

THERMAL MANAGEMENT

CRITICAL COMPONENTS: HOSES & ACCESSORIES



TIPCO
TECHNOLOGIES | *Focused
Flexible
Solutions*

 **TIPCO**
e-Store

Commitment to Quality and Safety

At TIPCO Technologies, we pride ourselves on delivering exceptional fluid conveyance and sealing solutions. Our unwavering commitment to quality and safety sets us apart in the industry.

Here's how we ensure excellence in every product and service:

- **Quality Assurance:** We partner with premier suppliers to source the highest quality materials, ensuring our products meet and exceed industry standards. Our rigorous quality control processes guarantee reliability and performance in every solution we provide.
- **Safety First:** Safety is at the core of our operations. Our team undergoes comprehensive training to stay updated on the latest safety practices and proper hose assembly techniques. We adhere to guidelines set by the Hose Safety Institute and the Association for Hose and Accessories Distribution (NAHAD), ensuring our products are safe and dependable.
- **Continuous Improvement:** We are committed to continuous improvement, regularly inspecting our facilities and processes to maintain the highest standards of quality and safety. Our dedication to innovation and excellence drives us to constantly enhance our products and services.



Choose TIPCO Technologies for solutions you can trust, backed by a steadfast commitment to quality and safety. Your satisfaction and safety are our top priorities.

The TIPCO E-Store has more than just online ordering.



View spec data and order at:
shop.tipcotech.com!

- Shop based on your customer-specific pricing
- View live inventory across all TIPCO locations
- View spec data and item images
- View open orders
- View order history
- Create custom catalogs
- View invoice history
- Pay invoices online
- Request quotes



OEM Services

TIPCO works in concert with world-class manufacturers to specify and fabricate hose assemblies that meet the individual needs of all our OEM accounts. With a dedicated OEM Fabrication staff and facility, TIPCO offers:

ISO 9001-2015 Certified

- Customized Hose Assembly Kitting
- Danfoss E-Cert Distributor
- Customized Part Numbering
- Bar Coding
- Proprietary Designing
- Complete Hose Testing & Certification
- Customer Dedicated Inventory
- Vendor Managed Inventory (VMI)
- Customized Packing
- Engineering & Drawings
- Contract Manufacturing

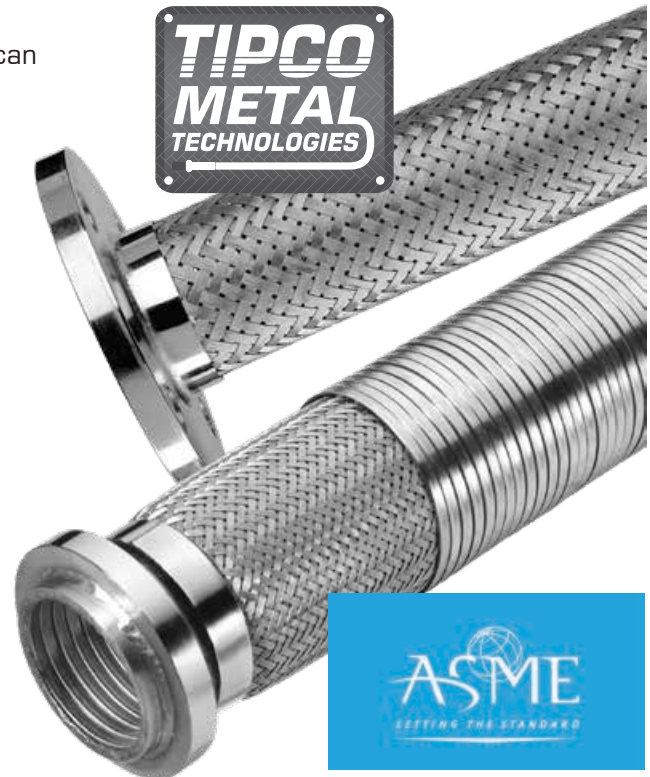


Metal Hose Fabrication

With a dedicated fabrication facility, our team of specialists can help design the perfect metal hose solution. Our capabilities include:

ASME Section IX Certified

- **Technical Support and Expertise:** Providing guidance and customized solutions.
- **Stainless Steel Hose Stock:** Available in sizes from 1/4" to 6".
- **Comprehensive Product Range:** Includes stainless and carbon steel fittings.
- **Robust Inventory:** Ensuring high-quality products to meet your project timeline.
- **Industry Standards and Certifications:** Ensuring safety and performance.
- **Top Suppliers:** Partnering with leading suppliers for quality and reliability.
- **Kit Assembly:** Offering convenient and efficient assembly options.



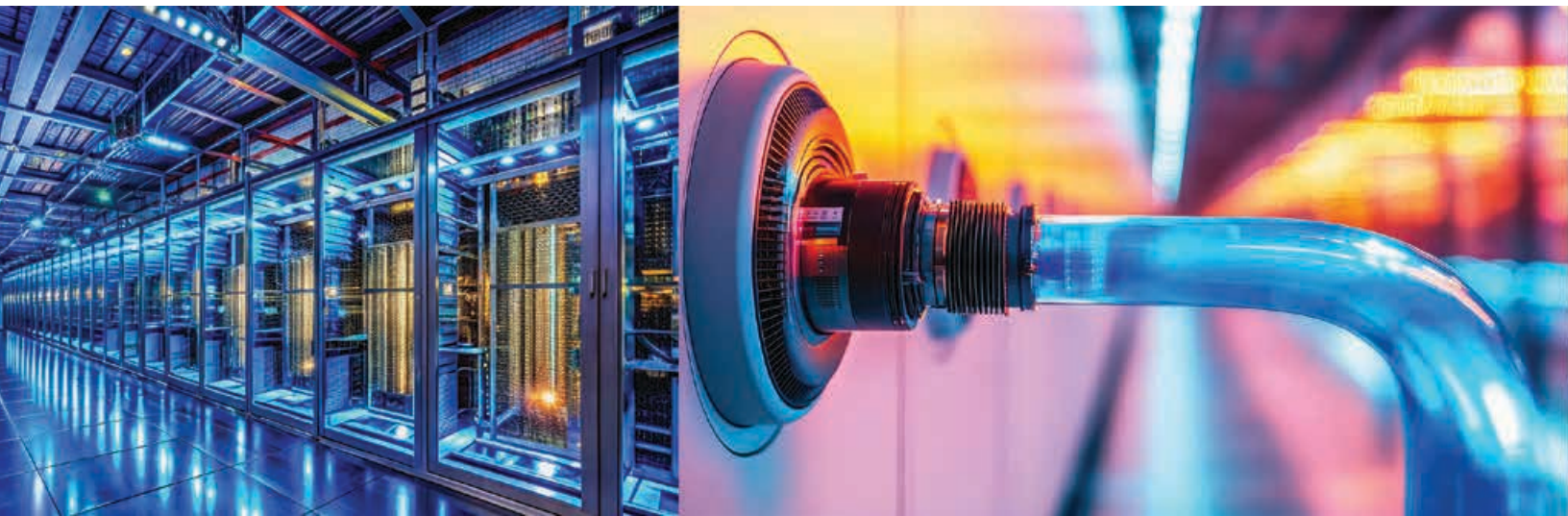
High Performance Computers and Data Centers



