

**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	$\frac{0.188}{0.270}$	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)

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## 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)

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# 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