
Compact Seal POLYPAC® - DBM



Double Acting

Combined Seal and
Guide Element

Material:
NBR, Polyester Elastomer + POM



■ Compact Piston Seals



Description

The Compact Seal is a double-acting seal and guide element comprising an elastomeric profile seal ring, two back-up rings and two guide rings. The profile seal ring seals in both the static and dynamic range whilst the back-up rings prevent extrusion into the sealing gap. The function of the guide rings is to guide the piston in the cylinder tube and to absorb transverse forces. The design provides a compact seal and guide combination for a closed or split installation groove.

Designs

The Compact Seal is available in various profile geometries which are in practical use. The choice is normally determined by the existing installation grooves.

Polypac® DBM

The DBM Compact seal profile is characterized by a concave-shaped Back-up ring that prevents the elastomer profile ring from deformation and/or extrusion. The Back-up ring is centered on the outside by the guide ring.

Option

Polypac DBM is as option available without L-shape wear rings, but with Back-up Rings. If DBM/NEO is installed as piston sealing system, additional Slydring®/wear rings are required.

Polypac type: DBM/NEO
Consult TSS for available sizes

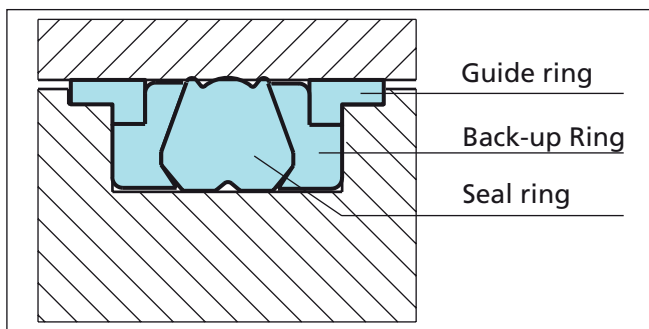


Figure 50 DBM Compact Seal

Advantages

- Good sealing effect, also suitable for holding cylinders
- Capable of installation in closed grooves for reduced machining costs
- Economic sealing and guiding solution
- Simple snap installation.

Application Examples

The Compact seals are the recommended sealing element for double acting pistons of hydraulic components such as:

- Machine tools
- Truck cranes
- Forklifts & handling machinery
- Agriculture equipment

Technical Data

Operating conditions

Pressure:	Up to 35 MPa peak up to 40 MPa
Speed:	Up to 0.5 m/s
Temperature:	-30 °C to +100 °C
Media:	Mineral oil-based hydraulic fluids, flame retardant hydraulic fluids, HFA, HFB, HFC (< +40 °C)

Important Note:

The above data are maximum values and cannot be used at the same time. e.g. the maximum operating speed depends on material type, pressure, temperature and gap value. Temperature range also dependent on medium.

Materials

The DBM Compact Seal is available in the following material combination:

Profile seal:	NBR 80 Shore A
Back-up Ring:	Polyester elastomer
Guide rings:	POM
Set reference:	N8RO



