

RELY ON EXCELLENCE

APItex mechanical seals – When highest safety is what you need

For applications in the field of API 682, category 1



100 % compliant with
API 682 4th edition,
category 1



Excellent design



Extremely cost-effective



Highest safety

Seal design for the strictest demands

Connections

- Conventional supply ports (API piping plans) provided as standard
- Positionable as per customer request
- **APItex-S (standard version)**
 - Quench and drainage ports as well as fixed throttle (AP configuration 1CW-FX)
 - Flushing port with multipoint injection - optimizes flushing medium distribution
- **APItex-T (standard version)**
 - With internal bidirectional pump device

Mating ring and O-ring

- Hydraulic back-out protection on the product side increases reliability under reverse pressure

Robust sliding parts

- Hard-wearing materials SSiC (Q1), blister-resistant carbon (A)
- Balanced - reduces friction and wear
- Sliding parts optionally available with product-side Diamond Face® technology for high solids loading

Multiple springs

- Makes the seal impervious to shaft deflections and process fluctuations
- Springs outside the product - to protect from solids and the seal blockages they cause

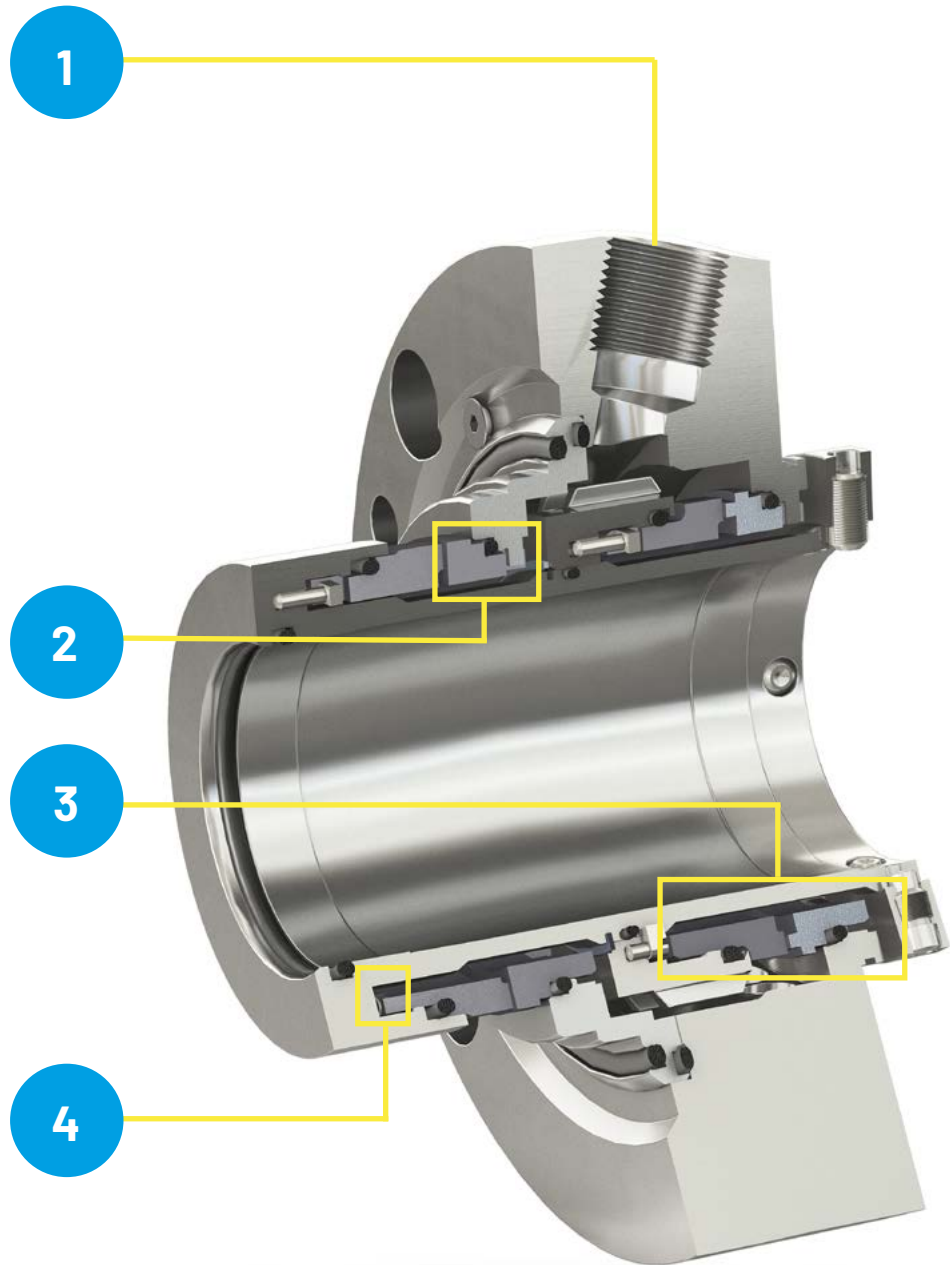


Illustration: APItex-T

APItex: Relaxed in the most difficult situations

Nothing is as important as protecting people, the environment and the machine when hazardous, flammable and/or toxic media are being pumped and processed. To combat these risks, the American Petroleum Institute (API) has established "Standard 682" for mechanical seals. It describes the requirements for seal systems for centrifugal and rotary pumps in the oil and gas industry, as well as in the chemical and petrochemical industry. These rules are now being applied worldwide.

The APItex series from EagleBurgmann is the dependable seal solution for centrifugal and rotary pumps you can use to meet all requirements of the API 682 Standard (category 1) - and more. Scores of extensive certification trials have been conducted that attest to this.

