

WAD/WBD

Rotary shaft seal with an elastomer outer sheath and a metal insert as well as two spring-energised, back-to-back sealing lips. The WBD design is provided with a metal outer surface.

Standard materials

NBR 70
Colour: black
Energised spring: non-alloy spring steel according to DIN EN 10270-1
Metal housing: non-alloy steel according to DIN EN 10139

Areas of application

Sealing of rotating machine elements such as shafts, hubs and axles. Particularly for the separation of two media or extreme dirt accumulation from the outside.

Function

The WAD/WBD rotary shaft seal is used for the separation of two media or extreme dirt accumulation from the outside for rotating or pivoting shafts.

The WAD is a double action rotary shaft ring for rotating or pivoting shafts. The elastomer outer sheath provides good static sealing, good thermal expansion balance e.g. in light-metal housings, better sealing with greater roughness and secure sealing for split housings as well as good static sealing with thin fluid or gaseous media.

Tight and accurate fitting is achieved by the metal outer casing. The WBD model has limited sealing action with thin fluid or gaseous media and in split housings.

To guarantee high static sealing on the outer surface, better surface treatment of the housing bore is necessary or an additional coat of paint should be applied to the outer casing.

Media

Good chemical resistance to many mineral oils and greases. Please also refer to our media resistance tables on page 22 of this catalogue.

Operational application limits

Pressure (Mpa/bar): $\leq 0.03/0.3$
Temperature ($^{\circ}\text{C}$): -40 to $+100$
Peripheral speed (m/s): ≤ 6
Please also refer to our rotational speed diagram on page 20 of this catalogue.

Installation

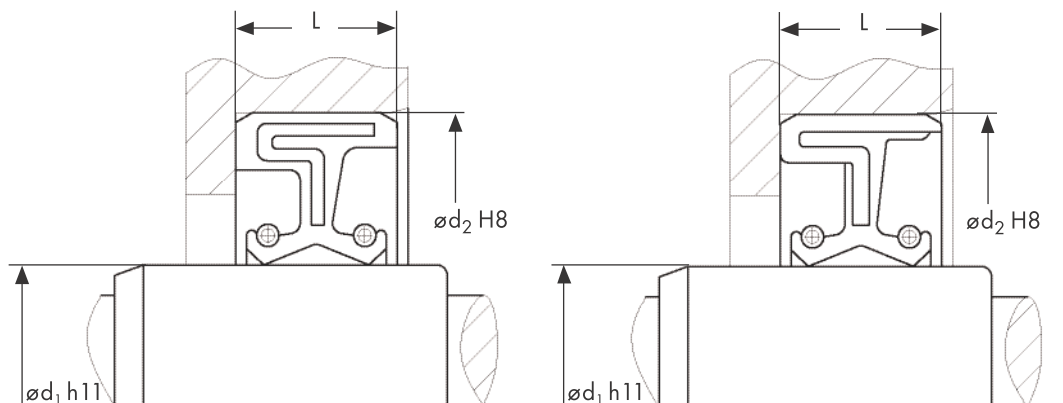
Suitable tools should be used for installation. It is recommended that the installation housing is designed to provide the rotary shaft seal with axial support. The space between the sealing lips must be $2/3$ filled with grease. Please also refer to our general installation instructions on page 30 of this catalogue.

Remarks

The nominal widths mentioned on the following pages represent the standard dimensions.

Other dimensions and different designs, e.g. springs or metal inserts made of other steel grades can be produced as well some special designs. Minimum quantities may be obligatory for dimensions outside of the standard.

The WAD/WBD models can also be produced in fluoro rubber (FPM).



