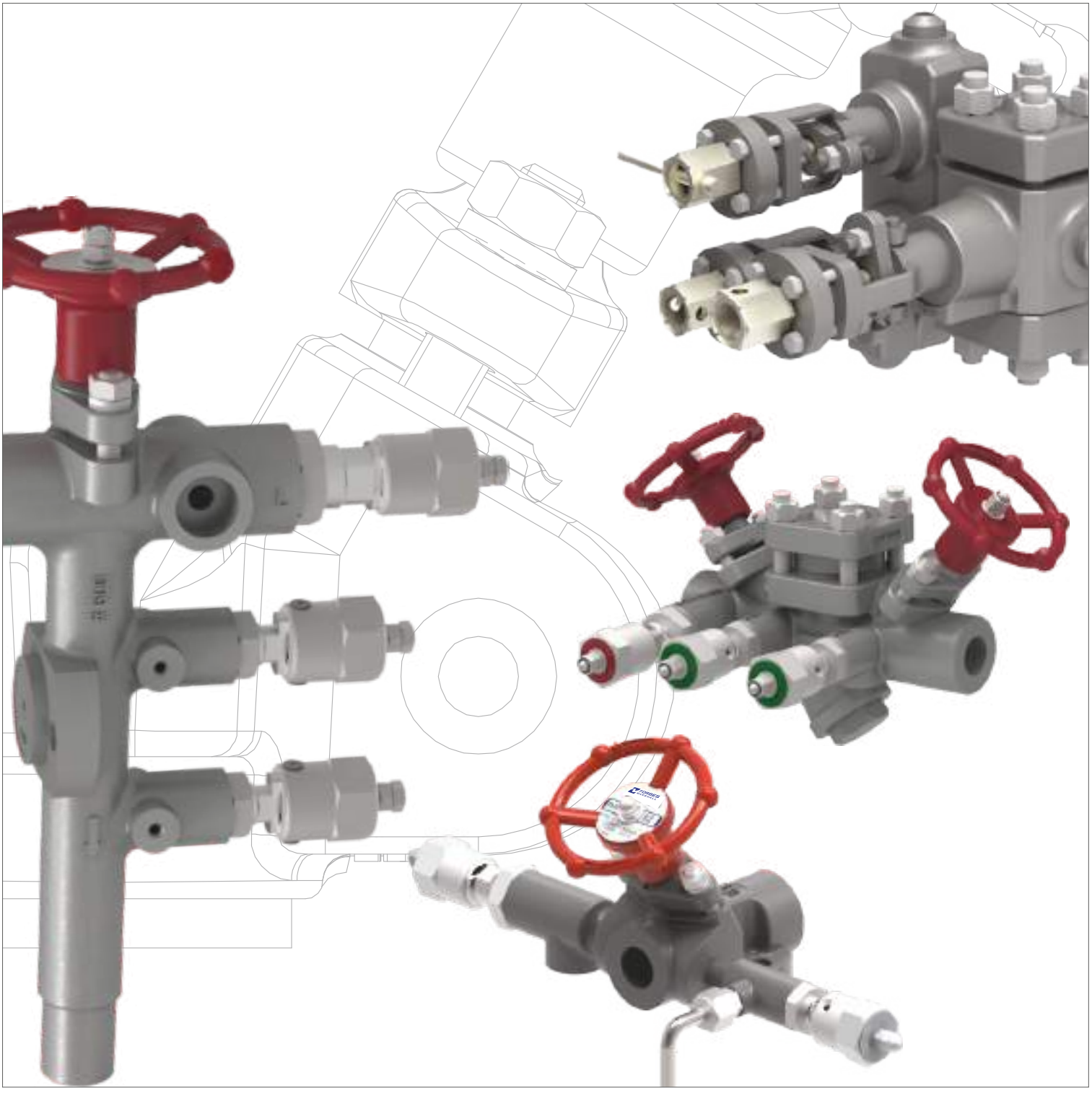
FORBES MARSHALL

Quick to Install Easy to Maintain

Pipeline connectors



Process and Energy Efficiency | Environment

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Pipeline Connectors

Forbes Marshall Pipeline Connectors, coupled with the world's leading steam trap technology, reduce plant downtime and maintenance costs and ensure zero emissions, while conforming to pertinent environment and pollution norms.

