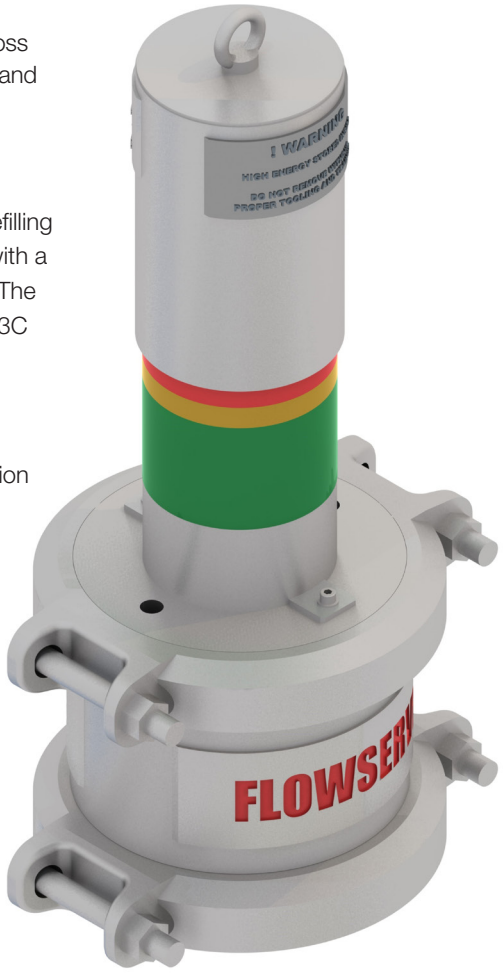
N53C
General Industry Piston Accumulator

Simplified design minimizes maintenance and installation costs

The N53C piston accumulator from Flowserve provides optimal lubrication for dual pressurized mechanical seals to promote long seal life and equipment reliability across a broad range of applications. It's designed to be easy to install, simple to operate, and requires minimal maintenance.



No complex instrumentation

The only maintenance required for the N53C piston accumulator seal system is refilling the barrier fluid. The top cap indicates the barrier fluid volume available, starting with a large green band for normal operation and yellow and red bands for low volume. The indicator is highly visible from a distance so technicians can quickly check the N53C piston accumulator's available volume.

Avoid costs for infrastructure

The design of the N53C piston accumulator minimizes infrastructural and installation costs. It does not require electricity, water or an external pressurizing source.

The N53C piston accumulator provides a constant supply of clean, cool and pressurized barrier fluid to the faces of the dual mechanical seal. When the seal chamber pressure is below the minimum pressure required for the seal, the internal spring provides the required minimum pressure for proper seal operation.

Flowserve has designed the N53C piston accumulator to meet the ASME B31.3 process piping standard, and all parts in contact with the process fluid are built from 316 stainless steel for superior corrosion resistance.

Industries and applications

The N53C piston accumulator handles a wide variety of process fluids, making it ideal for general industry services as well as pulp and paper manufacturing, chemical processing and power generation.

It's also designed for use in non-critical oil and gas applications, including tank farm transfer pumps.

Customer benefits

- Self-energizing design does not require utilities or infrastructure.
- Simple to operate; refilling the barrier fluid reservoir is the only maintenance required.
- Highly visible indicator alerts technicians when refilling barrier fluid reservoir is needed.

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Spring-energized piston maintains pressure

The N53C piston accumulator is designed for general industry applications where utilities are not available or can be eliminated to reduce costs. The self-energizing design of the unique wet seal system operates without electricity, water or an external pressurization source because:

- A spring-energized piston maintains a minimum pressure to the dual mechanical seal when the equipment is idle.
- When the equipment starts and pressure builds in the seal chamber, a reference line from the seal chamber enables the N53C piston accumulator to boost the pressure to the dual mechanical seal and establish the required pressure differential.
- The N53C piston accumulator will always maintain a positive pressure differential for proper operation of the dual mechanical seal.

Design features

- ASME B31.3 standard
- 316 stainless steel wetted parts
- High-visibility indicator for barrier fluid volume
- 0.5 in NPT process connections

Operating parameters

- Minimum pressure differential: 1.4 bar (20 psi) at 0 psi reference line pressure
- Maximum design working pressure: 40 bar (580 psi)
- High working volume: 5 L (1.35 gal)
- Temperature range: -17°C to 82°C (1.4°F to 180°F)

Certifications

- Standard CRN (Canada)
- Optional PED (2014/68/EU)

Headquarters
Flowserve Corporation
5215 North O'Connor Blvd.
Suite 700
Irving, Texas 75039-5421 USA
Telephone: +1 937 890 5839

USA and Canada
Kalamazoo, Michigan USA
Telephone: +1 269 381 2650

Europe, Middle East, Africa
Etten-Leur, The Netherlands
Telephone: +31 765 028 200

Asia Pacific
Singapore
Telephone: +65 6544 6800

Latin America
Mexico City
Telephone: +52 55 5567 7170

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