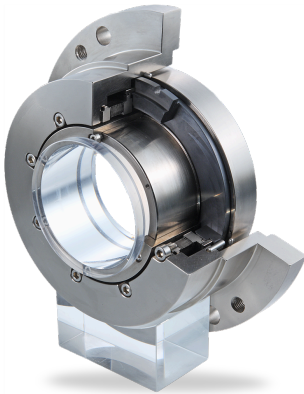


RELY ON EXCELLENCE

TDGS

Mechanical seals | Compressor seals | Gas-lubricated seals



Features

- Gas-lubricated
- Uni-directional or bi-directional
- Elastomer-free, no dynamic O-ring
- Ready-to-fit cartridge unit
- Single seal available

Advantages

- Wear-free and contact-free operation
- Self-cleaning 3D gas grooves
- High gas film stiffness
- Extremely low steam leakage
- Bearing oil not contaminated with condensed steam

Operating range

Shaft diameter:
 $ds = 40 \dots 140 \text{ mm} (1.57 \dots 5.51 \text{")}$
Pressure:
 $p = 0 \dots 10 \text{ bar} (0 \dots 145 \text{ PSI})$
Temperature:
 $t = -50 \text{ °C} \dots +450 \text{ °C}$
 $(-58 \text{ °F} \dots +842 \text{ °F})$
Sliding velocity:
 $vg = 130 \text{ m/s} (427 \text{ ft/s})$

Materials

Seal face: Carbon graphite
Seat: Silicon carbide

Standards and approvals

- NACE

Notes

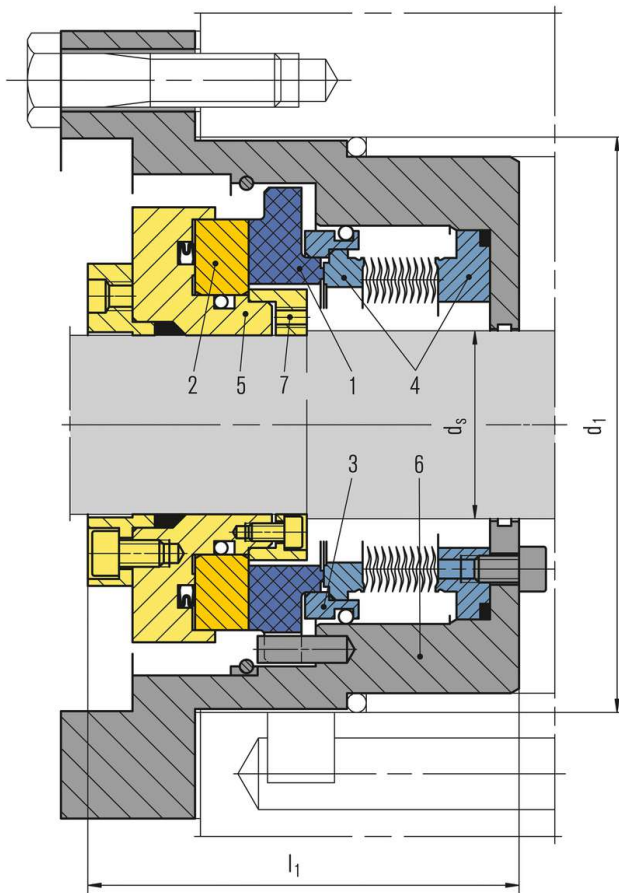
The gas seal for single-stage steam turbines. A metal bellows allows it to work reliably even at high temperatures. Any steam leakage that does occur will be just a fraction of the leakage from carbon ring seals. This both saves energy and improves the performance of the turbine. The bearing oil is no longer contaminated by condensed steam, extending the bearing life and reducing maintenance costs accordingly.

Dimensions on request.

Recommended applications

- Refining technology
- Petrochemical industry
- Power plant technology
- Single stage steam turbines

RELY ON EXCELLENCE

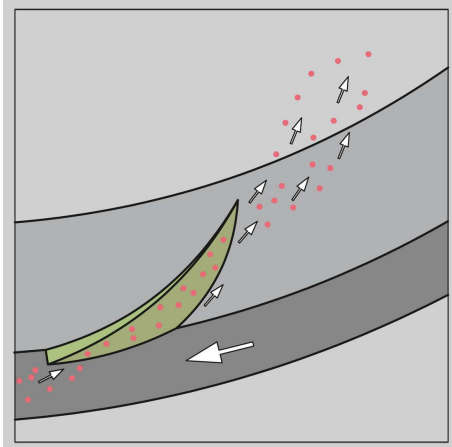


Item Description

- | | |
|---|--|
| 1 | Seal face, stationary |
| 2 | Seat, rotating |
| 3 | Sleeve |
| 4 | Metal bellows cartridge unit |
| 5 | Shaft sleeve |
| 6 | Housing (size matched to installation space) |
| 7 | Clamping ring |

RELY ON EXCELLENCE

Installation, details, options



One outstanding feature of the EagleBurgmann gas grooves is its inclined bottom (picture: V-grooves, unidirectional). The lack of sharp baffle edges at the groove outlet allows dirt particles to be pulled through the sealing gap, reliably avoiding any clogging and guaranteeing safe operation. If deposits do build up in the sealing gap while the turbine is idle, they are expelled once the machine is restarted.