During steam trap maintenance, the time taken to replace or repair the trap depends on how easily it can be removed from the pipeline. Often this has to wait until the whole system is shut down. The unique design of Forbes Marshall's pipeline connectors allows steam traps to be quickly removed and replaced within a matter of minutes thereby offering **ease of installation, operation and maintenance**.

Integral piston valves are used for upstream, downstream, trap depressurisation, trap test and bypass operations making the system leak proof with positive shutoff. Trap depressurisation piston valve offers a great advantage in its **safety**. It protects the operator from direct contact with steam by venting out steam trapped between the trap and upstream isolation valve, when the trap is required to be removed or replaced.

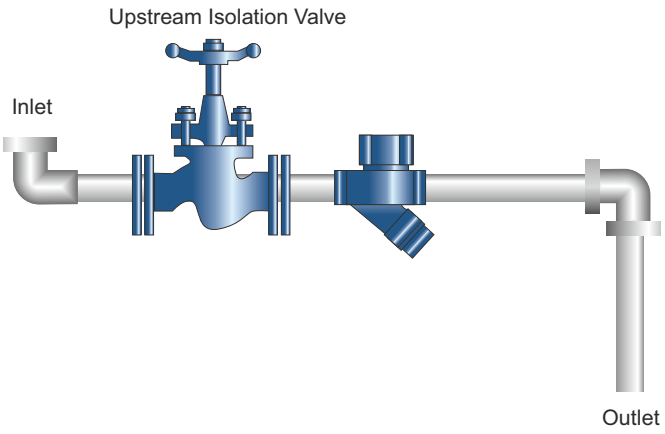
Traditional steam trapping assemblies require many joints between the traps and isolation valves which are potential leak paths. A single permanent in-line connector significantly reduces installation time, cuts costs dramatically, and eliminates system leaks making it an **energy efficient product**.

Many traditional isolation valves are difficult to maintain and prone to gland leakage and inline leakage. Piston valves which are integral with our pipeline connectors provide simple and quick in-line maintenance, positive shut-off and zero emissions ensuring **reliable life cycles**.

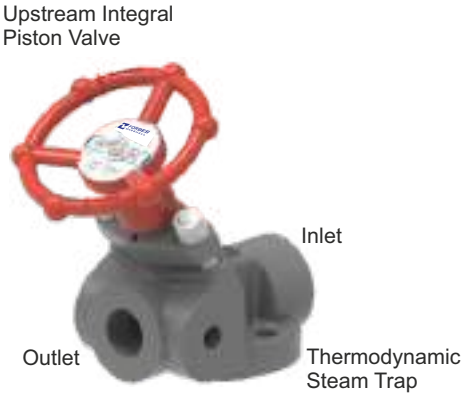
Pipeline Connectors with universal trap connections for steam tracer lines, instrument tracing lines, jacketing lines and main drips

