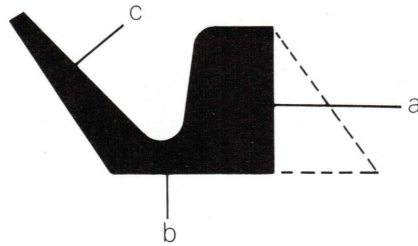


1. Description

The FRONTSEAL® is an all elastomer axial seal for shafts and bearings. It seals axially against a counterface. This type of seal has been used widely for several applications and has proved to be reliable and effective against dust, dirt, water and oil splash and other media.

The ring consist of three parts:



- a - The seal body, installed with interference to the shaft.
- b - The hinge, acting as a sprung connection between the body and the lip.
- c - The conical self adjusting lip which provides the actual dynamic sealing against the counterface.

The counterface can be the outside of the bearing cap, a washer or any suitable metal pressing.

2. Standard Seal Types

The FRONTSEAL® is manufactured in four standard profiles:



VA type:
is the most common profile. It has a perpendicular rear face. Wide range of sizes, from 3 to 2020 mm shafts.



VS type:
with wide body to ensure higher radial force than VA type. Range of sizes from 5 to 210 mm shafts.



VL type:
this seal is intended for applications where space available is limited. Range of sizes from 135 to 630 mm shafts.



VE type:
is our heavy duty large diameter seal, used in steel mills, paper mills and rolling mills as a dirt/water excluder seal. A standard clamping band can be used to improve axial fixation.

Other types, modifications or larger diameters available upon request.

3. Elastomeric Sealing Materials

3.1 Nitrile rubber NBR

This elastomer is a copolymer of butadiene and acrylonitrile and is used for the majority of conventional fluid sealing applications.

Physical data:

- Working temperature range: -40°C to $+120^{\circ}\text{C}$ in oil / $+90^{\circ}$ in water
- Tensile strength: up to 15 MPa
- Standard colour: black

Advantages:

- Good resistance to mineral oil and grease
- Good resistance to water and radiator fluid
- High tear strength

Limitations:

- Poor resistance to high-alloyed hypoid oil
- Poor resistance to ozone, weathering and sunlight.
- Not resistant to automotive brake fluid (glycol based)
- Poor resistance to polar fluids (ketones, ethers, esters)
- Poor resistance to chlorinated hydrocarbons (carbon tetrachloride, trichlorethylene)
- Poor resistance to aromatic solvents.

3.2 Fluorinated rubber FPM

Mostly known under the trade name VITON from Du Pont, TECHNOFLON from Montedison and FLUOREL from 3M.

It has good chemical resistance and is recommended for high temperature applications.

Physical data:

- Working temperature range: -30°C to $+200^{\circ}\text{C}$
- Tensile strength: up to 15 MPa
- Standard colour: brown

Advantages:

- Excellent resistance to mineral oil and above all high-alloyed hypoid oils
- Excellent acid resistance
- Good resistance to aromatic and chlorinated hydrocarbons
- Excellent resistance to ageing, ozone and weathering.

Limitations:

- Limited cold flexibility
- Poor resistance to polar fluids (ketones, ethers, esters).

3.3 Silicone Rubber SIL

Also referred to as MVQ

Physical data:

- Working temperature range: -60°C to $+220^{\circ}\text{C}$
- Tensile strength: approx. 3-7 MPa
- Standard colour: red

Advantages:

- Retains flexibility down to very low temperatures
- Withstands continuous heating at high temperatures without hardening
- Resistant to mineral oils and greases
- Excellent resistance to ageing, weathering and ozone
- Good chemical resistance to alkalis.

Limitations:

- Not recommended for use with hydrocarbons, such as petrols and paraffin, and lighter mineral oils.
- Not resistant to hot water, acids and non-mineral automotive brake fluids.
- Poor tensile and tear strength
- Poor wear resistance.

3.4 Chloroprene rubber CR

Mostly known under the trade name NEOPRENE from Du Pont.

Physical data:

- Working temperature range: -40°C to $+80^{\circ}\text{C}$
- Tensile strength: up to 15 MPa

Advantages:

- Excellent resistance to ageing, weathering and ozone
- Moderate resistance to mineral oils and greases.

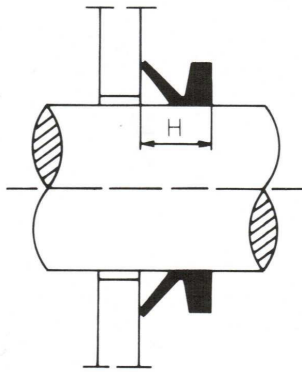
Limitations:

- Tends to harden or stiffen at low temperatures
- Not resistant to non-mineral automotive brake fluids.

