

Pillar Dry Gas Seal

Phoenix Seal

PILLAR Dry Gas Seal is a high performance Non-contact seal featured by self-adjustment of the seal face clearance, which meets the high demands for the modern rotary equipment that is more dry-operated.

- Double mechanical seals • • • • Excellent in deal performance but costly because of auxiliary device needed for a sealing liquid
- Circumferential seal • • • • • Suitable primarily for low pressure and low speed applications
- Labyrinth seal • • • • • • • • • Applicable high pressure and high speed, but high leakage rate

PILLAR Dry Gas Seal gives a good solution to such problems, offering the excellent seal performance under hard operating conditions and durability as economy.



PATENTS : U.S.A 684413 / 5664787
EU 684413
JAPAN 2639883 / 2563081
etc...

PILLAR Phoenix Seal series is a hydrodynamic gas seal with the special groove configurations for the dual-directionality. This groove pattern produces an efficient effect of dynamic pressure during rotation, which maintain optimum clearance between the seal faces in order to minimize the leakage.

Thanks to the dual-directionality this seal makes the installation arrangement work much easier and more economical to wide applications. Furthermore, the seal performance is enhanced as it can be reverse-turned during stoppage of the equipment.

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Features

1. Minimized leakage

1/100~1/1000 or less, compared with the labyrinth seal.

2. Stable performance

In sealing, pressure-resistance and high speed characteristics.

3. Less power consumption

Minimized torque and power consumption thanks to non-contact of seal faces.

4. Durability

Long service life because of minimized wear of the structural parts.

5. Long seal life

Compact design as no seal liquid circulation device necessary unlike the double mechanical seals, Lesser spare parts necessary in maintenance inventory as this seal can be rotated in both directions.

Applications

1. Fluid

Dry gas, wet, gas, like steam, etc.

2. Equipment

Turbo compressors, turbines, blowers, etc.

3. Pressure

10MPa (Measured value)

4. Velocity

150m/s (Measured value)

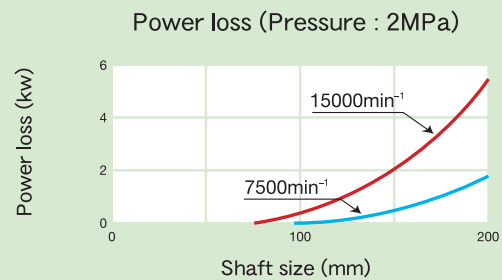
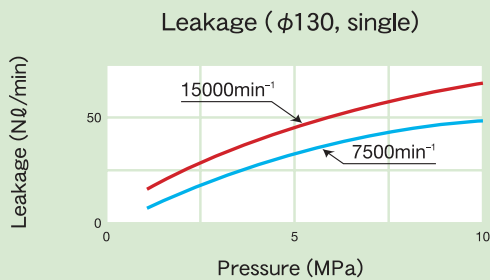
5. Temperature

250°C

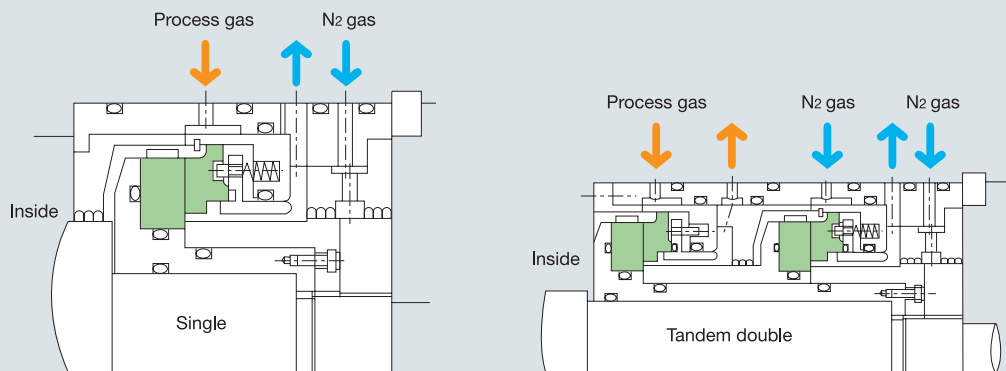
6. Seal System Arrangement

- Single Compact design with a little leakage.
- Double No leakage of process gas with external gas. Special usage for toxic gas and hazardous gas
- Tandem double No leakage of process gas with external gas. Common usage.

Performance



Construction



PILLAR

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