



# COSMO

## HYDRAULIC INDUSTRIES

INNOVATIVE HYDRAULIC SOLUTIONS FOR A BETTER TOMORROW

Double Ferrule Fittings



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# DOUBLE FERRULE FITTING

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## **ABOUT US**

With over 15 years of proven expertise, Cosmo Hydraulic Industries stands as a trusted Indian manufacturer and supplier of high-precision hydraulic and pneumatic fittings and components for mission-critical industrial applications. We are established suppliers to Indian Railways and serve leading sectors including Oil & Gas, Steel, Defence, Infrastructure, and Heavy Engineering. Our products are engineered to deliver consistent performance under extreme pressure and demanding operating conditions. Guided by the Make in India initiative, we emphasize indigenous manufacturing, stringent quality control.

## **OUR VISION**

To represent Make in India on a global platform by delivering world-class hydraulic and pneumatic products with uncompromising quality and precision.

## **OUR MISSION**

- To promote Make in India & Vocal for Local on a global platform.
- To manufacture high-precision hydraulic and pneumatic fittings that meet international standards.
- To continuously improve through technology, process optimization, and skill development.
- To support customers with customized solutions and dependable service.

# Double Ferrule Fittings

Precision Engineered for Leak-Free Performance



## Advanced Dual Ferrule Design

The dual ferrule mechanism provides:

- Enhanced tube gripping strength
- 
- Controlled seal formation
- 
- Reduced risk of leakage and tube damage

## Key Features & Benefits

- Leak-proof and vibration-resistant connections
- 
- Superior tube grip with minimal deformation
- 
- High-pressure and high-temperature compatibility
- 
- Excellent resistance to corrosion and wear
- 
- Easy installation and reusability
- 
- Precision-machined components for consistent performance

## Applications

Hydraulic systems

Pneumatic systems

Instrumentation lines

Oil & gas industries

Chemical and process industries

Power plants and heavy engineering



# Applications & Industries Served

**Cosmo Hydraulic Industries** provides precision-engineered hydraulic and instrument fitting solutions across diverse sectors requiring high performance, reliability, and safety.

Our products are trusted by leading organizations and OEMs worldwide ensuring seamless integration in critical applications operated by trained professionals.



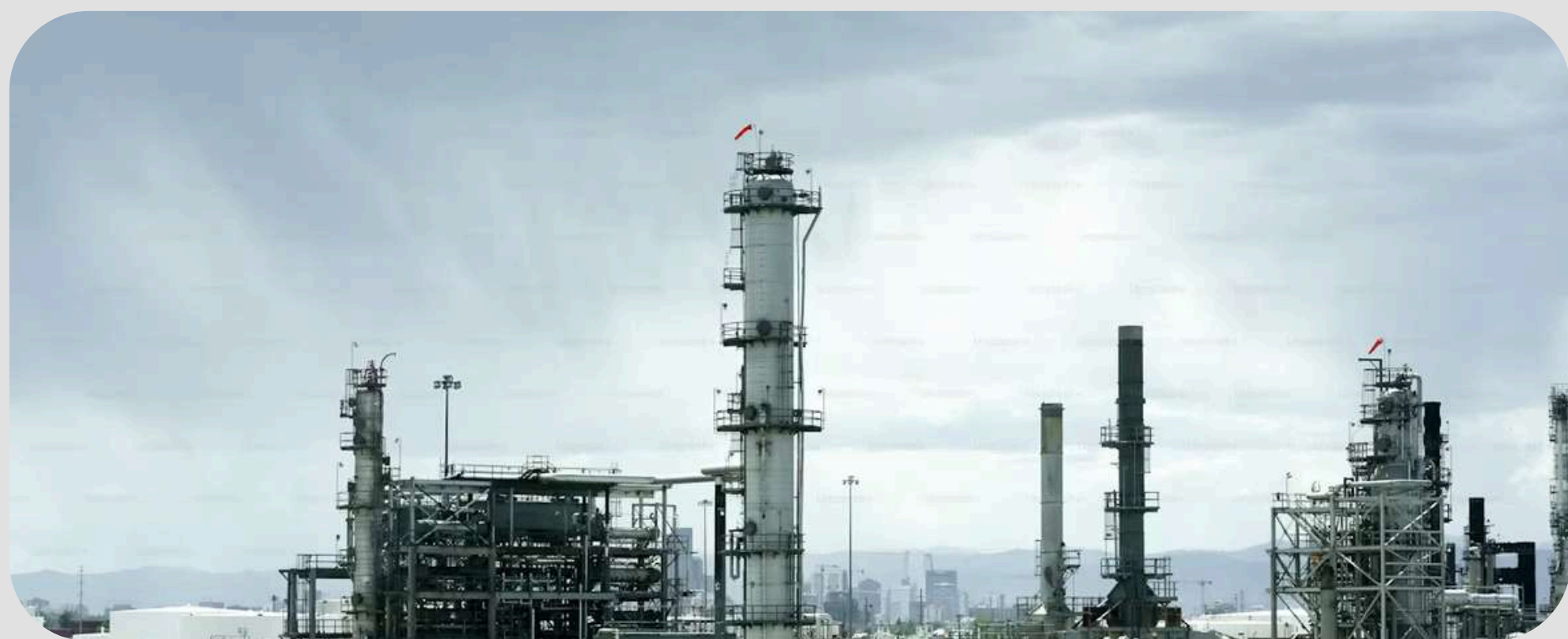
## Railways

Hydraulic and pneumatic fittings for locomotives, coaches, brake systems, and rail maintenance equipment.



## Defence and Aerospace

Specialized fittings for defense vehicles, fighterjets, naval vessels, and aerospace applications



## Oil & Gas / Refineries

High performance fittings for upstream, midstream, and downstream oil and gas operations.



## Power Plants

Precision fittings for steam, thermal, hydroelectric, and nuclear power generation facilities.



## Process Industries

Instrumentation and process fittings for chemical, pharmaceutical, and food & beverage industries.



## OEM Machinery & automations

Hydraulic & Pneumatics Equipment manufacturers

**We fulfill the demanding needs of railways, defence, oil & Gas, Power Plants, Processing plants, OEMs, Hydraulics, and automation industries with proven expertise.**

# Products



## Tube Socket Weld Elbow



Engineered for smooth flow and superior strength.

This high-performance tube socket weld elbow ensures seamless direction change with zero leakage and minimal pressure loss, even in tough conditions.

Perfect for compact installations

Size Range: 6mm to 42mm, 1/8" OD to 2" OD

Pressure Rating: Up to 670 Bar

## Port Plug

Designed for tight sealing and long-lasting reliability.

This port plug effectively closes unused hydraulic ports, preventing leaks and maintaining stable pressure in demanding conditions.

