WB0400-1250-125-P1-A	3.750	4.000	1.250	0.125	\$20.86
WB0400-0710-125-P1-A	3.750	4.000	0.710	0.125	\$13.64
WB0400-1500-125-P1-A	3.750	4.000	1.500	0.125	\$30.29
WB0400-0500-187-P1-A	3.625	4.000	0.500	0.187	\$20.45
WB0418-0875-093-PSOL	4.000	4.187	0.875	0.093	\$29.94
WB0418-1500-093-P1-A	4.000	4.187	1.500	0.093	\$113.68
WB0420-1562-100-P1-A	4.000	4.200	1.562	0.100	\$44.05
WB0420-2562-100-P1-A	4.000	4.200	2.562	0.100	\$59.67
WB0425-0250-125-P1-A	4.000	4.250	0.250	0.125	\$7.54
WB0425-0312-125-N1-B	4.000	4.250	0.312	0.125	\$7.59
WB0425-0375-125-N1-B	4.000	4.250	0.375	0.125	\$7.33
WB0425-0500-125-N1-B	4.000	4.250	0.500	0.125	\$5.90
WB0425-0625-125-N1-B	4.000	4.250	0.625	0.125	\$6.77
WB0425-0750-125-N1-B	4.000	4.250	0.750	0.125	\$6.99
WB0425-0875-125-P1-A	4.000	4.250	0.875	0.125	\$12.05
WB0425-1000-125-N1-B	4.000	4.250	1.000	0.125	\$8.99
WB0425-1250-125-P1-A	4.000	4.250	1.250	0.125	\$19.17
WB0425-1500-125-N1-B	4.000	4.250	1.500	0.125	\$20.87
WB0425-1875-125-P1-A	4.000	4.250	1.875	0.125	\$57.06
WB0425-2500-125-P1-A	4.000	4.250	2.500	0.125	\$62.61
WB0425-1750-125-P1-A	4.000	4.250	1.750	0.125	\$27.03
WB0437-1250-187-P1-A	4.000	4.375	1.250	0.187	\$60.43
WB0450-0250-125-N1-B	4.250	4.500	0.250	0.125	\$7.47
WB0450-0312-125-N1-B	4.250	4.500	0.312	0.125	\$7.61
WB0450-0375-125-N1-B	4.250	4.500	0.375	0.125	\$7.46
WB0450-0500-125-N1-B	4.250	4.500	0.500	0.125	\$6.05
WB0450-0500-187-N1-B	4.125	4.500	0.500	0.187	\$50.96

**WB Nylon & Phenolic Wearbands - Inch, cont'd.**

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0450-0625-125-N1-B	4.250	4.500	0.625	0.125	\$6.71
WB0450-0750-125-N1-B	4.250	4.500	0.750	0.125	\$6.74
WB0450-0875-125-N1-A	4.250	4.500	0.875	0.125	\$15.22
WB0450-1000-125-N1-B	4.250	4.500	1.000	0.125	\$9.02
WB0450-1250-125-P1-A	4.250	4.500	1.250	0.125	\$23.24
WB0450-1500-125-P1-A	4.250	4.500	1.500	0.125	\$27.06
WB0450-0750-125-N1@1	4.250	4.500	0.750	0.125	\$9.79
WB0468-0865-093-PSOL	4.500	4.687	0.865	0.093	\$32.42
WB0470-1960-100-P1-A	4.500	4.700	1.960	0.100	\$56.38
WB0475-0375-125-N1-B	4.500	4.750	0.375	0.125	\$7.69
WB0475-0500-125-N1-B	4.500	4.750	0.500	0.125	\$6.01
WB0475-0625-125-N1-B	4.500	4.750	0.625	0.125	\$7.98
WB0475-0750-125-N1-B	4.500	4.750	0.750	0.125	\$6.98
WB0475-1000-125-N1-B	4.500	4.750	1.000	0.125	\$9.05
WB0475-1250-125-P1-A	4.500	4.750	1.250	0.125	\$27.30
WB0475-1500-125-P1-A	4.500	4.750	1.500	0.125	\$30.55
WB0475-2000-125-N1-B	4.500	4.750	2.000	0.125	\$32.72
WB0475-1000-125-P1-A	4.500	4.750	1.000	0.125	\$26.81
WB0487-0375-125-N1-B	4.625	4.875	0.375	0.125	\$9.48
WB0487-1000-062-P1-A	4.750	4.875	1.000	0.062	\$33.50
WB0487-1500-187-P1-A	4.500	4.875	1.500	0.187	\$56.96
WB0500-0250-125-N1-B	4.750	5.000	0.250	0.125	\$7.63
WB0500-0375-125-N1-B	4.750	5.000	0.375	0.125	\$7.68
WB0500-0500-125-N1-B	4.750	5.000	0.500	0.125	\$6.15
WB0500-0625-125-N1-B	4.750	5.000	0.625	0.125	\$6.77
WB0500-0750-125-N1-B	4.750	5.000	0.750	0.125	\$6.98
WB0500-1000-125-N1-B	4.750	5.000	1.000	0.125	\$9.07
WB0500-1000-187-N1-B	4.625	5.000	1.000	0.187	\$34.16
WB0500-1125-125-P1-A	4.750	5.000	1.125	0.125	\$22.41
WB0500-1250-125-N1-B	4.750	5.000	1.250	0.125	\$21.10
WB0500-1500-125-N1-B	4.750	5.000	1.500	0.125	\$22.88
WB0500-1550-125-P1-A	4.750	5.000	1.550	0.125	\$43.51
WB0500-1750-127-N1-A	4.746	5.000	1.750	0.127	\$27.63
WB0500-2000-125-N1-B	4.750	5.000	2.000	0.125	\$40.83
WB0512-0500-125-N1-B	4.875	5.125	0.500	0.125	\$8.56
WB0512-1000-062-P1-A	5.000	5.125	1.000	0.062	\$13.77
WB0512-0500-125-P1-A	4.875	5.125	0.500	0.125	\$14.59
WB0525-0375-125-N1-B	5.000	5.250	0.375	0.125	\$7.71
WB0525-0500-125-N1-B	5.000	5.250	0.500	0.125	\$6.12
WB0525-0625-125-N1-B	5.000	5.250	0.625	0.125	\$6.81
WB0525-0750-125-N1-B	5.000	5.250	0.750	0.125	\$6.98
WB0525-1000-125-N1-B	5.000	5.250	1.000	0.125	\$9.65
WB0525-1250-125-P1-A	5.000	5.250	1.250	0.125	\$23.91
WB0525-1500-125-N1-B	5.000	5.250	1.500	0.125	\$30.63
WB0525-1750-125-N1-B	5.000	5.250	1.750	0.125	\$36.50
WB0525-2000-125-N1-B	5.000	5.250	2.000	0.125	\$39.51
WB0525-3625-125-P1-A	5.000	5.250	3.625	0.125	\$95.57
WB0537-2000-187-N1-A	5.000	5.375	2.000	0.187	\$121.82
WB0550-0250-125-N1-B	5.250	5.500	0.250	0.125	\$9.47
WB0550-0375-125-N1-B	5.250	5.500	0.375	0.125	\$6.07
WB0550-0500-125-N1-B	5.250	5.500	0.500	0.125	\$6.19
WB0550-0625-125-N1-B	5.250	5.500	0.625	0.125	\$7.17
WB0550-0750-125-N1-B	5.250	5.500	0.750	0.125	\$6.98

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0550-1000-125-N1-B	5.250	5.500	1.000	0.125	\$9.06
WB0550-1375-125-P1-A	5.250	5.500	1.375	0.125	\$44.89
WB0550-1500-125-N1-B	5.250	5.500	1.500	0.125	\$23.85
WB0550-1750-125-P1-A	5.250	5.500	1.750	0.125	\$34.37
WB0550-1750-187-P1-A	5.125	5.500	1.750	0.187	\$65.57
WB0550-2000-125-P1-A	5.250	5.500	2.000	0.125	\$63.07
WB0550-2250-125-P1-A	5.250	5.500	2.250	0.125	\$66.57
WB0550-1250-125-P1-A	5.250	5.500	1.250	0.125	\$25.06
WB0575-0500-125-N1-B	5.500	5.750	0.500	0.125	\$6.92
WB0575-0625-125-N1-B	5.500	5.750	0.625	0.125	\$13.31
WB0575-0750-125-N1-B	5.500	5.750	0.750	0.125	\$8.85
WB0575-0875-125-N1-B	5.500	5.750	0.875	0.125	\$18.29
WB0575-1000-125-N1-B	5.500	5.750	1.000	0.125	\$9.27
WB0575-1500-125-N1-B	5.500	5.750	1.500	0.125	\$24.27
WB0575-1625-125-P1-A	5.500	5.750	1.625	0.125	\$55.04
WB0575-1750-125-P1-A	5.500	5.750	1.750	0.125	\$61.83
WB0575-2360-125-P1-A	5.500	5.750	2.360	0.125	\$64.16
WB0575-2375-125-P1-A	5.500	5.750	2.375	0.125	\$64.16
WB0600-0187-125-P1-A	5.750	6.000	0.187	0.125	\$17.46
WB0600-0250-125-P1-A	5.750	6.000	0.250	0.125	\$9.85
WB0600-0375-125-N1-B	5.750	6.000	0.375	0.125	\$8.65
WB0600-0500-125-N1-B	5.750	6.000	0.500	0.125	\$6.86
WB0600-0625-125-N1-B	5.750	6.000	0.625	0.125	\$7.39
WB0600-0625-187-P1-A	5.625	6.000	0.625	0.187	\$28.79
WB0600-0750-125-N1-B	5.750	6.000	0.750	0.125	\$7.70
WB0600-0875-125-N1-B	5.750	6.000	0.875	0.125	\$12.00
WB0600-1000-125-N1-B	5.750	6.000	1.000	0.125	\$9.17
WB0600-1000-187-P1-A	5.625	6.000	1.000	0.187	\$44.28
WB0600-1062-125-P1-A	5.750	6.000	1.062	0.125	\$43.28
WB0600-1250-125-N1-B	5.750	6.000	1.250	0.125	\$19.74
WB0600-1250-187-P1-A	5.625	6.000	1.250	0.187	\$37.05
WB0600-1312-125-P1-A	5.750	6.000	1.312	0.125	\$36.71
WB0600-1500-125-N1-B	5.750	6.000	1.500	0.125	\$24.48
WB0600-1750-125-P1-A	5.750	6.000	1.750	0.125	\$61.89
WB0600-2740-125-P1-A	5.750	6.000	2.740	0.125	\$115.06
WB0600-2750-187-P1-A	5.625	6.000	2.750	0.187	\$143.60
WB0600-3625-062-P1-A	5.875	6.000	3.625	0.062	\$132.20
WB0600-0625-125-N1-A	5.750	6.000	0.625	0.125	\$7.70
WB0600-0500-127-N1-A	5.746	6.000	0.500	0.127	\$7.89
WB0625-0500-125-P1-A	6.000	6.250	0.500	0.125	\$7.88
WB0625-0625-125-N1-B	6.000	6.250	0.625	0.125	\$7.43
WB0625-0625-187-N1-B	5.875	6.250	0.625	0.187	\$110.79
WB0625-0750-125-N1-B	6.000	6.250	0.750	0.125	\$8.11
WB0625-1000-125-N1-B	6.000	6.250	1.000	0.125	\$9.51
WB0625-1500-125-N1-B	6.000	6.250	1.500	0.125	\$22.88
WB0625-1750-125-P1-A	6.000	6.250	1.750	0.125	\$59.43
WB0625-2000-125-N1-B	6.000	6.250	2.000	0.125	\$45.40
WB0625-2750-125-P1-A	6.000	6.250	2.750	0.125	\$81.80
WB0637-2500-125-P1-A	6.125	6.375	2.500	0.125	\$72.58
WB0650-0250-250-P1-A	6.000	6.500	0.250	0.250	\$23.85
WB0650-0500-125-N1-B	6.250	6.500	0.500	0.125	\$7.94
WB0650-0625-125-P1-A	6.250	6.500	0.625	0.125	\$15.12
WB0650-0750-125-N1-B	6.250	6.500	0.750	0.125	\$8.08



**WB Nylon & Phenolic Wearbands - Inch, cont'd.**

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0650-0750-187-N1-B	6.125	6.500	0.750	0.187	\$70.95
WB0650-1000-125-N1-B	6.250	6.500	1.000	0.125	\$9.96
WB0650-1375-125-P1-A	6.250	6.500	1.375	0.125	\$29.94
WB0650-1250-125-P1-A	6.250	6.500	1.250	0.125	\$35.55
WB0650-1500-125-P1-A	6.250	6.500	1.500	0.125	\$33.98
WB0650-1750-125-P1-A	6.250	6.500	1.750	0.125	\$33.14
WB0650-2000-125-N1-A	6.250	6.500	2.000	0.125	\$60.43
WB0650-2750-125-P1-A	6.250	6.500	2.750	0.125	\$94.70
WB0650-3500-125-P1-A	6.250	6.500	3.500	0.125	\$130.83
WB0650-3500-250-P1-A	6.000	6.500	3.500	0.250	\$134.38
WB0675-0500-125-N1-B	6.500	6.750	0.500	0.125	\$9.31
WB0675-0625-125-N1-B	6.500	6.750	0.625	0.125	\$11.13
WB0675-1000-125-N1-B	6.500	6.750	1.000	0.125	\$12.87
WB0675-1250-125-N1-B	6.500	6.750	1.250	0.125	\$40.22
WB0675-1500-125-N1-B	6.500	6.750	1.500	0.125	\$30.18
WB0700-0375-125-N1-B	6.750	7.000	0.375	0.125	\$8.99
WB0700-0625-125-P1-A	6.750	7.000	0.625	0.125	\$11.16
WB0700-0750-125-N1-B	6.750	7.000	0.750	0.125	\$10.26
WB0700-0750-187-P1-A	6.625	7.000	0.750	0.187	\$43.15
WB0700-1000-125-N1-B	6.750	7.000	1.000	0.125	\$13.37
WB0700-1250-187-P1-A	6.625	7.000	1.250	0.187	\$45.64
WB0700-1500-125-P1-A	6.750	7.000	1.500	0.125	\$27.56
WB0700-1740-125-N1-A	6.750	7.000	1.740	0.125	\$38.83
WB0700-2000-125-N1-A	6.750	7.000	2.000	0.125	\$44.06
WB0700-2375-125-P1-A	6.750	7.000	2.375	0.125	\$96.44
WB0700-0500-125-P1-A	6.750	7.000	0.500	0.125	\$10.27
WB0700-0500-127-N1-A	6.746	7.000	0.500	0.127	\$11.06
WB0712-1000-187-P1-A	6.750	7.125	1.000	0.187	\$58.66
WB0720-3150-100-P1-A	7.000	7.200	3.150	0.100	\$81.89
WB0725-0500-125-N1-B	7.000	7.250	0.500	0.125	\$13.93
WB0725-0625-125-N1-B	7.000	7.250	0.625	0.125	\$15.74
WB0725-0750-125-N1-B	7.000	7.250	0.750	0.125	\$13.25
WB0725-1000-125-N1-B	7.000	7.250	1.000	0.125	\$18.61
WB0725-1375-125-P1-A	7.000	7.250	1.375	0.125	\$71.37
WB0725-2000-127-N1-B	6.996	7.250	2.000	0.127	\$63.96
WB0725-3062-187-P1-A	6.875	7.250	3.062	0.187	\$190.26
WB0725-7125-125-P1-A	7.000	7.250	7.125	0.125	\$318.10
WB0737-1625-187-P1-A	7.000	7.375	1.625	0.187	\$69.83
WB0737-7375-187-P1-A	7.000	7.375	7.375	0.187	\$327.75
WB0750-0500-125-N1-B	7.250	7.500	0.500	0.125	\$7.95
WB0750-0625-125-N1-B	7.250	7.500	0.625	0.125	\$12.87
WB0750-0750-125-N1-B	7.250	7.500	0.750	0.125	\$12.87
WB0750-1000-125-N1-B	7.250	7.500	1.000	0.125	\$20.82
WB0750-1500-125-N1-B	7.250	7.500	1.500	0.125	\$28.28
WB0750-1500-125-N2-B	7.250	7.500	1.500	0.125	\$56.91
WB0750-1625-187-P1-A	7.125	7.500	1.625	0.187	\$89.36
WB0750-2360-124-P1-A	7.252	7.500	2.360	0.124	\$105.47
WB0750-2375-125-P1-A	7.250	7.500	2.375	0.125	\$105.47
WB0750-2500-125-P1-A	7.250	7.500	2.500	0.125	\$102.74
WB0750-7375-187-P1-A	7.125	7.500	7.375	0.187	\$340.76
WB0750-2000-125-P1-A	7.250	7.500	2.000	0.125	\$108.60
WB0775-0250-250-P1-A	7.250	7.750	0.250	0.250	\$22.55
WB0775-0500-125-N1-B	7.500	7.750	0.500	0.125	\$19.06

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0775-1000-125-N1-B	7.500	7.750	1.000	0.125	\$22.45
WB0775-2000-100-P1-A	7.550	7.750	2.000	0.100	\$88.44
WB0800-0375-125-N1-B	7.750	8.000	0.375	0.125	\$10.18
WB0800-0500-125-N1-B	7.750	8.000	0.500	0.125	\$8.60
WB0800-0500-187-P1-A	7.625	8.000	0.500	0.187	\$41.21
WB0800-0625-125-P1-A	7.750	8.000	0.625	0.125	\$17.59
WB0800-1000-125-N1-B	7.750	8.000	1.000	0.125	\$20.36
WB0800-1000-187-P1-A	7.625	8.000	1.000	0.187	\$65.44
WB0800-1500-125-N1-B	7.750	8.000	1.500	0.125	\$39.26
WB0800-1500-187-P1-A	7.625	8.000	1.500	0.187	\$64.04
WB0800-2375-125-P1-A	7.750	8.000	2.375	0.125	\$105.66
WB0800-5000-125-P1-A	7.750	8.000	5.000	0.125	\$136.38
WB0800-0750-125-P1-A	7.750	8.000	0.750	0.125	\$24.77
WB0800-0875-125-P1-A	7.750	8.000	0.875	0.125	\$35.80
WB0800-1250-125-P1-A	7.750	8.000	1.250	0.125	\$56.07
WB0820-3133-100-P1-A	8.000	8.200	3.133	0.100	\$148.07
WB0825-0250-250-P1-A	7.750	8.250	0.250	0.250	\$22.32
WB0825-0625-125-N1-B	8.000	8.250	0.625	0.125	\$22.46
WB0825-0750-125-N1-B	8.000	8.250	0.750	0.125	\$21.48
WB0825-1000-125-N1-B	8.000	8.250	1.000	0.125	\$22.34
WB0825-1250-125-P1-A	7.996	8.250	1.250	0.127	\$38.15
WB0825-1500-125-P1-A	8.000	8.250	1.500	0.125	\$44.28
WB0825-1750-125-N1-B	8.000	8.250	1.750	0.125	\$49.28
WB0825-2000-125-N1-B	8.000	8.250	2.000	0.125	\$93.94
WB0825-2125-125-P1-A	8.000	8.250	2.125	0.125	\$99.83
WB0825-2250-125-P1-A	8.000	8.250	2.250	0.125	\$106.13
WB0825-2500-125-P1-A	8.000	8.250	2.500	0.125	\$153.24
WB0825-2750-187-P1-A	7.875	8.250	2.750	0.187	\$191.73
WB0825-3500-250-P1-A	7.750	8.250	3.500	0.250	\$200.12
WB0825-4062-125-P1-A	8.000	8.250	4.062	0.125	\$186.05
WB0842-0750-125-N1@1	8.170	8.420	0.750	0.125	\$19.52
WB0850-0250-125-N1-B	8.250	8.500	0.250	0.125	\$15.83
WB0850-0500-125-N1-B	8.250	8.500	0.500	0.125	\$9.64
WB0850-0625-125-N1-B	8.250	8.500	0.625	0.125	\$13.77
WB0850-0750-125-N1-B	8.250	8.500	0.750	0.125	\$17.44
WB0850-0750-187-P1-A	8.125	8.500	0.750	0.187	\$45.30
WB0850-1000-125-N1-B	8.250	8.500	1.000	0.125	\$20.46
WB0850-1500-125-P1-A	8.250	8.500	1.500	0.125	\$50.98
WB0850-1500-187-N1-B	8.125	8.500	1.500	0.187	\$250.93
WB0850-1500-187-P1-A	8.125	8.500	1.500	0.187	\$102.06
WB0850-2000-125-N1-B	8.250	8.500	2.000	0.125	\$70.17
WB0850-2375-125-P1-A	8.250	8.500	2.375	0.125	\$83.72
WB0850-0750-125-N1@1	8.250	8.500	0.750	0.125	\$39.63
WB0850-3000-125-N1-A	8.250	8.500	3.000	0.125	\$111.69
WB0875-1000-125-N1-B	8.500	8.750	1.000	0.125	\$30.62
WB0875-2000-125-N1-B	8.500	8.750	2.000	0.125	\$72.12
WB0900-0375-125-N1-B	8.750	9.000	0.375	0.125	\$18.35
WB0900-0750-125-N1-B	8.750	9.000	0.750	0.125	\$17.21
WB0900-1000-125-N1-B	8.750	9.000	1.000	0.125	\$22.23
WB0900-1500-125-P1-A	8.750	9.000	1.500	0.125	\$40.25
WB0900-2000-125-N1-B	8.750	9.000	2.000	0.125	\$110.41
WB0900-2000-187-P1-A	8.625	9.000	2.000	0.187	\$138.94
WB0900-0500-125-N1-B	8.750	9.000	0.500	0.125	\$15.61

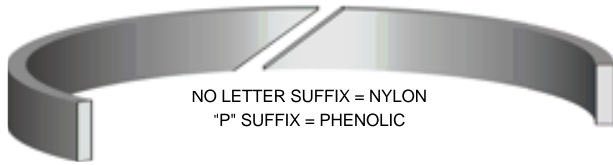


**WB Nylon & Phenolic Wearbands - Inch, cont'd.**

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price	Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
WB0925-0500-125-N1-B	9.000	9.250	0.500	0.125	\$21.48	WB1200-1000-125-N1-B	11.750	12.000	1.000	0.125	\$33.20
WB0925-1000-125-N1-B	9.000	9.250	1.000	0.125	\$25.38	WB1200-1000-187-P1-A	11.625	12.000	1.000	0.187	\$95.47
WB0925-1750-125-P1-A	9.000	9.250	1.750	0.125	\$120.89	WB1200-1000-195-P1-A	11.610	12.000	1.000	0.195	\$122.82
WB0925-2250-125-P1-A	9.000	9.250	2.250	0.125	\$144.13	WB1200-1250-125-P1-A	11.750	12.000	1.250	0.125	\$132.19
WB0950-0250-250-P1-A	9.000	9.500	0.250	0.250	\$35.42	WB1200-1250-187-P1-A	11.625	12.000	1.250	0.187	\$134.89
WB0950-0500-125-N1-B	9.250	9.500	0.500	0.125	\$16.02	WB1200-1500-187-P1-A	11.625	12.000	1.500	0.187	\$245.07
WB0950-0625-125-N1-B	9.250	9.500	0.625	0.125	\$16.23	WB1200-2000-125-P1-A	11.750	12.000	2.000	0.125	\$165.73
WB0950-0750-125-N1-B	9.250	9.500	0.750	0.125	\$22.39	WB1200-2000-187-N1-B	11.625	12.000	2.000	0.187	\$241.44
WB0950-1000-125-N1-B	9.250	9.500	1.000	0.125	\$24.13	WB1200-1500-125-P1-A	11.750	12.000	1.500	0.125	\$144.66
WB0950-3000-125-P1-A	9.250	9.500	3.000	0.125	\$156.60	WB1225-2000-125-P1-A	12.000	12.250	2.000	0.125	\$188.01
WB0950-1625-187-N1-A	9.125	9.500	1.625	0.187	\$136.41	WB1275-4000-125-P1-A	12.500	12.750	4.000	0.125	\$293.49
WB0950-9000-187-N1-A	9.125	9.500	9.000	0.187	\$386.35	WB1300-1000-125-N1-B	12.750	13.000	1.000	0.125	\$33.00
WB0975-1000-125-N1-B	9.500	9.750	1.000	0.125	\$22.13	WB1300-1250-125-P1-A	12.750	13.000	1.250	0.125	\$137.88
WB0975-2000-125-P1-A	9.500	9.750	2.000	0.125	\$102.56	WB1300-1250-187-P1-A	12.625	13.000	1.250	0.187	\$169.00
WB1000-0250-125-N1-B	9.750	10.000	0.250	0.125	\$19.03	WB1300-1500-125-P1-A	12.750	13.000	1.500	0.125	\$174.86
WB1000-0500-125-N1-B	9.750	10.000	0.500	0.125	\$23.07	WB1300-1500-187-P1-A	12.625	13.000	1.500	0.187	\$201.51
WB1000-0625-125-N1-B	9.750	10.000	0.625	0.125	\$25.16	WB1300-3000-125-P1-A	12.750	13.000	3.000	0.125	\$277.90
WB1000-0750-125-N1-B	9.750	10.000	0.750	0.125	\$27.17	WB1300-3937-187-P1-A	12.625	13.000	3.937	0.187	\$338.22
WB1000-0750-191-P1-A	9.618	10.000	0.750	0.191	\$31.18	WB1300-6000-127-P1-A	12.746	13.000	6.000	0.127	\$528.74
WB1000-1250-125-N1-B	9.750	10.000	1.250	0.125	\$36.51	WB1300-4000-125-P1-B	12.750	13.000	4.000	0.125	\$589.55
WB1000-1250-187-P1-A	9.625	10.000	1.250	0.187	\$104.01	WB1312-7875-192-P1-A	12.741	13.125	7.875	0.192	\$883.45
WB1000-1500-125-P1-A	9.750	10.000	1.500	0.125	\$78.79	WB1350-0500-125-P1-A	13.250	13.500	0.500	0.125	\$78.63
WB1000-1500-187-P1-A	9.625	10.000	1.500	0.187	\$153.09	WB1400-1000-125-P1-A	13.750	14.000	1.000	0.125	\$155.30
WB1000-2750-125-P1-A	9.750	10.000	2.750	0.125	\$166.82	WB1400-1500-125-P1-A	13.750	14.000	1.500	0.125	\$184.24
WB1000-3250-125-P1-A	9.750	10.000	3.250	0.125	\$128.66	WB1400-2000-125-P1-A	13.750	14.000	2.000	0.125	\$195.92
WB1000-1000-125-P1-A	9.750	10.000	1.000	0.125	\$31.04	WB1425-2000-125-P1-A	14.000	14.250	2.000	0.125	\$220.95
WB1000-1500-191-P1-B	9.618	10.000	1.500	0.191	\$153.09	WB1475-1500-187-N1-B	11.000	14.750	1.500	1.870	\$281.09
WB1025-0250-250-P1-A	9.750	10.250	0.250	0.250	\$39.48	WB1600-1000-125-P1-A	15.750	16.000	1.000	0.125	\$129.75
WB1025-1000-125-N1-B	10.000	10.250	1.000	0.125	\$23.42	WB1600-2000-125-P1-A	15.750	16.000	2.000	0.125	\$232.96
WB1050-0500-125-N1-B	10.250	10.500	0.500	0.125	\$39.61	WB1600-2000-187-P1-A	15.625	16.000	2.000	0.187	\$306.80
WB1050-3500-125-P1-A	10.250	10.500	3.500	0.125	\$199.50	WB1600-2000-250-P1-A	15.500	16.000	2.000	0.250	\$367.33
WB1050-3750-125-P1-A	10.250	10.500	3.750	0.125	\$214.71	WB1750-2000-187-N1-B	17.125	17.500	2.000	0.187	\$608.82
WB1050-4000-125-P1-A	10.250	10.500	4.000	0.125	\$191.58	WB1800-1000-125-P1-A	17.750	18.000	1.000	0.125	\$185.96
WB1100-0500-125-N1-B	10.750	11.000	0.500	0.125	\$39.02	WB1800-1500-125-P1-A	17.750	18.000	1.500	0.125	\$232.44
WB1100-1000-125-N1-B	10.750	11.000	1.000	0.125	\$41.22	WB1800-1500-187-P1-A	17.625	18.000	1.500	0.187	\$328.67
WB1100-1250-127-N1-B	10.746	11.000	1.250	0.127	\$74.86	WB1825-1500-125-P1-A	18.000	18.250	1.500	0.125	\$207.21
WB1100-2000-125-P1-A	10.750	11.000	2.000	0.125	\$165.85	WB1825-2000-125-P1-A	18.000	18.250	2.000	0.125	\$258.83
WB1100-3250-125-P1-A	10.750	11.000	3.250	0.125	\$265.06	WB1850-1000-125-P1-A	18.250	18.500	1.000	0.125	\$198.89
WB1100-0750-125-P1-A	10.750	11.000	0.750	0.125	\$57.70	WB1850-1250-125-P1-A	18.250	18.500	1.250	0.125	\$228.11
WB1125-1000-125-N1-B	11.000	11.250	1.000	0.125	\$32.88	WB1850-1500-125-P1-A	18.250	18.500	1.500	0.125	\$260.25
WB1137-2625-187-P1-A	11.000	11.375	2.625	0.187	\$166.76	WB2000-1000-125-P1-A	19.750	20.000	1.000	0.125	\$340.32
WB1137-1097-187-P1-A	11.000	11.375	1.097	0.187	\$1002.84	WB2000-1250-125-P1-A	19.750	20.000	1.250	0.125	\$278.36
WB1150-0625-125-N1-B	11.250	11.500	0.625	0.125	\$26.82	WB2000-1500-125-P1-A	19.750	20.000	1.500	0.125	\$329.45
WB1150-1000-125-P1-A	11.250	11.500	1.000	0.125	\$65.06	WB2025-1000-125-P1-A	20.000	20.250	1.000	0.125	\$233.64
WB1150-3875-125-P1-A	11.250	11.500	3.875	0.125	\$142.98	WB2025-1250-125-P1-A	20.000	20.250	1.250	0.125	\$263.92
WB1200-0375-125-N1-B	11.750	12.000	0.375	0.125	\$34.80	WB2025-1500-125-P1-A	20.000	20.250	1.500	0.125	\$291.68
WB1200-0500-125-N1-B	11.750	12.000	0.500	0.125	\$40.03	WB2025-1750-125-P1-A	20.000	20.250	1.750	0.125	\$309.81
WB1200-0750-125-N1-B	11.750	12.000	0.750	0.125	\$51.43	WB2025-2000-125-P1-A	20.000	20.250	2.000	0.125	\$350.66



# MWB Nylon & Phenolic Wearbands - Metric

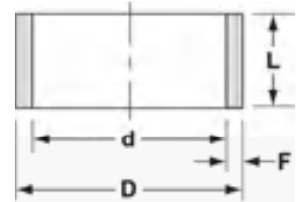


### EXAMPLE: MWB-150X9.7X2.5

Prefix	Outside Diameter	Groove Height	Cross Section	Material	
MWB-	150	x	9.7	x	2.5
	150mm		9.7mm		2.5mm
					Nylon

### ALTERNATIVE SEALS:

Wearband Tape



A large percentage of our metric wearbands are supplied in a glass-filled nylon material due to their low cost and good load-bearing properties. Phenolic wearbands are commonly found in many European and Asian cylinders, so we make them available in many sizes.

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
MWB-16X9.6X2	12.0	16.0	9.6	2.00	\$3.53
MWB-18X9.6X2	14.0	18.0	9.6	2.00	\$3.98
MWB-20X9.6X2	16.0	20.0	9.6	2.00	\$6.72
MWB-25X5.6X1.5	22.0	25.0	5.6	1.50	\$3.12
MWB-25X5.6X2.5	20.0	25.0	5.6	2.50	\$5.39
MWB-25X9.6X2	21.0	25.0	9.6	2.00	\$6.87
MWB-25X9.7X2.5P	20.0	25.0	9.7	2.50	\$4.32
MWB-26X9.6X3	20.0	26.0	9.6	3.00	\$7.75
MWB-27X5.6X2.5	22.0	27.0	5.6	2.50	\$6.03
MWB-29X9.6X2P	25.0	29.0	9.6	2.00	\$6.50
MWB-30X5.6X2.5	25.0	30.0	5.6	2.50	\$5.04
MWB-30X9.6X2	26.0	30.0	9.6	2.00	\$7.12
MWB-31X9.6X3	25.0	31.0	9.6	3.00	\$5.23
MWB-32X5.6X2.5	27.0	32.0	5.6	2.50	\$4.64
MWB-32X9.6X2	28.0	32.0	9.6	2.00	\$7.29
MWB-32X9.7X2.5P	27.0	32.0	9.7	2.50	\$4.50
MWB-32X9.8X3	26.0	32.0	9.8	3.00	\$12.58
MWB-33X5.6X1.5P	30.0	33.0	5.6	1.50	\$5.61
MWB-33X5.7X2.5	28.0	33.0	5.7	2.50	\$6.01
MWB-34X9.6X2P	30.0	34.0	9.6	2.00	\$7.46
MWB-34X9.6X3	28.0	34.0	9.6	3.00	\$7.49
MWB-35X3.8X1.5	32.0	35.0	3.8	1.50	\$4.74
MWB-35X5.6X2.5	30.0	35.0	5.6	2.50	\$5.16
MWB-35X8X2P	31.0	35.0	8.0	2.00	\$8.59
MWB-35X9.5X2.5	30.0	35.0	9.5	2.50	\$5.70
MWB-35X9.6X2	31.0	35.0	9.6	2.00	\$5.97
MWB-35X9.7X2.5P	30.0	35.0	9.7	2.50	\$5.79
MWB-35X16X1.5P	32.0	35.0	16.0	1.50	\$6.51
MWB-36X5.1X3P	30.0	36.0	5.1	3.00	\$5.48
MWB-36X8.2X2P	32.0	36.0	8.2	2.00	\$4.83
MWB-36X9.5X2	32.0	36.0	9.5	2.00	\$4.88
MWB-38X9.6X3	32.0	38.0	9.6	3.00	\$5.37
MWB-40X5.6X2.5	35.0	40.0	5.6	2.50	\$4.72
MWB-40X5.6X2.5P	35.0	40.0	5.6	2.50	\$5.35
MWB-40X9.6X3	34.0	40.0	9.6	3.00	\$7.62
MWB-40X9.7X2	36.0	40.0	9.7	2.00	\$5.92
MWB-40X9.7X2.5	35.0	40.0	9.7	2.50	\$5.37
MWB-41X5.6X2.5	36.0	41.0	5.6	2.50	\$3.48
MWB-41X6.3X2.5P	36.0	41.0	6.3	2.50	\$5.47
MWB-43X9.7X2.5P	38.0	43.0	9.7	2.50	\$8.52
MWB-43X15.9X1.5P	40.0	43.0	15.9	1.50	\$10.33
MWB-44X9.6X2	40.0	44.0	9.6	2.00	\$8.50
MWB-45X5X3	39.0	45.0	5.0	3.00	\$5.20

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
MWB-45X5.6X2.5	40.0	45.0	5.6	2.50	\$5.15
MWB-45X9.7X2.5	40.0	45.0	9.7	2.50	\$5.87
MWB-45X9.7X2.5P	40.0	45.0	9.7	2.50	\$8.86
MWB-45X10X2	41.0	45.0	10.0	2.00	\$7.77
MWB-45X15X2.5P	40.0	45.0	15.0	2.50	\$6.27
MWB-46X9.6X3	40.0	46.0	9.6	3.00	\$8.35
MWB-46X20X3P	40.0	46.0	20.0	3.00	\$13.27
MWB-48X22.5X1.5P	45.0	48.0	22.5	1.50	\$6.01
MWB-49X15X2P	45.0	49.0	15.0	2.00	\$9.45
MWB-49X25X2P	45.0	49.0	25.0	2.00	\$9.64
MWB-49.9X19X3.2	43.5	49.9	19.0	3.20	\$10.01
MWB-50X5X3	44.0	50.0	5.0	3.00	\$6.44
MWB-50X5.6X2.5P	45.0	50.0	5.6	2.50	\$7.32
MWB-50X6.3X2.5P	45.0	50.0	6.3	2.50	\$7.80
MWB-50X7X2.5P	45.0	50.0	7.0	2.50	\$8.12
MWB-50X9.5X2.5	45.0	50.0	9.5	2.50	\$7.35
MWB-50X9.6X3	44.0	50.0	9.6	3.00	\$8.85
MWB-50X9.7X2.5	45.0	50.0	9.7	2.50	\$8.97
MWB-50X10X1.5P	47.0	50.0	10.0	1.50	\$15.68
MWB-50X10X2.5P	45.0	50.0	10.0	2.50	\$9.82
MWB-50X12X2P	46.0	50.0	12.0	2.00	\$13.49
MWB-50X14.5X2P	46.0	50.0	14.5	2.00	\$7.85
MWB-50X15X2.5P	45.0	50.0	15.0	2.50	\$7.88
MWB-50X25X2.5P	45.0	50.0	25.0	2.50	\$15.29
MWB-50.8X15X2.5P	45.8	50.8	15.0	2.50	\$12.71
MWB-51X9.6X3	45.0	51.0	9.6	3.00	\$7.00
MWB-51X12.8X3	45.0	51.0	12.8	3.00	\$7.10
MWB-51X22.5X3P	45.0	51.0	22.5	3.00	\$16.86
MWB-51X38X3P	45.0	51.0	38.0	3.00	\$21.49
MWB-52X12.8X3	46.0	52.0	12.8	3.00	\$15.11
MWB-53X25X1.5P	50.0	53.0	25.0	1.50	\$17.65
MWB-54X9.7X3P	48.0	54.0	9.7	3.00	\$9.56
MWB-55X5.6X2.5	50.0	55.0	5.6	2.50	\$6.87
MWB-55X5.6X2.5P	50.0	55.0	5.6	2.50	\$8.21
MWB-55X6X2.5P	50.0	55.0	6.0	2.50	\$8.27
MWB-55X9.7X2.5	50.0	55.0	9.7	2.50	\$7.50
MWB-55X12.8X3P	49.0	55.0	12.8	3.00	\$8.98
MWB-55X15X2.5P	50.0	55.0	15.0	2.50	\$12.22
MWB-55X15X3P	49.0	55.0	15.0	3.00	\$12.99
MWB-55X20X2.5P	50.0	55.0	20.0	2.50	\$13.07
MWB-55X25X2.5P	50.0	55.0	25.0	2.50	\$16.32
MWB-55X25X3P	49.0	55.0	25.0	3.00	\$17.46
MWB-55X35X2.5P	50.0	55.0	35.0	2.50	\$18.26

**MWB Nylon & Phenolic Wearbands - Metric, cont'd.**

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price	Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
MWB-56X5X3	50.0	56.0	5.0	3.00	\$5.76	MWB-69X30X3	63.0	69.0	30.0	3.00	\$9.41
MWB-56X9.6X3	50.0	56.0	9.6	3.00	\$8.96	MWB-69X31.5X3P	63.0	69.0	31.5	3.00	\$14.54
MWB-56X20X3	50.0	56.0	20	3.00	\$12.27	MWB-70X5.6X2.5	65.0	70.0	5.6	2.50	\$5.73
MWB-56X25X3P	50.0	56.0	25.0	3.00	\$15.79	MWB-70X6X2.5P	65.0	70.0	6.0	2.50	\$8.81
MWB-56X28X3	50.0	56.0	28.0	3.00	\$10.10	MWB-70X7X2.5	65.0	70.0	7.0	2.50	\$5.57
MWB-59.9X19X3.2	53.5	59.9	19.0	3.20	\$10.70	MWB-70X9.7X2.5	65.0	70.0	9.7	2.50	\$7.55
MWB-60X5.6X2.5	55.0	60.0	5.6	2.50	\$7.66	MWB-70X9.7X2.5P	65.0	70.0	9.7	2.50	\$7.53
MWB-60X7X2.5	55.0	60.0	7.0	2.50	\$7.76	MWB-70X10X3	64.0	70.0	10.0	3.00	\$6.06
MWB-60X7.5X3.8	52.4	60.0	7.5	3.80	\$9.00	MWB-70X10X3.2P	63.6	70.0	10.0	3.20	\$9.44
MWB-60X8X3P	54.0	60.0	8.0	3.00	\$8.87	MWB-70X10.38X3	64.0	70.0	10.38	3.00	\$5.89
MWB-60X9.7X2.5	55.0	60.0	9.7	2.50	\$7.29	MWB-70X12.8X3	64.0	70.0	12.8	3.00	\$9.88
MWB-60X9.7X2.5P	55.0	60.0	9.7	2.50	\$7.04	MWB-70X15X2.5	65.0	70.0	15.0	2.50	\$10.25
MWB-60X10X2	56.0	60.0	10.0	2.00	\$6.69	MWB-70X15X2.5P	65.0	70.0	15.0	2.50	\$7.76
MWB-60X12.8X3	54.0	60.0	12.8	3.00	\$9.42	MWB-70X19.5X3P	64.0	70.0	19.5	3.00	\$19.62
MWB-60X15X2.5P	55.0	60.0	15.0	2.50	\$8.93	MWB-70X20X2.5	65.0	70.0	20.0	2.50	\$12.03
MWB-60X15X3P	54.0	60.0	15.0	3.00	\$10.39	MWB-70X20X2.5P	65.0	70.0	20.0	2.50	\$12.18
MWB-61X5.6X2.5P	56.0	61.0	5.6	2.50	\$6.34	MWB-70X20X4P	62.0	70.0	20.0	4.00	\$16.05
MWB-61X8X3P	55.0	61.0	8.0	3.00	\$6.07	MWB-70X35X2.5P	65.0	70.0	35.0	2.50	\$23.56
MWB-61X9.7X2.5	56.0	61.0	9.7	2.50	\$7.33	MWB-71X12.8X3	65.0	71.0	12.8	3.00	\$10.04
MWB-61X9.6X3	55.0	61.0	9.7	3.00	\$7.22	MWB-74.4X25X3.2	68.0	74.4	25.0	3.20	\$11.18
MWB-61X12.7X3	55.0	61.0	12.7	3.00	\$6.94	MWB-75X5.6X2.5	70.0	75.0	5.6	2.50	\$10.02
MWB-61X15X2.5P	56.0	61.0	15.0	2.50	\$11.54	MWB-75X6X2.5P	70.0	75.0	6.0	2.50	\$10.22
MWB-62X12.8X3	56.0	62.0	12.8	3.00	\$9.80	MWB-75X9.7X2.5	70.0	75.0	9.7	2.50	\$8.45
MWB-62X25X3P	56.0	62.0	25.0	3.00	\$16.50	MWB-75X9.7X2.5P	70.0	75.0	9.7	2.50	\$7.60
MWB-62X28X3	56.0	62.0	28.0	3.00	\$9.89	MWB-75X10X2P	71.0	75.0	10.0	2.00	\$8.73
MWB-62X31.5X3P	56.0	62.0	31.5	3.00	\$19.46	MWB-75X10X2.5P	70.0	75.0	10.0	2.50	\$10.06
MWB-63X5.6X2.5	58.0	63.0	5.6	2.50	\$5.87	MWB-75X12.8X3	69.0	75.0	12.8	3.00	\$12.42
MWB-63X9.7X2.5	58.0	63.0	9.7	2.50	\$8.41	MWB-75X15X2P	71.0	75.0	15.0	2.00	\$17.74
MWB-63X10X3	57.0	63.0	10.0	3.00	\$5.85	MWB-75X15X2.5	70.0	75.0	15.0	2.50	\$9.16
MWB-63X10X3P	57.0	63.0	10.0	3.00	\$6.20	MWB-75X15X2.5P	70.0	75.0	15.0	2.50	\$14.49
MWB-63X12.8X3	57.0	63.0	12.8	3.00	\$9.80	MWB-75X20X2.5P	70.0	75.0	20.0	2.50	\$17.03
MWB-63X15X2.5	58.0	63.0	15.0	2.50	\$10.05	MWB-75X25X2.5P	70.0	75.0	25.0	2.50	\$22.45
MWB-63X15.88X3P	57.0	63.0	15.88	3.00	\$14.31	MWB-75X30X2.5	70.0	75.0	30.0	2.50	\$14.81
MWB-63X31.5X3P	57.0	63.0	31.50	3.00	\$23.62	MWB-76X12.8X3	70.0	76.0	12.8	3.00	\$10.84
MWB-64X12.8X3	58.0	64.0	12.8	3.00	\$10.08	MWB-78X12.8X3	72.0	78.0	12.8	3.00	\$10.95
MWB-65X5.6X2.5	60.0	65.0	5.6	2.50	\$7.86	MWB-78X12.8X3P	72.0	78.0	12.8	3.00	\$11.30
MWB-65X9.7X2.5	60.0	65.0	9.7	2.50	\$8.50	MWB-80X4X3	74.0	80.0	4.0	3.00	\$7.01
MWB-65X9.7X2.5P	60.0	65.0	9.7	2.50	\$8.58	MWB-80X5.6X2.5	75.0	80.0	5.6	2.50	\$6.92
MWB-65X10X2P	61.0	65.0	10.0	2.00	\$10.15	MWB-80X6X2.5P	75.0	80.0	6.0	2.50	\$9.17
MWB-65X12.8X2.5P	60.0	65.0	12.8	2.50	\$12.79	MWB-80X7.5X4.8	70.4	80.0	7.5	4.80	\$8.37
MWB-65X12.8X3	59.0	65.0	12.8	3.00	\$10.11	MWB-80X9.7X2.5	75.0	80.0	9.7	2.50	\$8.44
MWB-65X15X2.5P	60.0	65.0	15.0	2.50	\$8.90	MWB-80X9.7X2.5P	75.0	80.0	9.7	2.50	\$7.46
MWB-65X20X2.5P	60.0	65.0	20.0	2.50	\$15.34	MWB-80X10X2.5P	75.0	80.0	10.0	2.50	\$7.61
MWB-65X20X2.5	60.0	65.0	20.0	2.50	\$8.01	MWB-80X10X3	74.0	80.0	10.0	3.00	\$4.47
MWB-66X12.8X3	60.0	66.0	12.8	3.00	\$10.25	MWB-80X10X3.12P	73.76	80.0	10.0	3.12	\$11.47
MWB-66X20X3P	60.0	66.0	20.0	3.00	\$18.34	MWB-80X10.38X3	74.0	80.0	10.38	3.00	\$6.50
MWB-68X5.6X2.5	63.0	68.0	5.6	2.50	\$8.20	MWB-80X12.8X3P	74.0	80.0	12.8	3.00	\$10.57
MWB-68X9.7X2.5	63.0	68.0	9.7	2.50	\$7.86	MWB-80X13X2.5P	75.0	80.0	13.0	2.50	\$11.72
MWB-68X9.7X2.5P	63.0	68.0	9.7	2.50	\$10.55	MWB-80X15X2	76.0	80.0	15.0	2.00	\$7.49
MWB-68X40X2.5P	63.0	68.0	40.0	2.50	\$23.87	MWB-80X15X2.5P	75.0	80.0	15.0	2.50	\$10.20
MWB-69X12.8X3	63.0	69.0	12.8	3.00	\$11.00	MWB-80X20X2.5P	75.0	80.0	20.0	2.50	\$18.29
MWB-69X12.8X3P	63.0	69.0	12.8	3.00	\$13.41	MWB-80X20X3P	74.0	80.0	20.0	3.00	\$14.77
MWB-69X15X2P	65.0	69.0	15.0	2.00	\$12.68	MWB-80X25X2.5P	75.0	80.0	25.0	2.50	\$24.13
MWB-69X28X3	63.0	69.0	28.0	3.00	\$10.64	MWB-81X12.8X3	75.0	81.0	12.8	3.00	\$11.14



**MWB Nylon & Phenolic Wearbands - Metric, cont'd.**

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price	Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
MWB-84X12.8X3	78.0	84.0	12.8	3.00	\$11.33	MWB-100X9.7X2.5	95.0	100.0	9.7	2.50	\$9.71
MWB-85X5.6X2.5	80.0	85.0	5.6	2.50	\$4.74	MWB-100X9.7X2.5P	95.0	100.0	9.7	2.50	\$13.74
MWB-85X6X2.5P	80.0	85.0	6.0	2.50	\$10.51	MWB-100X12X3P	94.0	100.0	12.0	3.00	\$17.23
MWB-85X9.7X2.5	80.0	85.0	9.7	2.50	\$9.39	MWB-100X12.5X4.5P	91.0	100.0	12.5	4.50	\$15.32
MWB-85X9.7X2.5P	80.0	85.0	9.7	2.50	\$13.57	MWB-100X12.8X3	94.0	100.0	12.8	3.00	\$12.01
MWB-85X12.8X3	79.0	85.0	12.8	3.00	\$9.81	MWB-100X15X2.5	95.0	100.0	15.0	2.50	\$9.85
MWB-85X15X2.5P	80.0	85.0	15.0	2.50	\$16.53	MWB-100X15X2.5P	95.0	100.0	15.0	2.50	\$16.19
MWB-85X18X2.5P	80.0	85.0	18.0	2.50	\$10.15	MWB-100X15X3	94.0	100.0	15.0	3.00	\$12.26
MWB-85X20X2.5P	80.0	85.0	20.0	2.50	\$19.57	MWB-100X15X3P	94.0	100.0	15.0	3.00	\$19.63
MWB-85X25X2.5P	80.0	85.0	25.0	2.50	\$25.83	MWB-100X15X3.15P	93.7	100.0	15.0	3.15	\$18.30
MWB-85X35X2.5P	80.0	85.0	35.0	2.50	\$31.23	MWB-100X15X5P	90.0	100.0	15.0	5.00	\$48.69
MWB-86X12.8X3P	80.0	86.0	12.8	3.00	\$11.51	MWB-100X15.38X3.18	93.64	100.0	15.38	3.18	\$11.56
MWB-86X30X3	80.0	86.0	30.0	3.00	\$10.73	MWB-100X20X2.5P	95.0	100.0	20.0	2.50	\$24.77
MWB-86X40X3P	80.0	86.0	40.0	3.00	\$37.73	MWB-100X22.5X3P	94.0	100.0	22.5	3.00	\$18.66
MWB-90X5.6X2.5	85.0	90.0	5.6	2.50	\$8.87	MWB-100X25X2.5P	95.0	100.0	25.0	2.50	\$22.09
MWB-90X6X4P	82.0	90.0	6.0	4.00	\$9.13	MWB-100X25X3	94.0	100.0	25.0	3.00	\$17.06
MWB-90X7.5X3.8	82.4	90.0	7.5	3.80	\$9.38	MWB-100X25X3P	94.0	100.0	25.0	3.00	\$26.42
MWB-90X7.5X4.8	80.4	90.0	7.5	4.80	\$10.20	MWB-100X30X3P	94.0	100.0	30.0	3.00	\$29.02
MWB-90X9.7X2.5	85.0	90.0	9.7	2.50	\$8.94	MWB-101X12.8X3P	95.0	101.0	12.8	3.00	\$12.44
MWB-90X9.7X2.5P	85.0	90.0	9.7	2.50	\$8.77	MWB-104X15X2P	100.0	104.0	15.0	2.00	\$32.15
MWB-90X12.5X4.5P	81.0	90.0	12.5	4.50	\$22.28	MWB-105X5.6X2.5	100.0	105.0	5.6	2.50	\$11.38
MWB-90X12.8X3	84.0	90.0	12.8	3.00	\$13.21	MWB-105X6X2.5P	100.0	105.0	6.0	2.50	\$13.58
MWB-90X15X2.5	85.0	90.0	15.0	2.50	\$17.49	MWB-105X9.5X2.5P	100.0	105.0	9.5	2.50	\$13.94
MWB-90X15X2.5P	85.0	90.0	15.0	2.50	\$12.07	MWB-105X9.7X2.5	100.0	105.0	9.7	2.50	\$10.44
MWB-90X15X3	84.0	90.0	15.0	3.00	\$10.33	MWB-105X9.7X2.5P	100.0	105.0	9.7	2.50	\$13.50
MWB-90X15X3.15P	83.7	90.0	15.0	3.15	\$6.99	MWB-105X12.5X4.5P	96.0	105.0	12.5	4.50	\$20.73
MWB-90X15.38X3	84.0	90.0	15.38	3.00	\$10.84	MWB-105X12.8X3P	99.0	105.0	12.8	3.00	\$12.53
MWB-90X20X2.5P	85.0	90.0	20.0	2.50	\$22.26	MWB-105X15X2.5P	100.0	105.0	15.0	2.50	\$15.35
MWB-90X24.5X3	84.0	90.0	24.5	3.00	\$14.23	MWB-105X15X3P	99.0	105.0	15.0	3.00	\$24.01
MWB-90X25X3P	84.0	90.0	25.0	3.00	\$21.75	MWB-105X15.88X3.18	98.64	105.0	15.88	3.18	\$14.12
MWB-90X30X2.5P	85.0	90.0	30.0	2.50	\$31.86	MWB-105X24.5X3	99.0	105.0	24.5	3.00	\$15.21
MWB-91X12.8X3	85.0	91.0	12.8	3.00	\$11.69	MWB-105X25X2.5P	100.0	105.0	25.0	2.50	\$26.88
MWB-91X40X3P	85.0	91.0	40.0	3.00	\$36.18	MWB-105X25X3	99.0	105.0	25.0	3.00	\$16.22
MWB-94X32X2P	90.0	94.0	32.0	2.00	\$31.23	MWB-105X35X2.5P	100.0	105.0	35.0	2.50	\$34.23
MWB-95X5.6X2.5	90.0	95.0	5.6	2.50	\$8.79	MWB-105X60X2.5P	100.0	105.0	60.0	2.50	\$47.36
MWB-95X6X2.5P	90.0	95.0	6.0	2.50	\$9.77	MWB-106X12.8X3	100.0	106.0	12.8	3.00	\$13.77
MWB-95X9.7X2.5	90.0	95.0	9.7	2.50	\$10.23	MWB-110X6X2.5P	105.0	110.0	6.0	2.50	\$14.02
MWB-95X9.7X2.5P	90.0	95.0	9.7	2.50	\$14.79	MWB-110X6X3P	104.0	110.0	6.0	3.00	\$14.33
MWB-95X12.5X4.5P	86.0	95.0	12.5	4.50	\$30.96	MWB-110X6X4P	102.0	110.0	6.0	4.00	\$19.55
MWB-95X12.8X3	89.0	95.0	12.8	3.00	\$7.29	MWB-110X7.9X2.5	105.0	110.0	7.9	2.50	\$12.94
MWB-95X15X2.5	90.0	95.0	15.0	2.50	\$16.77	MWB-110X9.7X2.5	105.0	110.0	9.7	2.50	\$11.11
MWB-95X15X2.5P	90.0	95.0	15.0	2.50	\$18.44	MWB-110X9.7X2.5P	105.0	110.0	9.7	2.50	\$15.01
MWB-95X20X2.5P	90.0	95.0	20.0	2.50	\$21.10	MWB-110X12.5X4.5P	101.0	110.0	12.5	4.50	\$22.16
MWB-95X25X2.5P	90.0	95.0	25.0	2.50	\$27.69	MWB-110X12.8X3	104.0	110.0	12.8	3.00	\$13.95
MWB-96X12.8X3	90.0	96.0	12.8	3.00	\$11.38	MWB-110X15X2.5P	105.0	110.0	15.0	2.50	\$13.92
MWB-96X25X3P	90.0	96.0	25.0	3.00	\$28.38	MWB-110X15X3	104.0	110.0	15.0	3.00	\$14.11
MWB-96X30X3	90.0	96.0	30.0	3.00	\$11.63	MWB-110X15X3.15P	103.7	110.0	15.0	3.15	\$20.74
MWB-96X40X3P	90.0	96.0	40.0	3.00	\$41.74	MWB-110X22.5X3P	104.0	110.0	22.5	3.00	\$32.36
MWB-100X5.6X2.5	95.0	100.0	5.6	2.50	\$5.96	MWB-110X25X3	104.0	110.0	25.0	3.00	\$16.46
MWB-100X6X2.5P	95.0	100.0	6.0	2.50	\$11.54	MWB-110X27.5X3P	104.0	110.0	27.5	3.00	\$34.06
MWB-100X6X3P	94.0	100.0	6.0	3.00	\$13.66	MWB-110X30X3P	104.0	110.0	30.0	3.00	\$28.43
MWB-100X7.9X2.5P	95.0	100.0	7.9	2.50	\$13.23	MWB-111X12.8X3P	105.0	111.0	12.8	3.00	\$14.70
MWB-100X8X3	94.0	100.0	8.0	3.00	\$11.38	MWB-115X7.9X2.5	110.0	115.0	7.9	2.50	\$12.63
MWB-100X8.5X3P	94.0	100.0	8.5	3.00	\$12.98	MWB-115X8X3.15P	108.7	115.0	8.0	3.15	\$13.32

