

Cartex Seal Applications

Conditions	ASTN ABTN	ASQN ABQN	ASDN ABDN
Volatile media with poor lubricating properties	■		■
Media which react with oxygen	■	■	■
Low-viscosity media without solids	■	■	■
Media with solids which are inclined to sedimentation	■	■	■
Aggressive / Corrosive			■
Media that are harmful to the environment			■
Media without environmental pollutants	■	■	■

Cartex Seal High-Performance Materials

Seal Component	Cartex -ASTN, -ABTN, -ASDN, -ABDN Product Side
Stationary seal face	Silicon carbide or resin impregnated carbon
Rotating face	Silicon carbide
O-rings	Standard: Viton®, Aflas®, Kalrez® 6375, Chemraz® 505 Other materials on request
Springs	Hastelloy® C-4
Flange, sleeve and other metal parts	316 SS Optional: Hastelloy® C, Alloy 20 Other materials on request

Seal Component	Dual Cartex -ASDN and -ABDN Atmospheric Side
Stationary seal face	Carbon
Rotating face	Silicon carbide

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Hastelloy® is a registered trademark of Haynes International, Inc.
Aflas® is a registered trademark of Ashi Glass Corporation.
Chemraz® is a registered trademark of Greene, Tweed & Co.
Kalrez® is a registered trademark of DuPont Performance Elastomers L.L.C.

Operating Limits

Single Cartex -ASTN, -ABTN, -ASQN, and -ABQN

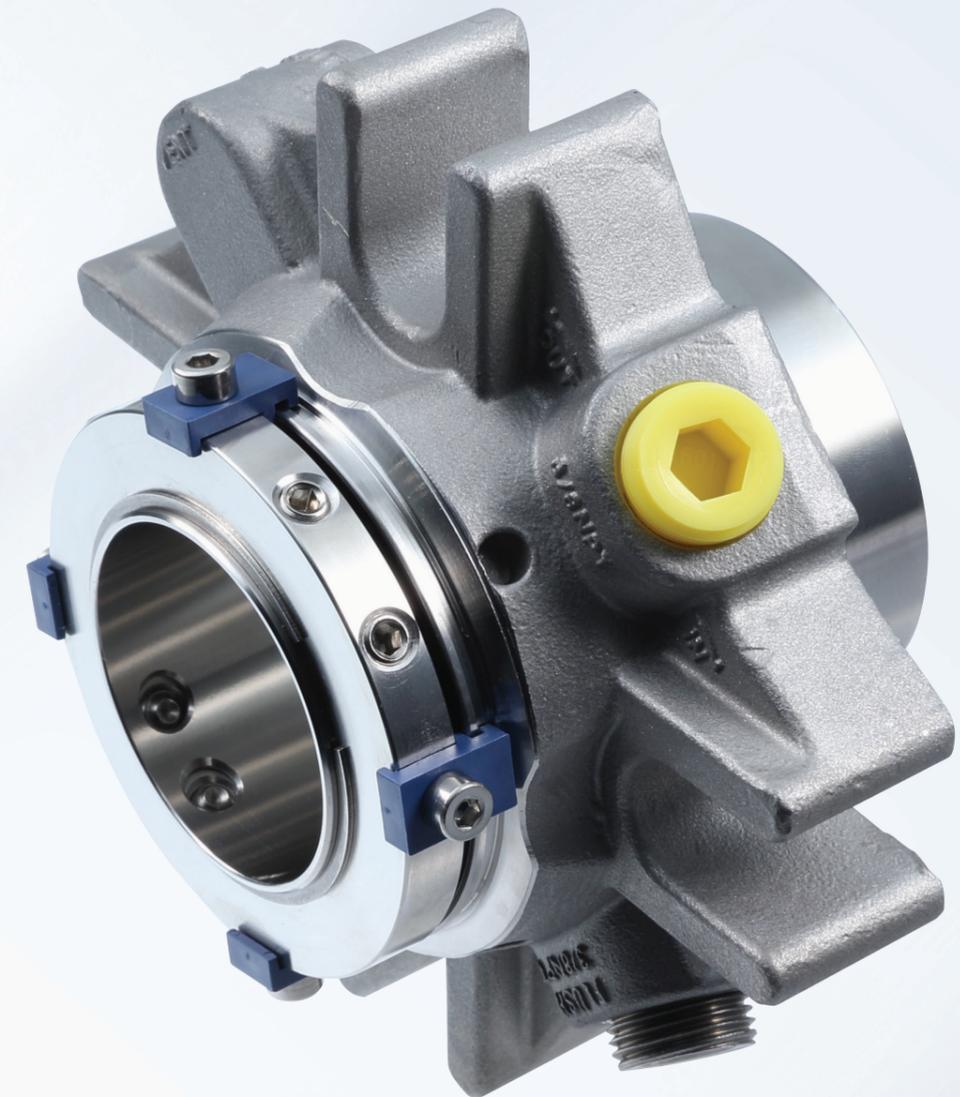
Sizes: 1" to 4" - Larger upon request	25 mm to 100 mm
Temp.: -40°F to +428°F	-40°C to +220°C
Pressure: 360 psi	25 bar (silicon carbide/resin impregnated carbon material combination)
Pressure: 174 psi	12 bar (silicon carbide/silicon carbide material combination)
Speed: Carbon/SiC	52.8 ft/s 16 m/s
SiC/SiC	33 ft/s 10 m/s
Allowable axial misinstallation: ± 0.04"/ ± 1.0 mm ± 0.06"/ ± 1.5 mm for 3.000" up	
Please observe temperature limits of the O-rings	