Rack & Door Cooling

Utilizes heat exchangers mounted on the rear doors of server racks. These exchangers remove heat from the exhaust air before it re-enters the room.

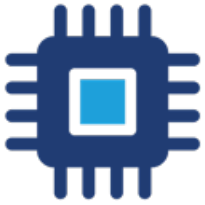
- **Hoses:** Flexible rubber or reinforced plastic hoses that can handle moderate pressure and temperature variations.
- **Couplings:** Quick-connect couplings are common for ease of maintenance and to prevent leaks. These include straight-through couplings allowing fluid to flow freely without any shut-off mechanism or single shut-off couplings that have a shut-off valve on one side to prevent fluid loss when disconnected.



Cold Plate Cooling

Liquid coolant flows through cold plates attached directly to heat-generating components, absorbing and transferring heat away.

- **Hoses:** Silicone or EPDM hoses for flexibility and resistance to high temperatures and chemicals.
- **Couplings:** High-quality quick-connect couplings are essential to ensure a leak-free system. Types include non-spill couplings designed to prevent any fluid leakage during disconnection and high-pressure couplings capable of withstanding higher pressures associated with liquid cooling.



Direct to Chip

Liquid coolant is delivered directly to the processor chips and other critical components via flexible tubes. The coolant absorbs heat directly from the chip and carries it away.

- **Hoses:** Materials like PTFE or reinforced silicone can handle high temperatures and pressures.
- **Couplings:** Quick-connect couplings are used for easy connection and disconnection. Types include push-on hose fittings that are easy to install and do not require clamps or special tools or quick-connect couplings that facilitate maintenance and scalability, ensuring robust sealing to prevent leaks.



Immersion Cooling

Electronic components are submerged in nonconductive dielectric fluid. The fluid absorbs heat and is either circulated (single-phase) or evaporated and condensed (two-phase) to dissipate heat.

Single-Phase Immersion Cooling:

- **Hoses:** Typically made from silicone or EPDM, compatible with dielectric fluids and capable of withstanding operating temperatures and pressures.
- **Couplings:** Straight-through couplings which allow fluid to flow freely without any shut-off mechanism. Single shutoff couplings that have a shut-off valve on one side to prevent fluid loss when disconnected. Double shut-off couplings that have shut-off valves on both sides to prevent fluid loss from both ends when disconnected.

Two-Phase Immersion Cooling:

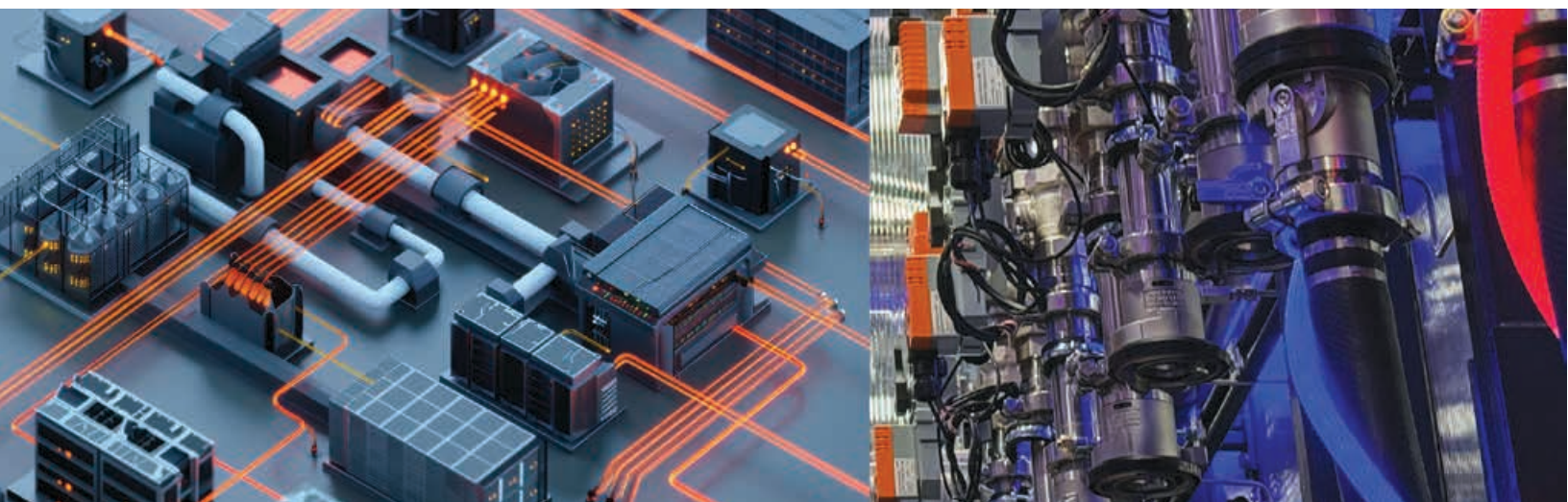
- **Hoses:** Materials like PTFE or reinforced silicone are often used to handle pressure changes associated with phase transitions.
- **Couplings:** Non-spill couplings that are designed to prevent any fluid leakage during disconnection or high-pressure couplings that are capable of withstanding the higher pressures associated with the vapor phase.



Cooling Distribution Units (CDUs)

Coolant Distribution Units (CDUs) can use both hard piping and flexible tubing, depending on specific cooling requirements, space constraints, and the need for future scalability. In many cases, a combination of both may be used to leverage the benefits of each type.

- **Hard piping**, typically made from materials like copper or stainless steel, offers excellent durability and long-term reliability. It can handle higher pressures and temperatures, making it suitable for demanding applications. Hard piping is usually installed in a fixed configuration, which can be beneficial for permanent setups but may limit flexibility for future modifications.
- **Flexible tubing** is easier to install and route through complex configurations, making it ideal for environments with space constraints. It allows for easier adjustments and modifications to the cooling system, which can be advantageous for scalable and modular data center designs. Flexible tubing can have a lower pressure drop compared to hard piping with multiple bends and fittings



Facility Cooling

Durable hoses and precision connectors engineered for reliable supply and return cooling in data centers, supporting efficient temperature control and system uptime.

- **Hoses:** Flexible rubber, metal or reinforced plastic hoses that can handle various pressures and temperature variations.
- **Couplings:** For facility cooling systems, both supply and return lines often use quick-connect couplings to simplify maintenance and reduce the risk of leaks. These connections can be straight-through designs, which allow continuous fluid flow without interruption, or single shut-off couplings, which include a valve on one side to minimize fluid loss when the connection is disengaged.



Flushing

Flushing relies on hoses and couplings to safely move high-velocity fluids through a system and create the turbulent flow needed to remove debris.

- **Heavy-duty hoses** are used to handle the pressure, flow rates, and temperature demands of the process, while secure, leak-free couplings ensure quick connections between the flushing skid, piping, and filtration equipment. Together, they enable efficient circulation, allow multiple sections to be flushed at once, and support continuous operation until the system is fully cleaned and free of contaminants.



Industrial Power / Battery Storage

Liquid cooling plays a crucial role in industrial battery storage systems, enhancing their efficiency, reliability, and safety. Liquid cooled battery storage systems are used in commercial and industrial settings to manage energy consumption, provide backup power, and support renewable energy integration.

- **Superior Heat Dissipation:** Liquid cooling systems are highly effective at removing heat from battery cells, preventing hotspots and ensuring uniform temperature distribution
- **Minimized Risk of Overheating:** Effective cooling reduces the risk of overheating, which is crucial for the safe operation of industrial battery storage systems
- **Microgrids:** Liquid cooling systems are essential for microgrids, providing energy storage and management capabilities to ensure a reliable and resilient power supply

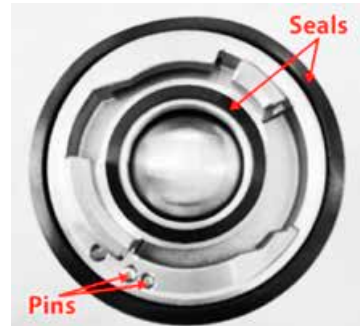
Selecting the right hoses and connectors is essential for ensuring the efficiency, reliability, and safety of thermal management systems in industrial battery storage.

- **Quick-Connect Couplings:** Easy connection and disconnection without shutting down the system, making maintenance and scalability more convenient
- **Leak Prevention:** High-quality connectors ensure robust sealing, preventing leaks that could damage sensitive electronic components
- **Chemical Compatibility:** Ensuring the hoses and connectors are compatible with the coolant used to prevent degradation and leaks.
- **Durability:** Choosing components that can withstand the operating pressures and temperatures of the cooling system
- **Ease of Installation:** Using flexible hoses to navigate tight spaces and complex configurations.





Data Center Network



Danfoss Hansen FD83 Coupling

Designed for fluid transfer and electronics cooling applications where full flow, fluid compatibility and safety are essential. The FD83 identical halves include two interlock features to eliminate spills and ensure maximum safety.

- Full flow coupling in a wide range of terminal end options
- Maintenance and service-friendly design provides reliable performance and no spillage during maintenance or service

FD83 Replacement Seals

Lip Seals - outer bumper seal

- FD83-2015-16
- FD83-2122-32

Inner Seal Replacements

- FD83-2014-16
- FD83-2121-32

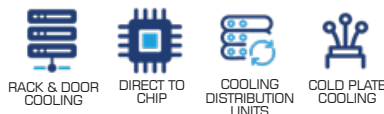


Boston by Danfoss

UL 94 V-0 rated and offering superior flexibility and kink resistance, this hose was designed to maneuver in tight spaces to simplify installation and maintenance.

Specifications:

- **Construction Tube:** Peroxide-cured Synthetic EPDM Rubber
- **Cover:** Fire retardant Synthetic EPDM Rubber in black, red, blue, and gray
- **Reinforcement:** 2-ply textile
- **Temperature Range:** -40°F to +284°F (-40°C to +140°C)
- **Available with thin-wall:** smaller diameter for improved flexibility and lower bending radius



Part Number	ID	OD	Op. Pres w/clamp	Min. Bend Radius
EHW194-04RD-250R	0.25 in	0.75 in	232	2.0 in
EHW194-06RD-250R	0.37 in	0.75 in	232	2.5 in
EHW194-08RD-250R	0.50 in	1 in	232	3.0 in
EHW194-10RD-250R	0.63 in	1 in	232	4.0 in
EHW194-12RD-250R	0.75 in	1.25 in	232	5.0 in
EHW194-16RD-250R	1 in	1.25 in	232	6.0 in
EHW194 Thin-wall (TW) provides a smaller diameter for improved flexibility and lower bending force				
EHW194TW-04RD-250R	0.25 in	1.5 in	232	1.0 in
EHW194TW-06RD-250R	0.37 in	2 in	232	1.4 in



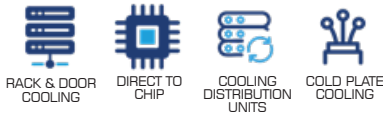
Data Center Network



Danfoss Universal Quick Disconnect (UQD)

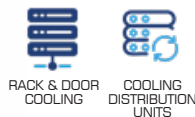
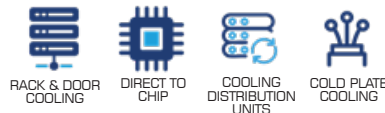
Specially designed to meet the space constraints of racks, the compact UQD socket offers the same performance while saving considerable space in the cooling system. Designed for fluid transfer and electronics cooling applications, it complies with OCP (Open Compute Project) and exceeds requirements of specified performance characteristics. Danfoss UQD offers color identification (red and blue) and guarantees 100% helium-leak testing.

- Available in 4 different sizes and 2 color options
- Push-to-connect design
- High flow and no spillage
- Double shut off - flat face valves



Danfoss Hansen Universal Quick Disconnect Blind-Mate

(UQDB) has been designed with OCP (Open Compute Project) community to set industry standard for thermal management application in data centers including direct-to-chip liquid cooling. This quick disconnect coupling is available in 4 different sizes and offers a self-alignment feature to help connect in location with limited access or visibility and guarantees 100% helium-leak testing on every coupling.



Danfoss Hansen OCP Open Rack V3 Blind Mate Quick Connector (BMQC)

Designed with OCP (Open Compute Project) community to set industry standard for thermal management applications in data centers. Danfoss BMQC offers a self-alignment feature to help connect in a location with limited access or visibility and guarantees 100% helium-leak testing on every coupling.

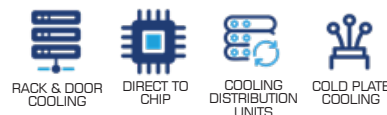
- Plug hose barb and socket orb available in size 5mm
- High flow and reduced pressure drop for improved system efficiency
- Flat-face dry break design to avoid spillage during connection/ disconnection
- Push-to-connect design



Danfoss Hansen MLDB SERIES

Stainless steel coupling is a flat face/ dry break coupling used for fluid transfer applications. The MLDB Series offers the ability to connect with less force, higher sealing performance and are available in multiple configurable end connections

- Sockets (female) and Plugs (male) available in sizes from 1/4" to 1".
- Color-coded socket rings available for 1/2" body (blue, red, yellow and green)





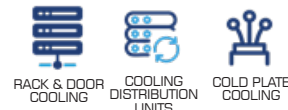
Continental's data cooling hoses are designed for various cooling applications, including direct-to-chip single-phase cooling. These advanced hoses ensure the reliable operation of sensitive electronic components by preventing overheating, malfunctions, data corruption, and hardware damage. Designed to optimize cooling efficiency, these hoses contribute to lower energy costs, reduced carbon footprints, and improved working conditions in data centers.



FlexCool Blade Reels

Designed for efficient cooling of server chips, this hose features a peroxide-cured EPDM tube and braided reinforcement for exceptional flexibility. Its lightweight construction and thin wall gauge enable easy routing, and it accommodates clamp, push-on, and crimped attachment methods. The hose also meets UL 94 V-0 and HB flame safety standards.

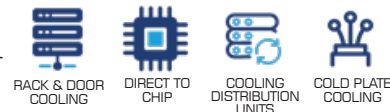
Available in sizes 3/16" and 1/4"



FlexCool Jumper

This hose transitions cooling fluid from the manifold to individual server blades, offering compatibility with crimped, clamped, and push-on attachment methods. Its peroxide-cured EPDM tube minimizes contamination risks by significantly reducing leaching compared to traditional sulfur-cured hoses. UL 94 V-0 and HB flame-rated covers provide added protection.

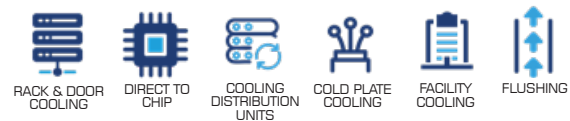
Various sizes from 3/8" to 1"



Data Guard

A kink- and twist-resistant source line hose, DataGuard is engineered to deliver a constant supply of coolant to server manifolds. It withstands extreme temperatures and features a peroxide-cured EPDM tube to protect both coolant and equipment integrity. Its cover meets UL 94 V-0 or HB flame safety standards.

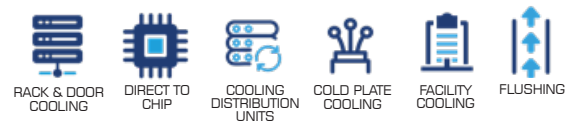
Available in UL94-HB and UL94-V0
Sizes 1," 1 1/2", and 2"



Extreme Flex

A premium, ultra-flexible and lightweight source line hose, engineered to deliver a constant supply of coolant throughout your data center. The peroxide-cured tube protects both your coolant and equipment by maintaining fluid purity. The advanced design allows for an impressive 1:1 bend radius, ensuring easy routing and installation to the server systems. Our cover is certified to UL 94 HB flame safety standards which provides peace of mind in your high-heat environments.

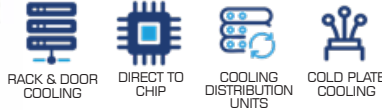
Various sizes from 3/4" to 4"





Everis® quick disconnect couplings (QDs) are designed and manufactured specifically to meet the demands for high performance in liquid cooling for sensitive and critical environments. Everis quick release couplings from CPC offer strength and durability, ease of use, and reliability. Liquid cooling system designers benefit from CPC's application-specific innovation in a number of ways:

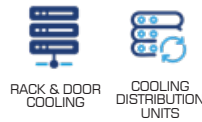
- Disconnect under pressure with no spills
- Redundant sealing when connected
- Color-coding provides instant visual difference in cooling lines
- Ultra-reliable protection from drips at disconnect even after long periods in connected state
- Enhanced latch design: easy to see orientation on manifolds and tubing
- Meets size requirements for space-constrained electronics



The Everis® LQ2 Series with 1/8" flow

The Everis® LQ4 Series quick disconnects with 1/4" flow

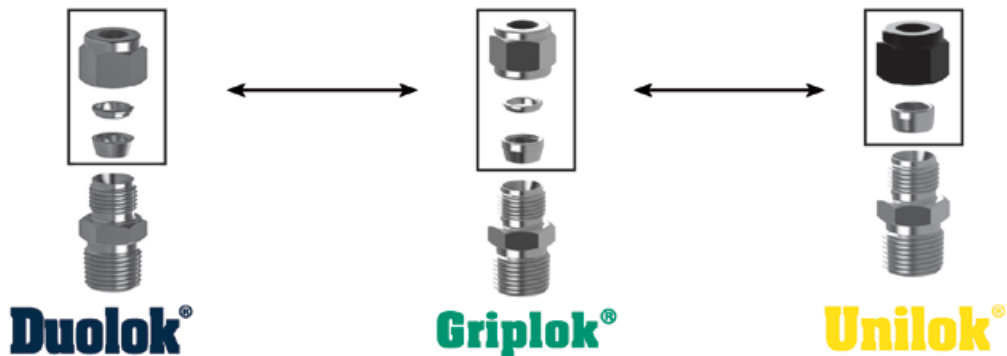
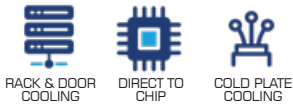
The Everis® LQ6 Series quick disconnect couplings feature 3/8" flow



The CPC Everis® UQD02 Series of quick disconnects (QDs) with 1/8" flow is great for server applications.



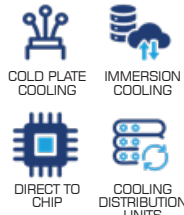
- Simple intuitive one-handed operation
- Audible click signals secure connection
- Barbed and threaded terminations suited for various tubing options including clampless locking hose barb for reinforced tubing



Duolok® tube fittings use a two-ferrule design to ensure leak-tight performance in analytical and process instrumentation applications where leak-tight performance can have a significant impact on quality, productivity and cost. They are designed and manufactured to interchange and intermix with Swagelok® and Parker A-Lok™ tube fittings.

Griplik® tube fittings use a proven dual-ferrule compression seal to provide leak-tight connections and are especially suited to applications with high vibration such as gas transmission and turbines. They are designed, manufactured, quality controlled and distributed to be totally "interchangeable" with the Hoke® Gyrolok® brand of tube fittings.

Unilok tube fittings are designed and manufactured to provide a reliable, leak-proof connection in instrumentation and process tubing systems. The single ferrule design, with the spring-like action of the ferrule during make-up, compensates for variations in tubing materials, hardness and thickness of the tube wall to provide leak-tight connections. Unilok tube fittings are designed to provide leak-tight intermix and interchange with Parker CPI™ tube fittings.



Saint Gobain Versilon™ PVDF

Versilon™ PVDF copolymer tubing offers the chemical resistance of fluoropolymer tubing with added flexibility not found in standard PVDF. Its abrasion resistance, mechanical strength and inherent high purity make it ideal for a variety of aggressive applications.

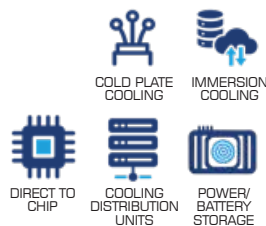
Part Number	ID	OD	Wall Thick
TSPVF8-0125-031-50	1/16 in	1/8 in	1/32 in
TSPVF8-0187-031-50	1/8 in	3/16 in	1/32 in
TSPVF8-0250-062-50	1/8 in	1/4 in	1/16 in
TSPVF8-0250-040-50	8/47 in	1/4 in	1/25 in
TSPVF8-0312-062-50	3/16 in	5/16 in	1/16 in
TSPVF8-0375-062-50	1/4 in	3/8 in	1/16 in
TSPVF8-0375-031-50	5/16 in	3/8 in	1/32 in
TSPVF8-0437-062-50	5/16 in	7/16 in	1/16 in
TSPVF8-0500-062-50	3/8 in	1/2 in	1/16 in
TSPVF8-0625-062-50	1/2 in	5/8 in	1/16 in
TSPVF8-0750-062-50	5/8 in	3/4 in	1/16 in
TSPVF8-0875-062-50	3/4 in	7/8 in	1/16 in



Saint Gobain Versilon™ C-544-A IB

More flexible than many other reinforced urethane tubing, Versilon™ C-544-A IB tubing can often be used in applications requiring a tight bend radius where other tubes have collapsed and failed. Versilon™ C-544-A IB tubing also retains much of its unique flexibility even at temperatures as low as -100°F (-73°C)

Part Number	ID	OD	Wall Thick
STG AZY02008	1/8 in	3/8 in	1/8 in
STG AZY02014	3/16 in	7/16 in	1/8 in
STG AZY02019	1/4 in	1/2 in	1/8 in
STG AZY02029	3/8 in	5/8 in	1/8 in
STG AZY02038	1/2 in	3/4 in	1/8 in
STG AZY02046	5/8 in	7/8 in	1/8 in
STG AZY02054	3/4 in	1-1/16 in	5/32 in
STG AZY02064	1 in	1-3/8 in	3/16 in
STG AZY00071	1-1/4 in	1-3/4 in	1/4 in
STG AZY00074	1-1/2 in	2 in	1/46 in
STG AZY00078	2 in	2-1/2 in	1/46 in



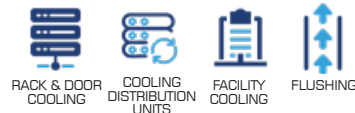
Versilon™ TS Hose

Versilon™ TS hose from Saint-Gobain is constructed with a white PTFE inner core and reinforced with 304 stainless steel braid with superior kink resistance, improved vacuum ratings, and better damage resistance. Versilon TS hose is designed with a full size internal diameter to maximize the flow rate, providing greater transfer speed, and engineered to reduce the pressure drop through the fitting area, ensuring a longer service life.

Part Number	ID	OD	Max WP (psi)	Min. Bend Radius
1602TS400	1/8 in	1/4 in	3000	1.00 in
1604TS400	1/4 in	3/8 in	3000	2.0 in
1606TS400	3/8 in	1/2 in	2500	4.50 in
1608TS400	1/2 in	5/8 in	2500	5.00 in
1612TS400	3/4 in	7/8 in	1200	9.00 in
1616TS500	1 in	1-1/8 in	800	12.00 in
1624TD600	1-1/2 in	1-3/4 in	900	18.00 in



The Right Connection®



Dixon's ZV Series Ball Valves

Used in sanitary processes when you need a valve for isolation or control of the flow of a product. Engineered for durability and easy maintenance, this valve ensures reliable operation while meeting stringent industry standards. The modular design of this valve allows for quick disassembly without removing the entire valve from the processing line.

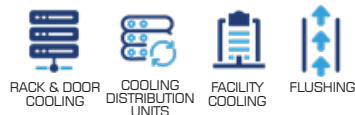
- Sizes: 1/2" – 4"
- Material: Product contact metal components: 316 stainless steel. Product contact seals: PTFE
- Standard connections: clamp or weld
- Maximum pressure
1/2" to 2": 1000 PSI WOG
2-1/2" to 4": 600 PSI WOG
- Maximum seat temperature: 400°F (204°C)
- Surface finish, Product contact metal components: ≤ 16 Ra (≤ Ra 0.4 μm)
- NOTE: Electropolishing to SF4 (≤ Ra 0.38 μm) is available.



Type 1 - Standard
1" and larger

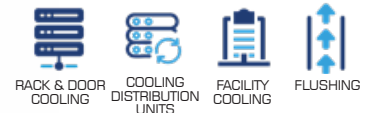


Type 1 - Standard
1/2" - 3/4"



Peroxide Cured EPDM Sanitary Gaskets

- Size: 1/2" – 6"
- Material: EPDM. Peroxide cured.
- Approvals: Gasket material approved by (3A), USDA and complies with FDA's 21CFR177.2600 and 1550

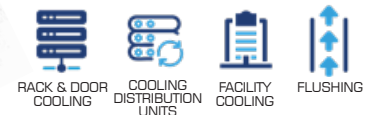


Dixon Butterfly Valves L5107

This high-performance butterfly valve is built for durability, flexibility, and ease of use. The 360° trigger sprocket allows the handle to rotate to either side without disassembly, making installation simple in tight spaces. Its compact design features consistent face-to-face dimensions across all sizes for easy integration.

A premium rubber seat, shared with Dixon's B5107-series, ensures reliable sealing and interchangeability. Hex head body bolts provide a cleaner exterior, while the lightweight polyamide handle with stainless trigger enhances durability without added weight.

- Sizes: 1" – 4"
- Temperature Range: 15F – 200F
- Construction: All product contact surfaces are sanitary finished to ≤ 32 Ra (standard)
- Seat lubricant: MOLYKOTE® 111
- Seat: FKM



150lb flange x Sanitary adapter

- Various sizes from 1 1/2" to 9"
- Vinyl Coated Polyester w/ Velcro



The Right Connection®

Dixon E-Series Hydraulic Couplings

- Straight-Through Female Threaded Couplers (brass or stainless) available in sizes 1/8"-2"
- Straight-Through Male Threaded Couplers (brass or stainless) available in sizes 1/8"-2"
- Straight-Through Hose Barb Couplers (brass) available in sizes 1/4"-1"



Features & Specifications

- Couplers have no internal valves, which provide maximum flow with minimum pressure drop
- Nitrile rubber seals are standard, providing a temperature range of -40°F to 250°F (-40°C to 121°C)



brass



303 stainless



brass



303 stainless



Dixon 13SCC-Series Clever Clamp

With its easy-to-use lever closure, it provides fast and consistent compression on both rubber and PTFE gasket connections every time. No torquing, no tools; just clamp and go!



Features & Specifications

- Available in 4 sizes: 1-1/2", 2", 3", and 4"
- Consistent compression of the gasket with every use
- Adjustable for both rubber and PTFE gasket styles
- Fast installation, no torquing tools required
- Threadless design, eliminates risk of damaged threads leading to improper tightening of the wingnut
- Lockout ready design - aligned holes in clamp body make cable locking fast and easy
- Self-locking lever and color-coding options available (red, blue, green and yellow)



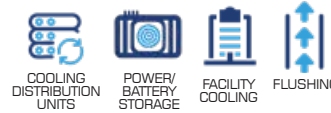
Scan to learn more about Clever Clamps



The Right Connection®

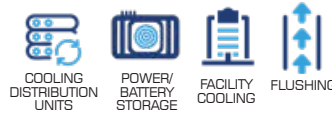
Dixon NPT Adapters

- Female NPT Adapters - 22MP: Available in a variety of sizes from 1/2"-4" in 316SS and from 1in to 4 in in 304SS.
- Male NPT Adapters - 21MP: Available in a variety of sizes from 1/2"-6" in 316SS and from 1in to 8in in 304SS



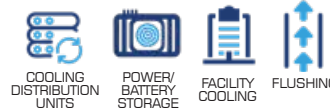
Dixon 14MPHRL SERIES Stainless Steel Clamp Fittings

- Rubber Hose Adapters - 14MPHR: Available in a variety of sizes from 1/2"-10"
- Barb Adapters - 14MPHRL: Available in a variety of sizes from 1/2"-6"



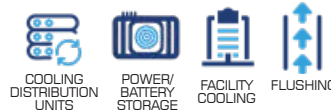
Dixon Clamp Fittings - Elbows

- 90° Clamp Elbows - B2CMP (304SS and 316LSS)
- 45° Clamp Elbows - B2KMP (304SS and 316LSS)



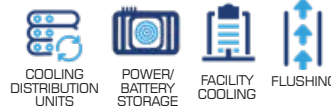
B7MP-R50 - Clamp Tee

- Short Outlet Tees - B7MPS
- Clamp Tees - B7MP
- Clamp Reducing Tees - B7RMP



I-Line Fittings

- Available in sizes 1" - 6"
- Ferrule, Adapter, Elbow, Gasket, or End Cap



Single Pin Heavy Duty Clamps with Cross Hole Wing Nut - 13MHHM1

Designed for more robust applications where higher pressure and more secure connections are needed.

- Available in a variety of sizes for tube OD from 1"-8"



Bolted Clamps - 13MHP

Ideal for high-pressure and high-temperature applications where maximum durability and reliability are required.

- Available in sizes for tube OD from 1/2"-12"

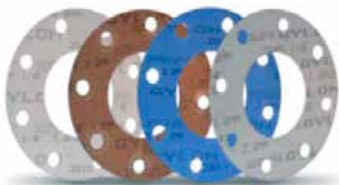




Ultrapure Water Systems (UPW) / STRESS SAVER® 3522 & STRESS SAVER® 370

Ideal for ultrapure water systems, Garlock’s 100% pure PTFE STRESS SAVER® 3522 and the PTFE encapsulated EPDM STRESS SAVER® 370 can reduce those cross-contamination risks associated with traditional flange gaskets.

- Sizes: 3/4" - 4"
- Composition: PTFE
- Gasket Type: Full Face
- Pressure Max: 1200psi
- Temperature Range: -450°F - 500°F
- Pipe Standard and Class: ASME B16.5 Class 150



Chemical Dosing / GYLON® Gaskets

Our proprietary gaskets, designed for the aggressive chemistries of semiconductor fabrication, ensure leak containment and human safety by limiting creep and cold flow, providing reliable and chemically compatible sealing solutions for environmental compliance.

- Sizes: 1/2" - 48"
- Composition: PTFE with Barium Sulfate
- Gasket Type: Full Face
- Pressure Max: 1200psi
- Temperature Range: -450°F - 500°F



GYLON® High-Performance PTFE Pipe-Flange Gaskets

Manufactured through a proprietary Garlock process, GYLON® features unique properties that minimize creep and cold flow, enhancing reliability and leak prevention while promoting increased uptime, reduced maintenance, and significant cost savings.

- Sizes: 1/2" - 48"
- Composition: PTFE with Barium Sulfate
- Gasket Type: Full Face
- Pressure Max: 1200psi
- Temperature Range: -450°F - 500°F



Chemical Handling & Distribution Systems / GYLON® Gaskets & SURE-LINK™ Pipe Expansion Joints

Garlock’s GYLON® gaskets ensure safe transport of critical process media in semiconductor fabrication by providing superior resistance to creep and cold flow for reliable sealing, while the SURE-LINK™ PTFE Expansion Joints, capable of handling high pressure and a temperature range from -100° F to 450° F, enhance bulk chemical distribution piping performance..

- Sizes: 1/2" - 48"
- Composition: PTFE with Barium Sulfate
- Gasket Type: Full Face
- Pressure Max: 1200psi
- Temperature Range: -450°F - 500°F



Chemical Exhaust Tool Hook-Up / GYLON® Style 3545 Gasket

Garlock's GYLON® 3545 is a chemical exhaust system featuring a conformable microcellular PTFE body and a rigid PTFE center layer, providing up to 70% compressibility, universal chemical compatibility, and a leak-free seal to prevent contamination from chemical-laden vapors during etching, coating, cleaning, drying, and vaporization processes.

- Sizes: 1/2" - 36"
- Composition: Microcellular PTFE with Rigid PTFE Core
- Gasket Type: Full Face
- Pressure Max: 1200psi
- Temperature Range: -450°F - 500°F



Hydronics - Central Hot and Cold Water / MULTI-SWELL® Style 3760 Gaskets

Garlock MULTI-SWELL® Style 3760 and 3760-U, NSF-61 approved for potable water systems, utilize synthetic fibers and proprietary fillers for a tight seal, enhancing water conservation in central hot and cold-water systems and industrial applications, while their controlled swell technology combats flange relaxation and offers superior compressibility and adaptability for easier installation on irregular flanges.

- Sizes : ANSI Flanges 10" or larger = Any thickness gasket up to and including 1/8" » ANSI Flanges 6" or larger = Any thickness gasket up to and including 1/16"
- Composition: Synthetic fiber sheet with a proprietary rubber binder
- Gasket Type: Full Face
- Pressure Max: 500psi
- Temperature Range: -100°F - 400°

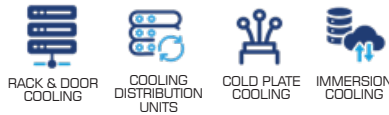
Central Thermal and Waste Systems / Style P2000 Expansion Joint

The Style P2000 expansion joint combines optimal mechanical design with the latest advancements in textiles and elastomer technology. With exceptional pressure and movement capability, this style has the versatility for applications ranging from common piping to the most critical and safety conscious. Style P2000 offers best-in-class spring rates, movement, and pressure ratings that are equal or better than that of competitor offerings, ensuring durability under extreme conditions.

- Sizes: 1/2" - 34"
- Available liner: Chlorobutyl (Standard), ABRA-LINE®, ABRA-SHIELD®, Natural Rubber, FKM (Fluoroelastomer), CSM, SURE-TEC™, EPDM, FDA EPDM, HNBR (Hydrogenated Nitrile), Nitrile, DETECTOMER® FDA Nitrile, Neoprene, FDA Neoprene.
- Tube: Chlorobutyl
- Cover: Chlorobutyl
- Body: Nylon Tire Cord
- Pressure Max: 250psi
- Temperature Max: 250

Rubber Fab

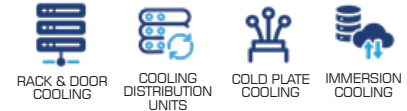
An ENPRO Company



Sock Screen Gaskets

Rubber Fab's Sock Screen Gasket is designed for large particulate filtration, featuring an extended sock-shaped mesh that offers up to 300% more open area for improved soil collection compared to conventional screens. This design provides greater flow, requires less maintenance, and reduces downtime and costly change outs in inline pharmaceutical processing, with options available for Tri-Clamp® or Camlock fittings.