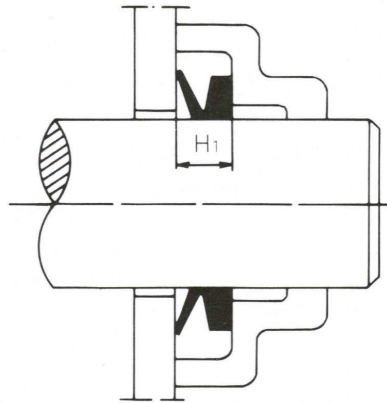
4. Installation and operation

4.1 Fitting

Fitting of the FRONTSEAL[®] is very simple. The ring must be slightly stretched and pushed along the shaft. It can either be done manually or with a simple tool, in a way that the distance to the counterface can be maintained constant using little pressure.



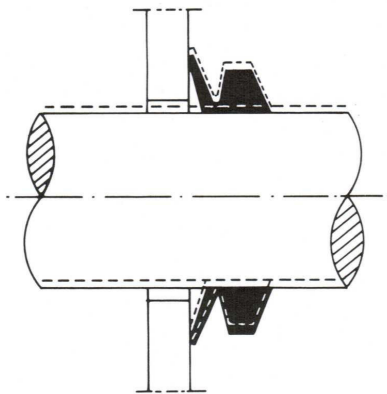
*FRONTSEAL[®]
not preloaded*



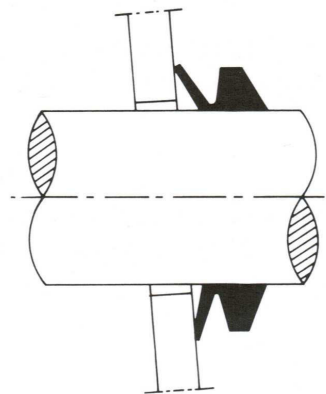
*FRONTSEAL[®] fitted
with preloading using a tool*

4.2. Eccentricity / Misalignment

The V-shape of FRONTSEAL[®] provides an effective and reliable sealing even with oval section or eccentrically turning shafts. Sealing is not even affected by a slightly tilted counterface.



*oval and/or eccentrically
turning shaft*



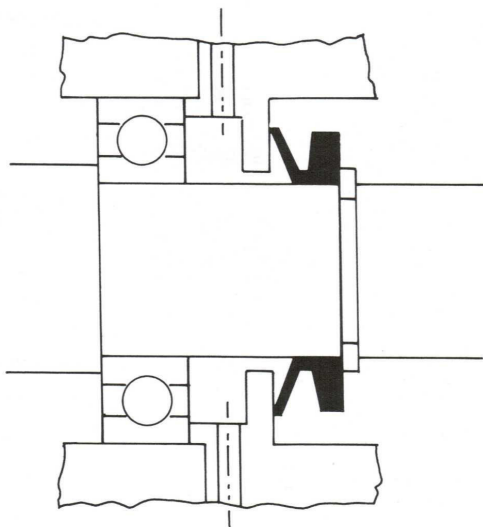
*tilted
counterface*

4.3 Counterface

The counterface finish is very important for an efficient sealing and for useful life of the seal. The surface must be smooth, free of scratches and sharp peaks, finish of $R_t = 1$ to $4 \mu\text{m}$.

Several materials can be used: soft metals, (light alloy, cast metal, etc.) only in well lubricated applications.

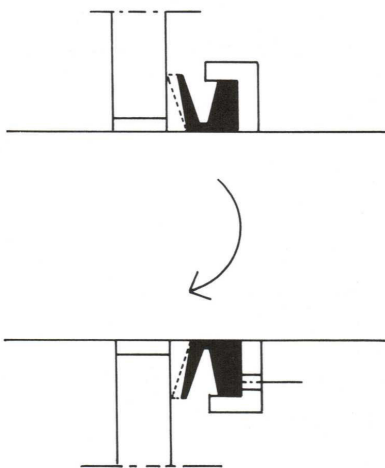
For unlubricated applications the surface should be treated with a dry lubricant such as Molykote spray.



4.4 Peripheral speed

At peripheral speed up to 8 m/s the lip of the FRONTSEAL® has a good pressure against the counterface and it has the function of a light contact seal.

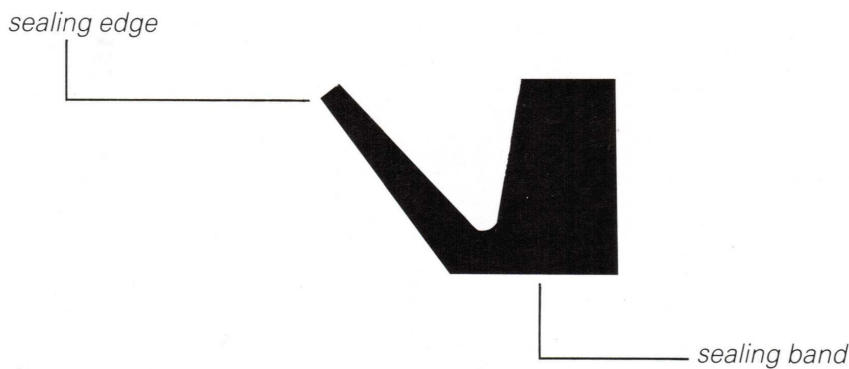
Over 8 m/s the seal must be supported axially and above 12 m/s radial retention is necessary, mounting the FRONTSEAL® in an axial groove or applying an adequate support.



