

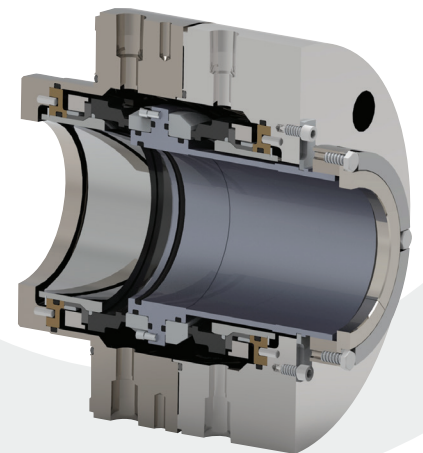
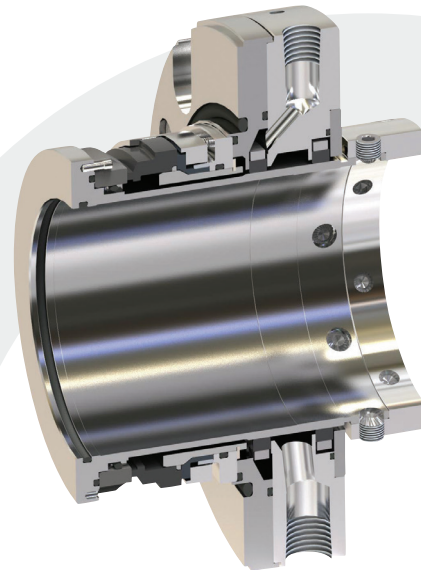


Type 8648VRS

Non-Pusher Elastomer Liquid Hydrocarbon Pipeline Seal

Features & Benefits

- **Increased Mean Time Between Repair (MTBR):**
Unique patented Non-Pusher Secondary Seal (NPSS) technology prevents wear to the sealing diameter and prevents secondary seal hang-up.
- **Engineered for Multiple Applications:**
Available as a single, dual pressurised, or non-pressurised seal arrangement.
- **Designed for Challenging Applications:**
 - Balanced design and construction, including anti-extrusion ring, permitting use on higher pressure pipelines.
 - Rotating mating ring design enhances cooling and permits use at higher shaft speeds
 - Optimised technical solutions for difficult liquid hydrocarbon pipeline applications



A Pipeline Seal For Challenging Applications

Long distance hydrocarbon pipeline operations with multiple, unmanned and/or remote pumping stations, mean that in certain regions, many pipeline pumps rely on single mechanical seals to prevent leakage. The Type 8648VRS, non-pusher elastomer mechanical seal is available for crude oil and light hydrocarbon pipeline applications. Where a single seal is not suitable, John Crane offers the Type 8648VRS in either a dual pressurised or non-pressurised arrangement with a range of NPSS enabled seals.

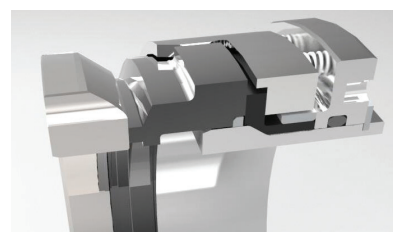


Type 8648VRS

Non-Pusher Elastomer Liquid Hydrocarbon Pipeline Seal

The Type 8648VRS enables pipeline operators to increase the reliability and operational uptime for between-bearing pumps, to significantly reduce operational costs. By allowing operation without the potential for secondary seal problems the 8648VRS provides longevity and reliability even in the most difficult hydrocarbon pipeline applications. Additionally, it provides proven equipment integrity from fugitive emissions by reducing the potential for secondary seal leakage with equipment age. The Type 8648VRS can be configured as a single seal, a dual pressurised or non-pressurised arrangement, and is also available with a dual bushing setup for the 66A or with secondary containment seals to enhance containment.

The Type 8648VRS is available in two versions for crude oil and light non-flashing hydrocarbons with viscosity nominally above 0.65 specific gravity. For crude oil applications, hard faces are used to handle the higher viscosity fluids and high torque applications, as well as abrasive wear resistance.



Performance Capabilities

Temperature	Pressure	Speed
-4° to 400°F/-20° to 204°C	Dynamic pressure (single seal): Up to 1,500 psig/100 barg (crude) 1,300 psig/90 barg (non-crude) Dynamic Pressure (dual seal): Up to 1,750 psig/120 barg (crude) Static Pressure Up to 2,200 psig/152 barg (crude) 2,000 psig/138 barg (non-crude)	5,000 fpm/25.3 m/s (crude) 6,000 fpm/31.5 m/s (non-crude)



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Tel: 44-1753-224000

Latin America

Brazil
Tel: 55-11-3371-2500

Middle East & Africa

United Arab Emirates
Tel: 971-481-27800

Asia Pacific

Singapore
Tel: 65-6518-1800

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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 of PTFE. Old and new PTFE products must not be incinerated. ISO 9001 and ISO 14001 Certified, details available on request.

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