

# 170

## SLURRY CARTRIDGE SEAL

ENGINEERED FOR RELIABLE FLUSHLESS SEALING



# RELIABLE SLURRY HANDLING

## 170

### SIMPLE WITH LOW OPERATING COST

*The 170 Slurry seal is engineered to operate in severe slurry environments, eliminating costly external seal flushes. Plant efficiency improvements are achieved with the 170 seal by reducing product dilution and increasing production rates while meeting environmental concerns.*

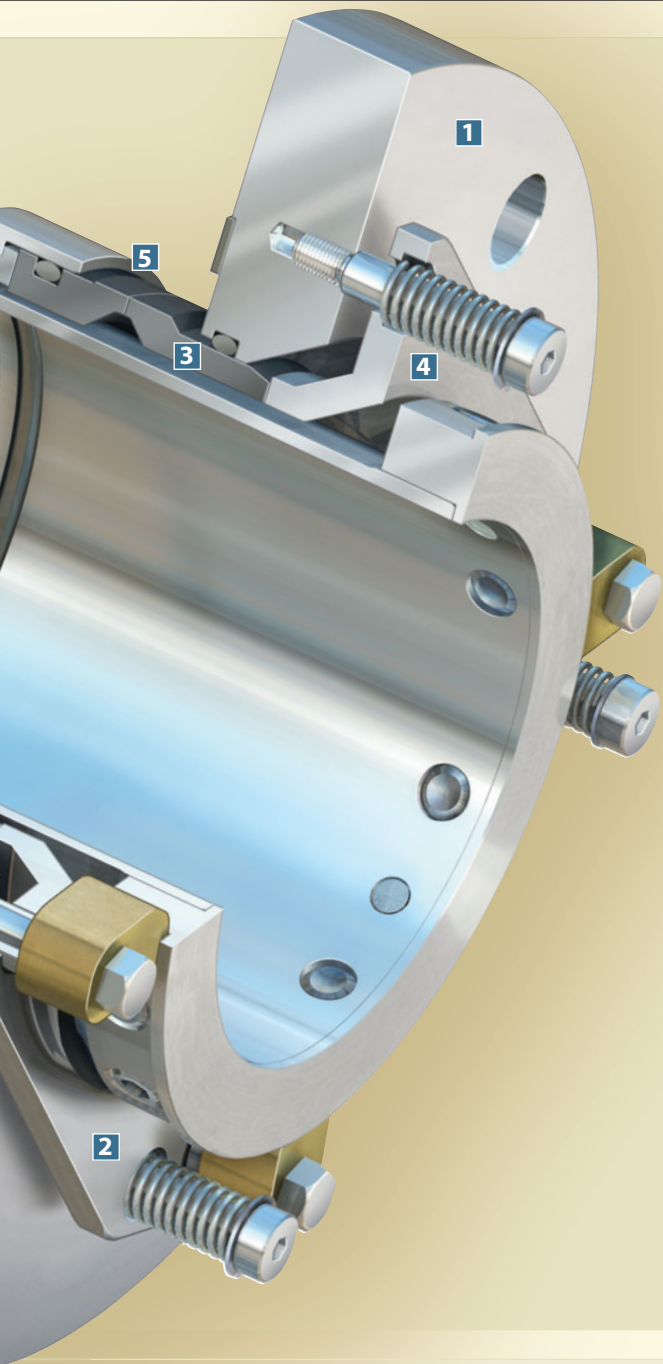
The abrasive slurry operating environment along with low water dilution requirements creates an aggressive sealing challenge. The 170 meets this challenge by integrating multiple high performance slurry design features. These features combined with Chesterton's local service will deliver unparalleled slurry handling performance levels.

Slurry seal performance features:

- Non-clog pressure plate design
- Micro-polished O-ring surfaces
- Line-to-line hydraulically balanced seal faces
- Optimal spring rate
- Simple durable design
- High-strength drive mechanisms

**APPLICATIONS:** Ore processing, steel, Flue Gas Desulfurization (FGD), phosphate slurry, coal slurry, effluent transport, waste sludge, aggregate processing, and transport





## Features and Benefits

### 1 Simplified, robust design

Greater reliability is achieved in harsh slurry environments by eliminating small parts and clearances prone to clogging, wear, or dewatering.

### 2 External pressure plate design

No internal seal clogging due to slurry migration at the interface. The large multi-coil springs are mounted entirely outside the seal. Rugged, multiple springs can be easily viewed and cleaned.

### 3 Micro-polished surfaces

Micro-polished O-ring surfaces reduce O-ring drag and spring hysteresis. O-ring hang-up is virtually eliminated, maintaining evenly distributed face loads and consistent face tracking.

### 4 Optimized spring rate

Unlike conical spring designs, the coil springs provide extended axial movement capabilities, thereby controlling face loads and improving equipment performance in slurry handling.

### 5 Slurry handling faces

Hydraulically balanced line-to-line faces are designed to eliminate wiping of solids between the seal faces. Conventional face designs can drag solids between the interface, causing damage from scoring.

### 6 Enhanced drive mechanisms

The engineered drive lug design eliminates the wear associated with pins. Repair is made more efficient by eliminating pin replacement.

### Standard Offerings

Size Range	1.5" (38 mm) – 9" (228 mm)
Hardware	316 Stainless Steel as standard. Other materials available upon request.
Seal Face Combination	TC/TC, SSC/TC, SSC/SSC
Spring	C-276
O-rings	EP, FKM, and Aflas™ as standard. Other materials available upon request.

### Operating Parameters

Operating Speed	Up to 3600 RPM
Pressure Rating*	250 Psig (17 bar g)
Temperature	400°F (205°C)
Maximum % Solids by Weight	40%

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



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