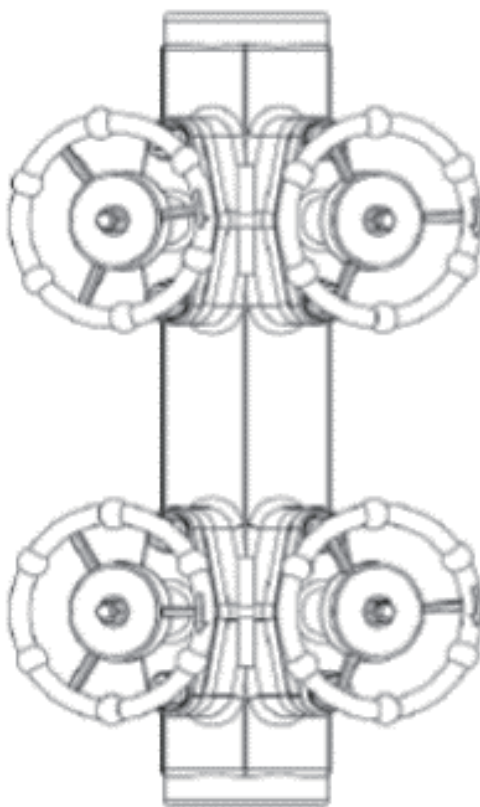


MM__P / FMM__ Series

STEAM & CONDENSATE MANIFOLD



TECHNICAL CATALOGUE

About

Miyawaki MM__P & FMM__ series is a piping package for steam distribution and condensate collection that simplifies your steam system management.

The compact design is aimed to reduce the installation space and organize the system.

The product complies with the Pressure Equipment Directive (PED) requirements.

1.Forged (Compact) Steel

■ Specification

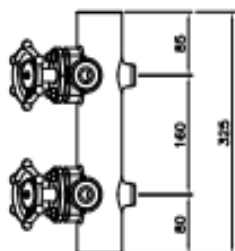
A vertical industrial steam manifold assembly. It features a central vertical pipe with four handwheel valves (two on the left, two on the right) and a bottom drain valve with a black handwheel. The assembly is made of grey metal.

Model	Integrated Valve	Max. Allowable Pressure (PMA)	Max. Allowable Temperature (TMA)		
MM04P	Piston Valve	5.17MPa	425°C		
MM08P					
MM12P					
Model	Body Inlet/Outlet Size	Connection Type	Number of Connection		
MM04P	1-1/2", SW	NPT, SW (ASME B16.11 Class 3000)	4		
MM08P			8		
MM12P			12		
Model	Connection Size	Min. Allowable Temp.	Hydrotest Pressure	Kv Values	Approx. Weight
MM04P	1/2", 3/4"	-29°C	7.75MPa	2.0 for each valve	10Kg
MM08P					20Kg
MM12P					30Kg

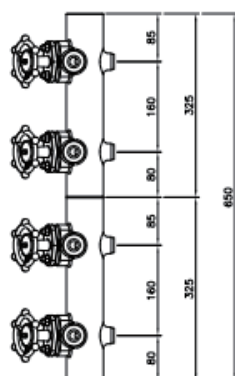
*PMO ASME 300, SW, NPT 4.15MPa

*TMO ASME 300, SW, NPT 425°C @ 2.8MPa

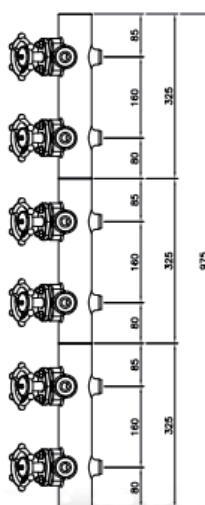
(*Compact Manifold Packages are restricted by attached valves and traps.)



