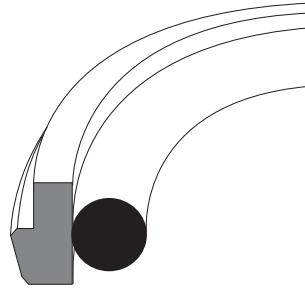


Piston Seals (Single Acting)

SP-55-271

(Metric & Imperial Size)

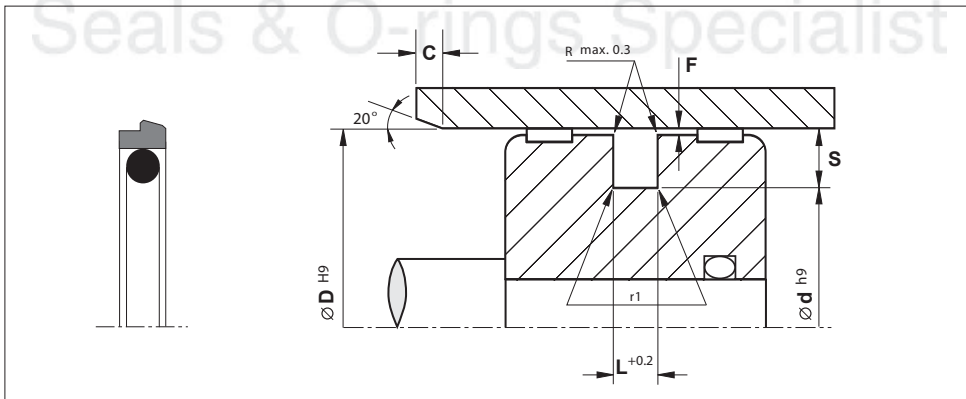


SP-55-271

Material	Pressure (Bar)	Temp. (°c)	Speed (m/s)
PTFE+Bronze - O Ring	400	-40 +200	15

- Simple groove design, one-piece piston.
- Stick-slip free operation for precise control.
- High abrasion and extrusion resistance.
- Wide range of application.

Installation Recommendation



Surface roughness	Ra	Rt	Chamfers	
Sliding surface	≤ 0.3 μm	≤ 4 μm	<b>S</b>	<b>C</b>
Surface of housing	≤ 1.8 μm	≤ 10 μm	< 3.65	2.0
Sides of housing	≤ 3.0 μm	≤ 16 μm	5.35	3.0
			7.55	4.0
			10.25	5.5
			12.00	7.0

# PTFE Seal - 271



## Installation Dimensions

Series No.	Bore Dia. D			Groove Dia. d	Groove Width. L	Radius r1	Radial Clearance F max.*			O-Ring Cross-Section
	Standard Application	Light Application	Heavy-Duty Application				100 Bar	200 Bar	400 Bar	
A	8 - 16.9	17 - 26.9	-	D - 4.9	2.2	0.4	0.30	0.20	0.15	1.78
B	17 - 26.9	27 - 59.9	-	D - 7.3	3.2	0.6	0.40	0.25	0.15	2.62
C	27 - 59.9	60 - 199.9	17 - 26.9	D - 10.7	4.2	1.0	0.40	0.25	0.20	3.53
D	60 - 199.9	200 - 255.9	27 - 59.9	D - 15.1	6.3	1.3	0.50	0.30	0.20	5.33
E	200 - 255.9	256 - 669.9	60 - 199.9	D - 20.5	8.1	1.8	0.60	0.35	0.25	7.00
F	256 - 669.9	670 - 999.9	200 - 255.9	D - 24.0	8.1	1.8	0.60	0.35	0.25	7.00
G	670 - 999.9	-	256 - 669.9	D - 27.3	9.5	2.5	0.70	0.50	0.30	8.40
H	≥ 1000			D - 38.0	13.8	3.0	1.00	0.70	0.60	12.00