**MWB Nylon & Phenolic Wearbands - Metric, cont'd.**

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
MWB-115X9.5X2.5P	110.0	115.0	9.5	2.50	\$12.81
MWB-115X9.7X2.5	110.0	115.0	9.7	2.50	\$12.88
MWB-115X9.7X2.5P	110.0	115.0	9.7	2.50	\$14.43
MWB-115X12.8X3	109.0	115.0	12.8	3.00	\$14.81
MWB-115X15X2.5P	110.0	115.0	15.0	2.50	\$20.87
MWB-115X15X3	109.0	115.0	15.0	3.00	\$14.53
MWB-115X15X4.5P	106.0	115.0	15.0	4.50	\$24.92
MWB-115X25X2.5P	110.0	115.0	25.0	2.50	\$27.03
MWB-115X30X2.5P	110.0	115.0	30.0	2.50	\$39.68
MWB-116X9.7X3P	110.0	116.0	9.7	3.00	\$14.01
MWB-116X12.8X3	110.0	116.0	12.8	3.00	\$14.12
MWB-119X12.8X3	113.0	119.0	12.8	3.00	\$22.03
MWB-120X7.9X2.5	115.0	120.0	7.9	2.50	\$13.80
MWB-120X8X2.5P	115.0	120.0	8.0	2.50	\$14.60
MWB-120X9.7X2.5	115.0	120.0	9.7	2.50	\$12.44
MWB-120X9.7X2.5P	115.0	120.0	9.7	2.50	\$15.60
MWB-120X12.8X3	114.0	120.0	12.8	3.00	\$16.30
MWB-120X14.8X3.5P	113.0	120.0	14.8	3.50	\$20.07
MWB-120X15X2.5	115.0	120.0	15.0	2.50	\$13.66
MWB-120X15X2.5P	115.0	120.0	15.0	2.50	\$15.02
MWB-120X15X3P	114.0	120.0	15.0	3.00	\$17.20
MWB-120X15X4.5P	111.0	120.0	15.0	4.50	\$32.64
MWB-120X20X2.5P	115.0	120.0	20.0	2.50	\$33.68
MWB-120X22.5X3P	114.0	120.0	22.5	3.00	\$34.96
MWB-120X30X3P	114.0	120.0	30.0	3.00	\$30.57
MWB-120X35X3P	114.0	120.0	35.0	3.00	\$52.17
MWB-121X12.8X3	115.0	121.0	12.8	3.00	\$15.69
MWB-122X30X3P	116.0	122.0	30.0	3.00	\$44.20
MWB-125X5.6X2.5	120.0	125.0	5.6	2.50	\$12.75
MWB-125X7.9X2.5	120.0	125.0	7.9	2.50	\$14.83
MWB-125X8X2.5P	120.0	125.0	8.0	2.50	\$15.69
MWB-125X9.5X2.5P	120.0	125.0	9.5	2.50	\$16.58
MWB-125X9.7X2.5	120.0	125.0	9.7	2.50	\$12.06
MWB-125X9.7X2.5P	120.0	125.0	9.7	2.50	\$18.13
MWB-125X12.8X3	119.0	125.0	12.8	3.00	\$15.97
MWB-125X15X2.5	120.0	125.0	15.0	2.50	\$13.73
MWB-125X15X2.5P	120.0	125.0	15.0	2.50	\$27.02
MWB-125X19.2X3P	119.0	125.0	19.2	3.00	\$30.30
MWB-125X20X2.5P	120.0	125.0	20.0	2.50	\$27.24
MWB-125X20X3	119.0	125.0	20.0	3.00	\$15.75
MWB-125X20X3.18P	118.64	125.0	20.0	3.18	\$23.45
MWB-125X22X2P	121.0	125.0	22.0	2.00	\$21.90
MWB-125X25X2.5P	120.0	125.0	25.0	2.50	\$24.11
MWB-125X30X3P	119.0	125.0	30.0	3.00	\$38.18
MWB-126X9.7X3P	120.0	126.0	9.7	3.00	\$18.85
MWB-126X12.8X3	120.0	126.0	12.8	3.00	\$17.19
MWB-128X35X4P	120.0	128.0	35.0	4.00	\$26.14
MWB-130X7.9X2.5	125.0	130.0	7.9	2.50	\$16.46
MWB-130X9.7X2.5P	125.0	130.0	9.7	2.50	\$16.74
MWB-130X12.8X3	124.0	130.0	12.8	3.00	\$16.11
MWB-130X15X2.5P	125.0	130.0	15.0	2.50	\$16.12
MWB-130X15X3.5P	123.0	130.0	15.0	3.50	\$26.81
MWB-130X15X5P	120.0	130.0	15.0	5.00	\$24.28
MWB-130X18.1X3.5P	123.0	130.0	18.1	3.50	\$38.59

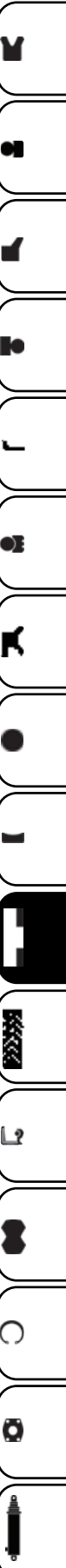
Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
MWB-130X30X3.5	123.0	130.0	30.0	3.50	\$25.23
MWB-131X12.8X3	125.0	131.0	12.8	3.00	\$16.41
MWB-131X25X3P	125.0	131.0	25.0	3.00	\$31.24
MWB-135X7.9X2.5	130.0	135.0	7.9	2.50	\$15.70
MWB-135X9.5X2.5P	130.0	135.0	9.5	2.50	\$15.36
MWB-135X9.7X2.5	130.0	135.0	9.7	2.50	\$12.74
MWB-135X12.8X3	129.0	135.0	12.8	3.00	\$16.79
MWB-135X14.8X3.5	128.0	135.0	14.8	3.50	\$19.36
MWB-135X15X5P	125.0	135.0	15.0	5.00	\$36.66
MWB-135X16X4P	127.0	135.0	16.0	4.00	\$25.70
MWB-135X25X2.5P	130.0	135.0	25.0	2.50	\$26.03
MWB-135X25X3.5P	128.0	135.0	25.0	3.50	\$36.43
MWB-136X12.8X3	130.0	136.0	12.8	3.00	\$16.99
MWB-140X7.9X2.5	135.0	140.0	7.9	2.50	\$17.18
MWB-140X9.5X2.5	135.0	140.0	9.5	2.50	\$10.76
MWB-140X9.7X2.5P	135.0	140.0	9.7	2.50	\$17.87
MWB-140X12.8X3	134.0	140.0	12.8	3.00	\$17.35
MWB-140X14.8X3.5P	133.0	140.0	14.8	3.50	\$26.14
MWB-140X15X2.5	135.0	140.0	15.0	2.50	\$18.25
MWB-140X15X2.5P	135.0	140.0	15.0	2.50	\$24.21
MWB-140X15X3P	134.0	140.0	15.0	3.00	\$15.09
MWB-140X15X3.5	133.0	140.0	15.0	3.50	\$13.92
MWB-140X17.5X6P	128.0	140.0	17.5	6.00	\$37.61
MWB-140X20X2.5P	135.0	140.0	20.0	2.50	\$35.14
MWB-140X20X3	134.0	140.0	20.0	3.00	\$16.43
MWB-140X20X3.5P	133.0	140.0	20.0	3.50	\$33.46
MWB-140X25X2.5P	135.0	140.0	25.0	2.50	\$39.11
MWB-140X25X3P	134.0	140.0	25.0	3.00	\$34.88
MWB-140X30X3P	134.0	140.0	30.0	3.00	\$34.14
MWB-140X35X3.5P	133.0	140.0	35.0	3.50	\$45.39
MWB-140X40X3.5P	133.0	140.0	40.0	3.50	\$57.03
MWB-140X45X3.5P	133.0	140.0	45.0	3.50	\$76.35
MWB-141X12.8X3	135.0	141.0	12.8	3.00	\$17.66
MWB-145X5.6X2.5P	140.0	145.0	5.6	2.50	\$13.09
MWB-145X9.7X2.5P	140.0	145.0	9.7	2.50	\$21.27
MWB-145X12.8X3P	139.0	145.0	12.8	3.00	\$25.24
MWB-145X15X2.5P	140.0	145.0	15.0	2.50	\$25.37
MWB-145X15X3.5P	138.0	145.0	15.0	3.50	\$19.53
MWB-145X20X3.5P	138.0	145.0	20.0	3.50	\$26.86
MWB-145X25X2.5P	140.0	145.0	25.0	2.50	\$24.47
MWB-146X12.8X3	140.0	146.0	12.8	3.00	\$18.04
MWB-150X7.9X2.5P	145.0	150.0	7.9	2.50	\$19.90
MWB-150X9.7X2.5P	145.0	150.0	9.7	2.50	\$22.16
MWB-150X12.5X6P	138.0	150.0	12.5	6.00	\$31.48
MWB-150X12.8X3	144.0	150.0	12.8	3.00	\$18.14
MWB-150X14.8X3.5	143.0	150.0	14.8	3.50	\$19.69
MWB-150X14.8X3.5P	143.0	150.0	14.8	3.50	\$22.84
MWB-150X15X2.5P	145.0	150.0	15.0	2.50	\$24.80
MWB-150X20X2.5P	145.0	150.0	20.0	2.50	\$21.99
MWB-150X20X3.5P	143.0	150.0	20.0	3.50	\$32.45
MWB-150X20X4P	142.0	150.0	20.0	4.00	\$38.72
MWB-150X21X3.5P	143.0	150.0	21.0	3.50	\$29.16
MWB-150X22X3.5P	143.0	150.0	22.0	3.50	\$29.09
MWB-150X25X4P	142.0	150.0	25.0	4.00	\$43.49

MWB Nylon & Phenolic Wearbands - Metric, cont'd.

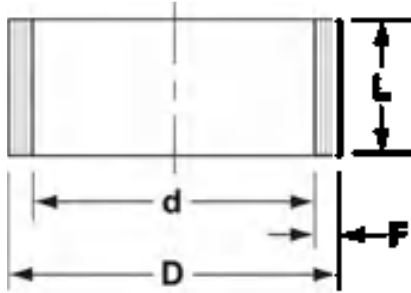
Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price	Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
MWB-150X35X3.5	143.0	150.0	35.0	3.50	\$25.33	MWB-170X45X2.5P	165.0	170.0	45.0	2.50	\$77.53
MWB-150X40X3P	144.0	150.0	40.0	3.00	\$56.04	MWB-170X50X4P	162.0	170.0	50.0	4.00	\$91.11
MWB-150X40X3.5P	143.0	150.0	40.0	3.50	\$57.53	MWB-170.5X30X2.75P	165.0	170.5	30.0	2.75	\$56.65
MWB-150X40X4P	142.0	150.0	40.0	4.00	\$65.02	MWB-175X9.7X2.5P	170.0	175.0	9.7	2.50	\$26.77
MWB-150X45X3.5P	143.0	150.0	45.0	3.50	\$79.33	MWB-175X15X2.5P	170.0	175.0	15.0	2.50	\$34.49
MWB-151X12.8X3	145.0	151.0	12.8	3.00	\$20.63	MWB-175X19.2X3	169.0	175.0	19.2	3.00	\$24.08
MWB-155X12.8X3P	149.0	155.0	12.8	3.00	\$22.71	MWB-175X30X2.5P	170.0	175.0	30.0	2.50	\$44.65
MWB-155X15X2.5P	150.0	155.0	15.0	2.50	\$23.33	MWB-175X40X4P	167.0	175.0	40.0	4.00	\$71.40
MWB-155X19.2X3	149.0	155.0	19.2	3.00	\$20.07	MWB-176X19.2X3	170.0	176.0	19.2	3.00	\$24.28
MWB-155X19.2X3P	149.0	155.0	19.2	3.00	\$38.32	MWB-180X9.7X2.5P	175.0	180.0	9.7	2.50	\$25.89
MWB-155X85X2.5P	150.0	155.0	85.0	2.50	\$129.39	MWB-180X14.8X3.5P	173.0	180.0	14.8	3.50	\$41.29
MWB-156X12.8X3	150.0	156.0	12.8	3.00	\$18.36	MWB-180X15X2.5P	175.0	180.0	15.0	2.50	\$32.90
MWB-156X19X3	150.0	156.0	19.0	3.00	\$18.19	MWB-180X19.2X3	174.0	180.0	19.2	3.00	\$24.52
MWB-160X9.1X4P	152.0	160.0	9.1	4.00	\$13.82	MWB-180X20X3P	174.0	180.0	20.0	3.00	\$23.41
MWB-160X9.7X2.5P	155.0	160.0	9.7	2.50	\$22.95	MWB-180X22.5X4P	172.0	180.0	22.5	4.00	\$50.60
MWB-160X15X2P	156.0	160.0	15.0	2.00	\$28.58	MWB-180X23X5P	170.0	180.0	23.0	5.00	\$94.40
MWB-160X15X2.5	155.0	160.0	15.0	2.50	\$22.95	MWB-180X25X2.5P	175.0	180.0	25.0	2.50	\$39.86
MWB-160X15X2.5P	155.0	160.0	15.0	2.50	\$26.98	MWB-180X25X4P	172.0	180.0	25.0	4.00	\$77.35
MWB-160X15X3P	154.0	160.0	15.0	3.00	\$22.59	MWB-180X30X2.5P	175.0	180.0	30.0	2.50	\$45.63
MWB-160X15X4	152.0	160.0	15.0	4.00	\$19.57	MWB-180X45X4P	172.0	180.0	45.0	4.00	\$85.74
MWB-160X19.2X3	154.0	160.0	19.2	3.00	\$20.70	MWB-185X15X2.5P	180.0	185.0	15.0	2.50	\$24.36
MWB-160X20X3	154.0	160.0	20.0	3.00	\$20.99	MWB-185X19.2X3	179.0	185.0	19.2	3.00	\$23.66
MWB-160X20X3.5P	153.0	160.0	20.0	3.50	\$31.93	MWB-185X22.5X6P	173.0	185.0	22.5	6.00	\$60.93
MWB-160X20X6P	148.0	160.0	20.0	6.00	\$42.79	MWB-185X25X2.5P	180.0	185.0	25.0	2.50	\$44.43
MWB-160X20.5X3.5P	153.0	160.0	20.5	3.50	\$36.66	MWB-186X19.2X3	180.0	186.0	19.2	3.00	\$25.08
MWB-160X22.5X4	152.0	160.0	22.5	4.00	\$35.99	MWB-190X9X4P	182.0	190.0	9.0	4.00	\$18.26
MWB-160X25X3P	154.0	160.0	25.0	3.00	\$37.23	MWB-190X9.7X2.5P	185.0	190.0	9.7	2.50	\$29.63
MWB-160X30X3P	154.0	160.0	30.0	3.00	\$39.85	MWB-190X9.7X3P	184.0	190.0	9.7	3.00	\$30.34
MWB-160X30X3.5P	153.0	160.0	30.0	3.50	\$52.65	MWB-190X15X2.5P	185.0	190.0	15.0	2.50	\$34.08
MWB-160X35X5	150.0	160.0	35.0	5.00	\$32.05	MWB-190X19.2X3	184.0	190.0	19.2	3.00	\$25.92
MWB-160X40X3.5	153.0	160.0	40.0	3.50	\$28.15	MWB-190X25X2.5P	185.0	190.0	25.0	2.50	\$54.37
MWB-160X45X3.5P	153.0	160.0	45.0	3.50	\$83.89	MWB-190X25X4P	182.0	190.0	25.0	4.00	\$53.83
MWB-161X19.2X3	155.0	161.0	19.2	3.00	\$19.97	MWB-190X28.5X4P	182.0	190.0	28.5	4.00	\$58.70
MWB-165X19.2X3	159.0	165.0	19.2	3.00	\$21.90	MWB-190X30X3.5P	183.0	190.0	30.0	3.50	\$33.44
MWB-165X20X3P	159.0	165.0	20.0	3.00	\$32.38	MWB-190X35X3.5P	183.0	190.0	35.0	3.50	\$68.56
MWB-165X20X3.25P	158.5	165.0	20.0	3.25	\$38.74	MWB-190X38X6.5P	177.0	190.0	38.0	6.50	\$139.99
MWB-165X25X2.5P	160.0	165.0	25.0	2.50	\$40.67	MWB-190X45X4	182.0	190.0	45.0	4.00	\$39.42
MWB-165X25X3P	159.0	165.0	25.0	3.00	\$39.54	MWB-190X50X4P	182.0	190.0	50.0	4.00	\$152.37
MWB-165X30X3P	159.0	165.0	30.0	3.00	\$43.11	MWB-195X19.2X3	189.0	195.0	19.2	3.00	\$27.11
MWB-165X100X2.5P	160.0	165.0	100.0	2.50	\$202.22	MWB-196X19.2X3	190.0	196.0	19.2	3.00	\$27.43
MWB-165.5X25X3.25P	159.0	165.5	25.0	3.25	\$52.71	MWB-200X9.7X2.5P	195.0	200.0	9.7	2.50	\$20.05
MWB-166X19.2X3P	160.0	166.0	19.2	3.00	\$21.92	MWB-200X15X2.5	195.0	200.0	15.0	2.50	\$21.32
MWB-170X9.5X4P	162.0	170.0	9.5	4.00	\$21.84	MWB-200X15X2.5P	195.0	200.0	15.0	2.50	\$29.39
MWB-170X9.7X2.5P	165.0	170.0	9.7	2.50	\$23.68	MWB-200X19.2X3	194.0	200.0	19.2	3.00	\$28.92
MWB-170X9.7X3P	164.0	170.0	9.7	3.00	\$25.96	MWB-200X20X3	194.0	200.0	20.0	3.00	\$29.28
MWB-170X14.8X3.5P	163.0	170.0	14.8	3.50	\$40.43	MWB-200X22X4	192.0	200.0	22.0	4.00	\$27.99
MWB-170X15X2.5P	165.0	170.0	15.0	2.50	\$28.18	MWB-200X22.5X4P	192.0	200.0	22.5	4.00	\$51.97
MWB-170X15X4P	162.0	170.0	15.0	4.00	\$34.81	MWB-200X22.5X4.3	191.4	200.0	22.5	4.30	\$179.51
MWB-170X20X6P	158.0	170.0	20.0	6.00	\$44.21	MWB-200X25X2.5P	195.0	200.0	25.0	2.50	\$57.24
MWB-170X25X4P	162.0	170.0	25.0	4.00	\$48.82	MWB-200X25X4P	192.0	200.0	25.0	4.00	\$63.87
MWB-170X30X2.5P	165.0	170.0	30.0	2.50	\$68.20	MWB-200X40X5P	190.0	200.0	40.0	5.00	\$174.90
MWB-170X30X3P	164.0	170.0	30.0	3.00	\$62.42	MWB-200X45X4	192.0	200.0	45.0	4.00	\$45.11
MWB-170X30X3.5P	163.0	170.0	30.0	3.50	\$49.00	MWB-205X15X2.5P	200.0	205.0	15.0	2.50	\$33.52

## MWB Nylon & Phenolic Wearbands - Metric, cont'd.

Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price	Part Number	ID d	Bore Dia. D	Groove Height L	C/S F	Price
MWB-205X25X2.5P	200.0	205.0	25.0	2.50	\$40.39	MWB-260X30X2.5P	255.0	260.0	30.0	2.50	\$119.63
MWB-206X19.2X3	200.0	206.0	19.2	3.00	\$29.19	MWB-260X55X2.5	255.0	260.0	55.0	2.50	\$248.08
MWB-210X9.7X2.5P	205.0	210.0	9.7	2.50	\$30.99	MWB-266X19.2X3	260.0	266.0	19.2	3.00	\$52.97
MWB-210X15X2.5P	205.0	210.0	15.0	2.50	\$33.54	MWB-270X19.2X3	264.0	270.0	19.2	3.00	\$53.42
MWB-210X19.2X3	204.0	210.0	19.2	3.00	\$30.02	MWB-270X25X2.5P	265.0	270.0	25.0	2.50	\$66.68
MWB-210X35X2.5P	205.0	210.0	35.0	2.50	\$60.70	MWB-270X30X2.5P	265.0	270.0	30.0	2.50	\$71.80
MWB-215X30X2.5P	210.0	215.0	30.0	2.50	\$56.64	MWB-270.5X30X2.75P	265.0	270.5	30.0	2.75	\$115.86
MWB-216X19.2X3	210.0	216.0	19.2	3.00	\$31.83	MWB-271X30X3P	265.0	271.0	30.0	3.00	\$119.61
MWB-220X19.2X3	214.0	220.0	19.2	3.00	\$29.63	MWB-276X19.2X3	270.0	276.0	19.2	3.00	\$72.19
MWB-220X20X2.5P	215.0	220.0	20.0	2.50	\$41.12	MWB-280X15X2.5P	275.0	280.0	15.0	2.50	\$44.94
MWB-220X45X4P	212.0	220.0	45.0	4.00	\$104.12	MWB-280X19.2X3P	274.0	280.0	19.2	3.00	\$68.04
MWB-220X60X3.2P	213.6	220.0	60.0	3.20	\$177.50	MWB-280X25X2.5P	275.0	280.0	25.0	2.50	\$73.88
MWB-224X30X2.5P	219.0	224.0	30.0	2.50	\$55.34	MWB-280X30X6P	268.0	280.0	30.0	6.00	\$153.20
MWB-224X45X4	216.0	224.0	45.0	4.00	\$38.79	MWB-280X60X4P	272.0	280.0	60.0	4.00	\$179.89
MWB-225X20X2.5P	220.0	225.0	20.0	2.50	\$41.65	MWB-285X25X2.5P	280.0	285.0	25.0	2.50	\$69.04
MWB-225X25X2.5P	220.0	225.0	25.0	2.50	\$50.60	MWB-286X19.2X3	280.0	286.0	19.2	3.00	\$68.52
MWB-225X25X4P	217.0	225.0	25.0	4.00	\$39.03	MWB-290X19.2X3	284.0	290.0	19.2	3.00	\$69.19
MWB-225X30X2.5P	220.0	225.0	30.0	2.50	\$70.33	MWB-290X25X5P	280.0	290.0	25.0	5.00	\$74.08
MWB-225X30X2.75P	219.5	225.0	30.0	2.75	\$75.02	MWB-296X19.2X3	290.0	296.0	19.2	3.00	\$70.46
MWB-225X50X4P	217.0	225.0	50.0	4.00	\$94.72	MWB-300X19.2X3	294.0	300.0	19.2	3.00	\$72.18
MWB-226X19.2X3	220.0	226.0	19.2	3.00	\$35.14	MWB-300X25X2.5P	295.0	300.0	25.0	2.50	\$78.10
MWB-230X15X2.5P	225.0	230.0	15.0	2.50	\$35.87	MWB-310X20X2.5P	305.0	310.0	20.0	2.50	\$84.10
MWB-230X19.2X3	224.0	230.0	19.2	3.00	\$35.63	MWB-310X25X2.5P	305.0	310.0	25.0	2.50	\$85.75
MWB-230X40X4.5P	221.0	230.0	40.0	4.50	\$117.76	MWB-320X25X2.5P	315.0	320.0	25.0	2.50	\$98.65
MWB-235X30X2.5P	230.0	235.0	30.0	2.50	\$103.98	MWB-325X30X2.5P	320.0	325.0	30.0	2.50	\$125.48
MWB-236X19.2X3	230.0	236.0	19.2	3.00	\$39.38	MWB-330X25X2.5P	325.0	330.0	25.0	2.50	\$148.98
MWB-236.3X25.4X3.65P	229.0	236.3	25.4	3.65	\$86.01	MWB-330X30X2.5P	325.0	330.0	30.0	2.50	\$210.04
MWB-236.6X25.4X3.8P	229.0	236.6	25.4	3.80	\$94.08	MWB-340X25X2.5P	335.0	340.0	25.0	2.50	\$153.19
MWB-240X15X2.5P	235.0	240.0	15.0	2.50	\$31.14	MWB-345X25X2.5P	340.0	345.0	25.0	2.50	\$184.72
MWB-240X19.2X3	234.0	240.0	19.2	3.00	\$48.22	MWB-345X30X2.5P	340.0	345.0	30.0	2.50	\$216.48
MWB-240X25X2.5P	235.0	240.0	25.0	2.50	\$47.90	MWB-345.5X30X2.75P	340.0	345.5	30.0	2.75	\$227.05
MWB-240X25X4P	232.0	240.0	25.0	4.00	\$122.16	MWB-346X30X3P	340.0	346.0	30.0	3.00	\$228.67
MWB-240X30X2.5P	235.0	240.0	30.0	2.50	\$82.24	MWB-346.5X30X3.25P	340.0	346.5	30.0	3.25	\$239.35
MWB-245X15X2.5P	240.0	245.0	15.0	2.50	\$31.01	MWB-347X30X3.5P	340.0	347.0	30.0	3.50	\$255.41
MWB-246X19.2X3	240.0	246.0	19.2	3.00	\$48.71	MWB-350X20X2.5P	345.0	350.0	20.0	2.50	\$195.31
MWB-250X15X2.5P	245.0	250.0	15.0	2.50	\$49.34	MWB-350X25X2.5P	345.0	350.0	25.0	2.50	\$164.88
MWB-250X19.2X3	244.0	250.0	19.2	3.00	\$50.00	MWB-350X30X5P	340.0	350.0	30.0	5.00	\$185.40
MWB-250X25X2.5P	245.0	250.0	25.0	2.50	\$60.33	MWB-355X30X2.5P	350.0	355.0	30.0	2.50	\$169.67
MWB-250X30X2.5P	245.0	250.0	30.0	2.50	\$66.46	MWB-356.3X25.4X3.65P	349.0	356.3	25.4	3.65	\$180.47
MWB-250X35X2.5P	245.0	250.0	35.0	2.50	\$69.47	MWB-356.5X25.4X3.75P	349.0	356.5	25.4	3.75	\$188.56
MWB-250X50X4P	242.0	250.0	50.0	4.00	\$120.93	MWB-360X25X2.5P	355.0	360.0	25.0	2.50	\$110.25
MWB-250X55X4	242.0	250.0	55.0	4.00	\$217.82	MWB-365X25X2.5P	360.0	365.0	25.0	2.50	\$181.16
MWB-250X60X4P	242.0	250.0	60.0	4.00	\$218.53	MWB-370X25X2.5P	365.0	370.0	25.0	2.50	\$183.44
MWB-250.5X30X2.75P	245.0	250.5	30.0	2.75	\$97.78	MWB-370X25X5P	360.0	370.0	25.0	5.00	\$183.64
MWB-251X30X3P	245.0	251.0	30.0	3.00	\$102.18	MWB-380X25X2.5P	375.0	380.0	25.0	2.50	\$117.26
MWB-251.5X30X3.25P	245.0	251.5	30.0	3.25	\$106.38	MWB-380X30X2.5P	375.0	380.0	30.0	2.50	\$150.07
MWB-252X30X3.5P	245.0	252.0	30.0	3.50	\$110.78	MWB-380.5X30X2.75P	375.0	380.5	30.0	2.75	\$231.20
MWB-252.5X30X3.75P	245.0	252.5	30.0	3.75	\$115.19	MWB-381X30X3P	375.0	381.0	30.0	3.00	\$237.04
MWB-255X30X2.5P	250.0	255.0	30.0	2.50	\$65.02	MWB-395X25X2.5P	390.0	395.0	25.0	2.50	\$175.90
MWB-255X38X6.5P	242.0	255.0	38.0	6.50	\$187.33	MWB-400X25X2.5P	395.0	400.0	25.0	2.50	\$117.41
MWB-260X15X2.5P	255.0	260.0	15.0	2.50	\$50.99	MWB-400X40X4P	392.0	400.0	40.0	4.00	\$234.71
MWB-260X19.2X3	254.0	260.0	19.2	3.00	\$52.89	MWB-480X30X5P	470.0	480.0	30.0	5.00	\$271.66
MWB-260X25X2.5P	255.0	260.0	25.0	2.50	\$65.70						



# KZT BTFE Wear Rings - Metric



EXAMPLE: KZT-80X4X4					
	Outside Diameter		Height		Cross Section
KZT-	80	x	4	x	4
	80mm		4mm		4mm

The KZT Waste Discharge Ring is comprised of bronze filled PTFE. When used in conjunction with a piston seal or guide ring, these medium duty wearbands ingest metal particles before they contaminate the seal. A unique channel groove facilitates a smoother flow of oil.

Temperature: -100° to 500°                      Pressure: 2200 PSI

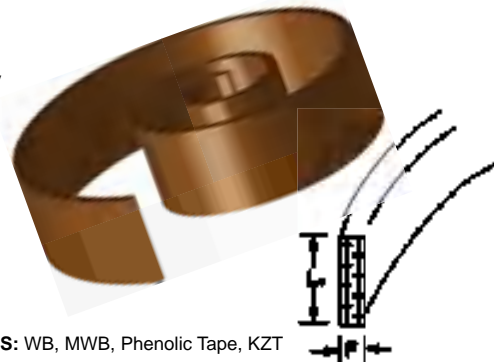
Part Number	Groove Dia. d	Bore Dia. D	Groove Height L	C/S F	Price
KZT-80X4X4	72	80	4.0	4	\$17.45
KZT-85X4X4	77	85	4.0	4	\$17.66
KZT-85X6.1X4	77	85	6.1	4	\$23.82
KZT-90X9.7X4	82	90	9.7	4	\$25.68
KZT-100X6.1X4	92	100	6.1	4	\$25.91
KZT-105X6.1X4	97	105	6.1	4	\$26.98
KZT-110X6.1X4	102	110	6.1	4	\$28.06
KZT-115X7.9X4	107	115	7.9	4	\$28.78
KZT-115X9.7X4	107	115	9.7	4	\$29.79
KZT-120X6.1X4	112	120	6.1	4	\$31.79
KZT-120X8X4	112	120	8.0	4	\$34.52
KZT-125X6.1X4	117	125	6.1	4	\$35.59
KZT-125X8X4	117	125	8.0	4	\$37.75
KZT-125X9.7X4	117	125	9.7	4	\$38.82
KZT-130X6.1X4	122	130	6.1	4	\$39.89
KZT-130X8X4	122	130	8.0	4	\$40.96
KZT-130X9.7X4	122	130	9.7	4	\$34.93
KZT-135X6.1X4	127	135	6.1	4	\$44.05
KZT-135X8X4	127	135	8.0	4	\$51.65
KZT-135X9.7X4	127	135	9.7	4	\$57.72
KZT-140X6.1X4	132	140	6.1	4	\$46.63

Part Number	Groove Dia. d	Bore Dia. D	Groove Height L	C/S F	Price
KZT-140X8X4	132	140	8.0	4	\$53.54
KZT-140X9.7X4	132	140	9.7	4	\$45.05
KZT-145X6.1X4	137	145	6.1	4	\$46.96
KZT-145X7.9X4	137	145	7.9	4	\$48.81
KZT-145X9.7X4	137	145	9.7	4	\$50.68
KZT-150X6.1X4	142	150	6.1	4	\$41.23
KZT-150X8X4	142	150	8.0	4	\$56.33
KZT-150X9.7X4	142	150	9.7	4	\$35.58
KZT-160X6.1X4	152	160	6.1	4	\$52.38
KZT-160X9.7X4	152	160	9.7	4	\$56.94
KZT-165X6.1X4	157	165	6.1	4	\$59.21
KZT-170X6.1X4	162	170	6.1	4	\$61.50
KZT-170X7.9X4	162	170	7.9	4	\$63.77
KZT-170X9.7X4	162	170	9.7	4	\$66.06
KZT-175X6.1X4	167	175	6.1	4	\$68.33
KZT-180X9.7X4	172	180	9.7	4	\$72.86
KZT-190X7.9X4	182	190	7.9	4	\$77.43
KZT-190X9.7X4	182	190	9.7	4	\$81.99
KZT-200X7.9X4	192	200	7.9	4	\$78.61
KZT-215X9.7X4	207	215	9.7	4	\$97.93
KZT-225X9.7X4	217	225	9.7	4	\$102.49



# WBTAPE BTFE Wearband Tape - Inch & Metric

This Wearband strip is supplied in 60% bronze-filled PTFE. PTFE strip is supplied in roll form by the inch. Lightly filled PTFE materials are fine for light duty pneumatic applications. Bronze filled PTFE strip will form to any size easily and can be skive-cut to almost any width and thickness. For full rolls or coils, call sales for pricing, availability and length. Part #'s were created in inches. To convert to metric, multiply by .0254.



ALTERNATIVE SEALS: WB, MWB, Phenolic Tape, KZT

**EXAMPLE: WBTAPE-0500-093-BTFE**

Prefix	Height	Wall	Material
WBTAPE-	0500	093	BTFE
	1/2"	3/32"	BRONZE FILLED PTFE

## Inch Sizes

Part Number	Seal Ht. L <sub>1</sub>	C/S F	Price/Inch
WBTAPE-0250-062BTFE	0.250	0.062	\$1.57
WBTAPE-0375-062BTFE	0.375	0.062	\$1.68
WBTAPE-0500-062BTFE	0.500	0.062	\$1.73
WBTAPE-0625-062BTFE	0.625	0.062	\$1.75
WBTAPE-0750-062BTFE	0.750	0.062	\$2.15
WBTAPE-1000-062BTFE	1.000	0.062	\$2.43
WBTAPE-0250-093BTFE	0.250	0.093	\$1.33
WBTAPE-0375-093BTFE	0.375	0.093	\$1.71
WBTAPE-0500-093BTFE	0.500	0.093	\$2.36
WBTAPE-0750-093BTFE	0.750	0.093	\$2.15
WBTAPE-1000-093BTFE	1.000	0.093	\$2.33

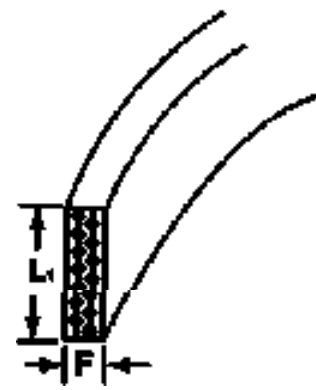
Part Number	Seal Ht. L <sub>1</sub>	C/S F	Price/Inch
WBTAPE-0250-125BTFE	0.250	0.125	\$1.68
WBTAPE-0375-125BTFE	0.375	0.125	\$1.35
WBTAPE-0500-125BTFE	0.500	0.125	\$1.75
WBTAPE-0562-125BTFE	0.562	0.125	\$2.68
WBTAPE-0625-125BTFE	0.625	0.125	\$2.25
WBTAPE-0750-125BTFE	0.750	0.125	\$3.48
WBTAPE-1000-125BTFE	1.000	0.125	\$3.60
WBTAPE-1250-125BTFE	1.250	0.125	\$7.53
WBTAPE-1500-125BTFE	1.500	0.125	\$4.95
WBTAPE-2000-125BTFE	2.000	0.125	\$8.16

## Metric Sizes

Part Number	Seal Ht. L <sub>1</sub>	C/S F	Price/Inch
WBTAPE-0098-059BTFE	2.5	1.5	\$1.00
WBTAPE-0157-059BTFE	4.0	1.5	\$1.19
WBTAPE-0221-059BTFE	5.6	1.5	\$1.20
WBTAPE-0248-059BTFE	6.3	1.5	\$1.39
WBTAPE-0250-059BTFE	6.35	1.5	\$1.47
WBTAPE-0394-059BTFE	10.0	1.5	\$1.52
WBTAPE-0591-059BTFE	15.0	1.5	\$2.04
WBTAPE-0381-061BTFE	9.7	1.55	\$1.78
WBTAPE-0236-079BTFE	6.0	2.0	\$1.72
WBTAPE-0250-079BTFE	6.3	2.0	\$1.81
WBTAPE-0315-079BTFE	8.1	2.0	\$2.01
WBTAPE-0381-079BTFE	9.7	2.0	\$2.13
WBTAPE-0394-079BTFE	10.0	2.0	\$2.44
WBTAPE-0472-079BTFE	12.0	2.0	\$2.47
WBTAPE-0591-079BTFE	15.0	2.0	\$2.01
WBTAPE-0787-079BTFE	20.0	2.0	\$2.29
WBTAPE-0984-079BTFE	25.0	2.0	\$3.07
WBTAPE-1181-079BTFE	30.0	2.0	\$3.76
WBTAPE-0157-098BTFE	4.0	2.5	\$1.47
WBTAPE-0165-098BTFE	4.2	2.5	\$1.75
WBTAPE-0221-098BTFE	5.6	2.5	\$1.79
WBTAPE-0250-098BTFE	6.3	2.5	\$1.84
WBTAPE-0311-098BTFE	7.9	2.5	\$1.88
WBTAPE-0315-098BTFE	8.0	2.5	\$2.29
WBTAPE-0374-098BTFE	9.5	2.5	\$2.33

Part Number	Seal Ht. L <sub>1</sub>	C/S F	Price/Inch
WBTAPE-0381-098BTFE	9.7	2.5	\$2.58
WBTAPE-0472-098BTFE	12.0	2.5	\$2.90
WBTAPE-0500-098BTFE	12.7	2.5	\$2.90
WBTAPE-0504-098BTFE	12.8	2.5	\$2.95
WBTAPE-0591-098BTFE	15.0	2.5	\$3.05
WBTAPE-0630-098BTFE	16.0	2.5	\$3.14
WBTAPE-0787-098BTFE	20.0	2.5	\$3.49
WBTAPE-0984-098BTFE	25.0	2.5	\$3.76
WBTAPE-1181-098BTFE	30.0	2.5	\$3.83
WBTAPE-0315-118BTFE	8.0	3.0	\$3.21
WBTAPE-0381-118BTFE	9.7	3.0	\$3.30
WBTAPE-0504-118BTFE	12.8	3.0	\$3.49
WBTAPE-0591-118BTFE	15.0	3.0	\$3.61
WBTAPE-0756-118BTFE	19.2	3.0	\$3.74
WBTAPE-1968-118BTFE	50.0	3.0	\$5.27
WBTAPE-0197-157BTFE	5.0	4.0	\$2.04
WBTAPE-0236-157BTFE	6.0	4.0	\$2.05
WBTAPE-0311-157BTFE	7.9	4.0	\$3.56
WBTAPE-0354-157BTFE	9.0	4.0	\$3.73
WBTAPE-0374-157BTFE	9.5	4.0	\$3.80
WBTAPE-0381-157BTFE	9.7	4.0	\$3.80
WBTAPE-0571-157BTFE	14.5	4.0	\$4.53
WBTAPE-0591-157BTFE	15.0	4.0	\$4.77
WBTAPE-0787-157BTFE	20.0	4.0	\$4.89
WBTAPE-0984-157BTFE	25.0	4.0	\$5.35

# WBTAPE Poly Resin Wearband Tape - Inch & Metric



ALTERNATIVE SEALS: WB, MWB, BFTE Tape, KZT

EXAMPLE: WBTAPE-0787-118P			
Prefix	Height	Wall	Material
WBTAPE-	0787	-	P
	20mm	3mm	POLY RESIN

Part #'s were created in inches. To convert to metric, multiply by .0254

This Wearband strip is supplied in Poly Resin. Poly Resin strip is supplied by the inch.

Poly Resin strip offers excellent compressive strength, but may be harder to form in some applications. For full rolls or coils, call sales for pricing, availability and length.

EXAMPLE: WBTAPE-1250-125P			
Prefix	Height	Wall	Material
WBTAPE-	1250	-	P
	1-1/4"	1/8"	POLY RESIN

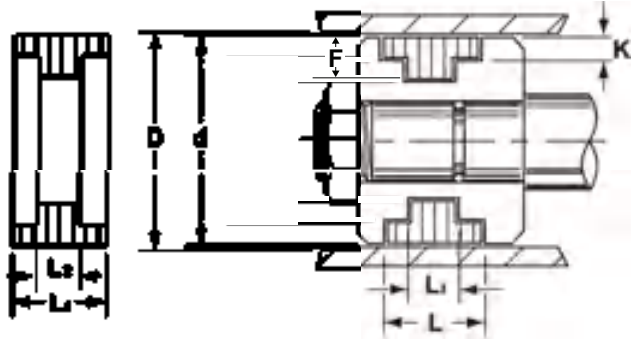
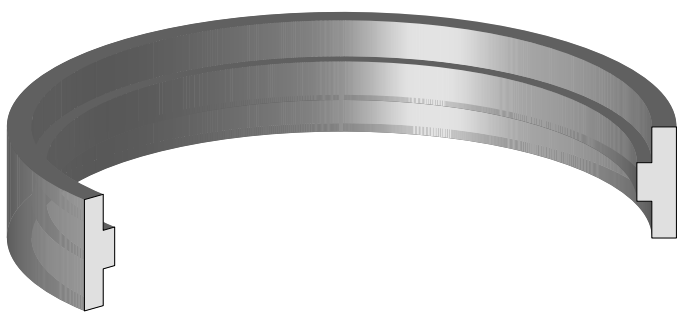
### Inch Sizes

Part Number	Seal Ht. L <sub>1</sub>	Wall F	Price/Inch
WBTAPE-0375-125P	0.375	0.125	\$1.45
WBTAPE-0500-125P	0.500	0.125	\$1.78
WBTAPE-0625-125P	0.625	0.125	\$2.05
WBTAPE-0750-125P	0.750	0.125	\$2.47
WBTAPE-1000-125P	1.000	0.125	\$2.84
WBTAPE-1250-125P	1.250	0.125	\$5.69
WBTAPE-1500-125P	1.500	0.125	\$7.57
WBTAPE-2000-125P	2.000	0.125	\$8.38
WBTAPE-1000-187P	1.000	0.187	\$9.83

### Metric Sizes

Part Number	Seal Ht. L <sub>1</sub>	Wall F	Price/Inch
WBTAPE-0591-079P	15.0	2.0	\$3.21
WBTAPE-0221-098P	5.6	2.5	\$1.50
WBTAPE-0250-098P	6.3	2.5	\$2.06
WBTAPE-0311-098P	7.9	2.5	\$2.21
WBTAPE-0315-098P	8.0	2.5	\$2.36
WBTAPE-0381-098P	9.7	2.5	\$1.74
WBTAPE-0472-098P	12.0	2.5	\$3.06
WBTAPE-0511-098P	13.0	2.5	\$2.02
WBTAPE-0591-098P	15.0	2.5	\$2.13
WBTAPE-0787-098P	20.0	2.5	\$2.80
WBTAPE-0984-098P	25.0	2.5	\$2.97
WBTAPE-1181-098P	30.0	2.5	\$3.88
WBTAPE-0381-118P	9.7	3	\$2.32
WBTAPE-0503-118P	12.8	3	\$3.58
WBTAPE-0591-119P	15.0	3.02	\$3.62
WBTAPE-0787-118P	20.0	3	\$3.66
WBTAPE-0984-118P	25.0	3	\$4.51
WBTAPE-1181-118P	30.0	3	\$4.79
WBTAPE-1575-118P	40.0	3	\$5.56
WBTAPE-0240-157P	6.1	4	\$3.71
WBTAPE-0381-157P	9.7	4	\$3.30
WBTAPE-0787-157P	20.0	4	\$3.63
WBTAPE-0984-157P	25.0	4	\$4.02
WBTAPE-1181-157P	30.0	4	\$4.63
WBTAPE-1579-157P	40.1	4	\$5.88

# WBT/F1 Nylon T Shaped Wearbands - Inch & Metric



## Inch Sizes

T-Shaped wearbands are manufactured from glass reinforced nylon and are found in some forklift and telescopic cylinders. They offer space saving advantages by allowing full piston length bearing contact and do not require side lands.

EXAMPLE: WBT0400-0562-125-N1B								
Prefix	Bore Diameter	Overall Bearing Ht	Cross Section	Material	Cut Type			
WBT	0400	-	0562	-	125	-	N1	B
	4"		9/16"		1/8"		NYLON	BUTT

Part Number	Bore Dia. D	Overall Groove Ht L	Overall Bearing Ht L <sub>1</sub>	Bearing Inner Ht L <sub>2</sub>	Wall Thickness K	Cross Section F	Price
WBT0162-0562-125-N1B	1.625	0.567	0.562	0.187	0.125	0.062	\$5.32
WBT0200-0437-125-N1B	2.000	0.442	0.437	0.187	0.125	0.062	\$5.63
WBT0225-0437-125-N1B	2.250	0.442	0.437	0.187	0.125	0.062	\$5.88
WBT0275-0562-125-N1B	2.750	0.567	0.562	0.187	0.125	0.062	\$6.12
WBT0300-0562-125-N1B	3.000	0.570	0.562	0.187	0.125	0.062	\$6.41
WBT0400-0562-125-N1B	4.000	0.570	0.562	0.187	0.125	0.062	\$6.69
WBT0550-0750-125-N1B	5.500	0.755	0.750	0.234	0.125	0.062	\$10.12
WBT0600-0625-125-N1B	6.000	0.630	0.625	0.234	0.125	0.062	\$11.02
WBT0650-0750-125-N1B	6.500	0.755	0.750	0.234	0.125	0.062	\$13.69
WBT0750-0750-125-N1B	7.500	0.755	0.750	0.234	0.125	0.062	\$18.33
WBT0850-0750-125-N1B	8.500	0.755	0.750	0.234	0.125	0.062	\$32.49

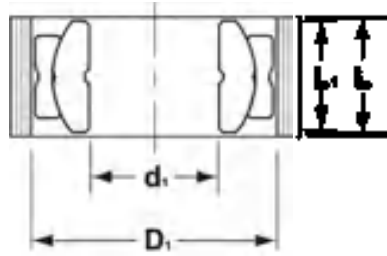
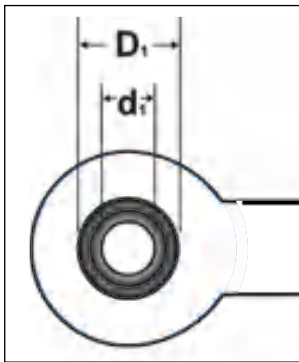
## Metric Sizes

F1 style T-Shaped wearbands are manufactured from glass filled Polyamide material and are primarily used in hydraulic cylinders, but may also be used in lubricated pneumatics with steel or cast iron pistons. They offer space saving advantages by allowing full piston length bearing contact and do not require side lands.

EXAMPLE: F1-125X14.3		
Prefix	Outside Diameter	Total Bearing Ht
F1-	125	X
	125mm	14.3mm

Part Number	Bore Diameter D	Bearing Height L <sub>1</sub>	Groove Dimensions					Gap	Price
			Piston Diameter d	Groove Diameter d <sub>1</sub>	Groove Diameter d <sub>2</sub>	Groove Height L	Groove Height L <sub>3</sub>		
F1-50X9.8	50	9.8	49.6	42.5	46.8	10.5	3.5	3	\$53.52
F1-80X14.3	80	14.3	79.5	71	76.5	15	5	5	\$59.80
F1-100X14.3	100	14.3	99.4	91	96.5	15	5	8	\$60.14

# GEZ Self Aligning Bearings - Inch and Metric



EXAMPLE: GEZ12ES		
Prefix	Bearing I.D.	Suffix
GEZ	12	ES
*1/2"		

\*Divide Bearing I.D. by 25.4 and round up.

These GEZ Self Aligning Spherical Bearings fit in the cylinder eyes and allow a certain amount of play connecting the cylinder to the application.

PARTS WITH SUFFIX 2RS ARE SEALED

Standard Part Number	I.D. d <sub>1</sub>	O.D. D <sub>1</sub>	Bearing Height L <sub>1</sub>	Housing Height L	Price
GEZ12ES	0.500	0.875	0.437	0.375	\$25.47
GEZ15ES	0.625	1.063	0.547	0.469	\$26.79
GEZ19ES	0.750	1.250	0.656	0.562	\$27.73
GEZ22ES	0.875	1.437	0.756	0.656	\$30.34
GEZ25ES	1.000	1.625	0.875	0.750	\$24.53
GEZ31ES	1.250	2.000	1.093	0.937	\$32.07
GEZ38ES	1.500	2.437	1.312	1.125	\$44.07
GEZ44ES	1.750	2.812	1.531	1.312	\$63.44
GEZ50ES	2.000	3.187	1.750	1.500	\$80.36
GEZ63ES	2.500	3.937	2.187	1.875	\$150.85

Metric Part Number	I.D. d <sub>1</sub>	O.D. D <sub>1</sub>	Bearing Height L <sub>1</sub>	Housing Height L	Price
GZ30ES-2RS	30	47	18	22	\$50.66
GZ40ES-2RS	40	62	22	28	\$52.85
GZ50ES-2RS	50	75	28	35	\$85.46
GZ60ES-2RS	60	90	36	44	\$125.02
GZ70ES-2RS	70	105	30	49	\$169.71
GZ80ES-2RS	80	120	45	55	\$213.25

# Replacement Case® Style Wearband / Wiper Combo



These Nylon Step Cut Wearband / Wiper Combos are an exact replacement for Case® Equipment. On the rod, they act as both a bearing and a wiper.

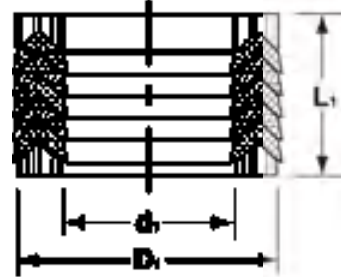
Part Number	I.D. d	O.D. D	Height L <sub>1</sub>	Price
D27705	1.250	1.376	0.687	\$17.81
D27706	1.500	1.626	0.687	\$17.91
D27432	1.750	1.876	0.687	\$18.61
D27380	2.000	2.126	0.687	\$23.83

We do not imply that these seals are a product of Case®.