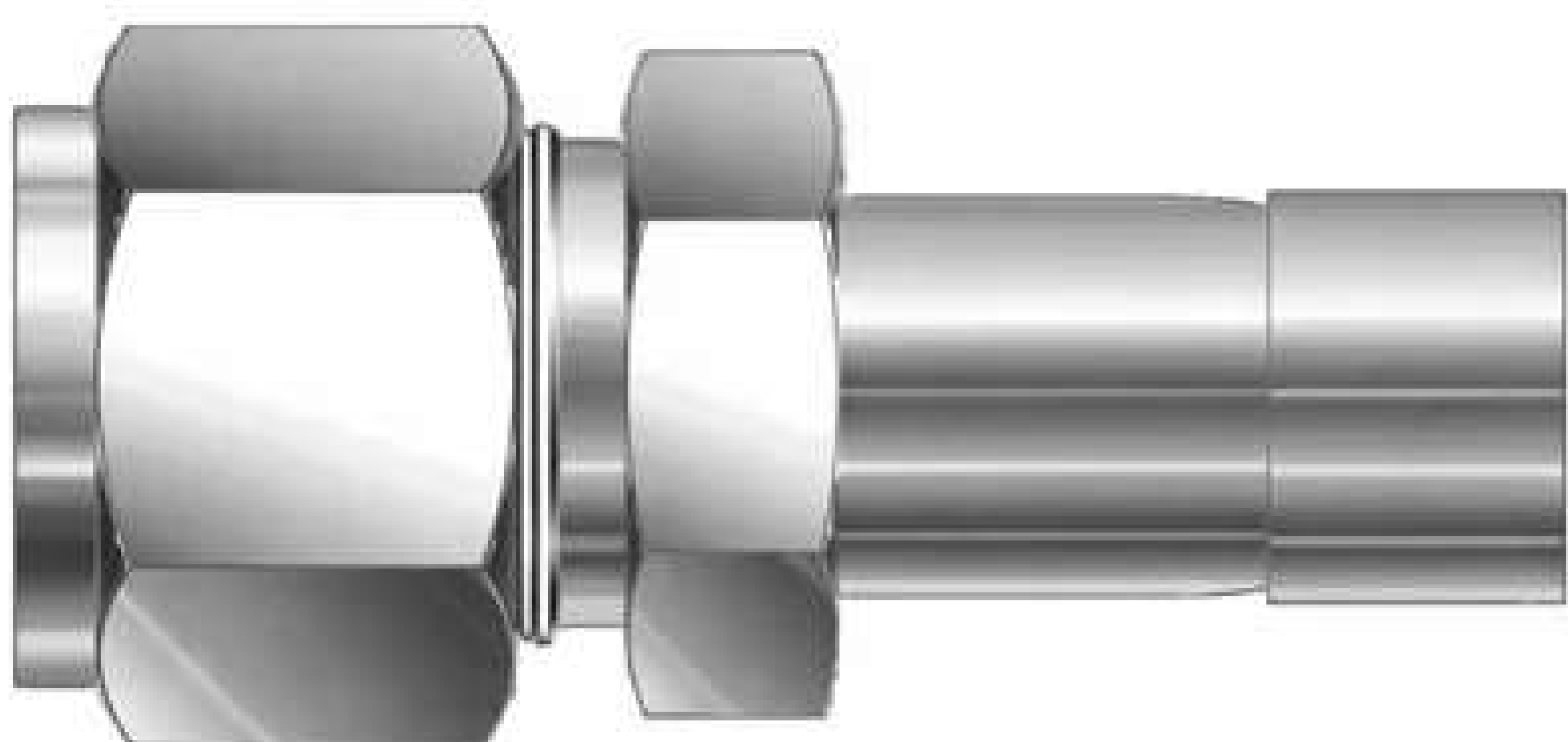
Suitable for secure port closure

Multiple size options available

Handles high-pressure applications efficiently



## Port Reducer Tube



Crafted for smooth transition and reliable performance.

This port reducer tube allows connection between different tube sizes, ensuring steady flow and maintaining system efficiency without disruption. Built tough to perform under demanding conditions.

Ideal for size conversion in hydraulic lines

Ensures consistent flow with minimal restriction

Suitable for high-pressure operations

# Products



## Port Reducer



Built for accurate compatibility and dependable sealing.

This port reducer joins mismatched openings effortlessly, maintaining uniform movement of fluid while supporting stable operation in demanding setups.

Best for connecting different port dimensions

Strong grip for safe installation

Performs efficiently under extreme load conditions

## Tube Insert

Made for firm support and precise alignment. This tube insert reinforces tubing ends, helping maintain proper shape and ensuring a secure fit within the system during operation.

Prevents tube deformation

Improves connection stability

Suitable for demanding working conditions



## Adapter Fitting



Designed for versatile connectivity and dependable performance.

This adapter fitting links different thread types or sizes, enabling smooth integration of components while maintaining system integrity under working conditions.

Enables easy connection between unlike fittings

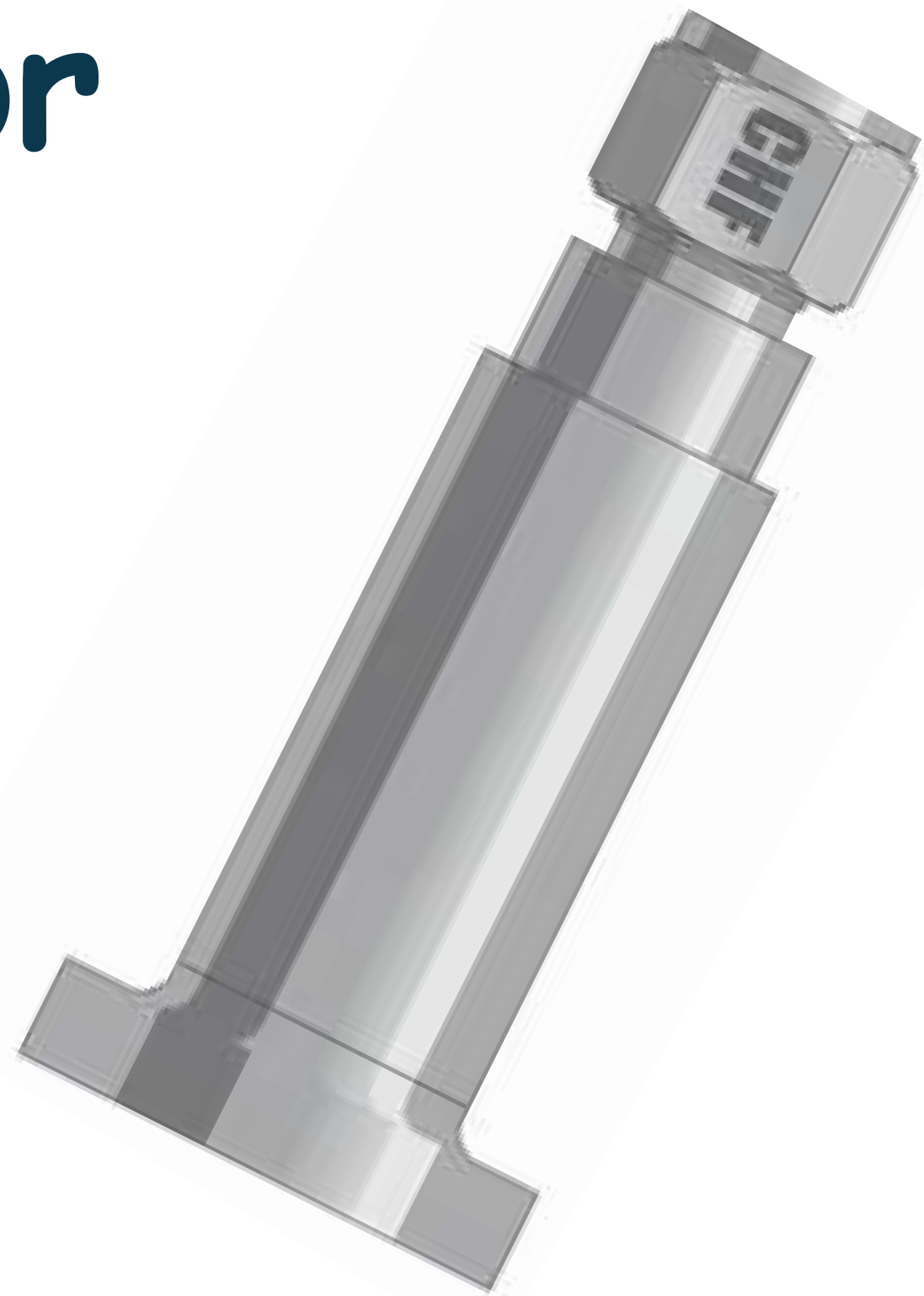
Provides stable and secure joining

Suitable for heavy-duty usage

# Products



## Lab Joint Flanges Connector



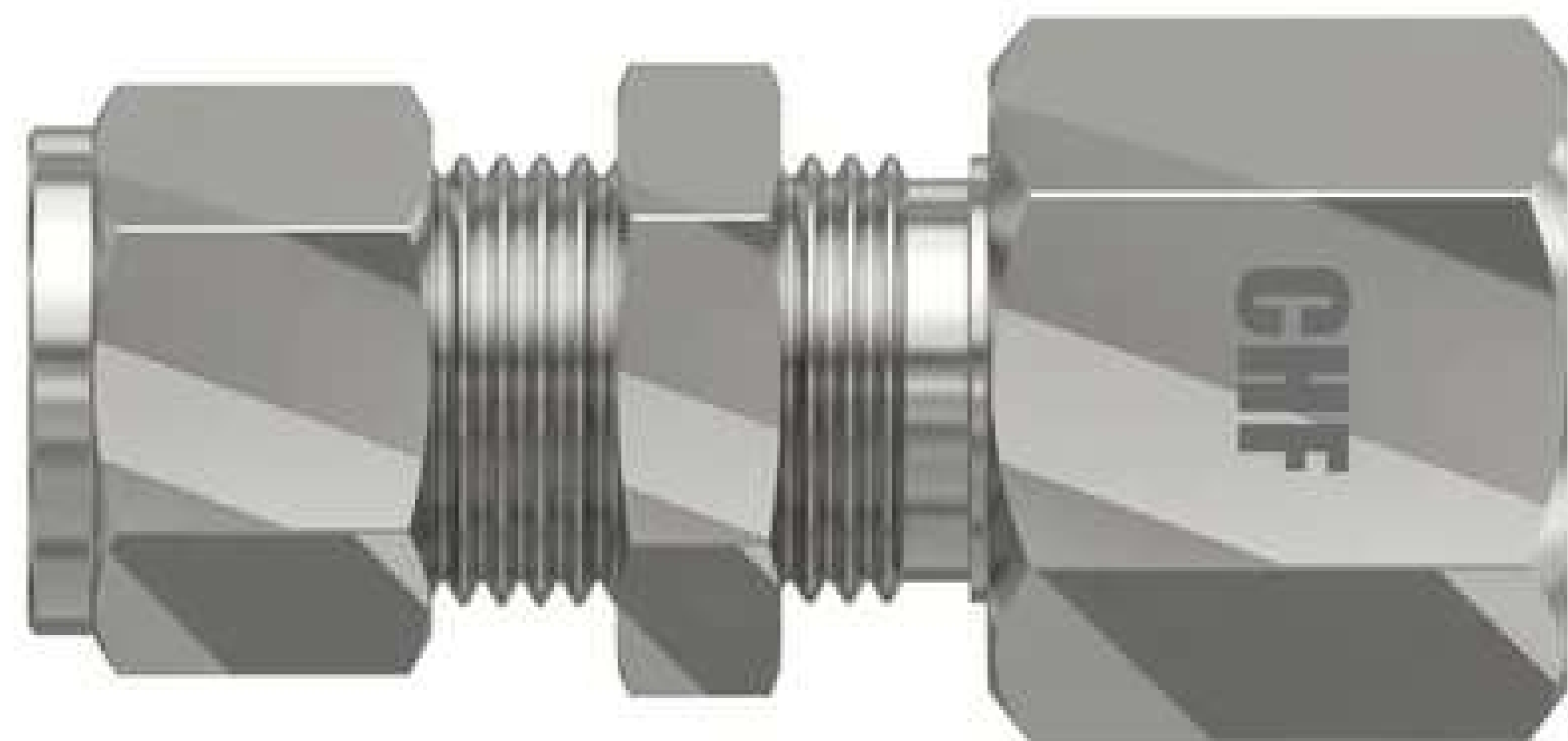
Built for strong joining and reliable alignment. This lap joint flange connector allows easy assembly and disassembly of piping systems, ensuring proper alignment and dependable support during operation.

- Simplifies installation and maintenance
- Ensures accurate pipe alignment
- Suitable for demanding industrial applications

## Bulkhead Female Npt Connector

Designed for secure panel mounting and reliable connection. This bulkhead female NPT adapter allows fluid transfer through walls or enclosures, providing a tight and dependable link between threaded components.

- Ideal for through-panel installations
- Ensures firm threaded engagement
- Performs consistently in demanding conditions



## Bulkhead Retainer



Created for firm holding and stable positioning. This bulkhead retainer keeps components securely fixed in place, ensuring proper alignment and preventing unwanted movement during operation.

- Maintains secure placement through panels
- Enhances overall assembly stability
- Suitable for tough working environments

# Products



## Flanged Adapter



Developed for robust mounting and dependable joining.

This flanged adapter provides a strong interface between components, ensuring proper positioning and reliable connection during operation.

- Ideal for flange-based assemblies
- Delivers rigid and stable support
- Handles demanding industrial usage efficiently

## Fusible Plugs

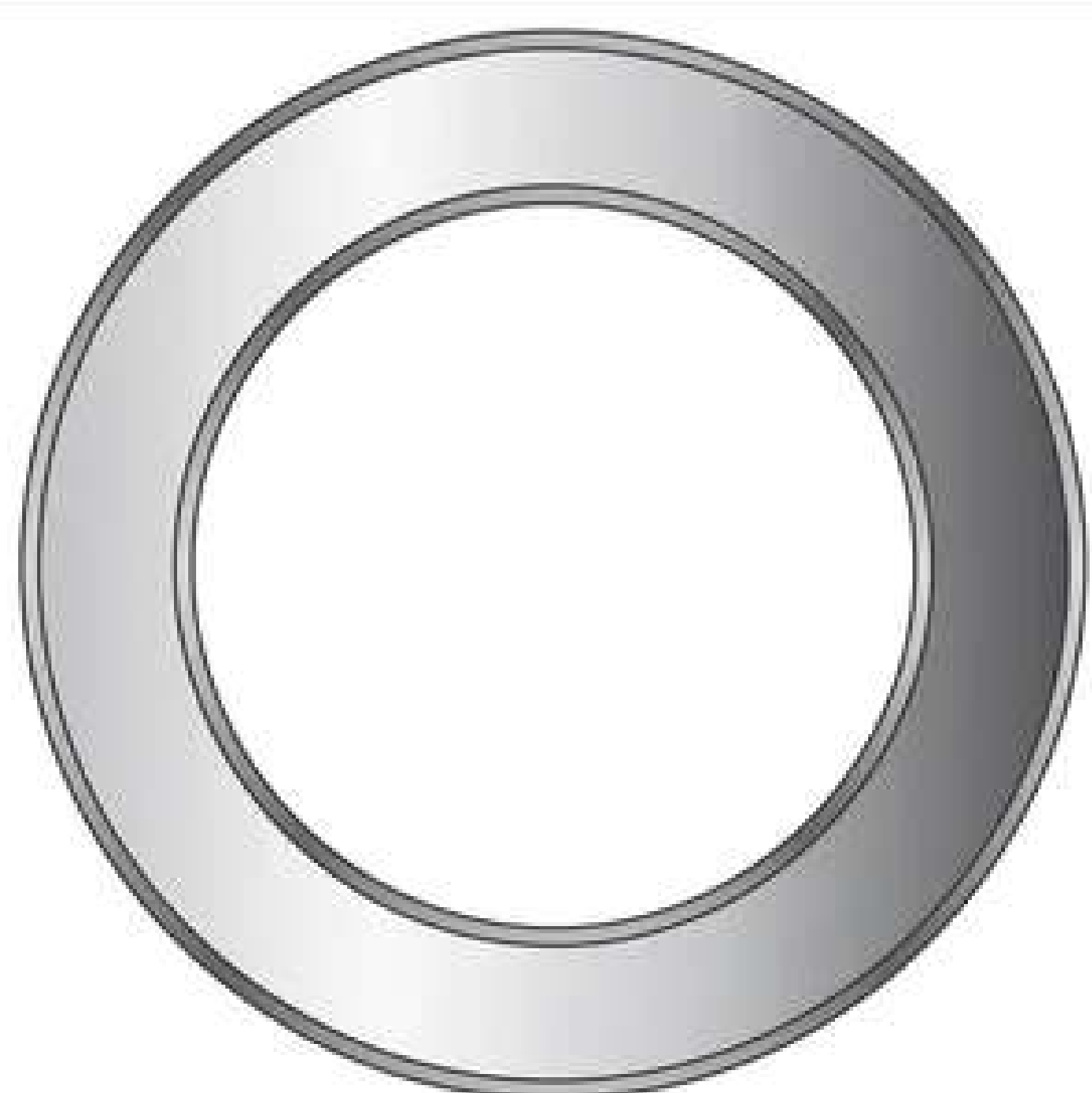
Engineered for thermal safety and pressure protection.

This fusible plug is designed to melt at a specific temperature, releasing pressure to prevent equipment damage or system failure in overheating conditions.

- Acts as a reliable safety device
- Activates automatically at preset temperature
- Suitable for high-risk, heat-prone systems



## Copper Gaskets



Formulated for tight sealing and long-term durability.

This copper gasket creates a reliable barrier between mating surfaces, helping prevent fluid escape while tolerating high temperature and pressure conditions.

- Provides excellent sealing performance
- Withstands heat and pressure effectively
- Ideal for critical industrial applications

## Gasket Bond



Designed for dependable sealing and enhanced joint integrity.

This bonded gasket combines a rigid metal backing with an elastomer layer to create a secure barrier, helping prevent fluid escape under demanding operating conditions.

Delivers superior sealing efficiency

Provides strong surface grip

Suitable for high-load applications

## Crimp Nut

Built for secure fastening and lasting hold. This crimp nut grips firmly onto tubing, creating a dependable connection that stays intact under demanding working conditions.

Ensures tight and reliable locking

Enhances joint strength

Suitable for heavy-duty applications



## Reducing Union Tee



Crafted for efficient branching and size variation.

This reducing union tee connects three lines while accommodating different diameters, enabling smooth distribution and balanced flow within the system.

Allows three-way connection with size adjustment

Maintains steady fluid movement

Suitable for high-demand operations

# Products



## Positionable SAE Male Branch Tee



Designed for adjustable alignment and flexible installation.

This positionable SAE male branch tee allows easy orientation during setup, enabling precise direction control while connecting three lines efficiently.

- Adjustable positioning for convenient fitting

- Supports three-way line connection

- Performs reliably in demanding systems

## Branch Tee Tube Adapter

Created for multi-line integration and seamless compatibility. This branch tee tube adapter links three tubing paths together, enabling efficient distribution while maintaining smooth passage through the system

- Supports three-direction tubing connection

- Promotes balanced flow distribution

- Suitable for demanding industrial setups



## Male Run Tee NPT



Developed for reliable three-way connection with threaded compatibility.

This female run tee NPT joins pipelines in a straight run with a perpendicular outlet, allowing efficient flow distribution across connected sections.

- Provides threaded three-port configuration

- Supports balanced fluid routing

- Suitable for demanding system applications

# Products



## BSPT Male Branch Tee



Built for threaded compatibility and efficient flow division. This BSP male branch tee links three sections with a side outlet, enabling smooth distribution while maintaining consistent performance across the setup.

- Features BSP male threading for easy integration

- Allows side branch connection

- Performs effectively in demanding environments

## Female Npt Run Tee

Constructed for dependable junction and threaded integration.

This female NPT run tee connects a straight line with an additional outlet, enabling efficient routing while maintaining consistent system operation.

