

# DF-(P)DGS6 DiamondFace



## Operating range

Shaft diameter:  
D = 25 ... 280 mm (0.98" ... 11.02")  
Pressure: p = 0 ... 100 bar (1,450 PSI)  
with PTFE option: 0 ... 250 bar (3,625 PSI)  
Temperature:  
t = -30 °C ... +200 °C (-22 °F ... +392 °F)  
with PTFE option: -100 °C ... +200 °C (-148 °F ... +392 °F)  
Sliding velocity:  
vg = 0.6 ... 140 m/s (2 ... 459 ft/s)

For applications outside the operating range mentioned, please inquire.

## Materials

Primary seat and seal face: Silicon carbide with DiamondFace bonding  
Secondary seat and seal face: Silicon carbide with DLC coating  
Secondary seals: FKM, PTFE (DF-PDGS6)  
Metal parts: 1.4006 and other stainless steels, aluminum

## Standards and approvals

- NACE

## Notes

Dimensions on request.

## Recommended applications

- Oil and gas industry
- Refining technology
- Petrochemical industry
- Hydrocarbon applications
- CO<sub>2</sub> applications

## Recommended piping plans

[API Plan 72](#)  
[API Plan 75](#)  
[API Plan 76](#)

Optional:  
[API Plan 02](#)  
[API Plan 12](#)  
[API Plan 13](#)

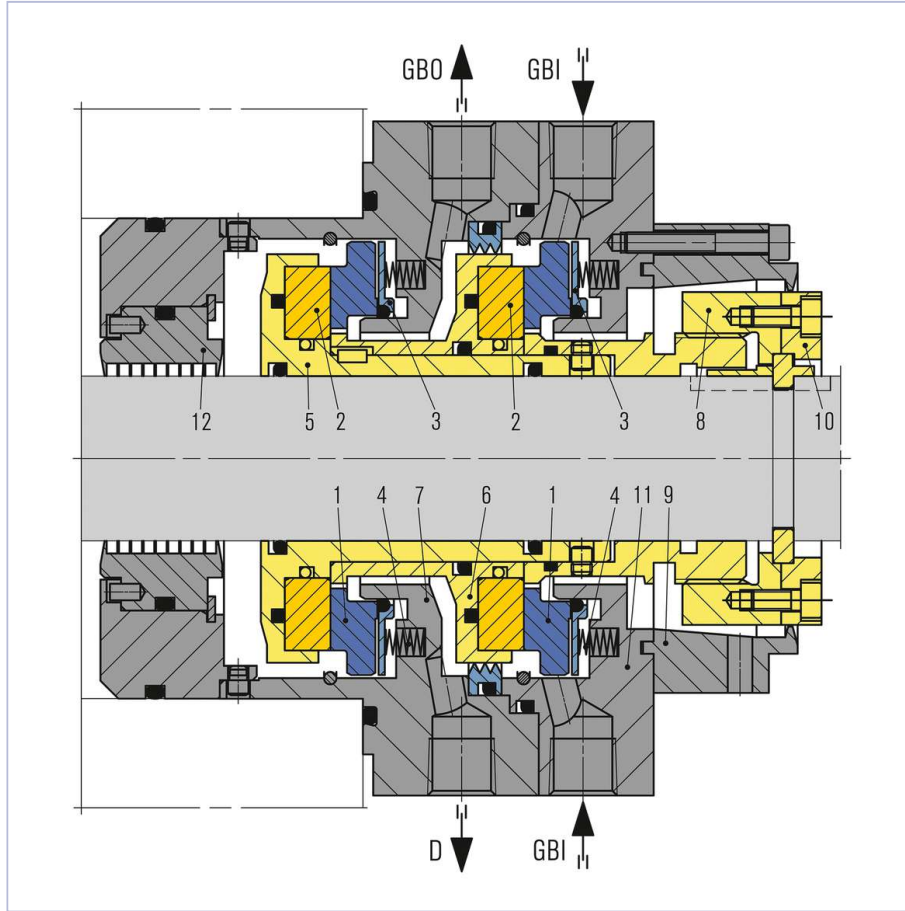
Product links:  
[EagleBurgmann GSS6000A4 \(Plan 72\)](#)  
[EagleBurgmann LSC6000A4 \(Plan 75\)](#)  
[EagleBurgmann SPP6007A4 \(Plan 76\)](#)

## Features

- DiamondFace bonded primary seal faces
- Safe cupped retainer for rotating ring
- Fully operational in both liquid and gas phases
- Bi-directional
- Ready-to-fit cartridge unit
- Single, double, tandem and tandem seal with intermediate labyrinth arrangement available

## Advantages

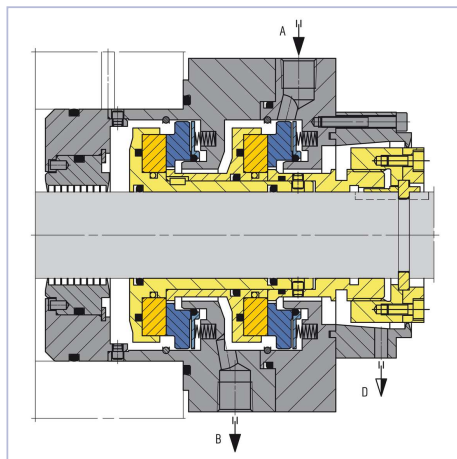
- Significantly lower leakage rate compared to competition
- Longer life span
- Wear and contact free operation
- Self-cleaning 3-D gas grooves
- High gas film stiffness
- Proven, reliable and economical solution
- Can be adjusted even to extreme narrow installation space - retrofits are easy to implement



**DF-DGS6 Tandem seal with intermedia labyrinth**

- 1 Seal face, stationary
  - 2 Seat, rotating
  - 3 Thrust ring
  - 4 Spring
  - 5 Shaft sleeve and seat retainer
  - 6 Intermediate sleeve
  - 7 Housing (adapted in size to the installation space)
  - 8 "Adjustable" nut for axial misalignment
  - 9 Split ring
  - 10 Clamping ring
  - 11 Cover
  - 12 Process side labyrinth
- GBI Gas Buffer Inlet  
 GBO Gas Buffer Outlet  
 D Drain

**Product variants**

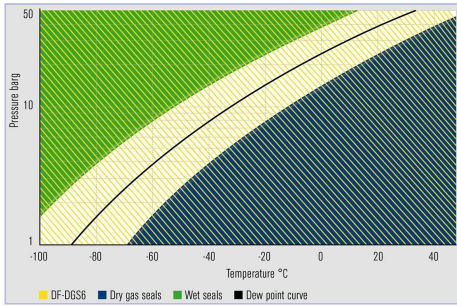


**DF-PDGS6**

Version for high pressure and both low and high temperature applications. With U-cups and special dynamic sealing elements. Secondary seals made of PTFE.

**DF-DGS6 Tandem seal**

## Charts



Operational sphere of EagleBurgmann DF-DGS6 in comparison to dry and wet seals.  
Medium: Ethane.