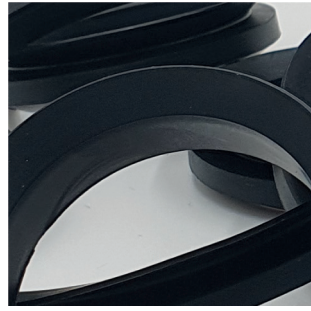


NT
K+D AG

Plastics & sealing technology
3D printing



V-Rings

Rotary seals for shaft bushings

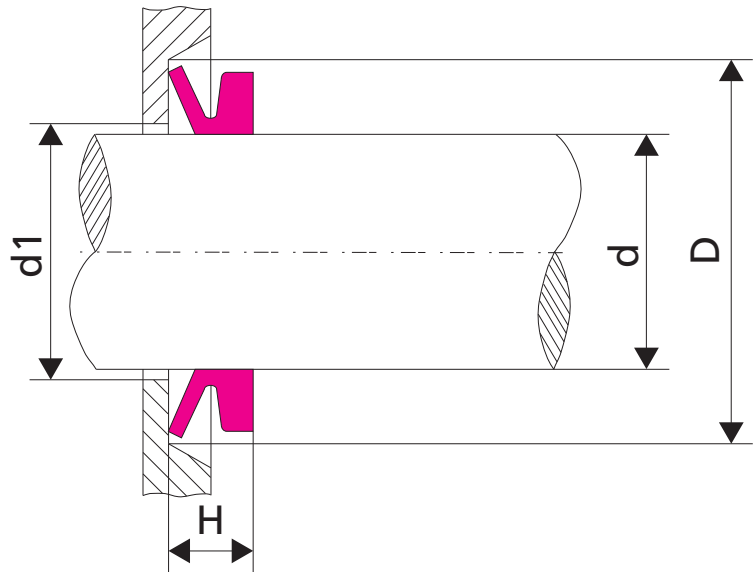


Introduction

The V-ring is an elastomer seal. It is expandable and can be easily pulled over flanges and housing parts. The V-ring has an undersize inner diameter and is held firmly in place on the rotating shaft by its inherent tension. The elastic sealing lip runs against an end wall and seals against dust, dirt, grease and other media. For the separation of several fluids, 2 seals can be installed, with the back against each other. The V-ring tolerates slightly eccentric or skewed shafts.

Type VA

Type VA: with straight back for shafts from $\varnothing 3 - 210$ mm



Type	d	Installation dimensions		
		d1	D	H
VA 3	2.7 - 3.5	d + 1	d + 4	2.5 ± 0.3
VA 4	3.5 - 4.5	d + 1	d + 6	3.0 ± 0.4
VA 5	4.5 - 5.5	d + 1	d + 6	3.0 ± 0.4
VA 6	5.5 - 6.5	d + 1	d + 6	3.0 ± 0.4
VA 7	6.5 - 8.0	d + 1	d + 6	3.0 ± 0.4
VA 8	8.0 - 9.5	d + 2	d + 6	3.0 ± 0.4
VA 10	9.5 - 11.5	d + 2	d + 9	4.5 ± 0.6
VA 12	11.5 - 13.5	d + 2	d + 9	4.5 ± 0.6
VA 14	13.5 - 15.5	d + 2	d + 9	4.5 ± 0.6
VA 16	15.5 - 17.5	d + 2	d + 9	4.5 ± 0.6
VA 18	17.5 - 19.0	d + 2	d + 9	4.5 ± 0.6
VA 20	19.0 - 21.0	d + 2	d + 12	6.0 ± 0.8
VA 22	21.0 - 24.0	d + 2	d + 12	6.0 ± 0.8
VA 25	24.0 - 27.0	d + 2	d + 12	6.0 ± 0.8
VA 28	27.0 - 29.0	d + 3	d + 12	6.0 ± 0.8
VA 30	29.0 - 31.0	d + 3	d + 12	6.0 ± 0.8
VA 32	31.0 - 33.0	d + 3	d + 12	6.0 ± 0.8
VA 35	33.0 - 36.0	d + 3	d + 12	6.0 ± 0.8
VA 38	36.0 - 38.0	d + 3	d + 12	6.0 ± 0.8
VA 40	38.0 - 43.0	d + 3	d + 15	7.0 ± 1.0
VA 45	43.0 - 48.0	d + 3	d + 15	7.0 ± 1.0