5. Production and Quality Assurance

Our FRONTSEAL® is manufactured according to Quality Assurance Standards ISO 9002. All production phases are checked and all measurements are recorded and stored for eventual tracing.

Our FRONTSEAL® is individually inspected to ensure that sealing edge and sealing band are without faults. Also small cracks and shorts which could cause a split during mounting or functioning of the seal are not accepted.



6. Storage and Handling

Some storage precautions must be taken in order to avoid deterioration of the material. FRONTSEAL® should be stored in a dust free and dry atmosphere and they must be kept in their original envelope which should only be opened just before installation. Samples should be re-packed after inspection.

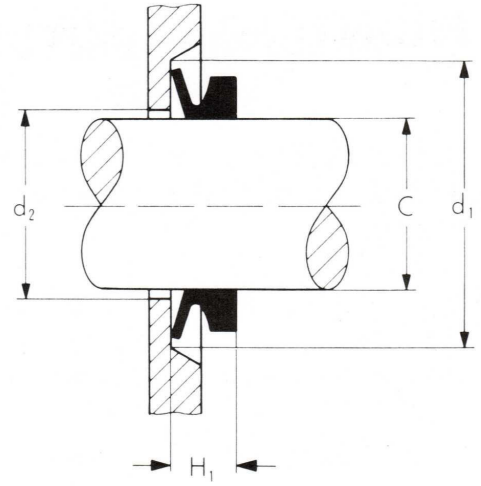
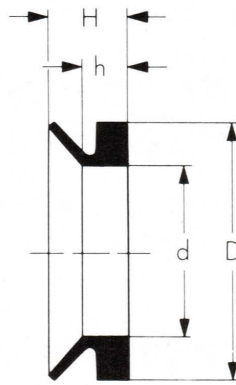
Do not drop FRONTSEAL® on shelves or boxes, nor hang seals on hooks, wires or nails, since in either case the seal can be damaged.

Seals should be stored on a first-in first-out basis to avoid ageing on the shelf. Avoid storage near sources of heat or near electrical equipment that may generate ozone. Also keep away from direct sunlight.

Avoid unnecessarily compressing the lip during storage.

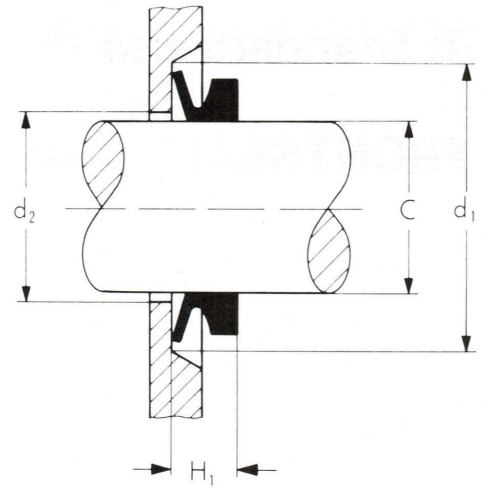
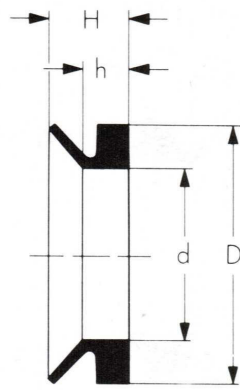
7. Standard size

