

Complete line of sealing products and services



Our products – as varied as our customers.

EagleBurgmann products deliver safe, reliable sealing performance in any application including oil pumping and cracking, gas compression, process gas containment, phase separation or synthesis of chemical substances, pipeline sealing, dairy product filling or compensation of temperature expansion in flue gas systems.

Our challenge is to design seals that are able to withstand a wide range of media, different aggregate states and varying pressure and temperature and to provide special solutions for small installation up to seal contact areas of several meters. Every application has its own special requirements profile, and our job is to provide the best sealing solution.

The EagleBurgmann portfolio: A product range with an unlimited horizon.

EagleBurgmann is one of the world's leading manufacturer of industrial sealing solutions. Our extensive portfolio includes everything from standard seals to one-off application-specific designs:

- Mechanical seals
- Magnetic couplings
- Seal supply systems
- Carbon floating-ring seals
- Compression packings
- Gaskets
- Expansion joints
- Special products
- TotalSealCare™ Services

Total commitment to quality excellence.

Outstanding quality is the top priority at EagleBurgmann. Our products are designed for user-friendly installation, optimal functionality and long service life. Our R&D activities, advanced quality management system, in-house test facilities and in-depth engineering expertise ensure that our seals meet the most demanding customer expectations. Starting right back in the development phase, our employees continually verify the quality of our products, and we carry out systematic inspection and testing to guarantee that customers are getting top quality.

Proud of the trust which our customers place in us.

EagleBurgmann is a dependable, competent partner. Our customers are always in total control of the media in their pumps, agitators, compressors, blowers, turbines, valves and pipeline systems even when operating conditions are extremely harsh. There is good reason why customers in the oil & gas, refinery, chemical, energy, food processing, paper, water, marine, aerospace, mining and other industries choose EagleBurgmann as their sealing solutions supplier.



Mechanical seals and seal supply systems



Mechanical seals for pumps

EagleBurgmann offers a complete range of liquid and gas-lubricated pump shaft seals including standard and engineered seals in single and multi-seal versions. We also offer a complete range of solutions for all API 682 categories and arrangements. The portfolio includes a broad selection of material and surface technologies such as DiamondFaces® coatings.

Cartridge seals

- Easy to install
- Inboard/outboard variants
- For all standard modes of operation
- O-ring, metal bellows and elastomer bellows seals
- Gas-lubricated versions
- Special versions, e.g. for sterile applications
- Split versions available
- Diameter: 25 ... 100 mm (1 ... 4")
- Pressure: ... 25 bar (... 362 PSI)
- Temperature: -40 ... +220 °C (-40 ... +428 °F)

Elastomer bellows seals

- Compact design
- Straight forward installation
- Stationary and rotating designs
- Approvals: FDA, WRAS, KTW, ACS, W270, NST
- Diameter: 6 ... 100 mm (0.24 ... 4")
- Pressure: ... 25 bar (... 362 PSI)
- Temperature: ... +140 °C (... +284 °F)

Component seals

- Designed for universal applications
- Versions for high-viscosity media and media containing solids
- Versions for high-performance pumps
- Diameter: ... 400 mm (... 16")
- Pressure: ... 150 bar (... 2,176 PSI)
- Temperature: -50 ... +220 °C (-58 ... +428 °F)

Metal bellows seals

- For extreme temperature ranges
- For high-viscosity media and media containing solids
- Diameter: 16 ... 100 mm (0.62 ... 4")
- Pressure: vacuum ... 25 bar (... 363 PSI)
- Temperature: -100 ... +400 °C (-148 ... +752 °F)

Typical applications:

Centrifugal pumps, positive displacements pumps, high-performance pumps, multi-phase and slurry pumps, circulation pumps, hydraulic pumps



Mechanical seals for agitators

Sealing solutions for normal and sterile applications. The design and selection of materials ensure that the seals are rugged enough to deliver outstanding cost and engineering performance in everyday applications.

Dry-running agitator seals

- Dry-running, contacting seal faces
- No seal supply system needed
- FDA-approved face materials
- Diameter: 25 ... 200 mm (1 ... 7.87")
- Pressure: vacuum ... 6 bar (... 87 PSI)
- Temperature: -20 ... +200 °C (-4 ... +392 °F)

Liquid-lubricated agitator seals

- For steel and glass lined vessels
- DIN connections or according to customer request
- FDA-approved face materials
- Designed for all applications
- Diameter: 15 ... 500 mm (0.59 ... 19.69")
- Pressure: vacuum ... 250 bar (... 3,626 PSI)
- Temperature: -80 ... +350 °C (-112 ... +662 °F)

Gas-lubricated agitator seals

- For steel and glass lined vessels
- DIN connections or according to customer request
- FDA-approved face materials
- Non-contacting operation
- Versions for sterile applications
- Diameter: 40 ... 320 mm (1.58 ... 12.60")
- Pressure: vacuum ... 14 bar (... 203 PSI)
- Temperature: -20 ... +200 °C (-4 ... +392 °F)

Typical applications:

Agitators, mixers, dryers, kneaders, reactors, separators, filters



Mechanical seals for compressors

A complete range of products for process gas compressors from a single source. Single, double and tandem versions and tandem seals with intermedia labyrinths. Rugged, non-wearing, non-contact seals designed to deliver outstanding performance and long service life.

