



682 Seal Coolers



Experience In Motion

682 Seal Coolers



Increase mechanical seal reliability and MTBR

Mechanical seals play a vital role in a facility's operation; a seal failure can significantly impact plant operations. By cooling the process/barrier fluid temperature surrounding the seal, facilities can benefit from increased seal reliability, extended mean time between repairs, and reduced maintenance and replacement costs.

Flowserve's 682 Seal Cooler family uses "shell and tube" systems with optimized baffling that lowers the fluid temperature passing through the tubing while minimizing scaling and fouling of the water passing through the shell. Compatible with single or dual mechanical seals, 682 Seal Coolers are utilized as standalone units or part of a comprehensive piping plan package.

Fully compliant with API 682 4th edition

The entire line of Flowserve 682 Seal Coolers is fully compliant with API 682 4th edition standards. While many suppliers claim their seal coolers are compliant with the API 682 standard, not all products meet the specifications.

With Flowserve's 682 Seal Cooler family, you'll be confident that you can meet or exceed the demanding requirements of the industry's most comprehensive standard.

Features and benefits

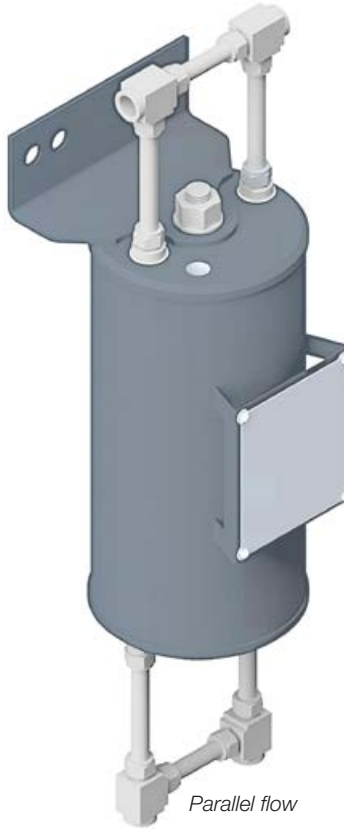
- Preconfigured series and parallel tubing flow path connections simplify ordering and shorten lead times.
- Each unit is delivered factory hydrotested to API 682 4th edition.
- Total drainage and venting for both shell and tube makes installation and commissioning easy while enhancing efficiency and maximizing performance.
- 316 stainless steel tube provides superior corrosion resistance.

Three models. Three feature sets. All compliant.

Flowserve 682 Seal Coolers are available in three models, allowing customers to balance performance, costs and maintenance requirements.



Series flow



Parallel flow



Series flow

682L Seal Cooler

The 682L Seal Cooler is our most cost-effective option for applications requiring less cooling or heat transfer. It has a welded shell and is available in a series flow, single-coil configuration.

Materials of construction:

- Tubing: 316 stainless steel
- Fittings: 316 stainless steel
- Shell: 304 stainless steel

Design parameters:

- Tube: 200 bar @ 371°C (2,900 psi @ 700°F)
- Shell: 20.6 bar @ 100°C (300 psi @ 200°F)

682M Seal Cooler

The 682M Seal Cooler is our mid-level option, ideal for operations that want to balance cost with ease of maintenance. Maintenance teams can disassemble the unit in the field for easy cleaning and inspection. The 682M Seal Cooler is available in series or parallel flow configurations.

Materials of construction:

- Tubing: 316 stainless steel
- Fittings: 316 stainless steel
- Shell: Painted carbon steel
- O-rings: Fluoroelastomer

Design parameters:

- Tube: 255 bar @ 371°C (3,700 psi @ 700°F)
- Shell: 15.8 bar @ 150°C (230 psi @ 302°F)

682H Seal Cooler

The 682H Seal Cooler is our most advanced option, ideal for operations requiring the highest reliability, corrosion resistance and performance, and the lowest maintenance costs. The unit has multiple internal baffles to maximize heat transfer and can be disassembled in the field for easy cleaning and inspection. It is available in series or parallel flow configurations.

Materials of construction:

- Tubing: 316 stainless steel
- Fittings: 316 stainless steel
- Shell: 316 stainless steel
- O-rings: Fluoroelastomer

Design parameters:

- Tube: 255 bar @ 371°C (3,700 psi @ 700°F)
- Shell: 20.5 bar @ 150°C (300 psi @ 300°F)

Note: Pressure and temperature ratings can vary, depending on the shell or tube connections. Contact your Flowserve representative for more details.



Model numbers

Example:	Model	Series or parallel coil	Tube connection type	Shell connection type	Process connection
682LSNN0000	682L	S	N	N	0000
682MPFF0600	682M	P	F	F	0600
682HSFN0600	682H	S	F	N	0600

Model: 682L, 682M, 682H

Flow: S (series), P (parallel)

Tube connection: N (NPT), F (flange)

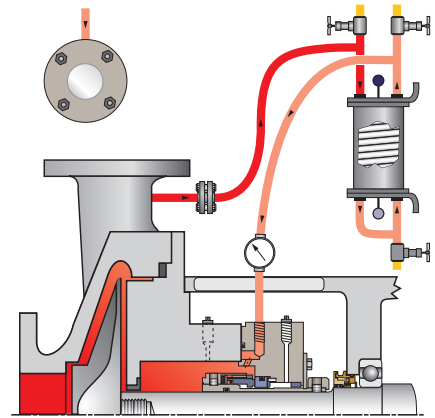
Shell connection: N (NPT), F (flange)

Process connection: 0000 (NPT), 0600 (flange)

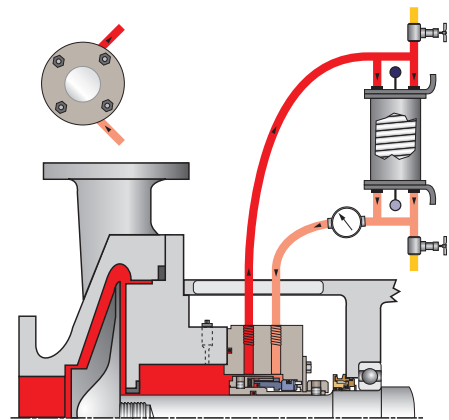
Add “-P” for Pressure Equipment Directive (PED) 2014/68/EU.

Add “-U” for ASME U-stamp required.

Note: Not all configurations are available on all models.



682HSNN0000 shown in a Plan 21



682HPNN0000 shown in a Plan 23

Flowserve Corporation
5215 North O'Connor Blvd.
Suite 2300
Irving, Texas 75039-5421 USA
Telephone: +1 937 890 5839

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.

©2020 Flowserve Corporation. All rights reserved. This document contains registered and unregistered trademarks of Flowserve Corporation. Other company, product, or service names may be trademarks or service marks of their respective companies.

SSFLY000072-02 (EN/AQ) August 2020