



# Vulcan Seals Type 60

## Technical Data Sheet



### Product Description

The Vulcan Seals Type 60 is a radially compact elastomer bellows design, highly suitable for water pump applications. The design features an easy-to-install construction with a compact working length intended to suit common water pump seal chambers.

The sealing drive is provided by the elastomer drive gromet tightly gripping the shaft from a contact point under the coil end, providing a bi-directional "non-pusher" performance that minimises shaft fretting.

Supplied with a Vulcan Seals Type 60 boot-mounted stationary to suit common UK imperial housing sizes, the Vulcan Seals Type 60 is highly suited to low-pressure light water circulation duties.

### Why Choose the Vulcan Seals Type 60?

- Effective and easy-to-install design.
- Highly suited to low-pressure domestic and municipal water pump duties.
- Vulcan Seals assembly provides a more integrated, robust, and resilient product compared to many market alternatives.
- The ribbed profile to the sealing contact point of the stationary provides optimal grip into the stationary recess with a sub-optimal surface finish.

### Standard Face Material Combinations

Rotary Face   Material	Stationary Face   Material	Complete Material Code
VCP1 Carbon	VAW1 Ceramic	C
VCP1 Carbon	VSR1 Silicon Carbide	D
VCM1 Carbon	VAW1 Ceramic	KC

Guaranteed Stock/Material Elastomers: Viton™/FKM, EP, Nitrile and Metallurgy 304SS

\*Non-stock guarantee

### Elastomer Temperature Capabilities

	Minimum	Maximum
Nitrile	-30°C	+120°C
EPDM	-40°C	+140°C
Viton™/FKM	-30°C	+230°C
FEPM/AFLAS®	-10°C	+250°C
FFKM	-50°C	+315°C

Pressure: Up to 6 bar (87 psi)

### Compliance & Certificates



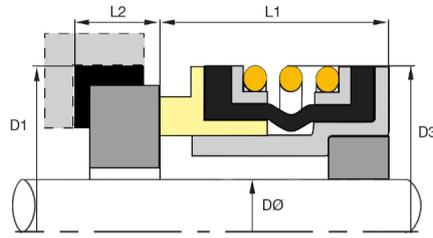
The Vulcan Seals mechanical seal range can be supplied with material combinations designed to meet the compliance standards and certifications listed above. Additional compliance or regulatory requirements can also be considered upon request. Please enquire to discuss your specific application.

### Mechanical Seal Replacement Range

Vulcan Seals Type 60 is a dimensional replacement mechanical seal for the following seal ranges:

- AES® | Type N-B04\*
- Lidering® | Type LRB02\*
- Lidering® | Type 102\*

\*Rotary Face | \*\*Stationary Face



**Dimensional Data**

<b>DØ (Imperial)</b>	<b>Seal Size Code</b>	<b>D1 (in)</b>	<b>D1 (mm)</b>	<b>D3 (in)</b>	<b>D3 (mm)</b>	<b>L1 (in)</b>	<b>L1 (mm)</b>	<b>L2 (in)</b>	<b>L2 (mm)</b>
0.375*	0095	0.875	22.23	0.937	23.80	0.631	16.02	0.244	6.20
0.500	0127	1.000	25.40	1.062	26.97	0.656	16.66	0.244	6.20
0.625	0158	1.250	31.75	1.228	31.20	0.718	18.24	0.405	10.29
0.750	0191	1.375	34.93	1.362	34.60	0.718	18.24	0.405	10.29
1.000	0254	1.625	41.28	1.677	42.60	0.812	20.62	0.417	10.60

Dimensions in mm and inches  
 \\*Non-stock guarantee



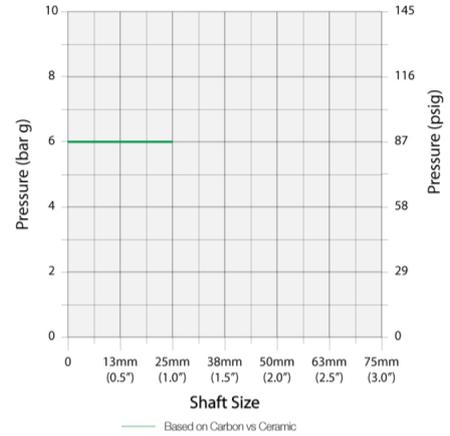
**Maximum Operating Pressure**

The PV Chart shows the maximum operating pressures of this Vulcan Seals type, based on the seal face materials used. Different lines on the chart indicate different material combinations, as shown underneath.

It also assumes stable operation in a clean, cool, lubricating and nonvolatile fluid with an adequate flush rate.

For more in-depth pressure rating calculations based on specific material combinations and application conditions, please consult us.

**PV Chart**



**Application Conditions**

Criteria	Multiplier	
Product Fluid	Lubricating fluids	X 1.00
	Aqueous solutions / Water	X 0.85
Temperature	Below 70°C (158°F)	X 1.00
	71°C to 120°C (160°F to 248°F)	X 0.85
	121°C to 175°C (250°F to 347°F)	X 0.75
	Over 176°C (349°F)	X 0.60
Speed	Up to 1750 rpm	X 1.00
	1750 to 3600 rpm	X 0.80

**Face and Seat Materials**

Combination	Multiplier
Carbon vs Ceramic	x 0.50
Carbon vs Silicon Carbide	x 1.00
Carbon vs Ceramic	x 0.50

**Example Calculation for Vulcan Seals Type 60**

- A. Shaft size: 0.500inch therefore pressure is 6 bar (from PV Chart)
- B. Media: Water (multiplier = 0.85)
- C. Temperature: 50°C (multiplier = 1.00)
- D. Speed: 1450 rpm (multiplier = 1.00)
- E. Face combination: Carbon vs Silicon Carbide (multiplier = 1.00)

For this particular Vulcan Seals Type 60 seal size, the calculation for the approximate guidance maximum operating pressure would be:

A x B x C x D x E  
 6 bar x 0.85 x 1.00 x 1.00 x 1.00 = 5.10 bar

**Guidance Only**

Please note that due to the many operational and application variables that affect seal performance, the information given on this page is for guidance only.

We therefore strongly recommend careful individual testing and monitoring of all seals and related equipment for any proposed application.

Our policy is one of continuous technical and efficiency improvement. As such, all specifications may be subject to change without prior notice.

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\*\* Important: These limits are the theoretical elastomer or design limitations. For maximum theoretical operating pressure for your specific size and application please refer to calculation example within this data sheet. All performance information given is for guidance only and is dependent on material, operating and application factors that affect seal performance.