FRONTSEAL® VA



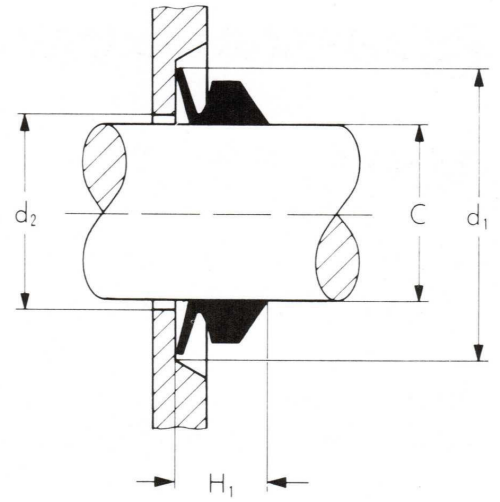
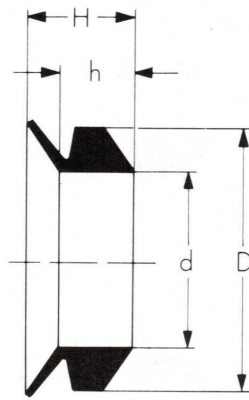
Ref.	Shaft diameter C	Ring dimensions mm				Mounting dimensions mm		
		d	D	h	H	d ₂	d ₁	H ₁
VA 3	2,7 - 3,5	2,5	5,5	2,1	3	C + 1	C + 4	2,5 ± 0,3
VA 4	3,5 - 4,5	3,2	7,2	2,4	3,7	C + 1	C + 6	3 ± 0,4
VA 5	4,5 - 5,5	4	8	2,4	3,7	C + 1	C + 6	3 ± 0,4
VA 6	5,5 - 6,5	5	9	2,4	3,7	C + 1	C + 6	3 ± 0,4
VA 7	6,5 - 8	6	10	2,4	3,7	C + 1	C + 6	3 ± 0,4
VA 8	8 - 9,5	7	11	2,4	3,7	C + 1	C + 6	3 ± 0,4
VA 10	9,5 - 11,5	9	15	3,4	5,5	C + 2	C + 9	4,5 ± 0,6
VA 12	11,5 - 13,5	10,5	16,5	3,4	5,5	C + 2	C + 9	4,5 ± 0,6
VA 14	13,5 - 15,5	12,5	18,5	3,4	5,5	C + 2	C + 9	4,5 ± 0,6
VA 16	15,5 - 17,5	14	20	3,4	5,5	C + 2	C + 9	4,5 ± 0,6
VA 18	17,5 - 19	16	22	3,4	5,5	C + 2	C + 9	4,5 ± 0,6
VA 20	19 - 21	18	26	4,7	7,5	C + 2	C + 12	6 ± 0,8
VA 22	21 - 24	20	28	4,7	7,5	C + 2	C + 12	6 ± 0,8
VA 25	24 - 27	22	30	4,7	7,5	C + 2	C + 12	6 ± 0,8
VA 28	27 - 29	25	33	4,7	7,5	C + 3	C + 12	6 ± 0,8
VA 30	29 - 31	27	35	4,7	7,5	C + 3	C + 12	6 ± 0,8
VA 32	31 - 33	29	37	4,7	7,5	C + 3	C + 12	6 ± 0,8
VA 35	33 - 36	31	39	4,7	7,5	C + 3	C + 12	6 ± 0,8
VA 38	36 - 38	34	42	4,7	7,5	C + 3	C + 12	6 ± 0,8
VA 40	38 - 43	36	46	5,5	9	C + 3	C + 15	7 ± 1
VA 45	43 - 48	40	50	5,5	9	C + 3	C + 15	7 ± 1
VA 50	48 - 53	45	55	5,5	9	C + 3	C + 15	7 ± 1
VA 55	53 - 58	49	59	5,5	9	C + 3	C + 15	7 ± 1
VA 60	58 - 63	54	64	5,5	9	C + 3	C + 15	7 ± 1
VA 65	63 - 68	58	68	5,5	9	C + 3	C + 15	7 ± 1
VA 70	68 - 73	63	75	6,8	11	C + 4	C + 18	9 ± 1,2
VA 75	73 - 78	67	79	6,8	11	C + 4	C + 18	9 ± 1,2
VA 80	78 - 83	72	84	6,8	11	C + 4	C + 18	9 ± 1,2
VA 85	83 - 88	76	88	6,8	11	C + 4	C + 18	9 ± 1,2
VA 90	88 - 93	81	93	6,8	11	C + 4	C + 18	9 ± 1,2
VA 95	93 - 98	85	97	6,8	11	C + 4	C + 18	9 ± 1,2
VA 100	98 - 105	90	102	6,8	11	C + 4	C + 18	9 ± 1,2
VA 110	105 - 115	99	113	7,9	12,8	C + 4	C + 21	10,5 ± 1,5
VA 120	115 - 125	108	122	7,9	12,8	C + 4	C + 21	10,5 ± 1,5
VA 130	125 - 135	117	131	7,9	12,8	C + 4	C + 21	10,5 ± 1,5
VA 140	135 - 145	126	140	7,9	12,8	C + 4	C + 21	10,5 ± 1,5
VA 150	145 - 155	135	149	7,9	12,8	C + 4	C + 21	10,5 ± 1,5
VA 160	155 - 165	144	160	9	14,5	C + 5	C + 24	12 ± 1,8
VA 170	165 - 175	153	169	9	14,5	C + 5	C + 24	12 ± 1,8
VA 180	175 - 185	162	178	9	14,5	C + 5	C + 24	12 ± 1,8
VA 190	185 - 195	171	187	9	14,5	C + 5	C + 24	12 ± 1,8
VA 199	195 - 210	180	196	9	14,5	C + 5	C + 24	12 ± 1,8

