Chesterton® Heat Exchanger Sealing Reliability Program

A Complete Solution

The design and function of heat exchangers present one of the most difficult sealing applications in a plant. The wide range of operating conditions subject heat exchangers to severe thermal cycling and hydrostatic pressures. These tough conditions make it difficult to achieve a tight seal on the bolted flange joints.

Chesterton offers a Complete Solution for heat exchanger sealing that focuses on:

- Selecting the proper gasket
- Optimizing bolt loading
- Maintaining gasket sealing stress
- Improved performance of anti-seize

Expertise for Maximum Reliability

We analyze the unique operating parameters of each heat exchanger application to provide an engineered sealing system that will improve plant efficiencies and reduce total operating costs. We help your team to:

- Meet current fugitive emissions and environmental regulations
- Control leakage and product loss while minimizing safety and housekeeping concerns
- Reduce unscheduled downtime
- Simplify maintenance requirements with a plant standardization program

Our Customized Program Offers

- In-plant survey of heat exchangers and other critical flanges
- Complete engineering review of fluid compatibility, pressure, and temperature capabilities; gasket sealing stress; and bolted connections
- Comprehensive training programs for product selection, installation, and proper bolting techniques
- Logistics and planning support

Flange Live Loading Systems: Advanced Sealing Technology for a Leak-Free® Heat Exchanger Seal

Chesterton’s live loading program combines proven Chesterton sealing technologies to provide all-around advanced reliability. Used together these technologies have a proven record of leak-free* bolted flanged connections. They optimize bolt loading to maintain gasket sealing stress above the minimum level required, providing significant improvement in sealing reliability. This sealing program is ideal for all heat exchanger applications, especially those subject to vibrations, pressure surges, and the effects of thermal cycling. Contact your Chesterton representative for warranty details.

Flange Disc Springs

Manufactured from aerospace corrosion-resistant steel used for jet engines and steam turbines—applications where high temperature and vibration are present—our flange discs offer improved performance over more common flange disc materials. Chesterton Flange Live Loading can provide dramatic improvements in sealing performance and service life.

Steel Trap™ Metal/Graphite Gaskets

Steel Trap provides improved performance at minimum gasket seating stress for the greatest margin of reliability. It is the ideal replacement gasket in problem applications such as heat exchangers and other critical flanges.

Corrosion-Resistant Anti-Seize

Chesterton anti-seize compounds are engineered to lubricate threaded fasteners for easy assembly and disassembly, and to provide accurate and consistent bolt tension.

*Leak-free is defined as leakage ≤ 500 ppm during a 3 year period.
Flange Sealing Solutions

Our sealing specialists work with customers around the world across a broad range of applications and in all industries to implement engineered flange sealing solutions. Our Flange Live Loading sealing technologies and programs will help you achieve your plant’s goals to improve reliability, meet emissions regulations, and improve plant efficiencies while reducing overall costs.

Chesterton offers innovative flange sealing solutions for high pressure, high temperature applications, as well as a full line of general service gaskets that provide optimized performance while promoting plant standardization.

Chesterton solutions for a wide range of stationary equipment including:

- Heat exchangers
- ANSI/DIN/JIS pipe flanges
- Evaporators/condensers
- Chillers
- Crystallizers
- Valve bonnets
- Manhole
- Handhole
- Gage glass

Global Solutions, Local Service

Since its founding in 1884, the A.W. Chesterton Company has successfully met the critical needs of its diverse customer base. Today, as always, customers count on Chesterton solutions to increase equipment reliability, optimize energy consumption, and provide local technical support and service wherever they are in the world.

Chesterton’s global capabilities include:

- Servicing plants in over 113 countries
- Global manufacturing operations
- More than 500 Service Centers and Sales Offices worldwide
- Over 1200 trained local Service Specialists and Technicians

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