## (Metric & Imperial Size)

Bore Dia. D	Groove Dia. d	Groove Width. L	O-RING No.	Reference (For order processing)	Reference	Reference
8.0	3.1	2.2	006	SP-55-271-0080	S55014-0080	ER-39-850-8
10.0	5.1	2.2	009	SP-55-271-0100	S55014-0100	ER-39-850-10
12.0	7.1	2.2	011	SP-55-271-0120	S55014-0120	ER-39-850-12
15.0	10.1	2.2	012	SP-55-271-0150	S55014-0150	ER-39-850-15
18.0	10.7	3.2	111	SP-55-271-0180	S55014-0180	ER-39-850-18
20.0	12.7	3.2	112	SP-55-271-0200	S55014-0200	ER-39-850-20
22.0	14.7	3.2	113	SP-55-271-0220	S55014-0220	ER-39-850-22
25.0	17.7	3.2	115	SP-55-271-0250	S55014-0250	ER-39-850-25
25.4	18.1	3.2	115	SP-55-271-0254	S55014-0254	ER-39-850-25.4
28.0	17.3	4.2	209	SP-55-271-0280	S55014-0280	ER-39-850-28
28.5	17.8	4.2	209	SP-55-271-0285	S55014-0285	ER-39-850-28.5
30.0	19.3	4.2	210	SP-55-271-0300	S55014-0300	ER-39-850-30
31.7	21.0	4.2	211	SP-55-271-0317	S55014-0317	ER-39-850-31.7
32.0	21.3	4.2	211	SP-55-271-0320	S55014-0320	ER-39-850-32
35.0	24.3	4.2	213	SP-55-271-0350	S55014-0350	ER-39-850-35
36.0	25.3	4.2	214	SP-55-271-0360	S55014-0360	ER-39-850-36
38.0	27.3	4.2	215	SP-55-271-0380	S55014-0380	ER-39-850-38
39.0	28.3	4.2	215	SP-55-271-0390	S55014-0390	ER-39-850-39
40.0	29.3	4.2	216	SP-55-271-0400	S55014-0400	ER-39-850-40
42.0	31.3	4.2	217	SP-55-271-0420	S55014-0420	ER-39-850-42
44.5	33.8	4.2	219	SP-55-271-0445	S55014-0445	ER-39-850-44.5
45.0	34.3	4.2	219	SP-55-271-0450	S55014-0450	ER-39-850-45
48.0	37.3	4.2	221	SP-55-271-0480	S55014-0480	ER-39-850-48
50.0	39.3	4.2	222	SP-55-271-0500	S55014-0500	ER-39-850-50
50.8	40.1	4.2	222	SP-55-271-0508	S55014-0508	ER-39-850-50.8
52.0	41.3	4.2	223	SP-55-271-0520	S55014-0520	ER-39-850-52
55.0	44.3	4.2	224	SP-55-271-0550	S55014-0550	ER-39-850-55
57.1	46.4	4.2	224	SP-55-271-0571	S55014-0571	ER-39-850-57.1
60.0	44.9	6.3	327	SP-55-271-0600	S55014-0600	ER-39-850-60
63.0	47.9	6.3	328	SP-55-271-0630	S55014-0630	ER-39-850-63

(Metric & Imperial Size)