- Internal NPT threading for secure engagement

- Supports inline connection with side outlet

- Suitable for demanding industrial setups



## Run Tee Tube Adapter



Designed for straight-line connection with an added outlet.

This run tee tube adapter joins tubing in a continuous path while providing an extra branch for distribution, supporting smooth transfer throughout the setup.

- Enables inline connection with additional outlet

- Maintains consistent movement of fluid
- Suitable for demanding industrial usage

# Products



## Positionable SAE Male Run Tee



Built for flexible orientation and precise alignment.

This positionable SAE male run tee allows rotation during installation, enabling accurate positioning while connecting a straight line with an additional outlet.

- Adjustable setup for easy installation

- Supports inline connection with extra outlet

- Reliable performance in tough operating conditions

## Reducing Union Cross

Engineered for four-way distribution with size variation.

This reducing union cross connects four lines of different diameters, allowing efficient routing and balanced transfer across all directions within the system.

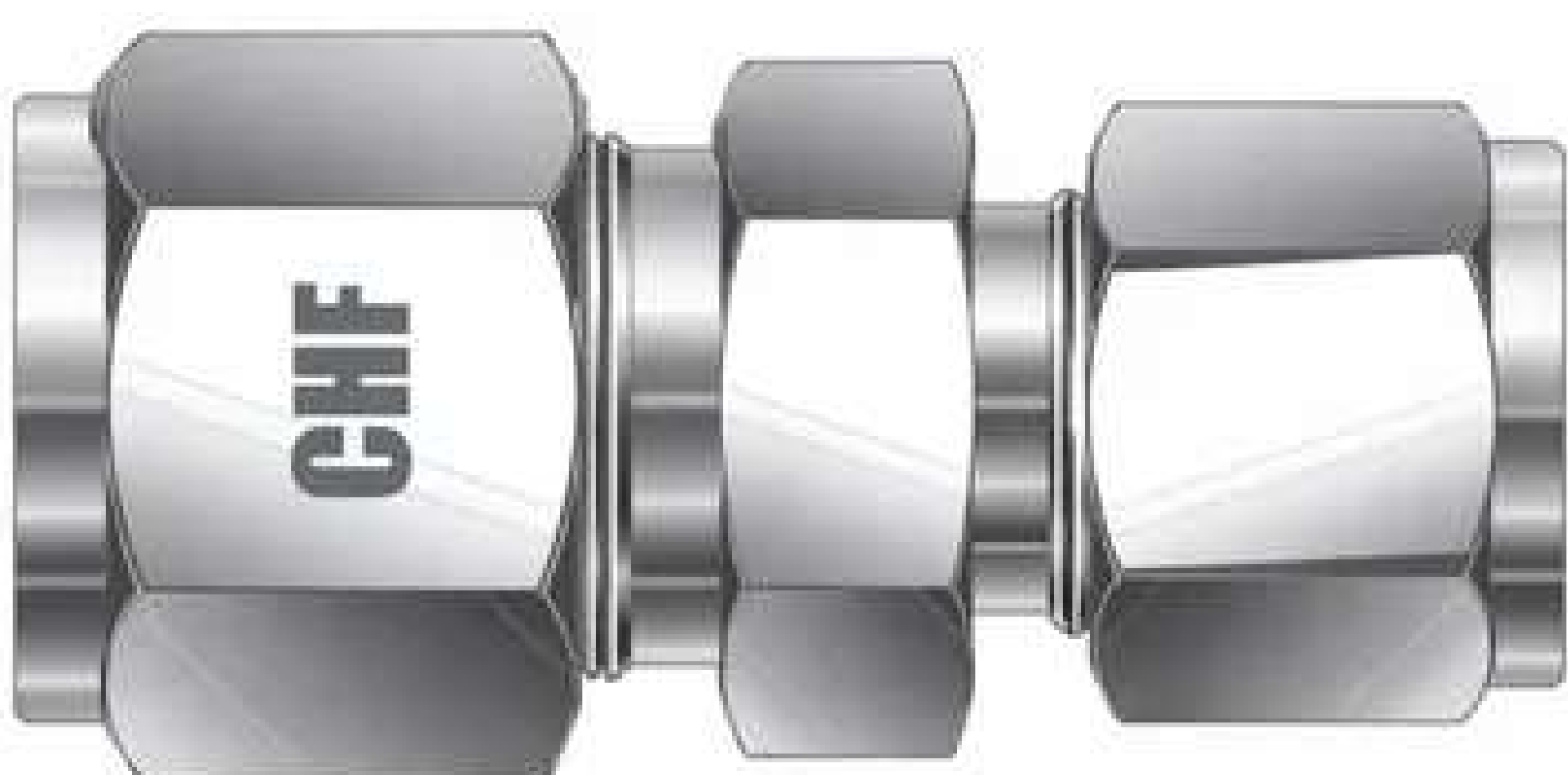
- Enables four-direction connection with size adjustment

- Promotes uniform flow across outlets

- Suitable for high-demand industrial applications



## SS Reducing Union



Built with corrosion-resistant material for long-term durability.

This SS reducing union connects tubing of different diameters, allowing smooth transition while maintaining consistent performance in demanding conditions.

- Stainless steel construction for durability

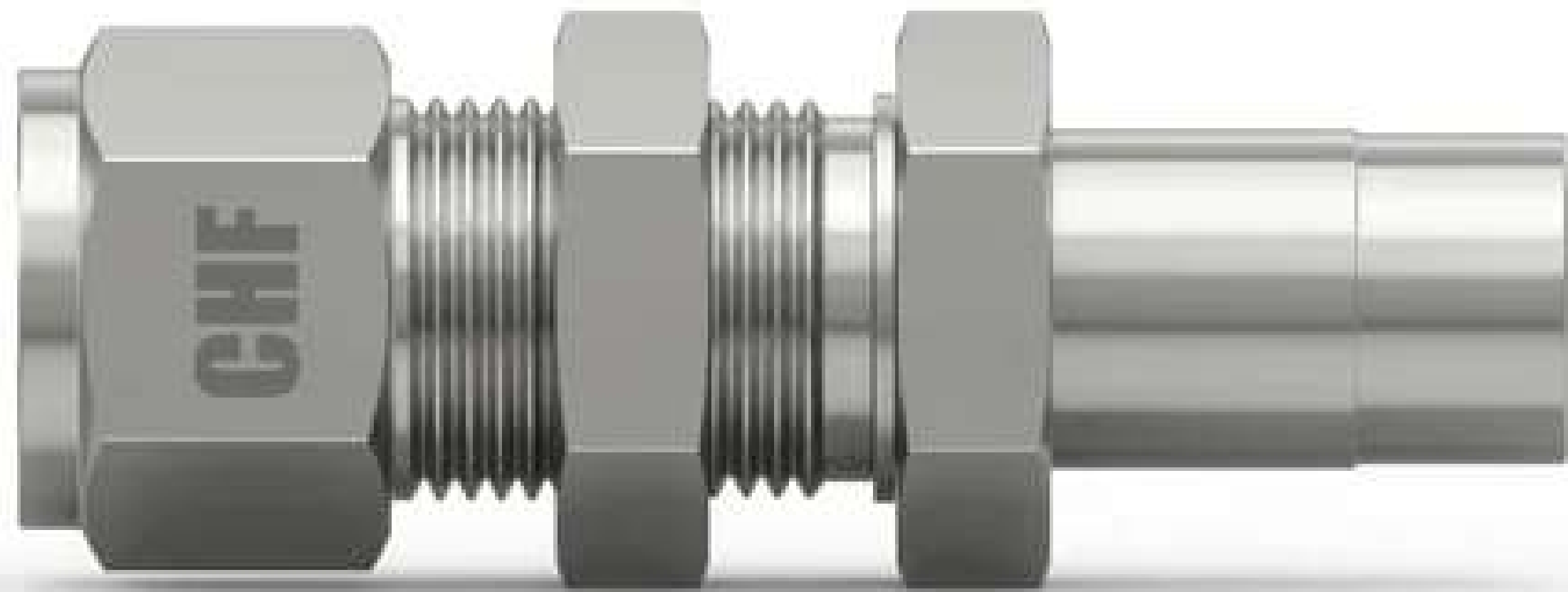
- Supports size reduction between lines

- Performs reliably in harsh environments

# Products



## BulkHead Tube Adapter



Designed for through-wall installation with secure tubing connection.

This bulkhead tube adapter allows tubes to pass across panels or enclosures while keeping the setup firmly held and properly aligned during operation.

- Enables tubing passage through barriers

- Provides strong and stable mounting
- Suitable for demanding industrial environments

## Elbow Tube Adapter

Crafted for angular routing and efficient connectivity.

This elbow tube adapter redirects tubing at a right angle, allowing smooth passage while maintaining stable performance within the setup.

- Enables 90° direction change

- Ensures steady movement through the line

- Suitable for demanding industrial conditions



## Female Gauge Tube Adapter



Tailored for gauge integration with reliable connection.

This female gauge tube adapter provides a dedicated outlet for instrument attachment, allowing accurate monitoring while maintaining steady system performance.