Dual Cartex -ASDN and -ABDN

Sizes: 1" to 4" - Larger upon request	25 mm to 100 mm
Temp.: -40°F to +428°F	-40°C to +220°C
Recommended differential pressure: 20-30 psi	
Speed: Carbon/SiC	52.8 ft/s 16 m/s
SiC/SiC	33 ft/s 10 m/s
Product Pressure: 290 psi	20 bar (silicon carbide/silicon carbide material combination)
360 psi	25 bar (silicon carbide/resin impregnated carbon material combination)
Allowable axial misinstallation: ± 0.04"/ ± 1.0 mm ± 0.06"/ ± 1.5 mm for 3.000" up	
Please observe temperature limits of the O-rings	

Cartex Cartridge Seals

Engineered to provide the extra margin of performance



EagleBurgmann is one of the internationally leading companies for industrial sealing technology. Our products are used everywhere where safety and reliability are important: in the oil and gas industry, refining technology, the petrochemical, chemical and pharmaceutical industries, food processing, power, water, mining, pulp & paper, aerospace and many other spheres. Every day, more than 6,000 employees contribute their ideas, solutions and commitment towards ensuring that customers all over the world can rely on our seals. Our TotalSealCare service underlines our strong customer orientation and offers tailor-made services for every application.

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What Makes Cartex Different From Other Cartridge Seals

Cartex vs. Modular Design Platform

For more than twenty years, EagleBurgmann Cartex Cartridge Seals have demonstrated a proven track record in sealing applications on all standard pump types in a wide range of industries including chemical, water supply, paper production, food processing and more. Cartex does not utilize a modular design platform like many others.

Modular designs use generic hardware components which result in compromised seal designs. This sacrifices seal performance and reliability resulting in higher total cost of ownership and lower equipment MTBF/operating efficiencies.

Modular designs inherently require:

- Unnecessary additional parts
- Smaller springs and part cross sections
- Added o-rings and potential leak paths
- Seal faces with higher sensitivity to "off pump" operation

The Cartex Advantage

- **A simple, robust engineered design**
 - Less sensitive, increased MTBR
- **Larger springs**
 - More stable, robust for lower internal stresses
- **Larger cross section seal faces for low distortion and low drive stresses**
 - Minimizes leakage
- **Larger/stronger pins**
 - Provides distortion free torque transmission to sealing faces
- **Fewer o-rings and components**
 - Reduced possible leakage paths
- **High performance pumping feature**
 - Lower operating temperatures

Modular Design



Cartex

Compared to the modular design with many complex parts, Cartex has been specifically engineered with a simple, robust design to achieve higher overall reliability and performance in extreme conditions.