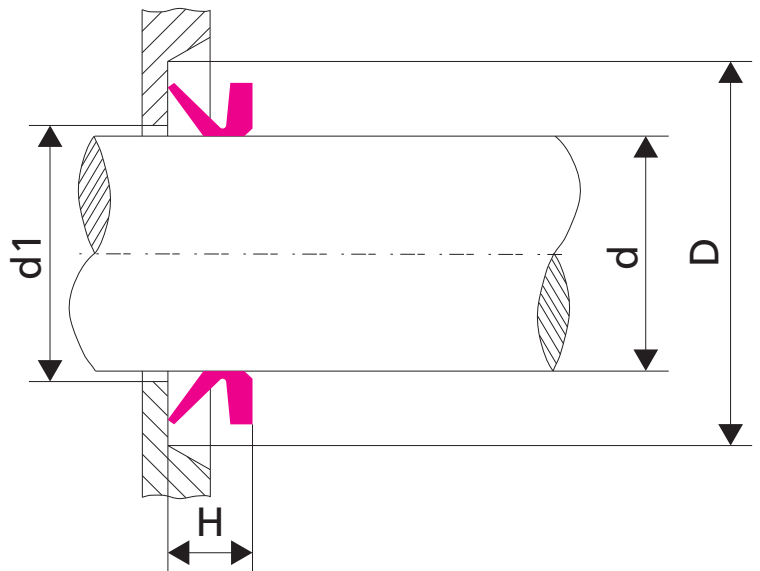
Type	d	Installation dimensions		
		d1	D	H
VA 50	48.0 - 53.0	d + 3	d + 15	7 ± 1.0
VA 55	53.0 - 58.0	d + 3	d + 15	7 ± 1.0
VA 60	58.0 - 63.0	d + 3	d + 15	7 ± 1.0
VA 65	63.0 - 68.0	d + 3	d + 15	7 ± 1.0
VA 70	68.0 - 73.0	d + 4	d + 18	9 ± 1.2
VA 75	73.0 - 78.0	d + 4	d + 18	9 ± 1.2
VA 80	78.0 - 83.0	d + 4	d + 18	9 ± 1.2
VA 85	83.0 - 88.0	d + 4	d + 18	9 ± 1.2
VA 90	88.0 - 93.0	d + 4	d + 18	9 ± 1.2
VA 95	93.0 - 98.0	d + 4	d + 18	9 ± 1.2
VA 100	98.0 - 105.0	d + 4	d + 18	9 ± 1.2
VA 110	105.0 - 115.0	d + 4	d + 21	10.5 ± 1.2
VA 120	115.0 - 125.0	d + 4	d + 21	10.5 ± 1.2
VA 130	125.0 - 135.0	d + 4	d + 21	10.5 ± 1.2
VA 140	135.0 - 145.0	d + 4	d + 21	10.5 ± 1.2
VA 150	145.0 - 155.0	d + 4	d + 21	10.5 ± 1.2
VA 160	155.0 - 165.0	d + 5	d + 24	12.0 ± 1.8
VA 170	165.0 - 175.0	d + 5	d + 24	12.0 ± 1.8
VA 180	175.0 - 185.0	d + 5	d + 24	12.0 ± 1.8
VA 190	185.0 - 195.0	d + 5	d + 24	12.0 ± 1.8
VA 199	195.0 - 210.0	d + 5	d + 24	12.0 ± 1.8

We supply V-rings made of NBR, FPM and EPDM. V-rings made of other materials and in others Shaft areas are manufactured according to your specifications on our modern CNC machines.