- Allows easy gauge installation

- Ensures secure and stable connection

- Suitable for demanding industrial setups

# Products



## Female ISO Parallel Tube Adapter



Designed for parallel thread compatibility and dependable connection.

This female ISO parallel tube adapter links tubing with ISO parallel threaded ports, ensuring smooth transfer and consistent system performance.

- Matches ISO parallel thread standards
- Provides secure and stable joining
- Suitable for demanding industrial conditions

## Female Gauge Tube Adapter

Built for instrument connectivity and dependable fitting.

This female gauge tube adapter provides a dedicated port for pressure devices, allowing accurate readings while maintaining steady system operation.

- Enables quick attachment of gauges
- Ensures firm and stable connection
- Suitable for demanding working conditions



## Female NPT Tube Adapter



Designed for threaded compatibility with reliable tubing connection.

This female NPT tube adapter links tubes to tapered threaded ports, ensuring smooth transfer and dependable performance in demanding setups.

- Features internal NPT threading
- Provides secure tubing attachment
- Suitable for high-pressure environments

# Products



## Male an Tube Adapter



Crafted for precise threading compatibility and dependable linkage.

This male AN tube adapter connects tubing to AN-threaded ports, enabling efficient transfer while maintaining consistent system performance.

- Features AN male threading
- Ensures firm and reliable connection
- Suitable for high-performance applications

## Male NPT Tube Adapter

Designed for tapered threading and secure tubing linkage.

This male NPT tube adapter connects tubes to threaded ports, supporting steady transfer while maintaining dependable performance in demanding setups.

- External NPT threading for easy fitment

- Provides strong and stable connection
- Suitable for high-pressure working conditions



## BSPT Male Branch Tee



Built for tapered thread compatibility and efficient flow splitting.

This BSPT male branch tee connects three sections with a side outlet, enabling smooth distribution while maintaining steady system performance.

- BSPT male threading for tight engagement
- Allows branch connection from main line
- Suitable for demanding industrial environments

# Products



## Positionable SAE Male Run Tee



Developed for adjustable orientation and precise fitment.

This positionable SAE male run tee can be rotated during assembly, allowing accurate alignment while forming a straight path with an added outlet.

- Rotatable design for easy positioning
- Supports inline connection with side outlet
- Reliable in heavy-duty operating conditions

## Reducing Union Elbow

Formed for angled routing with diameter variation.

This reducing union elbow joins tubes of unequal sizes while redirecting the line, allowing efficient transfer through a compact pathway.

- Enables size change with directional turn
- Supports smooth passage through angled layout
- Suitable for demanding industrial setups



## Reducing Union Cross



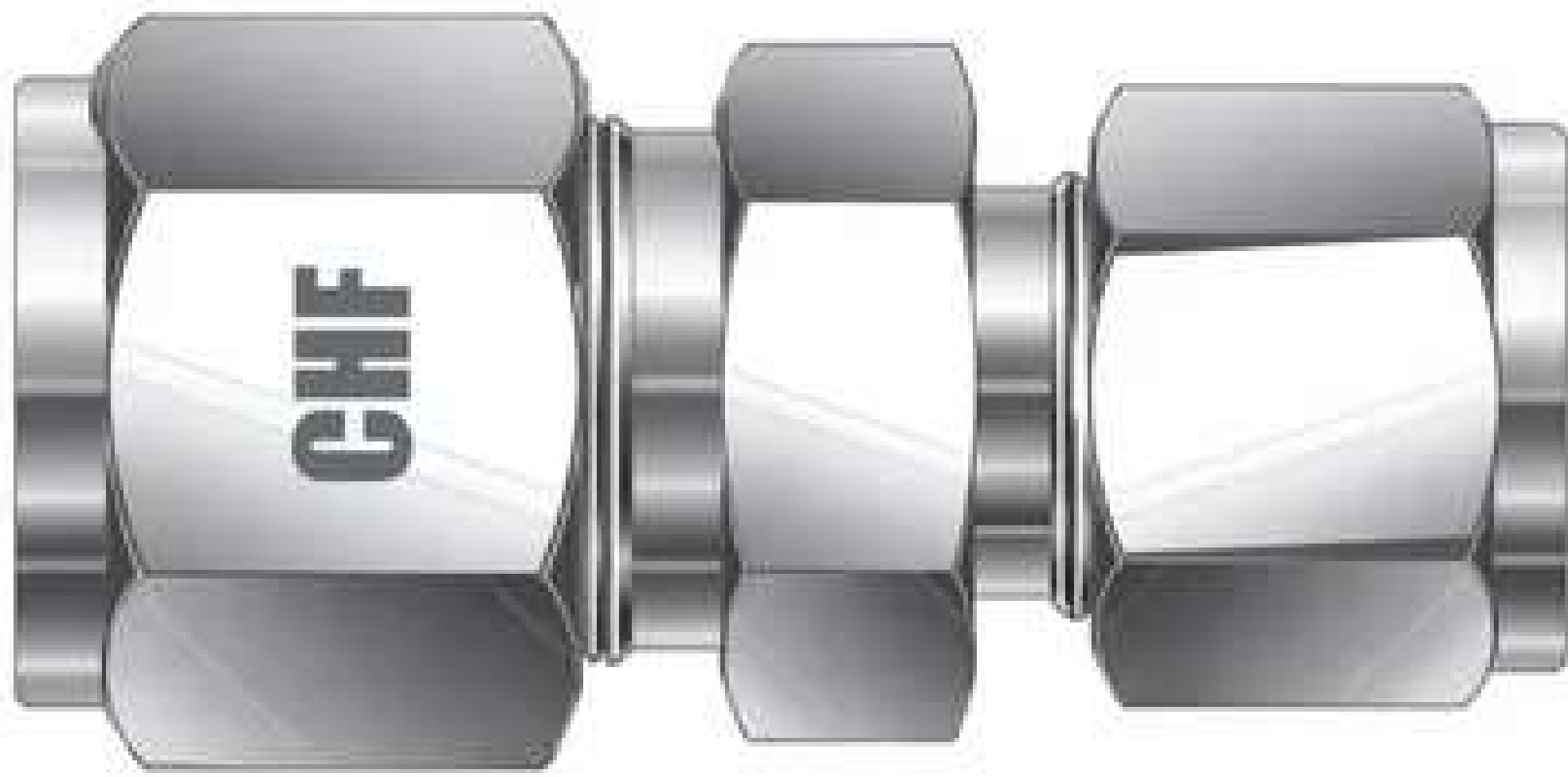
Crafted for optimal fluid control and maximum reliability, this reducing union cross seamlessly joins multiple lines while maintaining integrity under high pressure. Its robust construction guarantees long-lasting performance in demanding hydraulic systems.

- Ideal for tight-space layouts
- Available Sizes: 8mm to 50mm, 5/16" OD to 2" OD
- Maximum Working Pressure: 690 Bar

# Products



## Ss Reducing Union



Precision-engineered stainless steel reducing union designed to link differing pipe diameters effortlessly. Built for durability, it withstands extreme hydraulic conditions while ensuring a leak-resistant connection.

Suited for space-limited setups  
Dimension Range: 10mm to 48mm, 3/8" OD to 1.5" OD  
Rated Pressure Capacity: 700 Bar

## Union Fittings

Designed for seamless connection of hydraulic lines, these union fittings provide a sturdy junction while preserving system efficiency. Constructed to endure high-pressure operations, they deliver reliable performance in rigorous environments.

Perfect for compact assemblies  
Size Options: 12mm to 60mm, 1/2" OD to 2.5" OD  
Maximum Pressure Handling: 680 Bar