Sensitive vs. Robust

Cartex seal faces, o-rings, drive pins and springs are more robust and specifically engineered for superior strength, heat removal and maximum reliability and performance.

Modular Design



All seals shown are shaft size 1.750"

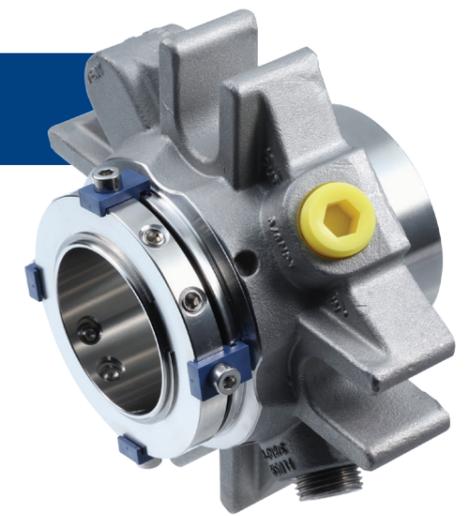
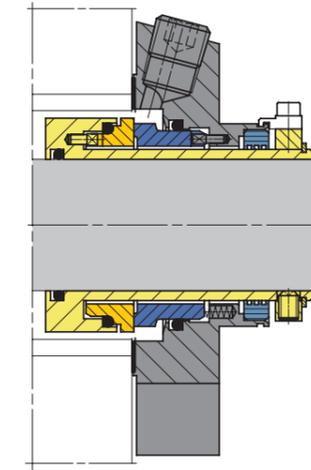
Cartex

Nearly twice as long with more robust cross section for low distortion and low drive stresses

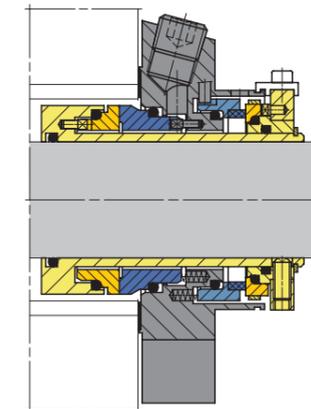


Cartex-ASTN and -ABTN (Single Seal with Bushing) Cartex-ASQN and -ABQN (Single Seal w/Lip Seal)

ASTN & ABTN are designed for operating with an internal steam quench. Flange includes a fixed carbon throttle bushing which also acts as a "disaster bushing". In the event of primary seal failure, the bushing holds pressure and the drain port directs leakage to a defined location to provide an additional safety option. Available in small bore (ASTN) and big bore (ABTN) configurations. ASQN & ABQN have a lip seal in place of a throttle bushing and allows for use of a pressureless liquid internal quench.



Cartex-ASDN and -ABDN (Dual Pressurized or Dual Unpressurized)



ASDN & ABDN can be utilized as dual pressurized or unpressurized configurations and are an excellent choice in sealing hostile or hazardous process fluid environments. A patented integrated circulating device provides effective cooling for the barrier fluid. Available in small bore (ASDN) and big bore (ABDN) configurations. The dual balanced inboard face design ensures that the seal faces remain closed even in the event of buffer pressure failure or pressure reversal.

eCartex (High-Performance DiamondFace Technology)

The eCartex is an innovative option which utilizes the EagleBurgmann DiamondFace technology. DiamondFace seals are extremely hard and wear-resistant and exhibit low friction, excellent heat conductivity and are chemically inert. In addition, they have better dry running properties when there is poor lubrication of the seal faces.

The robust seal faces extend the service life by up to 100%. This reduces unscheduled

plant shutdowns and the associated production losses.

eCartex is suitable for applications in the processing industry, chemical, petrochemical, pharmaceutical, pulp and paper, food, water and wastewater markets. eCartex offers enormous advantages in the initial installation, standardization, retrofits and conversion of packings.



For more information:

