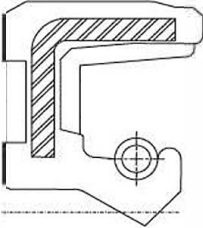
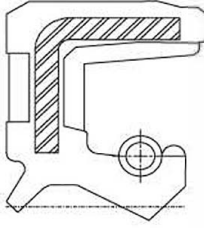
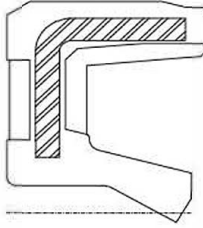
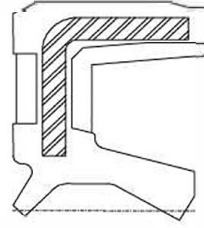
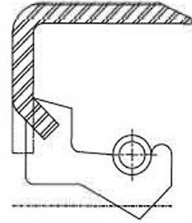
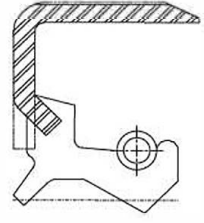
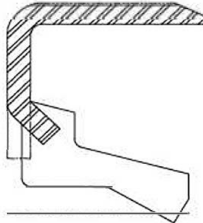
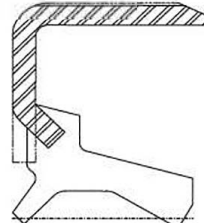
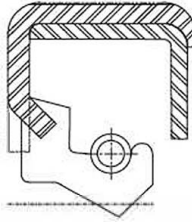
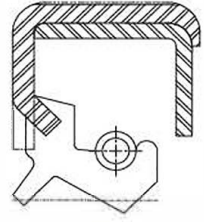
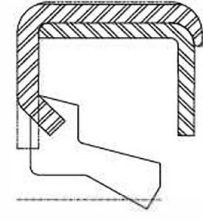
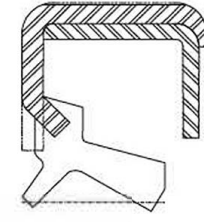
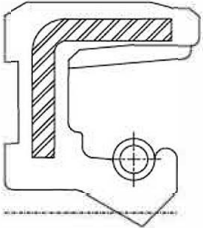
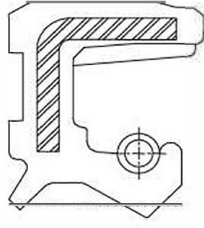
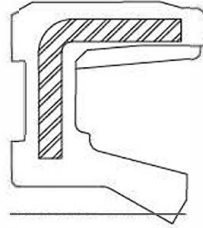
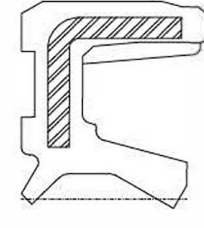
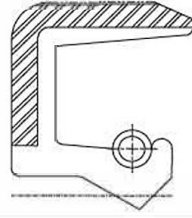
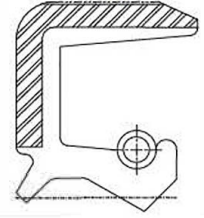
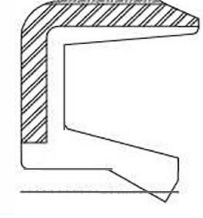
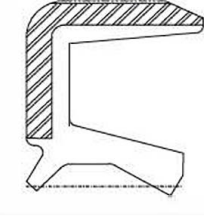






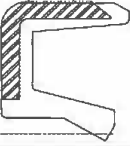


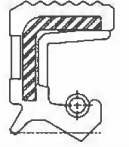
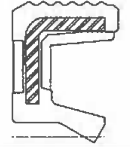
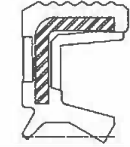

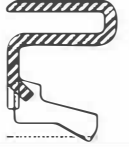
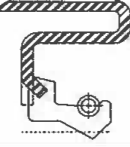


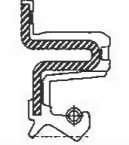








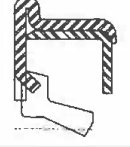





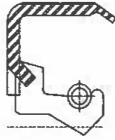











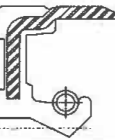













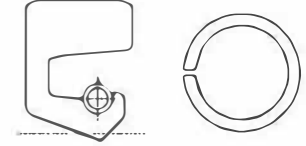
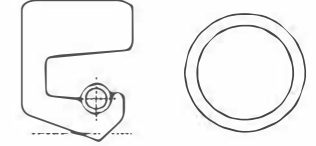
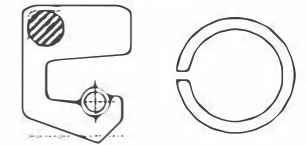
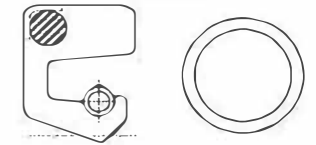













