

- 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.

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.

TaperBore PLUS is a trademark of Goulds Pumps.

Performance Capabilities

- Temperatures: up to 150°C/300°F
- Pressures: up to 21 bar g/300 psig
- Particle Size: up to 5,000 micron
- Speeds: up to 11 m/s/2200 fpm
- Axial Movement: ± 2mm/0.080"

Typical Applications

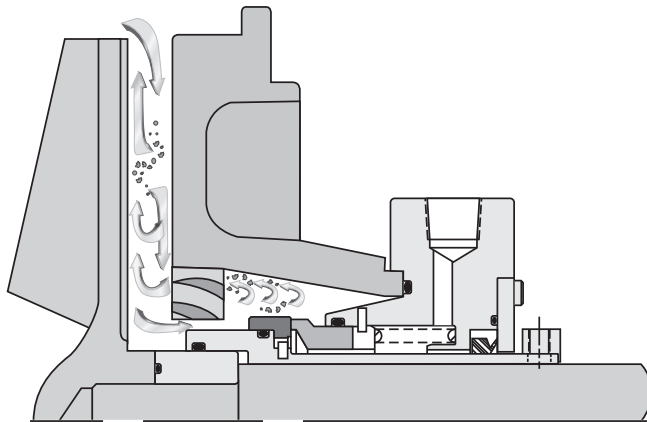
- Services: up to 6% paper stock, ash slurries, corn slurries, beer wort, sugar juice, raw sewage, slurries up to 20% by weight.
- Paper stock
- Fibrous media
- General duty slurries

- 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.

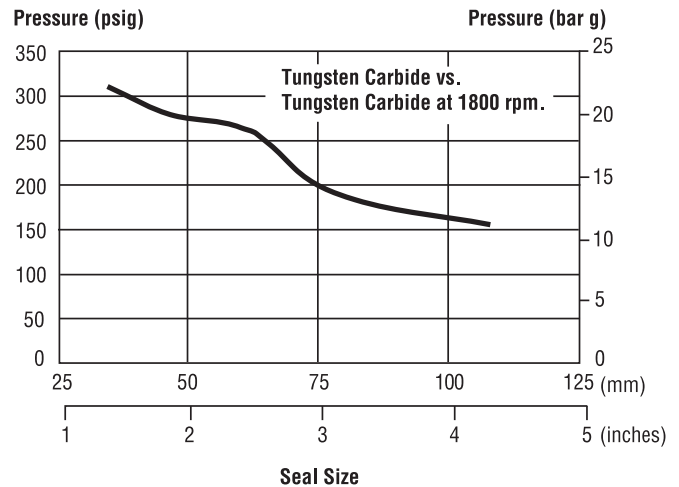
TYPE 5870

FLUSHLESS CARTRIDGE SEAL

Type 5870 Seal with TaperBore™ PLUS Seal Chamber



Pressure/Velocity Limits



Consult John Crane Engineering for higher speeds and other equipment applications.

Materials of Construction

SEAL COMPONENTS	MATERIALS	
	Standard	Options
Face/Primary Ring	Solid Tungsten Carbide	—
Seat/Mating Ring	Solid Tungsten Carbide	—
Gland Plate Assembly Sleeve Assembly Stub Sleeve Auxiliary Gland Collar Capscrews Spring	316 Stainless Steel	—
O-Rings	TFE Elastomer (Aflas®)	Ethylene Propylene Fluoroelastomer (Viton®)
V-Ring	Nitrile	—

Aflas is a registered trademark of Asahi Glass.
Viton is a registered trademark of DuPont.
Safeunit is a registered trademark of John Crane Inc.

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.



North America
United States of America
Tel: 1-847-967-2400
Fax: 1-847-967-3915

Europe
United Kingdom
Tel: 44-1753-224000
Fax: 44-1753-224224

Latin America
Brazil
Tel: 55-11-3371-2500
Fax: 55-11-3371-2599

Middle East & Africa
United Arab Emirates
Tel: 971-481-27800
Fax: 971-488-62830

Asia Pacific
Singapore
Tel: 65-6518-1800
Fax: 65-6518-1803

If the products featured will be used in a potentially dangerous and/or hazardous process, your John Crane representative should be consulted prior to their selection and use. In the interest of continuous development, John Crane Companies reserve the right to alter designs and specifications without prior notice. It is dangerous to smoke while handling products made from PTFE. Old and new PTFE products must not be incinerated. ISO 9001 and ISO14001 Certified, details available on request.