# Vee Packing Sets - Inch



ALTERNATIVE SEALS: U-CUP with Back Up



EXAMPLE: VS25003000-1321				
Prefix	Inside Diameter	Outside Diameter	Assembly Instruction	
VS	2500	3000	-	1321
	2-1/2"	3"		1-MN, 3-VF, 2-VH, 1-FN

The sets in this section are supplied with both Hytrel®, fabric and rubber vees, and nylon adapters. Hytrel® Vees are added to these sets to aid in low pressure sealing, and to wipe the rod dry. Nylon adapters are superior to fabric and rubber for extrusion resistance. Pressure ratings increase with the number of vee rings. Consult sales for more information. Temperature: -40° to 225°F

**OTHER SIZES AND CONFIGURATIONS AVAILABLE**

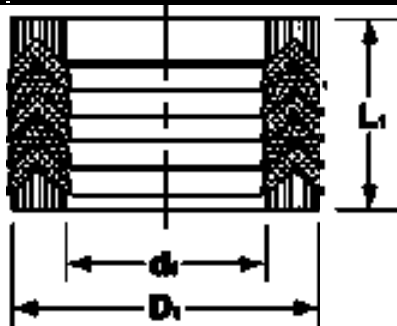
Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Stack Height L <sub>1</sub>	Price
VS500875-1221	0.500	0.875	.750	\$11.59
VS500875-1321	0.500	0.875	.859	\$13.50
VS5001000-1221	0.500	1.000	.843	\$14.16
VS5001000-1321	0.500	1.000	.968	\$14.59
VS6251000-1221	0.625	1.000	.750	\$14.60
VS6251000-1321	0.625	1.000	.859	\$14.59
VS6251125-1221	0.625	1.125	.843	\$14.79
VS6251125-1321	0.625	1.125	.968	\$15.16
VS7501125-1321	0.750	1.125	.859	\$21.91
VS7501250-1221	0.750	1.250	.843	\$16.47
VS7501250-1321	0.750	1.250	.968	\$15.92
VS7501375-1221	0.750	1.375	1.000	\$14.21
VS7501375-1321	0.750	1.375	1.156	\$21.45
VS7501500-1211	0.750	1.500	.968	\$16.20
VS7501500-1221	0.750	1.500	1.156	\$16.68
VS7501500-1321	0.750	1.500	1.343	\$19.11
VS8121312-1221	0.812	1.312	.843	\$12.81
VS8121312-1321	0.812	1.312	.968	\$22.62
VS8751250-1321	0.875	1.250	.859	\$14.56
VS8751375-1221	0.875	1.375	.843	\$14.62
VS8751375-1321	0.875	1.375	.968	\$16.07
VS8751500-1221	0.875	1.500	1.000	\$17.81
VS8751500-1321	0.875	1.500	1.156	\$19.05
VS10001375-1321	1.000	1.375	.859	\$15.63
VS10001500-1221	1.000	1.500	.843	\$15.32
VS10001500-1321	1.000	1.500	.968	\$15.51
VS10001625-1221	1.000	1.625	1.000	\$13.38
VS10001625-1321	1.000	1.625	1.156	\$16.25
VS10001750-1221	1.000	1.750	1.156	\$20.62
VS11251625-1221	1.125	1.625	.843	\$14.20
VS11251625-1321	1.125	1.625	.968	\$17.40
VS11251750-1211	1.125	1.750	.843	\$11.82
VS11251750-1221	1.125	1.750	1.000	\$14.98
VS11251750-1321	1.125	1.750	1.156	\$17.48
VS12501750-1211	1.250	1.750	.718	\$11.00
VS12501750-1221	1.250	1.750	.843	\$13.57
VS12501750-1321	1.250	1.750	.968	\$15.66
VS12501875-1221	1.250	1.875	1.000	\$18.34

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Stack Height L <sub>1</sub>	Price
VS12501875-1321	1.250	1.875	1.156	\$18.45
VS12502000-1211	1.250	2.000	.968	\$18.55
VS12502000-1321	1.250	2.000	1.343	\$23.00
VS13751875-1321	1.375	1.875	.968	\$15.52
VS13752000-1211	1.375	2.000	.843	\$18.13
VS13752000-1221	1.375	2.000	1.000	\$19.67
VS15001875-1321	1.500	1.875	.859	\$25.15
VS15002000-1211	1.500	2.000	.718	\$10.92
VS15002000-1221	1.500	2.000	.843	\$10.92
VS15002000-1311	1.500	2.000	.843	\$13.54
VS15002000-1321	1.500	2.000	.968	\$15.10
VS15002125-1211	1.500	2.125	.843	\$15.68
VS15002125-1221	1.500	2.125	1.000	\$17.90
VS15002125-1321	1.500	2.125	1.156	\$21.19
VS15002250-1211	1.500	2.250	.968	\$16.59
VS15002250-1221	1.500	2.250	1.156	\$21.10
VS15002250-1321	1.500	2.250	1.343	\$26.10
VS15002500-1211	1.500	2.500	1.218	\$28.39
VS15002500-1221	1.500	2.500	1.468	\$33.33
VS15002500-1321	1.500	2.500	1.718	\$35.86
VS16252250-1211	1.625	2.250	.843	\$18.90
VS16252250-1221	1.625	2.250	1.000	\$20.43
VS16252250-1321	1.625	2.250	1.156	\$29.61
VS17502125-1321	1.750	2.125	.859	\$36.61
VS17502250-1221	1.750	2.250	.843	\$12.90
VS17502250-1311	1.750	2.250	.843	\$12.90
VS17502250-1321	1.750	2.250	.968	\$18.93
VS17502375-1221	1.750	2.375	1.000	\$20.95
VS17502375-1321	1.750	2.375	1.156	\$24.28
VS17502500-1211	1.750	2.500	.968	\$23.13
VS17502500-1221	1.750	2.500	1.156	\$30.82
VS17502500-1321	1.750	2.500	1.343	\$34.12
VS18752375-1321	1.875	2.375	.968	\$19.15
VS18752500-1221	1.875	2.500	1.000	\$22.09
VS18752625-1321	1.875	2.625	1.343	\$28.30
VS20002500-1221	2.000	2.500	.843	\$15.49
VS20002500-1321	2.000	2.500	.968	\$17.58
VS20002625-1221	2.000	2.625	1.000	\$21.07

**Vee Packing Sets - Inch, cont'd.**

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Stack Height L <sub>1</sub>	Price	Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Stack Height L <sub>1</sub>	Price
VS20002625-1321	2.000	2.625	1.156	\$23.90	VS35004500-1221	3.500	4.500	1.468	\$51.31
VS20002750-1211	2.000	2.750	.968	\$22.64	VS35004500-1321	3.500	4.500	1.718	\$54.79
VS20002750-1221	2.000	2.750	1.156	\$26.36	VS37504250-1221	3.750	4.250	.843	\$26.04
VS20002750-1321	2.000	2.750	1.343	\$30.20	VS37504250-1321	3.750	4.250	.968	\$28.96
VS20003000-1221	2.000	3.000	1.468	\$40.37	VS37504375-1221	3.750	4.375	1.000	\$42.26
VS21252750-1221	2.125	2.750	1.000	\$23.45	VS37504375-1321	3.750	4.375	1.156	\$49.30
VS21872937-1321	2.187	2.937	1.343	\$34.13	VS37504500-1221	3.750	4.500	1.156	\$50.49
VS22502750-1321	2.250	2.750	.968	\$21.19	VS37504500-1321	3.750	4.500	1.343	\$57.35
VS22502875-1221	2.250	2.875	1.000	\$24.01	VS40004500-1321	4.000	4.500	.968	\$30.37
VS22502875-1321	2.250	2.875	1.156	\$28.31	VS40004750-1221	4.000	4.750	1.156	\$56.41
VS22503000-1211	2.250	3.000	.968	\$24.62	VS40004750-1321	4.000	4.750	1.343	\$65.81
VS22503000-1221	2.250	3.000	1.156	\$30.09	VS40005000-1221	4.000	5.000	1.468	\$60.41
VS22503000-1321	2.250	3.000	1.343	\$25.31	VS40005000-1321	4.000	5.000	1.718	\$68.82
VS23752875-1321	2.375	2.875	.968	\$22.86	VS41254625-1321-C	4.125	4.625	.968	\$42.91
VS23753000-1221	2.375	3.000	1.000	\$24.90	VS42504750-1321	4.250	4.750	.968	\$42.49
VS23753000-1321	2.375	3.000	1.156	\$28.96	VS42505000-1211	4.250	5.000	.968	\$47.23
VS25003000-1211	2.500	3.000	.718	\$17.34	VS42505000-1221	4.250	5.000	1.156	\$59.72
VS25003000-1221	2.500	3.000	.843	\$17.95	VS42505000-1321	4.250	5.000	1.343	\$72.09
VS25003000-1321	2.500	3.000	.968	\$21.86	VS42505125-1221	4.250	5.125	1.312	\$66.22
VS25003125-1221	2.500	3.125	1.000	\$29.11	VS45005000-1321	4.500	5.000	.968	\$33.11
VS25003125-1321	2.500	3.125	1.156	\$31.27	VS45005250-1211	4.500	5.250	.968	\$45.41
VS25003250-1211	2.500	3.250	.968	\$26.21	VS45005250-1311	4.500	5.250	1.156	\$52.57
VS25003250-1221	2.500	3.250	1.156	\$35.25	VS45005250-1321	4.500	5.250	1.343	\$61.32
VS25003250-1321	2.500	3.250	1.343	\$38.51	VS45005375-1311	4.500	5.375	1.312	\$63.22
VS25003500-1211	2.500	3.500	1.218	\$39.80	VS45005500-1211	4.500	5.500	1.218	\$61.76
VS25003500-1221	2.500	3.500	1.468	\$43.96	VS45005500-1221	4.500	5.500	1.468	\$74.10
VS25003500-1321	2.500	3.500	1.718	\$49.05	VS47505250-1321	4.750	5.250	.968	\$34.56
VS26253250-1321	2.625	3.250	1.156	\$22.33	VS47505375-1321	4.750	5.375	1.156	\$60.35
VS27503250-1211	2.750	3.250	.718	\$16.68	VS47505500-1311	4.750	5.500	1.156	\$65.44
VS27503250-1321	2.750	3.250	.968	\$21.99	VS47505500-1321	4.750	5.500	1.343	\$73.24
VS27503375-1221	2.750	3.375	1.000	\$28.69	VS50005500-1221	5.000	5.500	.843	\$35.53
VS27503375-1321	2.750	3.375	1.156	\$33.89	VS50005500-1321	5.000	5.500	.968	\$36.14
VS27503500-1211	2.750	3.500	.968	\$31.38	VS50005750-1221	5.000	5.750	1.156	\$70.14
VS27503500-1221	2.750	3.500	1.156	\$37.53	VS50006000-1211	5.000	6.000	1.218	\$75.17
VS27503500-1321	2.750	3.500	1.343	\$41.07	VS50006000-1221	5.000	6.000	1.468	\$82.95
VS29503500-1321	2.950	3.500	1.062	\$34.47	VS50625562-1321-C	5.062	5.562	.968	\$74.28
VS30003500-1221	3.000	3.500	.843	\$19.24	VS52505750-1321	5.250	5.750	.968	\$38.06
VS30003500-1321	3.000	3.500	.968	\$21.69	VS52506000-1221	5.250	6.000	1.156	\$67.25
VS30003625-1221	3.000	3.625	1.000	\$30.50	VS52506000-1311	5.250	6.000	1.156	\$72.27
VS30003625-1321	3.000	3.625	1.156	\$36.11	VS55006000-1321	5.500	6.000	.968	\$39.38
VS30003750-1221	3.000	3.750	1.156	\$41.86	VS55006250-1321	5.500	6.250	1.343	\$86.48
VS30003750-1321	3.000	3.750	1.343	\$45.84	VS55006500-1211	5.500	6.500	1.218	\$84.31
VS30004000-1221	3.000	4.000	1.468	\$54.32	VS57506375-1321	5.750	6.375	1.156	\$67.96
VS32503750-1221	3.250	3.750	.843	\$20.11	VS57506500-1311	5.750	6.500	1.156	\$74.46
VS32503750-1321	3.250	3.750	.968	\$25.60	VS57506500-1321	5.750	6.500	1.343	\$83.37
VS32504000-1221	3.250	4.000	1.156	\$44.12	VS60006500-1321	6.000	6.500	.968	\$42.07
VS32504000-1321	3.250	4.000	1.343	\$52.61	VS60007000-1311	6.000	7.000	1.468	\$91.14
VS33753875-1321	3.375	3.875	.968	\$28.20	VS60007000-1321	6.000	7.000	1.718	\$106.33
VS33754000-1221	3.375	4.000	1.000	\$30.20	VS65007000-1321	6.500	7.000	.968	\$48.18
VS33754000-1321	3.375	4.000	1.156	\$35.24	VS65007250-1321	6.500	7.250	1.343	\$91.52
VS35004000-1221	3.500	4.000	.843	\$24.14	VS67507375-1321	6.750	7.375	1.156	\$77.43
VS35004000-1321	3.500	4.000	.968	\$26.92	VS70007500-1321	7.000	7.500	.968	\$52.55
VS35004250-1221	3.500	4.250	1.156	\$42.89	VS80008500-1321	8.000	8.500	.968	\$64.53
VS35004250-1321	3.500	4.250	1.343	\$51.14					

# Vee Packing Sets - Metric



\* Some sets may contain fabric & rubber adapters.

EXAMPLE: MVS-50X65X22.5				
Prefix	Inside Diameter		Outside Diameter	Stack Height
MVS-	50	x	65	x 22.5
	50mm		65mm	22.5mm

Most sets in this section are supplied with fabric / rubber vees & nylon adapters but compounds may vary by manufacturer. Pressure ratings increase with the number of vee rings. Please call our sales office for more information regarding sizes or configurations not listed. Temperature: -40° to 225°F

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Stack Height L <sub>1</sub>	Price
MVS-8X18X18.5	8	18	18.5	\$22.51
MVS-20X30X18.5	20	30	18.5	\$23.64
MVS-20X32X22.5	20	32	22.5	\$26.22
MVS-22X32X18.5	22	32	18.5	\$27.87
MVS-22X34X22.5	22	34	22.5	\$29.22
MVS-25X37X22.5	25	37	22.5	\$26.83
MVS-25X40X22.5	25	40	22.5	\$29.09
MVS-28X40X22.5	28	40	22.5	\$27.79
MVS-28X43X22.5	28	43	22.5	\$31.11
MVS-30X42X22.5	30	42	22.5	\$34.28
MVS-32X44X22.5	32	44	22.5	\$31.23
MVS-35X47X22.5	35	47	22.5	\$31.82
MVS-35X50X22.5	35	50	22.5	\$41.14
MVS-40X52X22.5	40	52	22.5	\$41.67
MVS-40X55X22.5	40	55	22.5	\$46.04
MVS-45X60X22.5	45	60	22.5	\$48.12
MVS-48X63X22.5	48	63	22.5	\$50.79
MVS-50X65X22.5	50	65	22.5	\$51.76
MVS-50X70X30	50	70	30	\$59.27
MVS-55X70X22.5	55	70	22.5	\$39.09
MVS-55X75X30	55	75	30	\$65.78
MVS-56X71X22.5	56	71	22.5	\$57.95
MVS-56X76X37	56	76	37	\$79.64
MVS-60X75X22.5	60	75	22.5	\$71.47
MVS-60X80X37	60	80	37	\$74.88
MVS-63X78X22.5	63	78	22.5	\$65.39
MVS-63X83X37	63	83	37	\$88.70
MVS-65X80X22.5	65	80	22.5	\$72.89
MVS-70X85X22.5	70	85	22.5	\$76.76
MVS-70X90X40	70	90	40	\$102.20
MVS-75X90X22.5	75	90	22.5	\$70.32
MVS-80X95X22.5	80	95	22.5	\$75.77
MVS-80X100X40	80	100	40	\$102.01
MVS-85X100X22.5	85	100	22.5	\$92.31
MVS-85X105X40	85	105	40	\$109.67
MVS-90X105X22.5	90	105	22.5	\$82.84
MVS-90X110X40	90	110	40	\$127.68
MVS-100X115X30	100	115	30	\$101.72

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Stack Height L <sub>1</sub>	Price
MVS-100X120X40	100	120	40	\$130.46
MVS-105X120X30	105	120	30	\$120.23
MVS-105X130X40	105	130	40	\$181.82
MVS-110X125X30	110	125	30	\$90.00
MVS-110X130X40	110	130	40	\$137.69
MVS-110X140X56.3	110	140	56.3	\$159.13
MVS-115X140X46	115	140	46	\$168.40
MVS-120X140X49	120	140	49	\$181.28
MVS-120X145X46	120	145	46	\$165.81
MVS-125X140X34	125	140	34	\$132.45
MVS-125X150X46	125	150	46	\$184.64
MVS-135X160X55	135	160	55	\$226.32
MVS-140X155X34	140	155	34	\$173.34
MVS-140X165X46	140	165	46	\$204.29
MVS-150X170X40	150	170	40	\$206.47
MVS-150X180X60	150	180	60	\$283.80
MVS-160X180X40	160	180	40	\$306.90
MVS-160X190X60	160	190	60	\$324.18
MVS-165X195X50.5	165	195	50.5	\$423.05
MVS-170X190X40	170	190	40	\$229.80
MVS-180X210X60	180	210	60	\$355.84
MVS-190X220X42	190	220	42	\$432.35
MVS-200X220X40	200	220	40	\$333.86
MVS-200X230X60	200	230	60	\$439.86
MVS-210X240X50	210	240	50	\$450.72
MVS-220X240X40	220	240	40	\$350.96
MVS-230X260X58	230	260	58	\$502.52
MVS-240X270X60	240	270	60	\$543.17
MVS-290X320X35	290	320	35	\$486.93
MVS-300X330X60	300	330	60	\$696.05
MVS-310X340X60	310	340	60	\$709.61
MVS-320X350X60	320	350	60	\$779.09
MVS-320X360X46	320	360	46	\$848.71
MVS-330X360X60	330	360	60	\$868.87
MVS-360X390X60	360	390	60	\$919.05
MVS-360X400X55	360	400	55	\$929.29
MVS-400X430X46	400	430	46	\$935.10
MVS-400X440X65	400	440	65	\$983.41

# Vee Packing Components - Inch

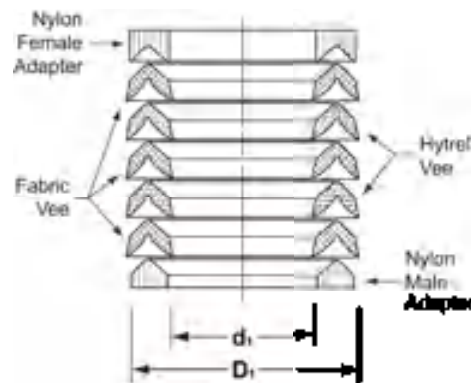
## Suffix Listing

\* Add suffix to Size Number to specify component Part Number

- FN = Nylon Female Adapter
- FF = Fabric Female Adapter
- VF = Fabric Vee
- VH = Hytrel® Vee
- VB = Homogeneous Nitrile Vee
- MN = Nylon Male Adapter
- MF = Fabric Male Adapter



ALTERNATIVE SEALS: 6225



**EXAMPLE: VP37504375VF**

Prefix	Inside Diameter	Outside Diameter	Style	Material
VP	3750	4375	V	F
	3-3/4"	4-3/8"	VEE RING	NBR/FAB

The next few pages contain a listing of solid vee packing. Most of these sizes correspond to the stack height chart below. Glass filled nylon adapters (for extrusion resistance) and Hytrel® vees (for dry wiping action) are standard in most sizes under 10" O.D. Also available, are plus and minus adapters for meeting your non-standard stack height requirements.

**NOTE: Not all sizes available in all materials or all components.** Please contact our sales department for more information.

Virtually any size packing, up to 40", can be made. The stack height chart does not apply for spiral packing sets or fabric adapters.

Standard material: Cotton reinforced nitrile rubber is compatible with most petroleum based fluids including gasoline, and can be used in constant temperatures to 250°F. Hytrel® is an engineered thermoplastic with a low friction coefficient and high abrasion resistance. It works well when alternated between fabric and rubber vees. Up to three Hytrel® vees may be used in a set or by themselves. Cotton reinforced FKM will work in constant temperatures to 300°F, with good resistance to swell. Glass filled nylon adapters are compatible with most fluids and will withstand constant temperatures up to 275°F, making them suitable for use with FKM and duck for semi-high temperature and fluid applications. Vitex (FKM and nomex; a very high temperature fabric containing kevlar and fiberglass) can be used at constant temperatures up to 400°F. Contact our sales office with application for material recommendations.

**NOTE:** VEE SPLITTING CHARGE - \$.15 / RING, VEE CUT DOWNS - \$1.00 / RING

## Stack Height Chart

Cross Section (fraction)	Height Per Vee (decimal)	2 Vee Rings	3 Vee Rings	4 Vee Rings	5 Vee Rings	6 Vee Rings
3/16	0.187	0.109	0.532	0.641	0.750	0.968
1/4	0.250	0.125	0.592	0.718	0.843	1.093
.275	0.275	0.138	0.640	0.781	0.921	1.203
5/16	0.312	0.156	0.687	0.843	1.000	1.312
3/8	0.375	0.187	0.781	0.968	1.156	1.531
7/16	0.437	0.218	0.875	1.093	1.312	1.750
1/2	0.500	0.250	0.968	1.218	1.468	1.968
5/8	0.625	0.312	1.156	1.468	1.781	2.406
3/4	0.750	0.375	1.343	1.718	2.093	2.843

## Recommended Number of Vees per Set

The information shown in the following chart is for general guidance only. Because of the many variables in design and application, no inflexible formula for determining the number of vees can be prepared. Therefore, this chart should be used

as a guide, and testing should be done prior to implementation. Furthermore, pressure ratings can be increased by using machined adapters with close tolerances and minimal extrusion gaps.

Diameter of Rod	Up to 1,000 PSI		1,000 to 2,500 PSI		2,500 to 6,000 PSI	
	Cross Section	Vee Rings	Cross Section	Vee Rings	Cross Section	Vee Rings
1" to 3"	1/4"	4	1/4"	5	1/4"	6
3" to 6"	1/4"	4	1/4"	5	3/8"	6
6" to 8"	3/8"	4	3/8"	5	1/2"	6
8" to 14"	1/2"	4	1/2"	5	1/2"	6
14" to 24"	5/8"	4	5/8"	5	5/8"	6
24" to 36"	3/4"	4	3/4"	5	3/4"	6



**Vee Packing Components - Inch, cont'd.**

Size Number*	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Price	Size Number*	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Price
VP250625	0.250	0.625	\$2.91	VP13752250	1.375	2.250	\$5.98
VP250750	0.250	0.750	\$3.99	VP14371937	1.437	1.937	\$4.72
VP250875	0.250	0.875	\$3.26	VP14372062	1.437	2.062	\$6.78
VP375625	0.375	0.625	\$5.38	VP14372187	1.437	2.187	\$20.43
VP375750	0.375	0.750	\$3.56	VP15001875	1.500	1.875	\$3.80
VP375875	0.375	0.875	\$3.83	VP15002000	1.500	2.000	\$2.39
VP375937	0.375	0.937	\$4.14	VP15002125	1.500	2.125	\$2.98
VP437812	0.437	0.812	\$7.24	VP15002250	1.500	2.250	\$4.00
VP500875	0.500	0.875	\$2.28	VP15002375	1.500	2.375	\$6.58
VP500937	0.500	0.937	\$5.44	VP15002500	1.500	2.500	\$5.77
VP5001000	0.500	1.000	\$3.32	VP15622062	1.562	2.062	\$4.82
VP5001125	0.500	1.125	\$4.30	VP16252000	1.625	2.000	\$14.71
VP562937	0.562	0.937	\$3.16	VP16252125	1.625	2.125	\$2.51
VP625875	0.625	0.875	\$8.19	VP16252250	1.625	2.250	\$4.70
VP6251000	0.625	1.000	\$3.38	VP16252375	1.625	2.375	\$5.10
VP6251125	0.625	1.125	\$2.25	VP16252625	1.625	2.625	\$12.07
VP6251250	0.625	1.250	\$3.82	VP17502125	1.750	2.125	\$4.01
VP6871187	0.687	1.187	\$3.82	VP17502250	1.750	2.250	\$2.64
VP7501125	0.750	1.125	\$3.41	VP17502265	1.750	2.265	\$4.61
VP7501250	0.750	1.250	\$2.23	VP17502375	1.750	2.375	\$3.47
VP7501375	0.750	1.375	\$5.16	VP17502500	1.750	2.500	\$3.47
VP7501500	0.750	1.500	\$4.39	VP17502750	1.750	2.750	\$7.79
VP8121187	0.812	1.187	\$3.41	VP17662875	1.766	2.875	\$17.19
VP8121312	0.812	1.312	\$3.74	VP17752525	1.775	2.525	\$6.03
VP8751250	0.875	1.250	\$2.39	VP18752375	1.875	2.375	\$2.68
VP8751375	0.875	1.375	\$3.66	VP18752390	1.875	2.390	\$4.70
VP8751500	0.875	1.500	\$4.19	VP18752500	1.875	2.500	\$3.79
VP8751625	0.875	1.625	\$4.38	VP18752530	1.875	2.530	\$5.52
VP9371437	0.937	1.437	\$5.36	VP18752625	1.875	2.625	\$6.09
VP10001375	1.000	1.375	\$3.35	VP19702520	1.970	2.520	\$5.43
VP10001500	1.000	1.500	\$2.25	VP20002375	2.000	2.375	\$3.96
VP10001625	1.000	1.625	\$4.89	VP20002500	2.000	2.500	\$2.57
VP10001750	1.000	1.750	\$6.22	VP20002515	2.000	2.515	\$4.47
VP10002000	1.000	2.000	\$6.94	VP20002562	2.000	2.562	\$5.41
VP10621562	1.062	1.562	\$4.22	VP20002625	2.000	2.625	\$3.53
VP11251500	1.125	1.500	\$3.84	VP20002687	2.000	2.687	\$6.36
VP11251625	1.125	1.625	\$5.86	VP20002750	2.000	2.750	\$4.51
VP11251750	1.125	1.750	\$4.29	VP20002875	2.000	2.875	\$7.53
VP11251875	1.125	1.875	\$4.97	VP20003000	2.000	3.000	\$9.48
VP11871562	1.187	1.562	\$3.64	VP20003250	2.000	3.250	\$16.91
VP11871687	1.187	1.687	\$3.95	VP21252562	2.125	2.562	\$4.54
VP11871750	1.187	1.750	\$3.97	VP21252625	2.125	2.625	\$4.67
VP12501625	1.250	1.625	\$3.70	VP21252640	2.125	2.640	\$5.23
VP12501750	1.250	1.750	\$2.24	VP21252750	2.125	2.750	\$5.43
VP12501875	1.250	1.875	\$3.49	VP21252875	2.125	2.875	\$6.81
VP12502000	1.250	2.000	\$3.67	VP21253000	2.125	3.000	\$8.90
VP12502125	1.250	2.125	\$6.32	VP21253125	2.125	3.125	\$14.04
VP12502250	1.250	2.250	\$7.62	VP21872937	2.187	2.937	\$6.71
VP12502500	1.250	2.500	\$8.34	VP22002765	2.200	2.765	\$5.91
VP13121812	1.312	1.812	\$4.09	VP22502750	2.250	2.750	\$2.99
VP13122062	1.312	2.062	\$8.61	VP22502875	2.250	2.875	\$5.54
VP13751750	1.375	1.750	\$3.58	VP22503000	2.250	3.000	\$4.89
VP13751875	1.375	1.875	\$3.20	VP22503020	2.250	3.020	\$16.65
VP13752000	1.375	2.000	\$3.24	VP22503125	2.250	3.125	\$9.71
VP13752125	1.375	2.125	\$6.18	VP22503250	2.250	3.250	\$10.62

\*Add suffix to size number for complete part number. See Page 344 for suffix listing.

**Vee Packing Components - Inch, cont'd.**

Size Number*	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Price	Size Number*	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Price
VP22503500	2.250	3.500	\$17.83	VP31874250	3.187	4.250	\$21.10
VP22753025	2.275	3.025	\$7.36	VP32003770	3.200	3.770	\$6.99
VP23752875	2.375	2.875	\$5.21	VP32503625	3.250	3.625	\$3.42
VP23753000	2.375	3.000	\$6.20	VP32503750	3.250	3.750	\$3.76
VP23753125	2.375	3.125	\$7.28	VP32503770	3.250	3.770	\$5.51
VP24373187	2.437	3.187	\$7.51	VP32503875	3.250	3.875	\$7.22
VP24503000	2.450	3.000	\$5.56	VP32504000	3.250	4.000	\$7.40
VP24503020	2.450	3.020	\$6.21	VP32504020	3.250	4.020	\$9.31
VP25002875	2.500	2.875	\$6.12	VP32504250	3.250	4.250	\$13.42
VP25003000	2.500	3.000	\$3.25	VP32504500	3.250	4.500	\$26.43
VP25003125	2.500	3.125	\$4.36	VP33753875	3.375	3.875	\$6.67
VP25003250	2.500	3.250	\$5.25	VP33754000	3.375	4.000	\$7.49
VP25003375	2.500	3.375	\$12.35	VP33754125	3.375	4.125	\$8.96
VP25003500	2.500	3.500	\$8.44	VP33754375	3.375	4.375	\$35.81
VP25003750	2.500	3.750	\$32.43	VP33754625	3.375	4.625	\$25.74
VP25253025	2.525	3.025	\$5.71	VP34504000	3.450	4.000	\$9.24
VP25803110	2.580	3.110	\$5.82	VP34504250	3.450	4.250	\$25.13
VP26253125	2.625	3.125	\$6.46	VP35004000	3.500	4.000	\$3.83
VP26253250	2.625	3.250	\$4.40	VP35004020	3.500	4.020	\$7.32
VP26253375	2.625	3.375	\$7.76	VP35004125	3.500	4.125	\$7.48
VP26603410	2.660	3.410	\$15.00	VP35004250	3.500	4.250	\$6.79
VP27503250	2.750	3.250	\$3.16	VP35004270	3.500	4.270	\$9.87
VP27503270	2.750	3.270	\$5.74	VP35004375	3.500	4.375	\$10.30
VP27503375	2.750	3.375	\$7.45	VP35004500	3.500	4.500	\$12.16
VP27503500	2.750	3.500	\$6.41	VP35004750	3.500	4.750	\$26.97
VP27503520	2.750	3.520	\$8.20	VP35005000	3.500	5.000	\$36.55
VP27503530	2.750	3.530	\$8.50	VP35204020	3.520	4.020	\$7.01
VP27503625	2.750	3.625	\$34.96	VP35804110	3.580	4.110	\$7.10
VP27503750	2.750	3.750	\$13.73	VP36254125	3.625	4.125	\$7.22
VP27504000	2.750	4.000	\$23.40	VP36254250	3.625	4.250	\$9.17
VP27753525	2.775	3.525	\$8.05	VP36254375	3.625	4.375	\$10.01
VP28283578	2.828	3.578	\$21.07	VP36904190	3.690	4.190	\$6.83
VP28753375	2.875	3.375	\$5.78	VP37004270	3.700	4.270	\$7.66
VP28753500	2.875	3.500	\$6.81	VP37504250	3.750	4.250	\$4.30
VP28753625	2.875	3.625	\$8.11	VP37504375	3.750	4.375	\$9.33
VP28753875	2.875	3.875	\$8.71	VP37504500	3.750	4.500	\$8.58
VP29503450	2.950	3.450	\$8.99	VP37504520	3.750	4.520	\$10.13
VP29503500	2.950	3.500	\$7.12	VP37504750	3.750	4.750	\$14.68
VP29503625	2.950	3.625	\$12.61	VP37505000	3.750	5.000	\$49.44
VP29703520	2.970	3.520	\$7.22	VP37754525	3.775	4.525	\$12.75
VP30003500	3.000	3.500	\$3.27	VP38754375	3.875	4.375	\$7.32
VP30003520	3.000	3.520	\$6.40	VP38754500	3.875	4.500	\$8.71
VP30003625	3.000	3.625	\$6.91	VP38754625	3.875	4.625	\$18.82
VP30003750	3.000	3.750	\$7.44	VP39504500	3.950	4.500	\$7.69
VP30003820	3.000	3.820	\$20.88	VP39504750	3.950	4.750	\$25.11
VP30003875	3.000	3.875	\$22.13	VP39704520	3.970	4.520	\$8.02
VP30004000	3.000	4.000	\$13.80	VP40004500	4.000	4.500	\$5.39
VP30004250	3.000	4.250	\$24.87	VP40004525	4.000	4.525	\$7.37
VP30004500	3.000	4.500	\$28.47	VP40004562	4.000	4.562	\$7.76
VP31253500	3.125	3.500	\$5.57	VP40004625	4.000	4.625	\$8.26
VP31253625	3.125	3.625	\$6.08	VP40004750	4.000	4.750	\$9.18
VP31253750	3.125	3.750	\$10.65	VP40004875	4.000	4.875	\$14.30
VP31253875	3.125	3.875	\$10.88	VP40005000	4.000	5.000	\$12.69
VP31254000	3.125	4.000	\$11.12	VP40005250	4.000	5.250	\$30.45
VP31873687	3.187	3.687	\$10.26	VP40005500	4.000	5.500	\$42.92

\*Add suffix to size number for complete part number. See Page 344 for suffix listing.

### Vee Packing Components - Inch, cont'd.

Size Number*	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Price	Size Number*	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Price
VP40624812	4.062	4.812	\$12.05	VP52506250	5.250	6.250	\$17.56
VP41254625	4.125	4.625	\$7.63	VP52756025	5.275	6.025	\$12.72
VP41255000	4.125	5.000	\$24.62	VP53756000	5.375	6.000	\$15.17
VP41255025	4.125	5.025	\$31.92	VP53756125	5.375	6.125	\$17.25
VP41255125	4.125	5.125	\$33.05	VP53756250	5.375	6.250	\$21.58
VP41875500	4.187	5.500	\$31.66	VP54455945	5.445	5.945	\$8.79
VP42004750	4.200	4.750	\$8.30	VP54506000	5.450	6.000	\$9.68
VP42504750	4.250	4.750	\$6.36	VP54756025	5.475	6.025	\$10.04
VP42504875	4.250	4.875	\$9.36	VP55006000	5.500	6.000	\$5.70
VP42505000	4.250	5.000	\$9.52	VP55006125	5.500	6.125	\$14.76
VP42505030	4.250	5.030	\$11.00	VP55006250	5.500	6.250	\$16.43
VP42505125	4.250	5.125	\$12.93	VP55006375	5.500	6.375	\$21.58
VP42505250	4.250	5.250	\$17.33	VP55006500	5.500	6.500	\$20.25
VP42755025	4.275	5.025	\$11.02	VP55006750	5.500	6.750	\$36.01
VP43754875	4.375	4.875	\$7.42	VP55007000	5.500	7.000	\$41.36
VP43755000	4.375	5.000	\$8.64	VP56256250	5.625	6.250	\$13.29
VP43755375	4.375	5.375	\$25.96	VP56256625	5.625	6.625	\$26.70
VP44374937	4.437	4.937	\$8.74	VP57006450	5.700	6.450	\$20.44
VP44505000	4.450	5.000	\$8.53	VP57506250	5.750	6.250	\$9.06
VP45005000	4.500	5.000	\$4.81	VP57506375	5.750	6.375	\$10.50
VP45005125	4.500	5.125	\$9.03	VP57506500	5.750	6.500	\$14.01
VP45005250	4.500	5.250	\$12.51	VP57506750	5.750	6.750	\$23.85
VP45005375	4.500	5.375	\$13.80	VP57507000	5.750	7.000	\$38.66
VP45005500	4.500	5.500	\$16.89	VP57507250	5.750	7.250	\$42.25
VP45005530	4.500	5.530	\$17.66	VP57756525	5.775	6.525	\$14.30
VP45005750	4.500	5.750	\$35.47	VP58126812	5.812	6.812	\$21.25
VP45006000	4.500	6.000	\$35.74	VP59506500	5.950	6.500	\$10.48
VP45805080	4.580	5.080	\$8.26	VP59706520	5.970	6.520	\$10.49
VP46255250	4.625	5.250	\$9.30	VP60006500	6.000	6.500	\$6.26
VP47005250	4.700	5.250	\$9.01	VP60006525	6.000	6.525	\$9.83
VP47005290	4.700	5.290	\$15.28	VP60006625	6.000	6.625	\$11.07
VP47005445	4.700	5.445	\$12.94	VP60006750	6.000	6.750	\$13.31
VP47505250	4.750	5.250	\$7.84	VP60007000	6.000	7.000	\$18.89
VP47505375	4.750	5.375	\$9.12	VP60007040	6.000	7.040	\$22.45
VP47505500	4.750	5.500	\$13.43	VP60007250	6.000	7.250	\$38.97
VP47505625	4.750	5.625	\$14.25	VP60007500	6.000	7.500	\$42.22
VP47505750	4.750	5.750	\$17.60	VP60306780	6.030	6.780	\$14.45
VP48755625	4.875	5.625	\$13.81	VP62506750	6.250	6.750	\$12.43
VP49505500	4.950	5.500	\$10.51	VP62506875	6.250	6.875	\$11.30
VP49705520	4.970	5.520	\$10.51	VP62507000	6.250	7.000	\$16.66
VP50005500	5.000	5.500	\$5.20	VP62507250	6.250	7.250	\$19.17
VP50005525	5.000	5.525	\$12.28	VP63757000	6.375	7.000	\$12.50
VP50005562	5.000	5.562	\$10.75	VP64456945	6.445	6.945	\$10.02
VP50005625	5.000	5.625	\$10.82	VP64507000	6.450	7.000	\$11.07
VP50005750	5.000	5.750	\$12.25	VP64507250	6.450	7.250	\$22.87
VP50005875	5.000	5.875	\$14.71	VP65007000	6.500	7.000	\$9.77
VP50006000	5.000	6.000	\$16.77	VP65007062	6.500	7.062	\$14.71
VP50006040	5.000	6.040	\$18.45	VP65007250	6.500	7.250	\$15.88
VP50006250	5.000	6.250	\$33.64	VP65007500	6.500	7.500	\$21.27
VP50006500	5.000	6.500	\$36.63	VP65007750	6.500	7.750	\$41.84
VP50625562	5.062	5.562	\$10.92	VP65008000	6.500	8.000	\$47.16
VP51255625	5.125	5.625	\$11.00	VP66257250	6.625	7.250	\$14.47
VP51256000	5.125	6.000	\$22.31	VP67007250	6.700	7.250	\$11.76
VP52505750	5.250	5.750	\$5.70	VP67007500	6.700	7.500	\$43.73
VP52506000	5.250	6.000	\$12.07	VP67507250	6.750	7.250	\$10.45

\*Add suffix to size number for complete part number. See Page 344 for suffix listing.

**Vee Packing Components - Inch, cont'd.**

Size Number*	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Price	Size Number*	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Price
VP67507375	6.750	7.375	\$12.29	VP85009250	8.500	9.250	\$26.25
VP67507500	6.750	7.500	\$19.77	VP85009500	8.500	9.500	\$33.32
VP67507750	6.750	7.750	\$25.91	VP850010000	8.500	10.000	\$73.70
VP67508000	6.750	8.000	\$43.08	VP850010062	8.500	10.062	\$76.14
VP68127812	6.812	7.812	\$18.98	VP875010000	8.750	10.000	\$65.17
VP68757625	6.875	7.625	\$19.49	VP88759875	8.875	9.875	\$34.88
VP68757875	6.875	7.875	\$30.45	VP887510000	8.875	10.000	\$42.35
VP69507500	6.950	7.500	\$11.99	VP89509500	8.950	9.500	\$15.45
VP69707520	6.970	7.520	\$12.01	VP89509750	8.950	9.750	\$63.55
VP70007500	7.000	7.500	\$10.22	VP90009500	9.000	9.500	\$19.63
VP70007525	7.000	7.525	\$11.29	VP90009750	9.000	9.750	\$21.81
VP70007750	7.000	7.750	\$17.82	VP900010000	9.000	10.000	\$36.00
VP70008000	7.000	8.000	\$28.73	VP900010250	9.000	10.250	\$56.53
VP70008250	7.000	8.250	\$46.59	VP900010500	9.000	10.500	\$64.45
VP70008500	7.000	8.500	\$68.12	VP91259650	9.125	9.650	\$19.43
VP72507750	7.250	7.750	\$18.25	VP91259675	9.125	9.675	\$20.63
VP72508000	7.250	8.000	\$18.22	VP91259750	9.125	9.750	\$21.98
VP72508250	7.250	8.250	\$26.78	VP912510125	9.125	10.125	\$38.79
VP73758000	7.375	8.000	\$17.18	VP92409790	9.240	9.790	\$27.58
VP74457945	7.445	7.945	\$11.25	VP92509750	9.250	9.750	\$44.97
VP75008000	7.500	8.000	\$10.99	VP925010250	9.250	10.250	\$42.56
VP75008125	7.500	8.125	\$13.72	VP925010500	9.250	10.500	\$71.51
VP75008250	7.500	8.250	\$20.98	VP931210562	9.312	10.562	\$60.84
VP75008500	7.500	8.500	\$34.34	VP93759875	9.375	9.875	\$19.96
VP75008750	7.500	8.750	\$51.29	VP93759910	9.375	9.910	\$23.40
VP75009000	7.500	9.000	\$68.18	VP937510000	9.375	10.000	\$31.23
VP77008500	7.700	8.500	\$28.66	VP950010000	9.500	10.000	\$43.90
VP77508250	7.750	8.250	\$13.31	VP950010250	9.500	10.250	\$29.05
VP77508375	7.750	8.375	\$16.93	VP950010500	9.500	10.500	\$34.91
VP77508500	7.750	8.500	\$18.70	VP975010500	9.750	10.500	\$33.09
VP77509000	7.750	9.000	\$48.27	VP987510625	9.875	10.625	\$34.58
VP78758500	7.875	8.500	\$34.83	VP987510875	9.875	10.875	\$42.29
VP78758875	7.875	8.875	\$32.32	VP987511000	9.875	11.000	\$47.96
VP78759000	7.875	9.000	\$35.95	VP987511375	9.875	11.375	\$81.54
VP79058543	7.905	8.543	\$17.30	VP1000010500	10.000	10.500	\$36.60
VP79259170	7.925	9.170	\$42.57	VP1000011000	10.000	11.000	\$46.07
VP79508500	7.950	8.500	\$13.18	VP1000011250	10.000	11.250	\$65.49
VP79708520	7.970	8.520	\$13.21	VP1000011500	10.000	11.500	\$69.64
VP80008500	8.000	8.500	\$12.41	VP1025011500	10.250	11.500	\$67.88
VP80008525	8.000	8.525	\$12.69	VP1025011750	10.250	11.750	\$75.46
VP80008750	8.000	8.750	\$19.53	VP1037511375	10.375	11.375	\$50.91
VP80009000	8.000	9.000	\$33.10	VP1045011250	10.450	11.250	\$65.96
VP80009040	8.000	9.040	\$33.50	VP1047011020	10.470	11.020	\$45.63
VP80009250	8.000	9.250	\$53.86	VP1050011000	10.500	11.000	\$47.81
VP80009500	8.000	9.500	\$68.98	VP1050011250	10.500	11.250	\$54.67
VP80509050	8.050	9.050	\$32.45	VP1050011500	10.500	11.500	\$62.20
VP810010000	8.100	10.000	\$105.95	VP1062512125	10.625	12.125	\$95.06
VP81258625	8.125	8.625	\$12.96	VP1075012000	10.750	12.000	\$74.39
VP81258655	8.125	8.655	\$13.85	VP1087511875	10.875	11.875	\$55.11
VP81879437	8.187	9.437	\$54.00	VP1087512000	10.875	12.000	\$57.30
VP82509000	8.250	9.000	\$21.17	VP1095011750	10.950	11.750	\$71.28
VP82509250	8.250	9.250	\$32.49	VP1100012000	11.000	12.000	\$54.11
VP83759125	8.375	9.125	\$25.63	VP1100012500	11.000	12.500	\$81.12
VP84459195	8.445	9.195	\$29.53	VP1100012750	11.000	12.750	\$98.68
VP85009000	8.500	9.000	\$21.05	VP1125012000	11.250	12.000	\$54.67

\*Add suffix to size number for complete part number. See Page 344 for suffix listing.

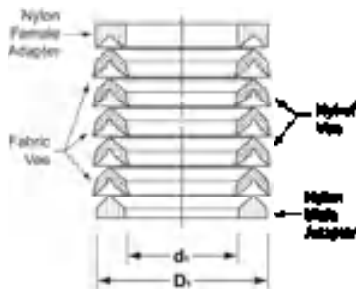
## Vee Packing Components - Inch, cont'd.

Size Number*	Inside Dia. $d_1$	Outside Dia. $D_1$	Price
VP1137512375	11.375	12.375	\$57.85
VP1143712437	11.437	12.437	\$58.74
VP1187512875	11.875	12.875	\$59.34
VP1187513000	11.875	13.000	\$65.29
VP1195012500	11.950	12.500	\$57.63
VP1195012750	11.950	12.750	\$71.74
VP1200012750	12.000	12.750	\$77.23
VP1200013000	12.000	13.000	\$63.26
VP1200013250	12.000	13.250	\$82.46
VP1200013500	12.000	13.500	\$88.47
VP1250013250	12.500	13.250	\$91.00
VP1250014000	12.500	14.000	\$121.27
VP1275013250	12.750	13.250	\$50.50
VP1300014000	13.000	14.000	\$76.23
VP1318714187	13.187	14.187	\$74.17
VP1325014000	13.250	14.000	\$74.50
VP1325014250	13.250	14.250	\$75.31

Size Number*	Inside Dia. $d_1$	Outside Dia. $D_1$	Price
VP1375014500	13.750	14.500	\$63.55
VP1381214812	13.812	14.812	\$77.47
VP1400015000	14.000	15.000	\$157.08
VP1400015500	14.000	15.500	\$98.21
VP1450016000	14.500	16.000	\$148.63
VP1500016000	15.000	16.000	\$118.66
VP1500016250	15.000	16.250	\$124.09
VP1600017500	16.000	17.500	\$186.11
VP1700018000	17.000	18.000	\$154.03
VP1700018500	17.000	18.500	\$159.92
VP1750019000	17.500	19.000	\$148.89
VP1900020500	19.000	20.500	\$164.44
VP2000021000	20.000	21.000	\$147.11
VP2000021500	20.000	21.500	\$171.89
VP2175023250	21.750	23.250	\$286.02
VP2300024500	23.000	24.500	\$353.49
VP2400025500	24.000	25.500	\$386.51

\*Add suffix to size number for complete part number. See Page 344 for suffix listing.

## Vee Packing Components - Metric



\* Add suffix to Size Number to specify component Part Number

- FN = Nylon Female Adapter
- FF = Fabric Female Adapter
- VF = Fabric Vee
- VH = Hytrel® Vee
- VB = Homogeneous Nitrile Vee
- MN = Nylon Male Adapter
- MF = Fabric Male Adapter

NOTE: Not all sizes have availability of tops, bottoms and vees. Please consult sales.

PART #'S WERE CREATED IN INCHES.  
TO CONVERT TO METRIC MULTIPLY BY .0254

### EXAMPLE: VP15752165FN

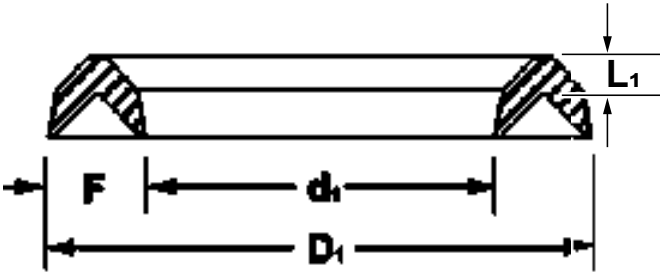
Prefix	Inside Diameter	Outside Diameter	Style	Material
VP	1575	2165	F	N
	40mm	50mm	FEMALE	NYLON

Size Number*	Inside Dia. $d_1$	Outside Dia. $D_1$	Price
VP15752165	40	55	\$6.27
VP19692559	50	65	\$7.81
VP21652756	55	70	\$8.02
VP23622953	60	75	\$8.47
VP24803071	63	78	\$9.20
VP25593150	65	80	\$9.95
VP27563347	70	85	\$10.12
VP27563543	70	90	\$13.37
VP29533543	75	90	\$12.85
VP31503740	80	95	\$13.25
VP31503937	80	100	\$14.51
VP33463937	85	100	\$14.27
VP35434134	90	105	\$15.08
VP35434331	90	110	\$16.97

Size Number*	Inside Dia. $d_1$	Outside Dia. $D_1$	Price
VP43314921	110	125	\$17.94
VP44105197	112	132	\$18.67
VP53156299	135	160	\$22.54
VP55126299	140	160	\$20.53
VP55126693	140	170	\$33.71
VP59056889	150	175	\$37.52
VP59057087	150	180	\$42.09
VP62997087	160	180	\$39.65
VP62997284	160	185	\$41.11
VP82689055	210	230	\$49.33
VP86629843	220	250	\$73.74
VP984310630	250	270	\$56.70
VP984311024	250	280	\$98.00
VP1141712205	290	310	\$93.58

\*Add suffix to size number for complete part number.  
See above for suffix listing.

# AN Style Homogeneous Nitrile Vees - Inch



ALTERNATIVE SEALS: VP

EXAMPLE: 6225-20 N90		
Prefix	Inside Diameter	Material
6225-	20	N90
	1"	90A NBR

AN # SYSTEM

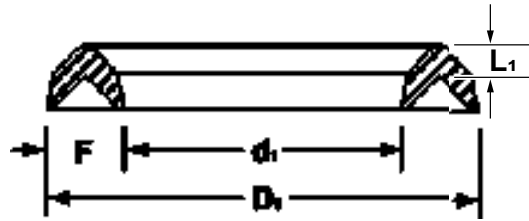
This short profile 90 durometer Nitrile vee is used in sets for pneumatic and hydraulic applications. Normally they are stacked together, or in conjunction with leather or PTFE vees of the same profile for hydraulic applications. This profile is also available in other compounds including FKM, EPR, and Leather. Consult sales office for price and availability.

Temperature: -40° to 225°F Pressure: Consult technical service

Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	Stack Height $L_1$	Price
6225-1 N90	0.125	0.500	.083	\$5.26
6225-2 N90	0.187	0.562	.083	\$5.30
6225-3 N90	0.250	0.625	.083	\$5.43
6225-4 N90	0.312	0.687	.083	\$6.36
6225-5 N90	0.375	0.750	.083	\$2.43
6225-6 N90	0.437	0.812	.083	\$4.85
6225-7 N90	0.500	0.875	.083	\$2.04
6225-8 N90	0.250	0.750	.083	\$4.72
6225-9 N90	0.312	0.812	.083	\$5.98
6225-10 N90	0.375	0.875	.083	\$4.96
6225-11 N90	0.437	0.937	.083	\$7.17
6225-12 N90	0.500	1.000	.083	\$4.58
6225-13 N90	0.562	1.062	.083	\$6.96
6225-14 N90	0.625	1.125	.083	\$4.94
6225-15 N90	0.687	1.187	.083	\$5.81
6225-16 N90	0.750	1.250	.083	\$6.07
6225-17 N90	0.812	1.312	.083	\$7.17
6225-18 N90	0.875	1.375	.083	\$7.46
6225-19 N90	0.937	1.437	.083	\$8.93
6225-20 N90	1.000	1.500	.083	\$3.63
6225-21 N90	1.062	1.562	.083	\$10.64
6225-22 N90	1.125	1.625	.083	\$3.64
6225-23 N90	1.187	1.687	.083	\$6.79
6225-24 N90	1.250	1.750	.083	\$3.77
6225-25 N90	1.250	1.875	.140	\$3.95
6225-26 N90	1.375	2.000	.140	\$4.05
6225-27 N90	1.500	2.125	.140	\$4.16
6225-28 N90	1.625	2.250	.140	\$5.18
6225-29 N90	1.750	2.375	.140	\$5.38
6225-30 N90	1.875	2.500	.140	\$6.38
6225-31 N90	2.000	2.625	.140	\$6.22

Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	Stack Height $L_1$	Price
6225-32 N90	2.125	2.750	.140	\$7.79
6225-33 N90	2.250	2.875	.140	\$7.89
6225-34 N90	2.375	3.000	.140	\$9.00
6225-35 N90	2.500	3.125	.140	\$8.97
6225-36 N90	2.500	3.250	.156	\$9.96
6225-37 N90	2.625	3.375	.156	\$11.41
6225-38 N90	2.750	3.500	.156	\$10.00
6225-40 N90	3.000	3.750	.156	\$9.11
6225-42 N90	3.250	4.000	.156	\$10.42
6225-44 N90	3.500	4.250	.156	\$11.66
6225-46 N90	3.750	4.500	.156	\$20.51
6225-47 N90	3.875	4.625	.156	\$44.58
6225-48 N90	3.875	4.750	.197	\$21.51
6225-49 N90	4.000	4.875	.197	\$24.32
6225-50 N90	4.250	5.125	.197	\$19.74
6225-51 N90	4.500	5.375	.197	\$16.54
6225-52 N90	4.750	5.625	.197	\$23.93
6225-53 N90	5.000	5.875	.197	\$24.22
6225-54 N90	5.250	6.125	.197	\$25.29
6225-55 N90	5.500	6.375	.197	\$21.64
6225-56 N90	5.500	6.500	.197	\$30.79
6225-57 N90	5.750	6.750	.197	\$21.52
6225-58 N90	6.000	7.000	.197	\$31.42
6225-60 N90	6.500	7.500	.197	\$33.67
6225-62 N90	7.000	8.000	.197	\$42.03
6225-63 N90	7.250	8.250	.197	\$43.35
6225-64 N90	7.500	8.500	.197	\$45.17
6225-66 N90	8.000	9.000	.197	\$69.90
6225-67 N80	8.500	9.500	.197	\$72.32
6225-70 N90	10.000	11.000	.197	\$59.27

# Homogeneous Nitrile Vee Packing - Inch & Metric



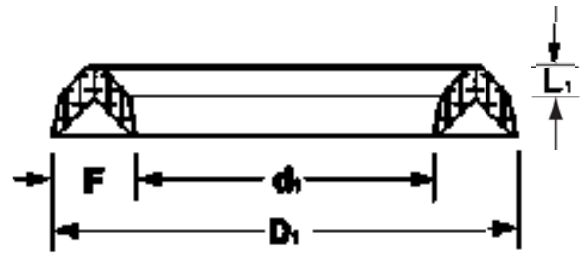
This regular profile 90 durometer Nitrile vee is used in sets for pneumatic and hydraulic applications. Normally they are stacked together, or in conjunction with leather or TFE vees of the same profile for hydraulic applications. This profile is also available in other compounds including FKM, EPR, and Leather.

Temperature: -40° to 225°F Pressure: Consult technical service

EXAMPLE: VP37504375VF				
Prefix	Inside Diameter	Outside Diameter	Style	Material
VP	3750	4375	V	F
	3-3/4"	4-3/8"	VEE PACKING	NBR/FAB

Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	C/S $F$	Stack Height $L_1$	Price
VP394787VB	10mm	20mm	0.197	0.098	\$7.14
VP7501125VB.083	0.750	1.125	0.187	0.083	\$6.76
VP8121375VB.081	0.812	1.375	0.282	0.081	\$7.56
VP10001500VB	1.000	1.500	0.250	0.125	\$7.90
VP12501750VB	1.250	1.750	0.250	0.125	\$8.22
VP15002000VB	1.500	2.000	0.250	0.125	\$8.75
VP15002000VB.083	1.500	2.000	0.250	0.083	\$5.11
VP18122363VB.083	1.812	2.363	0.276	0.083	\$6.06
VP18752625VB.156	1.875	2.625	0.375	0.156	\$9.31
VP20002500VB	2.000	2.500	0.250	0.125	\$9.55
VP20002500VB.140	2.000	2.500	0.250	0.140	\$8.02
VP22502750VB	2.250	2.750	0.250	0.125	\$6.06
VP25003000VB	2.500	3.000	0.250	0.125	\$7.99
VP27003200VB.083	2.700	3.200	0.250	0.083	\$6.38
VP28753250VB N90	2.875	3.250	0.187	0.094	\$9.56
VP32504000VB	3.250	4.000	0.375	0.187	\$10.90
VP33464134VB	85mm	105mm	0.394	0.197	\$21.19
VP39374724VB	100mm	120mm	0.394	0.197	\$21.98
VP39504750VB	3.950	4.750	0.400	0.200	\$27.51
VP44374937VB.187	4.437	4.937	0.250	0.187	\$32.69
VP47005250VB	4.700	5.250	0.275	0.187	\$18.52
VP55006000VB	5.500	6.000	0.250	0.125	\$9.86
VP59056693VB	150mm	170mm	0.394	0.197	\$60.09
VP60006500VB	6.000	6.500	0.250	0.125	\$13.50
VP65007000VB	6.500	7.000	0.250	0.125	\$13.80
VP65007500VB	6.500	7.500	0.500	0.250	\$23.85
VP67007500VB	6.700	7.500	0.400	0.200	\$26.19
VP75008250VB	7.500	8.250	0.375	0.187	\$26.99
VP77008500VB	7.700	8.500	0.400	0.200	\$27.46
VP79259170VB	7.925	9.170	0.623	0.311	\$30.71
VP80009000VB	8.000	9.000	0.500	0.250	\$43.28
VP82509000VB	8.250	9.000	0.375	0.187	\$24.30
VP85009250VB	8.500	9.250	0.375	0.187	\$30.25
VP89509500VB	8.950	9.500	0.275	0.138	\$22.85
VP90009750VB	9.000	9.750	0.375	0.187	\$45.97
VP92409790VB	9.240	9.790	0.275	0.138	\$24.03
VP931210562VB	9.312	10.562	0.625	0.312	\$30.57
VP937510000VB	9.375	10.000	0.312	0.156	\$30.36
VP1000011250VB	10.000	11.250	0.625	0.312	\$66.79
VP1045011250VB	10.450	11.250	0.400	0.200	\$55.27
VP1195012750VB	11.950	12.750	0.400	0.200	\$56.50

# AN Style PTFE Vees - Inch



EXAMPLE: 6225-20 TFE		
Prefix	Inside Diameter	Material
6225-	20	PTFE
	1"	VIRGIN PTFE

This short profile PTFE Vee is used in sets for pneumatic and hydraulic applications. Normally they are stacked together, or in conjunction with Nitrile vees of the same profile. Please call sales office for price and availability.