■ Installation Recommendation Polypac® DBM

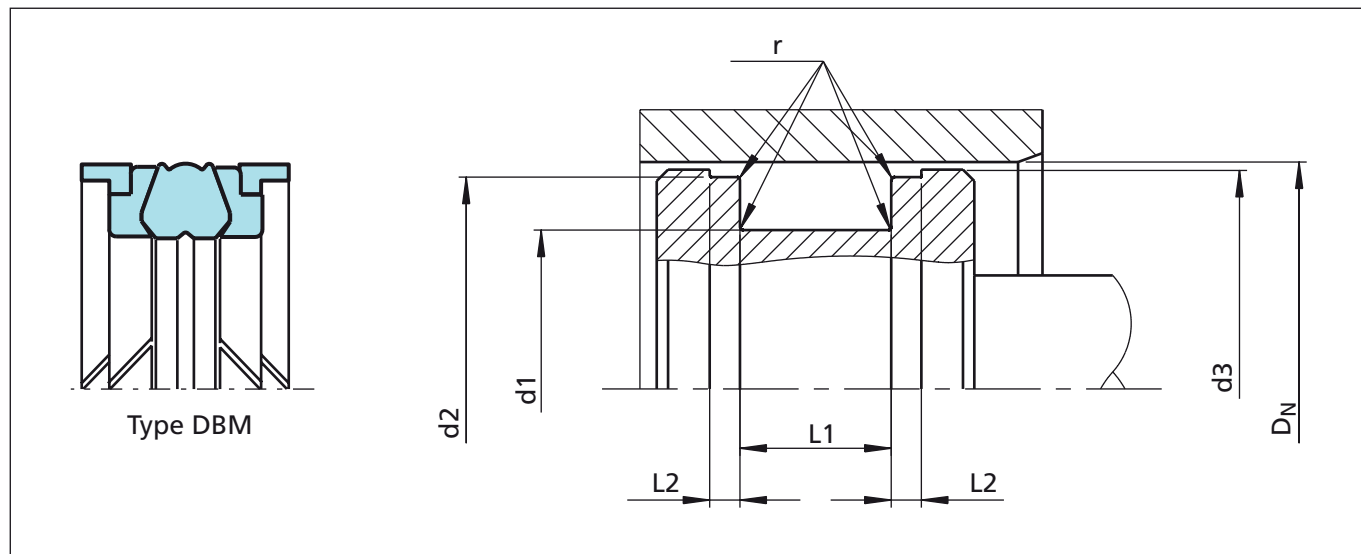


Figure 51 Installation drawing

Ordering Example

Bore diameter: $D_N = 80.0$ mm
Groove diameter: $d1 = 60.0$ mm
Groove width: $L1 = 22.4$ mm

TSS Article No.	PCBO	A	0800	-	N8RO
TSS Series No.					
Execution code					
Bore diameter x 10					
Quality Index (Standard)					
Material set-code					
Polypac Ref. No.: DBM 314236					



Table LIV Installation dimensions / TSS Article No.

Bore Diameter	Groove Dimensions						TSS Part No.	Description
								Material code
D _N H9	d1 h9	L1 +0.2	d2 h9	d3 h11	L2 +0.1	r max		N8RO
25.0	15.00	16.40	21.45	23.50	6.35	0.40	PCB1N0250	DBM 098059
30.0	17.00	15.40	26.50	28.50	6.35	0.40	PCB000300	DBM 118066
32.0	22.0	16.40	28.50	30.50	6.35	0.40	PCB1A0320	DBM 125086
35.0	25.00	16.40	31.40	33.50	6.35	0.40	PCB1A0350	DBM 137098
40.0	24.00	18.40	35.40	38.50	6.35	0.40	PCB0A0400	DBM 157094
40.0	26.00	15.50	36.00	39.00	2.60	0.40	PCB1A0400	DBM 157102/M
40.0	30.00	16.40	35.40	38.50	6.35	0.40	PCB3A0400	DBM 157118
45.0	29.00	18.40	40.40	43.50	6.35	0.40	PCB0N0450	DBM 177114
45.0	35.00	16.40	40.40	43.50	6.35	0.40	PCB2N045	DBM 177137
50.0	34.00	18.40	45.40	48.50	6.35	0.40	PCB1A0500	DBM 196133
50.0	34.00	20.50	46.00	49.00	3.10	0.40	PCB0B0500	DBM 196133/M
55.0	39.00	18.40	50.36	53.50	6.35	0.40	PCB1A0550	DBM 216153
60.0	44.00	18.40	55.40	58.50	6.35	0.40	PCB1A0600	DBM 236173
60.0	44.00	20.50	56.00	59.00	3.10	0.40	PCB0B0600	DBM 236173/M
63.0	47.00	18.40	58.40	61.50	6.35	0.40	PCB1A0630	DBM 248185
63.0	47.00	20.50	59.00	62.00	3.10	0.40	PCB0B0630	DBM 248185/M
65.0	49.00	20.50	61.00	64.00	3.10	0.40	PCB0N0650	DBM 255192/M
65.0	50.00	18.40	60.40	63.50	6.35	0.40	PCB1A0650	DBM 255196
70.0	50.00	22.40	64.20	68.30	6.35	0.40	PCB0A0700	DBM 275196
70.0	54.00	20.50	66.00	69.00	3.10	0.40	PCB1N0700	DBM 275212/M
75.0	55.00	22.40	69.20	73.30	6.35	0.40	PCB0A0750	DBM 295216
80.0	60.00	22.40	74.15	78.30	6.35	0.40	PCB0A0800	DBM 314236
80.0	62.00	22.50	76.00	79.00	3.60	0.40	PCB1A0800	DBM 314244/M
85.0	65.00	22.40	79.15	83.30	6.35	0.40	PCB0A0850	DBM 334255
90.0	70.00	22.40	84.15	88.30	6.35	0.40	PCB0A0900	DBM 354275
95.0	75.00	22.40	89.15	93.30	6.35	0.40	PCB0A0950	DBM 374295
100.0	75.00	22.40	93.15	98.00	6.35	0.40	PCB0A1000	DBM 393295
100.0	82.00	22.50	96.00	99.00	3.60	0.40	PCB1A1000	DBM 393332/M
105.0	80.00	22.40	98.10	103.00	6.35	0.40	PCB0A1050	DBM 413314
110.0	85.00	22.40	103.10	108.00	6.35	0.40	PCB0A1100	DBM 433334
115.0	90.00	22.40	108.10	113.00	6.35	0.40	PCB0A1150	DBM 452354
120.0	95.00	22.40	113.10	118.10	6.35	0.80	PCB0A1200	DBM 472374
125.0	100.00	25.40	118.10	123.00	6.35	0.80	PCB0A1250	DBM 492393
125.0	103.00	26.50	121.00	124.00	5.10	0.80	PCB1A1250	DBM 492405/M
130.0	105.00	25.40	122.60	127.50	9.50	0.80	PCB1A1300	DBM 511413
133.0	115.00	22.40	125.60	130.50	9.52	0.80	PCB001330	DBM 523452