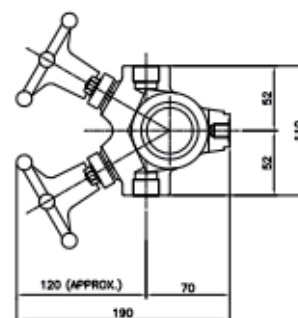
MM04P



MM08P



MM12P



2.Fabricated Steel

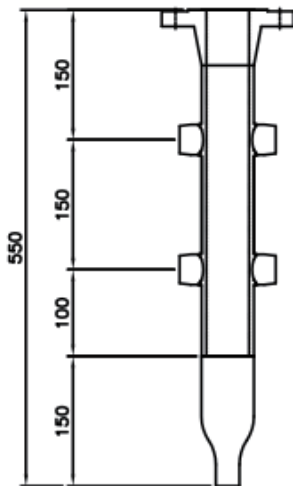
■ Specification

Model	Integrated Valve	Max. Allowable Pressure (PMA)	Max. Allowable Temperature (TMA)	Body Inlet/ Outlet Size		
FMM04	-	4.26MPa	425°C	1/2" - 2"		
FMM06						
FMM08						
FMM10						
FMM12						
Model	Connection Type	Number of Connection	Connection Size	Min. Allowable Temp.	Hydrotest Pressure	Approx. Weight
FMM04	NPT, SW (ASME B16.11 Class 3000)	4	1/2", 3/4"	-29°C	6.39MPa	11Kg
FMM06		6				15Kg
FMM08		8				18Kg
FMM10		10				23Kg
FMM12		12				26Kg

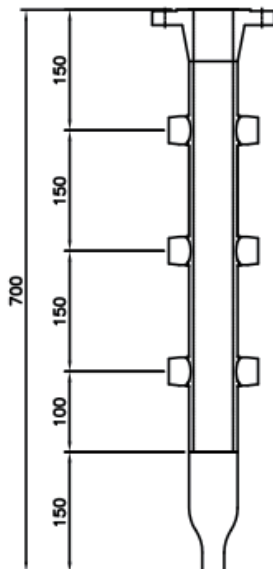
*PMO ASME 300, SW, NPT 4.15MPa

*TMO ASME 300, SW, NPT 240°C @ 2.7MPa

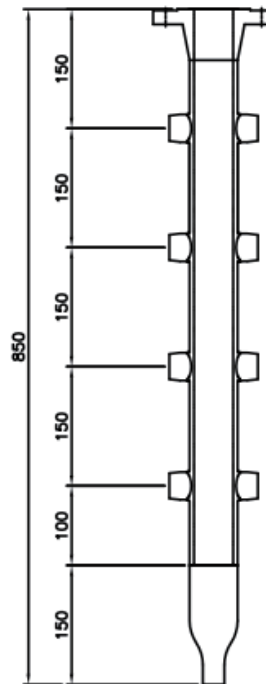
(*Fabricated Manifold Packages conform to client' s spec. and are restricted by attached valves and traps.)