Temperature: -100° to 400°F

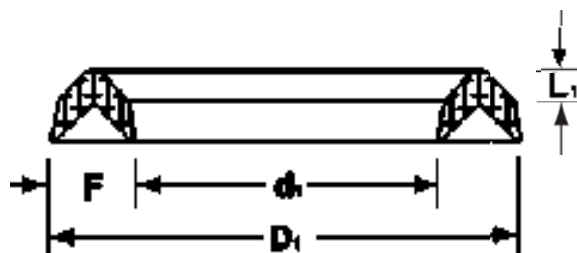
Pressure: Consult technical service

AN # SYSTEM

Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	C/S F	Stack Height $L_1$	Price
6225-2 TFE	0.187	0.562	0.187	0.083	\$14.81
6225-3 TFE	0.250	0.625	0.187	0.083	\$8.17
6225-4 TFE	0.312	0.687	0.187	0.083	\$10.75
6225-8 TFE	0.250	0.750	0.250	0.083	\$8.17
6225-12 TFE	0.500	1.000	0.250	0.083	\$8.59
6225-14 TFE	0.625	1.125	0.250	0.083	\$8.78
6225-16 TFE	0.750	1.250	0.250	0.083	\$16.82
6225-17 TFE	0.812	1.312	0.250	0.083	\$33.35
6225-19 TFE	0.937	1.437	0.250	0.083	POA
6225-20 TFE	1.000	1.500	0.250	0.083	\$9.00
6225-22 TFE	1.125	1.625	0.250	0.083	\$15.02
6225-24 TFE	1.250	1.750	0.250	0.083	\$17.80
6225-26 TFE	1.375	2.000	0.312	0.140	\$10.02
6225-27 TFE	1.500	2.125	0.312	0.140	\$10.96
6225-29 TFE	1.750	2.375	0.312	0.140	\$11.14
6225-31 TFE	2.000	2.625	0.312	0.140	\$12.76
6225-32 TFE	2.125	2.750	0.312	0.140	\$13.05
6225-33 TFE	2.250	2.875	0.312	0.140	\$26.44
6225-35 TFE	2.500	3.125	0.312	0.140	\$18.84
6225-36 TFE	2.500	3.250	0.375	0.156	\$28.83
6225-38 TFE	2.750	3.500	0.375	0.156	\$18.67
6225-40 TFE	3.000	3.750	0.375	0.156	POA
6225-41 TFE	3.125	3.875	0.375	0.156	POA
6225-42 TFE	3.250	4.000	0.375	0.156	\$20.35
6225-43 TFE	3.375	4.125	0.375	0.156	\$34.95
6225-44 TFE	3.500	4.250	0.375	0.156	\$58.28
6225-46 TFE	3.750	4.500	0.375	0.156	\$25.86
6225-48 TFE	3.875	4.750	0.437	0.156	\$30.81
6225-49 TFE	4.000	4.875	0.437	0.197	\$71.68
6225-50 TFE	4.250	5.125	0.437	0.197	POA
6225-51 TFE	4.500	5.375	0.437	0.197	\$71.06
6225-52 TFE	4.750	5.625	0.437	0.197	\$75.09
6225-54 TFE	5.250	6.125	0.437	0.197	\$76.63
6225-62 TFE	7.000	8.000	0.500	0.197	POA



# PTFE Vee Packing - Inch



EXAMPLE: VP20002500VT				
Prefix	Inside Diameter	Outside Diameter	Style	Material
VP	2000	2500	V	T
	2"	2 1/2"	VEE PACKNG	PTFE

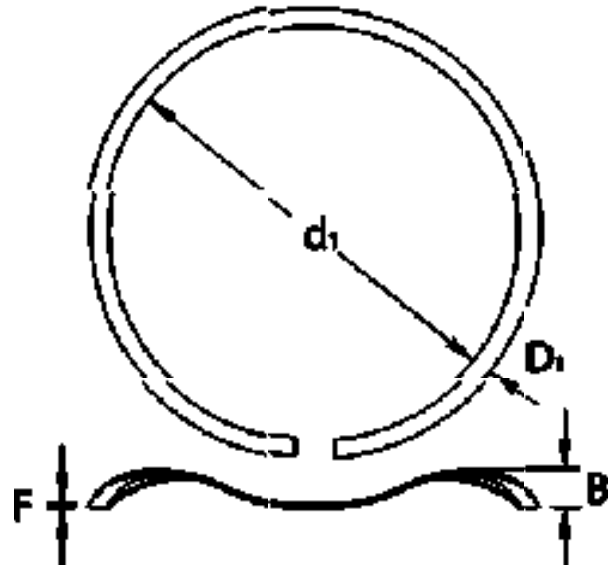
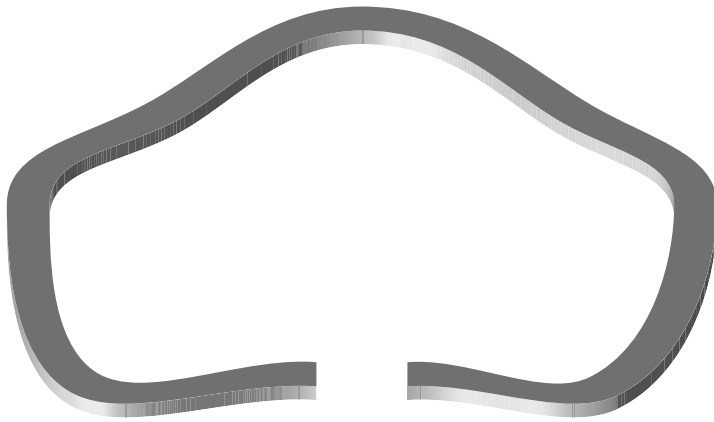
We stock many standard Vee Packing sizes in PTFE for pneumatic and hydraulic applications. Consult our sales department for sizes not listed.

Temperature: -100° to 400°F Pressure: Consult technical service

Part Number	Inside Dia. $d_1$	Outside Dia. $D_1$	C/S F	Stack Height $L_1$	Price
VP250875VT	0.250	0.875	0.312	0.156	\$5.44
VP375875VT	0.375	0.875	0.250	0.125	\$7.86
VP500875VT	0.500	0.875	0.187	0.093	\$7.65
VP528842VT.083	0.528	0.842	0.157	0.083	\$3.80
VP5941094VT.083	0.594	1.094	0.250	0.083	\$4.39
VP8391344VT.083	0.839	1.344	0.253	0.083	\$9.01
VP11251625VT.200	1.125	1.625	0.250	0.200	\$12.89
VP13751875VT.083	1.375	1.875	0.250	0.083	\$8.01
VP14372062VT.140	1.437	2.062	0.312	0.140	\$9.13
VP17502250VT.083	1.750	2.250	0.250	0.083	\$14.49
VP17502250VT.203	1.750	2.250	0.250	0.203	\$22.21
VP18122363VT.083	1.812	2.363	0.276	0.083	\$14.76
VP18752375VT	1.875	2.375	0.250	0.125	\$11.70
VP20002500VT	2.000	2.500	0.250	0.125	\$27.68
VP20002750VT.156	2.000	2.750	0.375	0.156	\$13.51
VP20003000VT	2.000	3.000	0.500	0.250	\$25.94
VP20003250VT	2.000	3.250	0.625	0.312	\$36.95
VP22503000VT.156	2.250	3.000	0.375	0.156	\$72.61
VP27003200VT.083	2.700	3.200	0.250	0.083	\$16.58
VP30003500VT.083	3.000	3.500	0.250	0.083	\$42.14
VP40004625VT.140	4.000	4.625	0.312	0.140	\$19.84
VP40005000VT.250	4.000	5.000	0.500	0.250	\$70.39
VP42505000VT.140	4.250	5.000	0.375	0.140	\$28.72
VP57506375VT.140	5.750	6.375	0.312	0.140	\$38.36
VP65007125VT.140	6.500	7.125	0.312	0.140	\$57.58



# Wave / Compression Springs



Wave springs are typically used in conjunction with vee packing sets to apply a constant load to the seals. They are also found in some telescopic cylinders.

Please consult sales for sizes not listed.

EXAMPLE: SSR-0537	
Prefix	Inside Diameter
SSR-	0537
	5-3/8'

See Page 391 for Commercial® Telescopic Sizes.

Part Number	Operates in Bore Dia.	Clears Shaft Dia. $d_1$	Work Height	Free Height B	Thickness F	Radial Wall $D_1$	Vee Packing		Price
							Rod	Gland	
SSR-0112	1.120	0.840	0.078	0.13	0.016	0.133	0.625	1.125	\$8.91
SSR-0150	1.500	1.170	0.078	0.17	0.018	0.143	1.000	1.500	\$8.91
SSR-0175	1.750	1.440	0.078	0.14	0.018	0.143	1.250	1.750	\$8.91
SSR-0187	1.870	1.560	0.078	0.15	0.018	0.143	1.250	1.875	\$6.03
SSR-0200	2.000	1.680	0.093	0.14	0.024	0.150	1.375	2.000	\$6.40
SSR-0212	2.120	1.800	0.093	0.15	0.024	0.150	1.500	2.125	\$25.80
SSR-0225	2.250	1.930	0.093	0.17	0.024	0.150	1.625	2.250	\$6.83
SSR-0237	2.375	1.990	0.093	0.16	0.024	0.178	1.750	2.375	\$12.57
SSR-0250	2.500	2.120	0.093	0.17	0.024	0.178	1.875	2.500	\$7.45
SSR-0262	2.625	2.240	0.093	0.19	0.024	0.178	2.000	2.625	\$7.45
SSR-0275	2.750	2.340	0.109	0.17	0.030	0.188	2.125	2.750	\$8.13
SSR-0300	3.000	2.590	0.109	0.19	0.030	0.188	2.375	3.000	\$8.58
SSR-0325	3.250	2.750	0.109	0.20	0.030	0.233	2.500	3.250	\$9.19
SSR-0350	3.500	3.000	0.109	0.23	0.030	0.233	2.750	3.500	\$17.38
SSR-0362-N	3.625	3.190	0.109	0.27	0.030	0.188	3.000	3.625	\$17.52
SSR-0375	3.750	3.250	0.109	0.26	0.030	0.233	3.000	3.750	\$10.89
SSR-0400	4.000	3.500	0.109	0.19	0.030	0.233	3.250	4.000	\$30.42
SSR-0425	4.250	3.740	0.109	0.21	0.030	0.233	3.500	4.250	\$34.09
SSR-0537	5.375	4.860	0.125	0.36	0.030	0.233	4.500	5.375	\$74.20
SSR-0625	6.250	5.730	0.125	0.34	0.030	0.233	5.375	6.250	\$108.92
SSR-0750-N	7.500	6.980	0.156	0.36	0.032	0.233	6.875	7.500	\$70.27
SSR-0900	9.000	8.180	0.156	0.29	0.032	0.375	8.000	9.000	\$118.21
SSR-0950	9.500	8.680	0.156	0.24	0.032	0.375	8.500	9.500	\$136.56
SSR-1100	11.000	10.170	0.156	0.35	0.032	0.375	10.000	11.000	\$260.09

# Oil Seal Information

The next few pages contain a listing of popular inch and metric oil seals. Most are low pressure nitrile seals. These seals are primarily used to seal grease and lubricating oils up to 10 PSI at temperatures from -40° F to 250° F. Seals should be lubricated during installation for best results.

## Application parameters

For the best results from these shaft seals, we must consider the shaft material, hardness, roughness, eccentricity and tolerance according to the following points.

### Shaft

**Shaft Material** - Seals perform best on a medium carbon steel or stainless steel shaft. Heat treatment or nitriding is especially recommended. To seal water at low surface velocity, stainless steel is more suitable.

**Shaft Hardness** - In the area where the sealing lip contacts the shaft, we recommend that the minimum hardness is 45 HRc. Where lubrication is doubtful, abrasive matter is present or shaft speed is greater than 2,750 fpm, 55 HRc is preferred.

**Shaft Roughness** - We recommend the shaft be machined to a surface roughness of Ra = 10 to 20 (Ra = 0.2 to 0.8 µm). In the area of the contact surface, any rifling marks are not permitted.

**Shaft Eccentricity** - Two types of shaft eccentricity affect seal performance. They are dynamic runout (double dynamic eccentricity) and offset (shaft to bore misalignment or static eccentricity). The allowable eccentricity decreases as shaft size increases.

**Shaft Speed** - The shaft speed limitation decreases as shaft size increases.

#### Shaft Tolerance in Inch:

Nominal shaft diameter	Tolerance
Up to 4.000	+/- .003
Over 4.000 to 6.000	+/- .004

INCH EXAMPLE: 05082TC			
Inside Diameter	Outside Diameter	Height	Style
05	08	2	TC
1/2" (.5)	7/8" (.875)	1/4" (.25)	DBL LIP

**Housing** - For optimum seal performance, consideration must also be given to the housing:

**Housing Material** - Steel and cast iron provide a good surface for both rubber and metal O.D. seals. For soft alloy (aluminum) housings, seals with rubber O.D. provide a better sealing capacity.

**Housing Roughness** - The housing inside diameter roughness is 32 to 64 Ra for metal O.D. seals and 100 to 200 Ra for rubber covered O.D.

#### Housing Tolerance in Inch:

Bore diameter	Bore tolerance
Up to 3.000	+/- 0.001
3.001 to 6.000	+/- 0.0015

METRIC EXAMPLE: MOS-17X35X7-BABSL				
Prefix	Inside Diameter	Outside Diameter	Height	Style
MOS-	17	x 35	x 7	- BABSL
	17mm	35mm	7mm	MED PRS/ DBL LIP

### Seal Tolerance:

#### Seal Outside Diameter Tolerances - Inch

Bore Diameter	Press-fit Allowance		Tolerance	
	Metal Case	Rubber Covered Case	Metal Case	Rubber Covered Case
up to 1.000	+ 0.004	+ 0.006	+/- 0.002	+/- 0.003
1.001 to 2.000	+ 0.004	+ 0.007	+/- 0.002	+/- 0.003
2.001 to 3.000	+ 0.004	+ 0.008	+/- 0.002	+/- 0.003
3.001 to 4.000	+ 0.005	+ 0.010	+/- 0.002	+/- 0.004
4.001 to 6.000	+ 0.005	+ 0.010	+0.003/-0.002	+/- 0.004

# Oil Seals - Inch

**TA Profile Oil Seal**  
5 PSI - Double Lip



**TB Profile Oil Seal**  
5 PSI - Double Lip



**TC / AS - Profile Oil Seal - 7 PSI**  
**BABSL - Medium Pressure - 50 PSI**  
Double Lip



**SA / C Profile Oil Seal**  
5 PSI - Single Lip



**SB Profile Oil Seal**  
5 PSI - Single Lip



**SC / A Profile Oil Seal**  
7 PSI - Single Lip



**SM Profile Oil Seal**  
7 PSI - Single Lip



Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
01072SC	0.187	0.750	0.250	SC	\$10.75
03061VM	0.375	0.687	0.156	VM	\$7.31
03072SC	0.375	0.750	0.250	SC	\$9.00
03082VM	0.375	0.875	0.250	VM	\$10.40
04092TC	0.434	0.999	0.250	TC	\$7.33
04082SM	0.438	0.875	0.250	SM	\$11.26
0506809VC	0.500	0.687	0.093	VC	\$5.80
050681VM	0.500	0.685	0.125	VM	\$7.14
050716TC	0.500	0.749	0.165	TC	\$7.18
11124 SS H1/L5	0.500	0.750	0.140	HS	\$85.55
05082TB	0.500	0.875	0.250	TB	\$9.26
05082TC	0.500	0.875	0.250	TC	\$9.52
05083TBY	0.500	0.875	0.312	TBY	\$7.55
05092SB	0.500	0.999	0.250	SB	\$10.99
05092TB	0.500	0.999	0.250	TB	\$7.12
050102TC	0.500	1.000	0.250	TC	\$6.88
051083TC	0.500	1.089	0.375	TC	\$7.19
05112TB	0.500	1.124	0.250	TB	\$7.87
05112VTB	0.500	1.124	0.250	VTB	\$27.08
05112SC	0.500	1.125	0.250	SC	\$9.15
05122TC	0.500	1.250	0.250	TC	\$9.43
05132TB-H	0.500	1.375	0.250	TB-H	\$15.33
05630875-188 SBYP2	0.563	0.875	0.187	SBYP2	\$6.50
05092TC	0.562	0.999	0.250	TC	\$9.05
056112TB	0.563	1.124	0.250	TBY	\$9.20
06091VB	0.625	0.937	0.187	VB	\$6.74
06092TB	0.625	0.999	0.250	TB	\$9.30
061062SL-H	0.625	1.063	0.250	SL-H	\$15.65
061118VL	0.625	1.125	0.093	VL	\$13.35
06112SB	0.625	1.124	0.250	SB	\$10.49
06112TB	0.625	1.124	0.250	TB	\$7.84
06112VTB	0.625	1.124	0.250	VTB	\$29.50
06112TC	0.625	1.125	0.250	TC	\$7.40
06122TC	0.625	1.250	0.250	TC	\$12.18
06132TB	0.625	1.375	0.250	TB	\$8.63
0615731TB-H	0.625	1.575	0.312	TB	\$13.51
0680918VM	0.687	0.999	0.187	VM	\$6.65
068112SB	0.687	1.125	0.250	TC	\$10.40
068112TC	0.687	1.125	0.250	TC	\$7.47
06111SB	0.687	1.187	0.188	SB	\$10.73
071061TB	0.750	1.062	0.187	TB	\$10.11
071061VCY	0.750	1.062	0.187	VCY	\$13.32
07111VM	0.750	1.124	0.156	VM	\$7.13
071118SM-H	0.750	1.124	0.187	SM-H	\$19.82
07111SB	0.750	1.124	0.125	SB	\$10.22
07111TB	0.750	1.124	0.188	TB	\$9.44
07112TB-H	0.750	1.125	0.250	TB-H	\$10.40
07112SB	0.750	1.187	0.250	SB	\$7.54
07112SC	0.750	1.187	0.250	SC	\$9.96
07122TC-G	0.750	1.250	0.250	TCG	\$8.77
07123TC	0.750	1.250	0.312	TC	\$11.77

## Oil Seals - Inch, cont'd.

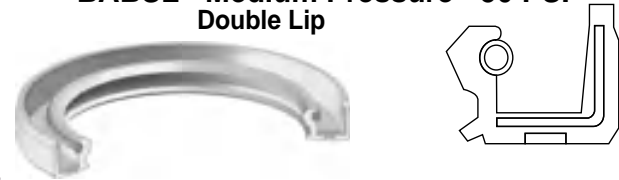
Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price	Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
07123VTC	0.750	1.250	0.312	VTC	\$30.50	9057-14	1.062	1.475	0.125		\$32.25
07132TB	0.750	1.312	0.250	TB	\$12.85	106202TB-H	1.062	2.004	0.250	TB-H	\$18.26
07132A	0.750	1.375	0.250	A	\$9.42	11141SM	1.125	1.500	0.187	SB	\$17.54
075132TB	0.750	1.375	0.250	TB	\$7.91	11152SB	1.125	1.562	0.250	SB	\$9.89
07132SB-H	0.750	1.375	0.250	SB-H	\$9.78	11162TB	1.125	1.625	0.250	TB	\$10.32
07142TB-H	0.750	1.499	0.250	TB-H	\$11.51	11172VSB-H	1.125	1.750	0.250	VSB-H	\$50.04
07142SB	0.750	1.499	0.250	SB	\$11.26	11172TB	1.125	1.752	0.250	TB	\$9.07
07153SA-H	0.750	1.561	0.375	SA-H	\$34.78	11174VB	1.125	1.780	0.469	VB	\$9.59
07162TB	0.750	1.624	0.250	TB	\$13.13	11182VH	1.125	1.828	0.250	VH	\$15.77
071731TZ	0.750	1.750	0.312	TZ	\$10.17	111872TB	1.125	1.875	0.250	TB	\$10.19
078122TB-H	0.781	1.250	0.250	TB-H	\$13.74	111872TB-H	1.125	1.875	0.250	TB-H	\$18.99
081101VC	0.813	1.063	0.125	VC	\$7.17	11195VB	1.125	1.938	0.562	VB	\$16.50
081133SB-H	0.813	1.375	0.375	SB-H	\$19.05	111992TEC	1.125	1.998	0.252	TEC	\$19.50
081142TL	0.813	1.500	0.250	TL	\$9.81	11202SB	1.125	2.000	0.250	SB	\$10.06
08122SC	0.875	1.250	0.250	SC	\$6.97	11203TC	1.125	2.000	0.375	TC	\$11.71
08122TC	0.875	1.250	0.250	TC	\$8.24	11213SB	1.125	2.125	0.312	SB	\$16.89
08132TC	0.875	1.375	0.250	TC	\$7.92	118172SB	1.187	1.752	0.250	SB	\$17.13
08132VSB	0.875	1.375	0.250	VSB	\$41.06	11182TF	1.187	1.875	0.250	TF	\$14.99
081442WPBY	0.875	1.442	0.250	WPBY	\$13.23	118202TB	1.187	2.000	0.250	TB	\$15.71
08142TB-H	0.875	1.500	0.250	TB-H	\$8.46	1182062TB	1.187	2.062	0.250	TB	\$17.13
08153TC	0.875	1.500	0.312	TC	\$12.12	121618SB	1.250	1.625	0.187	SB	\$8.77
08162TB	0.875	1.625	0.250	TB	\$8.96	121622TC	1.250	1.625	0.250	TC	\$10.69
08172TB-H	0.875	1.752	0.250	TB-H	\$16.01	12162TC	1.250	1.687	0.250	TC	\$10.69
08183TB	0.875	1.828	0.375	TB	\$12.63	121752TB	1.250	1.750	0.250	TB	\$9.73
08182SB	0.875	1.874	0.250	SB	\$18.19	12182TB	1.250	1.874	0.250	TB	\$9.52
08202SB-H	0.875	2.000	0.250	SB-H	\$30.19	12202TB	1.250	2.000	0.250	TB	\$10.52
093152SB-H	0.937	1.500	0.250	SB-H	\$8.03	12203TC	1.250	2.000	0.312	TC	\$14.72
093162SAY	0.938	1.624	0.250	SAY	\$19.65	12212TB	1.250	2.125	0.250	TB	\$17.38
09162TB-H	0.969	1.624	0.250	TB-H	\$22.16	12223TC	1.250	2.250	0.375	TC	\$18.53
091683TC	0.968	1.688	0.312	TC	\$15.33	9057-9	1.312	1.818	0.156		\$62.59
09181WPB	0.984	1.828	0.187	WPB	\$10.27	131204TB	1.312	2.062	0.437	TB	\$18.87
10121VM	1.000	1.250	0.125	VM	\$8.02	132231SB	1.328	2.227	0.312	SB	\$25.55
10132TBY	1.000	1.375	0.250	TBY	\$8.26	13172TB	1.375	1.750	0.219	TB	\$18.98
100142SC	1.000	1.437	0.250	SC	\$10.65	13183SB	1.375	1.828	0.312	SB	\$9.79
100142TC	1.000	1.438	0.250	TC	\$18.27	131831UVM	1.375	1.834	0.187	UVM	\$14.97
10142SB-H	1.000	1.499	0.250	SB-H	\$11.23	131872VTCN	1.375	1.875	0.250	VTCN	\$38.96
10142TC	1.000	1.499	0.250	TC	\$8.03	13192TB	1.375	1.938	0.250	TB	\$10.18
10142TB-H	1.000	1.500	0.250	TB-H	\$9.01	13203TB	1.375	2.000	0.312	TB	\$12.98
101503TC	1.000	1.500	0.312	TC	\$8.30	132031TCN2	1.375	2.000	0.312	TCN2	\$23.04
101562TB	1.000	1.561	0.250	TB	\$15.29	132123TB	1.375	2.125	0.312	TB	\$10.48
101572TB-H	1.000	1.575	0.250	TB-H	\$15.56	132123TC	1.375	2.125	0.312	TC	\$7.17
10162TC	1.000	1.624	0.250	TC	\$10.36	13223TB	1.375	2.250	0.312	TB	\$14.06
10162VB	1.000	1.629	0.250	VB	\$14.42	13233TB	1.375	2.374	0.312	TB	\$12.00
101682TB	1.000	1.686	0.250	TB	\$19.74	132537TB	1.375	2.500	0.375	TB	\$24.15
101572TC	1.000	1.752	0.250	TC	\$11.62	470989	1.375	3.000	0.500	TB	\$87.52
10202TB	1.000	2.000	0.250	TB	\$13.00	139222TB-H	1.399	2.250	0.250	TB-H	\$38.62
10205TC	1.000	2.000	0.500	TC	\$13.39	151715VB	1.500	1.750	0.156	VB	\$17.74
102042TB	1.000	2.047	0.250	TB	\$22.73	15182TB	1.500	1.875	0.250	TB	\$16.15
1061311VCY	1.062	1.312	0.125	VCY	\$10.71	150202SC	1.500	2.000	0.250	SC	\$17.64
9057-1	1.062	1.330	0.156		\$11.02	15213TB	1.500	2.125	0.312	TB	\$14.42
1061431SM	1.062	1.438	0.187	SM	\$6.27	152223TB	1.500	2.222	0.312	TB	\$21.59

**Oil Seals - Inch, cont'd.**

Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
15223TB	1.500	2.250	0.312	TB	\$12.07
152375SA	1.500	2.374	0.500	SA	\$23.47
15253TB	1.500	2.500	0.312	TB	\$13.93
15253SB	1.500	2.502	0.312	SB	\$10.31
152723TC	1.500	2.721	0.325	TC	\$19.65
156213SB	1.563	2.125	0.312	SB	\$14.00
152623TB	1.563	2.623	0.312	TB	\$17.37
16202SB	1.625	2.000	0.250	SB	\$15.57
16212SB-H	1.625	2.125	0.250	SB-H	\$18.62
16212VB	1.625	2.125	0.250	VB	\$12.82
16233TB	1.625	2.374	0.312	TB	\$11.42
16232SB	1.625	2.375	0.250	SB	\$37.60
162337VTEC	1.625	2.375	0.375	VTEC	\$119.54
16243VTB-H	1.625	2.437	0.312	VTB-H	\$38.20
1625031SB	1.625	2.500	0.312	SB	\$16.64
162564VHY	1.625	2.562	0.437	VHY	\$17.64
16263TB	1.625	2.623	0.312	TB	\$20.63
16303SA	1.625	3.000	0.312	SA	\$23.54
168213KC	1.688	2.166	0.312	KC	\$11.00
168255TC	1.688	2.561	0.500	TC	\$27.28
17221VSB	1.750	2.250	0.188	VSB	\$58.21
172231SB	1.750	2.250	0.312	SB	\$17.87
172231TC	1.750	2.250	0.312	TC	\$14.38
172373TB	1.750	2.374	0.312	TB	\$15.97
175223SA	1.750	2.250	0.312	SA	\$17.59
17252VH	1.750	2.502	0.250	VH	\$12.13
17253TB	1.750	2.502	0.312	TB	\$19.29
17253TC	1.750	2.502	0.375	TC	\$25.87
172753SC	1.750	2.756	0.375	SC	\$21.87
17393TB	1.750	3.937	0.312	TB	\$39.09
17293TC	1.766	2.950	0.312	TC	\$18.57
181243SB	1.812	2.437	0.315	SB	\$27.69
18263TC	1.875	2.625	0.250	TC	\$23.53
18273TB	1.875	2.750	0.312	TB	\$18.77
19242TB-H	1.937	2.437	0.250	TB-H	\$28.52
19262TCN	1.937	2.675	0.250	TCN	\$26.69
19273TB-H	1.937	2.750	0.312	TB-H	\$37.86
20252TC	2.000	2.502	0.250	TC	\$15.75
202562VB	2.000	2.563	0.227	VB	\$17.08
20263TB	2.000	2.623	0.312	TB	\$13.16
202683SB	2.000	2.686	0.375	SB	\$17.17
20273TB	2.000	2.750	0.312	TB	\$13.54
202843VSEC	2.000	2.843	0.375	VSEC	\$82.00
20283TA	2.000	2.875	0.312	TA	\$17.19
202883TB	2.000	2.875	0.375	TB	\$26.10
202874SA	2.000	2.875	0.500	SA	\$23.34
20303TB	2.000	3.000	0.312	TB	\$16.11
203031TC	2.000	3.000	0.312	TC	\$19.58
21294SA	2.125	2.997	0.437	SA	\$37.25
2229943SA-H	2.250	2.996	0.437	SA-H	\$44.86
22302VHY	2.250	3.000	0.250	VHY	\$18.46

**TA Profile Oil Seal**  
**5 PSI - Double Lip**

**TB Profile Oil Seal**  
**5 PSI - Double Lip**

**TC / AS - Profile Oil Seal - 7 PSI**  
**BABSL - Medium Pressure - 50 PSI**  
**Double Lip**

**SA / C Profile Oil Seal**  
**5 PSI - Single Lip**

**SB Profile Oil Seal**  
**5 PSI - Single Lip**

**SC / A Profile Oil Seal**  
**7 PSI - Single Lip**

**SM Profile Oil Seal**  
**7 PSI - Single Lip**


## Oil Seals - Inch, cont'd.

**TA Profile Oil Seal**  
5 PSI - Double Lip



**TB Profile Oil Seal**  
5 PSI - Double Lip



**TC / AS - Profile Oil Seal - 7 PSI**  
**BABSL - Medium Pressure - 50 PSI**  
Double Lip



**SA / C Profile Oil Seal**  
5 PSI - Single Lip



**SB Profile Oil Seal**  
5 PSI - Single Lip



**SC / A Profile Oil Seal**  
7 PSI - Single Lip



**SM Profile Oil Seal**  
7 PSI - Single Lip



Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
22303TC	2.250	3.000	0.375	TC	\$31.42
22304TA	2.250	3.000	0.437	TA	\$39.62
223184TA-H	2.250	3.189	0.437	TA-H	\$37.58
22323SB	2.250	3.250	0.375	SB	\$23.34
231355SA	2.312	3.500	0.500	SA	\$32.66
232831TC	2.375	2.875	0.312	TC	\$31.06
23302VH	2.375	3.000	0.250	VH	\$13.00
23354TA-H	2.375	3.500	0.437	TA-H	\$43.15
25323TC	2.500	3.250	0.375	TC	\$17.74
25324SA	2.500	3.250	0.437	SA	\$42.47
25324TA	2.500	3.251	0.437	TA	\$19.61
25353TA	2.500	3.500	0.375	TA	\$33.60
25354TA	2.500	3.505	0.437	TA	\$27.80
455147	2.500	3.505	0.500	SA	\$42.82
253544SA	2.500	3.543	0.437	SA	\$31.65
415001	2.500	3.548	0.500	TA	\$52.94
25363SA-H	2.500	3.623	0.375	SA-H	\$55.44
25374SA	2.500	3.750	0.437	SA	\$31.35
26353TB	2.625	3.500	0.375	TB	\$19.88
26363TB	2.625	3.623	0.375	TB	\$34.79
26373TA	2.625	3.751	0.375	TA	\$37.66
26434TA	2.625	4.370	0.437	TA	\$31.33
27352VB	2.750	3.500	0.250	VB	\$21.97
27374TA	2.750	3.751	0.437	TA	\$32.06
30373TB	3.000	3.751	0.375	TB	\$22.39
324003SB-H	3.250	4.003	0.375	SB-H	\$48.31
32424TA	3.250	4.250	0.437	TA	\$33.20
32465TA-H	3.250	4.626	0.500	TA-H	\$56.62
33436SA	3.375	4.376	0.625	SA	\$38.66
35004000-250SB	3.500	4.000	0.250	SB	\$36.79
354505SA	3.500	4.501	0.500	SA	\$74.00
35454SA	3.500	4.506	0.437	SA	\$32.72
35465TA-H	3.500	4.625	0.500	TA-H	\$48.60
35472VH	3.500	4.750	0.250	VH	\$41.41
35494SA	3.500	4.999	0.437	SA	\$79.97
36475TA-H	3.625	4.751	0.500	TA-H	\$77.32
38534SA-H	3.875	5.375	0.437	SA-H	\$78.61
40004500-250VB	4.000	4.500	0.250	VB	\$24.33
39933	4.000	4.999	0.437	SA	\$134.84
40494TA	4.000	4.999	0.437	TA	\$38.46
4049946	4.000	4.999	0.468	SA	\$55.56
40524SA	4.000	5.251	0.437	SA	\$77.54
45005000-250SC	4.500	5.000	0.250	SC	\$33.73
455502VL	4.500	5.500	0.250	VL	\$74.99
9170 LUP	4.500	5.500	0.500	LUP	\$77.36
45555TA	4.500	5.500	0.500	TA	\$53.83
45625TA-H	4.500	6.250	0.500	TA-H	\$127.01
55655TA-H	5.500	6.500	0.562	TA-H	\$167.42
56685TA	5.625	6.880	0.500	TA	\$170.99
58715TA-H	5.875	7.125	0.500	TA-H	\$167.97

# Oil Seals - Metric

Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price	Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
MOS-6X16X5-TC	6	16	5	TC	\$7.63	MOS-16X28X7-BABSL	16	28	7	BABSL	\$6.85
MOS-8X16X7-A	8	16	7	A	\$5.03	MOS-16X28X7-SC	16	28	7	SC	\$4.70
MOS-8X16X7-AS	8	16	7	AS	\$6.67	MOS-16X30X6-AS	16	30	6	AS	\$8.42
MOS-8X18X5-A	8	18	5	A	\$9.54	MOS-16X35X7-TC	16	35	7	TC	\$7.95
MOS-8X22X5-TC	8	22	5	TC	\$6.42	MOS-17X25X3-VM	17	25	3	VM	\$9.82
MOS-8X22X7-AS	8	22	7	AS	\$7.65	MOS-17X28X4-TC	17	28	4	TC	\$6.50
MOS-8X22X7-BABSL	8	22	7	BABSL	\$6.98	MOS-17X28X6-BABSL	17	28	6	BABSL	\$6.98
MOS-9X20X6-BABSL	9	20	6	BABSL	\$6.98	MOS-17X28X7-BABSL	17	28	7	BABSL	\$6.21
MOS-10X17X3-VG	10	17	3	VG	\$7.00	MOS-17X28X7-TC	17	28	7	TC	\$6.87
MOS-10X19X7-SC	10	19	7	SC	\$5.97	MOS-17X30X6-BABSL	17	30	6	BABSL	\$6.53
MOS-10X20X6-BABSL	10	20	6	BABSL	\$6.98	MOS-17X30X7-A	17	30	7	A	\$6.84
MOS-10X20X7-TC	10	20	7	TC	\$6.51	MOS-17X35X7-BABSL	17	35	7	BABSL	\$7.59
MOS-10X21X5-TC	10	21	5	TC	\$7.96	MOS-17X35X7-SB	17	35	7	SB	\$8.38
MOS-10X22X6-BABSL	10	22	6	BABSL	\$7.55	MOS-17X35X7-SC	17	35	7	SC	\$7.66
MOS-10X22X7-AS	10	22	7	AS	\$6.54	MOS-17X35X8-AS	17	35	8	AS	\$7.31
MOS-10X25X7-AS	10	25	7	AS	\$7.87	MOS-17X40X7-TC	17	40	7	TC	\$8.42
MOS-11X22X7-A	11	22	7	A	\$7.28	MOS-17X47X8-AS	17	47	8	AS	\$13.37
MOS-11X22X7-BABSL	11	22	7	BABSL	\$6.98	MOS-18X24X4-A	18	24	4	A	\$5.75
MOS-12X18X3-VC	12	18	3	VC	\$7.00	MOS-18X25X3-VC	18	25	3	VC	\$8.12
MOS-12X19X5-AS	12	19	5	AS	\$5.63	MOS-18X25X7-TC	18	25	7	TC	\$7.46
MOS-12X20X5-AS	12	20	5	AS	\$6.87	MOS-18X26X4-A	18	26	4	A	\$7.80
MOS-12X22X5-A	12	22	5	A	\$5.18	MOS-18X28X4-SC	18	28	4	SC	\$6.54
MOS-12X22X5-TC	12	22	5	TC	\$5.41	MOS-18X28X7-AS	18	28	7	AS	\$8.03
MOS-12X22X6-BABSL	12	22	6	BABSL	\$10.45	MOS-18X30X6-AHS	18	30	6	AHS	\$8.13
MOS-12X22X7-SCV	12	22	7	SCV	\$15.62	MOS-18X30X6-BABSL	18	30	6	BABSL	\$14.48
MOS-12X24X4.5-SC	12	24	4.5	SC	\$6.38	MOS-18X30X7-A	18	30	7	A	\$5.95
MOS-12X24X6-AS	12	24	6	AS	\$20.94	MOS-18X30X7-AS	18	30	7	AS	\$8.42
MOS-12X24X7-AS	12	24	7	AS	\$6.50	MOS-18X30X7-BABSL	18	30	7	BABSL	\$7.18
MOS-12X24X7-BABSL	12	24	7	BABSL	\$6.98	MOS-18X30X8-AS	18	30	8	AS	\$6.62
MOS-12X24X7-VTC	12	24	7	VTC	\$48.51	MOS-18X32X7-AS	18	32	7	AS	\$9.34
MOS-12X25X5-AS	12	25	5	AS	\$6.69	MOS-18X32X7-TC	18	32	7	TC	\$7.87
MOS-12X25X7-AS	12	25	7	AS	\$6.55	MOS-18X35X6-BABSL	18	35	6	BABSL	\$10.18
MOS-12X26X8-TC	12	26	8	TC	\$8.57	MOS-18X38X6-TC	18	38	6	TC	\$12.67
MOS-12X32X7-SC	12	32	7	SC	\$6.67	MOS-19X27X4-VG	19	27	4	VG	\$8.10
MOS-13X30X7-TC	13	30	7	TC	\$12.42	MOS-19X30X6-A	19	30	6	A	\$8.12
MOS-14X22X4-AS	14	22	4	AS	\$9.09	MOS-19X32X7-AS	19	32	7	AS	\$10.32
MOS-14X24X7-BABSL	14	24	7	BABSL	\$8.21	MOS-19.5X30X6/6.4-@1	19.5	30	6	TCVRV	\$7.38
MOS-14X24X7-TC	14	24	7	TC	\$6.26	MOS-20X26X4-VC	20	26	4	VC	\$7.02
MOS-14X25X5-AS	14	25	5	AS	\$7.65	MOS-20X28X4-VC	20	28	4	VC	\$7.84
MOS-14X25X7-AS	14	25	7	AS	\$11.09	MOS-20X28X6-SC	20	28	6	SC	\$6.23
MOS-14X27X7-TC	14	27	7	TC	\$6.53	MOS-20X28X6-TC	20	28	6	TC	\$7.96
MOS-14X28X7-AS	14	28	7	AS	\$6.65	MOS-20X30X5-A	20	30	5	A	\$6.88
MOS-14X28X7TC	14	28	7	TC	\$16.32	MOS-20X30X5-BABSL	20	30	5	BABSL	\$7.18
MOS-15X21X3-VC	15	21	3	VC	\$15.45	MOS-20X30X5-TC	20	30	5	TC	\$8.01
MOS-15X22X3-VC	15	22	3	VC	\$5.83	MOS-20X30X7-AS	20	30	7	AS	\$7.43
MOS-15X24X5-TC	15	24	5	TC	\$5.84	MOS-20X30X7-BABSL	20	30	7	BABSL	\$7.18
MOS-15X24X7-BABSL	15	24	7	BABSL	\$5.78	MOS-20X31X7-AS	20	31	7	AS	\$8.67
MOS-15X25X5-TC	15	25	5	TC	\$6.51	MOS-20X34X7-A	20	34	7	A	\$10.02
MOS-15X25X7-AS	15	25	7	AS	\$9.09	MOS-20X35X6-BABSL	20	35	6	BABSL	\$10.19
MOS-15X25X7-BABSL	15	25	7	BABSL	\$6.21	MOS-20X35X7-A	20	35	7	A	\$7.21
MOS-15X26X7-TC	15	26	7	TC	\$6.20	MOS-20X35X7-BABSL	20	35	7	BABSL	\$8.22
MOS-15X27X7-TC	15	27	7	TC	\$9.19	MOS-20X35X8-AS	20	35	8	AS	\$7.61
MOS-15X30X5-TC	15	30	5	TC	\$8.44	MOS-20X38X5-TC	20	38	5	TC	\$15.80
MOS-15X30X7-WASY	15	30	7	WASY	\$37.40	MOS-20X40X6-SC	20	40	6	SC	\$10.04
MOS-15X30X10-A	15	30	10	A	\$8.23	MOS-20X40X10-AS	20	40	10	AS	\$10.57
MOS-15X35X6-BABSL	15	35	6	BABSL	\$12.96	MOS-20X40X10-VDC	20	40	10	VDC	\$38.52
MOS-16X22X3-VG	16	22	3	VG	\$13.29	MOS-20X42X7-SB	20	42	7	SB	\$14.76
MOS-16X24X4-A	16	24	4	A	\$8.32	MOS-20X45X5-AS	20	45	5	AS	\$11.32
MOS-16X24X4-TC	16	24	4	TC	\$14.77	MOS-20X45X7-AS	20	45	7	AS	\$9.30
MOS-16X24X4-VC	16	24	4	VC	\$8.44	MOS-20X47X7-A	20	47	7	A	\$9.41
MOS-16X24X7-A	16	24	7	A	\$6.64	MOS-20X47X7-AS	20	47	7	AS	\$10.20
MOS-16X26X6-AS	16	26	6	AS	\$6.85	MOS-20X52X10-AS	20	52	10	AS	\$13.04



**Oil Seals - Metric, cont'd.**

**TA Profile Oil Seal**  
5 PSI - Double Lip



**TB Profile Oil Seal**  
5 PSI - Double Lip



**TC / AS - Profile Oil Seal - 7 PSI**  
**BABSL - Medium Pressure - 50 PSI**  
Double Lip



**SA / C Profile Oil Seal**  
5 PSI - Single Lip



**SB Profile Oil Seal**  
5 PSI - Single Lip



**SC / A Profile Oil Seal**  
7 PSI - Single Lip



**SM Profile Oil Seal**  
7 PSI - Single Lip



Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
MOS-22X30X4-VB	22	30	4	VB	\$12.08
MOS-22X31X6-AS	22	31	6	AS	\$8.45
MOS-22X32X6-BABSL	22	32	6	BABSL	\$7.92
MOS-22X32X7-BABSL	22	32	7	BABSL	\$7.41
MOS-22X32X7-SC	22	32	7	SC	\$6.84
MOS-22X32X8-TC	22	32	8	TC	\$9.62
MOS-22X35X5-TC	22	35	5	TC	\$7.53
MOS-22X35X6-BABSL	22	35	6	BABSL	\$7.77
MOS-22X35X7-A	22	35	7	A	\$7.94
MOS-22X35X8-TC	22	35	8	TC	\$7.94
MOS-22X38X8-SC	22	38	8	SC	\$7.48
MOS-22X42X10-TC	22	42	10	TC	\$9.62
MOS-22X47X7-SC	22	47	7	SC	\$10.98
MOS-23X37X6-TC	23	37	6	TC	\$8.64
MOS-24X31X7-TC	24	31	7	TC	\$9.91
MOS-24X37X7-AS	24	37	7	AS	\$8.92
MOS-24X40X7-AS	24	40	7	AS	\$9.62
MOS-24X40X7-BABSL	24	40	7	BABSL	\$8.90
MOS-24X42X8-AS	24	42	8	AS	\$11.72
MOS-24X43X6-AS	24	43	6	AS	\$22.56
MOS-24X52X7-AS	24	52	7	AS	\$25.45
MOS-25X33X4-VG	25	33	4	VG	\$5.71
MOS-25X35X6-BABSL	25	35	6	BABSL	\$14.76
MOS-25X35X7-A	25	35	7	A	\$10.81
MOS-25X35X7-AS	25	35	7	AS	\$8.90
MOS-25X35X8-AS	25	35	8	AS	\$9.27
MOS-25X36X7-TC	25	36	7	TC	\$9.35
MOS-25X37X7-TC	25	37	7	TC	\$10.03
MOS-25X38X8-AS	25	38	8	AS	\$11.94
MOS-25X40X7-BABSL	25	40	7	BABSL	\$8.02
MOS-25X42X6-A	25	42	6	A	\$8.04
MOS-25X42X6-BABSL	25	42	6	BABSL	\$8.84
MOS-25X43X6-TC	25	43	6	TC	\$9.75
MOS-25X45X10-AS	25	45	10	AS	\$9.27
MOS-25X47X6-BABSL	25	47	6	BABSL	\$12.04
MOS-25X52X7-A	25	52	7	A	\$12.13
MOS-25X52X10-TC	25	52	10	TC	\$11.79
MOS-25X52X12-AS	25	52	12	AS	\$14.14
MOS-26X37X7-A	26	37	7	A	\$8.58
MOS-27X37X7-SC	27	37	7	SC	\$10.25
MOS-27X42X7-BABSL	27	42	7	BABSL	\$12.73
MOS-27X43X7-TC	27	43	7	TC	\$28.16
MOS-27X43X9-AS	27	43	9	AS	\$10.12
MOS-28X35X4-VG	28	35	4	VG	\$6.97
MOS-28X36X5-VM	28	36	5	VM	\$10.85
MOS-28X37X6-TC	28	37	6	TC	\$13.43
MOS-28X38X7-A	28	38	7	A	\$8.66
MOS-28X40X5-AS	28	40	5	AS	\$13.86
MOS-28X40X7-AS	28	40	7	AS	\$8.94
MOS-28X40X7-BABSL	28	40	7	BABSL	\$7.70
MOS-28X40X8-SC	28	40	8	SC	\$7.79
MOS-28X41X7-TC	28	41	7	TC	\$14.25
MOS-28X42X8-AS	28	42	8	AS	\$9.20
MOS-28X47X10-AS	28	47	10	AS	\$9.63
MOS-28X50X6-AS	28	50	6	AS	\$12.02
MOS-29X40X7-TC	29	40	7	TC	\$17.33
MOS-30X37X4-VG	30	37	4	VG	\$11.52
MOS-30X38X4-A	30	38	4	A	\$7.82
MOS-30X40X5-TC	30	40	5	TC	\$18.78
MOS-30X40X7-A	30	40	7	A	\$7.64
MOS-30X40X7-AS	30	40	7	AS	\$8.24
MOS-30X40X7-BABSL	30	40	7	BABSL	\$9.39
MOS-30X40X8-TC	30	40	8	TC	\$10.59



**Oil Seals - Metric, cont'd.**

Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price	Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
MOS-30X42X4.5-A	30	42	4.5	A	\$9.20	MOS-40X48X4-VZ	40	48	4	VZ	\$39.86
MOS-30X42X5-A	30	42	5	A	\$16.00	MOS-40X50X6.5-TC	40	50	6.5	TC	\$15.51
MOS-30X42X5-AS	30	42	5	AS	\$20.96	MOS-40X52X7-A	40	52	7	A	\$9.54
MOS-30X42X6-BABSL	30	42	6	BABSL	\$14.74	MOS-40X52X7-AS	40	52	7	AS	\$13.85
MOS-30X42X7-A	30	42	7	A	\$8.26	MOS-40X52X7-BABSL	40	52	7	BABSL	\$12.03
MOS-30X42X7-AS	30	42	7	AS	\$9.46	MOS-40X52X9-AS	40	52	9	AS	\$17.10
MOS-30X44X7-AS	30	44	7	AS	\$10.21	MOS-40X54X7-TC	40	54	7	TC	\$14.47
MOS-30X45X10-TC	30	45	10	TC	\$10.96	MOS-40X55X6-BABSL	40	55	6	BABSL	\$10.29
MOS-30X46X5-AS	30	46	5	AS	\$15.86	MOS-40X55X7-A	40	55	7	A	\$10.32
MOS-30X47X7-AS	30	47	7	AS	\$9.89	MOS-40X55X7-BABSL	40	55	7	BABSL	\$12.03
MOS-30X47X7-BABSL	30	47	7	BABSL	\$10.92	MOS-40X55X8-AS	40	55	8	AS	\$13.14
MOS-30X47X7-TC	30	47	7	TC	\$12.17	MOS-40X56X6-BABSL	40	56	6	BABSL	\$13.42
MOS-30X47X10-TC	30	47	10	TC	\$8.97	MOS-40X56X7-A	40	56	7	A	\$16.92
MOS-30X48X7-TC	30	48	7	TC	\$24.92	MOS-40X56X7-AS	40	56	7	AS	\$14.18
MOS-30X50X7-BABSL	30	50	7	BABSL	\$10.92	MOS-40X56X10-TC	40	56	10	TC	\$14.18
MOS-30X50X8-AS	30	50	8	AS	\$11.80	MOS-40X58X8-AS	40	58	8	AS	\$14.17
MOS-30X52X7-A	30	52	7	A	\$8.77	MOS-40X56X8SB-H	40	56	8	SB-H	\$18.88
MOS-30X52X8-AS	30	52	8	AS	\$10.91	MOS-40X58X10-AS	40	58	10	AS	\$11.92
MOS-30X62X10-TC	30	62	10	TC	\$13.29	MOS-40X60X7-BABSL	40	60	7	BABSL	\$13.34
MOS-32X40X5-TC	32	40	5	TC	\$13.01	MOS-40X60X10-A	40	60	10	A	\$14.11
MOS-32X42X5-TC	32	42	5	TC	\$13.31	MOS-40X60X10-AS	40	60	10	AS	\$15.09
MOS-32X44X7-AS	32	44	7	AS	\$10.29	MOS-40X60X10-BABSL	40	60	10	BABSL	\$13.42
MOS-32X44X7-BABSL	32	44	7	BABSL	\$11.07	MOS-40X62X6-BABSL	40	62	6	BABSL	\$18.41
MOS-32X44X8-AS	32	44	8	AS	\$9.36	MOS-40X62X12-AS	40	62	12	AS	\$13.15
MOS-32X44X9-AS	32	44	9	AS	\$12.67	MOS-40X68X12-A	40	68	12	A	\$15.40
MOS-32X44X10-ADL	32	44	10	ADL	\$34.78	MOS-42X55X7-AS	42	55	7	AS	\$12.98
MOS-32X47X7-BABSL	32	47	7	BABSL	\$10.92	MOS-42X56X7-A	42	56	7	A	\$10.92
MOS-32X47X7-SC	32	47	7	SC	\$9.77	MOS-42X58X7-AS	42	58	7	AS	\$16.82
MOS-32X47X10-A	32	47	10	A	\$9.43	MOS-42X60X9-AS	42	60	9	AS	\$14.68
MOS-32X48X8-AS	32	48	8	AS	\$10.04	MOS-42X62X8-A	42	62	8	A	\$12.48
MOS-32X50X7-TB	32	50	7	TB	\$13.01	MOS-42X62X8-BABSL	42	62	8	BABSL	\$15.00
MOS-32X54X10-TC-T	32	54	10	TC-T	\$13.64	MOS-42X65X12-TC	42	65	12	TC	\$19.31
MOS-33X45X7-A	33	45	7	A	\$11.08	MOS-44X62X10-AS	44	62	10	AS	\$14.17
MOS-34X48X7-AS	34	48	7	AS	\$10.96	MOS-45X55X7-AS	45	55	7	AS	\$10.43
MOS-35X42X4-VC	35	42	4	VC	\$9.55	MOS-45X58X6-BABSL	45	58	6	BABSL	\$13.42
MOS-35X46X7-TC	35	46	7	TC	\$13.86	MOS-45X58X7-BABSL	45	58	7	BABSL	\$13.42
MOS-35X47X6-TC	35	47	6	TC	\$12.24	MOS-45X60X7-AS	45	60	7	AS	\$11.67
MOS-35X47X7-A	35	47	7	A	\$9.30	MOS-45X60X8-A	45	60	8	A	\$12.18
MOS-35X47X7-AS	35	47	7	AS	\$11.03	MOS-45X60X8-AS	45	60	8	AS	\$15.61
MOS-35X47X7-BABSL	35	47	7	BABSL	\$11.52	MOS-45X62X7-AS	45	62	7	AS	\$12.89
MOS-35X47X10-BABSL	35	47	10	BABSL	\$10.92	MOS-45X62X7-BABSL	45	62	7	BABSL	\$17.69
MOS-35X48X8-AS	35	48	8	AS	\$12.03	MOS-45X62X9-SC	45	62	9	SC	\$11.58
MOS-35X48X9X11-AHS	35	48	9/11	AHS	\$14.33	MOS-45X62X12-AS	45	62	12	AS	\$16.02
MOS-35X50X7-BABSL	35	50	7	BABSL	\$10.92	MOS-45X65X7-BABSL	45	65	7	BABSL	\$17.61
MOS-35X50X8-AS	35	50	8	AS	\$11.27	MOS-45X65X8-ASV	45	65	8	ASV	\$26.72
MOS-35X52X6-BABSL	35	52	6	BABSL	\$15.41	MOS-45X65X8-BABSL	45	65	8	BABSL	\$16.11
MOS-35X52X7-AS	35	52	7	AS	\$12.55	MOS-45X65X12-TC	45	65	12	TC	\$17.36
MOS-35X52X8-AS	35	52	8	AS	\$10.63	MOS-45X68X8-AS	45	68	8	AS	\$14.22
MOS-35X52X10-A	35	52	10	A	\$10.07	MOS-45X68X10-AS	45	68	10	AS	\$14.00
MOS-35X52X12-AS	35	52	12	AS	\$13.50	MOS-45X68X12-AS	45	68	12	AS	\$16.44
MOS-35X55X8-TC	35	55	8	TC	\$13.17	MOS-45X78X8-AS	45	78	8	AS	\$20.60
MOS-35X55X10-A	35	55	10	A	\$8.82	MOS-45X80X7-TC	45	80	7	TC	\$25.90
MOS-35X55X10-TC	35	55	10	TC	\$15.43	MOS-47X62X7-BABSL	47	62	7	BABSL	\$14.83
MOS-35X55X11-TC	35	55	11	TC	\$12.55	MOS-47X65X10-BABSL	47	65	10	BABSL	\$14.83
MOS-35X55X11-TCN	35	55	11	TCN	\$24.24	MOS-48X60X7-TC	48	60	7	TC	\$13.51
MOS-35X62X7-BABSL	35	62	7	BABSL	\$14.83	MOS-48X62X8-AS	48	62	8	AS	\$13.07
MOS-35X68X6-A	35	68	6	A	\$15.72	MOS-48X70X9-AS	48	70	9	AS	\$17.46
MOS-35X72X12-TC	35	72	12	TC	\$19.41	MOS-48X72X8-A	48	72	8	A	\$15.42
MOS-36X53X9-TC	36	53	9	TC	\$12.79	MOS-50X58X4-VCY	50	58	4	VCY	\$10.06
MOS-38X50X6-BABSL	38	50	6	BABSL	\$12.16	MOS-50X62X5-VG	50	62	5	VG	\$14.60
MOS-38X52X7-AS	38	52	7	AS	\$16.59	MOS-50X62X7TC-V	50	62	7	TC-V	\$24.43
MOS-38X58X10-AS	38	58	10	AS	\$11.51	MOS-50X63X6-KB	50	63	6	KB	\$17.85
MOS-38X62X7-BABSL	38	62	7	BABSL	\$16.07	MOS-50X64X10-AS	50	64	10	AS	\$16.07

**Oil Seals - Metric, cont'd.**

**TA Profile Oil Seal**  
5 PSI - Double Lip



**TB Profile Oil Seal**  
5 PSI - Double Lip



**TC / AS - Profile Oil Seal - 7 PSI**  
**BABSL - Medium Pressure - 50 PSI**  
Double Lip



**SA / C Profile Oil Seal**  
5 PSI - Single Lip



**SB Profile Oil Seal**  
5 PSI - Single Lip



**SC / A Profile Oil Seal**  
7 PSI - Single Lip



**SM Profile Oil Seal**  
7 PSI - Single Lip



Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
MOS-50X65X8-AS	50	65	8	AS	\$13.17
MOS-50X65X8-BABSL	50	65	8	BABSL	\$16.14
MOS-50X65X10-A	50	65	10	A	\$11.92
MOS-50X66.5X13X16-AS	50	66.5	13	AS	\$20.86
MOS-50X68X8-BABSL	50	68	8	BABSL	\$16.38
MOS-50X70X12-AS	50	70	12	AS	\$16.00
MOS-50X72X7-BABSL	50	72	7	BABSL	\$20.08
MOS-50X72X8-A	50	72	8	A	\$13.64
MOS-50X72X8-AS	50	72	8	AS	\$15.24
MOS-50X72X10-AS	50	72	10	AS	\$18.25
MOS-50X80X8-TC	50	80	8	TC	\$17.28
MOS-50X90X10-TC	50	90	10	TC	\$20.07
MOS-52X65X8-SC	52	65	8	SC	\$14.41
MOS-52X66X9-SC	52	66	9	SC	\$20.75
MOS-52X72X8-A	52	72	8	A	\$13.99
MOS-52X75X8-SC	52	75	8	SC	\$17.75
MOS-55X68X8-AS	55	68	8	AS	\$13.68
MOS-55X70X8-A	55	70	8	A	\$14.12
MOS-55X70X8-ASV	55	70	8	ASV	\$28.95
MOS-55X70X8-BABSL	55	70	8	BABSL	\$16.38
MOS-55X70X10-A	55	70	10	A	\$13.18
MOS-55X70X10-AS	55	70	10	AS	\$18.65
MOS-55X72X7-BABSL	55	72	7	BABSL	\$18.10
MOS-55X72X7-BABSL-V	55	72	7	BABSL-V	\$67.75
MOS-55X75X10-AS	55	75	10	AS	\$11.67
MOS-55X75X12-AS	55	75	12	AS	\$17.51
MOS-55X78X12-AS	55	78	12	AS	\$20.15
MOS-55X78X12-ASV	55	78	12	ASV	\$41.27
MOS-55X80X10-A	55	80	10	A	\$14.95
MOS-58X75X8-TB	58	75	8	TB	\$30.83
MOS-58X80X8-A	58	80	8	A	\$16.08
MOS-58X80X10-BABSL	58	80	10	BABSL	\$20.67
MOS-58X80X13-AS	58	80	13	AS	\$21.04
MOS-60X75X8-BABSL	60	75	8	BABSL	\$18.10
MOS-60X78X9-A	60	78	9	A	\$19.52
MOS-60X80X7-AS	60	80	7	AS	\$20.96
MOS-60X80X7-BABSL	60	80	7	BABSL	\$24.38
MOS-60X80X7-VTC	60	80	7	VTC	\$62.56
MOS-60X80X10-TC-V	60	80	10	TCV	\$41.87
MOS-60X80X12-A	60	80	12	A	\$23.58
MOS-60X80X12-TC	60	80	12	TC	\$20.89
MOS-60X80X13-TB	60	80	13	TB	\$28.24
MOS-60X82X12-A	60	82	12	A	\$22.25
MOS-60X82X12-TC	60	82	12	TC	\$16.68
MOS-60X85X8-AS	60	85	8	AS	\$22.34
MOS-60X90X10-TC	60	90	10	TC	\$15.27
MOS-62X80X10-AS	62	80	10	AS	\$17.47
MOS-62X85X7-BABSL	62	85	7	BABSL	\$21.54
MOS-62X85X10-AS	62	85	10	AS	\$17.48
MOS-63X80X8-SB	63	80	8	SB	\$13.95
MOS-63X80X8-TC	63	80	8	TC	\$20.96
MOS-63X85X10-A	63	85	10	A	\$22.59
MOS-65X80X7-BABSL	65	80	7	BABSL	\$22.15
MOS-65X80X10-AS	65	80	10	AS	\$22.28
MOS-65X85X8-BABSL	65	85	8	BABSL	\$21.33
MOS-65X85X8-TC	65	85	8	TC	\$21.38
MOS-65X85X10-AS	65	85	10	AS	\$19.40
MOS-65X88X12-TC	65	88	12	TC	\$20.00
MOS-65X90X10-SC	65	90	10	SC	\$19.66
MOS-65X90X13-AS	65	90	13	AS	\$29.16
MOS-66X85X10X12-TCHP	66	85	10	TCHP	\$35.12
MOS-66X90X13-TC	66	90	13	TC	\$25.18
MOS-68X90X10-BABSL	68	90	10	BABSL	\$22.95

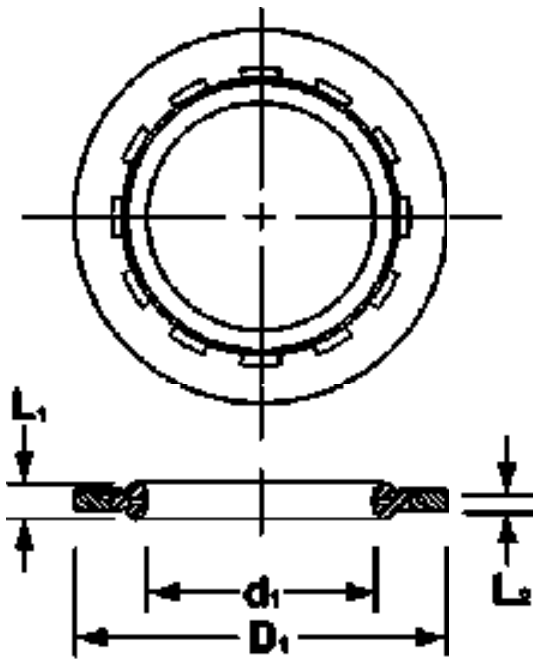
### Oil Seals - Metric, cont'd.

Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price	Part Number	Shaft Dia. d	Bore Dia. D	Height L <sub>1</sub>	Style	Price
MOS-70X88X12-AS	70	88	12	AS	\$22.21	MOS-100X125X13-TBV	100	125	13	TBV	\$154.42
MOS-70X90X7-BABSL	70	90	7	BABSL	\$24.25	MOS-100X130X12-A	100	130	12	A	\$23.08
MOS-70X90X7-BABSL-V	70	90	7	BABSL-V	\$65.37	MOS-100X130X12-TC-V	100	130	12	TC-V	\$96.97
MOS-70X90X7-VTCN1	70	90	7	VTCN1	\$83.89	MOS-105X130X12-A	105	130	12	A	\$25.15
MOS-70X90X10-A	70	90	10	A	\$16.69	MOS-105X130X12-AS	105	130	12	AS	\$46.49
MOS-70X90X10-AS	70	90	10	AS	\$20.26	MOS-105X130X13-A	105	130	13	A	\$57.28
MOS-70X90X10-BABSL	70	90	10	BABSL	\$26.40	MOS-105X140X12-BABSL	105	140	12	BABSL	\$49.68
MOS-70X90X10-A	70	90	10	A	\$23.84	MOS-110X130X12-AS	110	130	12	AS	\$45.25
MOS-70X92X12-TC	70	92	12	TC	\$20.52	MOS-110X130X12-BABSL	110	130	12	BABSL	\$35.35
MOS-70X100X6-A	70	100	6	A	\$26.23	MOS-110X140X12-AS	110	140	12	AS	\$47.29
MOS-70X100X10-AS	70	100	10	AS	\$22.16	MOS-110X140X13-RST	110	140	13	RST	\$47.86
MOS-70X100X10-BABSL	70	100	10	BABSL	\$29.78	MOS-110X170X12-TC	110	170	12	TC	\$66.74
MOS-70X110X10-AS	70	110	10	AS	\$28.74	MOS-115X140X12-A	115	140	12	A	\$40.19
MOS-75X90X10-BABSL	75	90	10	BABSL	\$22.95	MOS-115X140X13-A	115	140	13	A	\$42.70
MOS-75X95X7-BABSL	75	95	7	BABSL	\$23.33	MOS-115X145X14-AS	115	145	14	AS	\$47.87
MOS-75X95X10-SC	75	95	10	SC	\$21.81	MOS-115X145X14-SB	115	145	14	SB	\$39.05
MOS-75X95X12-A	75	95	12	A	\$20.65	MOS-115X145X14-TBV	115	145	14	TBV	\$74.43
MOS-75X100X13-A	75	100	13	A	\$31.05	MOS-120X140X10-A	120	140	10	A	\$53.11
MOS-75X100X13-AS	75	100	13	AS	\$34.70	MOS-120X140X13-A	120	140	13	A	\$63.82
MOS-75X100X13-TC	75	100	13	TC	\$34.69	MOS-120X140X13-TC	120	140	13	TC	\$40.79
MOS-80X100X7-BABSL	80	100	7	BABSL	\$32.59	MOS-120X140X13-BABSL	120	140	13	BABSL	\$32.62
MOS-80X100X10-A	80	100	10	A	\$22.65	MOS-120X150X12-A	120	150	12	A	\$21.04
MOS-80X100X12-A	80	100	12	A	\$29.26	MOS-120X150X12-BABSL	120	150	12	BABSL	\$36.92
MOS-80X100X12-TC	80	100	12	TC	\$29.95	MOS-120X150X13-TB	120	150	13	TB	\$41.32
MOS-80X105X13-AS	80	105	13	AS	\$26.34	MOS-120X150X14-AS	120	150	14	AS	\$66.66
MOS-80X105X13-BABSL	80	105	13	BABSL	\$124.16	MOS-120X150X14-VTF	120	150	14	VTF	\$182.83
MOS-80X110X12-AS	80	110	12	AS	\$29.31	MOS-120X150X15-BABSL	120	150	15	BABSL	\$63.33
MOS-80X120X13-SC	80	120	13	SC	\$43.00	MOS-125X150X13-SA	125	150	13	SA	\$58.11
MOS-84X104X11-HTC	84	104	11	HTC	\$41.72	MOS-125X160X12-A	125	160	12	A	\$52.31
MOS-85X105X12-BABSL	85	105	12	BABSL	\$33.55	MOS-130X160X12-A	130	160	12	A	\$53.85
MOS-85X110X12-TC	85	110	12	TC	\$29.40	MOS-130X160X12-BABSL	130	160	12	BABSL	\$68.86
MOS-85X110X13-A	85	110	13	A	\$34.50	MOS-130X160X14-A	130	160	14	A	\$55.39
MOS-85X120X7.5-BABSL	85	120	7.5	BABSL	\$41.03	MOS-130X160X14-TBV	130	160	14	TBV	\$296.31
MOS-85X130X12-TC	85	130	12	TC	\$37.49	MOS-130X160X15-AS	130	160	15	AS	\$68.97
MOS-90X110X7-TC	90	110	7	TC	\$28.93	MOS-140X170X13-AS	140	170	13	AS	\$53.63
MOS-90X110X7.5-BABSL	90	110	7.5	BABSL	\$38.05	MOS-140X170X14-AS	140	170	14	AS	\$53.63
MOS-90X110X8-AS	90	110	8	AS	\$51.16	MOS-140X170X14-SB	140	170	14	SB	\$37.17
MOS-90X110X8-SA	90	110	8	SA	\$48.86	MOS-140X170X14-TBV	140	170	14	TBV	\$140.05
MOS-90X110X10-TC	90	110	10	TC	\$36.75	MOS-140X170X15-BABSL	140	170	15	BABSL	\$73.79
MOS-90X110X12-A	90	110	12	A	\$28.86	MOS-145X165X13-AS	145	165	13	AS	\$90.81
MOS-90X110X12-A-V	90	110	12	A-V	\$52.73	MOS-145X165X13-SC	145	165	13	SC	\$76.93
MOS-90X110X12-BABSL	90	110	12	BABSL	\$36.05	MOS-145X175X14-TBV	145	175	14	TBV	\$311.41
MOS-90X115X12-AS	90	115	12	AS	\$19.06	MOS-145X175X14-TC	145	175	14	TC	\$83.66
MOS-90X115X13-AS	90	115	13	AS	\$19.06	MOS-150X170X15-A	150	170	15	A	\$57.73
MOS-90X115X13-TBV	90	115	13	TBV	\$54.93	MOS-150X180X13-A	150	180	13	A	\$61.35
MOS-90X120X12-A	90	120	12	A	\$31.18	MOS-150X180X13-AS	150	180	13	AS	\$79.68
MOS-90X120X13-AS	90	120	13	AS	\$35.42	MOS-150X180X13-SA2V	150	180	13	SA2V	\$164.88
MOS-90X125X12-BABSL	90	125	12	BABSL	\$26.64	MOS-160X190X15-A	160	190	15	A	\$54.32
MOS-90X125X15-A	90	125	15	A	\$21.07	MOS-160X190X16-AS	160	190	16	AS	\$50.18
MOS-95X115X12-TC	95	115	12	TC	\$44.23	MOS-170X200X16-AS	170	200	16	AS	\$106.37
MOS-95X115X13-A	95	115	13	A	\$37.48	MOS-175X200X15-AS	175	200	15	AS	\$107.99
MOS-95X115X13-TC	95	115	13	TC	\$28.28	MOS-180X210X15-A	180	210	15	A	\$109.38
MOS-95X120X12-BABSL	95	120	12	BABSL	\$31.69	MOS-180X210X16-TBV	180	210	16	TBV	\$170.25
MOS-98X125X13-A	98	125	13	A	\$63.75	MOS-190X225X16-SC	190	225	16	SC	\$94.31
MOS-100X120X12-A	100	120	12	A	\$31.18	MOS-200X230X15-TC	200	230	15	TC	\$101.53
MOS-100X120X12-AS	100	120	12	AS	\$32.09	MOS-220X250X15-A	220	250	15	A	\$130.69
MOS-100X120X12-BABSL	100	120	12	BABSL	\$41.03	MOS-240X270X15-TC	240	270	15	TC	\$139.06
MOS-100X125X13-AS	100	125	13	AS	\$47.32	MOS-250X290X15-SC	250	290	15	SC	\$277.29
MOS-100X125X13-SB	100	125	13	SB	\$40.36	MOS-274.5X310X6X10@1	274.5	310	6	KXCY	\$546.69
MOS-100X125X13-TB	100	125	13	TB	\$54.56	MOS-420X460X20-SA	420	460	20	SA	\$746.85

# 600 Series Stat-O-Seals® - Inch



Stat-o-Seals® are one-piece, molded in place seals with the rubber sealing element mechanically locked to the metal retainer. Stat-O-Seals® are designed to seal beneath the head of the fastener as shown for both internal and external pressure systems. The principle of controlled confinement is utilized in the Stat-O-Seal®. As the fastener is tightened the rubber seal is compressed, forcing the sealing surface securely around the fastener shank, but without squeezing the rubber beyond its elastic limit, or destroying its inherent "memory". With the Stat-O-Seal®, there is full metal to metal contact of facing surfaces. The unique Stat-O-Seal® design provides:



- Self-centering of seal
- Vacuum-sealing to positive high pressure sealing
- High re-usability factor
- Long, reliable service
- Fool-proof installation
- Moderate torquing
- No retorquing
- Quick visual inspection

Standard material is 60 durometer nitrile and cadmium plated steel.

Temperature range is -65° to 225°F.

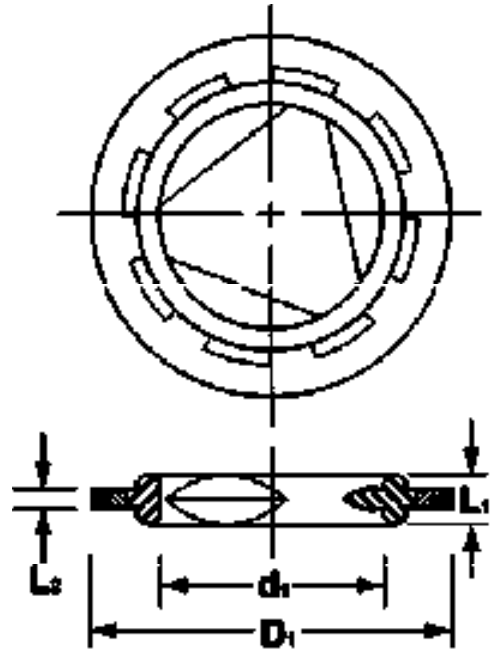
EXAMPLE: 600-001-3/4			
Prefix	Material	Screw Size or Seal ID	
600-	-	001	3/4
	NBR / Steel		3/4"

Part Number	Maximum Shaft Size	Screw Size	Inside Dia. $d_1$	Outside Dia. $D_1$	Steel Thickness $L_2$	Rubber Thickness $L_1$	Price
600-001-6	0.138	#6	0.130	0.385	0.040	0.050	\$2.22
600-001-8	0.164	#8	0.156	0.385	0.040	0.050	\$1.78
600-001-10	0.190	#10	0.180	0.443	0.050	0.072	\$2.19
600-001-1/4	0.250	1/4	0.240	0.505	0.050	0.072	\$2.42
600-001-1/4 OS	0.250	1/4	0.245	0.531	0.050	0.072	\$2.47
600-001-5/16	0.312	5/16	0.301	0.603	0.050	0.072	\$2.63
600-001-3/8	0.375	3/8	0.364	0.666	0.050	0.072	\$2.92
600-001-7/16	0.437	7/16	0.427	0.760	0.050	0.072	\$3.84
600-001-1/2	0.500	1/2	0.490	0.880	0.050	0.072	\$4.21
600-001-9/16	0.562	9/16	0.552	1.067	0.050	0.072	\$4.78
600-001-5/8	0.625	5/8	0.615	1.193	0.050	0.072	\$6.92
600-001-3/4	0.750	3/4	0.740	1.322	0.064	0.096	\$7.55
600-001-7/8	0.875	7/8	0.864	1.510	0.064	0.096	\$10.82
600-001-1	1.000	1	0.988	1.760	0.064	0.096	\$14.15

# 7500 Series Thread Seals - Inch



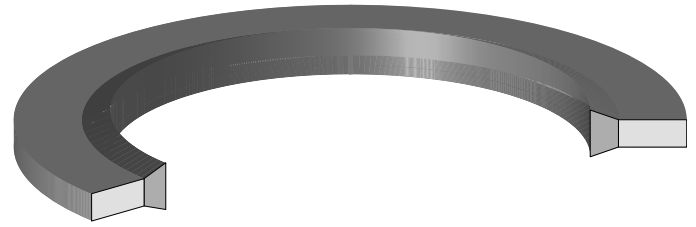
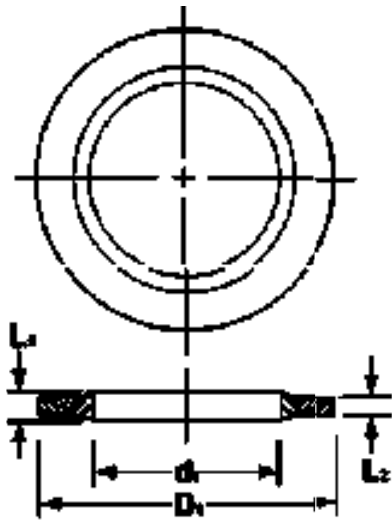
7500 series thread seals are reusable, safe, reliable seals for threaded devices. Their design is unique... the first and only seal recommended for sealing directly against threads. Thread seals require no special machining or style of bolt, screw or thread. They are self-centering, non-directional and are low in original cost; can provide considerable savings because they make possible the use of low cost standard fasteners and full threaded fittings. No special tools or skill is needed to assemble - simply push them on with a slight twisting motion, and tighten fastener.



EXAMPLE: 7500-6	
Prefix	Screw Size or Seal ID
7500-	6
	# 6 SCREW

Part Number	Shaft Size	Screw Size	Outside Dia. $D_1$	Metal Thickness $L_2$	Rubber Thickness $L_1$	Price
7500-6	0.138	#6	0.406	0.051	0.080	\$3.43
7500-8	0.164	#8	0.406	0.051	0.085	\$3.49
7500-10	0.190	#10	0.469	0.051	0.085	\$3.49
7500-1/4	0.250	1/4	0.562	0.051	0.090	\$3.59
7500-5/16	0.312	5/16	0.687	0.064	0.118	\$4.43
7500-3/8	0.375	3/8	0.750	0.064	0.118	\$4.99
7500-7/16	0.437	7/16	0.906	0.078	0.150	\$6.96
7500-1/2	0.500	1/2	1.000	0.078	0.150	\$7.06
7500-9/16	0.562	9/16	1.094	0.094	0.170	\$12.31
7500-5/8	0.625	5/8	1.187	0.094	0.170	\$13.94
7500-3/4	0.750	3/4	1.375	0.109	0.218	\$16.46
7500-7/8	0.875	7/8	1.562	0.109	0.218	\$24.10
7500-1	1.000	1	1.750	0.120	0.218	\$28.31
7500-1-1/8	1.125	1 1/8	1.875	0.120	0.218	\$31.03
7500-1-1/4	1.250	1 1/4	2.000	0.120	0.218	\$35.69
7500-1-1/2	1.500	1 1/2	2.250	0.120	0.218	\$37.52

# 400 Series Bonded Seals - Inch



OEM Numbering System

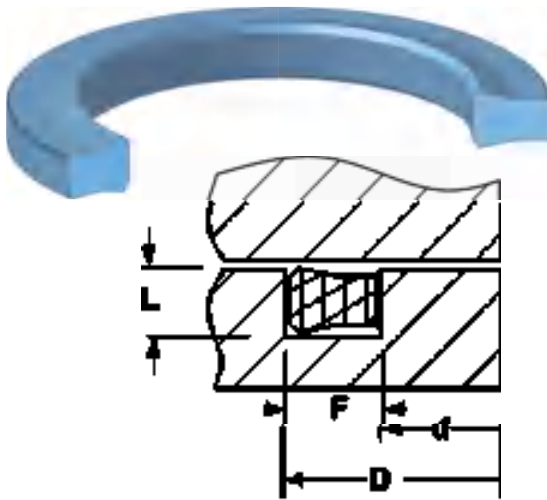
400 Series bonded seals are similar to 600 series Stat-O-Seals® in application. One major manufacturing difference is that while the 600 series are chemically and mechanically bonded to the metal retainer, the 400 series is only chemically bonded. These are more commonly associated with metric sizes; however, British standard and inch size seals are available.

Part Number	Bolt Size	BSP Size	Outside Dia. D <sub>1</sub>	Inside Dia. d <sub>1</sub>	Metal Thickness L <sub>2</sub>	Total Height L <sub>1</sub>	Price
400-002-4490-41	4BA		0.286	0.162	0.051	0.074	\$1.99
400-003-4490-41	2BA		0.330	0.205	0.051	0.074	\$1.88
400-004-4490-41	1/4		0.520	0.270	0.051	0.074	\$1.88
400-006-4490-41	5/16		0.525	0.327	0.051	0.074	\$2.33
400-007-4490-41	5/16		0.560	0.340	0.051	0.074	\$1.91
400-020-4490-41	3/8	1/8	0.625	0.408	0.083	0.113	\$1.96
400-008-4490-41		0.4	0.723	0.443	0.083	0.113	\$1.98
400-009-4490-41	7/16		0.750	0.460	0.083	0.113	\$2.01
400-021-4490-41	1/2	1/4	0.810	0.541	0.083	0.113	\$2.03
400-010-4490-41	9/16		0.875	0.585	0.083	0.113	\$2.06
400-022-4490-41	0.6		0.875	0.623	0.083	0.113	\$2.09
400-011-4490-41	5/8		1.000	0.650	0.083	0.113	\$2.22
400-023-4490-41		3/8	0.937	0.680	0.083	0.113	\$2.34
400-012-4490-41	11/16		1.000	0.715	0.097	0.127	\$2.40
400-024-4490-41	3/4		1.060	0.775	0.097	0.127	\$2.56
400-025-4490-41	13/16	1/2	1.125	0.848	0.097	0.127	\$2.74
400-026-4490-41	7/8	5/8	1.250	0.925	0.097	0.127	\$2.91
400-027-4490-41	1	3/4	1.375	1.065	0.097	0.127	\$3.85
400-028-4490-41	1-1/16		1.520	1.095	0.097	0.127	\$3.87
400-029-4490-41	1-3/16	7/8	1.500	1.213	0.097	0.127	\$5.62
400-015-4490-41	1-1/4		1.630	1.285	0.133	0.163	\$5.64
400-030-4490-41	1-5/16	1	1.685	1.334	0.133	0.163	\$5.75
400-031-4490-41	1-5/16	1	1.685	1.334	0.097	0.127	\$6.29
400-016-4490-41	1-3/8		1.750	1.415	0.133	0.163	\$10.56
400-017-4490-41	1-1/2		1.880	1.534	0.133	0.163	\$11.27
400-032-4490-41	1-5/8	1-1/4	2.062	1.690	0.133	0.163	\$10.77
400-018-4490-41	1-3/4		2.250	1.785	0.133	0.163	\$15.00
400-033-4490-41	1-7/8	1-1/2	2.307	1.907	0.133	0.163	\$12.97
400-019-4490-41	2		2.500	2.040	0.133	0.163	\$16.81
400-034-4490-41	2-1/8	1-3/4	2.750	2.161	0.133	0.163	\$20.05
400-035-4490-41	2-1/4		2.770	2.285	0.133	0.163	\$20.75
400-036-4490-41		2	2.875	2.385	0.133	0.163	\$18.36
400-039-4490-41		2-1/2	3.555	2.995	0.133	0.163	\$32.85

## 400 Series Bonded Seals - Metric

Part Number	Bolt Size	BSP Size	Outside Dia. $D_1$	Inside Dia. $d_1$	Metal Thickness $L_2$	Total Height $L_1$	Price
400-203-4490-41	5		9	5.7	1.0	1.6	\$2.01
400-207-4490-41	6		11	6.7	1.0	1.6	\$2.14
400-209-4490-41	6.5		12	7.1	1.0	1.6	\$2.28
400-206-4490-41	6.7		10	7.4	1.0	1.6	\$2.18
400-213-4490-41	8		14	8.7	1.0	1.6	\$2.22
400-215-4490-41			13.3	9.3	1.0	1.6	\$2.24
400-510-4490-41	10		14.7	10.4	1.0	1.6	\$2.26
400-216-4490-41	10		16	10.35	2.0	2.8	\$2.27
400-217-4490-41	10		16	10.7	1.5	2.3	\$2.39
400-220-4490-41	11		18.5	11.8	1.5	2.3	\$2.68
400-222-4490-41			18	12.7	1.5	2.3	\$2.85
400-223-4490-41	12		20	12.7	1.5	2.3	\$3.32
400-226-4490-41	13.5		18.7	14	1.5	2.3	\$3.37
400-228-4490-41			22.7	16	1.5	2.3	\$3.45
400-229-4490-41	16		24	16.7	1.5	2.3	\$3.53
400-230-4490-41	17		24	17.4	1.5	2.3	\$3.79
400-232-4490-41	18		26	18.7	1.5	2.3	\$3.91
400-233-4490-41	20		28	20.7	1.5	2.3	\$7.05
400-234-4490-41	21		28.7	21.5	2.5	3.3	\$3.99
400-236-4490-41			30	22.7	2.0	2.8	\$4.08
400-240-4490-41	27		36	27.2	2.0	2.8	\$4.26
400-242-4490-41	30		39	31	2.0	2.8	\$4.33
400-248-4490-41			59	48.7	3.0	3.8	\$5.37
400-306-4490-41	6		11.4	7	1.0	1.6	\$2.02
400-307-4490-41	8		13	8.6	1.0	1.6	\$2.19
400-332-4490-41			42	33.7	2.0	2.8	\$3.26

## OV Urethane Split Flange Seals - Inch



In many cases standard o-rings are not suitable for flange sealing due to marginal conditions such as high pressures or unsuitable surface finish of the flanges. As a result the new polyurethane flange seal profile OV was developed especially for SAE flanges.

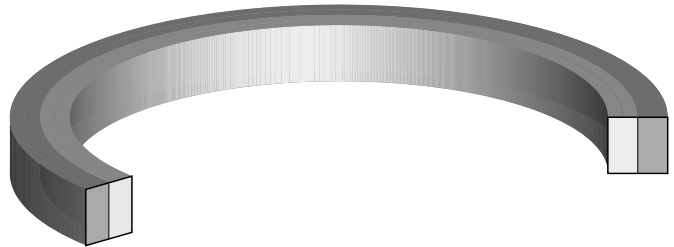
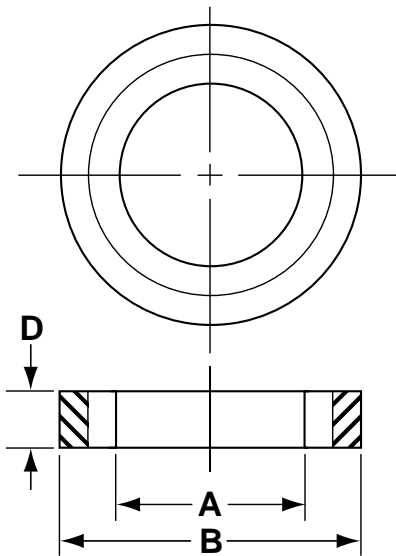
The particularly low compression set ensures dimensional stability of the seal over a large temperature range. Its high extrusion resistance prevents gap extrusion even if the flanges "breathe" under pressure. Due to the good abrasion resistance less gland preparation is necessary on the surface finish of the sealing area of the flange. The frequently occurring "pumping" phenomenon of close fitting o-rings is prevented by the shape of the new flange seal profile OV.

EXAMPLE: OV-31.3X39.7X2.85			
Prefix	Inside Diameter	Outside Diameter	Groove Height
OV-	31.3	x 39.7	x 2.85
	31.3mm	39.7mm	2.85mm

Part Number	Groove ID $d$	Groove OD $D$	Groove Depth $L$	SAE Flange Size	Price
OV-17X25.4X2.85	17	25.4	2.85	1/2"	\$2.91
OV-23.4X31.8X2.85	23.4	31.8	2.85	3/4"	\$3.05
OV-31.3X39.7X2.85	31.3	39.7	2.85	1"	\$3.97
OV-36.1X44.5X2.85	36.1	44.5	2.85	1-1/4"	\$4.36
OV-45.4X53.8X2.85	45.4	53.8	2.85	1-1/2"	\$5.05
OV-55.4X63.4X2.85	55.4	63.4	2.85	2"	\$5.51



# SFS Universal Urethane Split Flange Seals - Inch



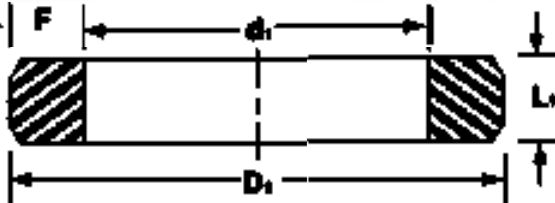
These one piece, dual durometer, polyurethane static seals were designed to be a direct replacement to o-rings without any modifications to the grooves. The hard outer layer provides maximum extrusion resistance for the softer inner sealing layer giving it improved sealing capabilities and longer life than o-rings.

EXAMPLE: SFS-08	
Prefix	Flange Size/Seal ID
SFS-	08
1/2" (FLANGE SZ -8)	

FLANGE SIZES IN MULTIPLES OF 1/16"

Part Number	Nominal Flange Size	Flange Dash Size	Replaces O-Ring Size	Price
SFS-08	1/2	-08	-210	\$3.12
SFS-12	3/4	-12	-214	\$3.29
SFS-16	1	-16	-219	\$3.73
SFS-20	1 1/4	-20	-222	\$3.96
SFS-24	1 1/2	-24	-225	\$3.99
SFS-32	2	-32	-228	\$5.28
SFS-40	2 1/2	-40	-232	\$6.48
SFS-48	3	-48	-237	\$8.21
SFS-56	3 1/2	-56	-241	\$9.79

# Cat® Nitrile D-Ring Split Flange Seals - Inch



EXAMPLE: 1P3702	
Prefix	Flange Size
1P	3702
3/4"	

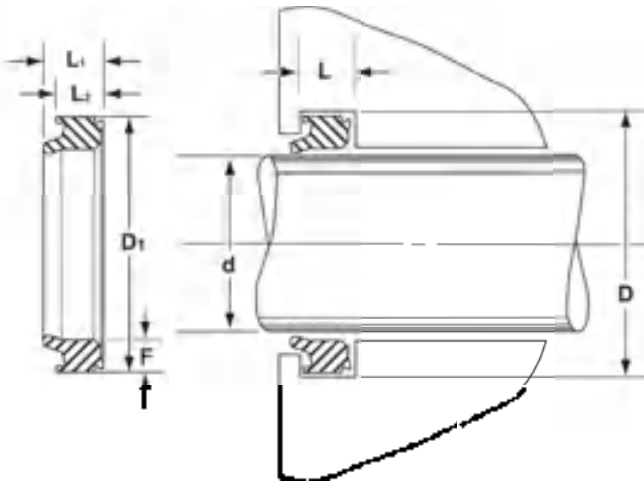
OEM NUMBERING SYSTEM  
1/4" INCREMENTS BETWEEN SIZES

Cat® Nitrile D-ring seals meet SAE specifications, and safeguard longer life and lower costs.

*We do not imply that these seals are a product of Cat®. Part numbers are used for reference purposes only.*

Part Number	Inside Diameter d1	Outside Diameter D1	Seal Height L1	Cross Section F	Flange Size	Price
1P3700	0.744	1	0.195	0.134	1/2	\$1.66
1P3702	0.994	1 1/4	0.195	0.134	3/4	\$1.89
1P3703	1.244	1 1/2	0.195	0.134	1	\$2.01
1P3704	1.494	1 3/4	0.195	0.134	1 1/4	\$2.49
1P3705	1.747	2	0.195	0.134	1 1/2	\$2.65
1P3706	1.997	2 1/4	0.195	0.134	1 3/4	\$2.96
1P3707	2.134	2.4	0.195	0.134	1-7/8	\$2.97
1P3708	2.247	2 1/2	0.195	0.134	2	\$3.06
1P3709	2.497	2 3/4	0.195	0.134	2 1/4	\$3.26

# PP Cushion Seals - Metric



This pneumatic cushion seal profile PP is specially designed for cushioning in pneumatic cylinders. The seal functions as a check valve, so no separate valve is needed. The PP seal floats axially in the groove, so it works well even under misalignment. Easily installed into groove. Parts with P90 suffix are Urethane. Parts with no suffix are Nitrile

90 Duro, NBR      Temperature: -5°F to 175°F  
 Pressure: PSI ≤ 165

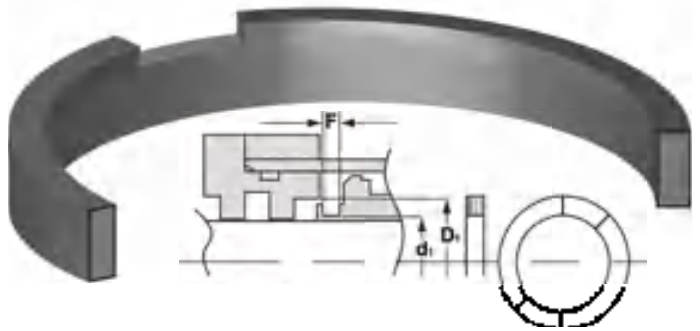
92 Duro, PU      Temperature: -30°F to 175°F  
 Pressure: PSI ≤ 225

EXAMPLE: PP-12x18x5 P90						
Prefix	Inside Diameter		Outside Diameter		Total Height	Suffix
PP-	12	x	18	x	5	P90
	12mm		18mm		5mm	92A URE

Part Number	Inside Dia. d	Outside Dia. D1	Base Height L2	Total Height L1	Price
PP-8X11.6X3.5	8	11.6	2.0	3.5	\$3.54
PP-12X18X5	12	18	4.1	5	\$3.54
PP-12X18X5 P90	12	18	4.1	5	\$3.70
PP-12X20X7.8	12	20	6.2	7.8	\$3.70
PP-12X20X7.8 P90	12	20	6.2	7.8	\$3.70
PP-14X22X7.8	14	22	6.2	7.8	\$3.70
PP-14X22X7.8 P90	14	22	6.2	7.8	\$3.70
PP-16X22X5.5	16	22	4.7	5.5	\$3.70
PP-16X22X5.5 P90	16	22	4.7	5.5	\$3.90
PP-16X24X7.8	16	24	6.2	7.8	\$3.73
PP-16X24X7.8 P90	16	24	6.2	7.8	\$3.90
PP-18X26X7.8 P90	18	26	6.2	7.8	\$4.92
PP-20X28X7.8	20	28	6.2	7.8	\$5.06
PP-20X28X7.8 P90	20	28	6.2	7.8	\$4.10
PP-22X30X7.8	22	30	6.2	7.8	\$4.13
PP-24X32X7.8	24	32	6.2	7.8	\$5.46
PP-25X33X7.8	25	33	6.2	7.8	\$3.89
PP-25X33X7.8 P90	25	33	6.2	7.8	\$4.06
PP-25X35X7.8 P90	25	35	6.2	7.8	\$5.25
PP-28X36X7.8 P90	28	36	6.2	7.8	\$5.58
PP-30X40X7.8	30	40	6.2	7.8	\$4.71
PP-30X40X7.8 P90	30	40	6.2	7.8	\$4.75
PP-32X40X7.8	32	40	6.2	7.8	\$5.49
PP-32X42X7.8 P90	32	42	6.2	7.8	\$6.27
PP-36X46X7.8	36	46	6.2	7.8	\$5.79
PP-36X46X7.8 P90	36	46	6.2	7.8	\$5.87
PP-40X50X7.8	40	50	6.2	7.8	\$6.33
PP-40X50X7.8 P90	40	50	6.2	7.8	\$6.50
PP-50X60X7.8 P90	50	60	6.2	7.8	\$7.37
PP-70X87X11 P90	70	87	10.0	11.0	\$9.09

# MRT Cushion Seals - Metric

These cushion seals are made from nylon or phenolic, and are found in Asian manufactured heavy equipment cylinders. As their name implies, they cushion the stroke of the cylinder rod by limiting fluid from passing through the port.

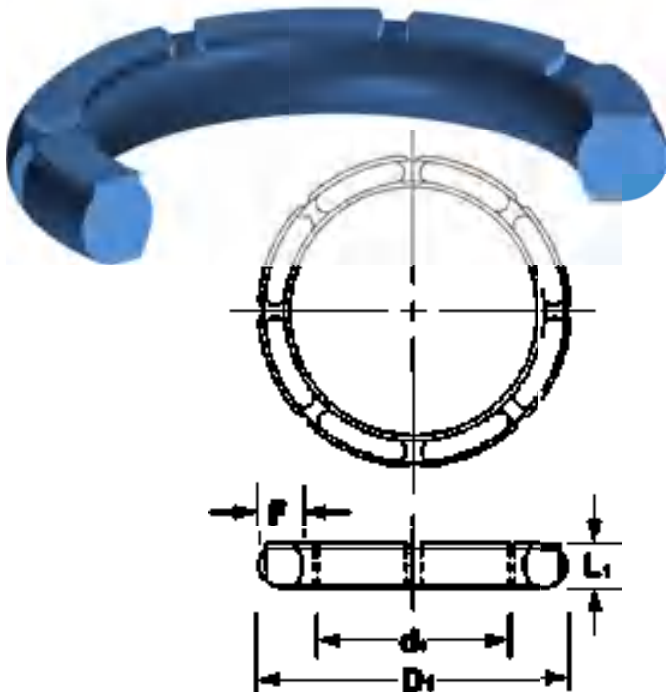


EXAMPLE: MRT-95X100X6					
Prefix	Inside Diameter (d <sub>1</sub> )		Outside Diameter (D <sub>1</sub> )		Total Height (F)
MRT-	95	x	100	x	6
	95mm		100mm		6mm

Part Number	ID d <sub>1</sub>	ID D <sub>1</sub>	HT F	Price
MRT-32X38X6	32	38	6	\$25.83
MRT-33X39X6	33	39	6	\$25.90
MRT-35X40X6	35	40	6	\$26.35
MRT-39X45X6	39	45	6	\$26.59
MRT-41X46X6	41	46	6	\$19.66
MRT-46X52X6	46	52	6	\$24.69
MRT-48X54X6	48	54	6	\$27.59
MRT-54X64X6	54	64	6	\$30.33
MRT-58X64X6	58	64	6	\$32.12
MRT-59X69X6	59	69	6	\$34.10
MRT-60X65X6	60	65	6	\$30.79
MRT-63X69X6	63	69	6	\$31.27
MRT-64X74X6	64	74	6	\$34.19
MRT-64X74X8	64	74	8	\$34.34
MRT-65X71X6	65	71	6	\$32.38
MRT-66X72X6	66	72	6	\$32.59
MRT-66X72X8	66	72	8	\$21.05
MRT-68X74X6	68	74	6	\$34.75
MRT-69X79X8	69	79	8	\$30.89
MRT-69X79X10	69	79	10	\$24.80
MRT-70X75X6	70	75	6	\$37.96

Part Number	ID d <sub>1</sub>	ID D <sub>1</sub>	HT F	Price
MRT-74X80X6	74	80	6	\$34.06
MRT-74X84X8	74	84	8	\$31.00
MRT-75X80X6	75	80	6	\$40.22
MRT-75X85X10	75	85	10	\$31.45
MRT-79X89X8	79	89	8	\$31.93
MRT-79X89X10	79	89	10	\$35.48
MRT-80X85X6	80	85	6	\$28.66
MRT-84X90X6	84	90	6	\$35.51
MRT-84X94X8	84	94	8	\$30.11
MRT-89X95X6	89	95	6	\$31.98
MRT-89X99X8	89	99	8	\$32.49
MRT-89X99X10	89	99	10	\$35.65
MRT-90X95X6	90	95	6	\$50.61
MRT-90X100X10	90	100	10	\$52.36
MRT-94X100X6	94	100	6	\$34.00
MRT-94X104X8	94	104	8	\$37.62
MRT-94X104X10	94	104	10	\$39.38
MRT-95X100X6	95	100	6	\$31.02
MRT-95X105X10	95	105	10	\$31.90
MRT-100X110X10	100	110	10	\$36.01
MRT-109X119X8	109	119	8	\$38.59

# V6 Cushion Seals - Inch



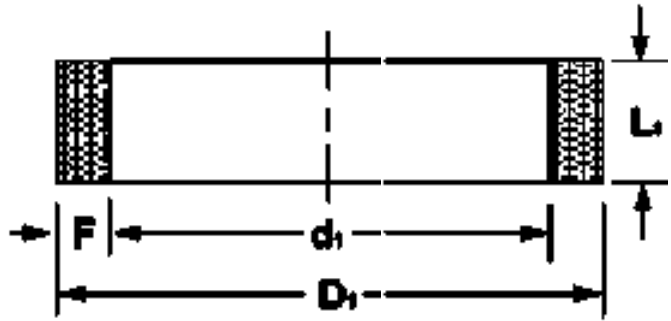
Made from Urethane these cushion seals act not only as a seal but also as a check valve. They are easy to install and work well in small housings and simple grooves. Total Height = C / S

Temperature: -20°F to 175°F  
 Pressure: 225 PSI

EXAMPLE: V6-15702250		
Prefix	C/S & Total Height	Inside Diameter
V6-	157	02250
	5/32"	2 - 1/4"

Inch				
Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	Price
V6-15700375	0.375	0.688	0.156	\$7.30
V6-15700625	0.625	0.938	0.156	\$7.58
V6-15700875	0.875	1.188	0.156	\$7.82
V6-15701250	1.250	1.562	0.156	\$8.11
V6-15701625	1.625	1.937	0.156	\$8.53
V6-15702250	2.250	2.562	0.156	\$35.19

## Solid PTFE End Cap Seals - Inch



These end cap seals are machined from virgin Teflon®. They seal between the end caps and tubes of industrial cylinders by crushing (compressing) them while the tie rods are tightened.

OEM NUMBERING SYSTEM

## Hydroline® N2 Series

AY Part Number	Hydroline® Part Number	Tube Size	Cross Section F	Seal Height L1	Price
995325	H-C-124-03	1-1/2	0.068	0.142	\$12.33
994815	H-C-124-04	2	0.068	0.142	\$14.74
995849	H-C-124-05	2-1/2	0.068	0.142	\$16.94
994816	H-C-124-065	3-1/4	0.068	0.142	\$21.42
996090	H-C-124-08	4	0.068	0.142	\$22.85
994388	H-C-124-10	5	0.068	0.142	\$25.26
995503	H-C-124-12	6	0.068	0.142	\$28.50
995167	H-C-124-16	8	0.068	0.142	\$41.00
994389	H-C-124-20	10	0.068	0.142	\$67.44
995831	H-C-124-24	12	0.068	0.142	\$88.71

## Hydroline® N5 Series

AY Part Number	Hydroline® Part Number	Tube Size	Cross Section F	Seal Height L1	Price
995324	H-C-255-03	1-1/2	0.027	0.104	\$12.85
994862	H-C-255-04	2	0.027	0.104	\$14.70
995277	H-C-255-05	2-1/2	0.027	0.104	\$15.85
995650	H-C-255-065	3-1/4	0.027	0.104	\$16.05
995850	H-C-255-08	4	0.027	0.104	\$18.59
995266	H-C-255-10	5	0.027	0.104	\$20.33
995906	H-C-255-12	6	0.027	0.104	\$24.00
995261	H-C-255-14	7	0.027	0.104	\$26.98
995001	H-C-255-16	8	0.027	0.104	\$30.33

We do not imply that these seals are a product of Hydroline®.  
Part numbers are used for reference purposes only.

## Solid PTFE End Cap Seals - Inch (Cont.)

### Hydroline® R2 & R5 Series

AY Part Number	Hydroline® Part Number	Tube Size	Cross Section F	Seal Height L1	Price
994832	H-C-221-03	1-1/2	0.032	0.082	\$9.64
994577	H-C-221-04	2	0.032	0.082	\$10.55
995706	H-C-221-05	2-1/2	0.032	0.082	\$11.62
995130	H-C-221-065	3-1/4	0.032	0.082	\$13.36
994874	H-C-221-08	4	0.032	0.082	\$14.87
995354	H-C-221-10	5	0.032	0.082	\$21.08
995736	H-C-221-12	6	0.063	0.093	\$26.34
995842	H-C-221-16	8	0.063	0.093	\$45.26
995960	H-C-221-20	10	0.063	0.093	\$59.48

We do not imply that these seals are a product of Hydroline®.  
Part numbers are used for reference purposes only.

### Miller® Solid PTFE End Cap Seals

Pneumatic					
AY Part Number	Miller® Part Number	Tube Size	Cross Section F	Seal Height L1	Price
995035	M-090-ES009-150	1-1/2	0.072	0.072	\$10.31
995745	M-090-ES009-200	2	0.072	0.072	\$13.77
995583	M-090-ES009-250	2-1/2	0.072	0.072	\$16.53
995554	M-090-ES009-325	3-1/4	0.072	0.072	\$17.59
995546	M-090-ES009-400	4	0.072	0.072	\$21.34
995190	M-090-ES009-500	5	0.072	0.072	\$25.58
995270	M-090-ES009-600	6	0.072	0.072	\$28.45
994934	M-090-ES009-700	7	0.072	0.072	\$38.04
994386	M-090-ES009-800	8	0.072	0.072	\$46.78
995818	M-090-ES009-1000	10	0.072	0.072	\$79.05
995191	M-090-ES009-1200	12	0.072	0.072	\$88.78

Hydraulic					
AY Part Number	Miller® Part Number	Tube Size	Cross Section F	Seal Height L1	Price
995535	M-170-ES010-150	1-1/2	0.072	0.072	\$13.28
995746	M-170-ES010-200	2	0.072	0.072	\$15.16
995666	M-170-ES010-250	2-1/2	0.072	0.072	\$18.36
995171	M-170-ES010-325	3-1/4	0.072	0.072	\$28.87
995172	M-170-ES010-400	4	0.072	0.072	\$32.42
995478	M-170-ES010-500	5	0.072	0.072	\$38.87
996798	M-170-ES010-600	6	0.072	0.072	\$42.99
997290	M-170-ES010-700	7	0.072	0.072	\$46.77
996182	M-170-ES010-800	8	0.072	0.072	\$63.51
997347	M-170-ES010-1000	10	0.072	0.072	\$84.37
997349	M-170-ES010-1200	12	0.072	0.072	\$93.63

We do not imply that these seals are a product of Miller®.  
Part numbers are used for reference purposes only.

# HS Urethane Head Seals - Inch



ALTERNATIVE SEALS: O-Ring / Quad-Ring

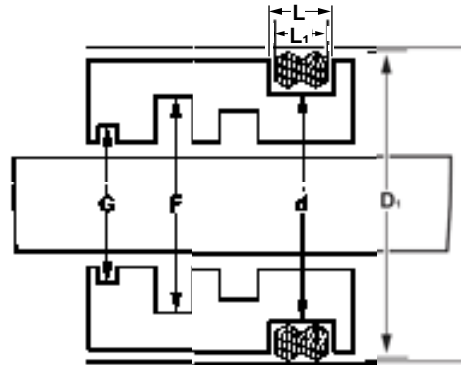
HS is a static seal used to seal the barrel to the head of the cylinder. The difficulties faced during an o-ring assembly such as twisting & ripping was solved with this design. It can be used without a back-up ring at high pressures. Due to the material, HS has good wear resistance to extrusion and shows good sealing performance in static applications.

Temp : -30° to 230°F

Pressure : 8700 PSI

DIAGRAM REPRESENTS DIMENSIONS FOR BOTH ITEMS ON THIS PAGE

EXAMPLE: HS-250	
Prefix	AS568 DASH #
HS-	250



Part No.	OD D <sub>1</sub>	ID d	Grv HT L	Price
HS-218	1.500	1.278	0.208	\$6.42
HS-222	1.750	1.528	0.208	\$6.42
HS-224	2.000	1.778	0.208	\$6.42
HS-226	2.250	2.028	0.208	\$7.28
HS-227	2.375	2.153	0.208	\$9.58
HS-228	2.500	2.278	0.208	\$12.31
HS-230	2.750	2.258	0.208	\$12.94
HS-232	3.000	2.778	0.208	\$13.08
HS-234	3.250	3.028	0.208	\$13.92
HS-235	3.375	3.153	0.208	\$15.07
HS-236	3.500	3.278	0.208	\$15.22
HS-237	3.625	3.403	0.208	\$15.49
HS-238	3.750	3.528	0.208	\$15.78
HS-239	3.875	3.653	0.208	\$16.73

Part No.	OD D <sub>1</sub>	ID d	Grv HT L	Price
HS-240	4.000	3.778	0.208	\$17.27
HS-242	4.250	4.028	0.208	\$18.99
HS-244	4.500	4.278	0.208	\$19.95
HS-246	4.750	4.528	0.208	\$20.88
HS-248	5.000	4.778	0.208	\$22.60
HS-249	5.125	4.903	0.208	\$23.03
HS-250	5.250	5.028	0.208	\$23.28
HS-251	5.375	5.153	0.208	\$23.93
HS-252	5.500	5.278	0.208	\$24.08
HS-254	5.750	5.528	0.208	\$28.38
HS-256	6.000	5.778	0.208	\$29.80
HS-259	6.500	6.278	0.208	\$31.61
HS-260	6.750	6.528	0.208	\$34.59
HS-338	3.500	3.160	0.311	\$21.94

Part No.	OD D <sub>1</sub>	ID d	Grv HT L	Price
HS-342	4.000	3.660	0.311	\$22.25
HS-344	4.250	3.910	0.311	\$23.54
HS-346	4.500	4.160	0.311	\$23.64
HS-347	4.625	4.285	0.311	\$23.85
HS-348	4.750	4.410	0.311	\$24.08
HS-350	5.000	4.660	0.311	\$24.08
HS-352	5.250	4.910	0.311	\$24.08
HS-353	5.375	5.035	0.311	\$24.08
HS-354	5.500	5.160	0.311	\$24.08
HS-356	5.750	5.410	0.311	\$29.66
HS-358	6.000	5.660	0.311	\$31.51
HS-360	6.250	5.910	0.311	\$32.44



ALTERNATIVE SEALS: Head Seals can be interchanged with O-Rings  
Ask for Groove Dimensions

DR is a static seal used to seal the barrel to the head of the cylinder. The difficulties faced during an o-ring assembly such as twisting & ripping was solved with this design. It can be used without a back-up ring at high pressures. Due to the material, DR does have good wear resistance to extrusion and shows good sealing performance in static applications. Temp : -30° to 230°F Pressure : 8700 PSI

# DR Urethane Head Seals - Metric

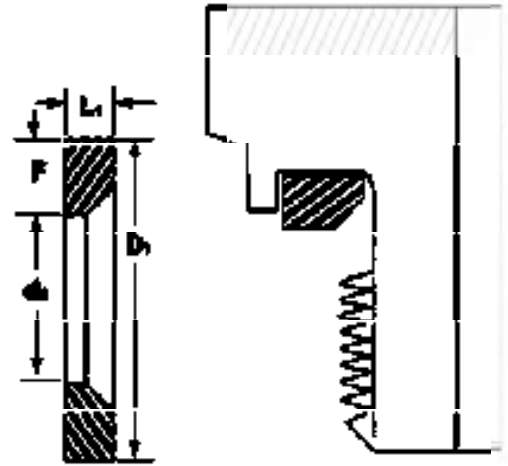
EXAMPLE: DR-90X83X5.1				
Prefix	Outside Diameter	Inside Diameter	Seal Height	
DR-	90	x 83	x	5.1
	90mm	83mm		5.1mm

Part No.	OD D <sub>1</sub>	ID d	HT L <sub>1</sub>	Price
DR-18X14X5.8	18.0	14.0	5.8	\$4.33
DR-22X19.1X3.5	22.0	19.1	3.5	\$4.35
DR-22X19.6X3.6	22.0	19.6	3.6	\$4.35
DR-25X22.1X3.5	25.0	22.1	3.5	\$4.49
DR-26X22X4.4	26.0	22.0	4.4	\$4.49
DR-30X25.5X4.5	30.0	25.5	4.5	\$4.49
DR-35X30.5X4.5	35.0	30.5	4.5	\$4.62
DR-40X35.2X5.4	40.0	35.2	5.4	\$5.27
DR-44X39.5X4.5	44.0	39.5	4.5	\$6.29
DR-50X45.4X5.4	50.0	45.4	5.4	\$7.06
DR-50X44.6X6.2	50.0	44.6	6.2	\$7.06
DR-54X49.5X4.5	54.0	49.5	4.5	\$7.35
DR-58X53.4X3.9	58.0	53.4	3.9	\$7.35
DR-68X63.5X4.5	68.0	63.5	4.5	\$7.65
DR-70X64.6X6.2	70.0	64.6	6.2	\$7.65
DR-75X69.6X6.2	75.0	69.6	6.2	\$8.26

Part No.	OD D <sub>1</sub>	ID d	HT L <sub>1</sub>	Price
DR-76.4X70X5.5	76.4	70.0	5.5	\$8.56
DR-85X81.5X4.5	85.0	81.5	4.5	\$9.28
DR-86X81.5X4.5	86.0	81.5	4.5	\$9.28
DR-90X83X5.1	90.0	83.0	5.1	\$38.51
DR-90X83X5.5	90.0	83.0	5.5	\$25.11
DR-90X84.4X4.8	90.0	84.4	4.8	\$9.59
DR-100X91.4X9	100.0	91.4	9.0	\$9.59
DR-100X93.8X6.9	100.0	93.8	6.9	\$9.59
DR-100X94.4X5.3	100.0	94.4	5.3	\$9.59
DR-102X95.8X6.2	102.0	95.8	6.2	\$9.59
DR-111.4X105X5.5	111.4	105.0	5.5	\$10.66
DR-115X106.6X8.5	115.0	106.6	8.5	\$10.86
DR-125X116.6X8.5	125.0	116.6	8.5	\$12.31
DR-132.9X124.5X5	132.9	124.5	5.0	\$51.82
DR-133.4X125X7	133.4	125.0	7.0	\$15.30
DR-148.4X140X7	148.4	140.0	7.0	\$18.31

Part No.	OD D <sub>1</sub>	ID d	HT L <sub>1</sub>	Price
DR-158.4X150X7	158.4	150.0	7.0	\$22.83
DR-165X156.6X8.5	165.0	156.6	8.5	\$20.43
DR-175X167X7.2	175.0	167.0	7.2	\$58.74
DR-180X171.6X8.5	180.0	171.6	8.5	\$24.73
DR-188.2X180X7	188.2	180.0	7.0	\$32.30
DR-190X178.4X12.3	190.0	178.4	12.3	\$104.39
DR-200X191.6X8.5	200.0	191.6	8.5	\$28.30
DR-225X213X10.7	225.0	213.0	10.7	\$43.75
DR-225X213.44X10	225.0	213.44	10.0	\$174.47
DR-231X225X10.7	231.0	225.0	10.7	\$49.17
DR-250X235X10.7	250.0	235.0	10.7	\$53.95
DR-250X238X10.7	250.0	238.0	10.7	\$54.50
DR-280X268X10.7	280.0	268.0	10.7	\$74.97
DR-320X308X10.7	320.0	308.0	10.7	\$96.68

# 3869 NBR Fluid Connector Seals - Metric



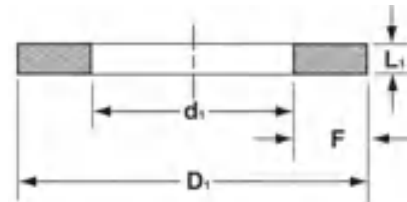
Part Number	Inside Diameter d <sub>1</sub>	Outside Diameter D <sub>1</sub>	Seal Height L <sub>1</sub>	Price
3869-10	8.4	11.9	1	\$0.96
3869-12	9.8	14.4	1.5	\$0.97
3869-14	11.6	16.5	1.5	\$1.27
3869-16	13.8	18.9	1.5	\$1.27
3869-17	14.7	18.9	1.5	\$1.27
3869-18	15.7	20.9	1.5	\$1.38
3869-20	17.8	22.9	1.5	\$1.56
3869-21	18.5	23.9	1.5	\$1.65
3869-22	19.6	24.3	1.5	\$1.76
3869-27	23.9	29.2	1.5	\$1.79
3869-33	29.7	35.7	2	\$2.25
3869-42	38.8	45.8	2	\$2.32
3869-48	44.7	50.7	2	\$2.47
3869-KIT12	12 SIZES	146 PC		\$203.77

The 3869 fluid connector seal is specially designed for static applications. Made from 85 Shore A nitrile, this seal offers a long service life with superior sealing performance with no twisting in the groove.

