

Piston Seals (Double Acting)

PDE, DSM

(Metric & Imperial Size)

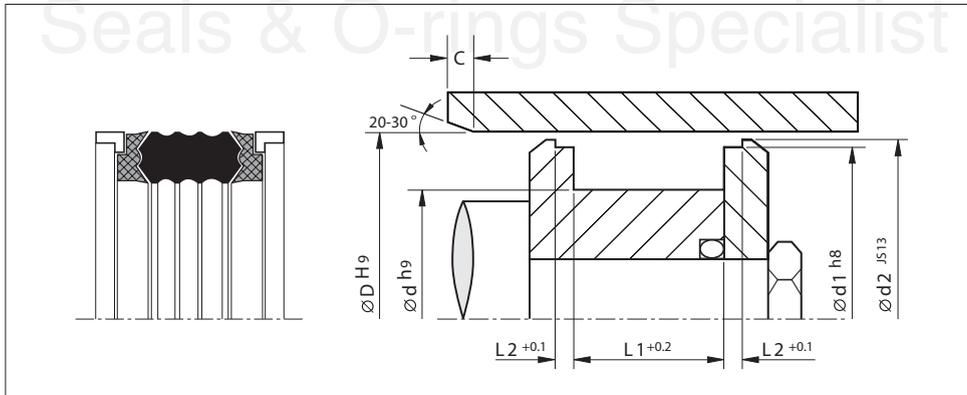


PDE, DSM

Material	Pressure (Bar)	Temp. (°C)	Speed (m/s)
NBR+Fabric-POM	700	-30 +120	0.5

- Effective sealing during vibration and shock loading.
- High sealing efficiency.
- Extrusion resistance at high pressure.
- Two pieces piston.

### Installation Recommendation



Surface roughness	Ra	Rt	Chamfers	
Sliding surface	≤ 0.3 μm	≤ 4 μm	D	C
Surface of housing	≤ 1.8 μm	≤ 10 μm	< 60	4.0
Sides of housing	≤ 3.0 μm	≤ 16 μm	60-120	5.0
			120-180	6.5
			180-250	7.5
			250-360	10.0

# Compact Seal



(Metric Size)

Bore Dia.	Groove Dimensions					Reference (For order processing)	Reference	Reference
	D	d	L1	L2	d1			
45.00	29.00	32.00	6.40	38.70	43.80	CS 045-029 PDE	PDE 177-114/1	DSM 177-114/1A
50.00	34.00	32.00	6.40	43.70	48.80	CS 050-034 PDE	PDE 196-133/1	DSM 196-133/1A
55.00	40.00	32.00	6.40	48.70	52.80	CS 055-040 PDE	PDE 216-157/1	DSM 216-157/1A
60.00	44.00	32.00	6.40	53.70	57.80	CS 060-044 PDE	PDE 236-173/1	DSM 236-173/1A
63.00	47.00	32.00	6.40	56.70	60.80	CS 063-047 PDE	PDE 248-185/1	DSM 248-185/1A
65.00	49.00	32.00	6.35	58.70	62.80	CS 065-049 PDE		DSM 255-192/1A
70.00	50.00	35.00	9.50	62.60	67.50	CS 070-050 PDE	PDE 275-196/1	DSM 275-196/1A
75.00	55.00	35.00	9.50	67.50	72.50	CS 075-055 PDE	PDE 295-216/1	DSM 295-216/1A
80.00	60.00	35.00	9.50	72.60	77.50	CS 080-060 PDE	PDE 314-236/1	DSM 314-236/1A
80.00	64.00	32.00	9.52	72.62	77.50	CS 080-064 PDE		DSM 314-251/1A
85.00	65.00	35.00	9.50	77.60	82.50	CS 085-065 PDE	PDE 334-255/1	DSM 334-255/1A
90.00	70.00	35.00	9.50	82.50	87.70	CS 090-070 PDE	PDE 354-275/1	DSM 354-275/1A
90.00	74.00	32.00	9.52	82.87	87.80	CS 090-074 PDE		DSM 354-291/1A
95.00	75.00	35.00	9.50	87.60	92.50	CS 095-075 PDE	PDE 374-295/1	DSM 374-295/1A
100.00	80.00	35.00	9.50	92.60	97.50	CS 100-080 PDE	PDE 393-314/1	DSM 393-314/1A
105.00	85.00	35.00	9.52	97.60	102.50	CS 105-085 PDE		DSM 413-334/1A
110.00	85.00	45.00	12.70	101.70	107.30	CS 110-085 PDE	PDE 433-334/1	DSM 433-334/1A
110.00	90.00	35.00	9.50	102.70	107.50	CS 110-090 PDE	PDE 433-354/1	DSM 433-354/1A
115.00	90.00	45.00	12.70	106.70	112.30	CS 115-090 PDE	PDE 452-354/1	DSM 452-354/1A
120.00	95.00	45.00	12.70	111.80	117.30	CS 120-095 PDE	PDE 472-374/1	DSM 472-374/1A
120.00	100.00	35.00	9.50	112.80	117.50	CS 120-100 PDE	PDE 472-393/1	DSM 472-393/1A
125.00	100.00	45.00	12.70	116.80	122.30	CS 125-100 PDE	PDE 492-393/1	DSM 492-393/1A
130.00	105.00	45.00	12.70	121.80	127.30	CS 130-105 PDE	PDE 511-413/1	DSM 511-413/1A
130.00	110.00	35.00	9.50	122.80	127.50	CS 130-110 PDE	PDE 511-433/1	DSM 511-433/1A
135.00	110.00	45.00	12.70	126.80	132.30	CS 135-110 PDE	PDE 531-433/1	DSM 531-433/1A
140.00	115.00	45.00	12.70	131.70	137.30	CS 140-115 PDE	PDE 551-452/1	DSM 551-452/1A
140.00	120.00	35.00	9.50	132.80	137.30	CS 140-120 PDE	PDE 551-472/1	DSM 551-472/1A
145.00	120.00	45.00	12.70	136.70	142.30	CS 145-120 PDE	PDE 570-472/1	DSM 570-472/1A
150.00	125.00	45.00	12.70	141.70	147.30	CS 150-125 PDE	PDE 590-492/1	DSM 590-492/1A
160.00	135.00	45.00	12.70	151.70	157.10	CS 160-135 PDE	PDE 629-531/1	DSM 629-531/1A
165.00	135.00	45.00	12.70	158.00	162.10	CS 165-135 PDE		DSM 649-531/1A
170.00	140.00	45.00	12.70	163.00	167.80	CS 170-140 PDE	PDE 669-551/1	DSM 669-551/1A
180.00	155.00	45.00	12.70	171.70	177.10	CS 180-155 PDE	PDE 708-610/1	DSM 708-610/1A
185.00	160.00	45.00	12.70	176.70	182.10	CS 185-160 PDE	PDE 728-629/1	DSM 728-629/1A
190.00	165.00	45.00	12.70	181.70	187.10	CS 190-165 PDE	PDE 748-649/1	DSM 748-649/1A
200.00	175.00	45.00	12.70	191.70	197.10	CS 200-175 PDE	PDE 787-688/1	DSM 787-688/1A
210.00	185.00	45.00	12.70	201.70	207.10	CS 210-185 PDE	PDE 826-728/1	DSM 826-728/1A
220.00	195.00	45.00	12.70	211.70	217.10	CS 220-195 PDE	PDE 866-767/1	DSM 866-767/1A
230.00	205.00	45.00	12.70	221.70	227.10	CS 230-205 PDE	PDE 905-807/1	DSM 905-807/1A
240.00	215.00	45.00	12.70	231.70	237.10	CS 240-215 PDE	PDE 944-846/1	DSM 944-846/1A