## Union Cross



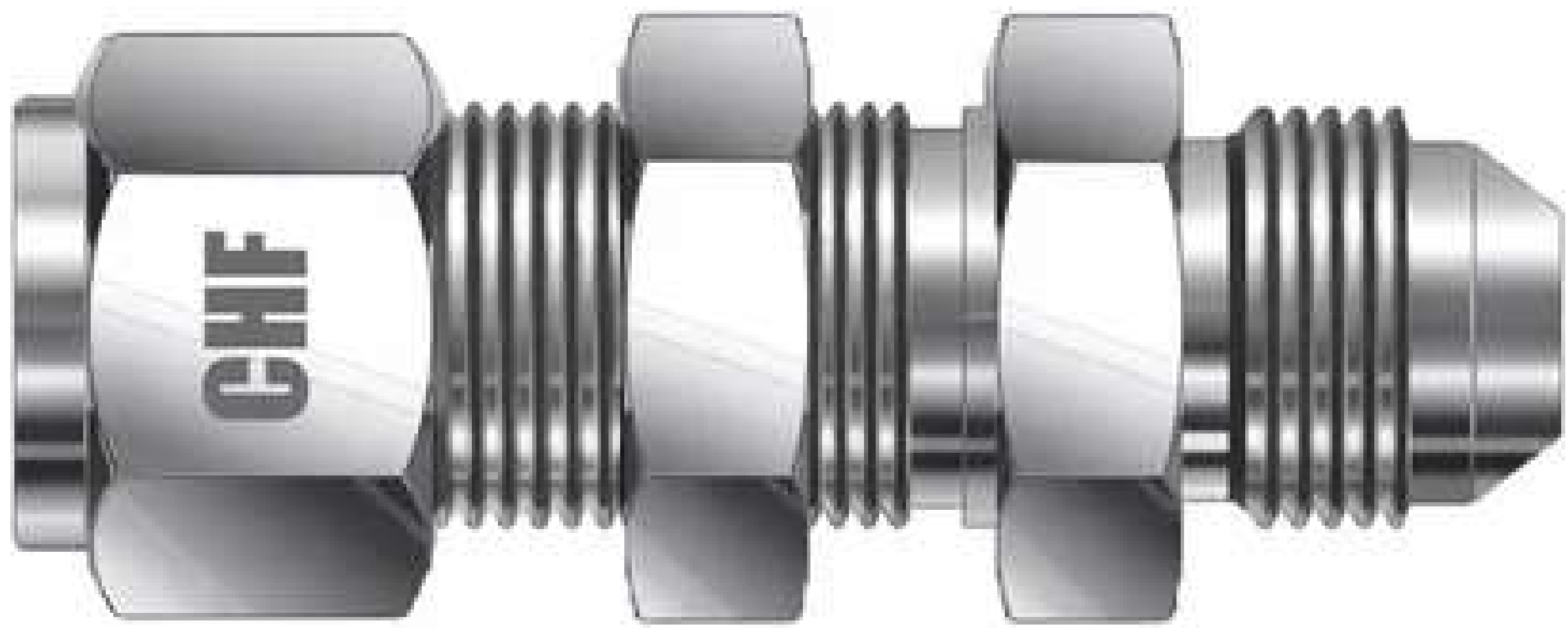
Engineered to link four hydraulic lines simultaneously, this union cross delivers exceptional stability and leak-proof performance under intense pressure. Its solid design ensures longevity and smooth fluid transfer in compact setups.

Ideal for multi-line connections  
Available Sizes: 8mm to 45mm, 5/16" OD to 1.75" OD  
Pressure Endurance: 690 Bar

# Products



## Bulkhead Union



Specifically crafted to secure connections through panels or walls, this bulkhead union ensures robust and leak-free operation in demanding hydraulic setups. Its durable build provides long-term reliability and consistent fluid flow.

Perfect for partitioned or enclosed systems

Size Variants: 10mm to 50mm, 3/8" OD to 2" OD

Maximum Working Pressure: 700 Bar

## Bulkhead Elbow Union

Designed to facilitate angular connections through panels, this bulkhead elbow union provides secure, leak-resistant joints while maintaining smooth hydraulic flow.

Engineered for strength, it performs reliably under high-pressure conditions.

Ideal for angled installations in confined spaces

Size Range: 8mm to 48mm, 5/16" OD to 2" OD

Rated Pressure Capacity: 680 Bar



## Male Connector Tube Iso Parallel



Precision-crafted male connector tube following ISO parallel standards, engineered for secure and leak-free integration in hydraulic systems. Its robust construction ensures consistent performance even in high-pressure operations.

Ideal for tight and precise connections

Available Sizes: 6mm to 40mm, 1/4" OD to 1.5" OD

Maximum Operating Pressure: 670 Bar

# Products



## Port Connector



Engineered to link hydraulic ports efficiently, this port connector delivers strong, leak-proof connections while maintaining optimal flow. Built for endurance, it withstands demanding pressure environments with ease.

Perfect for compact and accessible setups

Size Options: 8mm to 50mm, 5/16" OD to 2" OD

Maximum Pressure Handling: 700 Bar

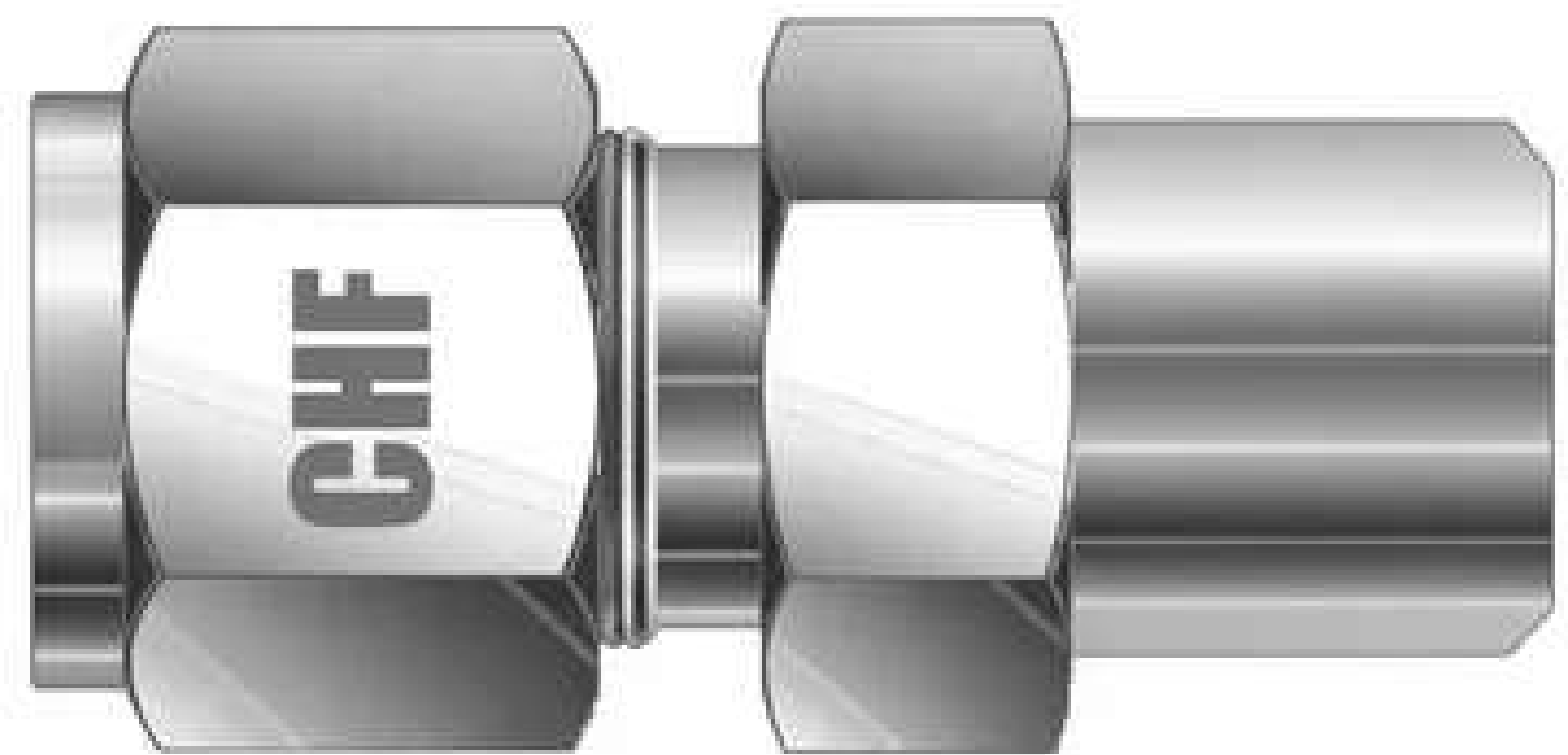
## Butt Weld Pipe Connector

Designed for permanent pipe joints, this butt weld pipe connector ensures seamless flow and robust structural integrity. Engineered for high-pressure hydraulic systems, it delivers dependable performance in demanding conditions.