Temperature : -20° to +220°F

EXAMPLE: 3869-10	
Prefix	ROUNDUP (ID+OD)/2
3869-	10
	10mm

# Vegetable Fiber End Cap Seals - Inch



EXAMPLE: BU-2000-2250-031-VEG					
Prefix	Inside Diameter	Outside Diameter	Height	Material	
BU-	2000	2250	031	VEG	
	2"	2-1/4"	1/32"	Veg Fiber	

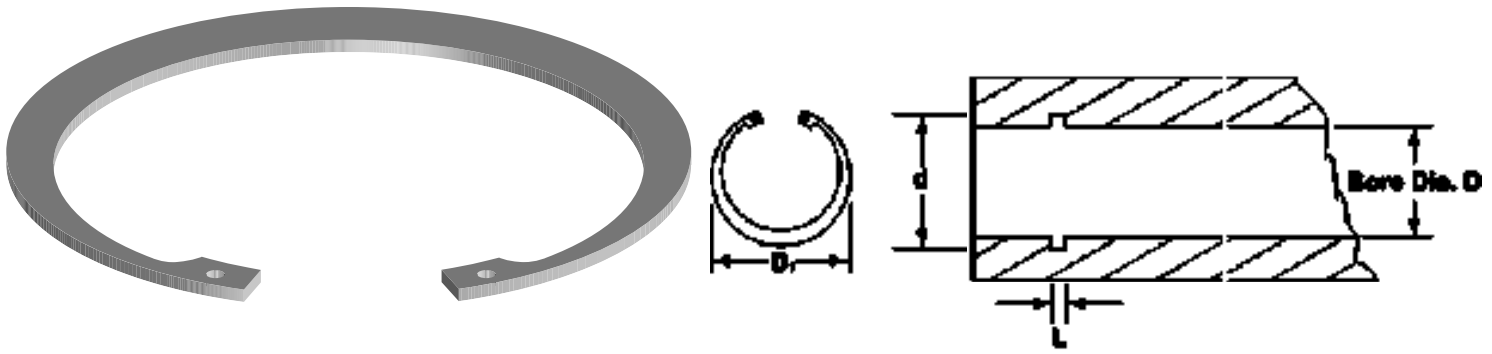
These gaskets are made from vegetable fibers and offer an inexpensive alternative to Teflon. They are primarily used as tube end seals.

Temperature : up to 250°F

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	C/S F	Price
BU-1250-1500-031-VEG	1.250	1.500	0.031	0.125	\$4.83
BU-1500-1687-031-VEG	1.500	1.688	0.031	0.094	\$4.97
BU-1500-1750-031-VEG	1.500	1.750	0.031	0.125	\$6.38
BU-2000-2187-031-VEG	2.000	2.188	0.031	0.094	\$6.73
BU-2000-2250-031-VEG	2.000	2.250	0.031	0.125	\$7.12
BU-2000-2750-032-VEG	2.000	2.750	0.031	0.375	\$7.53
BU-2500-2687-031-VEG	2.500	2.688	0.031	0.094	\$6.76
BU-2500-2750-031-VEG	2.500	2.750	0.031	0.125	\$7.18

Part Number	Inside Dia. d <sub>1</sub>	Outside Dia. D <sub>1</sub>	Height L <sub>1</sub>	C/S F	Price
BU-3000-3187-031-VEG	3.000	3.188	0.031	0.094	\$7.33
BU-3000-3250-031-VEG	3.000	3.250	0.031	0.125	\$5.63
BU-3250-3500-031-VEG	3.250	3.500	0.031	0.125	\$5.67
BU-3500-3750-031-VEG	3.500	3.750	0.031	0.125	\$5.67
BU-4000-4250-031-VEG	4.000	4.250	0.031	0.125	\$5.74
BU-5000-5250-031-VEG	5.000	5.250	0.031	0.125	\$5.77
BU-6000-6250-031-VEG	6.000	6.250	0.031	0.125	\$6.06
BU-8000-8250-031-VEG	8.000	8.250	0.031	0.125	\$6.40

# 1300 Internal Tru<sup>®</sup>-Arc Type Retaining Rings - Inch & Metric



Retaining rings are precision-engineered components; which when applied in bores provides a shoulder that accurately positions, locates or retains other parts of an assembly.

They can be used to replace pins and washers, threaded sections, collars, machine shoulders and other costly or time consuming methods.

EXAMPLE: 1300-25	
Prefix	Bore Diameter
1300-	25
	1/4"

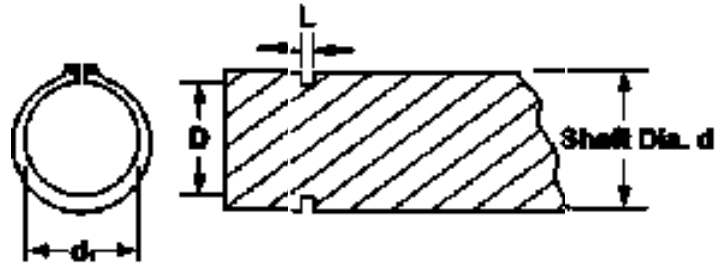
Inch						
Part Number	Bore Dia. D	Free O.D. D <sub>1</sub>	Groove Dia. d	Ring Height	Groove Height L	Price
1300-25	0.250	0.280	0.268	0.015	0.018	\$0.83
1300-31	0.312	0.346	0.330	0.015	0.018	\$0.83
1300-37	0.375	0.415	0.397	0.025	0.029	\$0.83
1300-43	0.438	0.482	0.461	0.025	0.029	\$0.83
1300-50	0.500	0.548	0.530	0.035	0.039	\$0.83
1300-56	0.562	0.620	0.596	0.035	0.039	\$0.83
1300-62	0.625	0.694	0.665	0.035	0.039	\$0.83
1300-68	0.688	0.763	0.732	0.035	0.039	\$0.87
1300-75	0.750	0.831	0.796	0.035	0.039	\$0.91
1300-81	0.812	0.901	0.862	0.042	0.046	\$0.91
1300-87	0.875	0.971	0.931	0.042	0.046	\$0.91
1300-93	0.938	1.041	1.000	0.042	0.046	\$0.91
1300-100	1.000	1.111	1.066	0.042	0.046	\$0.91
1300-102	1.023	1.136	1.091	0.042	0.046	\$0.91
1300-106	1.062	1.180	1.130	0.050	0.056	\$1.41
1300-112	1.125	1.249	1.197	0.050	0.056	\$1.02
1300-118	1.188	1.388	1.262	0.050	0.056	\$1.21
1300-125	1.250	1.388	1.330	0.050	0.056	\$1.10
1300-131	1.312	1.456	1.396	0.050	0.056	\$1.26
1300-137	1.375	1.526	1.461	0.050	0.056	\$1.17
1300-143	1.438	1.596	1.528	0.050	0.056	\$1.36
1300-150	1.500	1.660	1.594	0.050	0.056	\$1.35
1300-156	1.562	1.734	1.658	0.062	0.068	\$1.97
1300-162	1.625	1.804	1.725	0.062	0.068	\$1.97
1300-168	1.688	1.874	1.792	0.062	0.068	\$3.49
1300-175	1.750	1.942	1.858	0.062	0.068	\$2.23
1300-187	1.875	2.072	1.989	0.062	0.068	\$2.38
1300-193	1.938	2.141	2.056	0.062	0.068	\$2.21
1300-200	2.000	2.210	2.122	0.062	0.068	\$2.37
1300-206	2.062	2.280	2.186	0.078	0.086	\$3.69



## 1300 Internal Tru®-Arc Type Retaining Rings cont'd.

Part Number	Bore Dia. D	Free O.D. D <sub>1</sub>	Groove Dia. d	Ring Height	Groove Height L	Price
1300-212	2.125	2.350	2.251	0.078	0.086	\$3.79
1300-218	2.188	2.415	2.318	0.078	0.086	\$3.92
1300-225	2.250	2.490	2.382	0.078	0.086	\$4.15
1300-231	2.312	2.560	2.450	0.078	0.086	\$4.17
1300-237	2.375	2.630	2.517	0.078	0.086	\$4.16
1300-244	2.440	2.702	2.584	0.078	0.086	\$4.33
1300-250	2.500	2.775	2.648	0.078	0.086	\$4.56
1300-256	2.562	2.844	2.714	0.093	0.103	\$5.33
1300-262	2.625	2.910	2.781	0.093	0.103	\$7.35
1300-275	2.750	3.050	2.914	0.093	0.103	\$6.87
1300-281	2.812	3.121	2.980	0.093	0.103	\$9.33
1300-287	2.875	3.191	3.051	0.093	0.103	\$10.82
1300-300	3.000	3.325	3.182	0.093	0.103	\$7.12
1300-312	3.125	3.488	3.315	0.109	0.120	\$11.22
1300-325	3.250	3.623	3.446	0.109	0.120	\$11.22
1300-350	3.500	3.890	3.710	0.109	0.120	\$11.22
1300-362	3.625	4.024	3.841	0.109	0.120	\$12.53
1300-375	3.750	4.157	3.974	0.109	0.120	\$16.67
1300-393	3.937	4.344	4.161	0.109	0.120	\$17.95
1300-400	4.000	4.424	4.240	0.109	0.120	\$14.48
1300-412	4.125	4.558	4.365	0.109	0.120	\$18.11
1300-425	4.250	4.691	4.490	0.109	0.120	\$21.33
1300-450	4.500	4.940	4.740	0.109	0.120	\$16.70
1300-462	4.625	5.076	4.865	0.109	0.120	\$20.22
1300-475	4.750	5.213	4.995	0.109	0.120	\$21.50
1300-500	5.000	5.485	5.260	0.109	0.120	\$21.75
1300-525	5.250	5.770	5.520	0.125	0.139	\$21.81
1300-550	5.500	6.066	5.770	0.125	0.139	\$56.94
1300-600	6.000	6.620	6.270	0.125	0.139	\$67.59
1300-625	6.250	6.895	6.530	0.156	0.174	\$92.02
1300-650	6.500	7.170	6.790	0.156	0.174	\$103.22
1300-675	6.750	7.445	7.055	0.156	0.174	\$121.17
1300-700	7.000	7.720	7.315	0.156	0.174	\$147.89
1300-725	7.250	7.995	7.575	0.187	0.209	\$163.59
1300-750	7.500	8.270	7.840	0.187	0.209	\$175.64
1300-875	8.750	9.558	9.145	0.187	0.209	\$219.75
<b>Metric</b>						
1300-90MM	90	95.50	93.50	3	3.15	\$8.71
1300-110MM	110	116.99	114.00	4	4.14	\$21.50
1300-120MM	120	127.00	124.00	4	4.14	\$19.20
1300-160MM	160	169.01	165.00	4	4.14	\$29.37
1300-200MM	200	209.50	205.00	4	4.14	\$81.60
1300-210MM	210	222.00	216.00	5	5.16	\$167.80
1300-220MM-1	220	232.00	226.01	5	5.16	\$167.80
1300-260MM	260	275.01	268.00	5	5.16	\$186.68
1300-280MM	280	295.00	288.01	5	5.16	\$235.98
1300-290MM	290	305.00	297.99	5	5.16	\$262.20

# 1400 External Tru<sup>®</sup>-Arc Type Retaining Rings - Inch



EXAMPLE: 1400-125	
Prefix	Shaft Diameter
1400-	125
	1-1/4"

Retaining rings are precision-engineered components; which when applied on shafts provides a shoulder that accurately positions, locates or retains other parts of an assembly.

They can be used to replace pins and washers, threaded sections, collars, machine shoulders and other costly or time consuming methods.

Part Number	Shaft Dia. d	Free I.D. d <sub>1</sub>	Groove Dia. D	Ring Height	Groove Height L	Price
1400-12	0.125	0.112	0.117	0.010	0.012	\$0.68
1400-15	0.156	0.142	0.146	0.010	0.012	\$0.69
1400-18	0.188	0.168	0.175	0.015	0.018	\$0.69
1400-21	0.219	0.196	0.205	0.015	0.018	\$0.69
1400-25	0.250	0.225	0.230	0.025	0.029	\$0.69
1400-31	0.312	0.281	0.290	0.025	0.029	\$0.69
1400-37	0.375	0.338	0.352	0.025	0.029	\$0.69
1400-43	0.438	0.395	0.412	0.025	0.029	\$0.80
1400-50	0.500	0.461	0.468	0.035	0.039	\$0.83
1400-56	0.562	0.521	0.530	0.035	0.039	\$0.88
1400-62	0.625	0.579	0.588	0.035	0.039	\$0.83
1400-68	0.688	0.635	0.646	0.042	0.046	\$0.83
1400-75	0.750	0.693	0.704	0.042	0.046	\$0.83
1400-78	0.781	0.722	0.733	0.042	0.046	\$0.87
1400-81	0.812	0.751	0.762	0.042	0.046	\$0.90
1400-87	0.875	0.810	0.821	0.042	0.046	\$0.90
1400-93	0.938	0.867	0.882	0.042	0.046	\$0.90
1400-98	0.984	0.910	0.926	0.042	0.046	\$0.97
1400-100	1.000	0.925	0.940	0.042	0.046	\$0.97
1400-102	1.023	0.946	0.961	0.042	0.046	\$1.06
1400-106	1.062	0.982	0.998	0.050	0.056	\$1.17
1400-112	1.125	1.041	1.059	0.050	0.056	\$1.27
1400-118	1.188	1.098	1.118	0.050	0.056	\$1.27
1400-125	1.250	1.156	1.176	0.050	0.056	\$1.10
1400-131	1.312	1.214	1.232	0.050	0.056	\$1.27
1400-137	1.375	1.272	1.291	0.050	0.056	\$1.27
1400-143	1.438	1.333	1.350	0.050	0.056	\$1.67
1400-150	1.500	1.387	1.406	0.050	0.056	\$1.40
1400-156	1.562	1.446	1.468	0.062	0.068	\$1.74

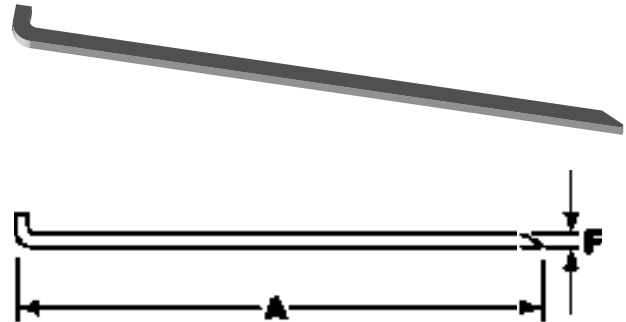
Part Number	Shaft Dia. d	Free I.D. d <sub>1</sub>	Groove Dia. D	Ring Height	Groove Height L	Price
1400-162	1.625	1.503	1.529	0.062	0.068	\$1.80
1400-168	1.688	1.560	1.589	0.062	0.068	\$2.22
1400-175	1.750	1.618	1.650	0.062	0.068	\$3.08
1400-187	1.875	1.743	1.775	0.062	0.068	\$3.20
1400-200	2.000	1.850	1.886	0.062	0.068	\$3.46
1400-212	2.125	1.964	2.003	0.078	0.086	\$4.06
1400-225	2.250	2.081	2.120	0.078	0.086	\$4.06
1400-237	2.375	2.197	2.239	0.078	0.086	\$5.96
1400-243	2.438	2.255	2.299	0.078	0.086	\$6.07
1400-250	2.500	2.313	2.360	0.078	0.086	\$7.45
1400-275	2.750	2.543	2.602	0.093	0.103	\$7.76
1400-300	3.000	2.775	2.838	0.093	0.103	\$7.88
1400-315	3.156	2.920	2.986	0.093	0.103	\$16.58
1400-325	3.250	3.000	3.076	0.093	0.103	\$15.51
1400-334	3.346	3.092	3.166	0.093	0.103	\$18.24
1400-343	3.437	3.179	3.257	0.093	0.103	\$20.09
1400-350	3.500	3.237	3.316	0.109	0.120	\$14.56
1400-362	3.625	3.362	3.441	0.109	0.120	\$27.24
1400-375	3.750	3.487	3.566	0.109	0.120	\$23.46
1400-400	4.000	3.700	3.792	0.109	0.120	\$26.50
1400-425	4.250	3.989	4.065	0.109	0.120	\$25.02
1400-437	4.375	4.106	4.190	0.109	0.120	\$35.14
1400-450	4.500	4.223	4.310	0.109	0.120	\$34.92
1400-475	4.750	4.458	4.550	0.109	0.120	\$40.94
1400-500	5.000	4.692	4.790	0.109	0.120	\$29.67
1400-525	5.250	4.927	5.030	0.125	0.139	\$83.30
1400-550	5.500	5.162	5.265	0.125	0.139	\$85.26
1400-575	5.750	5.396	5.505	0.125	0.139	\$88.12
1400-600	6.000	5.631	5.745	0.125	0.139	\$108.18

# 1400 External Tru<sup>®</sup>-Arc Type Retaining Rings - Metric

Part Number	Shaft Dia. d	Free I.D. d <sub>1</sub>	Groove Dia. D	Ring Height	Groove Height L	Price
1400-6MM	6	5.6	5.7	0.70	0.80	\$2.50
1400-13MM	13	11.9	12.4	1.00	1.10	\$2.79
1400-14MM	14	12.9	13.4	1.00	1.10	\$2.79
1400-20MM	20	18.5	19.0	1.20	1.30	\$3.51
1400-25MM	25	23.2	23.9	1.20	1.30	\$3.69
1400-30MM	30	27.9	28.6	1.50	1.60	\$3.97
1400-45MM	45	41.5	42.5	1.75	1.85	\$6.07
1400-75MM	75	70.5	72.0	2.50	2.65	\$6.00
1400-80MM	80	74.5	76.5	2.50	2.65	\$7.37
1400-120MM	120	113.0	116.0	4.00	4.15	\$31.72
1400-155MM	155	146.0	150.0	4.00	4.15	\$44.98

## Hook Lock Retainers

Part Number	Bore	Overall Length A	Cross Section F	Price
HLR4-450	1.500	4.500	0.125	\$15.66
HLRD4-471	1.500	4.710	0.125	\$15.87
HLR4-775	2.500	7.750	0.125	\$15.98
HLR4-925	3.000	9.250	0.125	\$16.35
HLR4-1075	3.500	10.750	0.125	\$15.77
HLR3-1089	3.500	10.890	0.093	\$24.62
HLR4-1250	4.000	12.500	0.125	\$17.04
HLR6-1250	4.000	12.500	0.187	\$18.09
HLR4-1400	4.500	14.000	0.125	\$18.09
HLR4-1550	5.000	15.500	0.125	\$18.72
HLR6-1550	5.000	15.500	0.187	\$20.26
HLR6-1875	6.000	18.750	0.187	\$21.06
HLR4-1937	6.250	19.375	0.125	\$26.40
HLR6-2175	7.000	21.750	0.187	\$24.44
995122	2.750	8.875	0.093	\$8.47
995128	3.250	10.125	0.093	\$8.47
995252	5.750	18.000	0.125	\$12.10
079SQUARESTEEL		Per/ft.	0.079	\$6.86
093SQUARESTEEL		Per/ft.	0.093	\$17.84
118SQUARESTEEL		Per/ft.	0.118	\$14.83
125SQUARESTEEL		Per/ft.	0.125	\$6.21
187SQUARESTEEL		Per/ft.	0.187	\$8.74
093ROUNDSTEEL		Per/ft.	0.093	\$10.17
125ROUNDSTEEL		Per/ft.	0.125	\$4.23



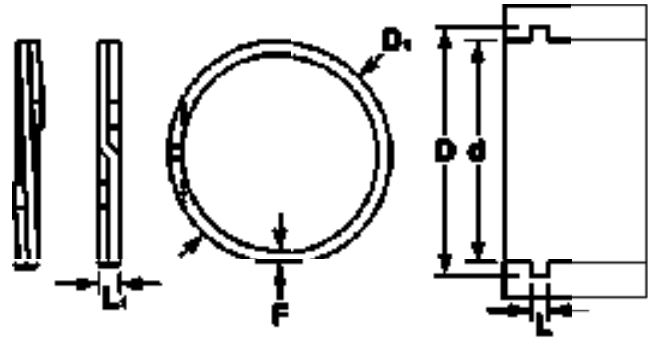
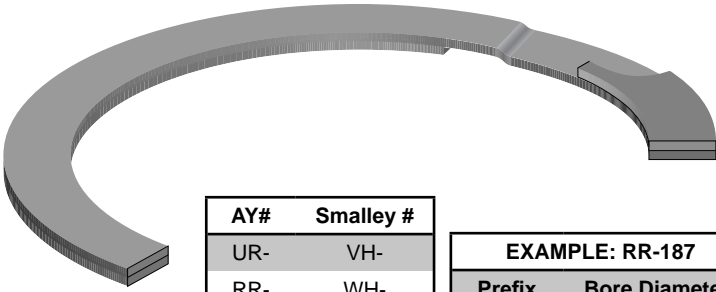
Square steel hook lock retainers are used to hold the rod gland in place within the cylinder tube. They are sold in common lengths and may be cut down with a hacksaw for "in-between" sizes.

Square steel stock may be purchased by the foot in bulk to make your own retainers. Lengths over 1 ft. may have to be slightly coiled for shipping but may be restraightened without harm.

EXAMPLE: HLR4-1250		
Prefix	Cross Section	Overall Length
HLR	4	1250
	1/8"	12-1/2"

CROSS SECTION IN MULTIPLES OF 1/32  
BORE SIZE = Overall Length/3.14

# Internal Spiral Retaining Rings



AY#	Smalley #
UR-	VH-
RR-	WH-
RRN-	WHN-
RRT-	WHT-

EXAMPLE: RR-187	
Prefix	Bore Diameter
RR-	187
	1-7/8"

Part Number	Housing Diameter d	Groove Diameter D	Groove Height L	Free Ring Diameter D <sub>1</sub>	Ring Height L <sub>1</sub>	Radial Wall F	Price
RRN-068	0.687	0.732	0.039	0.743	0.035	0.065	\$7.15
UR-75	0.750	0.779	0.022	0.783	0.018	0.045	\$0.96
UR-93	0.937	0.979	0.026	0.989	0.021	0.065	\$1.00
RR-100	1.000	1.043	0.042	1.054	0.037	0.075	\$1.98
RR-112	1.125	1.167	0.042	1.180	0.037	0.075	\$2.06
RRN-112SS	1.125	1.197	0.056	1.205	0.050	0.103	\$7.75
RR-115	1.156	1.198	0.042	1.210	0.037	0.075	\$2.26
RRT-118	1.187	1.250	0.056	1.260	0.050	0.088	\$1.33
UR-118	1.187	1.231	0.031	1.242	0.025	0.088	\$1.40
RR-125	1.250	1.298	0.048	1.312	0.043	0.085	\$3.69
RR-137	1.375	1.427	0.048	1.442	0.043	0.095	\$1.75
UR-137	1.375	1.419	0.031	1.433	0.025	0.088	\$1.15
RRT-143	1.438	1.515	0.056	1.526	0.050	0.103	\$9.42
RR-145	1.456	1.508	0.048	1.523	0.043	0.095	\$2.81
RR-150	1.500	1.552	0.048	1.567	0.043	0.095	\$2.10
RRT-150	1.500	1.580	0.056	1.591	0.050	0.108	\$3.00
RRN-156	1.562	1.658	0.068	1.675	0.062	0.128	\$4.80
RR-162	1.625	1.684	0.056	1.701	0.049	0.108	\$4.80
RR-168	1.687	1.751	0.056	1.768	0.049	0.108	\$4.96
RR-175	1.750	1.813	0.056	1.834	0.049	0.118	\$3.50
RRT-175	1.750	1.845	0.068	1.853	0.062	0.118	\$4.37
RRT-181	1.812	1.910	0.068	1.923	0.062	0.123	\$3.64
RR-187	1.875	1.942	0.056	1.960	0.049	0.118	\$3.60
RRT-187	1.875	1.975	0.068	1.984	0.062	0.128	\$3.60
RR-200	2.000	2.071	0.056	2.091	0.049	0.128	\$3.60
RRT-200	2.000	2.110	0.068	2.125	0.062	0.138	\$3.60
RRN-200	2.000	2.122	0.068	2.142	0.062	0.158	\$6.67
RR-204	2.047	2.118	0.056	2.138	0.049	0.128	\$37.69
RR-206	2.062	2.132	0.056	2.154	0.049	0.128	\$5.15
RRN-206	2.062	2.186	0.086	2.201	0.078	0.168	\$6.34
UR-206	2.062	2.138	0.039	2.162	0.031	0.158	\$2.81
RRT-212	2.125	2.240	0.086	2.255	0.078	0.141	\$3.94
RRT-218	2.188	2.305	0.086	2.321	0.078	0.141	\$8.35
RR-225	2.250	2.324	0.056	2.347	0.049	0.138	\$7.24
RRT-225	2.250	2.370	0.086	2.386	0.078	0.141	\$5.93
RR-231	2.312	2.390	0.056	2.413	0.049	0.138	\$5.01
RR-237	2.375	2.453	0.056	2.476	0.049	0.138	\$3.64
RR-250	2.500	2.582	0.056	2.606	0.049	0.148	\$6.00
RRT-250	2.500	2.635	0.086	2.653	0.078	0.188	\$6.19
RRT-253	2.531	2.668	0.086	2.687	0.078	0.188	\$9.60
RRT-256	2.562	2.700	0.103	2.720	0.093	0.188	\$9.71
RRN-256	2.562	2.714	0.103	2.733	0.093	0.225	\$9.50
RRT-262	2.625	2.765	0.103	2.785	0.093	0.188	\$13.06
RRT-268	2.688	2.834	0.103	2.855	0.093	0.188	\$13.18
RRN-268	2.688	2.848	0.103	2.868	0.093	0.225	\$7.15

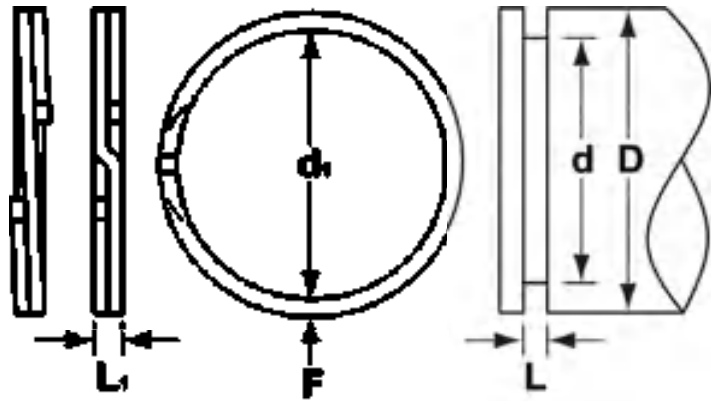
## Internal Spiral Retaining Rings, cont'd.

Part Number	Housing Diameter d	Groove Diameter D	Groove Height L	Free Ring Diameter D <sub>1</sub>	Ring Height L <sub>1</sub>	Radial Wall F	Price
RR-275	2.750	2.841	0.056	2.865	0.049	0.158	\$11.02
RRN-275	2.750	2.914	0.103	2.934	0.093	0.225	\$13.91
RRT-275	2.750	2.900	0.103	2.921	0.093	0.188	\$9.56
RRN-283	2.834	3.006	0.103	3.027	0.093	0.225	\$13.18
RRN-287	2.875	3.051	0.103	3.072	0.093	0.225	\$13.68
RRT-287	2.875	3.030	0.103	3.053	0.093	0.188	\$9.77
UR-300	3.000	3.076	0.039	3.110	0.031	0.158	\$2.95
RR-300	3.000	3.096	0.068	3.122	0.061	0.168	\$4.91
RRT-300	3.000	3.165	0.103	3.188	0.093	0.188	\$6.98
RRN-300	3.000	3.182	0.103	3.204	0.093	0.225	\$14.13
UR-306	3.062	3.154	0.044	3.187	0.039	0.188	\$9.40
RR-312	3.125	3.223	0.068	3.251	0.061	0.178	\$11.65
RR-318	3.187	3.283	0.068	3.311	0.061	0.178	\$11.82
RRT-325	3.250	2.426	0.120	3.450	0.111	0.250	\$15.68
RR-325	3.250	3.350	0.068	3.379	0.061	0.178	\$8.16
RRN-325	3.250	3.446	0.120	3.470	0.111	0.281	\$26.22
RR-350	3.500	3.606	0.068	3.636	0.061	0.188	\$10.54
RRT-350	3.500	3.690	0.120	3.716	0.111	0.250	\$13.08
RRN-350	3.500	3.710	0.120	3.736	0.111	0.281	\$14.04
UR-350	3.500	3.592	0.044	3.630	0.039	0.188	\$8.55
RR-354	3.543	3.653	0.068	3.684	0.061	0.198	\$13.00
UR-362	3.625	3.717	0.044	3.766	0.039	0.188	\$9.41
RRT-375	3.750	3.955	0.120	3.982	0.111	0.250	\$22.67
RR-393	3.938	4.056	0.068	4.089	0.061	0.208	\$12.74
RR-400	4.000	4.124	0.068	4.157	0.061	0.218	\$7.22
RRT-400	4.000	4.220	0.120	4.248	0.111	0.250	\$19.34
RRN-400	4.000	4.240	0.120	4.270	0.111	0.312	\$33.04
UR-412	4.125	4.235	0.052	4.279	0.046	0.225	\$10.54
RR-412	4.125	4.249	0.068	4.284	0.061	0.218	\$14.47
RR-425	4.250	4.380	0.068	4.416	0.061	0.228	\$15.05
RR-437	4.375	4.505	0.068	4.543	0.061	0.228	\$15.11
RR-450	4.500	4.636	0.068	4.674	0.061	0.238	\$7.70
RRN-450	4.500	4.740	0.120	4.770	0.111	0.312	\$28.63
RRT-450	4.500	4.735	0.120	4.768	0.111	0.312	\$18.56
RR-475	4.750	4.890	0.079	4.930	0.072	0.250	\$18.82
RRT-475	4.750	4.995	0.120	5.028	0.111	0.312	\$25.77
UR-487	4.875	4.985	0.052	5.036	0.046	0.225	\$10.53
RR-500	5.000	5.144	0.079	5.185	0.072	0.250	\$18.56
RRN-500	5.000	5.260	0.120	5.297	0.111	0.312	\$37.43
RRT-500	5.000	5.260	0.120	5.295	0.111	0.312	\$30.26
RR-511	5.118	5.262	0.079	5.304	0.072	0.250	\$19.35
RR-525	5.250	5.393	0.079	5.436	0.072	0.250	\$9.29
RRN-525	5.250	5.520	0.139	5.559	0.127	0.350	\$38.83
UR-525	5.250	5.381	0.067	5.435	0.061	0.225	\$9.85
RR-550	5.500	5.647	0.079	5.693	0.072	0.250	\$18.00
RRT-550	5.500	5.770	0.139	5.810	0.127	0.375	\$21.96
RR-570	5.708	5.861	0.079	5.909	0.072	0.250	\$18.46
RR-575	5.750	5.903	0.079	5.950	0.072	0.250	\$15.11
RR-600	6.000	6.153	0.079	6.202	0.072	0.250	\$10.85
RRN-600	6.000	6.270	0.139	6.314	0.127	0.350	\$36.47
RRT-600	6.000	6.270	0.139	6.314	0.127	0.375	\$31.36
RR-612	6.120	6.297	0.094	6.349	0.086	0.312	\$20.32
RR-625	6.250	6.422	0.094	6.474	0.086	0.312	\$20.54
UR-625	6.250	6.406	0.067	6.470	0.061	0.265	\$10.98
RR-650	6.500	6.672	0.094	6.726	0.086	0.312	\$17.16
RRT-650	6.500	6.790	0.174	6.837	0.165	0.312	\$68.57
RR-675	6.750	6.932	0.094	6.987	0.086	0.312	\$19.24
RRT-675	6.750	7.055	0.174	7.104	0.165	0.312	\$59.75
RRN-700	7.000	7.315	0.174	7.366	0.156	0.380	\$96.10
RRT-700	7.000	7.315	0.174	7.366	0.165	0.312	\$68.20

## Internal Spiral Retaining Rings, cont'd.

Part Number	Housing Diameter d	Groove Diameter D	Groove Height L	Free Ring Diameter D <sub>1</sub>	Ring Height L <sub>1</sub>	Radial Wall F	Price
RR-712	7.125	7.317	0.094	7.376	0.086	0.312	\$56.96
RRT-725	7.250	7.575	0.209	7.628	0.189	0.375	\$81.62
RRT-750	7.500	7.840	0.209	7.895	0.189	0.375	\$88.43
RR-800	8.000	8.202	0.094	8.266	0.086	0.312	\$38.90
RRT-825	8.250	8.620	0.209	8.680	0.189	0.375	\$115.00
RR-850	8.500	8.712	0.094	8.780	0.086	0.375	\$34.24
RR-885	8.858	9.080	0.094	9.151	0.086	0.375	\$39.76
RR-925	9.250	9.482	0.094	9.555	0.086	0.375	\$46.27
RRT-975	9.750	10.189	0.209	10.260	0.189	0.375	\$108.34
RRT-1050	10.500	10.970	0.209	11.036	0.189	0.375	\$132.99

## External Spiral Retaining Rings



AY#	Smalley #
US-	VS-
RS-	WS-
RSN-	WST-
RST-	WSN-

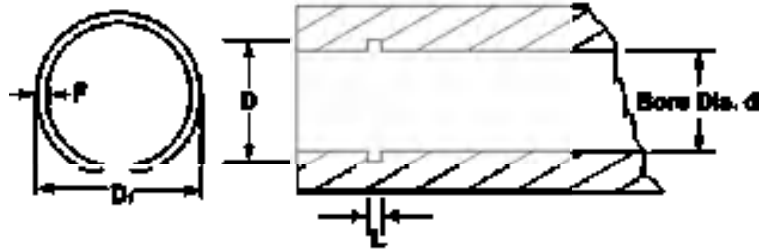
EXAMPLE: RS-250	
Prefix	Shaft Diameter
RS-	250
	2-1/2"

Part Number	Shaft Diameter D	Groove Diameter d	Groove Height L	Free Ring Diameter d <sub>1</sub>	Ring Height L <sub>1</sub>	Radial Wall F	Price
RST-75	0.750	0.715	0.046	0.708	0.042	0.065	\$3.00
US-75	0.750	0.722	0.022	0.715	0.018	0.045	\$1.88
RST-78	0.781	0.745	0.046	0.738	0.042	0.065	\$4.04
RS-93	0.937	0.900	0.036	0.889	0.031	0.065	\$1.92
RST-98	0.984	0.940	0.046	0.934	0.042	0.075	\$1.97
RST-100	1.000	0.955	0.046	0.947	0.042	0.075	\$2.62
RS-100	1.000	0.957	0.042	0.946	0.037	0.075	\$2.69
RST-112	1.125	1.075	0.056	1.064	0.050	0.088	\$3.50
RS-118	1.188	1.140	0.048	1.127	0.043	0.085	\$3.91
US-118	1.187	1.143	0.031	1.132	0.025	0.088	\$1.10
RS-125	1.250	1.202	0.048	1.188	0.043	0.085	\$4.11
US-137	1.375	1.331	0.031	1.318	0.025	0.088	\$1.84
RSN-150	1.500	1.406	0.056	1.385	0.050	0.118	\$5.68
RST-150	1.500	1.430	0.056	1.419	0.050	0.103	\$3.18
RS-150	1.500	1.448	0.048	1.433	0.043	0.095	\$3.38
RST-162	1.625	1.550	0.068	1.537	0.062	0.118	\$5.18
RSN-175	1.750	1.650	0.068	1.633	0.062	0.128	\$5.10
RST-175	1.750	1.670	0.068	1.657	0.062	0.118	\$4.56
RS-175	1.750	1.691	0.056	1.673	0.049	0.118	\$2.57
RSN-187	1.875	1.769	0.068	1.751	0.062	0.158	\$5.16

## External Spiral Retaining Rings, cont'd.

Part Number	Shaft Diameter D	Groove Diameter d	Groove Height L	Free Ring Diameter d <sub>1</sub>	Ring Height L <sub>1</sub>	Radial Wall F	Price
RSN-200	2.000	1.886	0.068	1.867	0.062	0.158	\$7.53
RST-200	2.000	1.910	0.068	1.894	0.062	0.128	\$8.22
RS-200	2.000	1.929	0.056	1.909	0.049	0.128	\$7.21
US-206	2.062	1.986	0.039	1.963	0.031	0.158	\$2.76
RST-212	2.125	2.027	0.086	2.012	0.078	0.141	\$7.05
RS-215	2.156	2.082	0.056	2.060	0.049	0.138	\$7.32
RS-218	2.188	2.113	0.056	2.092	0.049	0.138	\$7.50
RST-225	2.250	2.145	0.086	2.129	0.078	0.141	\$10.09
RS-225	2.250	2.176	0.056	2.153	0.049	0.138	\$5.58
RS-237	2.375	2.297	0.056	2.273	0.049	0.138	\$11.11
RSN-237	2.375	2.239	0.086	2.223	0.078	0.200	\$14.35
RS-243	2.437	2.355	0.056	2.331	0.049	0.148	\$8.48
RSN-250	2.500	2.360	0.086	2.343	0.078	0.200	\$11.88
RST-250	2.500	2.385	0.086	2.366	0.078	0.188	\$8.39
RS-250	2.500	2.418	0.056	2.394	0.049	0.148	\$5.85
RST-262	2.625	2.505	0.086	2.485	0.078	0.188	\$9.61
RS-268	2.688	2.597	0.056	2.572	0.049	0.158	\$5.94
RSN-275	2.750	2.602	0.103	2.584	0.093	0.225	\$9.01
RS-275	2.750	2.660	0.056	2.635	0.049	0.158	\$5.70
US-275	2.750	2.674	0.039	2.644	0.031	0.158	\$6.50
RSN-300	3.000	2.838	0.103	2.818	0.093	0.225	\$15.29
RST-300	3.000	2.860	0.103	2.838	0.093	0.188	\$15.82
RS-300	3.000	2.904	0.068	2.877	0.061	0.168	\$15.92
US-300	3.000	2.924	0.039	2.892	0.031	0.158	\$4.08
RS-312	3.125	3.027	0.068	3.000	0.061	0.178	\$7.62
RS-325	3.250	3.150	0.068	3.121	0.061	0.178	\$8.48
RST-343	3.437	3.280	0.103	3.254	0.093	0.188	\$9.89
RST-350	3.500	3.340	0.120	3.315	0.111	0.250	\$16.92
RS-350	3.500	3.394	0.068	3.363	0.061	0.188	\$9.64
RS-362	3.625	3.515	0.068	3.483	0.061	0.198	\$9.58
RST-375	3.750	3.577	0.120	3.550	0.111	0.250	\$20.67
US-375	3.750	3.658	0.044	3.620	0.039	0.188	\$9.22
RSN-400	4.000	3.792	0.120	3.765	0.111	0.270	\$23.13
RS-400	4.000	3.876	0.068	3.842	0.061	0.218	\$16.38
US-412	4.125	4.015	0.120	3.973	0.046	0.225	\$9.72
RST-450	4.500	4.310	0.120	4.280	0.111	0.250	\$32.68
RS-450	4.500	4.364	0.068	4.326	0.061	0.238	\$11.97
RSN-500	5.000	4.790	0.120	4.756	0.111	0.270	\$33.31
RST-500	5.000	4.790	0.120	4.755	0.111	0.250	\$18.84
RS-500	5.000	4.856	0.079	4.820	0.072	0.250	\$28.48
RS-525	5.250	5.107	0.079	5.064	0.072	0.250	\$16.79
RS-537	5.375	5.228	0.079	5.187	0.072	0.250	\$18.63
RSN-550	5.500	5.265	0.139	5.228	0.127	0.350	\$47.51
RSN-575	5.750	5.505	0.139	5.466	0.127	0.350	\$48.45
RS-575	5.750	5.597	0.079	5.550	0.072	0.250	\$33.86
RSN-600	6.000	5.745	0.139	5.705	0.127	0.350	\$71.11
RS-625	6.250	6.078	0.094	6.026	0.086	0.312	\$32.00
RSN-700	7.000	6.705	0.174	6.648	0.156	0.418	\$110.94
RS-737	7.375	7.183	0.094	7.125	0.086	0.312	\$67.28
RSN-800	8.000	7.660	0.209	7.606	0.187	0.437	\$116.38

# RSI Internal Round Section Retaining Rings

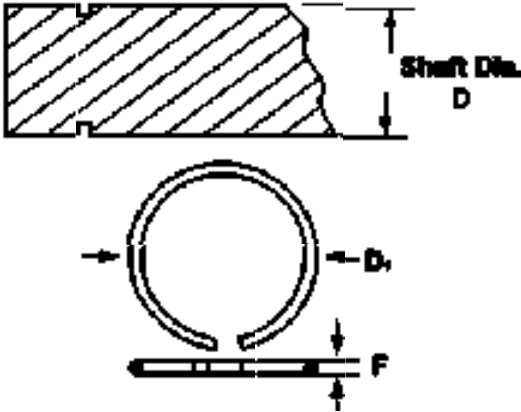


AY Part Number	Bore Size d	Wire Diameter F	Price
RSI-1000-080	1.000	0.080	\$7.78
RSI-1375-098	35mm	2.5mm	\$11.96
RSI-2250-125	2.250	0.125	\$16.61
RSI-2500-125	2.500	0.125	\$37.83
RSI-2875-125	2.875	0.125	\$38.12
RSI-3000-125	3.000	0.125	\$38.23
RSI-3250-125	3.250	0.125	\$40.50
RSI-3500-187	3.500	0.187	\$33.20
RSI-4000-125	4.000	0.125	\$18.19
RSI-4000-187	4.000	0.187	\$24.23
RSI-4500-187	4.500	0.187	\$38.00
RSI-5000-125	5.000	0.125	\$19.58
RSI-5000-187	5.000	0.187	\$28.87
RSI-6125-187	6.125	0.187	\$31.54
RSI-7000-250	7.000	0.250	\$36.79

Internal Round Section Retaining Rings are wound from spring steel. They are made slightly oversized so they snap tightly into the groove in the bore of the cylinder. Some rings have recesses ground into the rings for removal. Consult sales for sizes not listed.

EXAMPLE: RSI-2250-093			
Prefix	Bore Diameter		Cross Section
RSI-	2250	-	093
	2-1/4"		3/32"

# RSE External Round Section Retaining Rings



AY Part Number	Shaft Diameter D	Wire Diameter F	Price
RSE-1000-059	1.000	0.059	\$6.07
RSE-1125-075	1.125	0.075	\$4.86
RSE-1375-092	1.375	0.092	\$6.75
RSE-1750-092	1.750	0.092	\$7.06
RSE-2000-092	2.000	0.092	\$4.79
RSE-2000-157	2.000	0.157	\$6.13
RSE-3500-125	3.500	0.125	\$19.61

EXAMPLE: RSE-3500-125			
Prefix	Shaft Diameter		Cross Section
RSE-	3500	-	125
	3-1/2"		1/8"

External Round Section Retaining rings are wound from spring steel. They are made slightly undersized so they snap tightly into the groove of the shaft. Some rings have recesses ground into the rings for removal. Consult sales for sizes not listed.



# O-Ring Accessories & Supplies



## Parker® O-Ring Sizing Cone and Tape

These two unique items make simple work of determining the correct o-ring number without measuring them. O-rings up to about 4 inches are measured on the cone, and up to 8 inches by the tape. Standard cross sections are easily determined by inserting the o-ring into notches in the base of the cone.

**Part Number** **Price**  
**887-300.....\$95.24**



## O-Ring Splicing Kit

These kits contain 70 durometer cord, razor blade, splicing jig, and bonding cement.

**Part Number** **Price**  
**#100 .....Inch Kit.....\$109.46**  
 7 Ft Cord Lengths  
 (0.07") (0.103") (0.139") (0.210") (0.275")

**#104 .....Metric Kit.....\$109.46**  
 1 Meter Cord Lengths  
 (1.55mm) (2.0mm) (2.5mm) (3.0mm) (3.5mm)  
 (4.0mm) (5.0mm) (5.7mm) (8.4mm)

**MC-120 - Bonding Cement.....\$10.38**  
**RC-60905 - Loctite® 609 Fast Cure.....\$13.17**



## Parker® Super O-Lube

Parker® Super O-Lube is a silicone based lubricant that can be used with virtually any rubber polymer. High pressure systems, as well as vacuum uses, are typical applications where Super O-Lube is beneficial. Temperature range is -65° F to 400° F.

Parker® Super O-Lube will not clog 30 micron filters and is extremely moisture resistant.

**Part Number** **Price**  
**884-2 SLUBE.....(2 oz.).....\$55.58**  
**884-.25.....(.25oz.).....\$3.00**  
**884-.25-BQ...(12 Tubes 25oz Super O-Lube)...\$20.00**

## O-Ring Extraction Tool Set

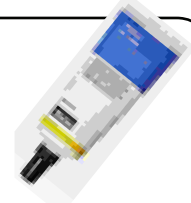


This kit consists of 2 double ended brass tools in a vinyl case.

**Part Number** **Price**  
**887-200-1.....\$29.46**

## Parker® O-Lube

Parker® O-Lube is a barium base petroleum grease formulated to ease installation and prolong the service life of synthetic rubber o-rings and seals. It is well suited for compounds compatible with petroleum based fluids and a temperature range of -20°F to 300°F.



**DO NOT USE IN SYSTEMS WHERE PURE OXYGEN IS PRESENT - FIRE OR EXPLOSION MAY RESULT!**

**Part Number** **Price**  
**884-2 OLUBE...(2 oz.).....\$27.06**

# John Deere® Tear Drop Shaped Hytrel® Retaining Ring Groove Filler



Metric					
Part Number	OEM Ref. Number	Bore Diameter	Cross Section	Height	Price/ea.
JD-TD45	H174490	45	1.5	4.6	\$5.49
JD-TD50	H180788	50	1.5	4.6	\$5.60
JD-TD56	R88748	56	1.6	5.3	\$5.98
JD-TD63	R91727	63	1.6	5.3	\$8.88
JD-TD70		70	2.0	6.0	\$9.60
JD-TD80	R91729	80	2.0	6.0	\$10.24
JD-TD90	R91730	90	2.0	6.0	\$10.88
JD-TD100	R91731	100	2.0	6.0	\$11.52
JD-TD110	H212793	110	2.0	6.0	\$12.16
JD-TD115	R91624	115	2.0	6.0	\$12.79
JD-TD120		120	2.0	6.0	\$13.00
JD-TD125	H170543	125	3.0	10.1	\$13.71
JD-TDKIT	2 Pieces Each of 12 Metric Sizes				\$165.77
Inch					
JD-TD4500		4.50	0.800	0.175	\$16.19
JD-TD6000		6.00	0.125	0.400	\$22.93

These John Deere® replacement installation tools slip right into the retaining groove making removal of the piston a snap. They also protect the seals during installation.

*We do not imply that these seals are a product of John Deere®. Part numbers are used for reference purposes only.*


## O-Ring / Backup / Face / Flange / Fluid Connector / Quad Ring / Lathe Cut Kits AS568 Standard


These kits consist of a series of sizes for different applications, assembled into one assortment kit for one low price.


Several series of kits are available, in metric and standard and come in a variety of compounds. These kits are convenient, and provide a way to find the exact fit for each of your applications.


Many kits are in stock, for same day shipment.


Check [alleghenyork.com](http://alleghenyork.com) or call for sale pricing on many of these kits.


Part Number	Price
ORKIT380	\$52.45
<b>Buna N70 Duro</b> <b>380 PC / 30 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	16 pcs/EA
-110 through -116	16 pcs/EA
-210 through -219	12 pcs/EA
-220 through -222	7 pcs/EA
-325 through -327	5 pcs/EA


Part Number	Price
ORKIT380-V75BR	\$337.47
<b>75 Duro Brown FKM</b> <b>382 PC / 30 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	20 pcs/EA
-110 through -116	13 pcs/EA
-210 through -222	10 pcs/EA
-325 through -327	7 pcs/EA

Part Number	Price
BUKIT382-T	\$241.18
<b>PTFE Back-ups</b> <b>382 PC / 30 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	20 pcs/EA
-110 through -116	13 pcs/EA
-210 through -222	10 pcs/EA
-325 through -327	7 pcs/EA


Part Number	Price
ORKIT382-90	\$79.87
<b>90 Duro Nitrile</b> <b>382 PC / 30 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	20 pcs/EA
-110 through -116	13 pcs/EA
-210 through -222	10 pcs/EA
-325 through -327	7 pcs/EA


Part Number	Price
BUKIT382	\$108.96
<b>90 Duro Nitrile</b> <b>382 PC / 30 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	20 pcs/EA
-110 through -116	13 pcs/EA
-210 through -222	10 pcs/EA
-325 through -327	7 pcs/EA


Part Number	Price
ORKIT485-N70	\$237.51
<b>70 Duro Nitrile</b> <b>485 PC / 36 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	32 pcs/EA
-110 through -116	12 pcs/EA
-210 through -222	9 pcs/EA
-325 through -334	6 pcs/EA


Part Number	Price
ORKIT485-V75BR	\$575.53
<b>75 Duro Brown FKM</b> <b>485 PC / 36 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	32 pcs/EA
-110 through -116	12 pcs/EA
-210 through -222	9 pcs/EA
-325 through -334	6 pcs/EA


Part Number	Price
ORKITFS132	\$40.14
<b>Face Seal N90</b> <b>132 PC / 8 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-011, -012, -014	24 pcs/EA
-016, -018, -021, -025, -029	12 pcs/EA
<b>Fits Flange Sizes:</b> 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1 1/4", 1 1/2"	

Part Number	Price
ORKITSF70 N90	\$31.10
<b>N90</b> <b>70 PC / 7 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-210, -214, -219, -222, -225, -228, -232	10 pcs/EA
<b>SAE CODE 61 &amp; 62</b> <b>Flange Seal Kit</b>	

Part Number	Price
3869-KIT12	\$209.76
<b>NBR</b> <b>146 PC / 12 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-10, -12, -14, -16, -17, -18, -20, -21, -22, -27	12 pcs/EA
-33	10 pcs/EA
-42	8 pcs/EA
<b>NBR Fluid Connector Kit</b>	

Part Number	Price
991604C	\$259.92
<b>90 Duro Buna</b> <b>485 PC / 36 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	32 pcs/EA
-110 through -116	12 pcs/EA
-210 through -222	9 pcs/EA
-325 through -334	6 pcs/EA

Part Number	Price
QRKIT382	\$161.55
<b>Nitrile 70 Duro</b> <b>382 PC / 30 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	20 pcs/EA
-110 through -116	13 pcs/EA
-210 through -222	10 pcs/EA
-325 through -327	7 pcs/EA
<b>Quad Ring Kit</b>	


Part Number	Price
LCKIT382	\$183.85
<b>Nitrile 70 Duro</b> <b>382 PC / 30 SIZE</b> 	
<b>Sizes</b>	<b>Quantity</b>
-006 through -012	20 pcs/EA
-110 through -116	13 pcs/EA
-210 through -222	10 pcs/EA
-325 through -327	7 pcs/EA
<b>Lathe Cut Kit / Square O-Rings</b>	

## O-Ring Kits - Metric

Part Number		Price	
MORKIT380		\$68.13	

Sizes	Quantity	Sizes	Quantity	Sizes	Quantity	Sizes	Quantity	Sizes	Quantity
M300-200	16 pcs/EA	M1200-250	16 pcs/EA	M1600-300	12 pcs/EA	M2200-300	12 pcs/EA	M3000-300	7 pcs/EA
M600-200	16 pcs/EA	M1200-300	12 pcs/EA	M1800-300	12 pcs/EA	M2500-300	12 pcs/EA	M3200-300	7 pcs/EA
M800-200	16 pcs/EA	M1400-200	16 pcs/EA	M1900-300	12 pcs/EA	M2600-250	16 pcs/EA	M3400-300	7 pcs/EA
M1000-200	16 pcs/EA	M1400-250	16 pcs/EA	M2000-200	16 pcs/EA	M2600-300	12 pcs/EA	M3600-300	5 pcs/EA
M1000-250	16 pcs/EA	M1600-200	16 pcs/EA	M2000-250	16 pcs/EA	M2800-250	16 pcs/EA	M3800-300	5 pcs/EA
M1000-300	12 pcs/EA	M1600-250	16 pcs/EA	M2000-300	12 pcs/EA	M2800-300	12 pcs/EA	M4000-300	5 pcs/EA

**Buna N 70 Duro  
380 PC / 30 SIZE**


Part Number		Price	
MORKIT-500		\$108.93	

Sizes	Quantity	Sizes	Quantity
2.2mmx1.6mm	20pcs/EA	10mmx2.5mm	10pcs/EA
3.1mmx1.6mm	20pcs/EA	10mmx3mm	10pcs/EA
4mmx2mm	20pcs/EA	10.1mmx1.6mm	15pcs/EA
4.1mmx1.6mm	20pcs/EA	11mmx3mm	10pcs/EA
4.3mmx2.4mm	15pcs/EA	12mmx2mm	15pcs/EA
5mmx1.5mm	20pcs/EA	13mmx1.5mm	15pcs/EA
5.3mmx2.4mm	15pcs/EA	13mmx2.5mm	10pcs/EA
5.6mmx2.4mm	15pcs/EA	13.1mmx1.6mm	15pcs/EA
6mmx1.5mm	20pcs/EA	14mmx2mm	10pcs/EA
7.1mmx1.6mm	20pcs/EA	14mmx2.5mm	10pcs/EA
7.6mmx2.4mm	15pcs/EA	15mmx2.5mm	10pcs/EA
8mmx2mm	15pcs/EA	16mmx1.5mm	10pcs/EA
8.3mmx2.4mm	15pcs/EA	16mmx2mm	10pcs/EA
8.6mmx2.4mm	15pcs/EA	17mmx2.5mm	10pcs/EA
9mmx2mm	15pcs/EA	18mmx2.5mm	10pcs/EA
9mmx3mm	10pcs/EA	19mmx2mm	10pcs/EA
9.1mmx1.6mm	15pcs/EA	19mmx2.5mm	10pcs/EA
10mmx2mm	15pcs/EA	20mmx2mm	10pcs/EA

**N70  
500 PC / 36 SIZE**




Part Number		Price	
MORKIT-500 V75		\$264.31	

Sizes	Quantity	Sizes	Quantity
2.2mmx1.6mm	20pcs/EA	10mmx2.5mm	10pcs/EA
3.1mmx1.6mm	20pcs/EA	10mmx3mm	10pcs/EA
4mmx2mm	20pcs/EA	10.1mmx1.6mm	15pcs/EA
4.1mmx1.6mm	20pcs/EA	11mmx3mm	10pcs/EA
4.3mmx2.4mm	15pcs/EA	12mmx2mm	15pcs/EA
5mmx1.5mm	20pcs/EA	13mmx1.5mm	15pcs/EA
5.3mmx2.4mm	15pcs/EA	13mmx2.5mm	10pcs/EA
5.6mmx2.4mm	15pcs/EA	13.1mmx1.6mm	15pcs/EA
6mmx1.5mm	20pcs/EA	14mmx2mm	10pcs/EA
7.1mmx1.6mm	20pcs/EA	14mmx2.5mm	10pcs/EA
7.6mmx2.4mm	15pcs/EA	15mmx2.5mm	10pcs/EA
8mmx2mm	15pcs/EA	16mmx1.5mm	10pcs/EA
8.3mmx2.4mm	15pcs/EA	16mmx2mm	10pcs/EA
8.6mmx2.4mm	15pcs/EA	17mmx2.5mm	10pcs/EA
9mmx2mm	15pcs/EA	18mmx2.5mm	10pcs/EA
9mmx3mm	10pcs/EA	19mmx2mm	10pcs/EA
9.1mmx1.6mm	15pcs/EA	19mmx2.5mm	10pcs/EA
10mmx2mm	15pcs/EA	20mmx2mm	10pcs/EA

**FKM 75 Duro  
500 PC / 36 SIZE**




## O-Ring Kits - BOSS

Part Number		Price	
ORKIT250BOSSN90		\$48.46	

**N90  
250 PC / 12 SIZE**

Sizes	Quantity
-904 through -906	30 pcs/EA
-907 through -910	20 pcs/EA
-911 through -916	16 pcs/EA


  


Part Number		Price	
ORKIT212BOSSN90		\$64.32	

**N90  
212 PC / 20 SIZE**

Sizes	Quantity
-901 through -904	10 pcs/EA
-905 through -910	12 pcs/EA
-911 through -932	10 pcs/EA


## Coupling O-Ring Kits - Metric

Part Number		Price	
MORKITBSPP		\$41.96	

**British Standard  
Parallel Pipe Coupling Kit  
N70  
70 PC / 7 SIZE**

Sizes	Quantity
M550-100	10 pcs/EA
M710-160	10 pcs/EA
M1110-160	10 pcs/EA
M1210-160	10 pcs/EA
M1510-160	10 pcs/EA
M2010-160	10 pcs/EA
M2710-160	10 pcs/EA

Part Number		Price	
MORKITDINHVV		\$37.97	

**Megacrimp® & Global®  
Spiral Heavy Coupling Kit  
N70  
90 PC / 9 SIZE**

Sizes	Quantity
M600-150	10 pcs/EA
M710-160	10 pcs/EA
M910-160	10 pcs/EA
M1050-180	10 pcs/EA
M1180-180	10 pcs/EA
M1660-240	10 pcs/EA
M2160-240	10 pcs/EA
M2760-240	10 pcs/EA
M3460-240	10 pcs/EA


Part Number		Price	
MORKITDINLT		\$76.37	

**Megacrimp® & Global®  
Spiral Light Coupling Kit  
N70  
150 PC / 15 SIZE**

Sizes	Quantity	Sizes	Quantity
M400-150	10 pcs/EA	M2000-200	10 pcs/EA
M600-150	10 pcs/EA	M2030-240	10 pcs/EA
M750-150	10 pcs/EA	M2530-240	10 pcs/EA
M900-150	10 pcs/EA	M2600-200	10 pcs/EA
M1000-200	10 pcs/EA	M3200-250	10 pcs/EA
M1200-200	10 pcs/EA	M3330-240	10 pcs/EA
M1500-200	10 pcs/EA	M3800-250	10 pcs/EA
M1630-240	10 pcs/EA		

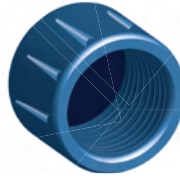

# Cap Plugs



**CP-JTM**



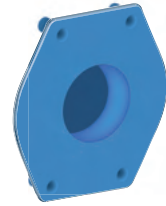
**CP-MP**



**CP-JTF**



**CP-FP**



**CP-SPF**

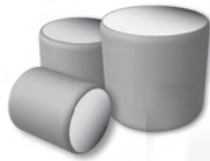
These cap plugs are manufactured from low density polyethylene and are designed to protect and plug hose ends and cylinder ports.

