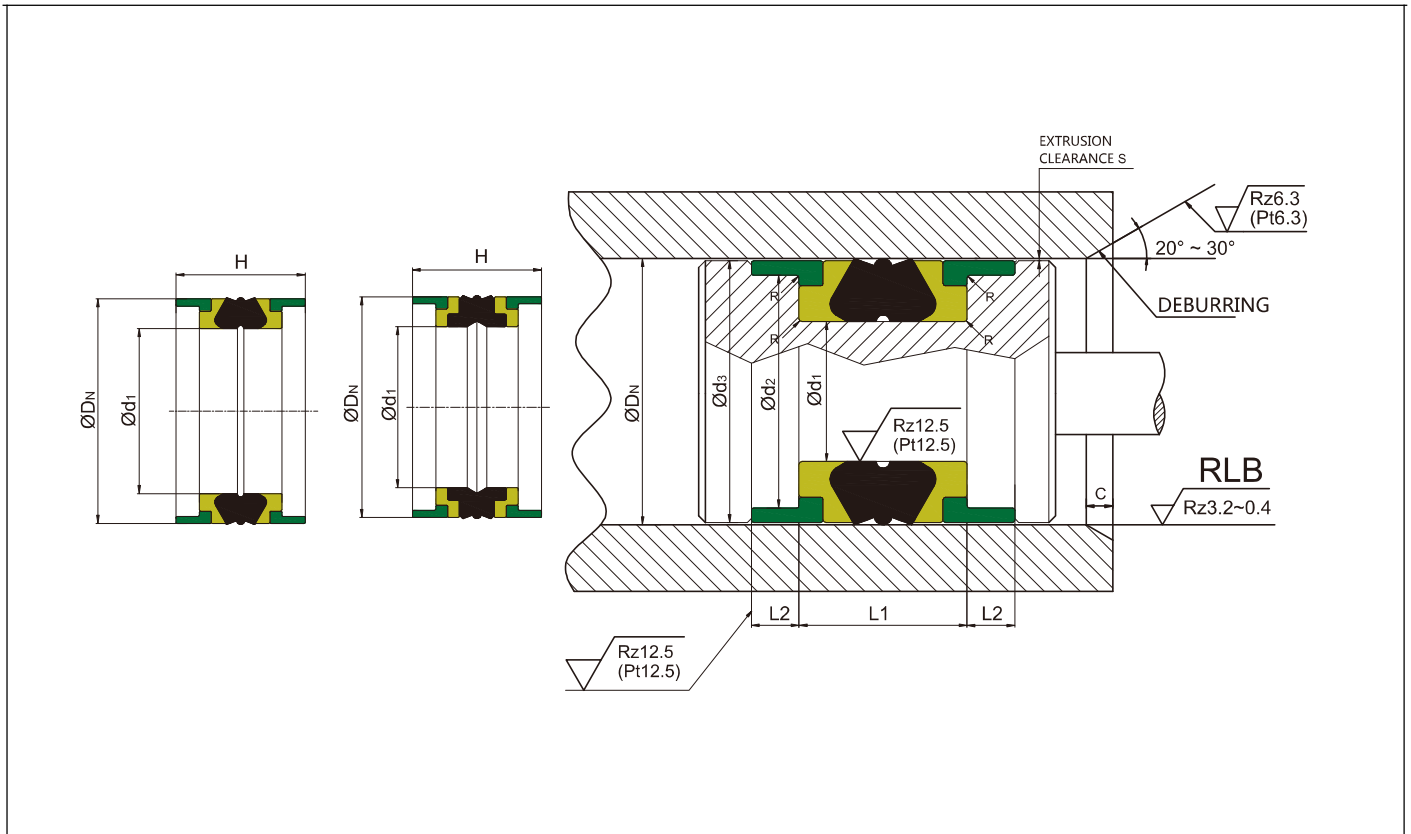




1. Installation Recommendation



2. Application and properties

TPM/DBM is a double acting sealing and guiding element, Consisting of an elastomer, two back-up rings and two guide rings. Dynamic and static properties of the elastomer play a good sealing role, The back-up ring prevents the elastomer from being squeezed into the sealing gap, the function of the guide ring is to guide the piston in the cylinder and absorb the radial force. The sealing is mainly used for piston and hydraulic cylinder, such as bulldozers, excavators, loaders, hydraulic gates and agricultural machinery.