DGS/NF series

- Standard product series with a proven track record
- Diameter: 25 ... 380 mm (1 ... 14.96")
- Pressure: 0 ... 100 bar (0 ... 1,450 PSI)
- Temperature: -20 ... +200 °C (-4 ... +392 °F)
- Sliding velocity: 0.6 ... 200 m/s (2 ... 656 ft/s)

PDGS high-pressure version

- Good chemical resistance, no elastomer
- DLC-coated sliding faces
- Diameter: 68 ... 390 mm (2.68 ... 15.35")
- Pressure: 0 ... 450 bar (0 ... 6,520 PSI)
- Temperature: -170 ... +230 °C (-274 ... +446 °F)
- Sliding velocity: 0.6 ... 200 m/s (2 ... 656 ft/s)

MDGS series for screw compressors

- Face materials: ductile steel with patented DM-TiN coating and silicon carbide with DLC coating
- Diameter: 60 ... 220 mm (2.36 ... 8.66")
- Pressure: 0 ... 50 bar (0 ... 725 PSI)
- Temperature: -20 ... +200 °C (-4 ... +392 °F)
- Sliding velocity: 0.6 ... 200 m/s (2 ... 656 ft/s)

TDGS series for steam turbines

- Metal bellows
- Diameter: 20 ... 100 mm (0.79 ... 3.94")
- Pressure: ... 10 bar (... 145 PSI)
- Temperature: -50 ... +450 °C (-58 ... +842 °F)
- Sliding velocity: ... 130 m/s (... 427 ft/s)

Carbon ring oil barrier seal CSR/CSE

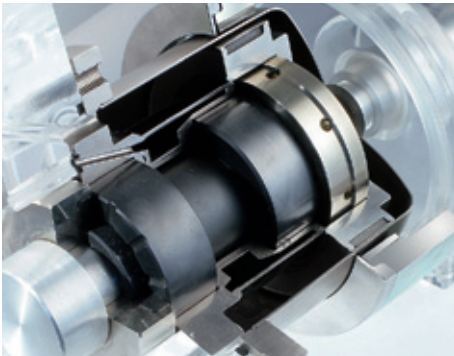
- Ideal for small seal chambers
- Very low gas consumption
- Diameter: 17 ... 320 mm (0.67 ... 12.60")

CobaSeal® oil barrier seal

- Oil tight in all operating modes
- Low buffer gas consumption
- Face materials: ductile steel with patented DM-TiN coating and silicon carbide with DLC coating
- Diameter: ... 250 mm (... 9.84")
- Pressure: ... 10 bar (... 145 PSI)
- Temperature: -20 ... +200 °C (-4 ... +392 °F)
- Sliding velocity: ... 200 m/s (... 656 ft/s)

Typical applications:

Centrifugal compressors, expanders, turbines, integrally geared compressors, screw compressors, roots compressors, special machines



Magnetic couplings

Uncompromising sealing technology for very demanding applications. Hermetically sealed magnetic couplings guarantee leakage-free and maintenance-free pumping and mixing. The media remains within closed system circulation loops.

MAK series

- Modular design
- Integrated sliding bearing
- Compact dimensions
- Torque transmission ... 462 Nm
- Speed: 3,600 min⁻¹
- Pressure: ... 40 bar (... 580 PSI)
- Temperature: ... +250 °C (... +482 °F)
- Versions for sterile agitator applications
- Optional ceramic or carbon PEEK can

High-efficiency series

- Patented laminated can
- Reduced eddy current losses
- Optional sliding bearing
- Torque transmission: ... 1,879 Nm
- Pressure: ... 1,000 bar (... 14,504 PSI)
- Temperature: ... +250 °C (... +482° F)

Typical applications:

Centrifugal pumps, positive displacements pumps, vacuum pumps, agitators, mixers, compressors, blowers, special machines



Seal supply systems

Depending on the design, application and mode of operation, supply systems are needed to flush, cool and pressurize mechanical seals and magnetic couplings and provide leakage compensation. EagleBurgmann supplies a complete range of solutions from a single source including design, production, commissioning and service. The portfolio includes a complete line of API compliant supply systems.