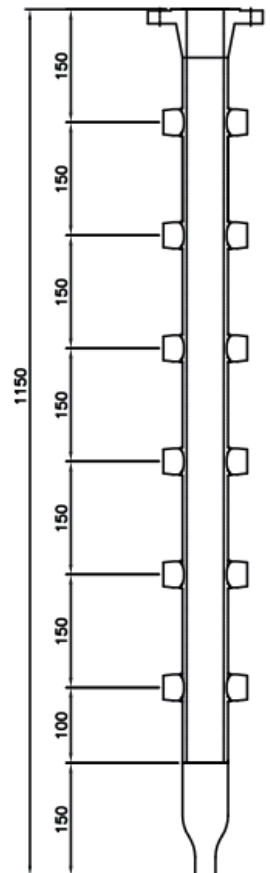
FMM04



FMM06



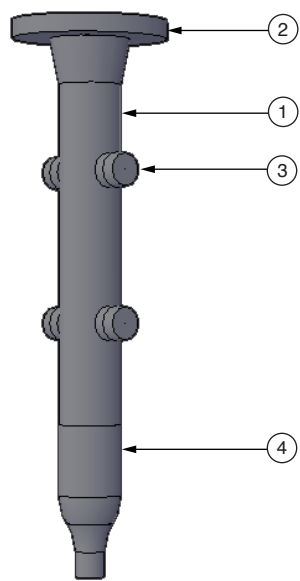
FMM08



FMM12

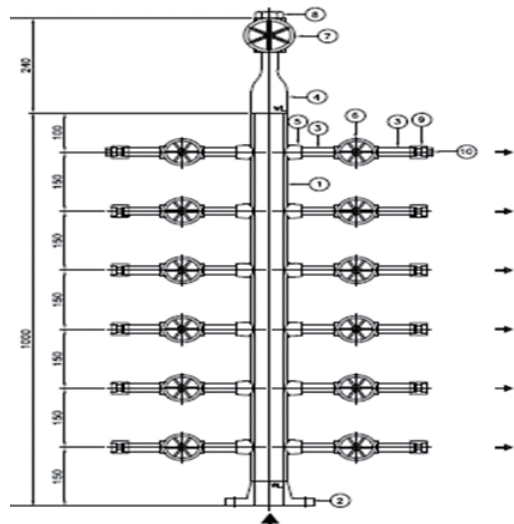
NOTE: Horizontal type is available

■ Bill of Materials

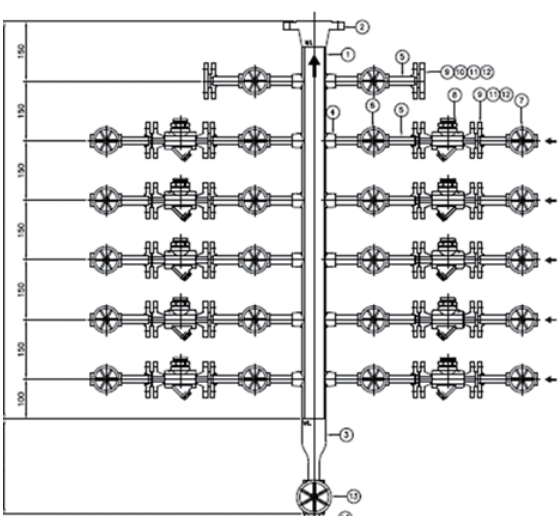


NO.	DESCRIPTION	MATERIAL	Q' TY
1	PIPE	A106-B	1
2	FLANGE	A105	1
3	COUPLING	A105	4
4	CON SWAGE	A105	1

■ Available Special Products



Steam Manifold



Steam Condensate Manifold

Forged (Compact) Type Manifold

The forged or compact type manifolds are designed for vertical installation.

Threaded M12 connections are included for the attachment to a supporting structure.

An optional mounting kit is available.

The steam distribution manifold has a top inlet connection and bottom drain, which should be provided with an isolation valve and a steam trap. It's recommended that a system isolation valve should be installed directly to the upstream of the inlet connection.

The bottom drain connection should be provided with a blowdown valve.

To prevent the system from freezing, the installation of antifreeze devices is recommended.

It is also recommended that the manifolds are insulated to protect personnel from burn risks and to minimize radiated heat losses.

Optional custom designed insulating jackets are available.

Piston Valve

Piston valve replacement is accomplished by the following procedure:

CAUTION : For personnel protection, it is imperative that the manifolds are completely isolated from the system and depressurized before any maintenance is performed.

- 1. Close piston valve.*
- 2. Remove bonnet nuts (11)*
- 3. Withdraw complete valve assembly with bonnet, spindle and piston.*
- 4. Using the extractor tool, remove the upper sealing ring (2), lantern ring (3), and lower sealing ring (2).*
- 5. Ensure that the internal surface of the valve and lantern ring are clean.*
- 6. Install the new lower sealing ring, replace the lantern ring and then the new upper sealing ring.*
- 7. Install the valve assembly and then tighten the nuts.*

Note : Recommended tightening torque is 7.5 ft•lb (10 N•m).

MOUNTING KIT :

For ease of installation and insulation, an optional mounting kit is available which will provide a 2" stand-off from any adjacent structure. The kit consists of a threaded stud, spacer and nut, designed to match the M12 mounting holes on the back of the manifold.