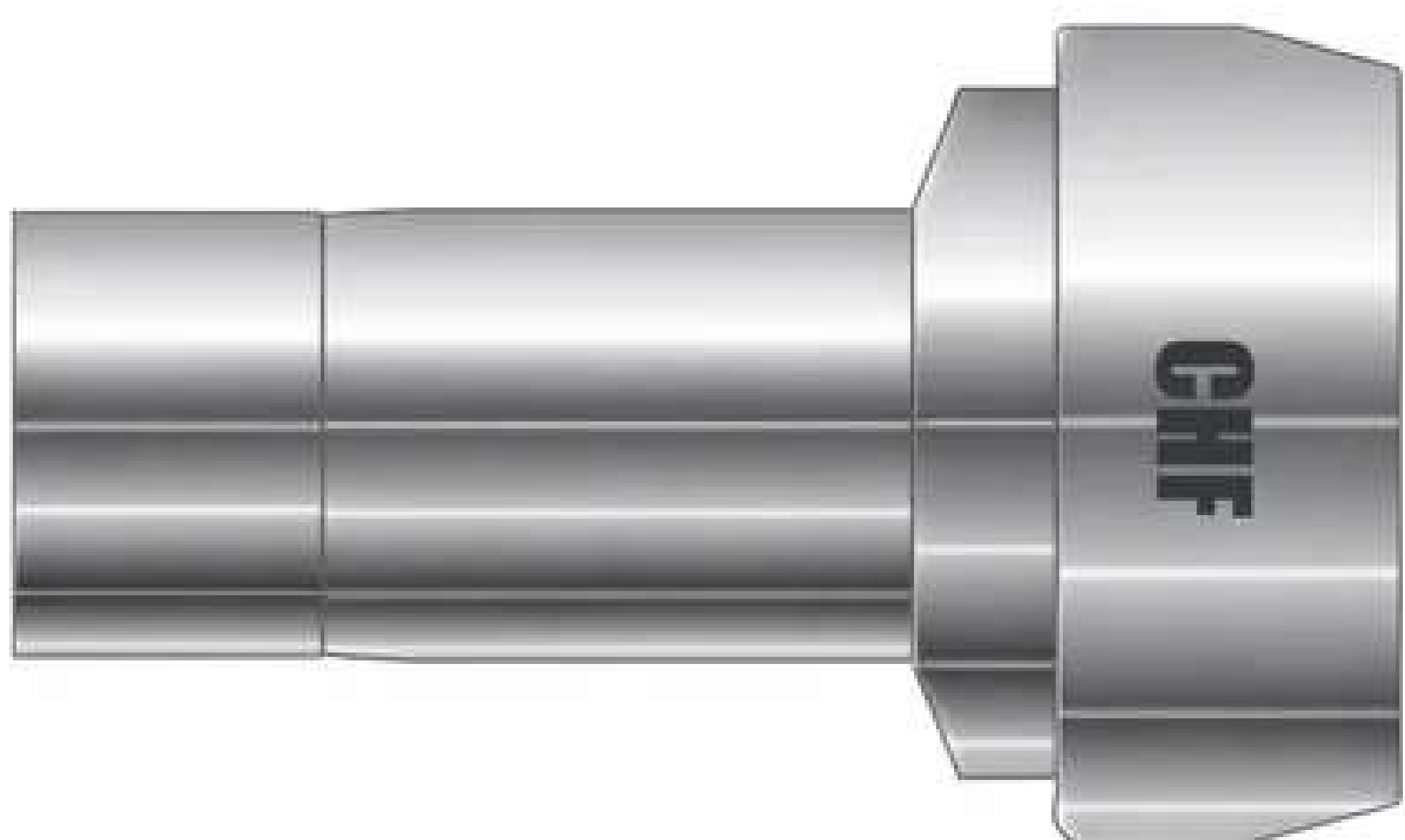
Ideal for straight-line connections

Size Range: 12mm to 60mm, 1/2" OD to 2.5" OD

Maximum Working Pressure: 710 Bar



## Reducer Port Connector



Specially designed to join pipes of differing diameters, this reducer port connector provides reliable, leak-resistant connections while maintaining smooth hydraulic flow. Its sturdy construction ensures durability under high-pressure conditions.

Perfect for space-saving setups

Size Range: 8mm to 50mm, 5/16" OD to 2" OD

Maximum Pressure Capacity: 690 Bar

# Products



## Male ISO Parallel Connector Form B

Engineered to meet ISO parallel Form B specifications, this male connector ensures tight, leak-free hydraulic connections with precise alignment. Its durable design supports high-pressure operations reliably.

Ideal for compact and precise assemblies

Available Sizes: 6mm to 42mm, 1/4" OD to 1.5" OD

Maximum Working Pressure: 670 Bar



## Non Positionable SAE Male Connector

Built for reliable hydraulic connections, this non-positionable SAE male connector provides secure, leak-proof joints without requiring rotation during installation. Its robust design withstands high-pressure environments effortlessly.

Suitable for tight and fixed assemblies

Size Range: 8mm to 42mm, 5/16" OD to 1.5" OD

Maximum Pressure Rating: 680 Bar



## Female Gauge Connector

Designed for accurate and leak-free instrument connections, this female gauge connector ensures reliable performance in high-pressure hydraulic systems. Its sturdy construction provides long-lasting durability and precise alignment.

Perfect for compact and accessible setups

Available Sizes: 6mm to 40mm, 1/4" OD to 1.5" OD

Maximum Pressure Handling: 670 Bar



## Nut Ferrule Set



Precision-engineered nut and ferrule set designed to create secure, leak-proof joints in hydraulic tubing. Crafted for durability, it ensures consistent performance even under high-pressure conditions.

Ideal for tight and compact assemblies

Compatible Sizes: 6mm to 42mm, 1/4" OD to 1.5" OD

Maximum Pressure Capacity: 680 Bar

## 3 Way Manifold Valve (T-Type)

Engineered for versatile flow control, this 3-way manifold valve efficiently directs hydraulic fluid between multiple lines while maintaining leak-free performance. Its rugged construction ensures reliability in demanding conditions.

Perfect for compact and multi-line systems

Size Range: 8mm to 50mm, 5/16" OD to 2" OD

Maximum Working Pressure: 700 Bar



## 2 Way Manifold Valve (R-Type)

Designed for efficient directional control, this 2-way manifold valve reliably manages hydraulic flow between two lines while ensuring leak-free operation. Built for durability, it performs consistently under high-pressure conditions.

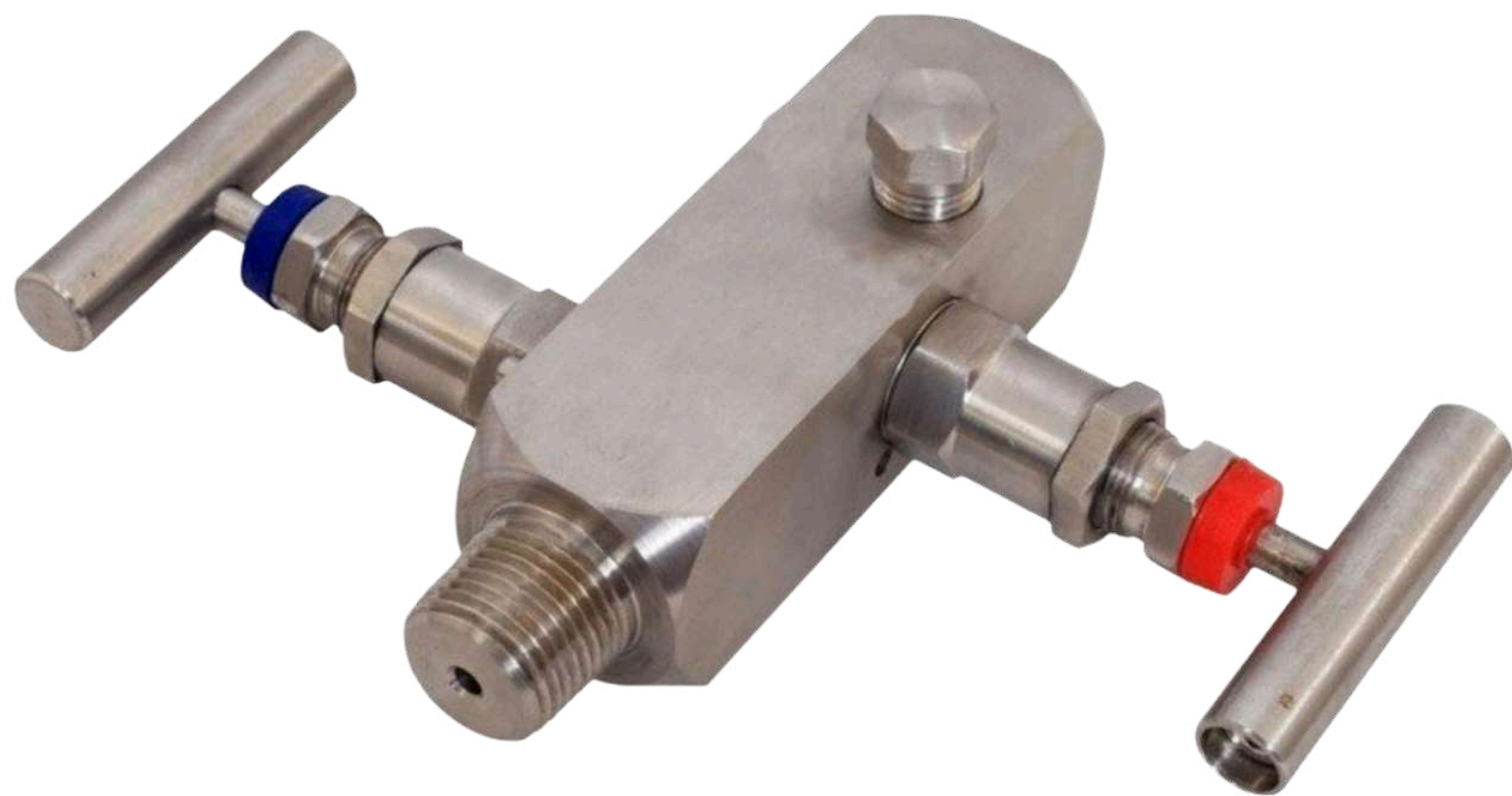
Ideal for compact and straightforward hydraulic setups

Size Options: 6mm to 45mm, 1/4" OD to 1.75" OD

Maximum Pressure Rating: 680 Bar



## Double Block and Bleed Valve



Specially engineered to isolate and vent hydraulic lines, this double block and bleed valve ensures safe, leak-free operation while providing precise control over system pressure. Its durable design withstands demanding environments.

