



Sealing for a safer and greener tomorrow

DATA CENTER GASKET SOLUTIONS



TEADIT® Gasket Solutions for Data Center

Cooling Systems. Power Systems. Sealing Systems.

As data centers continue to expand in scale and complexity, TEADIT® leads the industry with advanced sealing technologies that support reliable, energy efficient infrastructure. Our comprehensive portfolio of engineered products are designed to meet the demanding requirements of both next generation cooling systems and critical power generation applications, delivering dependable performance in environments where uptime is essential.

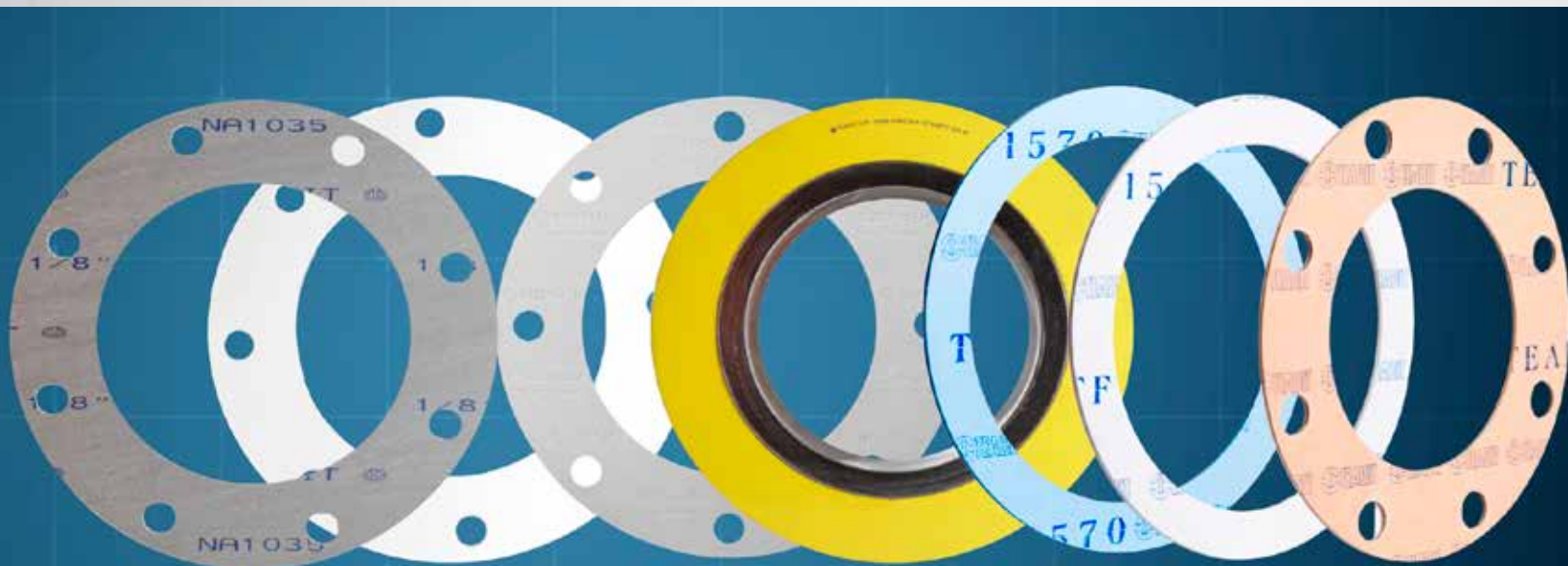
From engineered sealing solutions for liquid cooling circuits to high performance products capable of withstanding the extreme temperatures and pressures found in power generation equipment, TEADIT® combines engineering expertise with proven materials technology to address the industry's most demanding challenges. Every solution is designed to maximize operational reliability, reduce the risk of leakage, and support long service life, helping operators improve efficiency while protecting critical assets.

Explore our application focused sealing solutions below to identify the ideal TEADIT® gasket for your data center cooling and power generation systems.



Applications

- Liquid Cooling Systems
- Cooling Distribution Units (CDUs)
- Heat Exchangers
- Chillers
- Pumps & Valves
- Backup Power Generation
- Fuel & Exhaust Systems
- Pipe Flanges



Technology Cooling and Fluid Water Systems

Cooling Infrastructure Requires Zero Tolerance for Leaks

As liquid cooling becomes the preferred approach to supporting AI and high-density computing operations, facility water systems and technology cooling systems will require seals that deliver advanced performance to keep data centers running.

Technology Cooling Systems (TCS) deliver coolant directly to IT equipment, removing heat from high-density servers and AI hardware, while Facility Water Systems (FWS) transport chilled water between cooling equipment and the TCS. The mechanical design of liquid cooling systems introduces unique sealing requirements. Every connection within a liquid cooling circuit presents a potential leak path, making sealing performance a critical design consideration.

High-density polyethylene (HDPE) piping and lightweight stainless steel manifolds are increasingly specified to reduce installation weight and improve system efficiency, but these components typically have less flange rigidity and available bolt load capacity than metal piping systems. Sealing solutions must therefore achieve leak-tight performance at lower seating stresses while accommodating flange movement and minimizing the risk of distortion.

Typical Cooling Applications

TEADIT® provides engineered sealing solutions for the critical components that make up modern liquid cooling infrastructure, including:

- Cooling Distribution Units (CDUs)
- Facility Water Systems (FWS)
- Technology Cooling Systems (TCS)
- Chilled Water Loops
- Pumps and Valves
- HDPE and Metallic Piping Systems
- Glycol-Water Cooling Networks

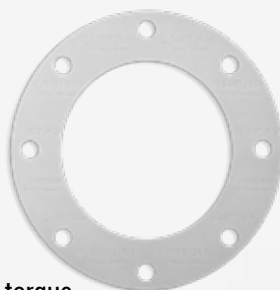
Designed to withstand continuous thermal cycling, varying pressures, and exposure to water and glycol-based coolants, our gaskets help preserve joint integrity while minimizing the risk of leakage throughout the cooling circuit.

Recommended TEADIT® Solutions

TEADIT® 24SH

Expanded PTFE gasketing:

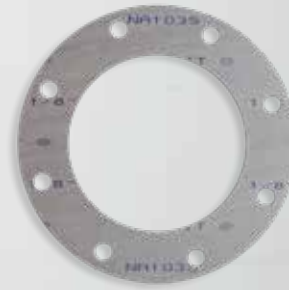
- 100% chemically inert
- High compressibility
- Recommend for raised and full face flanges
- Conforms to irregular surfaces
- Seals non-metallic flanges at lower torque
- Ideal compatibility with Ultra-Pure Water (UPW) loops



TEADIT® NA 1035

Compressed fiber gasketing:

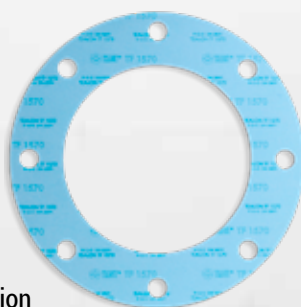
- Reliable performance in utility services
- Water and glycol compatibility
- Cost-effective solution for cooling loops
- Excellent compressibility, recovery, flexibility and good anti-sticking properties for easy removal
- Thermal cycling resilience
- Protection against galvanic corrosion
- Ideal for use in air ducts, industrial dampers and neutral gas seals



Tealon® TF1570

Premium PTFE gasketing:

- Outstanding creep resistance
- Suitable for metallic and non-metallic flanges
- Universal coolant and chemical compatibility (pH 0-14)
- Protection against galvanic corrosion



TEADIT® NA 1081

Compressed fiber gasketing:

- High torque retention & creep resistance
- Formulated with a premium Nitrile (NBR) rubber binder
- Water and glycol compatible



Engineering Benefit: Reduced leakage risk, lower maintenance costs, and improved cooling system reliability.

Power Generation & Energy Resilience

Protecting Critical Backup Power Systems

Beyond thermal management, reliable power generation infrastructure is equally critical to maintaining continuous data center operation. Increasingly, facilities are incorporating on-site generation, microgrids, and standby power systems to improve resilience and support growing computational demands. These assets operate under sustained high temperatures, pressure fluctuations, vibration, and rapid thermal transients that require sealing materials capable of maintaining long-term joint integrity.

TEADIT® provides engineered sealing solutions for power generation equipment, including gas turbines, diesel generators, fuel cells, exhaust systems, piping, and heat recovery applications. Designed for demanding operating conditions, our materials withstand prolonged exposure to elevated temperatures while maintaining sealing performance during both continuous operation and rapid start-up events.

Typical Power Applications

TEADIT® provides engineered sealing solutions for the critical components that make up modern power generation systems, including:

- Emergency Diesel Generators
- Natural Gas Turbines
- Fuel Systems
- Exhaust Systems
- Heat Recovery Systems
- Auxiliary Boilers
- Steam Systems
- Cooling Water Pumps

As data centers adopt alternative fuels and lower-carbon energy technologies, TEADIT® sealing solutions also support applications involving hydrogen and hydrogen-blended fuel systems, helping ensure reliable operation across evolving power generation infrastructure.

Recommended TEADIT® Solutions

TEADIT® 913M

Spiral wound gaskets:

- Exceptional blowout resistance
- High-temperature capability
- Excellent torque retention



- Manufactured to ASME B16.20
- Nominal Pipe Size and Pressure Class
- Country of Origin
- Manufacturer's Name

- Winding and Filler Material
- Inner Ring Material
- Gasket Traceability Number

Kammprofile 942

High-recovery gasketing:

- Engineered for tightly sealing equipment and exchangers
- Ideal for thermal fluctuations



TEADIT® 2848

Low emission compression packing:

- Pumps and valves
- Low-emission performance
- Extended service life



Flange Isolation Kits

Cathodic Protection:

- Electrically isolates flanged connections
- Helps prevent galvanic corrosion
- Supports long-term reliability of cooling water systems
- Compatible with water, glycol, and utility piping applications



Engineering Benefit: Improved sealing performance under high temperatures, pressure fluctuations, and vibration, supporting dependable power generation and longer equipment life.

Lowering PUE Through Better Sealing

Small Leaks Create Big Energy Losses

Power Usage Effectiveness (PUE) remains one of the most important metrics in data center efficiency.

Poor sealing can contribute to:

Cooling Losses

- Glycol leakage
- Reduced heat transfer efficiency
- Increased pumping energy
- Chiller inefficiencies

Airflow Losses

- Hot air recirculation
- Bypass airflow
- Reduced cooling effectiveness

Reliability Risks

- Unplanned maintenance
- Equipment failures
- Increased operating expenses

Modern liquid-cooled facilities can achieve PUE values approaching 1.1 when cooling systems operate efficiently. Proper sealing helps maintain system performance and supports lower total operating costs.

Why Sealing Matters

- ⚙️ Prevent coolant loss
- ⚙️ Improve heat exchanger performance
- ⚙️ Reduce maintenance interventions
- ⚙️ Protect mission-critical uptime
- ⚙️ Support sustainability goals
- ⚙️ Lower Total Cost of Ownership (TCO)

TEADIT® Engineering Support

TEADIT® provides more than sealing products by delivering comprehensive engineering support and field services that improve joint reliability and long-term equipment performance. Our capabilities include application engineering, gasket design and material selection, flange management support, on-site technical assistance, and custom sealing solutions tailored to specific operating conditions. To provide a complete sealing package, TEADIT® also supplies complementary components, including bolting, hoses, expansion joints, and other critical joint hardware, helping simplify procurement while ensuring system compatibility and dependable performance.





Sealing for a safer and greener tomorrow



As a global leader in industrial sealing and expansion joint solutions, TEADIT® is committed to helping industries reduce leaks and minimize emissions. Our mission is to support both industrial goals and environmental responsibility, contributing to a safer, greener tomorrow.

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Since all properties, specifications and application parameters shown throughout this catalogue are approximate and may be mutually influenced, your specific application should not be undertaken without independent study and evaluation for suitability. All technical data and advice given is based on experiences TEADIT® has made so far. Failure to select proper sealing products can result in damage and/or personal injury. Properties, specifications and application parameters are subject to change without notice. TEADIT® does not undertake any liability of any kind whatsoever.

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