

## CSE

### Mechanical seals | Compressor seals | Separation seals



#### Features

- Non-contacting bushing seal
- Gas-lubricated
- Bi-directional
- Ready-to-fit cartridge unit
- Equipped with Espey carbon rings type WKA400

#### Advantages

- Low leakage
- Slow roll capability
- Insensitive to dry nitrogen

#### Operating range

Shaft diameter:  
24.5 ... 360 mm (0.96" ... 14.17")  
Design pressure:  
p = ... 10 bar (145 PSI)  
Operating pressure:  
p = 0.07 bar (1.02 PSI)  
Temperature:  
t = -20 °C ... +200 °C (-4 °F ... +392 °F)  
Sliding velocity:  
vg = 0 ... 200 m/s (0 ... 656 ft/s)  
Dew point: No limitation

Project specific special designs possible.

#### Materials

Seal face: Carbon graphite impregnated  
Secondary seals: FKM  
Shaft sleeve: Stainless steel, TC-coated  
Metal parts: 1.4006 or other stainless steels

#### Standards and approvals

- NACE
- API 692

#### Notes

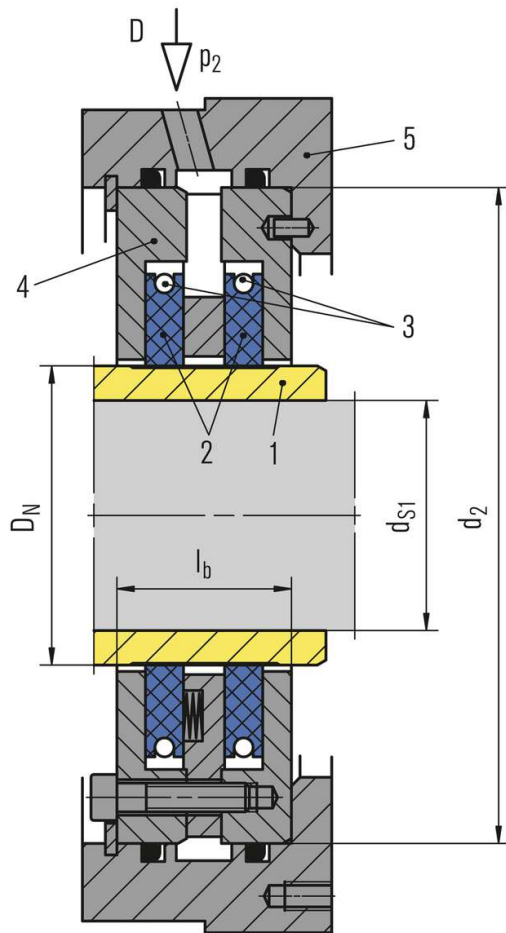
The service-proven non-contacting bushing seal with low gas consumption. Non contact type carbon rings are segmented rings held together by a garter spring at the outer diameter. A defined minimum radial gap provides a contact-free operation. Robust design and reliable operation provide secure oil sealing even at extreme conditions.

Dimensions on request.

#### Recommended applications

- Oil and gas industry
- Refining technology
- Petrochemical industry
- Nitrogen
- Air
- Centrifugal compressors
- Turbo expanders
- Screw compressors
- Blowers

RELY ON EXCELLENCE

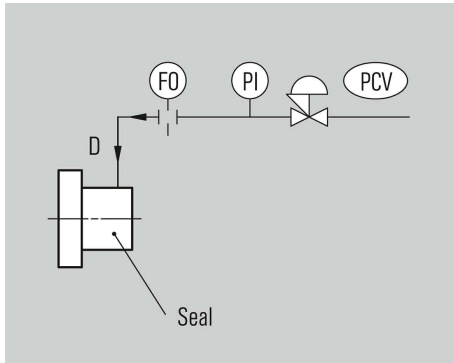


**Item Description**

- 1 Shaft sleeve
- 2 Segmented carbon ring
- 3 Garter spring
- 4 Housing of the standardized sub-cartridge
- 5 Housing (size matched to installation space)
- D Separation gas

## RELY ON EXCELLENCE

### Installation, details, options



Piping and instrumentation diagram of a CSE (flow controlled separating gas supply).