3. Standard materials

Guide ring: POM

Back-up ring: TPU polymer

Elastomer: NBR

4. Working Conditions

Working Conditions				
Diameter Range	Pressure Range	Temperature Range	Speed	Medium
20-250mm	0-35MPa	-30°C +120°C	0.5 m/s	petroleum base hydraulic oil, nonflammable hydraulic oil, environmental protection hydraulic oil



TPM / DBM

5. Installation Dimensions

Cylinder Dia.	Groove Size					Order No.
	D _N H9	d1	L1 +0.2	d ₂ h9	d ₃ h11	
20	11	13.5	17	19	2.1	TPM20*11*13.5*2.1
22	13	13.5	19	21	2.1	TPM22*13*13.5*2.1
25	15	12	21	23	4	TPM25*15*12*4
25	15	12.5	22	24	4	TPM25*15*12.5*4
25	15	16.4	21.45	23.5	6.35	TPM25*15*16.4*6.35
25	16	13.5	22	24	2.1	TPM25*16*13.5*2.1
28	19	13.5	25	27	2.1	TPM28*19*13.5*2.1
30	17	15.4	26.5	28.5	6.35	TPM30*17*15.4*6.35
30	21	13.5	27	29	2.1	TPM30*21*13.5*2.1
32	22	15.5	28	31	2.6	TPM32*22*15.5*2.6
32	22	16.4	28.5	30.5	6.35	TPM32*22*16.4*6.35
35	25	15.5	31	34	2.6	TPM35*25*15.5*2.6
35	25	16.4	31.4	33.5	6.35	TPM35*25*16.4*6.35
40	24	18.4	35.4	38.5	6.35	TPM40*24*18.4*6.35
40	26	15.5	36	39	2.6	TPM40*26*15.5*2.6
40	30	12.5	36	38	4	TPM40*30*12.5*4
40	30	12.5	37	39	4	TPM40*30*12.5*4
40	30	16.4	35.4	38.5	6.35	TPM40*30*16.4*6.35
42	28	15.5	38	41	2.6	TPM42*28*15.5*2.6
45	29	18.4	40.4	43.5	6.35	TPM45*29*18.4*6.35
45	31	15.5	41	44	2.6	TPM45*31*15.5*2.6
45	35	16.4	40.4	43.5	6.35	TPM45*35*16.4*6.35
50	34	18.4	45.4	48.5	6.35	TPM50*34*18.4*6.35
50	34	20.5	46	49	3.1	TPM50*34*20.5*3.1
55	39	18.4	50.36	53.5	6.35	TPM55*39*18.4*6.35
55	39	20.5	51	54	3.1	TPM55*39*20.5*3.1
56	40	20.5	52	55	3.1	TPM56*40*20.5*3.1
60	44	18.4	55.4	58.5	6.35	TPM60*44*18.4*6.35
60	44	20.5	56	59	3.1	TPM60*44*20.5*3.1
63	47	18.4	58.4	61.5	6.35	TPM63*47*18.4*6.35
63	47	19.4	58.4	61.5	6.35	TPM63*47*19.4*6.35
63	47	20.5	59	62	3.1	TPM63*47*20.5*3.1
65	49	20.5	61	64	3.1	TPM65*49*20.5*3.1
65	50	18.4	60.4	63.5	6.35	TPM65*50*18.4*6.35
70	50	22.4	64.2	68.3	6.35	TPM70*50*22.4*6.35
70	54	20.5	66	69	3.1	TPM70*54*20.5*3.1