With the APItex series from EagleBurgmann, you can rely on

- a mechanical seal that will dependably stand up to continuous operation
- maximum safety from hazardous fluids
- low life cycle costs



APItex: The benchmark for mechanical seals as per API 682, category 1



Excellent design

- 100 % API 682-compliant - the only seal to provide all API design features and even more
- Modular seal design based on standardized components
- Ideal for standardized seal installation spaces in standard chemical pumps (such as B73.1 and ASME B73.2)



Extremely cost-effective

- Maximum operational performance and reliability
- High pump availability thanks to extended repair cycles (MTBR)
- Quick and inexpensive maintenance



Highest safety

- Seal design tested according to API 682 SQT (Seal Qualification Test)
- Meets the maximum limit values as per API 682
- DiamondFace® technology

Convincing in detail

Operating range (according to API682)

- Shaft diameter: 20 ... 110 mm (0.75" ... 4.33")
- Pressure: 0 ... 20 bar(g) (0 ... 290 PSI(g))
- Temperature: -40 ... +176 °C (-40 ... +350 °F)
- Sliding velocity: 0 ... 23 m/s (0 ... 75 ft/s)

Please note that the extremal values of each operating parameter cannot be applied at the same time because of their interaction. For applications beyond this range, please inquire.

Materials

- Seal ring: Silicon carbide SSiC (Q1)
- Mating ring: Silicon carbide SSiC (Q1), antimony impregnated carbon graphite (A)
- Secondary seals: EPDM (E), FKM (V), FFKM (K)
- Springs: Hastelloy® C-4 (2.4610)
- Metal parts: CrNiMo steel (316L/1.4404)

Other materials possible.

Please contact us if needed.

Standards and approvals

- API 682 3rd edition / ISO 21049
- API 682 4th edition

Seal installation space

Fits standardized seal installation spaces according to

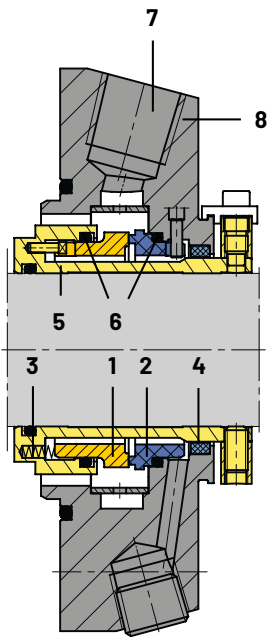
- ASME B73.1 and ASME B73.2
- Other seal installation spaces (such as API 610, API 676, ISO 3069 and DIN 24960) available upon request.



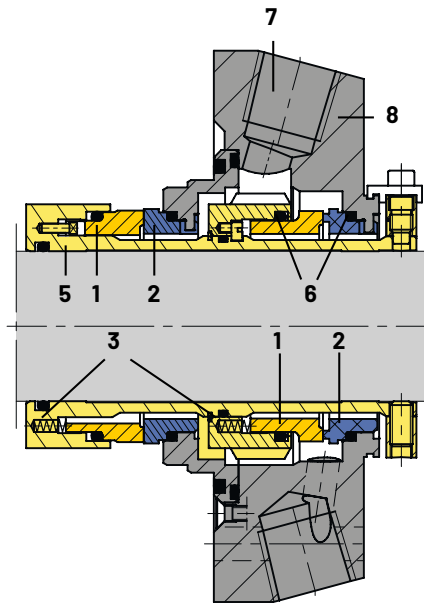
DiamondFace®: Innovative sliding surface technology for maximum operational performance of pump seals

DiamondFace® is an innovative microcrystalline diamond technology for mechanical seals. It is characterized by extreme hardness, high wear resistance, excellent heat conductivity, maximum chemical resistance, and low friction coefficients. The coating adhesion also exceeds all known

practical requirements. For example, this makes partial dry running possible while increasing the lifespan of mechanical seals by many times, prolonging the maintenance intervals and significantly reducing the life cycle costs.



APIItex-S



APIItex-T

- 1 Seal ring
- 2 Mating ring
- 3 Spring
- 4 Shrunk throttle bushing
- 5 Shaft sleeve
- 6 O-ring
- 7 Flush
- 8 Cover

Suitable for all conventional API piping plans

APIItex API configurations

APIItex-S configuration 1CW-FX

- Plan 02
- Plan 11
- Plan 12
- Plan 21
- Plan 22
- Plan 31
- Plan 32
- Plan 41
- Plan 61
- Plan 62
- Plan 65A
- Plan 65B

APIItex-T configuration 2CW-CW

- Plan 52
- Plan 55

APIItex-T configuration 3CW-FB

- Plan 53 A
- Plan 53 B
- Plan 53 C
- Plan 54

Special variants

- With floating throttle
- With gas-lubricated containment seal
- Tandem design with flushing plans

Do you need an API seal for API plans other than those mentioned above?
EagleBurgmann offers a comprehensive range of API-compliant seals and supply systems. Our API experts will be glad to explain the many possibilities to you.



More information on all API piping plans can be found here

EagleBurgmann – at the leading edge of industrial sealing technology

Our products are used wherever safety and reliability count: in the industries of oil & gas, refineries, petrochemicals, chemicals, pharmaceuticals, food, power, water and many more. About 6,000 employees contribute their ideas, solutions and dedication every day to ensure that customers around the globe can rely on our seals. With our modular TotalSealCare Service, we emphasize our strong customer orientation and offer custom-tailored services for every need. [Rely on excellence.](#)

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