## (Metric Size)

Bore Dia.	Groove Dimensions					Reference (For order processing)	Reference	Reference
	D	d	L1	L2	d1			
250.00	225.00	45.00	12.70	241.70	247.10	CS 250-225 PDE	PDE 984-886/1	DSM 984-886/1A
260.00	235.00	45.00	12.70	251.70	257.10	CS 260-235 PDE	PDE 1024-925/1	DSM 1024-925/1A
270.00	245.00	45.00	12.70	261.70	267.10	CS 270-245 PDE	PDE 1062-955/1	DSM 1062-955/1A
280.00	255.00	45.00	12.70	271.70	277.10	CS 280-255 PDE	PDE 1102-1004/1	DSM 1102-1004/1A
290.00	265.00	45.00	12.70	281.70	287.10	CS 290-265 PDE	PDE 1141-1043/1	DSM 1141-1043/1A
300.00	275.00	45.00	12.70	291.70	297.10	CS 300-275 PDE	PDE 1181-1082/1	DSM 1181-1082/1A
360.00	335.00	44.50	12.70	351.76	357.30	CS 360-335 PDE		DSM 1417-1318/1A



## (Imperial Size)

Bore Dia.	Groove Dimensions					Reference (For order processing)	Reference
	D	d	L1	L2	d1		
63.50	47.62	31.75	6.35	57.25	61.30	CS 250-187 PDE	DSM 250-187/1A
92.07	73.02	34.92	9.52	84.66	89.60	CS 362-287 PDE	DSM 362-287/1A
95.25	76.20	34.92	9.52	87.86	92.80	CS 375-300 PDE	DSM 375-300/1A
101.60	82.55	34.92	9.52	94.20	99.10	CS 400-325 PDE	DSM 400-325/1A
114.30	88.90	44.45	12.70	106.12	111.60	CS 450-350 PDE	DSM 450-350/1A
127.00	101.60	44.45	12.70	118.80	124.30	CS 500-400 PDE	DSM 500-400/1A
139.70	114.30	44.45	12.70	131.47	137.00	CS 550-450 PDE	DSM 550-450/1A
152.40	127.00	44.45	12.70	144.15	149.70	CS 600-500 PDE	DSM 600-500/1A
177.80	152.40	44.45	12.70	169.50	175.10	CS 700-600 PDE	DSM 700-600/1A