FRONTSEAL® VA



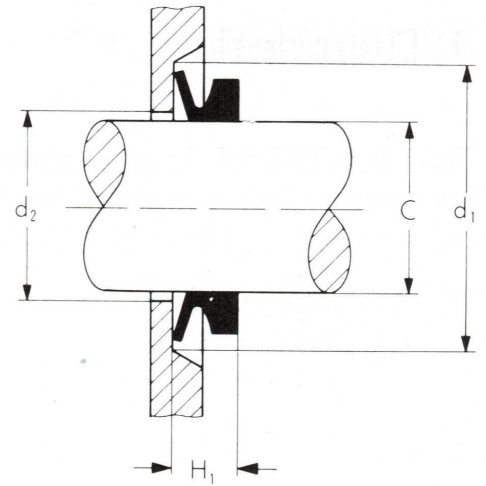
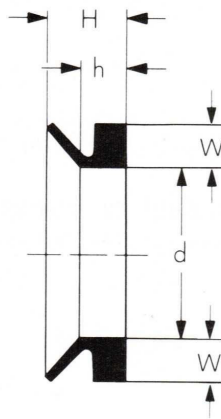
Ref.	Shaft diameter C	Ring dimensions mm				Mounting dimensions mm		
		d	D	h	H	d ₂	d ₁	H ₁
VA 200	190 - 210	180	210	14,3	25	C + 10	C + 45	20 ± 4
VA 220	210 - 235	198	228	14,3	25	C + 10	C + 45	20 ± 4
VA 250	235 - 265	225	255	14,3	25	C + 10	C + 45	20 ± 4
VA 275	265 - 290	247	277	14,3	25	C + 10	C + 45	20 ± 4
VA 300	290 - 310	270	300	14,3	25	C + 10	C + 45	20 ± 4
VA 325	310 - 335	292	322	14,3	25	C + 10	C + 45	20 ± 4
VA 350	335 - 365	315	345	14,3	25	C + 10	C + 45	20 ± 4
VA 375	365 - 390	337	367	14,3	25	C + 10	C + 45	20 ± 4
VA 400	390 - 430	360	390	14,3	25	C + 10	C + 45	20 ± 4
VA 450	430 - 480	405	435	14,3	25	C + 10	C + 45	20 ± 4
VA 500	480 - 530	450	480	14,3	25	C + 10	C + 45	20 ± 4
VA 550	530 - 580	495	525	14,3	25	C + 10	C + 45	20 ± 4
VA 600	580 - 630	540	570	14,3	25	C + 10	C + 45	20 ± 4
VA 650	630 - 665	600	630	14,3	25	C + 10	C + 45	20 ± 4
VA 700	665 - 705	630	660	14,3	25	C + 10	C + 45	20 ± 4
VA 725	705 - 745	670	700	14,3	25	C + 10	C + 45	20 ± 4
VA 750	745 - 785	705	735	14,3	25	C + 10	C + 45	20 ± 4
VA 800	785 - 830	745	775	14,3	25	C + 10	C + 45	20 ± 4
VA 850	830 - 875	785	815	14,3	25	C + 10	C + 45	20 ± 4
VA 900	875 - 920	825	855	14,3	25	C + 10	C + 45	20 ± 4
VA 950	920 - 965	865	895	14,3	25	C + 10	C + 45	20 ± 4
VA 1000	965 - 1015	910	940	14,3	25	C + 10	C + 45	20 ± 4
VA 1050	1015 - 1065	955	985	14,3	25	C + 10	C + 45	20 ± 4
VA 1100	1065 - 1115	1000	1030	14,3	25	C + 10	C + 45	20 ± 4
VA 1150	1115 - 1165	1045	1075	14,3	25	C + 10	C + 45	20 ± 4
VA 1200	1165 - 1215	1090	1120	14,3	25	C + 10	C + 45	20 ± 4
VA 1250	1215 - 1270	1135	1165	14,3	25	C + 10	C + 45	20 ± 4
VA 1300	1270 - 1320	1180	1210	14,3	25	C + 10	C + 45	20 ± 4
VA 1350	1320 - 1370	1225	1255	14,3	25	C + 10	C + 45	20 ± 4
VA 1400	1370 - 1420	1270	1300	14,3	25	C + 10	C + 45	20 ± 4
VA 1450	1420 - 1470	1315	1345	14,3	25	C + 10	C + 45	20 ± 4
VA 1500	1470 - 1520	1360	1390	14,3	25	C + 10	C + 45	20 ± 4
VA 1550	1520 - 1570	1405	1435	14,3	25	C + 10	C + 45	20 ± 4
VA 1600	1570 - 1620	1450	1480	14,3	25	C + 10	C + 45	20 ± 4
VA 1650	1620 - 1670	1495	1525	14,3	25	C + 10	C + 45	20 ± 4
VA 1700	1670 - 1720	1540	1570	14,3	25	C + 10	C + 45	20 ± 4
VA 1750	1720 - 1770	1585	1615	14,3	25	C + 10	C + 45	20 ± 4
VA 1800	1770 - 1820	1630	1660	14,3	25	C + 10	C + 45	20 ± 4
VA 1850	1820 - 1870	1675	1705	14,3	25	C + 10	C + 45	20 ± 4
VA 1900	1870 - 1920	1720	1750	14,3	25	C + 10	C + 45	20 ± 4
VA 1950	1920 - 1970	1765	1795	14,3	25	C + 10	C + 45	20 ± 4
VA 2000	1970 - 2020	1810	1840	14,3	25	C + 10	C + 45	20 ± 4