- Size: 10 mesh to 325 mesh (with standard 16 mesh and 20 mesh in stock)
- Available electropolished
- Material: Durable 316 Stainless Steel with the following elastomers EPDM, Silicone, FKM Fluoroelastomer, Buna, Detectomers® Metal Detectable/X-Ray Inspectable
- Available configurations, Tri-Clamp®, Bevel Seat, Camlock



Orifice Plates

Rubber Fab's Orifice Plates can advance your system's performance, adjust flow rates, balance backflow and equalize backpressure during SIP procedures. Achievable benefits while maintaining sanitary conditions. Available with eccentric or concentric standard or metric bores. Consult factory for bore size availability and cost. Buna is standard with 1/8" concentric bore.

- Sizes: 1/2" – 6"
1/2" A80MPE-050
3/4" A80MPE-075
1" A80MPE-100
1-1/2" A80MPE-150
2" A80MPE-200
2-1/2" A80MPE-250
3" A80MPE-300
4" A80MPE-400
6" A80MPE-600
- Material: FKM Fluoroelastomer, Platinum Silicone, EPDM, Buna, PTFE (Fluoropolymer), Tuf-Steel®, Detectomer® Metal Detectable/X-ray Inspectable



Stainless Steel Weld Couplings

Weld couplings are ideal for creating permanent connection points in chilled water and liquid cooling systems, as well as in hydraulic systems for fluid reservoirs and components, with full couplings allowing for internal and external port connections and half couplings used for single-side connections.

- AISI 1020 Carbon Steel
- 316L Stainless Steel
- Thread Type: SAE, NPTF, BSPP, ISO 6149
- Full couplings, half couplings, Bevel half couplings



SAE Flanges

Frequently used in cooling systems, heat exchangers, and pumps, and often paired with flex metal hoses.

- Thread Type: SAE
- Type: O-Ring, Flat Face
- Pad Size: 0.75" – 2"
- Code: Code 6



Ball Valves

Ideal for suction, pressure and return lines.

- Construction: All stainless steel
- Available in 1000 or 2000 WOG
- Locking handles standard
- Available in NPT & SAE threads
- Mounting holes standard on SAE #16 - #32.
- NPT Sizes: 1/4" – 2"
- SAE Sizes: #4 - #32



Safety, Protection, Hose and Cable Management Solutions

Uptime is everything in data centers. But tangled cables, mislabeled hoses, and unexpected leaks can quickly escalate. That's why Brennan's RHINO product line delivers tough, industrial-grade hose accessories for identification, organization, and leak control—critical for fire suppression, backup power, and cable management applications. Built for high-demand environments, RHINO helps keep infrastructure streamlined, secure, and optimized for proper airflow.

Identification



RHINO SPIRAL GUARD™

Color-code and bundle hoses and wires in one easy step for clean, identifiable organization.

- Various sizes, available in blue, red, black and yellow
- Polyethylene
- FRAS Spiral Guard: Flame-resistant, anti-static option in black only



COLOR CODED SHRINK TUBING™

An easy, cost-effective way to identify warm vs. cold chiller hoses even when red & blue hoses aren't available.

- Various sizes
- Available in blue, black, clear, green, orange, red, white, and yellow

Organization



HANGING STRAP™

Keep hoses and cables off the ground, improving airflow and reducing trip hazards.

- Various sizes (4" to 44" Bundle Circumference)
- Nylon buckle or nickel plated



CINCH STRAP™

Keep cables and hoses locked down and organized to reduce clutter and improve airflow.

- Various sizes (4" to 44" Bundle Circumference)
- Nylon buckle or nickel plated

Leak Control



DRIP PROOF PLUG™

Stop leaks at the source with easy-to-use, secure hose plugs after disconnection.

- Available in mini, small, medium, large and mixed



BLUE VINYL WRAP™

Wraps around chiller hoses to channel leaks toward the hose ends, preventing contact with servers.

- Various sizes from 1 1/2" to 9"
- Vinyl Coated Polyester w/ Velcro



RHINO SLEEVE® HT

RHINO Sleeve® HT is designed to provide the ultimate in hose protection against hydraulic hose failure by containing pressure and fluids that may escape during a hose burst or pinhole leak.

- Various sizes from 1/4" to 6"
- Color red
- Fiberglass silicone

ONE TIPCO

People. Partnerships. Innovation.

ONE TIPCO signifies the strength and unity of our organization from coast-to-coast, driven by cutting-edge technology, strong brand identity, and forward-thinking strategies, powered by our dedicated people and partnerships, all working together to achieve excellence and innovation.

Powered By **TIPCO**

TIPCO Technologies is proudly made up of a diverse range of companies that enhance our offerings and capabilities, all powered by our unwavering commitment to quality and customer satisfaction. Each company in our family brings unique expertise and innovative solutions, allowing us to provide a comprehensive suite of products and services tailored to meet the needs of our customers. Together, we leverage our strengths to drive growth, foster collaboration, and deliver exceptional value, ensuring that our customers receive unparalleled support and the best solutions available in the industry.



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Deer Valley, AZ (Alternative)
Gilbert, AZ (Alternative)
Phoenix, AZ (Alternative)
Tucson, AZ (Alternative)

California

San Diego, CA (Charter) ISO 9001:2015
Orange, CA (Charter)
Pomona, CA (Charter)
Richmond, CA (GSI)
Rancho Cucamonga, CA (GSI)

Colorado

Denver, CO

Delaware

Wilmington, DE

Georgia

Gainesville, GA
Marietta, GA

Illinois

Elmhurst, IL (Alliance)

Idaho

Boise, ID (Alternative)

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Las Vegas, Nevada (Alternative)

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Vineland, NJ

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Tualatin, OR (A-1 Coupling)
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