Type VL

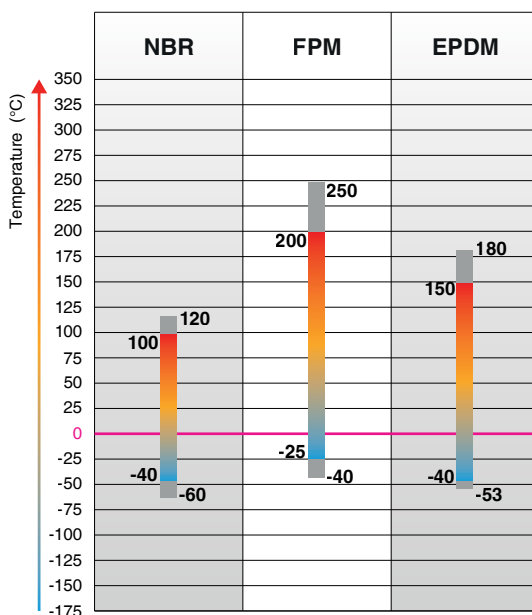
Type VL: with straight back for shafts from \varnothing 105 - 625mm

Type	d	Installation dimensions		
		d1	D	H
VL 110	105 - 115	d + 5	d + 20	8 ±1.5
VL 120	115 - 125	d + 5	d + 20	8 ±1.5
VL 130	125 - 135	d + 5	d + 20	8 ±1.5
VL 140	135 - 145	d + 5	d + 20	8 ±1.5
VL 150	145 - 155	d + 5	d + 20	8 ±1.5
VL 160	155 - 165	d + 5	d + 20	8 ±1.5
VL 170	165 - 175	d + 5	d + 20	8 ±1.5
VL 180	175 - 185	d + 5	d + 20	8 ±1.5
VL 190	185 - 195	d + 5	d + 20	8 ±1.5
VL 200	195 - 210	d + 5	d + 20	8 ±1.5
VL 220	210 - 233	d + 5	d + 20	8 ±1.5
VL 250	233 - 260	d + 5	d + 20	8 ±1.5
VL 275	260 - 285	d + 5	d + 20	8 ±1.5
VL 300	285 - 310	d + 5	d + 20	8 ±1.5
VL 325	310 - 335	d + 5	d + 20	8 ±1.5
VL 350	335 - 365	d + 5	d + 20	8 ±1.5
VL 375	365 - 385	d + 5	d + 20	8 ±1.5
VL 400	385 - 410	d + 5	d + 20	8 ±1.5
VL 425	410 - 440	d + 5	d + 20	8 ±1.5
VL 450	440 - 475	d + 5	d + 20	8 ±1.5
VL 500	475 - 510	d + 5	d + 20	8 ±1.5
VL 525	510 - 540	d + 5	d + 20	8 ±1.5
VL 550	540 - 575	d + 5	d + 20	8 ±1.5
VL 600	575 - 625	d + 5	d + 20	8 ±1.5



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Material Operating temperatures

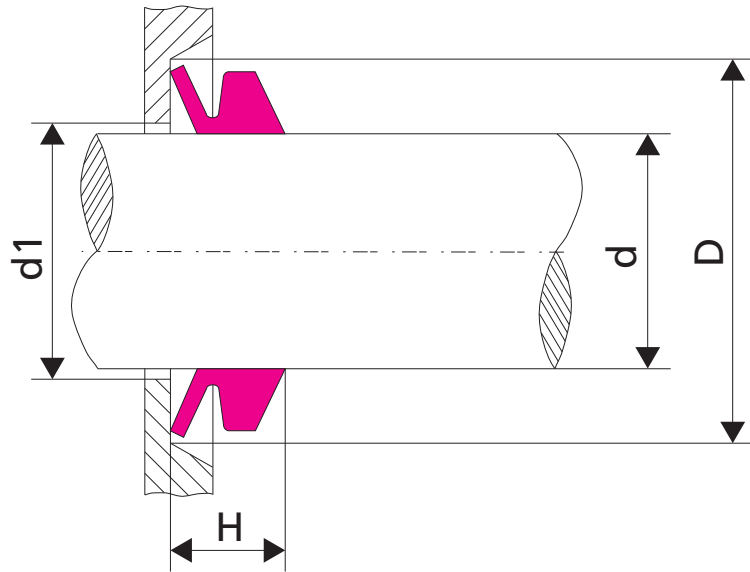


- NBR** Advantages:
- Good swelling resistance to mineral oils, greases and diesel fuels.
 - Low gas diffusion.
- Disadvantages:
- Insufficient weather and ozone resistance.
 - Requires special protective agents.
-
- FPM** Advantages:
- Excellent resistance to chemicals and mineral oils.
 - High heat resistance.
 - Lowest permeability rates for most gases.
- Disadvantages:
- Not resistant to polar solvents.
-
- EPDM** Advantages:
- High resistance to ozone, heat, hot water and alkaline and acidic solutions.
 - Resistant to polar solvents.
- Disadvantages:
- Not mineral oil resistant.

