# 180H

### CARTRIDGE SINGLE SEAL



#### Advantages

- Designed specifically for high temperature, speed, and pressure—increasing sealing reliability
- External cooling requirements are not needed for most applications, eliminating support equipment
- Advanced hydropad geometry minimizes seal face wear and distortion
- Reduces the frictional seal face heat concerns common with standard contacting seal face designs
- Hydropad geometry increases pressure velocity parameters over standard seal face designs
- Compact cartridge design for easy and reliable installation
- Use where external cooling is intermittent, limited, or unavailable

#### The Chesterton® 180H Cartridge Single Seal

uses an advanced hydropad geometry seal face that improves film formation between the mechanical seal faces and significantly enhances face lubricity. The increased film formation between the faces reduces heat generation and increases seal life in many applications.

Hydropad designs are useful in high pressure applications, where pressure has a tendency to distort the seal faces, and in sealing fluids that have poor lubrication properties. Conditions where flashing of the pumped liquid occurs are primary situations where advanced hydropad geometry is used to improve seal life and reduce operating costs.

#### **Applications include:**

- Boiler feed and circulating pumps
- Boost pumps
- Low-vapor pressure applications
- Heater drain pumps



## **180H CARTRIDGE SINGLE SEAL**

#### HIGH PERFORMANCE THROUGH INNOVATION

#### **Features**

- Advanced hydropad geometry improves face lubricity
- Multi-port arrangement improves heat dissipation
- Captured rotary seal ring for high speed integrity and safety
- Stationary seal design for higher speed capability
- Patented Self-Centering Lock Ring™ optimizes face alignment
- Totally non-fretting reduces repair costs



#### **Operating Parameters**

Sizes	25 mm to 120 mm
	1.00" to 4.75"
Pressure*	711 mm Hg to 40 bar g
	28"Hg to 600 Psig
Temperature	–55°C to 300°C
	–67°F to 570°F
Speed	25 m/s
	5000 fpm

\*Seal pressure capabilities are dependent on the fluid sealed, temperature, speed and seal face combinations.

**Materials of Construction Rotary Faces** Premium Grade Carbon **Stationary Face** Silicon Carbide Elastomers Fluorocarbon **Ethylene Propylene** AFLAS®/FEPM ChemLast™ Alloy C-276 (EN 2.4819) Springs Metal Parts 316 Stainless Steel (EN 1.4401) Gasket Graphite

Consult Chesterton Engineering for applications exceeding published operating parameters and for additional seal sizes.

Chesterton ISO certificates available on www.chesterton.com/corporate/iso

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