Bore Dia.	Groove Dia.	Groove Width.	O-RING No.	Reference (For order processing)	Reference	Reference
D	d	L				
63.5	48.4	6.3	328	SP-55-271-0635	S55014-0635	ER-39-850-63.5
64.0	48.9	6.3	328	SP-55-271-0640	S55014-0640	ER-39-850-64
65.0	49.9	6.3	328	SP-55-271-0650	S55014-0650	ER-39-850-65
69.8	54.7	6.3	330	SP-55-271-0698	S55014-0698	ER-39-850-69.8
70.0	54.9	6.3	330	SP-55-271-0700	S55014-0700	ER-39-850-70
75.0	59.9	6.3	332	SP-55-271-0750	S55014-0750	ER-39-850-75
76.2	61.1	6.3	332	SP-55-271-0762	S55014-0762	ER-39-850-76.2
80.0	64.9	6.3	333	SP-55-271-0800	S55014-0800	ER-39-850-80
82.5	67.4	6.3	334	SP-55-271-0825	S55014-0825	ER-39-850-82.5
85.0	69.9	6.3	335	SP-55-271-0850	S55014-0850	ER-39-850-85
89.0	73.9	6.3	336	SP-55-271-0890	S55014-0890	ER-39-850-89
90.0	74.9	6.3	336	SP-55-271-0900	S55014-0900	ER-39-850-90
95.0	79.9	6.3	337	SP-55-271-0950	S55014-0950	ER-39-850-95
100.0	84.9	6.3	340	SP-55-271-1000	S55014-1000	ER-39-850-100
101.6	86.5	6.3	340	SP-55-271-1016	S55014-1016	ER-39-850-101.6
105.0	89.9	6.3	341	SP-55-271-1050	S55014-1050	ER-39-850-105
110.0	94.9	6.3	343	SP-55-271-1100	S55014-1100	ER-39-850-110
114.3	99.2	6.3	344	SP-55-271-1143	S55014-1143	ER-39-850-114.3
115.0	99.9	6.3	344	SP-55-271-1150	S55014-1150	ER-39-850-115
120.0	104.9	6.3	346	SP-55-271-1200	S55014-1200	ER-39-850-120
125.0	109.9	6.3	347	SP-55-271-1250	S55014-1250	ER-39-850-125
127.0	111.9	6.3	348	SP-55-271-1270	S55014-1270	ER-39-850-127
130.0	114.9	6.3	349	SP-55-271-1300	S55014-1300	ER-39-850-130
132.0	116.9	6.3	349	SP-55-271-1320	S55014-1320	ER-39-850-132
133.0	117.9	6.3	350	SP-55-271-1330	S55014-1330	ER-39-850-133
135.0	119.9	6.3	351	SP-55-271-1350	S55014-1350	ER-39-850-135
140.0	124.9	6.3	352	SP-55-271-1400	S55014-1400	ER-39-850-140
145.0	129.9	6.3	353	SP-55-271-1450	S55014-1450	ER-39-850-145
150.0	134.9	6.3	355	SP-55-271-1500	S55014-1500	ER-39-850-150
154.0	138.9	6.3	356	SP-55-271-1540	S55014-1540	ER-39-850-154
155.0	139.9	6.3	356	SP-55-271-1550	S55014-1550	ER-39-850-155
160.0	144.9	6.3	358	SP-55-271-1600	S55014-1600	ER-39-850-160
165.0	149.9	6.3	360	SP-55-271-1650	S55014-1650	ER-39-850-165
170.0	154.9	6.3	361	SP-55-271-1700	S55014-1700	ER-39-850-170
175.0	159.9	6.3	362	SP-55-271-1750	S55014-1750	ER-39-850-175
180.0	164.9	6.3	363	SP-55-271-1800	S55014-1800	ER-39-850-180
190.0	174.9	6.3	364	SP-55-271-1900	S55014-1900	ER-39-850-190
200.0	179.5	8.1	441	SP-55-271-2000	S55014-2000	ER-39-850-200
210.0	189.5	8.1	443	SP-55-271-2100	S55014-2100	ER-39-850-210
220.0	199.5	8.1	444	SP-55-271-2200	S55014-2200	ER-39-850-220
230.0	209.5	8.1	445	SP-55-271-2300	S55014-2300	ER-39-850-230
240.0	219.5	8.1	446	SP-55-271-2400	S55014-2400	ER-39-850-240
250.0	229.5	8.1	447	SP-55-271-2500	S55014-2500	ER-39-850-250
260.0	236.0	8.1	447	SP-55-271-2600	S55014-2600	ER-39-850-260
270.0	246.0	8.1	448	SP-55-271-2700	S55014-2700	ER-39-850-270

# PTFE Seal - 271



(Metric & Imperial Size)