Part Number	Tube Size O.D.	Thread Size	Qty. Per Pkg.	Price/ea	Part Number	Tube Size O.D.	Thread Size	Qty. Per Pkg.	Price/ea
CP-JTM-04	1/4	7/16-20	75	\$0.35	CP-JTF-08	1/2	3/4-16	55	\$0.33
CP-JTM-06	3/8	9/16-18	65	\$0.37	CP-JTF-10	5/8	7/8-14	65	\$0.35
CP-JTM-08	1/2	3/4-16	55	\$0.37	CP-JTF-12	3/4	1-1/16-12	55	\$0.38
CP-JTM-10	5/8	7/8-14	50	\$0.40	CP-JTF-14	7/8	1-3/16-12	45	\$0.43
CP-JTM-12	3/4	1-1/16-12	45	\$0.43	CP-JTF-16	1	1-5/16-12	45	\$0.59
CP-JTM-14	7/8	1-3/16-12	35	\$0.50	CP-FP-02	1/8	1/8 JIC	175	\$0.22
CP-JTM-16	1	1-5/16-12	40	\$0.59	CP-FP-04	1/4	1/4 JIC	150	\$0.23
CP-JTM-20	1-1/4	1-5/8-12	20	\$1.29	CP-FP-06	3/8	3/8 JIC	150	\$0.28
CP-JTM-24	1-1/2	1-7/8-12	10	\$2.70	CP-FP-08	1/2	1/2 JIC	125	\$0.30
CP-MP-02	1/8	1/8 JIC	175	\$0.20	CP-FP-12	3/4	3/4 JIC	90	\$0.34
CP-MP-04	1/4	1/4 JIC	175	\$0.21	CP-FP-16	1	1 JIC	80	\$0.45
CP-MP-06	3/8	3/8 JIC	150	\$0.23	CP-FP-20	1-1/4	1-1/4 JIC	65	\$0.52
CP-MP-08	1/2	1/2 JIC	150	\$0.26	CP-FP-24	1-1/2	1-1/2 JIC	50	\$0.64
CP-MP-12	3/4	3/4 JIC	100	\$0.32	CP-FP-32	2	2 JIC	30	\$0.75
CP-MP-16	1	1 JIC	100	\$0.37	CP-SPF-08	1/2		20	\$1.70
CP-MP-20	1-1/4	1-1/4 JIC	40	\$0.47	CP-SPF-12	3/4		20	\$1.82
CP-MP-24	1-1/2	1-1/2 JIC	50	\$0.63	CP-SPF-16	1		15	\$1.90
CP-MP-32	2	2 JIC	35	\$0.82	CP-SPF-20	1-1/4		15	\$2.06
CP-JTF-04	1/4	7/16-20	80	\$0.27	CP-SPF-24	1-1/2		15	\$2.18
CP-JTF-05	5/16	1/2-20	75	\$0.27	CP-SPF-32	2		15	\$2.54
CP-JTF-06	3/8	9/16-18	75	\$0.32	CP-SPF-40	2-1/2		15	\$3.41

## Accessories & Supplies

### Nylon Slugs

Nylon slugs are used in front of set screws to protect the threads from damage.



### Nylon Balls

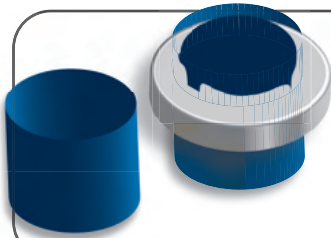
Nylon balls are used like nylon slugs in some cases and can also be used as seals in valves.



Item Number	Dia	Ht	Min	Price/ea.
NYSLUG-125125	1/8	1/8	26	\$0.63
NYSLUG-187187	3/16	3/16	25	\$0.63
NYSLUG-250125	1/4	1/8	25	\$0.63
NYSLUG-250250	1/4	1/4	25	\$0.74
NYSLUG-312125	5/16	1/8	20	\$0.79
NYSLUG-375250	3/8	1/4	15	\$0.79

Item Number	Dia	Min	Price/ea.
NYBALL-125	1/8	25	\$0.63
NYBALL-187	3/16	25	\$0.66
NYBALL-12MM	12mm	15	\$1.14
NYBALL-13MM	13mm	10	\$1.41
NYBALL-562	9/16	5	\$2.84
NYBALL-625	5/8	5	\$3.03

# Accessories & Supplies



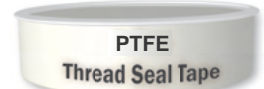
### Oil Seal Installation Tool

This sleeve enables damage-free installation of PTFE lip oil seals - particularly the Commerical M25<sup>o</sup> motor and C101<sup>o</sup> pump seals. This tool fits a 1-3/16" shaft. Contact sales office for other sizes.

**Part Number: OSIT-118 Price: \$3.36**

### PTFE Tape

This industrial grade low density PTFE tape can be used on pipe threads and is approved for oxygen service.

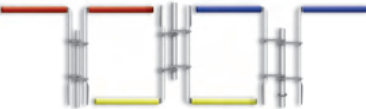


Part Number	Description	Price
500520TFETAPE	.... 1/2" x 520" ....	\$3.54/roll



### Rod Seal Installation Tools

These tools make easy work of an otherwise tough job. Just simply fold seal with tool, insert in gland, and release tool. Saves seal and fingers from damage. American made in three sizes for your convenience.



- IT-100 for 1" inside diameter and up.
- IT-150 for 1-1/2" inside diameter and up.
- IT-200 for 2" inside diameter and up.
- IT-K Buy all three & get a convenient plastic carrying case.

Part Number	Price
IT-100	\$138.34
IT-150	\$138.34
IT-200	\$138.34
IT-K	\$397.14

### PTFE Joint Sealant

This pure PTFE joint sealant is supplied in continuous low density cord with double sided tape. Simply lay over surface to be sealed, overlap joint and tighten flanges to normal torque.



Part Number	Description	Price
EXPTFE125	..... 1/8" X 100' .....	\$261.86
EXPTFE187	..... 3/16" X 75' .....	\$261.86
EXPTFE250	..... 1/4" X 50' .....	\$261.86
EXPTFE375	..... 3/8" X 25' .....	\$261.86
EXPTFE500	..... 1/2" X 15' .....	\$261.86
EXPTFE625	..... 5/8" X 15' .....	\$261.86
EXPTFE750	..... 3/4" X 15' .....	\$402.68
EXPTFE1000	..... 1" X 15' .....	\$422.59

### Screw Tip Part Number Length Tip Diameter Price

Packing Pullers	Part Number	Length	Tip Diameter	Price
	F-00	6-1/2"	5/32"	\$31.87*
	F-1	7-1/2"	1/4"	\$38.95
	F-2	11"	5/16"	\$41.16
	F-3	14"	3/8"	\$67.89
	F-4	19"	1/2"	\$80.77*
	F-5	23"	5/8"	\$115.16*
	F-6	30"	5/8"	\$135.69*

No shop or mechanic should be without these flexible packing pullers. Tips can be removed by unscrewing (except\*) and are available in different configurations.

Part Number	Corkscrew Replacement Tip	Price
C-1	F-1	\$14.64
C-2	F-2	\$19.11
C-3	F-3	\$22.66



### Vegetable Fiber Gasket Sheet

Top quality glue glycerine vegetable fiber sheet is good up to 250° F.

Part Number	Thickness	Price/sq. yd
VEGFIB.006-36	.006	\$10.40
VEGFIB.010-36	.010	\$10.40
VEGFIB.015-36	1/64	\$10.87
VEGFIB.021-36	.021	\$14.95
VEGFIB.032-36	1/32	\$18.87
VEGFIB.046-36	3/64	\$32.23
VEGFIB.062-36	1/16	\$39.75
VEGFIB.125-36	.125	\$91.22

### Punch Set (Self Centering)

This heavy duty hardened steel punch set has a spring loaded centering device that enables accurate punching of piston cup holes and small gaskets.



Part Number	Price
K-156	\$262.45

### Earsaver Ear Guards for Face Masks

Part Number	Price
EARSAVER600	\$1.05
EARSAVER12pk	\$10.45



### KEVN O-RingTool

O-Ring Material Identifier Kalrez / EPDM / Viton / NBR

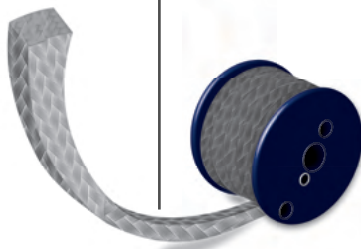
Part Number	Price
KEVNTOOL	\$119.00



### Braided Packing

This general service packing is manufactured from a graphite lubricated non-asbestos material. It can be used at speeds to 1885 FPM and temperatures up to 400° F. It can be used in both rotary and reciprocating applications in a PH range of 4-10.

*All items are sold in Pound Increments.*



Part Number	C/S	Approx Ft / LB	Price/Box
8005-125-1LB	1/8"	@ 186Ft/LB	\$178.06
8005-187-1LB	3/16"	@ 82.7Ft/LB	\$178.06
8005L-250-1LB	1/4"	@ 30.5Ft/LB	\$170.06
8005L-312-1LB	5/16"	@ 17Ft/LB	\$136.16
8005L-375-1LB	3/8"	@ 14.5Ft/LB	\$100.26
8005L-437-1LB	7/16"	@ 9.3Ft/LB	\$100.26
8005L-500-1LB	1/2"	@ 7.5Ft/LB	\$100.26
8005L-625-1LB	5/8"	@ 5.7Ft/LB	\$100.26
8005L-750-5LBBX	3/4"	@ 3.4Ft/LB	\$445.26
8005L-1000-5LBBX	1"	@ 1Ft/LB	\$445.26

# Repair Accessories

Item Number	Description	Price
<b>STEEL BALLS</b>		
BALL-187CRS	3/16" CHROME STEEL BALL	\$0.60
BALL-250CRS	1/4" CHROME STEEL BALL	\$0.88
BALL-281CRS	9/32" CHROME STEEL BALL	\$0.90
BALL-312CRS	5/16" CHROME STEEL BALL	\$1.15
BALL-375CRS	3/8" CHROME STEEL BALL	\$1.95
BALL-437S	.437" DIA. HARD WEAR-RESISTANT 52100 ALLOY STEEL BALL	\$2.12
BALL-500S	1/2" DIA. HARD WEAR-RESISTANT 52100 ALLOY STEEL BALL	\$2.28

<b>CAP SCREWS</b>		
CAPSCREW-H-1/4-20X@1	1/4-20 HEXHEAD CAPSCREW X 1/2" GR8	\$1.00
CAPSCREW-S-M6X12 SS	6 X 12mm STAINLESS STEEL CAPSCREW	\$2.99
CAPSCREW-S-1/4-20X@1	1/4-20 SOCKET HEAD CAPSCREW X 1/2" GR8	\$0.88
CAPSCREW-S-1/4-28X12	SOCKET HEAD CAPSCREW 1/4-28X1-1/4"	\$1.75
CAPSCREW-S-3/8-24X@2	SOCKET HEAD CAPSCREW 3/8-24-3/8" GR8	\$3.15
CAPSCREW-S-6-32-3/@1	6-32 X 3/8" SOCKET HEAD CAPSCREW	\$0.71

<b>COTTER PINS</b>		
CPIN-0750-125	3/4" X 1/8" COTTER PIN	\$0.38
CPIN-1500-125	1-1/2 X 1/8 COTTER PIN	\$0.39
CPIN-1500-187	1-1/2 X 3/16 COTTER PIN	\$0.39
CPIN-1750-125	1-3/4 X 1/8 COTTER PIN	\$0.38
CPIN-2000-125	2 X 1/8 COTTER PIN	\$0.38
CPIN-2000-156	2 X 5/32 COTTER PIN	\$0.44
CPIN-2000-187	2 X 3/16 COTTER PIN	\$0.65
CPIN-2000-250	2 X 1/4 COTTER PIN	\$0.52
CPIN-2500-125	2-1/2 X 1/8 COTTER PIN	\$0.39
CPIN-2500-156	2-1/2 X 5/32 COTTER PIN	\$0.63
CPIN-2500-187	2-1/2 X 3/16 COTTER PIN	\$0.75
CPIN-2500-250	2-1/2 X 1/4 COTTER PIN	\$0.71
CPIN-3000-156	3 X 5/32 COTTER PIN	\$0.67
CPIN-3500-156	3-1/2 X 5/32 COTTER PIN	\$2.31
CPIN-3500-187	3-1/2 X 3/16 COTTER PIN	\$1.53

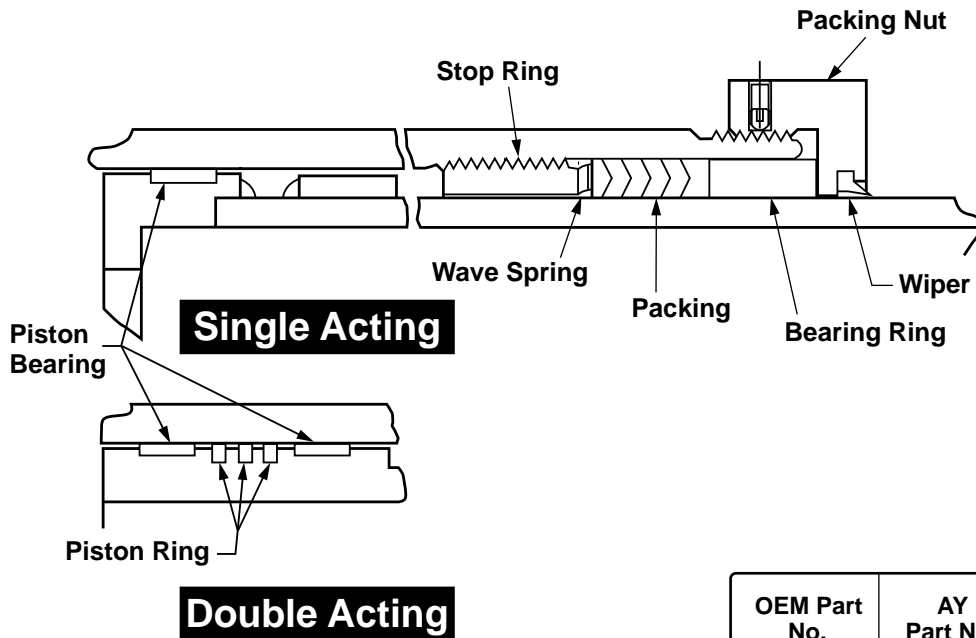
<b>NUTS</b>		
HEXNUT-1-1/2-12	1-1/2 12 X 1-9/32 HEXNUT	\$14.96
LOCKNUT-1-1/2-12	1-1/2 - 12 NYLON INSERT LOCK NUT	\$46.49
LOCKNUT-7/8-14N	Nylon Locknut 7/8" 14 thread	\$19.84

<b>SET SCREWS</b>		
SETSCREW-M8-1.25-8	M8-1.25 x 8mm SOCKET HEAD SET SCREW	\$0.61
SETSCREW-M10-1.5X16C	SET SCREW 10mm x16 long	\$0.96
SETSCREW-1/4-20-1/4	1/4-20 X 1/4" CUP POINT SET SET SCREW	\$0.70
SETSCREW-1/4-20-5/16	CUP POINT SET SCREW-1/4-20-5/16"	\$0.78
SETSCREW-10-32-3/16	10-32 X 3/16" SET SCREW	\$0.77
SETSCREW-3/8-16-3/8	3/8-16 X 3/8" CUP POINT SET SCREW	\$0.89
SETSCREW-3/8-16-5/8	3/8-16 X 5/8" CUP POINT SET SCREW	\$1.09
SETSCREW-5/16-18-3/8	CUP POINT SET SCREW-5/16-18-3/8"	\$1.16
SETSCREW-5/16-24-1/2	5/16-24 X 1/2" CUP POINT SET SCREW	\$1.20
SETSCREW-5/16-24-1/4	5/16-24 X 1/4" CUP POINT SET SCREW	\$0.78
SETSCREW-5/16-24-3/8	5/16-24 3/8" CUPPOINT SET SCREW	\$1.61

Item Number	Description	Price
<b>WASHERS</b>		
LOCKWASHER-1/4	1/4" LOCKWASHER	\$0.15
LOCKWASHER-6	#6 LOCKWASHER	\$0.14
LOCKWASHER-6MM SS	STAINLESS STEEL 6MM LOCKWASHER	\$1.50
SW-1192-1685-032YZ	1-3/16 x 1-11/16 x 1/32 WASHER	\$18.73
SW-1382-1998-062YZ	1-3/8 x 2 x 1/16 WASHER	\$19.22
SW-2067-2560-062YZ	2-1/16 x 2-9/16 x 1/16 WASHER	\$27.40
SW-3005-3748-093YZ	3 x 3-3/4 x 3/32 WASHER	\$61.13
SW-3755-4495-093YZ	3-3/4 x 4-1/2 x 3/32 WASHER	\$24.68
WASHER-0196-0312-032	.196 x .312 x .032 COPPER WASHER	\$3.56
WASHER-0260-0375-032	.260 x .375 x .032 COPPER WASHER	\$3.56
WASHER-0260-0500-032	.260 x .500 x .032 COPPER WASHER	\$4.52
WASHER-0281-0625-0@1	1/4" SAE STEEL WASHER ZINC	\$0.44
WASHER-0314-0441-032	BLACK ZINC COATED 5/16" STEEL	\$0.48
WASHER-0315-0453-0@1	8X11.5X1 DIN7603 COPPER WASHER	\$1.20
WASHER-0380-0560-035	3/8 x 9/16 COPPER WASHER	\$6.45
WASHER-0394-0531-0@1	DIN 7603 10 X 13.5 X 1 COPPER WASHER	\$1.99
WASHER-0394-0551-0@1	10 X 14 X 1 DIN 7603A COPPER WASHER	\$2.24
WASHER-0454-0787-0@1	.454 X .787 X .040 COPPER WASHER	\$8.93
WASHER-0472-0669-0@1	12 X 17 X 1.5 DIN 7603A WASHER	\$6.03
WASHER-0512-0709-0@1	13 X 18 X 1.5 DIN 7603 COPPER WASHER	\$4.23
WASHER-0551-0709-0@1	14 X 18 X 1.5 DIN 7603A WASHER	\$2.71
WASHER-0591-0787-0@1	15 X 20 X 1 DIN 7603A COPPER WASHER	\$3.31
WASHER-0630-0866-0@1	16 X 22 X 1.5 7603A COPPER WASHER	\$4.97
WASHER-0753-0965-031	Yellow Zinc Coated Steel WASHER	\$2.99
WASHER-0887-1312-0@1	.887 X 1.312 X .040 STEEL WASHER	\$18.60
WASHER-0937-1250-0@1	15/16 X 1-1/4 X 1/32 WASHER	\$1.89
WASHER-0963-1430-0@1	.963 X 1.430 X 1/16 COPPER WASHER	\$9.18
WASHER-0977-1200-0@1	.977 X 1.200 X .040 COPPER WASHER	\$10.18
WASHER-1024-1220-0@1	26 X 31 X 2 DIN 7603 COPPER WASHER	\$12.33
WASHER-1062-1451-0@1	1.062 X 1.451 X .016 BRASS WASHER	\$7.28
WASHER-1181-1417-0@1	30 X 36 METRIC COPPER WASHER	\$19.58
WASHER-1299-1535-0@1	DIN 7603 33 X 39 X 2 COPPER WASHER	\$22.50
WASHER-1378-1614-0@1	35 X 41 X 2 DIN 7603 COPPER WASHER	\$17.80
WASHER-1417-1654-0@1	36 X 42 METRIC COPPER WASHER	\$25.79
WASHER-1583-1750-0@1	1.583 X 1.750 X .036 STEEL WASHER	\$35.60
WASHER-1772-2047-0@1	45 X 52 X 2 DIN 7603 COPPER WASHER	\$46.27
WASHER-1806-2170-0@1	STEEL WASHER 1.806X2.170X.039	\$46.98

<b>FELT (SQFELT Sold by Foot)</b>		
SQFELT-187F1	3/16" SQUARE FELT STRIP	\$4.22
SQFELT-250F1	1/4" SQUARE F1 FELT STRIP	\$6.53
SQFELT-500F7	1/2" SQUARE F7 FELT	\$6.67
SQFELT-750F1	3/4" SQUARE F1 FELT STRIP	\$8.28
3300478	1/4" X .220 X 5.800 F1 LONG	\$6.58
3300479	3/16" X 3/8 X 6" LONG F1 FELT	\$4.72

# Replacement Parts for Parker® / Commercial® Telescopic Cylinders



1. Stage outside diameters 2-3/4", 3-3/4" etc.
2. Threaded internal stop rings.
3. Small 3/16" square base wiper.
4. Cylinder tag at bottom end of outside tube.
5. Bronze or nylon bearings above packing.
6. Older cylinders have bronze internal headnuts.
7. Uses 5/16" c/s packing.

### Gland Bearings

OEM Part No.	AY Part No.	Stage Size	Price
J1003-1-1	690530	2-3/4 X 3-3/8	\$21.35
J1003-1-2	690531	3-3/4 X 4-3/8	\$21.70
J1003-1-3	690532	4-3/4 X 5-3/8	\$32.62
J1003-1-4	690533	5-3/4 X 6-3/8	\$37.11
J1003-1-5	690534	6-3/4 X 7-3/8	\$40.20
J1003-1-6	690535	7.905 X 8.543	\$59.92
J1003-1-7	690536	9-3/8 X 10	\$119.91

### Cylinder Rebuild Kits

OEM Part No.	AY Part No.	Stage Sizes	Price
375-1804-017	69050WR-3-5	2-3/4 - 4-3/4	\$205.29
375-1804-021	69050WR-3-6	2-3/4 - 5-3/4	\$307.54
375-1804-018	69050WR-4-6	3-3/4 - 5-3/4	\$254.89
375-1804-022	69050WR-4-7	3-3/4 - 6-3/4	\$418.28
375-1804-024	69050WR-4-8	3-3/4 - 7.905	\$590.97
375-1804-020	69050WR-5-6	4-3/4 - 5-3/4	\$186.76
375-1804-019	69050WR-5-7	4-3/4 - 6-3/4	\$324.34
375-1804-023	69050WR-5-8	4-3/4 - 7.905	\$490.44
375-1804-025	69050WR-5-9	4-3/4 - 9-3/8	\$836.20

Includes Packing, Wiper, Gland Bearings, Piston Bearings, Wave Springs, Set Screws, and Nylon Balls

### Packing & Wiper Assemblies (Includes Shims)

OEM Part No.	AY Part No.	Stage Size	Price
D4009	690500W	2-3/4 X 3-3/8	\$28.87
D3009	690501W	3-3/4 X 4-3/8	\$33.21
D6009	690502W	4-3/4 X 5-3/8	\$41.51
D5009	690503W	5-3/4 X 6-3/8	\$52.26
D7009	690504W	6-3/4 X 7-3/8	\$73.75
D8009-1	690505W	7.905 X 8.543	\$79.23
D9009	690506W	9-3/8 X 10	\$151.94

### Gland Bearing Kits

OEM Part No.	AY Part No.	Stage Sizes	Price
CM-NP-B35	69053-3-5	2-3/4 - 4-3/4	\$70.90
CM-NP-B36	69053-3-6	2-3/4 - 5-3/4	\$97.17
CM-NP-B46	69053-4-6	3-3/4 - 5-3/4	\$86.86
CM-NP-B47	69053-4-7	3-3/4 - 6-3/4	\$123.31
CM-NP-B48	69053-4-8	3-3/4 - 7.905	\$180.06
CM-NP-B49	69053-4-9	3-3/4 - 9-3/8	\$311.26
CM-NP-B57	69053-5-7	4-3/4 - 6-3/4	\$103.42
CM-NP-B58	69053-5-8	4-3/4 - 7.905	\$158.16
CM-NP-B59	69053-5-9	4-3/4 - 9-3/8	\$267.84
CM-NP-B68	69053-6-8	5-3/4 - 7.905	\$129.91

### Packing & Wiper Kits (Packing, Wiper, Shims)

OEM Part No.	AY Part No.	Stage Sizes	Price
391-1804-020	69050W-3-5	2-3/4 - 4-3/4	\$89.15
391-1804-237	69050W-3-6	2-3/4 - 5-3/4	\$136.58
391-1804-109	69050W-4-6	3-3/4 - 5-3/4	\$113.27
375-1804-003	69050W-4-7	3-3/4 - 6-3/4	\$178.65
391-1804-060	69050W-4-8	3-3/4 - 7.905	\$239.38
	69050W-4-9	3-3/4 - 9-3/8	\$408.89
375-1804-002	69050W-5-7	4-3/4 - 6-3/4	\$143.24
391-1804-054	69050W-5-8	4-3/4 - 7.905	\$242.30
375-1804-004	69050W-5-9	4-3/4 - 9-3/8	\$382.69

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Replacement Parts for Parker® / Commercial® Telescopic Cylinders, cont'd.

**Piston Bearings**

OEM Part No.	AY Part No.	Stage Size / (Bore)	Price/each
U3023-32	690540	2-3/4 (3-1/4)	\$5.53
U3023-42	690541	3-3/4 (4-1/4)	\$7.55
U3023-52	690542	4-3/4 (5-1/4)	\$8.03
U3023-62	690543	5-3/4 (6-1/4)	\$8.96
U3023-72	690544	6 3/4 (7-1/4)	\$10.71
U3023-84	690545	7.905 (8-7/16)	\$12.76
U3023-98	690546	9-3/8 (9-7/8)	\$25.51

**Piston Bearing Kits**

(contains 1 bearing per stage); (order 2 kits for 2 bearings per stage)

OEM Part No.	AY Part No.	Stage Sizes	Price
NPB46	69054-4-6	3-3/4 - 5-3/4	\$28.79
NPB47	69054-4-7	3-3/4 - 6-3/4	\$36.84
NPB48	69054-4-8	3-3/4 - 7.905	\$50.17
NPB57	69054-5-7	4-3/4 - 6-3/4	\$28.95
NPB58	69054-5-8	4-3/4 - 7.905	\$42.29

**Piston Rings**

OEM Part No.	AY Part No.	Stage Size / (Bore)	Price
X78-3-25	690520	2-3/4 (3-1/4)	\$14.17
X78-4-25	690521	3-3/4 (4-1/4)	\$14.18
X78-5-25	690522	4-3/4 (5-1/4)	\$18.18
X78-6-25	690523	5-3/4 (6-1/4)	\$21.49
X78-7-25	690524	6-3/4 (7-1/4)	\$31.55
X78-8-437	690525	7.905 (8-7/16)	\$44.07
X78-9-88	690526	9-3/8 (9-7/8)	\$93.11

**Piston Ring Kits\***

OEM Part No.	AY Part No.	Stage Sizes	Price
	69052-4-7	3-3/4 - 6-3/4	\$292.69
CM-PR48	69052-4-8	3-3/4 - 7.905	\$437.71
CM-PR58	69052-5-8	4-3/4 - 7.905	\$382.90

\* Contains 3 piston rings per stage.  
Order 1 Kit per cylinder.

**Stop Rings**

OEM Part No.	AY Part No.	Stage Size	Price
F4020	690550	2-3/4	POA
F3020	690551	3-3/4	POA
F6020	690552	4-3/4	POA
F5020	690553	5-3/4	POA
F7020	690554	6-3/4	POA
F8020	690555	7.905	POA
F9020	690556	9-3/8	POA

**Wave Springs**

OEM Part No.	AY Part No.	Stage Size	Price
P1327-27	690560	2-3/4	\$14.59
P1327-37	690561	3-3/4	\$14.77
P1327-47	690562	4-3/4	\$17.43
P1327-57	690563	5-3/4	\$17.92
P1327-67	690564	6-3/4	\$30.79
P1327-79	690565	7.905	\$34.37
P1327-93	690566	9-3/8	\$80.76

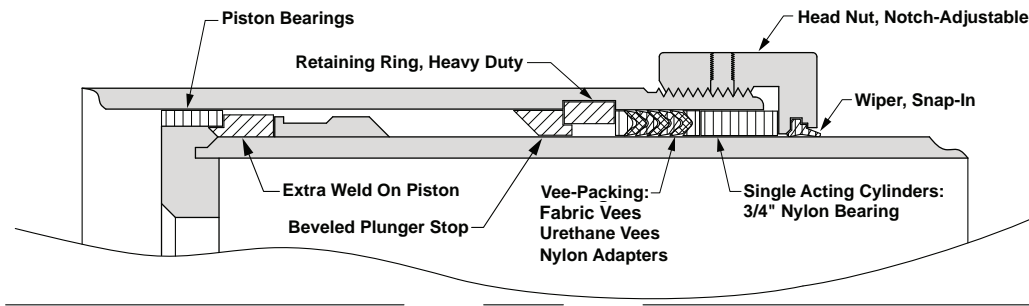
**Medium and High Pressure Oil Seals for Commercial® Pumps and Motors**

OEM Part No.	AY Part No.	Size	Price
X73-50-3, 391-2883-096	991168	1-3/16"	\$26.72
X73-50-1, 391-2883-094	994915	1-3/8"	\$28.72
X73-50-11, 391-2883-126	995226	1"	\$28.72
X73-50-9, 391-2883-119	995230	1-1/16"	\$25.44
X73-50-8, 391-2883-115	994678	1-9/32"	\$28.72
X73-37-16, 391-2883-058	994878	1-1/16"	\$8.61
X73-37-15, 391-2883-057	994685	1-5/16"	\$9.29
X73-37-17, 391-2883-103	993271	1-9/32"	\$9.29
X73-37-20, 391-2883-106	994686	1-3/16"	\$10.59
X73-37-10, 391-2883-052	994683	1-3/8"	\$10.59
X73-37-13, 391-2883-055	994684	1-3/16"	\$10.59
X73-37-1, 391-2883-043	994682	1-1/8"	\$10.59

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# Replacement Parts for Custom Hoist® Telescopic Cylinders



## Custom Hoist® 700

1. Headnut height 1-1/2"
2. One 3/8" wide retaining ring on larger stages.
3. Nylon bearings (3/4") above packing.
4. Nylon piston wear bands.
5. Stage outside diameters 3-3/16", 4-1/8", 5-1/16", 6.00" & 7.00"
6. Cylinder identification on tag and stamped near bottom end of outside tube.
7. Uses 1/4" c/s packing.

### Packing & Wiper Kits

OEM Part No.	AY Part No.	Stage Sizes	Price
CH-SK-53-700	69013W-3-5	3-3/16" - 5-1/16"	\$130.86
CH-SK-63-700	69013W-4-6	4-1/8" - 6"	\$141.20
CH-SK-64-700	69013W-3-6	3-3/16" - 6"	\$177.74
CH-SK-74-700	69013W-4-7	4-1/8" - 7"	\$192.17

### Packing & Wiper Assemblies

AY Part No.	Stage Sizes	Price
690131W	3-3/16" x 3-11/16"	\$46.50
690132W	4-1/8" x 4-5/8"	\$38.65
690133W	5-1/16" x 5-9/16"	\$43.99
690104CW	6" x 6-1/2"	\$45.95
690105CW	7" x 7-1/2"	\$51.66

### Minor Packing Kits (Includes Packing, Wiper and Top Bearing)

OEM Part No.	AY Part No.	Stage Sizes	Price
CH-MPK-53-700	69013BW-3-5	3-3/16" - 5-1/16"	\$201.46
CH-MPK-63-700	69013BW-4-6	4-1/8" - 6"	\$210.63
CH-MPK-64-700	69013BW-3-6	3-3/16" - 6"	\$279.32
CH-MPK-74-700	69013BW-4-7	4-1/8" - 7"	\$285.85

### Piston Wear Rings

OEM Part No.	AY Part No.	Stage Sizes	Price
CH-2PS44-3-3/16	690160	3-11/16"	\$6.19
CH-2PS44-4-1/8	690168	4-5/8"	\$7.72
CH-2PS44-5-1/16	690169	5-9/16"	\$9.09
CH-2PS44-6	690164	6-1/2"	\$11.06
CH-2PS44-7	690165	7-1/2"	\$12.13

### Nylon Top Bearings

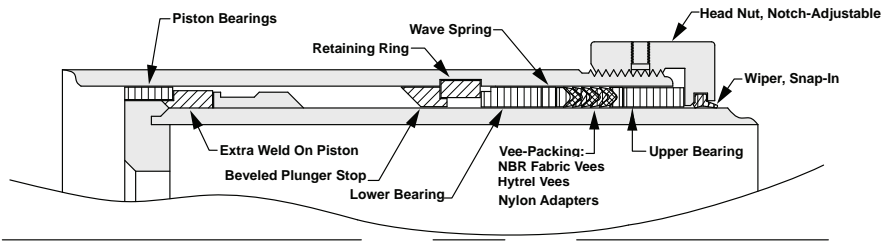
OEM Part No.	AY Part No.	Stage Sizes	Price
CH-1BU11-3-3/16	690131A	3-3/16"	\$22.71
CH-1BU11-4-1/8	690132A	4-1/8"	\$23.22
CH-1BU11-5-1/16	690133A	5-1/16"	\$24.68
CH-1BU11-6	690104A	6"	\$25.53
CH-1BU11-7	690105A	7"	\$25.77

### Retaining Rings

AY Part No.	Bore Size	Price
CH-2RR58-550	5-1/2"	\$49.64
CH-2RR58-650	6-1/2"	\$51.44
CH-2RR58-750	7-1/2"	\$56.50

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## Replacement Parts for Custom Hoist® Telescopic Cylinders, cont'd.



### Custom Hoist® 400

1. Headnut height 1-1/2"
2. Heavy spring steel retaining ring.
3. Rectangular nylon bearing above packing, stepped nylon bearing below.
4. Nylon piston wear bands.
5. Stage outside diameters 3.00", 4.00" etc.
6. Cylinder identification on tag and stamped near bottom end of outside tube.
7. Uses 1/4" c/s packing.

#### Packing & Wiper Assemblies

OEM Part No.	AY Part No.	Size	Price
CH-400-3VSW	690141CW	3 x 3-1/2	\$25.53
CH-400-4VSW	690142CW	4 x 4-1/2	\$34.60
CH-400-5VSW	690143CW	5 x 5-1/2	\$42.90
CH-400-6VSW	690144CW	6 x 6-1/2	\$53.43
CH-400-7VSW	690145CW	7 x 7-1/2	\$64.41
CH-400-8VSW	690146CW	8 x 8-1/2	\$74.84
CH-400-8.25VSW	690207W	8-1/4 x 9	\$108.73
CH-400-9.12VSW	690210W	9-1/8 x 9-3/4	\$156.94

#### Retaining Rings

AY Part No.	Bore Size	Price
CH-2RR58-350	3-1/2"	\$52.03
CH-2RR58-450	4-1/2"	\$52.03
CH-2RR58-550	5-1/2"	\$52.03
CH-2RR58-650	6-1/2"	\$52.03
CH-2RR58-750	7-1/2"	\$55.46
CH-2RR58-850	8-1/2"	\$78.76
CH-2RR58-975	9-1/4"	\$134.54

#### Bottom Bearings

OEM Part No.	AY Part No.	Size	Price
1BU195-3	690101BC	3-1/2 X 3/4	\$20.21
1BU195-4	690102BC	4-1/2 X 3/4	\$20.77
1BU195-5	690103BC	5-1/2 X 3/4	\$22.64
1BU195-6	690104BC	6-1/2 X 3/4	\$24.41
1BU195-7	690105BC	7-1/2 X 3/4	\$26.76
1BU195-8	690106BC	8-1/2 X 3/4	\$30.44
1BU195-82	690107BC	9 X 3/4	\$68.37
1BU195-91	690110BC	9-3/4 X 3/4	\$69.89

#### Upper End Rebuild Kits

Includes: Packing Set, Wiper, Two (2) Nylon Bearings

AY Part No.	Stage Sizes	Price
69014W-3-5	3-5	\$214.56
69014W-3-6	3-6	\$322.42
69014W-4-6	4-6	\$254.39
69014W-4-7	4-7	\$346.11
69014W-4-8	4-8	\$464.52
69014W-4-8-1/4	4- 8-1/4	\$572.07
69014W-5-7	5-7	\$278.06
69014W-5-8	5-8	\$472.04
69014W-5-9-1/8	5- 9-1/8	\$713.85

#### Piston Wear Rings

OEM Part No.	AY Part No.	Bore Size	Price
2WG1-3	690161	3-1/2	\$6.40
2WG1-4	690162	4-1/2	\$7.38
2WG1-5	690163	5-1/2	\$7.51
2WG1-6	690164	6-1/2	\$11.05
2WG1-7	690165	7-1/2	\$12.07
2WG1-8	690166	8-1/2	\$22.44
2WG1-91	690167	9-3/4	\$26.34

#### Top Bearings

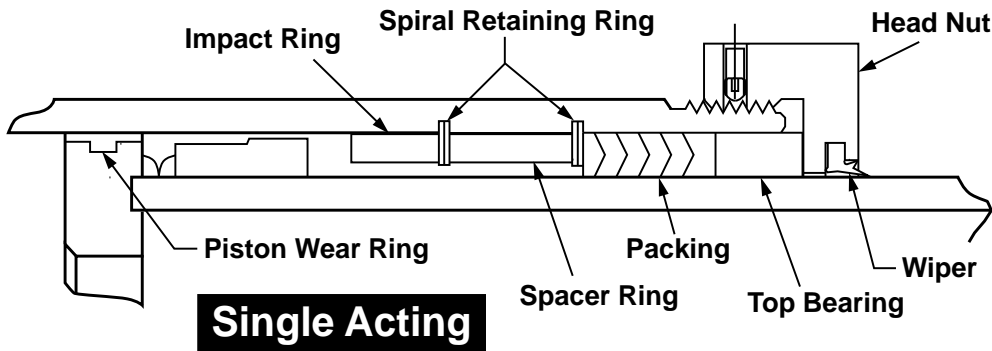
OEM Part No.	AY Part No.	Size	Price
1BU11-3	690101A	3-1/2 X 3/4	\$15.48
1BU11-4	690102A	4-1/2 X 3/4	\$15.54
1BU11-5	690103A	5-1/2 X 3/4	\$16.94
1BU11-6	690104A	6-1/2 X 3/4	\$20.25
1BU11-7	690105A	7-1/2 X 3/4	\$22.49
1BU11-8	690106A	8-1/2 X 3/4	\$25.89
1BU11-82	690107A	9 X 3/4	\$48.79
1BU11-91	690110A	9-3/4 X 3/4	\$79.14

#### Wipers

OEM Part No.	AY Part No.	Stage Size	Price
1WR1-3	690211	3"	\$7.74
1WR1-4	690212	4"	\$9.04
1WR1-5	690213	5"	\$11.08
1WR1-6	690214	6"	\$13.29
1WR1-7	690215	7"	\$15.99
1WR1-8	690216	8"	\$18.77
1WR1-8.25	690217	8-1/4"	\$27.68
1WR1-91	690220	9-1/8"	\$39.43

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**Replacement Parts for Custom Hoist® Telescopic Cylinders, cont' d.**



1. Headnut height 1-1/2"
2. Two spiral retaining rings.
3. Bronze or nylon bearings (3/4" or 1-1/2") above packing.
4. Bronze or nylon T-shaped piston wear bands.
5. Stage outside diameters 3.00", 4.00" etc.
6. Cylinder identification on tag and stamped near bottom end of outside tube.
7. Uses 1/4" c/s packing stages 3-8.

**Packing & Wiper Assemblies**

OEM Part No.	AY Part No.	Size	Price
CH-3VSW	690101CW	3 x 3-1/2	\$22.21
CH-4VSW	690102CW	4 x 4-1/2	\$26.08
CH-5VSW	690103CW	5 x 5-1/2	\$29.19
CH-6VSW	690104CW	6 x 6-1/2	\$35.60
CH-7VSW	690105CW	7 x 7-1/2	\$42.35
CH-8VSW	690106CW	8 x 8-1/2	\$46.70
CH-8.25VSW	690207W	8-1/4 x 9	\$108.73
CH-9.12VSW	690210W	9-1/8 x 9-3/4	\$156.94
CH-9.75VSW	690209W	9-3/4 x 10-1/2	\$219.43

**Piston Wear Rings (Bore)**

OEM Part No.	AY Part No.	Size	Price
2GR6-5	WBT0550-0750-125-N1B	5-1/2	\$10.42
2GR6-6	WBT0650-0750-125-N1B	6-1/2	\$14.09
2GR6-7	WBT0750-0750-125-N1B	7-1/2	\$17.82
2GR6-8	WBT0850-0750-125-N1B	8-1/2	\$30.27

**Upper End Rebuild Kits  
Includes Packing, 2 Bearings, and Wiper**

AY Part No.	Stage Sizes	Price
69014WB-3-5	3-5	\$175.63
69014WB-3-6	3-6	\$267.64
69014WB-4-6	4-6	\$201.56
69014WB-4-7	4-7	\$290.57
69014WB-4-8	4-8	\$398.21
69014WB-4-8-1/4	4- 8-1/4	\$505.17
69014WB-4-9-1/8	4- 9-1/8	\$708.02
69014WB-5-7	5-7	\$233.80
69014WB-5-8	5-8	\$334.18
69014WB-5-9-1/8	5- 9-1/8	\$651.23

**Spiral Retaining Rings**

OEM Part No.	AY Part No.	Bore Size	Price
1RR1-3-1/2	690080	3-1/2	\$10.12
1RR1-4-1/2	690081	4-1/2	\$12.18
1RR1-5-1/2	690082	5-1/2	\$12.53
1RR1-6-1/2	690224	6-1/2	\$15.36
1RR1-7-1/2	690225	7-1/2	\$15.22
1RR1-8-1/2	690226	8-1/2	\$16.02
1RR1-9	690227	9	\$66.61
1RR1-97	690230	9-3/4	\$96.04

**Piston Rings**

OEM Part No.	AY Part No.	Bore Size	Price
2PR3-35	690251	3-1/2	\$15.65
2PR3-45	690252	4-1/2	\$17.45
2PR3-55	690253	5-1/2	\$22.45
2PR3-637	690259	6-3/8	\$120.77
2PR3-65	690254	6-1/2	\$36.86
2PR3-75	690255	7-1/2	\$37.08
2PR3-85	690256	8-1/2	\$46.30
2PR3-97	690258	9-3/4	\$95.10

**Headnuts**

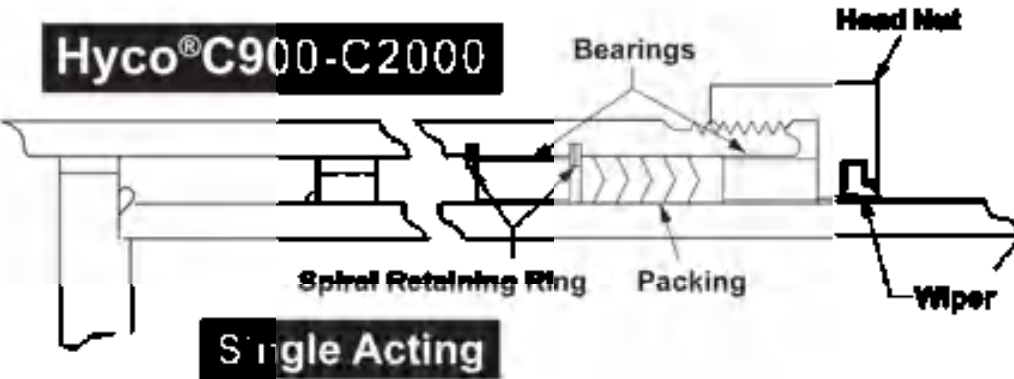
OEM Part No.	AY Part No.	Stage Size	Price
2HN-4	690171	3	POA
2HN-5	690172	4	POA
2HN-6	690173	5	POA
2HN-7	690174	6	POA
2HN-8	690175	7	POA
2HN-82	690180	7	POA
2HN-9	690176	8	POA
2HN-10	690177	8-1/4	POA
2HN-106	690178	9-1/8	POA
3HN1-7A	690181	5-7/8	POA
3HN1-975	690182	8-1/4	POA
3HN1-1125	690183	9-3/4	POA

**Bearings**

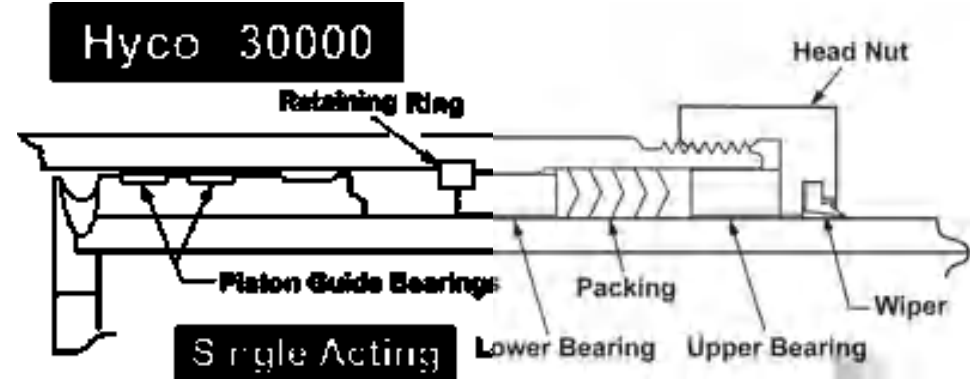
OEM Part No.	AY Part No.	Size	Price
1BU11-3	690101A	3-1/2 X 3/4	\$15.48
1BU11-4	690102A	4-1/2 X 3/4	\$15.54
1BU11-5	690103A	5-1/2 X 3/4	\$16.94
1BU11-6	690104A	6-1/2 X 3/4	\$20.25
1BU11-7	690105A	7-1/2 X 3/4	\$22.49
1BU11-8	690106A	8-1/2 X 3/4	\$25.89
1BU11-82	690107A	9 X 3/4	\$48.79
1BU11-91	690110A	9-3/4 X 3/4	\$77.06

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# Replacement Parts for Hyco® Telescopic Cylinders



1. Headnut height 1-1/2"
2. Two spiral retaining rings.
3. Bronze (or aftermarket nylon) bearings above and below packing.
4. Bronze overlay piston bearings on single acting cylinders.
5. Stage outside diameters 3.00", 4.00" etc.
6. Cylinder identification on tag and stamped near bottom end of outside tube.
7. Uses 1/4" c/s packing.



1. Headnut height 1-1/2"
2. One 3/8" wide retaining ring.
3. Packing and nylon bearing set with many sets using "black & blue vees".
4. Stepped bottom bearing that fits over 3/8" wide spring steel retaining ring.
5. Nylon wear bands on piston.
6. Stage outside diameters 3.000", 4.000" etc.
7. Cylinder identification on tag and stamped near bottom of outside tube.



8. Uses .263" c/s packing on cylinders manufactured after 8/1/81. Uses 1/4" c/s on cylinders prior to 8/1/81.

## Replacement Parts for Hyco® Telescopic Cylinders, cont'd.

### C900 - C2000, C9000 Series

#### Packing & Wiper Assemblies

#### Packing & Wiper Kits

This style packing fits **all standard telescopic cylinders** manufactured by Hyco® before 8-1-81. The wipers will fit all glands except C10,000 series manufactured between 7-74 and 8-76. During that period Hyco® used a glass filled nylon wiper that pressed against the top bearing.

AY Part No.	Size	Price
690201W	3 x 3-1/2	\$22.56
690202W	4 x 4-1/2	\$25.15
690203W	5 x 5-1/2	\$29.76
690204W	6 x 6-1/2	\$36.44
690205W	7 x 7-1/2	\$42.76
690206W	8 x 8-1/2	\$48.14
690207W	8-1/4 x 9	\$107.74
690208W	9 x 9-3/4	\$119.50
690209W	9-3/4 x 10-1/2	\$219.43

AY Part No.	Stage Sizes	Price
69020W-3-5	3-5	\$82.57
69020W-3-6	3-6	\$124.13
69020W-3-8	3-8	\$229.53
69020W-4-6	4-6	\$100.93
69020W-4-7	4-7	\$146.81
69020W-4-8	4-8	\$174.05
69020W-4-8-1/4	4- 8-1/4	\$259.67
69020W-4-9	4-9	\$340.90
69020W-4-9-1/8	4-9-1/8	\$363.76
69020W-5-7	5-7	\$127.64
69020W-5-8	5-8	\$179.87
69020W-5-9-3/4	5- 9-3/4	\$455.34

### Upper End Rebuild Kits

These kits include: **Packing Set, Wiper, Top & Bottom Nylon Bearings**

#### Packing, Bearing & Wiper Assemblies

#### Packing, Bearing & Wiper Kits

AY Part No.	Stage Sizes	Price
69020WB-3-8	3-8	\$460.01
69020WB-4-6	4-6	\$204.07
69020WB-4-7	4-7	\$300.28
69020WB-4-8	4-8	\$407.99
69020WB-4-8-1/4	4-8-1/4	\$523.33
69020WB-4-9	4-9	\$692.12
69020WB-5-7	5-7	\$242.79
69020WB-5-8	5-8	\$348.69

### C10,000 Series

OEM Part No.	AY Part No.	Stage Size	Price
11426-300	690101N	3	\$72.75
11426-400	690102N	4	\$76.10
11426-500	690103N	5	\$89.92
11426-600	690104N	6	\$100.71
11426-700	690105N	7	\$127.94
11426-800	690106N	8	\$162.79
11426-825	690107N	8-1/4	\$310.03

OEM Part No.	AY Part No.	Stage Sizes	Price
11426-47	69010N-4-7	4 - 7	\$386.17
11426-48	69010N-4-8	4 - 8	\$545.95

Used on all C20,000 and C30,000 Series manufactured before August 1, 1981

OEM Part No.	AY Part No.	Stage Size	Price
14411-300N	690101W	3-1/2	\$50.40
14411-400N	690102W	4-1/2	\$50.91
14411-500N	690103W	5-1/2	\$70.25
14411-600N	690104W	6-1/2	\$74.16
14411-700N	690105W	7-1/2	\$94.55
14411-800N	690106W	8-1/2	\$141.49
14411-812N	690109W	8-5/8	\$194.11
14411-825N	690107W	9	\$250.10
14411-900N	690108W	9-3/4	\$310.13
14411-912N	690110W	9-3/4	\$278.83
14411-938N	690111W	9-7/8	\$266.47

OEM Part No.	AY Part No.	Stage Size	Price
14411-46N	69010W-4-6	4-6	\$191.76
14411-47N	69010W-4-7	4-7	\$289.93
14411-48N	69010W-4-8	4-8	\$342.50
14411-49N	69010W-4-9	4-9	\$713.33
14411-491N	69010W-4-9-1/8	4- 9-1/8	\$699.17

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## Replacement Parts for Hyco® Telescopic Cylinders, cont'd.