FRONTSEAL® VS



Ref.	Shaft diameter		Ring dimensions mm				Mounting dimensions mm		
	C		d	D	h	H	d2	d1	H1
VS 5	4,5 -	5,5	4	8	3,9	5,2	C + 1	C + 6	4,5 ± 0,4
VS 6	5,5 -	6,5	5	9	3,9	5,2	C + 1	C + 6	4,5 ± 0,4
VS 7	6,5 -	8	6	10	3,9	5,2	C + 1	C + 6	4,5 ± 0,4
VS 8	8 -	9,5	7	11	3,9	5,2	C + 1	C + 6	4,5 ± 0,4
VS 10	9,5 -	11,5	9	15	5,6	7,7	C + 2	C + 9	6,7 ± 0,6
VS 12	11,5 -	13,5	10,5	16,5	5,6	7,7	C + 2	C + 9	6,7 ± 0,6
VS 14	13,5 -	15,5	12,5	18,5	5,6	7,7	C + 2	C + 9	6,7 ± 0,6
VS 16	15,5 -	17,5	14	20	5,6	7,7	C + 2	C + 9	6,7 ± 0,6
VS 18	17,5 -	19	16	22	5,6	7,7	C + 2	C + 9	6,7 ± 0,6
VS 20	19 -	21	18	26	7,9	10,5	C + 2	C + 12	9 ± 0,8
VS 22	21 -	24	20	28	7,9	10,5	C + 2	C + 12	9 ± 0,8
VS 25	24 -	27	22	30	7,9	10,5	C + 2	C + 12	9 ± 0,8
VS 28	27 -	29	25	33	7,9	10,5	C + 3	C + 12	9 ± 0,8
VS 30	29 -	31	27	35	7,9	10,5	C + 3	C + 12	9 ± 0,8
VS 32	31 -	33	29	37	7,9	10,5	C + 3	C + 12	9 ± 0,8
VS 35	33 -	36	31	39	7,9	10,5	C + 3	C + 12	9 ± 0,8
VS 38	36 -	38	34	42	7,9	10,5	C + 3	C + 12	9 ± 0,8
VS 40	38 -	43	36	46	9,5	13	C + 3	C + 15	11 ± 1
VS 45	43 -	48	40	50	9,5	13	C + 3	C + 15	11 ± 1
VS 50	48 -	53	45	55	9,5	13	C + 3	C + 15	11 ± 1
VS 55	53 -	58	49	59	9,5	13	C + 3	C + 15	11 ± 1
VS 60	58 -	63	54	64	9,5	13	C + 3	C + 15	11 ± 1
VS 65	63 -	68	58	68	9,5	13	C + 3	C + 15	11 ± 1
VS 70	68 -	73	63	75	11,3	15,5	C + 4	C + 18	13,5 ± 1,2
VS 75	73 -	78	67	79	11,3	15,5	C + 4	C + 18	13,5 ± 1,2
VS 80	78 -	83	72	84	11,3	15,5	C + 4	C + 18	13,5 ± 1,2
VS 85	83 -	88	76	88	11,3	15,5	C + 4	C + 18	13,5 ± 1,2
VS 90	88 -	93	81	93	11,3	15,5	C + 4	C + 18	13,5 ± 1,2
VS 95	93 -	98	85	97	11,3	15,5	C + 4	C + 18	13,5 ± 1,2
VS 100	98 -	105	90	102	11,3	15,5	C + 4	C + 18	13,5 ± 1,2
VS 110	105 -	115	99	113	13,1	18	C + 4	C + 21	15,5 ± 1,5
VS 120	115 -	125	108	122	13,1	18	C + 4	C + 21	15,5 ± 1,5
VS 130	125 -	135	117	131	13,1	18	C + 4	C + 21	15,5 ± 1,5
VS 140	135 -	145	126	140	13,1	18	C + 4	C + 21	15,5 ± 1,5
VS 150	145 -	155	135	149	13,1	18	C + 4	C + 21	15,5 ± 1,5
VS 160	155 -	165	144	160	15	20,5	C + 5	C + 24	18 ± 1,8
VS 170	165 -	175	153	169	15	20,5	C + 5	C + 24	18 ± 1,8
VS 180	175 -	185	162	178	15	20,5	C + 5	C + 24	18 ± 1,8
VS 190	185 -	195	171	187	15	20,5	C + 5	C + 24	18 ± 1,8
VS 199	195 -	210	180	196	15	20,5	C + 5	C + 24	18 ± 1,8

