

## V-ring seal VL

### DESCRIPTION

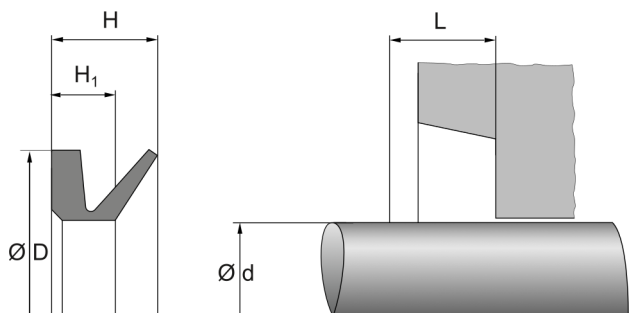
- Stiffening body, joint and sealing lip
- Thin profile for narrow installation spaces, e.g. labyrinth seals
- Material: NBR, FKM

### FUNCTION

- Sealing against dust, dirt, grease, oil or water splashes
- Protects radial shaft seals or bearings from abrasive ambient conditions as a primary sealing element (lip seal or flinger ring)
- Good for use in combination with rotary shaft seals

### PRODUCT ADVANTAGES

- Good dynamic sealing effect
- Compensation of small axial movements as well as angular and radial misalignments
- Low requirements on surface quality of the mating surface
- Friction decreases with increasing peripheral speed
- Reliable design with broad application spectrum for moderately demanding applications in general industry
- Good price/performance ratio



- Manufactured by certified external suppliers

### APPLICATIONS

- General mechanical engineering
- Plant engineering
- Drive technology
- Electric motors
- Gearboxes
- Agricultural machinery
- Rolling mills
- Bearing pedestal seal

### APPLICATION LIMITS

- Pressure [Mpa]: max. 0
- The values given here are maximum values and may not all be reached at the same time.

#### NBR

- Temperature [°C]: -40 to 100
- Peripheral speed [m/s]: max. 8
- For circumferential speeds  $\geq 8$  m/s, axial securing is required, for  $\geq 12$  m/s additional radial securing is required

#### FKM

- Temperature [°C]: -25 to 200
- Peripheral speed [m/s]: max. 0,65
- At circumferential speed  $\geq 6.5$  m/s, axial securing is required, at  $\geq 10$  m/s radial securing is also required



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### MEDIA RESISTANCE

#### NBR

- Good chemical resistance to various mineral oils and greases (H, HL, HLP)
- Flame-retardant hydraulic fluids HFA and HFB, HFC up to appr. +50°C
- Water up to max. +60°C
- Low resistance to ozone, weathering and ageing

#### FKM

- Good chemical resistance to mineral oils and greases, synthetic oils and greases, engine, gearbox and ATF oils up to approx. +150 °C
- Fuels, flame-retardant pressure fluids HFD, aliphatic, aromatic and chlorinated hydrocarbons
- Water up to max. +60°C
- Very good resistance to ozone, weathering and ageing

### CONFORMITY AND CERTIFICATES

- Please consult the material data sheet valid for the respective material for current information on approvals and certificates, as this information depends on the compound and cannot be listed exhaustively here.

### DESIGN GUIDELINE

- Shaft surface roughness  $R_z = 1.0$  to  $4.0 \mu\text{m}$
- No surface shape deviations or defects such as sharp edges, burrs, blowholes, waviness, elevations or damage permitted
- Chamfer on shaft 10-20°, polished transition
- Mating surface should be at right angles to the shaft
- Counterface surface roughness  $R_a \leq 2 \mu\text{m}$
- Hardness of mating surface depends on the material and medium: Construction steel and sludge: 125 - 150 HV | Grey cast iron and sludge, dust: 190 - 270 HV | Cast bronze and water, dust: 100 - 160 HV | Cast aluminum and splash water: 90 - 160 HV | Stainless steel and water: 150 - 200 HV
- Shaft tolerance zone: ISO h11

### INSTALLATION GUIDELINE

- Deburr sharp edges, provide with seamless chamfers and radii
- V-ring can be temporarily expanded by up to 20% for installation

### STORAGE ADVISE

- Storage temperature  $< 25^\circ\text{C}$
- No direct heat sources
- No direct sunlight
- No condensation in the storage room
- No exposure to ozone or ionizing radiation
- Recommendations based on the revision of ISO 2230 dated 16.09.1992

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