Quench systems

- Thermosiphon principle or forced circulation
- Versions with polyethylene or stainless steel tanks
- API 682 versions

Thermosiphon systems

- Extensive standard range
- Sterilizable versions
- API 682 versions for Plan 52 and 53A

Heat exchangers

- Extensive standard range
- Extremely efficient cooling
- Compact design
- API 682 versions

SP0 closed-circuit buffer fluid systems

- Suitable for applications with variable pressure
- No connection to nitrogen supply necessary
- API 682 versions

SPA open-circuit buffer fluid systems

- High cooling capacity
- Supply for multiple seals

SPN refill units

- Manual, automatic and mobile versions

Gas supply systems

- Customized versions for all types and requirements in gas-lubricated mechanical seal applications
- Seal management system
- API 614

RoTech Booster

- Compact gas supply unit for compressor seals during the slow-roll or shut-down phase

Typical applications:

Liquid and gas lubricated mechanical seals, magnetic couplings



sealing solutions to meet any challenge.

Carbon floating-ring seals



Carbon floating ring seals are supplied as maintenance free compact labyrinth cartridge seals with low leakage. The floating self-adjusting sealing rings provide radial sealing on the shaft with a very small gap. The seal requires no additional lubrication, and it is designed for dry running. Besides pure gas, carbon floating ring seals are also suitable for Atex applications, toxic media, media containing solids, flue gas, dust, powder, vapor, liquid mist, oil mist and penetrating oil.

WD series (two part housing)

- Designed for all applications
- Special versions based on customer specification available
- Split rings and housing for easy installation
- Pressure: vacuum ... 20 bar (... 290 PSI)
- Shaft diameter: 40 ... 340 mm (1.57 ... 13.39")
- Radial clearance: max. \pm 5.0 mm (0.2")
- Axial movement: theoretically no limit
- Temperature: -120 ... +800 °C (-184 ... +1,472 °F)

Special WD series variants

- Versions for bulkhead sealing, resistant to seawater, approved and certified, shaft diameter: ... 800 mm (... 31.5")
- Versions for top-drive agitators and DIN seal chambers, no cooling required
- Blast furnace versions, shaft ... 4,000 mm (... 157.48")
- Versions for mill and centrifuge inlet heads

WKA series (chamber version)

- Designed for all applications
- Special versions based on customer specification available
- Modular chamber components – can be supplied with housing and cover
- Pressure: vacuum ... 250 bar (... 3,626 PSI)
- Shaft diameter: 20 ... 340 mm (0.79 ... 13.39")
- Radial clearance: max. \pm 2.0 mm (0.08")
- Axial movement: theoretically no limit
- Temperature: -120 ... +500 °C (-184 ... +932 °F)

Shaft sleeves

- Metallic or ceramic coating
- One-piece or split design
- Shaft diameter: 45 ... 340 mm (1.77 ... 13.39")
- Temperature: ... +1,000 °C (... +1,832 °F)

Typical applications:

Blowers, compressors, turbines, centrifuges, exhaust vapor machines, mills, agitators, dryers, bulkheads, steam turbines, throttle/control valves, gear units, motors

Compression packings



A cost-effective and reliable method for sealing pump shafts and valve spindles. Innovative materials, material combinations, lubricants and impregnation agents together with state-of-the-art production techniques are used to provide a broad spectrum of products and solutions to meet nearly any requirement.

Product versions

- Range of universal and engineered stuffing box packing products supplied by the meter, cut to size or delivered as pre-pressed rings
- Ready to install sealing sets
- Injectable stuffing box compound
- TA-Luft/EN ISO 15848 certified
- Very low wear, non-aging, embrittlement-resistant versions
- FDA, API 622, TA-Luft and EN ISO 15848 certified versions
- Fire-resistant versions (API 589)
- Nuclear grade available
- Materials: textile fiber, PTFE, graphite fiber, aramid and special materials

Operating characteristics

- Temperature: -200 ... +700 °C (-328 ... +1,292 °F)
- Pressure: pumps ... 40 bar (... 580 PSI), valves ... 1,000 bar (... 14,500 PSI)
- Chemical resistance: 0 ... 14 pH

Typical applications:

Pumps, agitators, mixers, kneaders, dryers, fans, blowers, filters, refiners, pulpers, mills, valves

Gaskets



Gaskets are used in a wide range of machinery and pipeline applications, and EagleBurgmann has the portfolio to match including cutting-edge products that are supplied ready to install or as sheet material.

