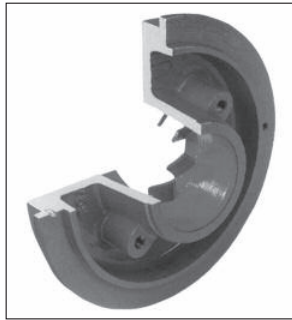


TYPE 5870

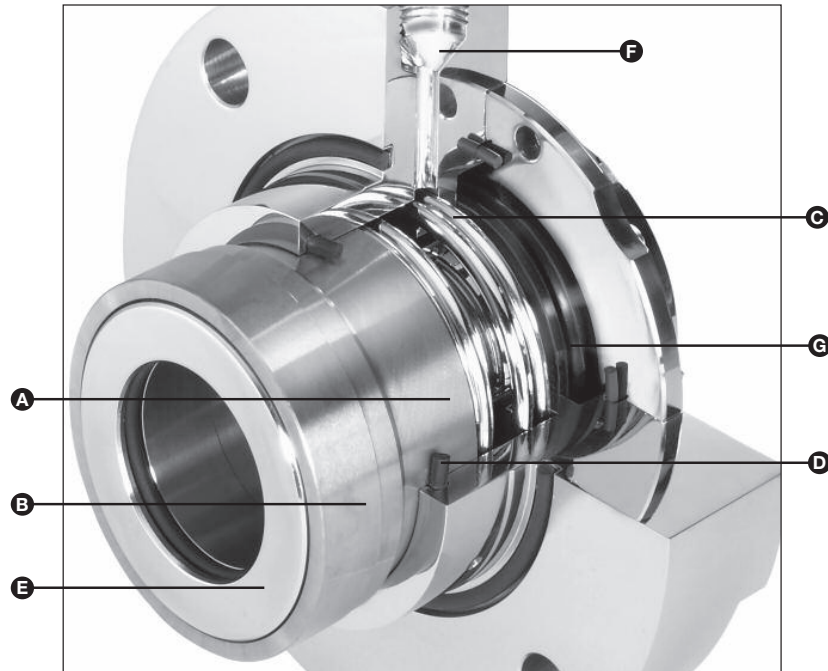
FLUSHLESS CARTRIDGE SEAL

Technical Specification

- A – Face/Primary ring
- B – Seat/Mating ring
- C – Spring
- D – Dynamic O-ring
- E – Sleeve
- F – Quench/Drain ports
- G – V-ring



Goulds Pumps TaperBore™ PLUS
Seal Chamber Patented: No. 5,336,048

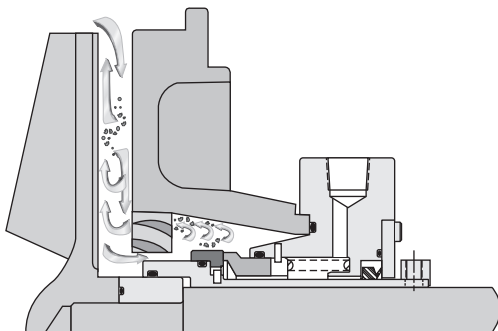


Product Description

The Type 5870 Flushless Seal is designed to operate unsupported in all paper stock consistencies and light slurry applications in Goulds Pumps' TaperBore™ PLUS with Vane Particle Ejector (VPE) seal chambers. John Crane's Type 5870 open-profile, abrasive-resistant sealing faces positioned near the impeller, allows cool running and clog-free performance.

- Goulds Pumps' TaperBore™ PLUS VPE seal chambers allow operation in up to 6% paper stock and light slurries up to 20% by weight without typical flush water seal support.
- Seal lubrication and cooling are supplied from the pumped fluids.
- Available with John Crane Diamond®.