With Inlet Isolation Valve

Conventional Installation

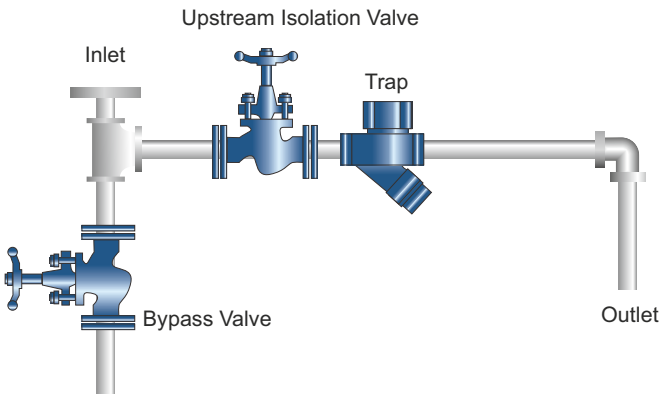


FMPC50 Pipeline Connector

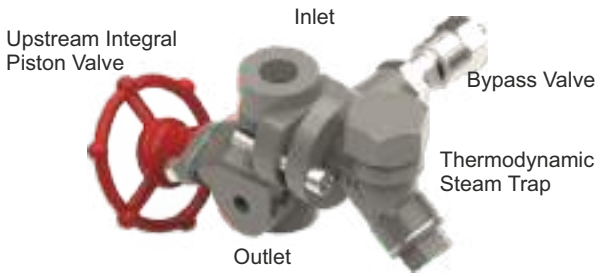


With Inlet Isolation Valve and Bypass Valve

Conventional Installation

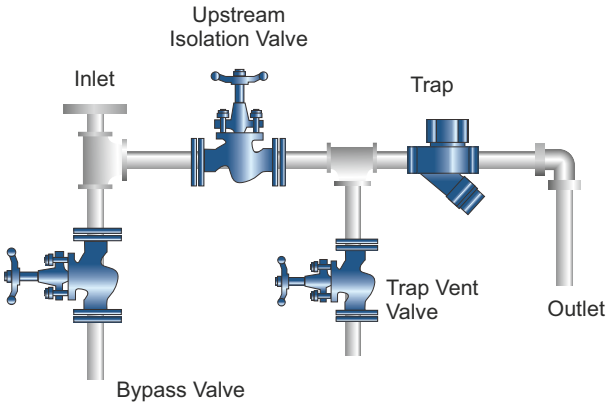


FMPC51 Pipeline Connector

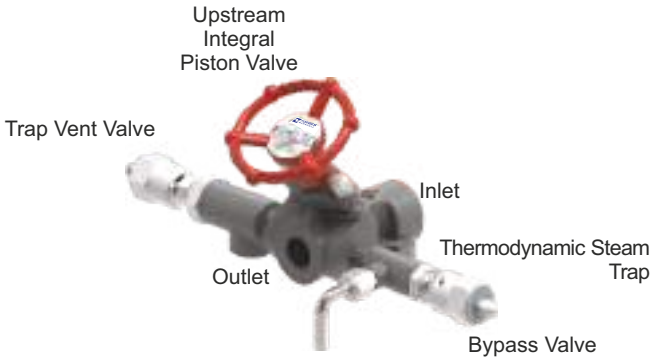


With Inlet Isolation Valve, Bypass Valve and Trap Vent Valve

Conventional Installation



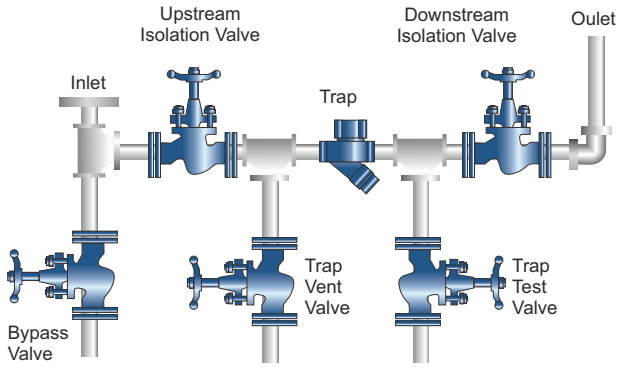
FMPC52 Pipeline Connector



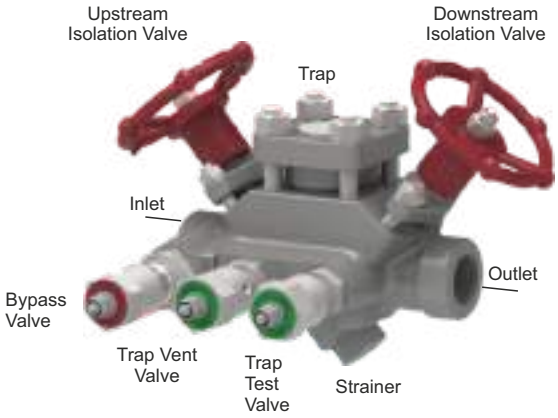
Compact Modules for mainline drainage

PMO : 42 bar (g) TMO : 425 °C

Conventional Installation

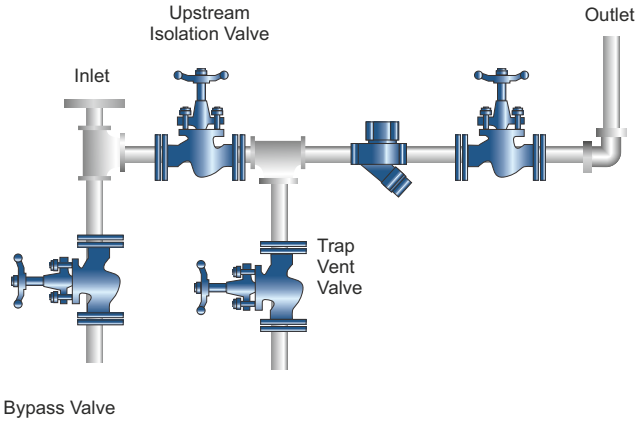


CMTD42M-F / CMTD42M-S

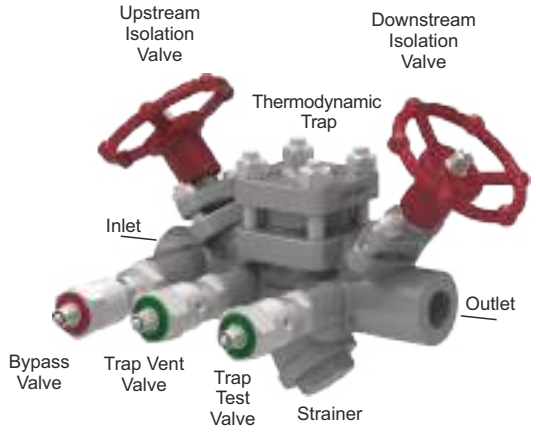


PMO : 62 bar (g) TMO : 525 °C

Conventional Installation

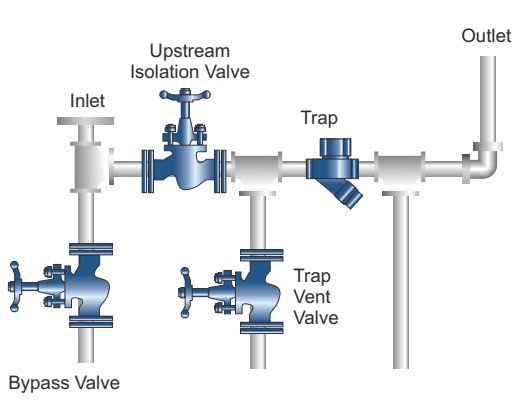


CMTD62M-F / CMTD62M-S

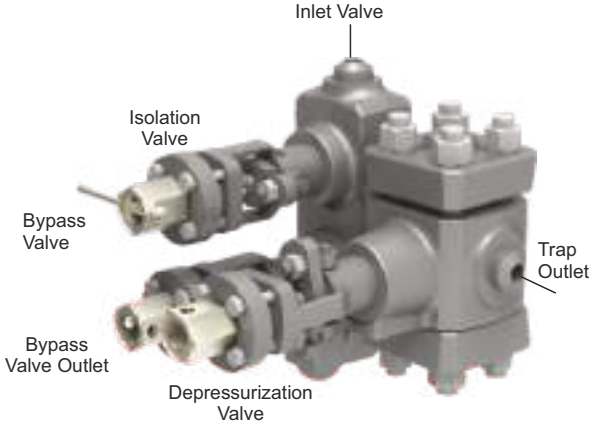


PMO : 220 bar (g) TMO : 550 °C

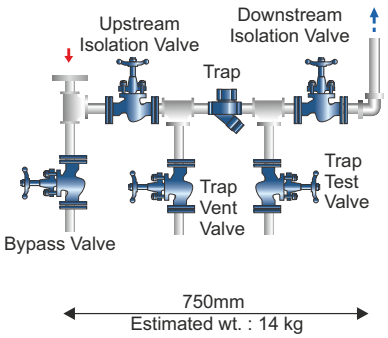
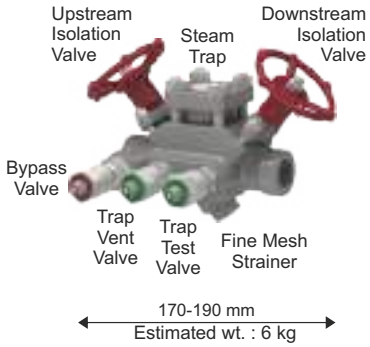
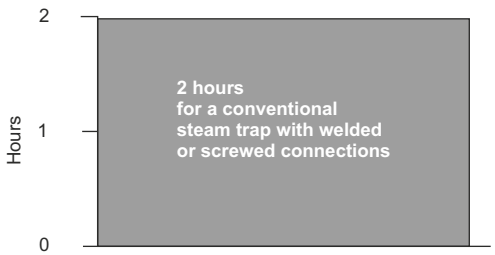
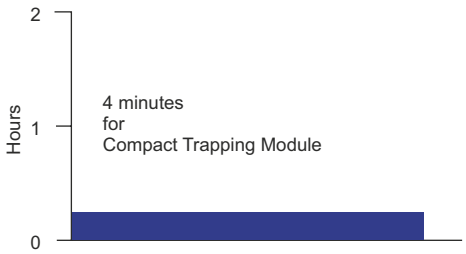
Conventional Installation



CMTD250M



Features and Benefits of Mainline Trapping
Compact, Easy to Maintain, Reliable

	Conventional Steam Trapping Station	Compact Steam Trap Station (CMTD42M-F, CMTD42M-S, CMTD62M-F, CMTD62M-S)
Steam trap station		
