

# Garlock

## GAR-SEAL Valves



ISO 9002-94  
Cert. #001762



DIN EN ISO 9001:2000  
Zertifikat: 09 100 6466



# GAR-SEAL Valves. The international success of a philosophy

## Corrosive and abrasive media

Service life and safety under severe operating conditions are important arguments for Garlock valves world wide. Chemical, petrochemical, process industry and many other branches are permanent customers.

They know: high quality valves have a good return on investment. The economical advantages with reduced maintenance, troublefree operation and superior service life are convincing.

Garlock valves define standards. The antistatic liner SAFETY-SEAL, valves tested according to "TA-Luft", MOBILE-SEAL valves for transport industry – some examples for successful Garlock valve and the applications.



TA-Luft sealing on the top flange. GAR-SEAL valves fulfil the high demands regarding tightness against atmosphere. A leakage control device can be integrated upon request.



Garlock lug body valve for pipe end installation.



Earthing cable against static electricity.

All information and recommendations contained in this catalogue are based on many years of experience and the current state of technology.

Unknown factors may, however, limit generally accepted knowledge. Binding statements regarding the compatibility of our products are therefore possible only after practical onsite tests under operating conditions.

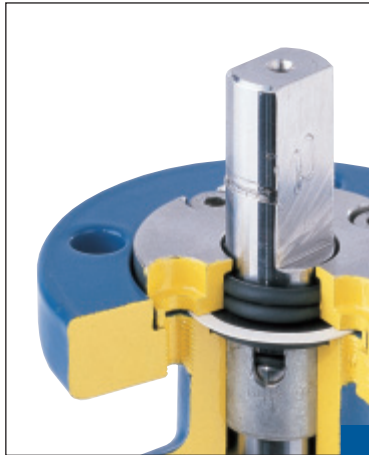
Information contained in our catalogue does

therefore not constitute or imply any representation of warranty. While the utmost care has been used in compiling this catalogue, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice.

Our staff will be pleased to assist you in finding the optimum sealing solution. Use this offer and contact Garlock before your decision.

# Safety first

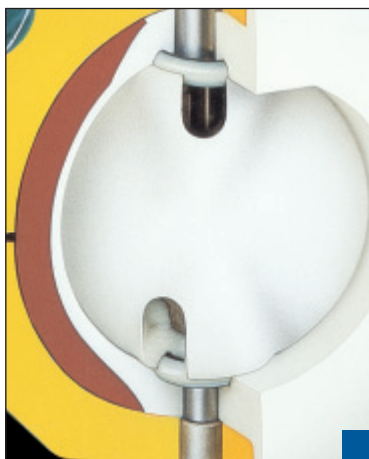
Cut of model of the shaft outlet at the top flange.



Extended valve neck for energy saving insulating without interfering the actuation.



The disc and shaft of the valve are two separate elements that become assembled together, means no welded or pinned connection. This concept fulfils easy and successful assembly, function and tightness.



## Valve body

Tested and certified by the TÜV, Garlock valve bodies meet the requirements against internal pressure according to the DIN 3840.

## Flange design

Depending on the mounting situation all diameters and liner types are available in both, wafer body or lug body design.

## Lining

Void free lining of 3 mm min. is guaranteed. High density and structure of the crystals in the lining components protect against permeation. Provides superior service life and economical advantages.

## Body materials

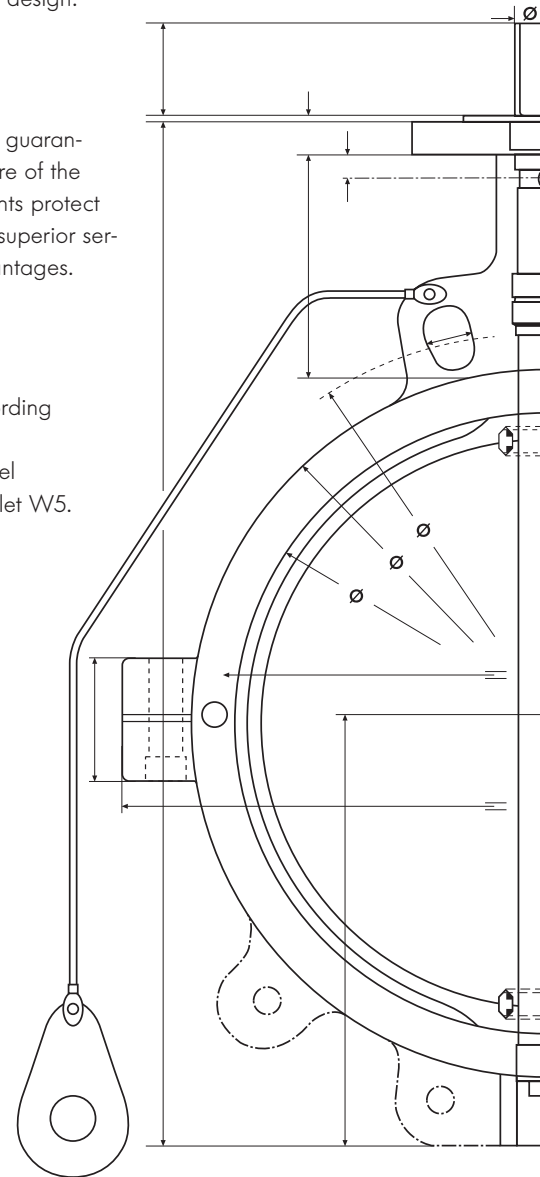
- Ductile iron GGG 40.3 according AD-leaflet W 3/2.
- Heat resistant ferrite cast steel GS-C 25 according AD-leaflet W5.
- Special steel casting 1.4581 according AD-leaflet W5.