Type 5870 Seal with TaperBore™ PLUS Seal Chamber



Performance Capabilities

- Temperature: Up to 150°C/300°F
- Pressure: Up to 21 barg/300 psig
- Particle size: Up to 5,000 micron
- Speed: Up to 11 m/s/2,200 fpm
- Axial Movement: ± 2mm/0.080"

Typical Applications

- Services: up to 6% paper stock, ash slurries, corn slurries, beer wort, sugar juice, raw sewage, slurries up to 20% by weight
- Paper stock
- Fibrous media
- General duty slurries

Available with John Crane Diamond® Technology

- Brings the features and benefits of pure diamond to mechanical seals
- Withstands abrasive, chemically-aggressive, poor-lubricating and intermittent, dry-running applications
- Reduces energy consumption and cooling requirements

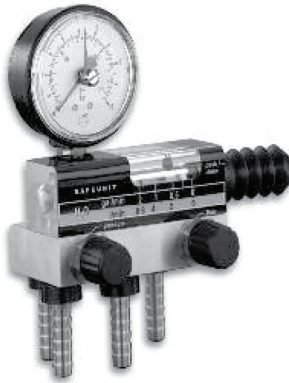


Design Features

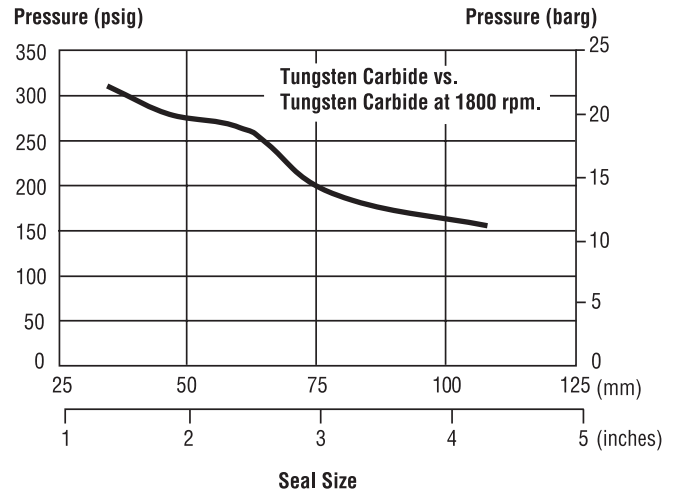
- No support required — smooth, open-profile seal faces resist clogging and receive cooling and lubrication from the pumped liquid, eliminating flush water seal support.
- TaperBore™ PLUS seal chamber — VPE ring efficiently removes fibers, solids and vapors from pumped liquid, extending Type 5870 seal reliability.
- Cartridge design — factory preassembled into a complete package and tested to ensure fast, easy installation and trouble-free startup.
- Clog-resistant — large, dynamic O-ring prevents fibers or solids from causing hang-up and limiting seal life.
- Rotating mating ring — designed for maximum cool running, higher shaft speeds and more gland-to-shaft misalignment.
- Flexible — rugged, single-coil spring, located outside of the product, allows for greater shaft motion due to cavitation, pulsations and other upset operating conditions.
- Quench connection — allows grease or water to lubricate and cool atmospheric side of seal if dry-running, cavitation or air bind operation occurs.

Quench Options

Quench water usage can be optimized and controlled with a Safeunit®. Grease quench can be automatically replenished with the grease feeder option. Contact John Crane about these quench supply options.



Pressure/Velocity Limits



Materials of Construction

SEAL COMPONENTS	MATERIALS	
Description	Standard	Options
Face/Primary ring	Solid tungsten carbide	John Crane Diamond®
Seat/Mating ring	Solid tungsten carbide	John Crane Diamond®
Gland plate assembly	316 stainless steel	—
Sleeve assembly		
Stub sleeve		
Auxiliary gland		
Collar		
Capscrews	TFE Elastomer (Aflas®)	Ethylene Propylene Fluoroelastomer (Viton®)
Spring		
O-rings	Nitrile	—

AFLAS is a registered trademark of the Asahi Glass Co., Ltd.

Viton is a registered trademark of DuPont.

Safeunit is a registered trademark of John Crane Inc.