Fiber gaskets

- Temperature: -100 ... +300 °C (-148 ... +572 °F)
- Pressure: 100 bar (1,450 PSI)
- Fillers: aramid fiber, NBR
- Non-stick coating
- Approvals: DVGW, KTW, HTB, etc.

Graphite gaskets and strips

- Temperature: -250 ... +500 °C (-418 ... +932 °F)
- Pressure: ... 500 bar (... 7,252 PSI)
- Metal reinforcement optional
- Versions with BAM/DVGW certification
- Nuclear grade available
- TA-Luft or EN ISO 15848 certified

Metal gaskets

- Kamm profile seals
- Molded gaskets
- Metal jacket gaskets
- Excellent stability
- Outstanding tolerance to temperature variation

PTFE gaskets

- PTFE gaskets with excellent stability
- Self-adhesive strips or cords made of virgin PTFE
- Temperature: -200 ... +200 °C (-328 ... +392 °F)
- Chemical resistance: 0 ... 14 pH

Fiberglass gaskets

- High temperature resistant cords and strips

Typical applications:

Stationary machine parts, flanges, flange-like joints, bulkheads

Expansion joints



Flexible expansion joints in pipes and duct systems neutralize the effects of pressure and temperature fluctuation, vibration and misalignment at the joint. They must also be leakproof and resistant to media. Customized expansion joints made of fabric, metal or rubber are the solution of choice.

Fabric expansion joints

- Single and multi layer designs
- Temperature: $-60 \dots +1,200 \text{ }^{\circ}\text{C}$ ($-76 \dots +2,192 \text{ }^{\circ}\text{F}$)
- Pressure: $\pm 250 \text{ mbar}$ (25 kPa)
- Versions with wiremesh reinforcement
- Versions with high chemical resistance

Metal expansion joints

- Temperature: $-215 \dots +1,200 \text{ }^{\circ}\text{C}$ ($-355 \dots +2,192 \text{ }^{\circ}\text{F}$)
- Pressure: vacuum $\dots 70 \text{ bar}$ ($\dots 1,015 \text{ PSI}$)
- Materials: stainless steel, Incoloy[®], Inconel[®], Hastelloy[®], titanium, special materials
- Versions with PTFE lining

Rubber expansion joints

- Standard series DN 20 \dots 750 mm ($3/4 \dots 30''$)
- Engineered series DN 50 \dots 3,600 mm ($2 \dots 144''$)
- Multiple arch designs
- PTFE versions with good chemical resistance: 0 \dots 14 pH
- Variants with drinking water approvals

Typical applications:

Air and flue gas ducts, pipelines, sewer systems

Special products



For particular applications, innovative, customized solutions are the only answer. The supplier must have a wealth of in-depth expertise, many years of experience and above all the willingness and ability to translate ideas into solutions that work in practical application.

High-grade metal bellows

for specialized applications in the nuclear power, semi conductor and medical equipment industries, etc.

Dynamic and static sealing elements

for the aerospace industry which meet extremely demanding quality requirements

Stern tube and marine seals

with various approvals and certifications, for marine outfitters and users

Rotary kiln sealing systems

as single and double seals in drying, calcination, combustion and pyrolysis applications

Typical applications:

Engineered solutions designed to meet customer requirements

TotalSealCare™



Flexible, transparent service modules tailored to specific requirements and business environment. Full service from installation, commissioning and total maintenance of all installed seals including electronic documentation right through to inventory management and staff training.

Our customers choose only the services that they really need, putting together a service package which is tailored to their exact on-site needs.

The modules at a glance

- Consulting & engineering
- Maintenance and repair
- On-site service
- Inventory management
- Seminars & training
- Engineering analysis & support
- Service agreements

Typical applications:

Oil & gas, refinery, petrochemical, chemical, pharmaceutical, energy, food, paper, water, etc.



EagleBurgmann at a glance.

- More than 120 years of experience in sealing technology
- More than 5,200 highly-skilled and highly-motivated employees
- Comprehensive range of products and services
- 250 locations and service centers in close proximity to our customers
- TotalSealCare™ – the modular seal service to meet the individual needs of our customers in any industry

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EagleBurgmann is one of the leading international companies for industrial sealing technology. Our products are used everywhere when safety and reliability are important: in the oil and gas industries, petroleum refining, chemicals, pharmaceutical, energy, food, paper, water, marine applications, aerospace and mining. Every day, more than 5,200 employees contribute their ideas, solutions and commitment to ensuring that customers all over the world can rely on our seals. Our modular seal service, TotalSealCare™, underlines our commitment to customer orientation and our provision of tailor-made services for every application.

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EagleBurgmann®
Rely on excellence