## Materials

The GAR-SEAL valves are available in four different liner materials. Discs are available in different metals, too. For all operating conditions a unit quality and safety level is guaranteed.

## Valve stem packings

The shaft outlet at the top flange of the valve is sealed with two O-Rings against atmospheric corrosion. GAR-SEAL valves meet the requirements of the german clean air legislation ("TA-Luft").



## World-wide certified

### Vacuum

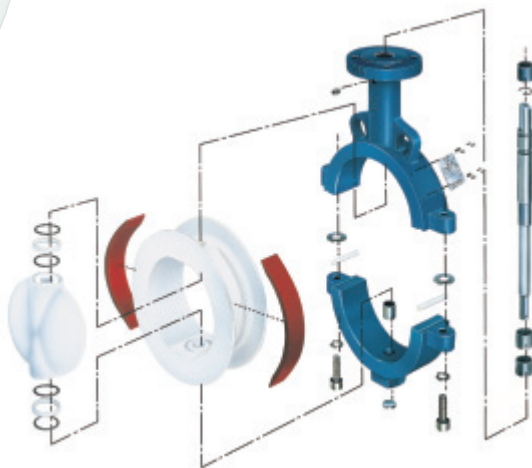
GAR-SEAL valves are suitable for vacuum. For high vacuum at elevated temperatures special vacuum liners are available.



Garlock supplies certified safety as standard. Approvals and certificates for single parts, for complete valves, for different media, valid in nearly all industrial countries world-wide are available.

Garlock manufacturing facility is certified according to DIN ISO 9001. GAR-SEAL valves provide certified safety.

For country specific and european certificates please contact us.



## The application is decisive

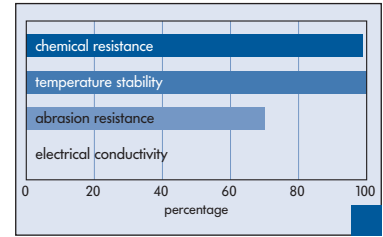


### PTFE

Body liner and disc covering from virgin, unfilled isostatically moulded void-free PTFE.

High density ( $> 2,16 \text{ g/cm}^3$ ), minimum lining thickness of three millimetres and high crystallinity.

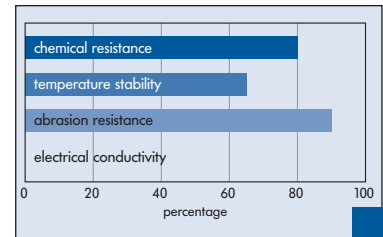
Operating temperature:  $-40^\circ\text{C}$  to  $+200^\circ\text{C}$



### PVDF

Bromine resistant. PVDF is a high density thermoplastic with  $1,78 \text{ g/cm}^3$ . The stability and the abrasion resistance are very high compared to the other fluorine containing polymers. The creep resistance is better than the most fluoropolymers, the water absorption is negligible. The combination of tensile stress at yield and a temperature of about  $130^\circ\text{C}$  is higher than that of PTFE. It is non flammable and physiologically inert.

Operating temperature:  $-40^\circ\text{C}$  to  $+135^\circ\text{C}$

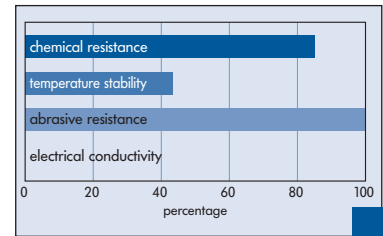


### UHMPE

For highly abrasive media Garlock offers a complete ultra high molecular polyethylene lining.

The extremely high molecular weight of this material ensures maximum abrasion resistance plus exceptional chemical resistance.

Operating temperature:  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$



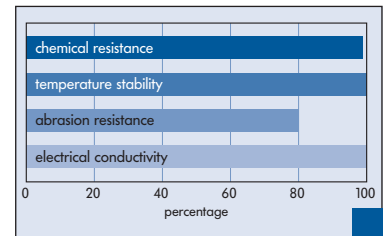
### filled PTFE

Under the name SAFETY-SEAL Garlock offers valves with electrostatically conductive liners. The service lives are the same as for PTFE lined valves. Protection from electrostatic charges (TUV 941 F416601).

Surface resistance  $< 10^6 \Omega$

Volume resistance  $< 10^6 \Omega \text{ cm}$

Operating temperature:  $-40^\circ\text{C}$  to  $+200^\circ\text{C}$



Bases: chemical resistance: PTFE=100 %, temperature stability: PTFE=100 %, abrasion resistance: UHMPE=100 %, electrical conductivity: filled PTFE=100 %

# Product Range



**Hydraulic Components**



**Oil Seals**



**Compression Packings**



**Gasketing Products**



**Expansion Joints**



**Metallic Gasketing**



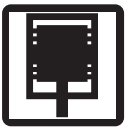
**Inflatable Seals**



**Mechanical Seals**



**Valves**



**Compressor Products**

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