Bore Dia.	Groove Dia.	Groove Width.	O-RING No.	Reference (For order processing)	Reference	Reference
D	d	L				
280.0	256.0	8.1	449	SP-55-271-2800	S55014-2800	ER-39-850-280
290.0	266.0	8.1	449	SP-55-271-2900	S55014-2900	ER-39-850-290
300.0	276.0	8.1	451	SP-55-271-3000	S55014-3000	ER-39-850-300
310.0	286.0	8.1	451	SP-55-271-3100	S55014-3100	ER-39-850-310
320.0	296.0	8.1	452	SP-55-271-3200	S55014-3200	ER-39-850-320
330.0	306.0	8.1	453	SP-55-271-3300	S55014-3300	ER-39-850-330
340.0	316.0	8.1	453	SP-55-271-3400	S55014-3400	ER-39-850-340
350.0	326.0	8.1	454	SP-55-271-3500	S55014-3500	ER-39-850-350
360.0	336.0	8.1	455	SP-55-271-3600	S55014-3600	ER-39-850-360
370.0	346.0	8.1	456	SP-55-271-3700	S55014-3700	ER-39-850-370
380.0	356.0	8.1	457	SP-55-271-3800	S55014-3800	ER-39-850-380
390.0	366.0	8.1	457	SP-55-271-3900	S55014-3900	ER-39-850-390
400.0	376.0	8.1	458	SP-55-271-4000	S55014-4000	ER-39-850-400
410.0	386.0	8.1	459	SP-55-271-4100	S55014-4100	ER-39-850-410
420.0	396.0	8.1	460	SP-55-271-4200	S55014-4200	ER-39-850-420
430.0	406.0	8.1	461	SP-55-271-4300	S55014-4300	ER-39-850-430
440.0	416.0	8.1	461	SP-55-271-4400	S55014-4400	ER-39-850-440
450.0	426.0	8.1	462	SP-55-271-4500	S55014-4500	ER-39-850-450
460.0	436.0	8.1	463	SP-55-271-4600	S55014-4600	ER-39-850-460
470.0	446.0	8.1	464	SP-55-271-4700	S55014-4700	ER-39-850-470
480.0	456.0	8.1	464	SP-55-271-4800	S55014-4800	ER-39-850-480
490.0	466.0	8.1	ASA 93	SP-55-271-4900	S55014-4900	ER-39-850-490
500.0	476.0	8.1	466	SP-55-271-5000	S55014-5000	ER-39-850-500
510.0	486.0	8.1	467	SP-55-271-5100	S55014-5100	ER-39-850-510
520.0	496.0	8.1	468	SP-55-271-5200	S55014-5200	ER-39-850-520
530.0	506.0	8.1	468	SP-55-271-5300	S55014-5300	ER-39-850-530
540.0	516.0	8.1	469	SP-55-271-5400	S55014-5400	ER-39-850-540
550.0	526.0	8.1	469	SP-55-271-5500	S55014-5500	ER-39-850-550
560.0	536.0	8.1	470	SP-55-271-5600	S55014-5600	ER-39-850-560
570.0	546.0	8.1	ASA 100	SP-55-271-5700	S55014-5700	ER-39-850-570
580.0	556.0	8.1	ASA 100	SP-55-271-5800	S55014-5800	ER-39-850-580
590.0	566.0	8.1	471	SP-55-271-5900	S55014-5900	ER-39-850-590
600.0	576.0	8.1	471	SP-55-271-6000	S55014-6000	ER-39-850-600
610.0	586.0	8.1	472	SP-55-271-6100	S55014-6100	ER-39-850-610
620.0	596.0	8.1	472	SP-55-271-6200	S55014-6200	ER-39-850-620
630.0	606.0	8.1	ASA 104	SP-55-271-6300	S55014-6300	ER-39-850-630
640.0	616.0	8.1	473	SP-55-271-6400	S55014-6400	ER-39-850-640
650.0	626.0	8.1	473	SP-55-271-6500	S55014-6500	ER-39-850-650
660.0	636.0	8.1	474	SP-55-271-6600	S55014-6600	ER-39-850-660
670.0	642.7	9.5	640 * 8.4	SP-55-271-6700	S55014-6700	ER-39-850-670
680.0	652.7	9.5	650 * 8.4	SP-55-271-6800	S55014-6800	ER-39-850-680
690.0	662.7	9.5	660 * 8.4	SP-55-271-6900	S55014-6900	ER-39-850-690
700.0	672.7	9.5	670 * 8.4	SP-55-271-7000	S55014-7000	ER-39-850-700
710.0	682.7	9.5	680 * 8.4	SP-55-271-7100	S55014-7100	ER-39-850-710

Select the material of seal ring and o-ring from Compounds for Fluid Technology (page 8)