FRONTSEAL® VL



Ring dimensions

$H = 10,5$
 $h = 6,0$
 $W = 6,5$

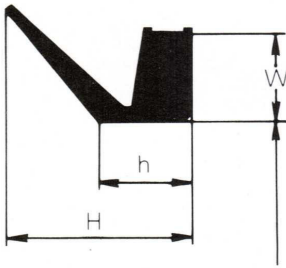
Assembling dimensions

$H_1 = 8 \pm 1,5$
 $d_2 \text{ max.} = C + 5$
 $d_1 \text{ min.} = C + 20$

Reference	Shaft diameter	d
VL 140	135 - 145	126
VL 150	145 - 155	135
VL 160	155 - 165	144
VL 170	165 - 175	153
VL 180	175 - 185	162
VL 190	185 - 195	171
VL 200	195 - 210	182
VL 220	210 - 233	198
VL 250	233 - 260	225
VL 275	260 - 285	247
VL 300	285 - 310	270
VL 325	310 - 335	292
VL 350	325 - 365	315
VL 375	365 - 385	337
VL 400	385 - 410	360
VL 425	410 - 440	382
VL 450	440 - 480	405
VL 500	480 - 530	450
VL 550	530 - 580	485
VL 600	580 - 630	540

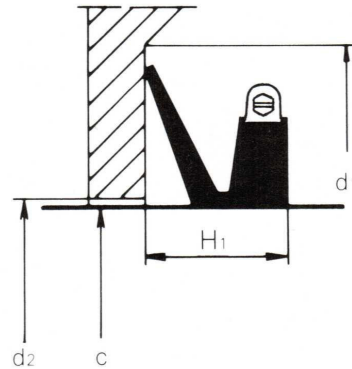
FRONTSEAL® VE

FRONTSEAL® VE can easily be fitted with a standard clamping band for axial fixation in high speed applications.



Ring dimensions

$H = 65$
 $h = 32$
 $W = 30$



Assembling dimensions

$H_1 = 50 \pm 12$
 $d_2 \text{ max.} = C + 24$
 $d_1 \text{ min.} = C + 115$

Reference	Shaft diameter	d
VE 450	450 - 455	439
VE 455	455 - 460	444
VE 460	460 - 465	448
VE 465	465 - 470	453
VE 470	470 - 475	458
VE 475	475 - 480	463
VE 480	480 - 485	468
VE 485	485 - 490	473
VE 490	490 - 495	478
VE 495	495 - 500	483
VE 500	500 - 505	488
VE 505	505 - 510	493
VE 510	510 - 515	497
VE 515	515 - 520	502
VE 520	520 - 525	507
VE 525	525 - 530	512
VE 530	530 - 535	517
VE 535	535 - 540	521
VE 540	540 - 545	526
VE 545	545 - 550	531
VE 550	550 - 555	536
VE 555	555 - 560	541
VE 560	560 - 565	546
VE 565	565 - 570	550
VE 570	570 - 575	555
VE 575	575 - 580	560
VE 580	580 - 585	565
VE 585	585 - 590	570
VE 590	590 - 600	575
VE 600	600 - 610	582
VE 610	610 - 620	592
VE 620	620 - 630	602
VE 630	630 - 640	612
VE 640	640 - 650	621
VE 650	650 - 660	631
VE 660	660 - 670	640
VE 670	670 - 680	650
VE 680	680 - 690	660
VE 690	690 - 700	670
VE 700	700 - 710	680
VE 710	710 - 720	689
VE 720	720 - 730	699
VE 730	730 - 740	709
VE 740	740 - 750	718
VE 750	750 - 758	728
VE 760	758 - 766	735
VE 770	766 - 774	743
VE 780	774 - 783	751
VE 790	783 - 792	759
VE 800	792 - 801	768
VE 810	801 - 810	777
VE 820	810 - 821	786

Reference	Shaft diameter	d
VE 830	821 - 831	796
VE 840	831 - 841	805
VE 850	841 - 851	814
VE 860	851 - 861	824
VE 870	861 - 871	833
VE 880	871 - 882	843
VE 890	882 - 892	853
VE 900	892 - 912	871
VE 920	912 - 922	880
VE 930	922 - 933	890
VE 940	933 - 944	900
VE 950	944 - 955	911
VE 960	955 - 966	921
VE 970	966 - 977	932
VE 980	977 - 988	942
VE 990	988 - 999	953
VE 1000	999 - 1010	963
VE 1020	1010 - 1025	973
VE 1040	1025 - 1045	990
VE 1060	1045 - 1065	1008
VE 1080	1065 - 1085	1027
VE 1100	1085 - 1105	1045
VE 1120	1105 - 1125	1065
VE 1140	1125 - 1145	1084
VE 1160	1145 - 1165	1103
VE 1180	1165 - 1185	1121
VE 1200	1185 - 1205	1139
VE 1220	1205 - 1225	1157
VE 1240	1225 - 1245	1176
VE 1260	1245 - 1270	1195
VE 1280	1270 - 1295	1218
VE 1300	1296 - 1315	1240
VE 1325	1315 - 1340	1259
VE 1350	1340 - 1365	1281
VE 1375	1365 - 1390	1305
VE 1400	1390 - 1415	1328
VE 1425	1415 - 1440	1350
VE 1450	1440 - 1465	1374
VE 1475	1465 - 1490	1397
VE 1500	1490 - 1515	1419
VE 1525	1515 - 1540	1443
VE 1550	1540 - 1570	1467
VE 1575	1570 - 1600	1495
VE 1600	1600 - 1640	1524
VE 1650	1640 - 1680	1559
VE 1700	1680 - 1720	1596
VE 1750	1720 - 1765	1632
VE 1800	1765 - 1810	1671
VE 1850	1810 - 1855	1714
VE 1900	1855 - 1905	1753
VE 1950	1905 - 1955	1794
VE 2000	1955 - 2010	1844

