

RELY ON EXCELLENCE

CobaDGS – Zero Emission Solution

Mechanical Seals | Compressor seals | Gas-lubricated seals



Features

- Gas-lubricated
- Bi-directional
- Ready-to-fit cartridge unit
- Available for following seal arrangements: single and tandem
- Co-axial primary seal
- Separation seals as CobaSeal, carbon rings or labyrinths optional

Advantages

- No methane-/ process gas emissions
- Supplied with clean nitrogen (no dew point and dirt problems)
- Robust
- Offers higher safety than a double seal
- Upgrade-possibility of existing single, double and tandem seals
- No modification of the compressor necessary
- Efficient alternative to hermetically sealed systems
- For compressors with gas- and steam turbines, as well as with electric drive

CobaDGS eliminates methane emissions.

The CobaDGS reliably prevents any process gas emissions that are technically caused by primary seal leakage during compressor operation. This makes CobaDGS the most climate-friendly sealing solution for high-pressure turbo-compressors. It is recommended as a sustainable sealing solution for modernization of existing compressors and as a first fit for OEM. The sealing solution for reduction of methane-/ process gas emissions

Operating range

Shaft diameter:
d = 24.5 ... 360 mm (0.96" ... 14.17")
Pressure (static and dynamic):
p = from vacuum up to 160 bar (2,321 PSI)
Design temperature:
t = -46 °C ... +230 °C
(-51 °F ... +446 °F)
Sliding velocity:
vg = up to 140 m/s (459 ft/s)

Project specific special designs possible.

Materials

Stationary seal face: Silicon carbide with DLC-coating, DiamondFace-coating optional
Rotating seal face (Seat): Silicon carbide with DLC-coating, DiamondFace-coating optional
Secondary seals: FKM or other elastomers, depending on product gas composition
Metal parts: 1.4006 or other stainless steels

Other materials on request.
Dimensions on request.

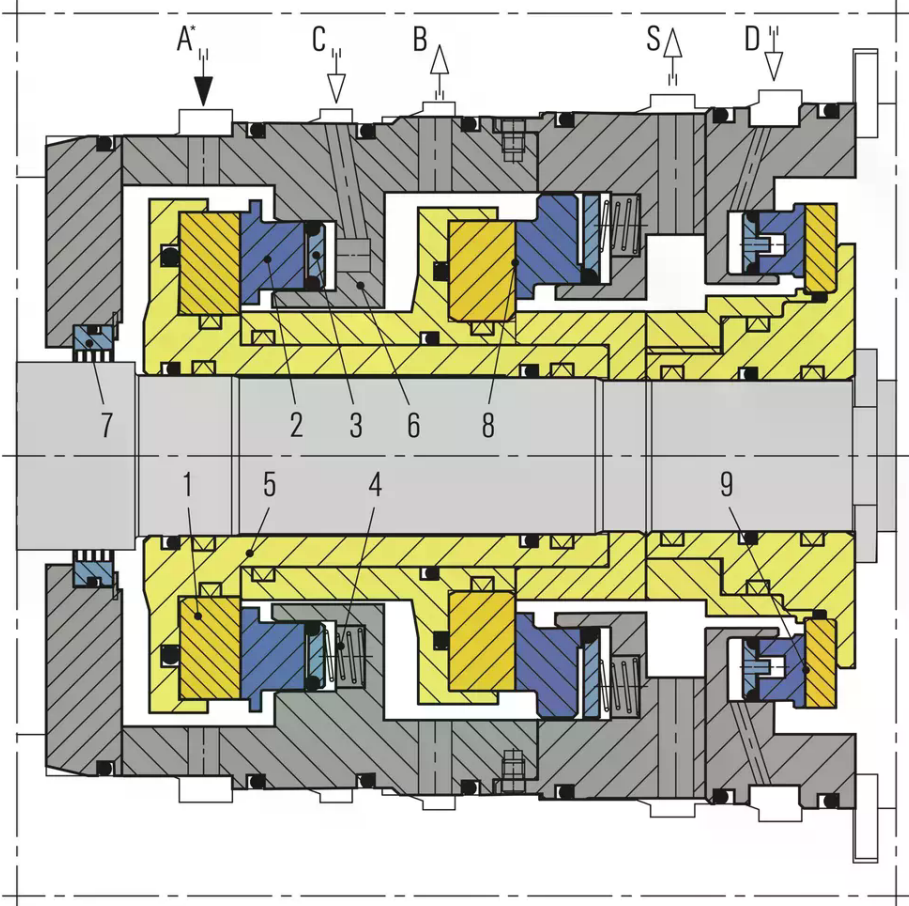
Standards and approvals

- NACE
- Compliant to TA Luft (German Clean Air Act) (tandem seal)

Recommended applications

- Pipelines
- Gas storages
- Oil and gas industry
- Chemical industry
- Power plants
- Centrifugal compressors
- Turbo expander
- Turbines
- Pumps
- Blower
- LNG
- CCUS
- Hydrogen
- Alternative fuels production
- Power generation

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CobaDGS drawing

Item	Description
1	(Seat) Rotating seal face
2	(Seal face) Stationary seal face
3	Thrust ring
4	Spring
5	Shaft sleeve
6	Housing
7	Labyrinth
8	DGS as secondary seal
9	CobaSeal as separation seal
10	Intermediate labyrinth

- E* Buffer gas supply - optional
- A Seal gas supply
- B Primary vent
- C Secondary seal gas supply
- S Secondary vent
- D Separation gas supply

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Product variants



Optionally available

High pressure nitrogen generator

On-site generation of nitrogen.
Ensures continuous, uninterrupted nitrogen supply
Solves the logistics problem, especially for sites in remote, hard-to-reach areas.
No more hassle transporting the nitrogen.

Nitrogen generation is based on pressure swing adsorption. Storage at 330 bar – for intermittent generation/compression and back-up supply – then reduction to the required pressure.

The complete nitrogen production and supply system comes in a container which should be installed out of ATEX area.
Required power supply: Heavy current, 400V, 50Hz/60Hz, 3 Ph