Fasteners requirement, MM04P – 2 sets, MM08P – 3 sets, MM12P – 4 sets.

Fabricated Type Manifold

The fabricated type manifolds are available for both vertical and horizontal installation.

Support brackets are included as per the requirement with an optional inlet valve and drain valve.

Safety, Maintenance & Installation

General

These manifolds are available for both vertical and horizontal installation.

The back is provided with threaded connections M12 for ease of installation by attaching to a supporting structure.

Mounting kits

Generally, the manifold is conveniently attached to the structural steelwork supporting the plant. For easy installation, it is recommended that spacers are fitted to give the manifold a stand-off of at least 50 mm.

For convenience, the following sets of mounting kit are available:

FMM04 : Single set with 2 studs, nuts and spacers.

FMM08 : Single set with 3 studs, nuts and spacers.

FMM12 : Single set with 4 studs, nuts and spacers.

After installation, it is recommended that the manifold is insulated to minimize radiated heat losses and to protect the personnel from burn risks. This is most easily done using the optional insulating jacket.

SAFETY & INSTALLTION INFORMATION

Steam Distribution Duty

The recommended installation is with the steam inlet connection at the top of the manifold.

A trap set should be installed to the bottom and the discharge from this trap set should ideally be returned. If it is to be discharged to the atmosphere, we recommend to install a diffuser.

Condensate Collection Duty

The recommended installation is with the condensate outlet connection at the top of the manifold.

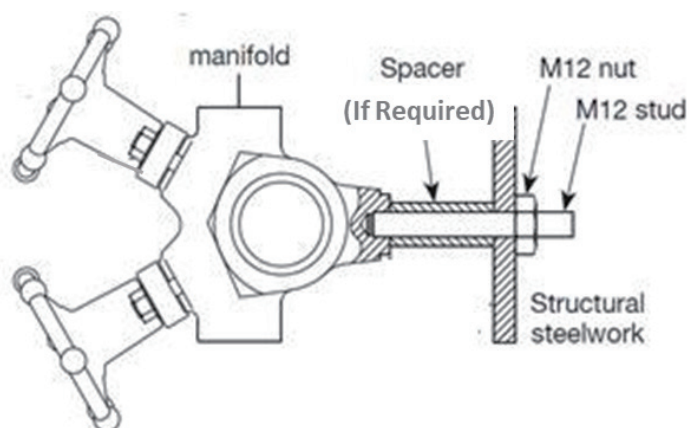
The stop valve should be installed at the bottom of the manifold for the blowdown purpose.

We recommend to install a diffuser.

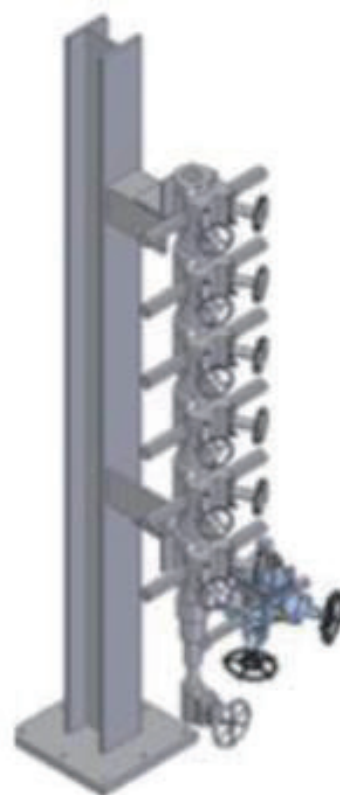
Operation

While operation the piston valve should be either fully open or fully closed. It is not intended for throttling duties.

As the piston valve has a large sealing area, it is not necessary to use a valve key to ensure dead tight shut-off.



Installation Top View



ISO View

Note



2-1-30, Tagawakita, Yodogawa-ku
Osaka 532-0021 JAPAN
Tel: + 81 - 6 - 6302 - 5549
Fax: + 81 - 6 - 6305 - 7155
E-Mail: export@miyawaki-inc.co.jp
Website: www.miyawaki-inc.com/en/