### Upper End Rebuild Kits (Cont'd)

**These kits include: Packing Set, Wiper, Top & Bottom Nylon Bearings**

Packing, Bearing & Wiper Assemblies

Packing, Bearing & Wiper Kits

#### C20,000 Series with K Style Wiper

OEM Part No.	AY Part No.	Stage Size	Price
034-00020-300N	690101K	3	\$60.94
034-00020-400N	690102K	4	\$64.66
034-00020-500N	690103K	5	\$89.82
034-00020-600N	690104K	6	\$98.18
034-00020-700N	690105K	7	\$118.36
034-00020-800N	690106K	8	\$177.81
034-00020-812N	690109K	8-1/8	\$249.15
034-00020-912N	690110K	9-1/8	\$301.00
034-00020-938N	690111K	9-3/8	\$309.13

Used on C20,000 and C30,000 Series manufactured after August 1, 1981

OEM Part No.	AY Part No.	Stage Size	Price
14750-300	690121W	3.525	\$55.05
14750-400	690122W	4.525	\$56.44
14750-500	690123W	5.525	\$58.72
14750-600	690124W	6.525	\$68.56
14750-700	690125W	7.525	\$106.05
14750-800	690126W	8.525	\$128.52
14750-812	690127W	8.650	\$181.05
14750-825	690128W	9.025	\$201.66
14750-912	690129W	9.650	\$240.97
14750-938	690130W	9.910	\$233.70

OEM Part No.	AY Part No.	Stage Sizes	Price
14750-46	69012W-4-6	4-6	\$184.02
14750-47	69012W-4-7	4-7	\$296.75
14750-48	69012W-4-8	4-8	\$356.93
14750-482	69012W-4-8-1/4	4- 8-1/4	\$482.69
14750-57	69012W-5-7	5-7	\$239.34
14750-58	69012W-5-8	5-8	\$361.98

#### Rectangular Nylon Bearings

#### Rectangular Nylon Bearing Kits

Used on C900, C2000, and C9000

OEM Part No.	AY Part No.	Size	Price
A2475N	690101A	3-1/2 X 3/4	\$15.48
A2227N	690102A	4-1/2 X 3/4	\$15.54
A2226N	690103A	5-1/2 X 3/4	\$16.94
A2225N	690104A	6-1/2 X 3/4	\$20.25
A2411N	690105A	7-1/2 X 3/4	\$22.49
A2447N	690106A	8-1/2 X 3/4	\$25.89
A3438N	690107A	9 X 3/4	\$48.79
A18415N	690108A	9-3/4 X 3/4	\$76.14

OEM Part No.	AY Part No.	Stage Sizes	Price
NYB35	69010A-3-5	3-5	\$86.56
NYB36	69010A-3-6	3-6	\$123.85
NYB38	69010A-3-8	3-8	\$206.57
NYB46	69010A-4-6	4-6	\$78.69
NYB47	69010A-4-7	4-7	\$143.82
NYB48	69010A-4-8	4-8	\$147.63
NYB48-1/4	69010A-4-8-1/4	4- 8-1/4	\$239.06
NYB49	69010A-4-9	4-9	\$359.53
NYB57	69010A-5-7	5-7	\$110.70
NYB58	69010A-5-8	5-8	\$153.14

#### Spiral Retaining Rings

This style retaining ring fits all standard telescopic cylinders manufactured by Hyco® that use spiral retaining rings.

OEM Part No.	AY Part No.	Bore Size	Price
A2477	690221	3	\$4.92
A2229	690222	4	\$11.07
A17794	690081 (thick)	4	\$12.18
A2237	690223	5	\$11.93
A17793	690082 (thick)	5	\$12.53
A2228	690224	6	\$14.93
A3012	690225	7	\$14.79
A3013	690226	8	\$16.02
A18387	690228	9	\$77.36
A8246	690229	9-3/4	\$127.73

#### 3/8" Wide Spring Steel Retaining Rings

This style retaining ring fits all standard telescopic cylinders manufactured by Hyco® that use spring steel retaining rings.

OEM Part No.	AY Part No.	Bore Size	Price
B9971-3.5	B9971-3.5	3-1/2	POA
B9971-4.5	B9971-4.5	4-1/2	POA
B9971-5.5	B9971-5.5	5-1/2	POA
B9971-6.5	B9971-6.5	6-1/2	POA
B9971-7.5	B9971-7.5	7-1/2	POA
B9971-8.5	B9971-8.5	8-1/2	POA
B9971-862	B9971-862	8-5/8	POA
B9971-900	B9971-9	9	POA
B9971-962	B9971-9.6	9-5/8	POA
B9971-970	B9971-9.7	9-1/8	POA
B9971-988	B9971-9.8	9-3/8	POA

## Replacement Parts for Hyco® Telescopic Cylinders, cont'd.

### 1/4" Wide Piston Rings

This style retaining ring fits all standard telescopic cylinders manufactured by Hyco® that use 1/4" wide piston rings.

OEM Part No.	AY Part No.	Bore Size	Price
A18029	690252	4-1/2	\$17.77
A18028	690253	5-1/2	\$22.84
A18027	690254	6-1/2	\$23.97
A18026	690255	7-1/2	\$36.61
A18025	690256	8-1/2	\$48.61
A18385	690258	9-3/4	\$96.51

### 1/2" Wide Piston rings

This style retaining ring fits all standard telescopic cylinders manufactured by Hyco® that use 1/2" wide piston rings.

OEM Part No.	AY Part No.	Bore Size	Price
B12071-3	690251A	3-1/2	\$57.49
B12071-4	690252A	4-1/2	\$54.76
B12071-5	690253A	5-1/2	\$41.37
B12071-6	690254A	6-1/2	\$54.76
B12071-7	690255A	7-1/2	\$57.49
B12071-8	690256A	8-1/2	\$62.89
B12071-812	690257A	8-5/8	\$118.42
B12071-9	690258A	9-3/4	\$98.63
B12071-938	690259A	9-7/8	\$125.23

### Piston Guide Bearings (Wear Bands)

This style retaining ring fits all standard telescopic cylinders manufactured by Hyco®.

OEM Part No.	AY Part No.	Bore Size	Price
10764-300	690241	3-1/2	\$5.07
10764-400	690242	4-1/2	\$5.51
10764-500	690243	5-1/2	\$5.55
10764-600	690244	6-1/2	\$7.41
10764-700	690245	7-1/2	\$7.41
10764-800	690246	8-1/2	\$8.67
10764-812	690249	8-5/8	\$13.40
10764-825	690247	9	\$13.95
10764-900	690248	9-3/4	\$15.36
10764-938	690250	9-7/8	\$24.84

### Head Nuts

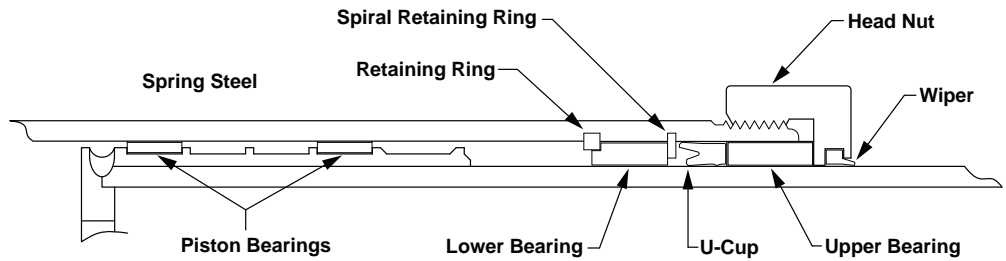
This style retaining ring fits all standard telescopic cylinders manufactured by Hyco®. They are 12 thread per inch unless noted.

OEM Part No.	AY Part No.	Wiper I.D.	Price
A2527	690261	3	POA
A2217	690262	4	POA
A14522	690270	4 (16 Thread)	POA
A2216	690263	5	POA
A2215	690264	6	POA
A2406	690265	7	POA
A14523	690271	7 (10 Thread)	POA
A3535	690274	7 (On 9-3/4 Cyl)	POA
A14524	690272	8 (10 Thread)	POA
A2442	690266	8 (12 Thread)	POA
A20621	690276	8 (C30000)	POA
A22747	690275	8 (C30000)	POA
A20558	690277	8-1/8	POA
A8285	690278	8-1/4	POA
A3534	690273	8-1/4	POA
A18411	690268	9	POA
A22483	690279	9-1/8	POA
A22746	690280	9-1/8	POA
A20599	690260	9-3/8	POA
A8253	690269	9-3/4	POA

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## Replacement Parts for Hyco® Telescopic Cylinders, cont'd.

1. Headnut height 1-1/2"
2. One spiral and one spring steel retaining ring.
3. U-cup and nylon bearing set. Optional Vee Packing Retrofit.
4. Nylon wear bands on piston.
5. Some use K Style Wiper.
6. Stage outside diameters 3.000", 4.000" etc.
7. Cylinder identification on tag and stamped near bottom of outside tube.



### Hyco® C70,000

Packing, Bearings, Spiral Retaining Ring, & Wiper Assemblies

Packing, Bearings, Spiral Retaining Ring, & Wiper Kits

#### C70,000 Series with U-Cup and Standard Wiper

OEM Part No.	AY Part No.	Stage Size	Price
B15252-300	690151W	3	\$80.89
B15252-400	690152W	4	\$101.27
B15252-500	690153W	5	\$108.07
B15252-600	690154W	6	\$127.61
B15252-700	690155W	7	\$150.52
B15252-812	690156W	8-1/8	\$244.40
B15252-938	690157W	9-3/8	\$326.21

OEM Part No.	AY Part No.	Stage Sizes	Price
B15252-46	69015W-4-6	4 thru 6	\$309.89
B15252-47	69015W-4-7	4 thru 7	\$445.69
B15252-48-1/8	69015W-4-8-1/8	4 thru 8-1/8	\$731.18
B15252-49-3/8	69015W-4-9-3/8	4 thru 9-3/8	\$997.01
B15252-5-7	69015W-5-7	5 thru 7	\$360.92
B15252-581/8	69015W-5-8-1/8	5 thru 8-1/8	\$580.04

#### C70,000 Series with U-Cup and K Style Wiper

OEM Part No.	AY Part No.	Stage Size	Price
034-00070-300	690151K	3	\$88.76
034-00070-400	690152K	4	\$116.92
034-00070-500	690153K	5	\$133.30
034-00070-600	690154K	6	\$150.13
034-00070-700	690155K	7	\$169.97
034-00070-812	690156K	8-1/8	\$274.41
034-00070-938	690157K	9-3/8	\$383.41

OEM Part No.	AY Part No.	Stage Sizes	Price
034-00070-46	69015K-4-6	4 thru 6	\$391.85
034-00070-47	69015K-4-7	4 thru 7	\$535.89
034-00070-48-1/8	69015K-4-8-1/8	4 thru 8-1/8	\$831.52
034-00070-49-3/8	69015K-4-9-3/8	4 thru 9-3/8	\$1,211.01
034-00070-57	69015K-5-7	5 thru 7	\$445.84
034-00070-58-1/8	69015K-5-8-1/8	5 thru 8-1/8	\$717.36

#### C70,000 Series Vee Packing Retrofit with Standard Wiper

OEM Part No.	AY Part No.	Stage Size	Price
B15255-300	690151VW	3	\$68.92
B15255-400	690152VW	4	\$85.21
B15255-500	690153VW	5	\$98.47
B15255-600	690154VW	6	\$113.28
B15255-700	690155VW	7	\$131.07
B15255-812	690156VW	8-1/8	\$218.52
B15255-938	690157VW	9-3/8	\$287.69

OEM Part No.	AY Part No.	Stage Sizes	Price
B15255-46	69015VW-4-6	4 thru 6	\$300.70
B15255-47	69015VW-4-7	4 thru 7	\$441.63
B15255-48-1/8	69015VW-4-8-1/8	4 thru 8-1/8	\$716.14
B15255-49-3/8	69015VW-4-9-3/8	4 thru 9-3/8	\$964.55
B15255-57	69015VW-5-7	5 thru 7	\$348.03
B15255-58-1/8	69015VW-5-8-1/8	5 thru 8-1/8	\$555.46

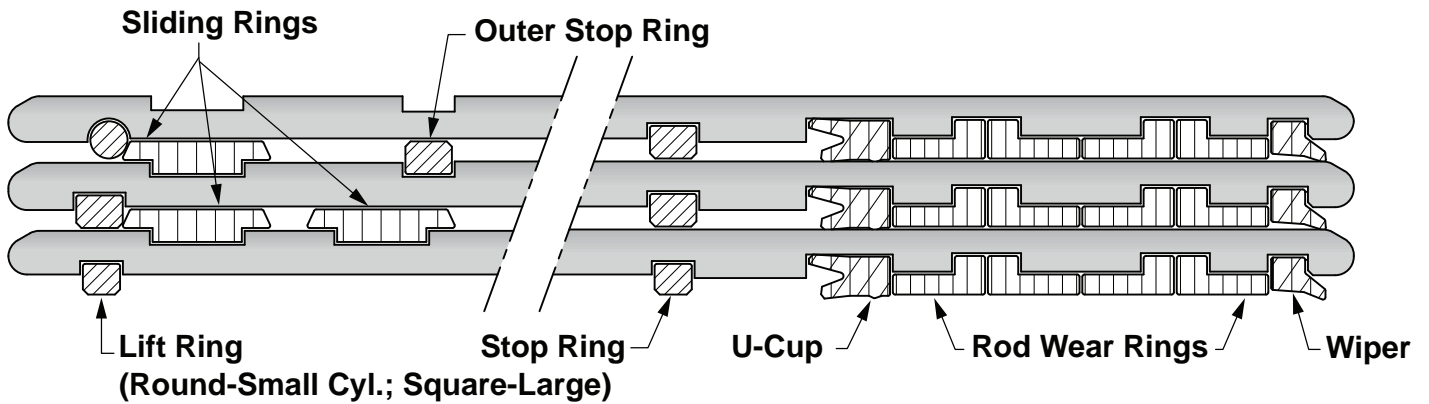
#### C70,000 Series Vee Packing Retrofit with K Style Wiper

OEM Part No.	AY Part No.	Stage Size	Price
034-00072-300	690151VK	3	\$79.62
034-00072-400	690152VK	4	\$100.85
034-00072-500	690153VK	5	\$118.06
034-00072-600	690154VK	6	\$134.63
034-00072-700	690155VK	7	\$156.11
034-00072-812	690156VK	8-1/8	\$274.94
034-00072-938	690157VK	9-3/8	\$339.98

OEM Part No.	AY Part No.	Stage Sizes	Price
034-00072-46	69015VK-4-6	4 thru 6	\$366.13
034-00072-47	69015VK-4-7	4 thru 7	\$519.55
034-00072-48-1/8	69015VK-4-8-1/8	4 thru 8-1/8	\$816.19
034-00072-49-3/8	69015VK-4-9-3/8	4 thru 9-3/8	\$1,171.66
034-00072-57	69015VK-5-7	5 thru 7	\$413.20
034-00072-58-1/8	69015VK-5-8-1/8	5 thru 8-1/8	\$661.13



# Replacement Parts for Hyva® Telescopic Cylinders



### Packing Kits

OEM Part No.	AY Part No.	Stage Size	Price
01760087K	HYV-01760087K	60MM	\$48.13
01760075K	HYV-01760075K	78MM	\$60.90
01760063K	HYV-01760063K	99MM	\$73.27
01760051K	HYV-01760051K	120MM	\$81.88
01760040K	HYV-01760040K	141MM	\$90.51
01760038K	HYV-01760038K	162MM	\$107.74
01760026K	HYV-01760026K	183MM	\$127.63
01760014K	HYV-01760014K	207MM	\$171.46

### Multi-Stage Kits

AY Part No.	Stage Sizes	Price
HYV-120-3	78, 99, & 120 stages	\$188.70
HYV-141-4	78, 99, 120, & 141 stages	\$279.53
HYV-162-4	99, 120, 141, & 162 stages	\$351.97
HYV-183-5	99, 120, 141, 162, & 183 stages	\$434.26
HYV-207-5	120, 141, 162, 183, & 207 stages	\$526.83

### Packing Kits

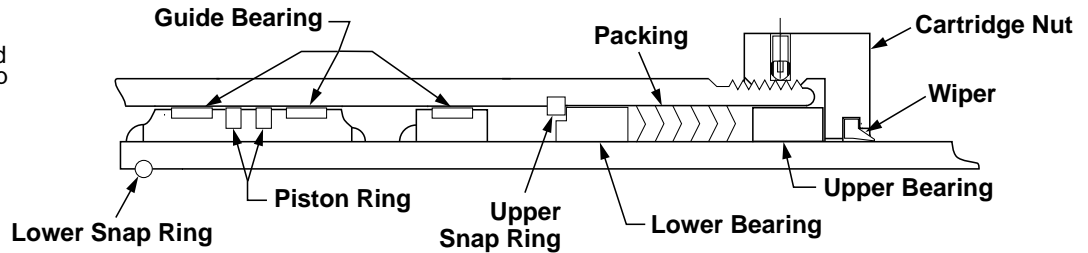
OEM Part No.	AY Part No.	Stage Size	Price
	HYV-072STK	72MM	\$68.77
	HYV-091STK	91MM	\$76.37
	HYV-110STK	110MM	\$80.88
	HYV-129STK	129MM	\$90.84
	HYV-149STK	149MM	\$103.16
	HYV-169STK	169MM	\$118.75
	HYV-191STK	191MM	\$147.61

**Includes Wiper, U-Cup, and Wear Rings**

Equipment manufacturer's part numbers are used for reference purpose only. We do not imply that any part shown is the product of these manufacturers. Trademarks are the property of their respective owners.

# Replacement Parts for Ward® Telescopic Cylinders

1. Outside stage diameters are .050" under nominal inch. (i.e. 2.95", 3.95" etc...)
1. Identification numbers stamped on steady rest groove near top of outside tube.
3. Upper and lower bearings made of nylon, nylon over a metal core or phenolic.
4. Cast head nuts with spanner wrench slots at top.
5. Lower bearing has step to accommodate 3/16 c/s snap ring.
6. Uses .275" c/s packing.



## Double Acting

### Packing & Wiper Assemblies

OEM Part No.	AY Part No.	Size	Price
510-9-0738-30	690401W	2.95 x 3.5	\$24.97
510-9-0738-40	690402W	3.95 x 4.5	\$29.69
510-9-0738-50	690403W	4.95 x 5.5	\$37.56
510-9-0738-60	690404W	5.95 x 6.5	\$47.30
510-9-0738-70	690405W	6.95 x 7.5	\$57.49
510-9-0738-80	690406W	7.95 x 8.5	\$68.02
510-9-0738-90	690407W	8.95 x 9.5	\$92.29

### Upper Bearings

OEM Part No.	AY Part No.	Stage Size	Price
310-9-0448-03	690441	2.95	\$40.32
310-9-0448-05	690442	3.95	\$44.21
310-9-0448-07	690443	4.95	\$45.76
310-9-0448-09	690444	5.95	\$47.61
310-9-0448-11	690445	6.95	\$51.86
310-9-0448-13	690446	7.95	\$56.45
310-9-0448-15	690447	8.95	\$64.09

### Packing, Bearings, and Wiper Sets

OEM Part No.	AY Part No.	Stage Size	Price
	690401WB	2.95	\$110.76
	690402WB	3.95	\$131.76
	690403WB	4.95	\$139.37
	690404WB	5.95	\$157.34
	690405WB	6.95	\$174.03
	690406WB	7.95	\$196.88
	690407WB	8.95	\$237.23

### Lower Bearings

OEM Part No.	AY Part No.	Stage Size	Price
310-9-0447-03	690451	2.95	\$51.89
310-9-0447-05	690452	3.95	\$55.74
310-9-0447-07	690453	4.95	\$60.66
310-9-0447-09	690454	5.95	\$68.25
310-9-0447-11	690455	6.95	\$76.34
310-9-0447-13	690456	7.95	\$89.02
310-9-0447-15	690457	8.95	\$107.14

### Piston Guide Bearings

OEM Part No.	AY Part No.	Bore Size	Price
310-9-0737-30	690421	3-1/2	\$6.84
310-9-0737-40	690422	4-1/2	\$5.82
310-9-0737-50	690423	5-1/2	\$5.82
310-9-0764-60	690424	6-1/2	\$12.92
310-9-0764-70	690425	7-1/2	\$13.76
310-9-0764-80	690426	8-1/2	\$15.82
310-9-0764-90	690427	9-1/2	\$22.71

### Upper Snap Rings

OEM Part No.	AY Part No.	Bore Size	Price
	690460	2	\$36.90
	690461	3	\$38.37
560-9-0009-40	690462	4-1/2	\$55.77
560-9-0009-50	690463	5-1/2	\$62.28
560-9-0009-60	690464	6-1/2	\$70.87
560-9-0009-70	690465	7-1/2	\$76.42
560-9-0009-80	690466	8-1/2	\$84.05
560-9-0009-90	690467	9-1/2	\$96.74

### Piston Rings

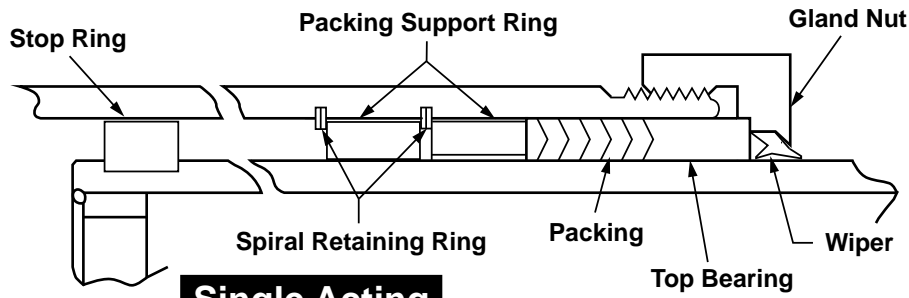
OEM Part No.	AY Part No.	Bore Size	Price
505-9-0066	690431	3-1/2	\$16.34
505-9-0066-17	690432	4-1/2	\$17.18
505-9-0066-24	690433	5-1/2	\$22.38
505-9-0066-28	690434	6-1/2	\$23.79
505-9-0066-35	690435	7-1/2	\$47.20
505-9-0066-38	690436	8-1/2	\$54.42
505-9-0066-40	690437	9-1/2	\$152.62

### Lower Snap Rings

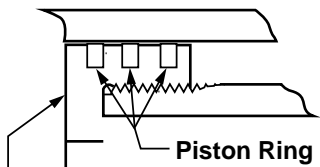
OEM Part No.	AY Part No.	Bore Size	Price
560-9-0812-25	690473	4-1/2	\$26.43
560-9-0812-42	690474	5-1/2	\$29.11
560-9-0812-36	690475	6-1/2	\$32.89
560-9-0812-07	690476	7-1/2	\$35.53
560-9-0812-08	690477	8-1/2	\$40.46

Equipment manufacturer's part numbers are used for reference purpose only. We do not imply that any part shown is the product of these manufacturers. Trademarks are the property of their respective owners.

# Replacement Parts for Galion® Telescopic Cylinders



**Single Acting**



**Double Acting**

1. Stage outside diameters measure .030" under nominal inch, i.e. 2.970", 3.970", 4.970"
2. Top bearing is cast iron with machined female adapter (aftermarket parts are nylon with separate female).
3. Uses one spiral snap ring on smaller stages, two on 5" and above.
4. Wiper is a K-type 5/32" c/s or a flat bottom single lip K-type 5/32" c/s.
5. Uses .275" c/s packing.

**Packing, Bearing & Wiper Assemblies**

OEM Part No.	AY Part No.	Stage Size	Price
20-25501	690051BW	2.97 x 3.52	\$63.25
20-25500	690052BW	3.97 x 4.52	\$63.67
20-25499	690053BW	4.97 x 5.52	\$72.53
20-25498	690054BW	5.97 x 6.52	\$76.18
20-25497	690055BW	6.97 x 7.52	\$88.70
20-25496	690056BW	7.97 x 8.52	\$123.79
20-25562	690057BW	9.125 x 9.675	\$240.55

**Multi-Stage Kits**

OEM Part No.	AY Part No.	Stage Sizes	Price
	69005BW-3-5	2.97 - 4.97	\$176.50
	69005BW-4-6	3.97 - 5.97	\$201.28
	69005BW-4-7	3.97 - 6.97	\$287.74
	69005BW-4-8	3.97 - 7.97	\$408.42
	69005BW-4-9	3.97 - 9.125	\$644.77
	69005BW-5-7	4.97 - 6.97	\$228.37
	69005BW-5-8	4.97 - 7.97	\$349.05

**Retaining Rings**

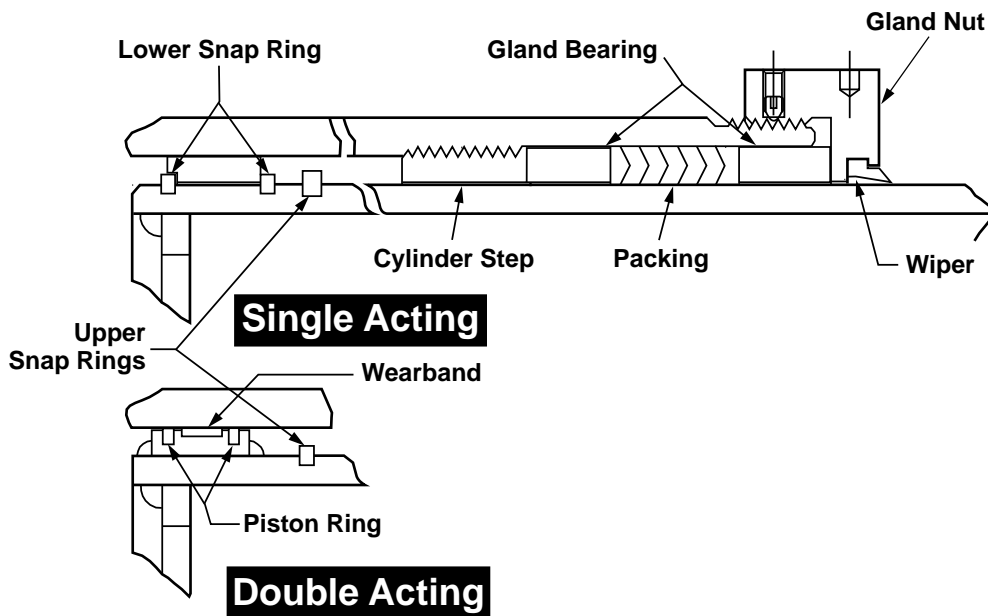
OEM Part No.	AY Part No.	Bore Size	Price
10-5304	690079	2.52	\$10.64
10-25689	690080	3.52	\$10.74
10-25688	690081	4.52	\$12.92
10-25687	690082	5.52	\$13.29
10-25686	690083	6.52	\$14.69
10-25718	690084	7.52	\$18.41
10-25729	690085	8.52	\$19.66
10-26982	690086	9.675	\$43.83

**Piston Rings**

OEM Part No.	AY Part No.	Bore Size	Price
10-27073	690040	3.52	\$14.30
10-27074	690041	4.52	\$15.47
10-27075	690042	5.52	\$19.87
10-27076	690043	6.52	\$35.05
10-27077	690044	7.52	\$41.83
10-27360	690045	8.52	\$47.33
10-27358	690046	9.675	\$66.66

Equipment manufacturer's part numbers are used for reference purpose only. We do not imply that any part shown is the product of these manufacturers. Trademarks are the property of their respective owners.

# Replacement Parts for Perfection® Telescopic Cylinders



1. Stage outside diameters 2.580", 3.580", 4.580", 5.445", 6.445", etc.
2. Wiper is 3/16" c/s NBR or urethane and measures 7/16" high.
3. Bronze (or after market nylon) bearings above and below packing on smaller stages. One bearing on 6.445", 7.445" and 8.445" stages.
4. Threaded internal stop ring with two flats for spanner wrench.
5. Cast headnuts with large spanner wrench holes.

## Packing & Wiper Assemblies

OEM Part No.	AY Part No.	Size	Price
25372	690301W	2.580 x 3.110	\$26.31
25373	690302W	3.580 x 4.110	\$43.57
25374	690303W	4.580 x 5.080	\$65.93
25375	690304W	5.445 x 5.945	\$57.71
25376	690305W	6.445 x 6.945	\$69.75
25377	690306W	7.445 x 7.945	\$78.62
54283	690307W	8.445 x 9.195	\$219.27

## Piston Rings

OEM Part No.	AY Part No.	Size Stage(Bore)	Price
28027	690371	3.580 (4)	\$17.15
28028	690372	4.580 (4-7/8)	\$20.86
28029	690373	5.445 (5-3/4)	\$26.54
54709	690374	6.445 (6-3/4)	\$65.62
54710	690375	7.445 (7-3/4)	\$39.05
57711	690376	8.445 (9)	\$69.35

## Nylon Gland Bearings

OEM Part No.	AY Part No.	Stage Size	Price
56542	690320	2.580	\$46.44
56542	690321	3.580	\$46.71
56543	690322	4.580	\$49.51
56544	690323	5.445	\$65.12
56545	690324	6.445	\$76.98
56546	690325	7.445	\$168.09

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# Seal Materials

## Urethane

A formulation of copolymers of ether or ester based urethanes, it is used in a number of applications such as seals, wipers, back-up rings and custom molded parts. Characteristics: High resilience, high tensile strength, excellent cut resistance, and high resistance to oil swell, ozone, oxidation and abrasion. Urethane is an excellent choice in hydraulic systems using petroleum based fluids. Operating temperature ranges from -65° F to 200°F (-54°C to 93°C)

## Ultrathane K-24

A new polyurethane material offering up to 43% reduced friction over conventional urethane materials. Because of this reduced friction and the resulting lowering of frictional heat build-up at the seal interface, the operating temperature is -65° F to 225°F (-54°C to 107°C). Urethane fluid compatibility is the same as above and is good for service to 5,000 PSI at recommended dimensions and tolerances.

## Hytrel®

An engineered thermoplastic elastomer featuring high resistance to fatigue, chemicals, oils, solvents and abrasion. Hytrel® can be custom molded and features many of the most desirable characteristics of high performance elastomers. Common parts made from Hytrel® are wipers, vee rings and polypaks. Working temperature range is -40°F to 250°F (-40°C to 121°C).

## Nitrile

The most common nitrile copolymer blend is the compound known as Buna-N. Possessing very good resistance to petroleum based hydraulic oils, Buna-N also works well with fuels such as diesel or gasoline. Nitrile seals have a good resistance to compression set, but their flexibility suffers somewhat in lower temperatures. Working temperature range is -40°F to 250°F (-40°C to 121°C). Special Nitrile formulations may have a higher upper limit to 300°F (149°C).

## Nitroxile

Nitroxile is a Carboxylated Nitrile material offering 3 to 5 times greater resistance to abrasion than conventional nitrile compounds. This material is also available with internal lubrication to reduce friction. Nitroxile is suitable for general hydraulic service in petroleum based fluids, water-oil emulsions, water-glycol fluids and water based fluids (HWBF). Nitroxiles operating temperature range is -40°F to 250°F (-40°C to 121°C).

## Teflon®

This material offers high heat resistance, low temperature flexibility, low running friction, chemical inertness and non-adhesive characteristics. Most Teflon® seals are fortified with short glass fibers, bronze flashes, carbon, graphite, or a combination of these fillers. Temperature range is -65° F to 500°F (-54°C to 260°C) although this temperature range may be reduced by the addition of certain fillers.

## Nylon

Nylon is an engineered thermoplastic which has many uses, including, adapter rings, bearings, and guide rings. To enhance the physical properties, additives such as glass-fibers, lubricants, heat and ultraviolet stabilizers are combined. Nylon features high resistance to fatigue, chemicals, oils, solvents and abrasion. Temperature range is -65°F to 275°F (-54°C to 135°C) and can be extended with the addition of certain fillers.

## PolyMyte®

Parker PolyMyte® is an "elastoplastic" material with exceptionally high tear strength and abrasion resistance. PolyMyte®'s high modulus and high durometer (53 & 65 Shore D) make it very suitable for high pressure service where extrusion is a problem. PolyMyte® is suitable for service in petroleum based fluids, water base fluids (HWBF), phosphate ester fluids, some chlorinated fluids and solvents. Temperature range is -65°F to 275°F (-54°C to 135°C) and 180°F (82°C) in water and water based fluids.

## FluoroMyte®

Developed to meet seal needs in high pressure hydraulic systems. FluoroMyte® has exceptionally high tear strength and abrasion resistance. It also has lower friction than PolyMyte® due to special lubricants dispersed in the base material. FluoroMyte® has excellent resistance to oxygen, ozone, petroleum and phosphate ester based fluids. Temperature range is -65°F to 300°F (-54°C to 149°C)

## Fluorocarbon (FKM, Viton®, Fluorel®)

The combination of high temperature resistance with excellent chemical resistance often results in reduced seal inventory requirements. Excellent for use with most hydraulic fluids, alcohol and aromatic fuels and highly resistant to ultraviolet light and ozone. However it is not recommended for use in low temperatures, or with fire retardant fluids, or in aircraft hydraulics. Temperature range is -15°F to 400°F (-29°C to 204°C).

## Ethylene Propylene

Not suited for petroleum based fluids, but is a useful seal material for phosphate ester (Fire retardant) hydraulic fluids. Also suitable for use with automotive brake fluids, weak caustics, steam, acetone, acids and alkalies. Temperature range is -65°F to 300°F (-54°C to 149°C) and to 400°F (204°C) in steam.

## Silicone

A stable elastomer combining silicon, oxygen, hydrogen and carbon. Silicone is not recommended for dynamic situations due to high friction and poor abrasion resistance, but the material is unsurpassed for use in static seals subjected to dry heat, ultraviolet light and ozone. The temperature range is -75°F to 450°F (-59°C to 232°C)

# Glossary of Terms

**Abrasion Resistance** - The ability of a compound to resist mechanical wear.

**Brittleness** - Tendency to crack when deformed.

**Compression Set** - The amount by which a rubber specimen fails to return to original shape after release of a compressive load.

**Durometer** - A generic term referring to the instrument and the scale used to measure the relative hardness of various elastomers (Shore A and Shore D scales). The higher the durometer rating the higher the resistance to an indenter point penetrating into the surface of the rubber material.

**Dynamic Seal** - A sealing device used between mating surfaces that have relative motion.

**Elastomer** - A synthetic or natural material having the capacity for large deformation and rapid, complete recovery from the deforming force.

**Elongation** - The percent increase in the original length of a specimen when it breaks.

**Extrusion** - Distortion or flow, under pressure, of a portion of the seal into clearance between mating metal parts.

**Filler** - Chemically inert, finely divided material added to the elastomer to aid in processing and improving the physical properties, i.e., temperature or abrasion resistance, strength or to give it varying degrees of hardness.

**Flash** - Excessive rubber left around the part after molding due to space between mating mold surfaces. Typically removed by trimming.

**Friction** - Resistance to motion due to the contact of surfaces.

**Gland** - A groove or open area machined into the head or piston that houses the sealing device.

**Hardness** - Resistance to a distorting force. Measured by the relative resistance of the material to an indenter point of any one of a number of standard hardness testing instruments.

**Hardness SHORE A** - The rubber durometer hardness as measured on a Shore "A" gauge. Higher numbers indicate harder material. 35 Shore "A" durometer reading is considered soft. 90 is considered hard.

**Memory** - Tendency of a material to return to original shape after deformation.

**Modulus** - Tensile stress at a specified elongation. (Usually 100% elongation for elastomers.)

**Nominal Dimension** - Nearest fractional equivalent to actual dimensions.

**Oxidation** - The reaction of oxygen on a compound usually detected by a change in the physical properties, appearance or feel of the surface.

**Permanent Set** - The deformation remaining after a specimen has been stressed in tension for a definite period and released for a definite period.

**Permeability** - The rate at which a liquid or gas under pressure passes through a solid material by diffusion and solution. In rubber terminology, it is the rate of gas flow expressed in atmospheric cubic centimeters per second through an elastomeric material one centimeter square and one centimeter thick (atm cc/cm<sup>2</sup>/cm/cm/sec).

**Resilient** - Capable of returning to original size and shape after deformation.

**Static Seal** - A sealing device used between mating surfaces that have no relative motion.

**Squeeze** - Diametral compression of o-ring between surface of the groove bottom and surface of other mating metal part in the gland assembly.

**Swell** - Increased volume of a specimen caused by immersion in a fluid (usually a liquid).

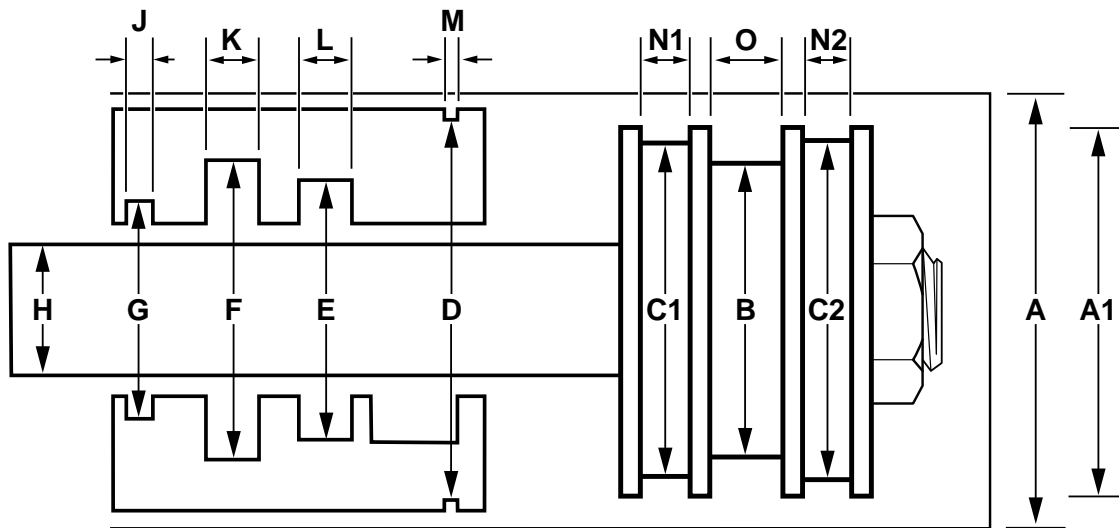
**Tear Resistance** - Resistance to growth of a cut or nick when tension is applied to the specimen. Commonly expressed as pounds per inch thickness.

**Tensile Strength** - Force in pounds per square inch required to cause a rupture of a specimen of a rubber material.

**Thermal Expansion** - Expansion caused by increase in temperature. May be linear or volumetric.

**Viscosity** - The property of fluids and plastic solids by which they resist an instantaneous change of shape, i.e., resistance to flow.

# Cylinder Specifications



- |           |   |           |  |
|-----------|---|-----------|--|
| <b>A</b>  | _____ Cylinder Bore                       | <b>G</b>  | _____ Wiper Groove Diameter            |
| <b>A1</b> | _____ Piston Diameter                     | <b>H</b>  | _____ Rod Diameter                     |
| <b>B</b>  | _____ Piston Seal Groove Diameter         | <b>J</b>  | _____ Wiper Groove Width               |
| <b>C1</b> | _____ Wear Ring Groove Diameter           | <b>K</b>  | _____ Rod Seal Groove Width            |
| <b>C2</b> | _____ Wear Ring Groove Diameter           | <b>L</b>  | _____ Buffer or Wear Ring Groove Width |
| <b>D</b>  | _____ O-Ring Head Seal Groove Diameter    | <b>M</b>  | _____ O-Ring Head Seal Groove Width    |
| <b>E</b>  | _____ Buffer or Wear Ring Groove Diameter | <b>N1</b> | _____ Wear Ring Groove Width           |
| <b>F</b>  | _____ Rod Seal Groove Diameter            | <b>N2</b> | _____ Wear Ring Groove Width           |
|           |   | <b>O</b>  | _____ Piston Seal Groove Width         |

# Troubleshooting

Here is a simple process to follow for correcting any type of seal failure:

- 1 Re-examine seal selection process.
- 2 Examine complete system.
- 3 Carefully examine failed seal for evidence of:
  - a. Softening or hardening of seal material
  - b. Dimensional changes in seal.
  - c. Surface tears, scratches, extrusion or other physical damage.
  - d. Obtain sample of system hydraulic fluid.
- 4 Contact Allegheny York Technical Services to assist in analysis of failure and recommended solution.

**1. Spiral Failure** is often the result of a combination of factors such as basic seal geometry, long stroke and/or too soft an elastomer. The classic spiral failure usually is found in a simple o-ring seal but will sometimes be evident in unsupported lip type seals as well. The use of T-seals, harder durometer materials and seals with rectangular cross-sections will usually solve this problem.

**2. Extrusion** of the seal element is usually caused by excessive clearances in metal components, high axial loading, high pressure and use of too low a durometer seal material. Extrusion causes a loss in seal volume and stability. The prevention of extrusion usually requires a type of seal with built-in backup rings or use of a high durometer "extrusion-resistant" material. Seals for this purpose include PolyPaks, SCL seals, T-seals and auxiliary devices such as modular back-ups.

**3. Slip-Stick** is an expression of the differential between the static and dynamic coefficient of friction as it relates to start-up of a sliding mechanism. Slip-Stick occurs when the seal hangs-up in the transition period between static and dynamic modes or there is a variation in the system fluid pressure, or shock loads cause the piston to jump back to the static mode. The most noticeable result of Slip-Stick is erratic or jerky movement of the actuator rod. Slip-Stick often creates an audible noise and excessive heat and seal wear can occur. To prevent this problem, consider the use of internally lubricated compounds and/or change to a seal design with a lower friction potential and better bearing-to-stroke ratio.

**4. Heat Degradation** is to be suspected when the failed seal exhibits a hard, brittle appearance and/or shows a breaking away of parts of the seal lip or body. Heat degradation results in loss of sealing lip effectiveness through excessive compression set and/or loss of seal material. Causes of this condition may be use of incorrect seal material, high dynamic friction, excessive lip loading, no heel clearance and proximity to outside heat source. Correction of heat degradation problems may involve reducing seal lip interference, increasing lubrication or a change of seal material. In borderline situations consider all upper temperature limits to be increased by 50°F in dynamic reciprocating seals at the seal interface due to running friction.

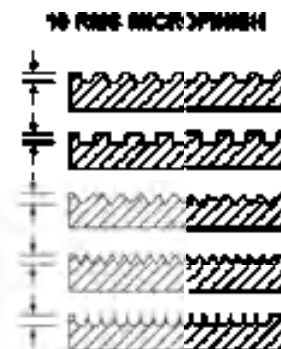
**5. Improper Installation** is a major cause of seal failure. The three broad areas to be watched during seal installation are: cleanliness, protecting the seal from nicks and cuts, and proper lubrication. Other problem areas are overtightening of the seal gland where there is an adjustable gland follower or folding over a seal lip during installation.

**6. System Contamination** is usually caused by external elements such as dirt, grit, mud, dust, even ice and internal contamination from circulating metal chips, breakdown products of the fluid, hoses or other degradable system components. As most external contamination enters the system during rod retraction, the proper installation of a rod wiper/scrapper is the best solution. Internal contamination is best prevented by proper filtering of system fluid. Contamination is indicated by scored rod and cylinder bore surfaces, excessive seal wear and leakage.

**7. Chemical Breakdown** of the seal material is most often the result of incorrect material selection in the first place or subsequent change of system fluid. Misapplication or use of non-compatible materials can lead to chemical attack on the seal by fluid additives, hydrolysis and oxidation/reduction of seal elements. Chemical breakdown can result in loss of seal lip interface, softening of seal durometer, excessive swelling or shrinkage. The solution to chemical breakdown problems may be solved using special compounds such as Elastalloys, Nitroxiles, Fluorocarbons.

# Surface Finish

This is a subject of much controversy in the hydraulic industry. The current "RMS" method of defining surface finish leaves much to be desired as the "RMS" measurement alone can be deceiving. The graphic examples on right illustrates the problem. All the surface finishes shown measure 10 RMS but, the actual microscopic surfaces are quite different. A low RMS finish alone is not enough to insure good seal performance. In some cases, an 8 RMS finish will cause more wear than a 30 RMS finish. Be sure to specify the "type" of finish as well as its RMS value.





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## CONVERSION TABLES & FORMULAS

MULTIPLY			BY	TO OBTAIN			MULTIPLY			BY	TO OBTAIN			
INCHES			25.400	MILLIMETERS			CUBIC INCHES			16.387	CUBIC CENTIMETERS			
MILLIMETERS			0.039	INCHES			LITERS			61.025	CUBIC INCHES			
Fraction	Dec.	MM		Fraction	Dec.	MM		Fraction	Dec.	MM		Fraction	Dec.	MM
-	0.004	0.100		17/32	0.531	13.500		-	1.299	33.000		2-1/2	2.500	63.500
-	0.01	0.250		35/64	0.547	13.900		1-5/16	1.312	33.340		-	2.520	64.000
1/64	0.016	0.400		-	0.551	14.000		-	1.339	34.000		-	2.559	65.000
-	0.020	0.500		9/16	0.563	14.290		1-11/32	1.344	34.130		2-9/16	2.562	65.090
-	0.030	0.750		-	0.571	14.500		1-3/8	1.375	34.930		-	2.598	66.000
1/32	0.031	0.790		37/64	0.578	14.680		-	1.378	35.000		2-5/8	2.625	66.680
-	0.039	1.000		-	0.591	15.000		1-13/32	1.406	35.720		-	2.638	67.000
3/64	0.047	1.190		19/32	0.594	15.080		-	1.417	36.000		-	2.677	68.000
-	0.059	1.500		39/64	0.609	15.480		1-7/16	1.438	36.510		2-11/16	2.688	68.260
1/16	0.063	1.590		5/8	0.625	15.880		-	1.457	37.000		-	2.717	69.000
5/64	0.078	1.980		-	0.630	16.000		1-15/32	1.469	37.310		2-3/4	2.750	69.850
-	0.079	2.000		41/64	0.641	16.270		-	1.496	38.000		-	2.756	70.000
3/32	0.094	2.380		-	0.650	16.500		1-1/2	1.500	38.100		-	2.795	71.000
-	0.098	2.500		21/32	0.656	16.670		1-17/32	1.531	38.890		2-13/16	2.810	71.440
7/64	0.109	2.780		-	0.669	17.000		-	1.535	39.000		-	2.835	72.000
-	0.118	3.000		43/64	0.672	17.010		1-9/16	1.562	39.690		-	2.874	73.000
1/8	0.125	3.180		11/16	0.688	17.460		-	1.575	40.000		2-7/8	2.875	73.030
-	0.138	3.500		45/64	0.703	17.860		1-19/32	1.594	40.480		-	2.913	74.000
9/64	0.141	3.570		-	0.709	18.000		-	1.614	41.000		2-15/16	2.938	74.610
5/32	0.156	3.970		23/32	0.719	18.260		1-5/8	1.625	41.280		-	2.953	75.000
-	0.158	4.000		-	0.728	18.500		-	1.654	42.000		-	2.992	76.000
11/64	0.172	4.370		47/64	0.734	18.650		1-21/32	1.656	42.070		3	3.000	76.200
-	0.177	4.500		-	0.748	19.000		1-11/16	1.688	42.860		-	3.032	77.000
3/16	0.188	4.760		3/4	0.750	19.050		-	1.693	43.000		3-1/16	3.062	77.790
-	0.197	5.000		49/64	0.766	19.450		1-23/32	1.719	43.660		-	3.071	78.000
13/64	0.203	5.160		25/32	0.781	19.840		-	1.732	44.000		-	3.110	79.000
-	0.217	5.500		-	0.787	20.000		1-3/4	1.750	44.500		3-1/8	3.125	79.380
7/32	0.219	5.560		51/64	0.797	20.240		-	1.772	45.000		-	3.150	80.000
15/64	0.234	5.950		13/16	0.813	20.640		1-25/32	1.781	45.240		3-3/16	3.188	80.960
-	0.236	6.000		-	0.827	21.000		-	1.811	46.000		-	3.189	81.000
1/4	0.250	6.350		53/64	0.828	21.030		1-13/16	1.813	46.040		-	3.228	82.000
-	0.256	6.500		27/32	0.844	21.430		1-27/32	1.844	46.830		3-1/4	3.250	82.550
17/64	0.266	6.750		55/64	0.859	21.830		-	1.850	47.000		-	3.268	83.000
-	0.276	7.000		-	0.866	22.000		1-7/8	1.875	47.630		-	3.307	84.000
9/32	0.281	7.140		7/8	0.875	22.230		-	1.890	48.000		3-5/16	3.312	84.140
-	0.295	7.500		57/64	0.891	22.620		1-29/32	1.906	48.420		-	3.346	85.000
19/64	0.297	7.540		-	0.906	23.000		-	1.929	49.000		3-3/8	3.375	85.730
5/16	0.313	7.940		29/32	0.906	23.020		1-15/16	1.938	49.210		-	3.386	86.000
-	0.315	8.000		59/64	0.922	23.420		-	1.970	50.000		-	3.425	87.000
21/64	0.328	8.330		15/16	0.938	23.810		1-31/32	1.970	50.010		3-7/16	3.438	87.310
-	0.335	8.500		-	0.945	24.000		2	2.000	50.800		-	3.465	88.000
11/32	0.344	8.730		61/64	0.953	24.210		-	2.008	51.000		3-1/2	3.500	88.900
-	0.354	9.000		31/32	0.969	24.610		-	2.047	52.000		-	3.504	89.000
23/64	0.359	9.130		-	0.984	25.000		2-1/16	2.062	52.390		-	3.543	90.000
-	0.374	9.500		1	1.000	25.400		-	2.087	53.000		3-9/16	3.562	90.490
3/8	0.375	9.530		-	1.024	26.000		2-1/8	2.125	53.980		-	3.583	91.000
25/64	0.391	9.920		1-1/32	1.031	26.190		-	2.126	54.000		-	3.622	92.000
-	0.394	10.000		1-1/16	1.062	26.990		-	2.165	55.000		3-5/8	3.625	92.080
13/32	0.405	10.320		-	1.063	27.000		2-3/16	2.188	55.560		-	3.661	93.000
-	0.413	10.500		1-3/32	1.094	27.780		-	2.205	56.000		3-11/16	3.688	93.660
27/64	0.422	10.720		-	1.102	28.000		-	2.244	57.000		-	3.701	94.000
-	0.433	11.000		1-1/8	1.125	28.580		2-1/4	2.250	57.150		-	3.740	95.000
7/16	0.438	11.110		-	1.148	29.000		-	2.284	58.000		3-3/4	3.750	95.250
29/64	0.453	11.510		1-5/32	1.156	29.370		2-5/16	2.312	58.740		-	3.780	96.000
15/32	0.469	11.910		-	1.181	30.000		-	2.323	59.000		3-13/16	3.813	96.840
-	0.472	12.000		1-3/16	1.188	30.160		-	2.362	60.000		-	3.819	97.000
31/64	0.484	12.300		1-7/32	1.219	30.960		2-3/8	2.375	60.330		-	3.858	98.000
-	0.492	12.500		-	1.221	31.000		-	2.402	61.000		3-7/8	3.875	98.430
1/2	0.500	12.700		1-1/4	1.250	31.750		2-7/16	2.438	61.910		-	3.898	99.000
-	0.512	13.000		-	1.260	32.000		-	2.441	62.000		-	3.937	100.000
33/64	0.516	13.100		1-9/32	1.281	32.540		-	2.480	63.000				



# AllegHENy York

O-rings • Seals • Packings • Gaskets

3995 N. George St. Ext. Manchester, PA 17345

Tel: (717) 266-6617 • Fax: (717) 266-6371

www.allegHENyYork.com • sales@allegHENyYork.com

## O-RING AS568A DASH NUMBERS

I.D.	CROSS SECTION				
	1/16	3/32	1/8	3/16	1/4
1/32	001				
3/64	002				
1/16	003	102			
5/64	004				
3/32	005	103			
1/8	006	104			
5/32	007	105			
3/16	008	106			
7/32	009	107			
1/4	010	108	202		
5/16	011	109	203		
3/8	012	110	204		
7/16	013	111	205	309	
1/2	014	112	206	310	
9/16	015	113	207	311	
5/8	016	114	208	312	
11/16	017	115	209	313	
3/4	018	116	210	314	
13/16	019	117	211	315	
7/8	020	118	212	316	
15/16	021	119	213	317	
1	022	120	214	318	
1-1/16	023	121	215	319	
1-1/8	024	122	216	320	
1-3/16	025	123	217	321	
1-1/4	026	124	218	322	
1-5/16	027	125	219	323	
1-3/8	028	126	220	324	
1-7/16		127	221		
1-1/2	029	128	222	325	
1-9/16		129			
1-5/8	030	130	223	326	
1-11/16		131			
1-3/4	031	132	224	327	
1-13/16		133			
1-7/8	032	134	225	328	
1-15/16		135			
2	033	136	226	329	
2-1/16		137			
2-1/8	034	138	227	330	
2-3/16		139			
2-1/4	035	140	228	331	
2-5/16		141			
2-3/8	036	142	229	332	
2-7/16		143			
2-1/2	037	144	230	333	
2-9/16		145			
2-5/8	038	146	231	334	
2-11/16		147			
2-3/4	039	148	232	335	
2-13/16		149			

I.D.	CROSS SECTION				
	1/16	3/32	1/8	3/16	1/4
2-7/8	040	150	233	336	
3	041	151	234	337	
3-1/8			235	338	
3-1/4	042	152	236	339	
3-3/8			237	340	
3-1/2	043	153	238	341	
3-5/8			239	342	
3-3/4	044	154	240	343	
3-7/8			241	344	
4	045	155	242	345	
4-1/8			243	346	
4-1/4	046	156	244	347	
4-3/8			245	348	
4-1/2	047	157	246	349	425
4-5/8			247	350	426
4-3/4	048	158	248	351	427
4-7/8			249	352	428
5	049	159	250	353	429
5-1/8			251	354	430
5-1/4	050	160	252	355	431
5-3/8			253	356	432
5-1/2		161	254	357	433
5-5/8			255	358	434
5-3/4		162	256	359	435
5-7/8			257	360	436
6		163	258	361	437
6-1/4		164	259	362	438
6-1/2		165	260	363	439
6-3/4		166	261	364	440
7		167	262	365	441
7-1/4		168	263	366	442
7-1/2		169	264	367	443
7-3/4		170	265	368	444
8		171	266	369	445
8-1/4		172	267	370	
8-1/2		173	268	371	446
8-3/4		174	269	372	
9		175	270	373	447
9-1/4		176	271	374	
9-1/2		177	272	375	448
9-3/4		178	273	376	
10			274	377	449
10-1/2			275	378	450
11			276	379	451
11-1/2			277	380	452
12			278	381	453
12-1/2					454
13			279	382	455
13-1/2					456
14			280	383	457
14-1/2					458



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### Credit Application

<b>Company Information</b>		
Name:		
Web Site:		
Billing Address:		
City:	State:	Zip:
Email Address:		
Shipping Address:		
City:	State:	Zip:
Email address:		
Telephone:	Fax:	
Sales Tax/Resale Certificate (Include Copy):		
Type of Business: Corporation:	Partnership:	
Federal Tax ID (Include W9 Copy) or President/Owner SSN:		
President or Owner:		
Email Address:		
Manager:		
Email Address:		
<i>If this is a subsidiary of another company, Indicate parent company name, address and zip code below:</i>		
Name:		
Address:		
City:	State:	Zip:
<b>Bank Reference</b>		
Name of Bank:	Telephone:	Fax:
Address:		
City:	State:	Zip:
Bank Officer to Contact:		
<b>Trade References</b>		
Firm Name:	Address:	<b>FAX</b>
<b>1</b>		
<b>2</b>		
<b>3</b>		