Perfect for high-pressure isolation applications

Size Range: 8mm to 50mm, 5/16" OD to 2" OD

Maximum Operating Pressure: 700 Bar

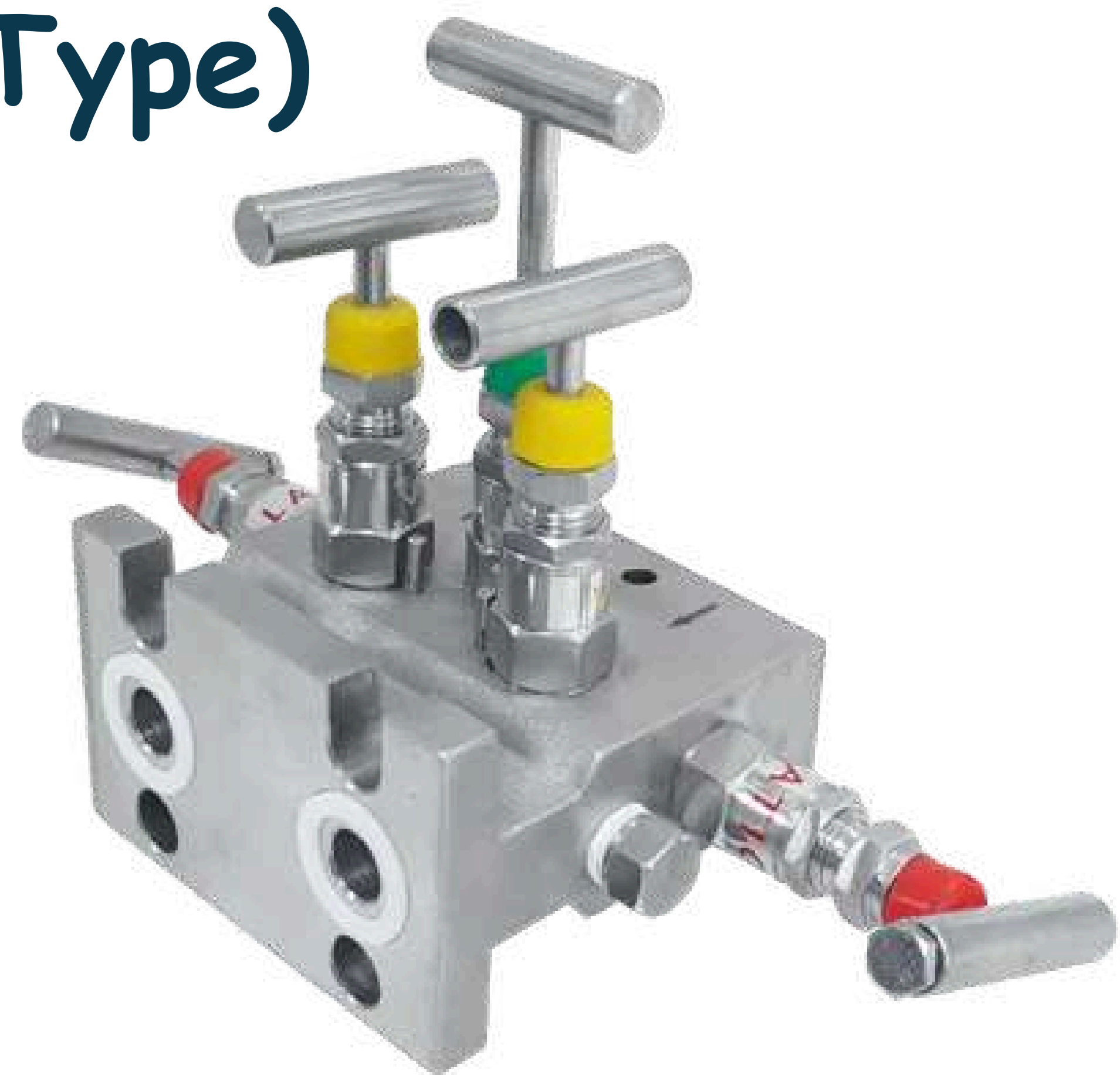
## 5 Way Manifold Valve (T-Type)

Designed for complex hydraulic routing, this 5-way T-type manifold valve efficiently channels fluid across multiple paths while maintaining leak-proof operation. Its robust construction ensures reliable performance under high-pressure conditions.

Ideal for multi-line and compact systems

Size Options: 10mm to 50mm, 3/8" OD to 2" OD

Maximum Pressure Handling: 700 Bar



## 5 Way Manifold Valve (R-Type)

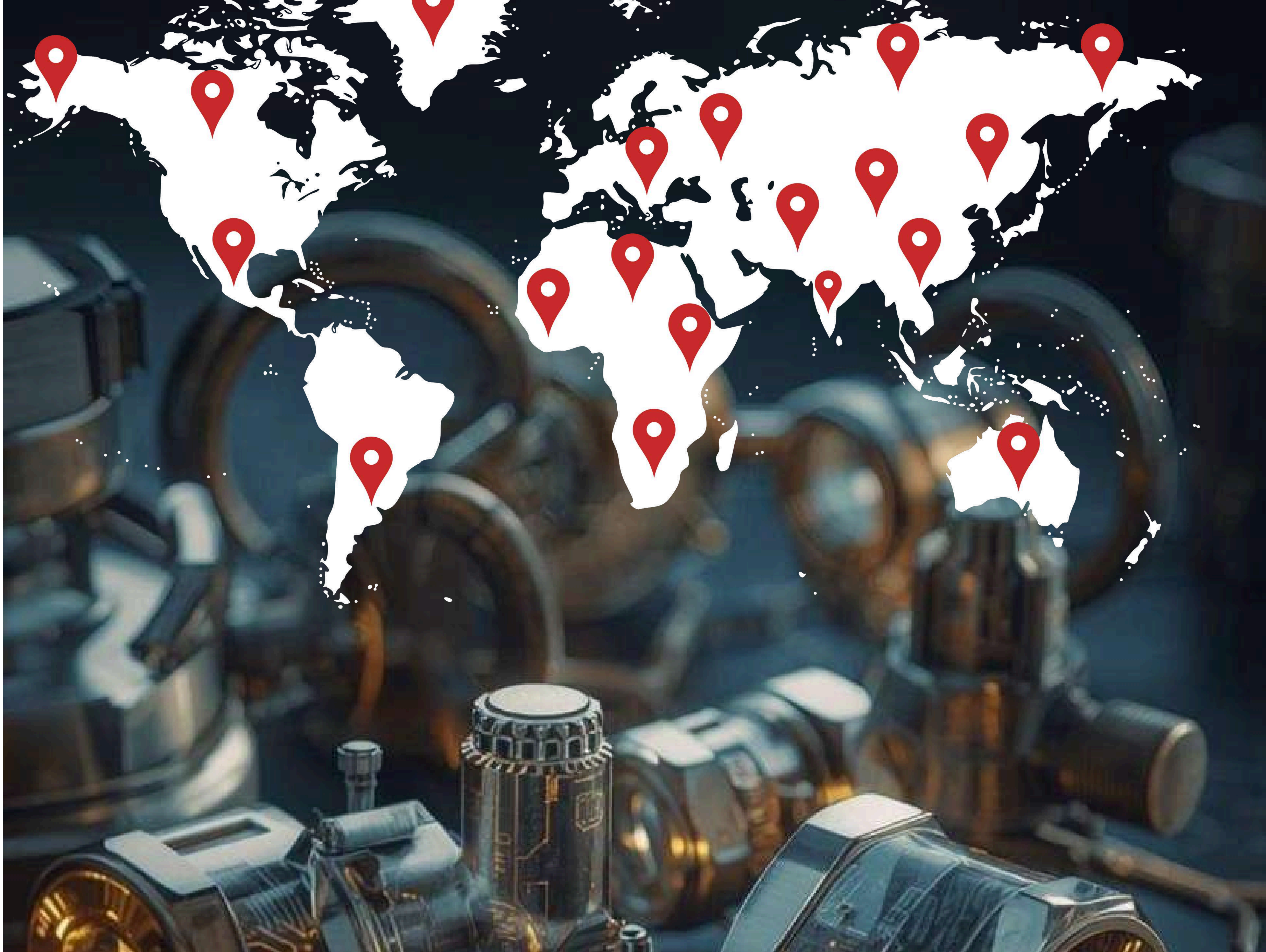


Engineered for precise hydraulic distribution, this 5-way R-type manifold valve directs fluid through multiple lines efficiently while ensuring a secure, leak-free connection. Built for high-pressure applications, it delivers reliable and long-lasting performance.

Ideal for complex and compact hydraulic setups

Size Range: 10mm to 50mm, 3/8" OD to 2" OD

Maximum Working Pressure: 700 Bar



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