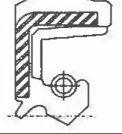


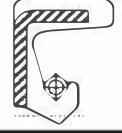

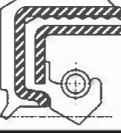
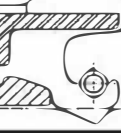


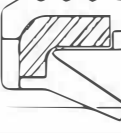





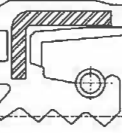


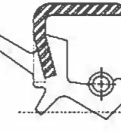


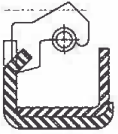

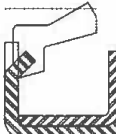













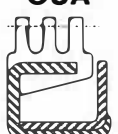
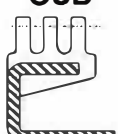

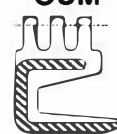


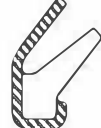
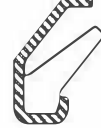
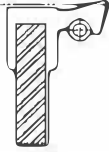
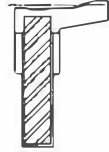

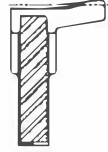


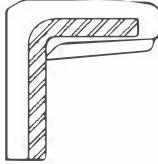
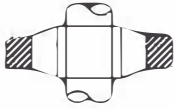
	Lip Style	“S”	“T”	“V”	“K”
OD Style		Low-pressure single lip with garter spring without protection from contaminants.	Low-pressure dual lip with garter spring with protection from contaminants.	Non-pressure single lip without garter spring without protection from contaminants.	Non-pressure dual lip without garter spring with protection from contaminants.
“C”	Rubber cover OD for improving OD sealing ability.	<p>SC</p> 	<p>TC</p> 	<p>VC</p> 	<p>KC</p> 
“B”	Precision ground OD surface with a lead-in chamfer for ease of installation.	<p>SB</p> 	<p>TB</p> 	<p>VB</p> 	<p>KB</p> 
“A”	Precision ground OD surface with an inner case providing increased structural rigidity.	<p>SA</p> 	<p>TA</p> 	<p>VA</p> 	<p>KA</p> 
“F”	Rubber cover OD for improving OD sealing ability, with additional rubber fully protecting the inner case.	<p>SF</p> 	<p>TF</p> 	<p>VF</p> 	<p>KF</p> 
“M”	Precision ground OD surface with a lead-in chamfer with an additional inner rubber lining.	<p>SM</p> 	<p>TM</p> 	<p>VM</p> 	<p>KM</p> 


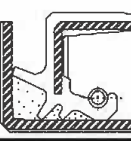
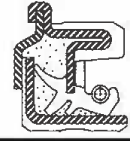
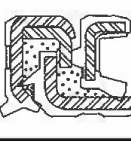

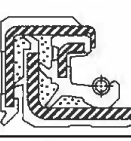

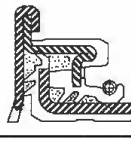
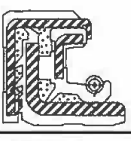
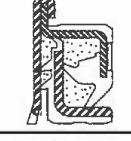
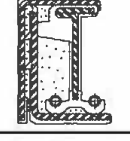



















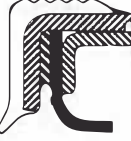
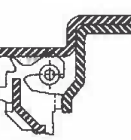

