

RO

A simple, proven and rugged design with dependability that has made it a favorite choice of maintenance personnel for over 40 years to seal ANSI chemical pumps. Heavy cross sections of the rotary components resist high levels of corrosion. Utilizing a simple rugged open rotary unit design, aggressive, abrasive and viscous fluids can be sealed easier than with other ANSI seal types that incorporate shrouded spring rotaries. The open rotating spring compression unit imparts a turbulent flow pattern of the process fluid or barrier fluid to aid in keeping solids from packing up around the seal faces and improves in removal of seal face generated heat. The RO series is available off the shelf in standard configurations for all of the popular chemical pumps offered today.

Features/Benefits

- **Rotating Seal Ring** —

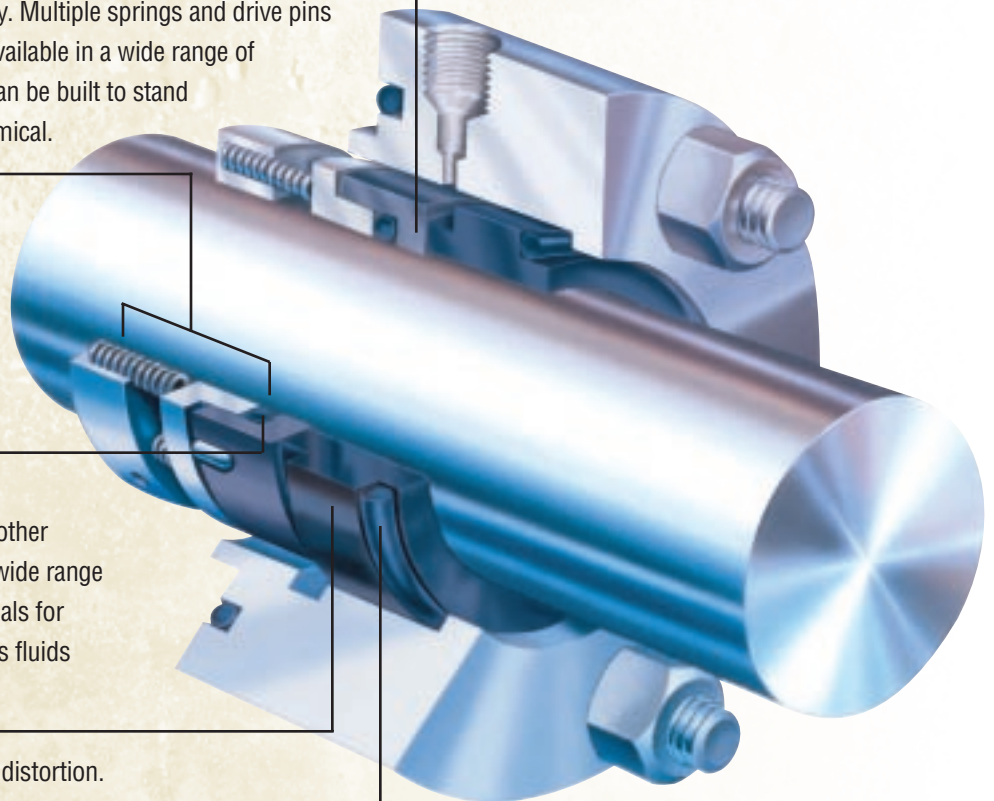
Self centers around the shaft independent of compression unit. Designed to withstand the harsh physical demands of cyclic operation or continuous duty. Multiple springs and drive pins evenly distribute the load. Available in a wide range of materials; in fact, this part can be built to stand up to nearly any known chemical.
- **Compression Unit** —

Sturdy, robust design. Built to perform in aggressive, even abrasive, fluids. Available in any machinable metallurgy.
- **Shaft Packing** —

Completely interchangeable materials without changing other components. Available in a wide range of configurations and materials for compatibility with all process fluids and process temperatures.
- **Stationary Insert** —

Flexibly mounted to prevent distortion.
- **Insert Mounting** —

Dimensionally interchangeable for versatility in secondary seal material selections.



Operating Parameters

- Maximum Pressure: Up to 300 psi (20 bar)
- Temperature: cryogenics to 500°F (260°C)
- Speed: Up to 4500 fpm (23 mps)

Available Materials of Construction

Metal Components:

304, 316 or 20 Stainless Steel
Monel
Hastelloy B or C
Titanium
Nickel
Tantalum

Seal Rings / Inserts:

Tungsten Carbide
Silicon Carbide
Peramic
Durchrome
Bronze
No. 5 Carbon

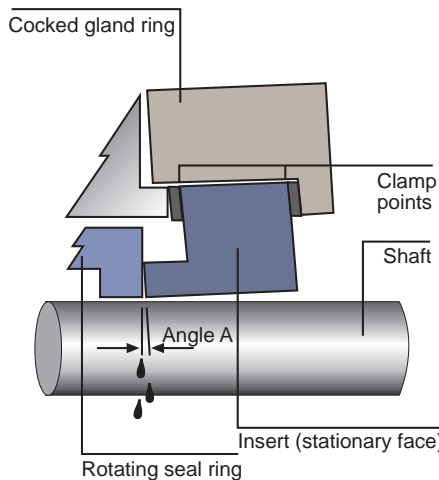
**Secondary Seals
(shaft packing and insert mounting):**

Elastomers
Viton
Buna N
Ethylene Propylene
Rubber (EPR)
Kalrez

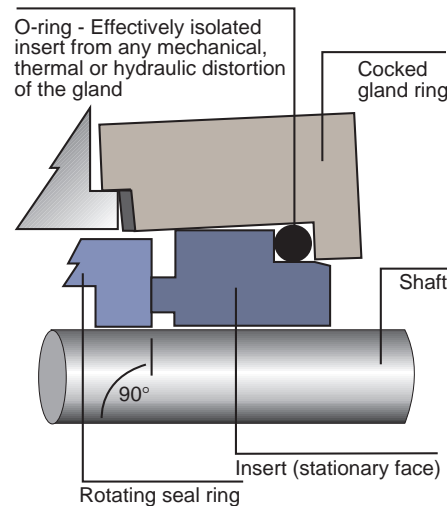
Ethylene Propylene
Terpolymer (EPT)
Neoprene

PTFE
Duraflon V-rings
Duraflex (use only as
insert mounting)

Here's how the RO seal self-compensates for any installation misalignment or gland irregularities



With a clamped insert, a cocked gland ring can cause seal faces to misalign (angle A) and leakage can occur.



With Flowserve's flexibly mounted insert, the gland ring can be cocked and the insert remains square with the axis of the shaft.

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Primary Worldwide Flow Solutions Division Locations

Licensees, authorized agents, and affiliated companies located worldwide.

United States	Canada	Netherlands	Argentina	Australia
Kalamazoo, MI Phone 616-381-2650 Fax 616-381-8368	Edmonton, Alberta Phone 780-463-7958 Fax 780-450-1241	Roosendaal Phone 31-165-581400 Fax 31-165-552622	Villa Martelli Phone 54-11-4790-6800 Fax 54-11-4709-7072	Marayong NSW Phone 61-2-8822-7100 Fax 61-2-9679-7511
Singapore	Mexico	Brazil	Japan	Germany
Phone 65-746-4318 Fax 65-747-1963	Tlaxcala Phone 52-2-461-6791 Fax 52-2-461-6847	Sao Paulo Phone 55-11-4066-8600 Fax 55-11-4066-7014	Osaka Phone 81-720-85-5571 Fax 81-720-85-5575	Dortmund Phone 49-231-6964-0 Fax 49-231-6964-248