WAD

**Sizes
metric**

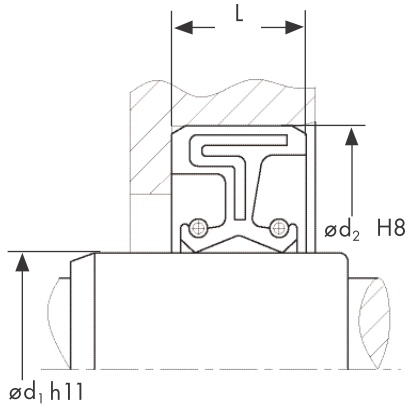
Part No.	Dimensions in mm			Part No.	Dimensions in mm		
	ød ₁	ød ₂	L		ød ₁	ød ₂	L
151201	10	20	8	41524	30	50	10
39021	10	26	7	39035	30	51	10
80863	11	30	10	78462	30	52	10
36568	12	22	7	77918	30	62	10
151202	12	22	8	45832	30	62	14
43590	12	24	10	39036	32	44	8
72616	14	28	7	45835	32	52	7
157866	14	32	7.4	39037	35	44	7
158177	14	32.4	7.4	76550	35	47	10
39022	15	24	7	17381	35	52	12
121783	15	28	7	44563	35	62	7
79790	15	35	7	39249	35	62	10
116402	16	26	8	45836	35	62	14
77868	17	28	7	127145	40	52	7
35676	17	28	8	77679	40	55	7
39023	17	29	7	45837	40	58	10
156216	17	30	7	35507	40	62	13
149847	17	32	8	75866	40	62	14
39024	17	35	7	29770	40	65	20
65022	17	40	7	39038	42	55	7
130607	18	30	8	46512	44	55	10
19583	18	32	8	19589	45	60	10
78433	20	30	7	44041	45	62	8
39025	20	35	7	39039	45	62	11
39026	20	35	8	76551	45	62	14
39027	20	40	7	19590	45	65	10
16952	20	40	8	19591	48	72	15
39028	21.7	66.5	10	39250	50	65	8
82377	22	40	7	127146	50	65	10
155942	22	40	8.5	37691	50	72	13
39029	24	42	8	17802	50	80	13
130489	25	35	7	79810	55	75	15
88250	25	35	8	19593	55	80	10
62892	25	35	10	17897	55	80	13
39030	25	38	8	19595	55	90	10
43759	25	40	8	127723	60	75	8
75864	25	40	10	41041	60	82	12
44532	25	42	10	121708	60	85	13
39031	25	45	10	150228	65	82	13
45830	25	45	14	41040	65	85	10
45918	25	47	12	35655	70	85	16
117499	25	52	9	152108	70	90	11
77950	25	52	10	27539	75	90	15
39032	26	37	10.5	118718	75	95	12
116403	27	43	8	35403	75	95	14
79435	28	40	7	39040	75	95	15
39033	28	40	8	61262	80	100	10
39034	28	47	8	77839	80	100	12
150477	28	56	8	39041	85	105	13
76549	30	40	10	39042	86	120	15
636	30	42	7	46555	95	125	15
45831	30	45	8.5	41187	100	120	12
24223	30	45	12	25950	100	120	13
88220	30	47	10	55920	100	125	13
75865	30	47	14	90741	100	130	13

WAD

Part No. Dimensions in mm
 $\varnothing d_1$ $\varnothing d_2$ L

**Sizes
metric**

38951	110	130	13
29774	110	150	18
41186	115	145	18
45840	118	140	16
39043	125	150	12
34893	140	165	12
65067	150	180	15
40053	150	180	18



WAD

Part No. Dimensions in mm Dimensions in inch
 $\varnothing d_1$ $\varnothing d_2$ L $\varnothing d_1$ $\varnothing d_2$ L

**Sizes
inch**

70427	17.46	28.57	7.93	0.687	1.125	0.312
131195	17.46	28.57	8	0.687	1.125	0.315
43717	17.46	31.75	7.93	0.687	1.125	0.312
159293	19.05	25.58	6.8	0.75	1.007	0.268
7601	44.45	68.32	19.4	0.75	2.69	0.764
121439	50.8	69.85	9.52	2	2.75	0.375
116184	69.85	88.9	15.8	2.75	3.5	0.622
92936	76.2	104.78	12.7	3	4.125	0.5