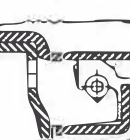
TCM Type	Design Characteristics	Seal Style			
"D"	Two opposing spring loaded lips, designed for applications where the separation of two media is required.	<b>DA</b> 	<b>DB</b> 	<b>DC</b> 	<b>DM</b> 
"Z"	Precision ground OD and a rubber covered top face for improved sealing ability.	<b>SZ</b> 	<b>TZ</b> 	<b>VZ</b> 	<b>KZ</b> 
"G"	Corrugated OD for applications where the housing material is subject to large thermal expansion or press fitting into a housing where installation is usually difficult.	<b>SG</b> 	<b>TG</b> 	<b>VG</b> 	<b>KG</b> 
"H"	Precision ground OD with added structural rigidity particularly when there is a large radial seal width. It also allows installation from both sides.	<b>SH</b> 	<b>VH</b> 	<b>SH1</b> 	<b>VHY</b> 
"J"	Rubber OD with flange will allow easy installation or replacement, gives additional structural rigidity and restricts the installation depth into the housing.	<b>SCJ</b> 	<b>TCJ</b> 	<b>VCJ</b> 	<b>KCJ</b> 
	Precision ground OD with flange will allow easy installation or replacement, gives additional structural rigidity and restricts the installation depth into the housing.	<b>SBJ</b> 	<b>TBJ</b> 	<b>VBJ</b> 	<b>KBJ</b> 
"P"	Precision ground, reinforced OD with minimum clearance flange that will allow easy installation or replacement and restricts the installation depth into the housing.	<b>SAP</b> 	<b>TAP</b> 	<b>VAP</b> 	<b>KAP</b> 
	Precision ground OD with minimum clearance flange that will allow easy installation or replacement and restricts the installation depth into the housing.	<b>SBP</b> 	<b>TBP</b> 	<b>VBP</b> 	<b>KBP</b> 

TCM Type	Design Characteristics	Seal Style					
"L"	Precision ground OD with a rolled leading edge to aid in the alignment during installation.	<p style="text-align: center;"><b>SL</b></p> 	<p style="text-align: center;"><b>TL</b></p> 	<p style="text-align: center;"><b>VL</b></p> 	<p style="text-align: center;"><b>KL</b></p> 		
"X"	The cavity will allow pre-lubrication of the seal to combat initial dry running or where space is limited and a secondary lip for dust exclusion is required.	<p style="text-align: center;"><b>TXA</b></p> 	<p style="text-align: center;"><b>TXB</b></p> 	<p style="text-align: center;"><b>TXC</b></p> 	<p style="text-align: center;"><b>TXM</b></p> 		
"X1"	Similar to the "X" type, but with a larger cavity for pre-lubrication of the seal to combat initial dry running or where space is limited and a secondary lip for dust exclusion is required.	<p style="text-align: center;"><b>TX1A</b></p> 	<p style="text-align: center;"><b>TX1B</b></p> 	<p style="text-align: center;"><b>TX1C</b></p> 	<p style="text-align: center;"><b>TX1M</b></p> 		
"BC" "BG"	This design provides the benefit of a metal-to-metal press fit and the rubber OD sealing ability to counter rough or worn housings.	<p style="text-align: center;"><b>SBC</b></p> 	<p style="text-align: center;"><b>TBC</b></p> 	<p style="text-align: center;"><b>SBG</b></p> 	<p style="text-align: center;"><b>TBG</b></p> 		
"U"	Triple flat lip design for use in heavy dirt applications, commonly used in agriculture equipment.	<p style="text-align: center;"><b>UA</b></p> 	<p style="text-align: center;"><b>UB</b></p> 	<p style="text-align: center;"><b>UC</b></p> 	<p style="text-align: center;"><b>UM</b></p> 		
"VA"	Grease retention seals with variations depending on the application or installation conditions.	<p style="text-align: center;"><b>VA1</b></p> 	<p style="text-align: center;"><b>VA2</b></p> 	<p style="text-align: center;"><b>VA3</b></p> 	<p style="text-align: center;"><b>VA4</b></p> 	<p style="text-align: center;"><b>VA5</b></p> 	<p style="text-align: center;"><b>VA6</b></p> 
"SQ"	For use where radial space is limited and can be supplied with a split for ease of installation.	<p style="text-align: center;"><b>SQ</b></p> 		<p style="text-align: center;"><b>SQ1</b></p> 			
"SQS"	Same as the SQ type, with an addition of a spring inset for added rigidity.	<p style="text-align: center;"><b>SQS</b></p> 		<p style="text-align: center;"><b>SQS1</b></p> 			



