# **ESP** Mechanical Face Seals

High-Precision Heavy-Duty Seals with High-Performance Elastomer O-Rings



We make small parts a big part of your bottom line.





# **ESP** Mechanical Face Seals



#### **ADAPTER RING**

A deep-drawn sheet ring encased in oil-resistant elastomer material with static sealing and torque transmission guaranteed by an outer wave-profile of elastomer. Adapter rings facilitate quick repairs eliminating the need to re-machine the housing.

#### **Product Category:**

· Crankshaft & Camshaft Seals







### **O-RING FACE SEAL**

Two symmetrically tapered seal rings and two o-rings compressed between the tapered surfaces of the housing.

#### **Product Category:**

Mechanical Face Seals



GOETZE face seals are found wherever the going gets really tough: they seal wheel hubs and axles, support and guide roller bearings of tracked vehicles, transmissions, and many more axial connections in heavy technical equipment such as construction machinery, conveyors, mining machinery, concrete and cement mixers, tunnel boring, and agricultural equipment.

The portfolio of designs and advanced materials cover applications which include some of the largest equipment around the world: with a diameter of up to 1,425 mm.



#### **ASYMMETRIC FACE SEAL**

Special designs including inverted seal rings can be designed specifically for applications with extreme mud impact.

#### **Product Category:**

Mechanical Face Seals



#### **Metallic Material Innovations**

#### Chilled Cast Iron (Duronit V)

- · Very hard, resists abrasive wear & corrosion
- · Excellent tribological properties
- Even under extreme operating conditions, Duronit V demonstrates excellent resistance to micro-welding & material transfer

#### **Patented Coronit**

- · A ledeburite microstructure with free graphite
- The free graphite improves the material's thermal conductivity, helping to dissipate heat in order to prevent a thermal degradation of the oil film
- At a hardness of 47 to 57 HRC, Coronit resists fretting & scoring
- Facilitates peripheral speeds up to 10 m/s due to its excellent thermal & tribological properties



## **SQUARE BORE FACE SEAL**

Two metallic angular seal rings with identical geometrical contours assembled with trapezoid elastomer parts positioned against the housing bore. Requires slightly less axial space than standard designs.

#### **Product Category:**

Mechanical Face Seals

#### **High-Performance Elastomeric Materials**

**NBR** - standard

**HNBR** - higher temperatures

FPM - extends the maximum temperature while offering excellent oil compatibility

**VMQ** - covers temperature in both hot and cold extremes



# **ESP** Mechanical Face Seals



- Complete range of sizes; variety of styles
- Developed for protection of equipment working in the most adverse conditions: Mud, Rock, Sand, Water, Desert Heat, Arctic Cold
- Highest-quality design & testing capabilities:
  - Material knowledge
  - German engineering
  - Application experts



ESP's Mechanical Face Seals are specifically engineered for rotating applications in extremely arduous environments where they withstand severe wear and prevent ingress of harsh and abrasive external media.

The high cost of equipment downtime requires the best available seal. ESP's Mechanical Face Seals provide superior performance in extreme applications where positive lubricant retention and the ability to keep out damaging and/or abrasive materials are essential.

ESP's Mechanical Face Seal's level of durability has become a choice of OEM earth-moving equipment and machinery.

# We make small parts

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At ESP, we draw on our experience and apply our expertise at every stage of everything we do. Global insight, connection, and reach allow us to deliver the right engineered solutions at the right time. It's our passion for performance that leads to profitability for our OEM customers.

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