

VR RADIAL SHAFT SEAL-Single Lip MSB

PRODUCT APPLICATION

Sealing of shafts with a different running track to standard seals (shaft seals). Rotary shaft seal (RWDR) in dimensions in accordance with DIN 3760.

PRODUCT ADVANTAGES

- Low coefficient of friction
- Low power loss and high service life values
- Low pumping effect due to tangential and radial preload
- High pressure stability
- No post-treatment of the shaft material, such as hardening, nitriding, hard chrome plating or additional liners required*



MATERIAL

Sleeve / Membrane	NBR HNBR FKM EPDM FFKM *
Support Ring/Body	Aluminium Stainless steel (1.4301) *

* Other materials on enquiry.

OPERATING CONDITIONS

Temperature	-50 °C to 220 °C**
Circumferential speed	40* m/s for 0 MPa
Pressure (Pmin to Pmax)	0.06* MPa to 1.5* MPa

* Value depends on other application parameters and the elastomer used.

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TOLERANCE

Surface Element	Surface Tolerance	Roundness
Shaft	H7	IT8
Housing	ISO tolerance H8	

*Depending on increase in rotational speed, the radial shaft deflection may need to be more tightly adjusted. Please enquire.

SURFACE QUALITY

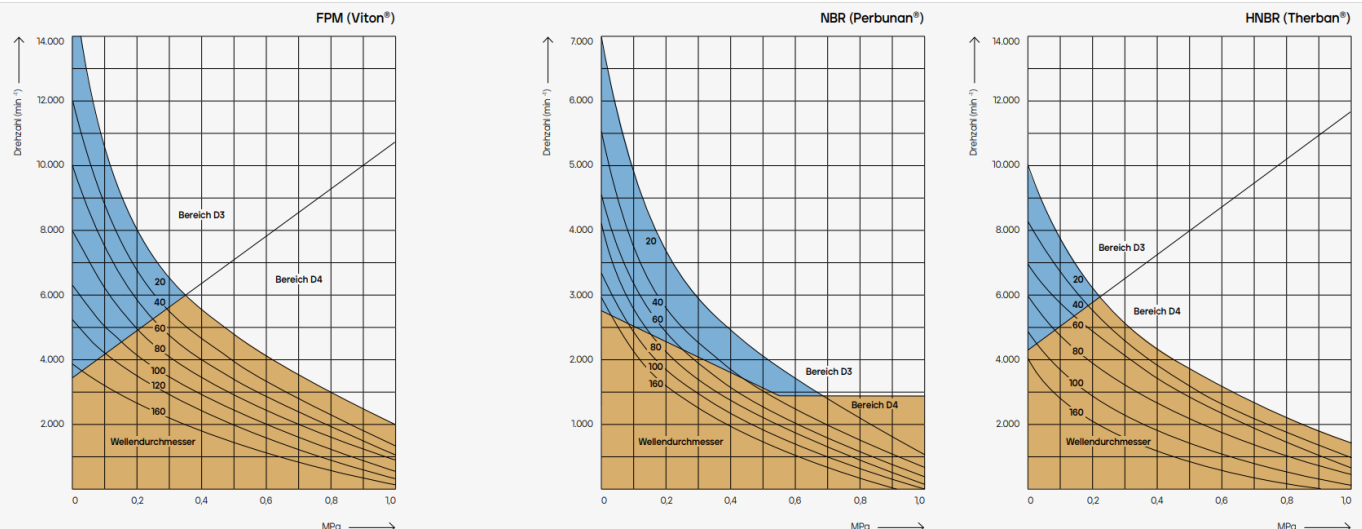
Surface Element	Rz	Ra / Rt
Shaft	1 – 5 µm	0.1 – 0.8 µm
Housing	4.0 µm ≤ Rz ≤ 8.0 µm	Ra ≤ 3 µm Rt ≤ 16 µm

*Please observe our general design notes in catalogue.

Shaft Surface Hardness:

- Simple applications: 25 – 30 HRC
- Normal applications: Min. 40 HRC
- External dirt ingress or contaminated media: Min. 55 HRC

P - V DIAGRAM





MSB Single Lip Seal

support body / diameter

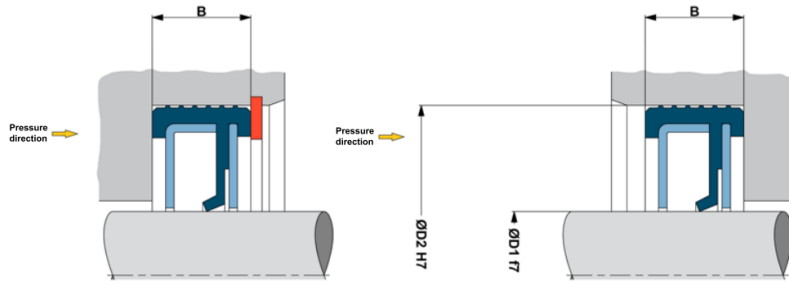
$$D4 = D1 + 0,5 \text{ mm}$$

from $D1 = 150 \text{ mm}$

$$D4 = D1 + 1,0 \text{ mm}$$

> 130 mm housing – diameter on request

Red-marked and deviating dimensions only on request.



D1	D2	B	B1	B2	D1	D2	B	B1	B2	D1	D2	B	B1	B2	D1	D2	B	B1	B2
					20	30	7	8,5	9,5	42 55 10 12 13									
					32														
					35														
					40														
					42														
6	16	7	8	9	22	32	7	8,5	10	45 60 10 12 13									
	19	5	6	7	35														
	20	5	6	7															
					24	35	7	9	10	48 62 10 12 13					100 125 12 14,5 15,5				
8	16	7	8,5	9,5						50 65 10 12 13					105 130 12 14,5 15,5				
	22																		
	24																		
					25 35 7 9 10														
10	19	5	6,5	7,5	40														
10	19	7	8,5	9,5															
					45					55 70 10 12 13					120 150 12 14,5 15,5				
					26 37 7 9 10														
					28 40 7 9 10														
12	22	7	8,5	9,5															
					30 40 7 9 10														
					42					60 75 10 12,5 13,5									
					52					80									
14	24	7	8,5	9,5	52 9 11 12														
15	30	7	8,5	9,5															
					35 45 7 9 10														
					47														
16	28	7	8,5	9,5	50														
					52 9 11 12														
					62 7 9 10														
17	28	7	8,5	9,5															
					32														
18	30	7	8,5	9,5	40					52 9 11 12									
					55 7 9 10														
					55 10 12 13														
					62														
					72														