TCM Type	Design Characteristics	Seal Style			
"E"	<p>The metal case reinforcement of the lip flex section makes this type suitable for low to medium pressure applications depending on the shaft speed and runout.</p> <p>Pressure rating, 10 - 30 psi.</p>	<p><b>SEA</b></p> 	<p><b>SEB</b></p> 	<p><b>SEC</b></p> 	<p><b>SEM</b></p> 
		<p><b>TEA</b></p> 	<p><b>TEB</b></p> 	<p><b>TEC</b></p> 	<p><b>TEM</b></p> 
"N1"	<p>The shorter flex section makes this type suitable for lower pressure applications depending on the shaft speed and runout.</p> <p>Pressure rating, 30 - 50 psi.</p>	<p><b>SCN1</b></p> 	<p><b>TCN1</b></p> 	<p><b>SGN1</b></p> 	<p><b>TGN1</b></p> 
"N2"	<p>The shorter flex section makes this type suitable for medium pressure applications depending on the shaft speed and runout.</p> <p>Pressure rating, 50 - 90 psi.</p>	<p><b>SCN2</b></p> 	<p><b>TCN2</b></p> 	<p><b>SGN2</b></p> 	<p><b>TGN2</b></p> 
"N"	<p>The shortest flex section of the N type series makes it suitable for higher-pressure applications depending on the shaft speed and runout.</p> <p>Pressure rating, 90+ psi.</p>	<p><b>SCN</b></p> 	<p><b>TCN</b></p> 	<p><b>TDN</b></p> 	<p><b>CNB</b></p> 
"TH" "G1"	<p><b>TH</b> – For heavy-duty dirt exclusion, and OD sealing ability in the housing, is required.</p> <p><b>G1</b>- "G" type OD, and a lip profile for limited radial space applications.</p>	<p><b>TCH</b></p> 	<p><b>TBH</b></p> 	<p><b>VG1</b></p> 	<p><b>KG1</b></p> 
"2/4"	<p><b>Type 2</b> – used when a secondary dust lip is needed</p> <p><b>Type 4</b> – used for linear applications such as motorcycle forks.</p>	<p><b>TC2</b></p> 	<p><b>TB2</b></p> 	<p><b>TC4</b></p> 	<p><b>TM4</b></p> 
"6/9"	<p><b>Type 6</b> – used for added dust or fine contaminate protection.</p> <p><b>Type 9</b> – has the ability to act as a rotary shaft and an axial face seal.</p>	<p><b>TC6</b></p> 	<p><b>TB6</b></p> 	<p><b>TC9</b></p> 	<p><b>TB9</b></p> 

TCM Type	Design Characteristics	Seal Style			
<p data-bbox="82 596 139 626">"O"</p>	<p data-bbox="279 493 496 522" style="text-align: center;"><b>External Seals</b></p> <p data-bbox="182 560 595 738">This external lip type performs and has the same design characteristics as the standard radial lip seals, but these are designed for a press fit on the shaft and to seal in a housing.</p>	<p data-bbox="662 183 732 205" style="text-align: center;"><b>OSA</b></p> 	<p data-bbox="858 183 928 205" style="text-align: center;"><b>OTA</b></p> 	<p data-bbox="1051 183 1120 205" style="text-align: center;"><b>OVA</b></p> 	<p data-bbox="1243 183 1313 205" style="text-align: center;"><b>OKA</b></p> 
		<p data-bbox="662 371 732 393" style="text-align: center;"><b>OSB</b></p> 	<p data-bbox="858 371 928 393" style="text-align: center;"><b>OTB</b></p> 	<p data-bbox="1051 371 1120 393" style="text-align: center;"><b>OVB</b></p> 	<p data-bbox="1243 371 1313 393" style="text-align: center;"><b>OKB</b></p> 
		<p data-bbox="662 540 732 562" style="text-align: center;"><b>OSC</b></p> 	<p data-bbox="858 540 928 562" style="text-align: center;"><b>OTC</b></p> 	<p data-bbox="1051 540 1120 562" style="text-align: center;"><b>OVC</b></p> 	<p data-bbox="1243 540 1313 562" style="text-align: center;"><b>OKC</b></p> 
		<p data-bbox="662 709 732 731" style="text-align: center;"><b>OSM</b></p> 	<p data-bbox="858 709 928 731" style="text-align: center;"><b>OTM</b></p> 	<p data-bbox="1051 709 1120 731" style="text-align: center;"><b>OVM</b></p> 	<p data-bbox="1243 709 1313 731" style="text-align: center;"><b>OKM</b></p> 
		<p data-bbox="662 879 732 900" style="text-align: center;"><b>OUA</b></p> 	<p data-bbox="858 879 928 900" style="text-align: center;"><b>OUB</b></p> 	<p data-bbox="1051 879 1120 900" style="text-align: center;"><b>OUC</b></p> 	<p data-bbox="1243 879 1313 900" style="text-align: center;"><b>OUM</b></p> 
<p data-bbox="72 1079 142 1101" style="text-align: center;">"VA"</p> <p data-bbox="72 1115 142 1137" style="text-align: center;">"VS"</p> <p data-bbox="62 1152 152 1173" style="text-align: center;">"AFS"</p> <p data-bbox="62 1188 152 1210" style="text-align: center;">"AFX"</p>	<p data-bbox="177 1061 595 1148">VA, VS – designed to be fixed on the shaft sealing axially against a perpendicular counter face.</p> <p data-bbox="177 1152 595 1239">AFS, AFX – Performs the same as the VA, VS with an additional metal face added for protection.</p>	<p data-bbox="672 1061 715 1082" style="text-align: center;"><b>VA</b></p> 	<p data-bbox="865 1061 908 1082" style="text-align: center;"><b>VS</b></p> 	<p data-bbox="1058 1061 1115 1082" style="text-align: center;"><b>AFS</b></p> 	<p data-bbox="1250 1061 1308 1082" style="text-align: center;"><b>AFX</b></p> 
<p data-bbox="62 1315 152 1377" style="text-align: center;"><b>Piston Seals</b></p>	<p data-bbox="177 1315 595 1377">Designed for reciprocating ram type applications</p>	<p data-bbox="662 1248 732 1270" style="text-align: center;"><b>PSC</b></p> 	<p data-bbox="858 1248 928 1270" style="text-align: center;"><b>PSV</b></p> 	<p data-bbox="1051 1248 1120 1270" style="text-align: center;"><b>PDC</b></p> 	<p data-bbox="1250 1248 1320 1270" style="text-align: center;"><b>PSV</b></p> 
	<p data-bbox="189 1476 582 1537"><b>Valve Stem</b> – Designed for valve guides</p> <p data-bbox="189 1541 582 1628"><b>End Cap</b> – Designed for static applications to act as a plug or barrier.</p> <p data-bbox="189 1632 582 1685"><b>Bonded Seal</b> – Designed as a addition to threaded fasteners</p>	<p data-bbox="658 1457 739 1479" style="text-align: center;"><b>VSC2</b></p> 	<p data-bbox="858 1457 939 1479" style="text-align: center;"><b>VSC4</b></p> 	<p data-bbox="1065 1457 1108 1479" style="text-align: center;"><b>EC</b></p> 	<p data-bbox="1258 1457 1300 1479" style="text-align: center;"><b>BS</b></p> 

