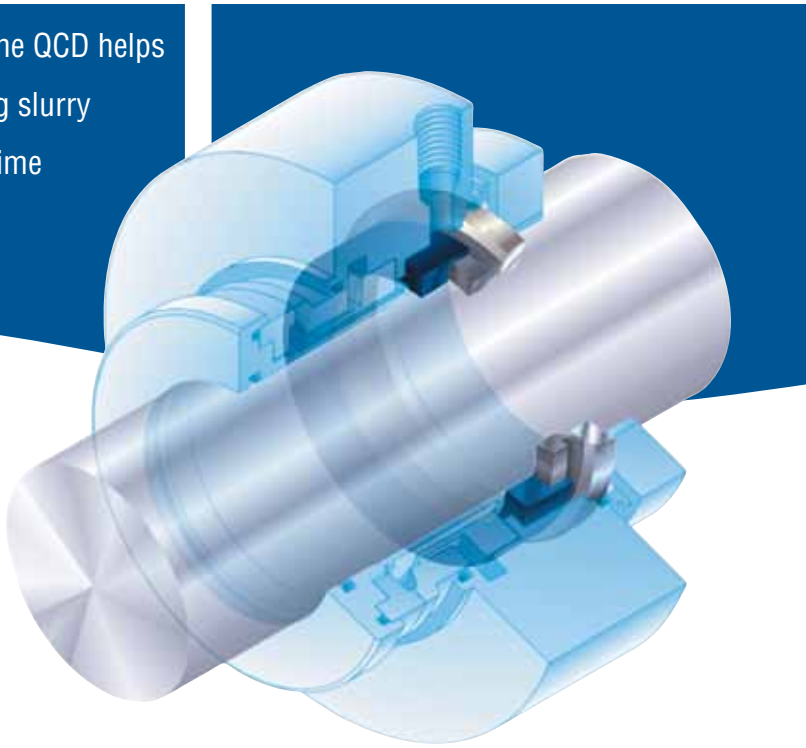
QCD

Quench Containment Device

Used in conjunction with a Flowserve Seal, the QCD helps quench fluid protect seal faces in dry running slurry applications to improve equipment's Mean Time between Planned Maintenance (MTBPM).



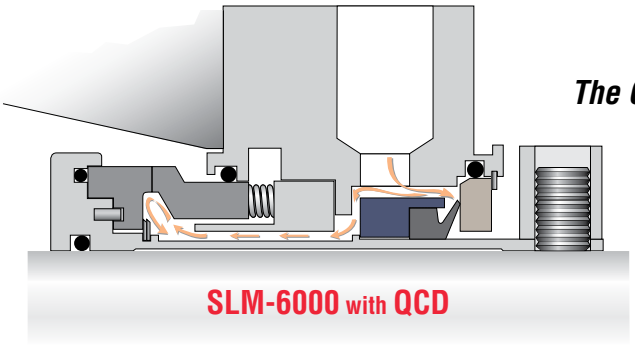
Purpose

Equipment cavitation, air ingestion, starved suction, or improper venting can cause a mechanical seal to run dry and damage seal faces, resulting in leakage and potential seal failure. The hard carbide face material combinations required in single flushless seals for abrasive services are subject to thermal distortion, severe heat checking, galling, seal face fracture and eventual seal failure when operated dry. The use of a liquid (water) or synthetic lubricant quench on the atmospheric side of a seal in rugged slurry services can greatly minimize seal face damage from dry running.

Traditional mechanical seal quench arrangements allow fluid to escape past the clearance between the shaft and the seal gland. This can cause bearing contamination and a housekeeping problem while wasting significant quantities of the quench fluid. If the equipment shaft, face insert and gland cavity are not immersed in the quench fluid, atmospheric side buildup can occur from contaminants-crystallizing or scaling products. Also, this may allow air to enter the process and create a dry running operating condition for the faces when a vacuum is present.

Features and Benefits

- QCD containment of the quench fluid directs necessary lubrication to the seal faces, reduces dry running effects
- Housekeeping benefit - helps quench fluid dissolve and wash away contaminants - crystallizing, or scaling products found in the process fluid that migrate across seal faces
- Operation benefit - quench fluid provides added cooling to the seal chamber area for process fluids that are close to their vaporization point.



SLM-6000 with QCD

The QCD can greatly improve your equipment MTBPM

With the QCD, quench fluid is contained within the seal cavity, improving mechanical seal face performance and reducing quench fluid consumption.

Materials of Construction

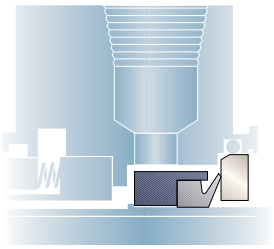
Sintered silicon carbide
Fluoroelastomer (V-ring primary)
Nitrile (Lip seal primary)
other materials available as required

Operating Parameters

Shaft Size	25 - 235 mm (1.000 - 9.250 inch)
Maximum Quench Pressure	35 kPa (5 psi)
Maximum Surface Speed	17 m/s (3300 fpm)
Maximum Shaft Speed	3600 rpm < 89 mm (3.500 inch) shaft
	3000 rpm < 105 mm (4.125 inch) shaft
	1800 rpm < 178 mm (7.000 inch) shaft
	1500 rpm < 213 mm (8.375 inch) shaft
	1360 rpm < 235 mm (9.250 inch) shaft
Temperature	-40 to +121°C (-40 to 250°F)

Available in V-Ring or Lip Seal Configuration

The addition of the unique rotating elastomer V-ring includes one component sealing axially against the stationary face insert to contain the quench fluid.



The Lip seal configuration features only one stationary component sealing radially against the rotating seal sleeve to contain the quench fluid.

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