Additional dimensions can be delivered on request.



Compact Seal

Bore Diameter	Groove Dimensions						TSS Part No.	Description
								Material code
	D _N H9	d1 h9	L1 +0.2	d2 h9	d3 h11	L2 +0.1		r max
135.0	110.00	25.40	127.60	132.50	9.50	0.80	PCB1A1350	DBM 531433
140.0	115.00	25.40	132.60	137.50	9.50	0.80	PCB1A1400	DBM 551452
140.0	118.00	26.50	136.00	139.00	5.10	0.80	PCB2A1400	DBM 551464/M
145.0	120.00	25.40	137.60	142.50	9.50	0.80	PCB1A1450	DBM 570472
150.0	125.00	25.40	142.60	147.50	9.50	0.80	PCB1A1500	DBM 590492
152.4	127.00	31.75	145.00	149.91	9.50	0.80	PCB001524	DBM 600500
155.0	130.00	25.40	147.60	152.50	9.50	0.80	PCB0A1550	DBM 610511
160.0	130.00	25.40	152.60	157.50	9.50	0.80	PCB3A1600	DBM 629511
160.0	135.00	25.40	152.60	157.50	9.50	0.80	PCB1A1600	DBM 629531
165.0	140.00	25.40	157.60	162.50	9.50	0.80	PCB0A1650	DBM 649551
170.0	145.00	25.40	161.70	167.10	12.70	0.80	PCB0A1700	DBM 669570
175.0	150.00	25.40	166.70	172.10	12.70	0.80	PCB0A1750	DBM 688590
180.0	155.00	25.40	171.70	177.10	12.70	0.80	PCB1A1800	DBM 708610
185.0	160.00	25.40	176.70	182.10	12.70	0.80	PCB0A1850	DBM 728629
190.0	165.00	25.40	181.70	187.00	12.70	0.80	PCB0A1900	DBM 748649
195.0	170.00	25.40	186.70	192.00	12.70	0.80	PCB0A1950	DBM 767669
200.0	175.00	25.40	191.60	197.00	12.70	0.80	PCB0A2000	DBM 787688
200.0	175.00	31.50	196.00	199.00	6.60	0.80	PCB102000	DBM 787688/M
210.0	185.00	25.40	201.60	207.00	12.70	0.80	PCB0A2100	DBM 826728
220.0	195.00	25.40	211.60	217.00	12.70	0.80	PCB1A2200	DBM 866767
230.0	205.00	25.40	221.60	227.00	12.70	0.80	PCB0A2300	DBM 905807
240.0	215.00	25.40	231.60	237.00	12.70	0.80	PCB0A2400	DBM 944846
250.0	225.00	25.40	241.60	247.00	12.70	0.80	PCB1A2500	DBM 984886

Additional dimensions can be delivered on request.