TCM Type	Design Characteristics	Seal Style			
<p><b>“AP”</b></p>	<p><b>AP Product Line</b></p> <p>This patented AP series seal is designed for heavy dirt exclusion. With a press fit on the shaft and also in the housing makes this series easily replaceable without damage to the shaft or housing.</p>	<p><b>AJ</b></p> 	<p><b>AO</b></p> 	<p><b>AP</b></p> 	<p><b>APY</b></p> 
		<p><b>AP1</b></p> 	<p><b>AP3</b></p> 	<p><b>AP4</b></p> 	<p><b>AP5</b></p> 
		<p><b>AP6</b></p> 	<p><b>AP7</b></p> 	<p><b>AP8</b></p> 	<p><b>AP7Y</b></p> 
		<p><b>“PL”</b></p> <p><b>Teflon* Lined Seals</b></p> <p>Designed for low friction, high speed applications, or when the reductions of under lip running temperatures are required.</p>	<p><b>SC-PL</b></p> 	<p><b>TC-PL</b></p> 	<p><b>VC-PL</b></p> 
<p><b>SF-PL</b></p> 	<p><b>TF-PL</b></p> 		<p><b>VF-PL</b></p> 	<p><b>KF-PL</b></p> 	
<p><b>SB-PL</b></p> 	<p><b>TB-PL</b></p> 		<p><b>VB-PL</b></p> 	<p><b>KB-PL</b></p> 	
<p><b>SA-PL</b></p> 	<p><b>TA-PL</b></p> 		<p><b>VA-PL</b></p> 	<p><b>KA-PL</b></p> 	
<p><b>“PA”</b></p>	<p><b>Teflon* Seals</b></p> <p>Designed for dry running, low friction applications, also can handle certain pressure applications.</p>	<p><b>PA1</b></p> 	<p><b>PA3</b></p> 	<p><b>PA4</b></p> 	<p><b>PA6</b></p> 
<p><b>“ST”</b></p>	<p><b>Oil Bath Seals</b></p> <p>Designed to operate on trailer and truck axles.</p>	<p><b>ST</b></p> 	<p><b>ST2</b></p> 	<p><b>ST5</b></p> 	<p><b>ST34</b></p> 