Type VS

Type VS: with slanted back for shafts from $\varnothing 5 - 210$ mm

Type	d	Installation dimensions		
		d1	D	H
VS 5	4.5 - 5.5	d + 1	d + 4	2.5 ± 0.3
VS 6	5.5 - 6.5	d + 1	d + 6	3.0 ± 0.4
VS 7	6.5 - 8.0	d + 1	d + 6	3.0 ± 0.4
VS 8	8.0 - 9.5	d + 1	d + 6	3.0 ± 0.4
VS 10	9.5 - 11.5	d + 2	d + 6	3.0 ± 0.4
VS 12	11.5 - 13.5	d + 2	d + 6	3.0 ± 0.4
VS 14	13.5 - 15.5	d + 2	d + 9	4.5 ± 0.6
VS 16	15.5 - 17.5	d + 2	d + 9	4.5 ± 0.6
VS 18	17.5 - 19.0	d + 2	d + 9	4.5 ± 0.6
VS 20	19.0 - 21.0	d + 2	d + 9	4.5 ± 0.6
VS 22	21.0 - 24.0	d + 2	d + 9	4.5 ± 0.6
VS 25	24.0 - 27.0	d + 2	d + 12	6.0 ± 0.8
VS 28	27.0 - 29.0	d + 3	d + 12	6.0 ± 0.8
VS 30	29.0 - 31.0	d + 3	d + 12	6.0 ± 0.8
VS 32	31.0 - 33.0	d + 3	d + 12	6.0 ± 0.8
VS 35	33.0 - 36.0	d + 3	d + 12	6.0 ± 0.8
VS 38	36.0 - 38.0	d + 3	d + 12	6.0 ± 0.8
VS 40	38.0 - 43.0	d + 3	d + 12	6.0 ± 0.8
VS 45	43.0 - 48.0	d + 3	d + 12	6.0 ± 0.8
VS 50	48.0 - 53.0	d + 3	d + 15	7.0 ± 1.0
VS 55	53.0 - 58.0	d + 3	d + 15	7.0 ± 1.0
VS 60	58.0 - 63.0	d + 3	d + 15	2.5 ± 1.0
VS 65	63.0 - 68.0	d + 3	d + 15	3.0 ± 1.0
VS 70	68.0 - 73.0	d + 4	d + 18	3.0 ± 1.2
VS 75	73.0 - 78.0	d + 4	d + 18	3.0 ± 1.2
VS 80	78.0 - 83.0	d + 4	d + 18	3.0 ± 1.2
VS 85	83.0 - 88.0	d + 4	d + 18	3.0 ± 1.2
VS 90	88.0 - 93.0	d + 4	d + 18	4.5 ± 1.2
VS 95	93.0 - 98.0	d + 4	d + 18	4.5 ± 1.2
VS 100	98.0 - 105.0	d + 4	d + 18	4.5 ± 1.2
VS 110	105.0 - 115.0	d + 4	d + 21	4.5 ± 1.5
VS 120	115.0 - 125.0	d + 4	d + 21	4.5 ± 1.5
VS 130	125.0 - 135.0	d + 4	d + 21	6.0 ± 1.5
VS 140	135.0 - 145.0	d + 4	d + 21	6.0 ± 1.5
VS 150	145.0 - 155.0	d + 4	d + 21	6.0 ± 1.5
VS 160	155.0 - 165.0	d + 5	d + 24	6.0 ± 1.8
VS 170	165.0 - 175.0	d + 5	d + 24	6.0 ± 1.8
VS 180	175.0 - 185.0	d + 5	d + 24	6.0 ± 1.8
VS 190	185.0 - 195.0	d + 5	d + 24	6.0 ± 1.8
VS 199	195.0 - 210.0	d + 5	d + 24	6.0 ± 1.8



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