TPM / DBM



Cylinder Dia.	Groove Size					Order No.
	D _N H9	d1	L1 +0.2	d ₂ h9	d ₃ h11	
75	55	22.4	69.2	73.3	6.35	TPM75*55*22.4*6.35
75	59	20.5	71	74	3.1	TPM75*59*20.5*3.1
80	60	22.4	74.15	78.3	6.35	TPM80*60*22.4*6.35
80	62	22.5	76	79	3.6	TPM80*62*22.5*3.6
85	65	22.4	79.15	83.3	6.35	TPM85*65*22.4*6.35
90	70	22.4	84.15	88.3	6.35	TPM90*70*22.4*6.35
90	72	22.5	86	89	3.6	TPM90*72*22.5*3.6
95	75	22.4	89.15	93.3	6.35	TPM95*75*22.4*6.35
100	75	22.4	93.15	98	6.35	TPM100*75*22.4*6.35
100	82	22.5	96	99	3.6	TPM100*82*22.5*3.6
105	80	22.4	98.1	103	6.35	TPM105*80*22.4*6.35
110	85	22.4	103.1	108	6.35	TPM110*85*22.4*6.35
110	92	22.5	106	109	3.6	TPM110*92*22.5*3.6
115	90	22.4	108.1	113	6.35	TPM115*90*22.4*6.35
115	97	22.5	111	114	3.6	TPM115*97*22.5*3.6
120	95	22.4	113.1	118.1	6.35	TPM120*95*22.4*6.35
125	100	22.4	118.1	123	6.35	TPM125*100*22.4*6.35
125	103	25.4	121	124	5.1	TPM125*103*25.4*5.1
130	105	22.4	123.1	128	6.35	TPM130*105*22.4*6.35
130	105	22.4	122.6	127.5	9.5	TPM130*105*22.4*9.5
133	115	22.4	125.6	130.5	9.52	TPM133*115*22.4*9.52
135	110	25.4	128.1	133	6.35	TPM135*110*25.4*6.35
135	110	25.4	127.6	132.5	9.5	TPM135*110*25.4*9.5
140	115	25.4	133	138	6.35	TPM140*115*25.4*6.35
140	115	25.4	132.6	137.5	9.5	TPM140*115*25.4*9.5
140	118	26.5	136	139	5.1	TPM140*118*26.5*5.1
145	120	25.4	138.3	142.95	6.35	TPM145*120*25.4*6.35
145	120	25.4	137.6	142.5	9.5	TPM145*120*25.4*9.5
150	125	25.4	142.6	147.5	9.5	TPM150*125*25.4*9.5
150	125	25.4	143	148	6.35	TPM150*125*25.4*6.35
150	128	26.5	146	149	5.1	TPM150*128*26.5*5.1
152.4	127	31.75	145	149.91	9.5	TPM152.4*127*31.75*9.5
155	130	25.4	147.6	152.5	9.5	TPM155*130*25.4*9.5
155	130	25.4	148	153	6.35	TPM155*130*25.4*6.35
160	130	25.4	153	157.5	6.35	TPM160*130*25.4*6.35
160	130	25.4	152.6	157.5	9.5	TPM160*130*25.4*9.5



TPM/DBM

Cylinder Dia.	Groove Size					Order No.
	D _N H9	d1	L1 +0.2	d ₂ h9	d ₃ h11	
160	135	25.4	152.6	157.5	9.5	TPM160*135*25.4*9.5
160	138	26.5	156	159	9.1	TPM160*138*26.5*9.1
165	140	25.4	157.6	162.5	9.5	TPM165*140*25.4*9.5
170	145	25.4	161.7	167.1	12.7	TPM170*145*25.4*12.7
170	148	26.5	166	169	5.1	TPM170*148*26.5*5.1
175	150	25.4	166.7	172.1	12.7	TPM175*150*25.4*12.7
180	150	35.4	172.95	177.87	6.35	TPM180*150*35.4*6.35
180	155	25.4	171.7	177.1	12.7	TPM180*155*25.4*12.7
185	160	25.4	176.7	182.1	12.7	TPM185*160*25.4*12.7
190	165	25.4	181.7	187	12.7	TPM190*165*25.4*12.7
195	170	25.4	186.7	192	12.7	TPM195*170*25.4*12.7
200	175	25.4	191.6	197	12.7	TPM200*175*25.4*12.7
200	175	31.5	196	199	6.6	TPM200*175*31.5*6.6
210	185	25.4	201.6	207	12.7	TPM210*185*25.4*12.7
220	190	25.4	212.7	217.9	6.35	TPM220*190*25.4*6.35
220	195	25.4	211.6	217	12.7	TPM220*195*25.4*12.7
230	205	25.4	221.6	227	12.7	TPM230*205*25.4*12.7
240	215	25.4	231.6	237	12.7	TPM240*215*25.4*12.7
250	220	35.4	242.9	247.85	6.35	TPM250*220*35.4*6.35
250	225	25.4	241.6	247	12.7	TPM250*225*25.4*12.7