V-Ringe / V-Rings

10 VA EPDM V-RING / V-RINGS
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AXIALDICHTRING / AXIAL-SEAL

Gamma-Dichtringe ®

Die AXI 01 und AXI 02 sind Axialdichtungen, die aus zwei Bauteilen bestehen, einem beschichteten Metallring und einem aus der Form vulkanisierten Elastomerdichtelement. Der Metallring schützt die Elastomerdichtung gegen Beschädigungen, dient als Halterung und Abstützung der Elastomerdichtung und wirkt gleichzeitig als Schleuderscheibe.

Die Elastomerdichtung ist nicht fest an den Metallring gebunden, sondern auf den Metallring aufgedehnt und wird zusätzlich durch den axialen Bördelbund gehalten. Bei dem AXI 02 ist der Metallring am Außenmantel in axialer Richtung verlängert. In Kombination mit der umlaufenden Nut in der axialen Gegenlauffläche wird eine zusätzliche Labyrinthabdichtung gebildet.

The AXI 01 and AXI 02 are axial seals consisting of 2 sections, one coated metal ring and one mould vulcanised elastomer sealing element.

The metal ring protects the elastomer seal against damage, serves as a stand and support for the elastomer seal and simultaneously acts as a flinger. The elastomer seal is not firmly bonded to but stretched over the metal ring and is additionally held by the axial flange.

With the AXI 02 the metal ring is extended in an axial direction on the outer sheath. Additional labyrinth sealing is created in combination with the circulating groove in the sliding surface.

10/24/3,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
10/24/3,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
11/26/3,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
11/26/3,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
12/26/3,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
12/26/3,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
14/30/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
14/30/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
15/30/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
15/30/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
15/32/4 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
15/32/4 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
16/32/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
16/32/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
17/32/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
17/32/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
17/34/4 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
17/34/4 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
18/33/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
18/33/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
20/35/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
20/35/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
20/37/4 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
20/37/4 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
22/40/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
22/40/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
24/40/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
24/40/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
25/40/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
25/40/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
25/42/4 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
25/42/4 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
26/40/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
26/40/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
28/43/4 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
28/43/4 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
30/47/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
30/47/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
30/48/4,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
30/48/4,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
32/49/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
32/49/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
35/52/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
35/52/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
35/53/4,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
35/53/4,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
38/55/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL

38/55/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
40/57/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
40/57/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
40/58/4,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
40/58/4,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
41/57/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
41/57/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
42/59/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
42/59/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
45/62/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
45/62/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
45/63/4,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
45/63/4,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
48/65/4,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
48/65/4,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
50/70/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
50/70/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
50/72/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
50/72/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
52/72/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
52/72/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
55/75/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
55/75/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
55/77/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
55/77/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
58/78/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
58/78/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
60/80/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
60/80/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
60/82/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
60/82/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
62/82/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
62/82/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
65/85/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
65/85/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
65/87/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
65/87/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
68/88/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
68/88/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
70/90/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
70/90/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
70/92/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
70/92/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
72/92/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
72/92/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
75/95/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
75/95/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
75/97/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
75/97/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
78/98/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
78/98/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
80/100/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
80/100/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
80/102/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
80/102/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
85/105/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
85/105/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
85/107/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
85/107/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
90/110/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
90/110/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
90/112/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
90/112/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
95/115/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL

95/115/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
95/117/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
95/117/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
100/120/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
100/120/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
100/122/5,5 AXI 2 FKM AXIALDICHTUNG / AXIAL SEAL
100/122/5,5 AXI 2 NBR AXIALDICHTUNG / AXIAL SEAL
105/125/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
105/125/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
110/130/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
120/140/5,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
135/159/6,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL
135/159/6,5 AXI 1 NBR AXIALDICHTUNG / AXIAL SEAL
190/214/5,5 AXI 1 FKM AXIALDICHTUNG / AXIAL SEAL