Compact	Approx. 750mm	190mm
Single integral assembly	More than 16 components with five valves	Only one component with five integral piston valves, trap & strainer
Zero welds	>15	No weld joints
Quick installation	4 hours (+ welding)	20-30min (welding to pipe)
Light	>14 Kg	< 6 Kg
Zero leakage	2 Potential steam leaks through gland and 3 potential inline leakages and many more at welded joints	Zero leakage
Efficient	High due to large surface area	Low due to small surface area
Quick maintenance		
Tight shut off	Globe valves which are prone to in-line and gland leakage	Leak-proof glandless piston valves for isolation
Vendor co-ordination cycle	Complex	Single vendor to co-ordinate
Cost of ownership	High	Low

Customer Testimonials

"The compact assembly system with universal thermodynamic trap has eliminated our mainline leakages and facilitated ease of online maintenance."

Leading Pharmaceutical Company

"We have installed the compact modules from Forbes Marshall and are in operation over the last three years. We have found the maintenance and safety features of Trap Test and Vent valves very useful."

World's Largest Petrochemical Refinery

"Post installation of compact drain modules and universal thermodynamic system we have been able to arrest all leaks in the mainline trapping. The innovative design helps us sustain zero-leak on an ongoing basis."

World's Largest Petrochemical Refinery

"Compact Modules for mainline trapping from Forbes Marshall have enabled us retain the distribution losses for a two kilometer steam distribution network below 2%."

Leading Tyre Manufacturer

"We appreciate the features included in the Forbes Marshall Compact Trap assembly, particularly about the Trap bypass valve, trap depressurization valve and trap test valves in one assembly with so compact in nature and with inbuilt piston valve technology. This has made our operation and maintenance very convenient and easy. We thank Forbes Marshall for introducing the compact module technology to us."

A Petrochemical Refinery in Southern India

"It would have been very difficult task to accommodate the conventional assemblies which are over a 150% more than the size of compact assembly. Also the site fabrication of conventional assemblies always has asymmetry and quality issues considering the large number of small-bore joints. Apart from this, we found this very effective in procuring single product & easy for installation at site."

A Petrochemical Refinery in Western India

Success Proven Across Sectors

- Oil and Gas
- Refinery and Petrochemicals
- Edible oil
- Breweries and Distilleries
- Food
- Textiles
- Fertilizers
- Pharmaceuticals
- Paper
- Rubber
- EPC Contractors

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