Cert. No. LRQ 0963008

ISO 9001

TI-P117-15
ST Issue 3

MSC Manifolds - DIN for Steam Distribution and Condensate Collection

Description
A range of forged carbon steel compact manifolds with integral piston type stop valves for steam distribution and condensate collection duty.
MSC manifolds can be used for either steam distribution duty **or** condensate collecton duty depending on the way they are installed.

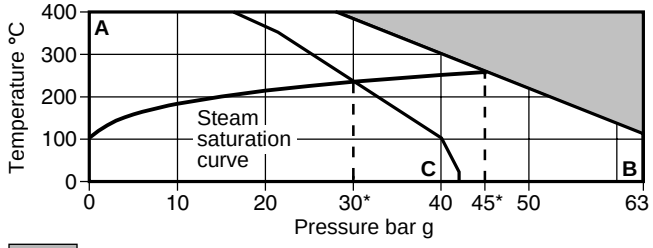
Available types, sizes and pipe connections
MSC manifolds are available with 8 connections designated **MSC08** and flanged to DIN PN40, PN64 or butt weld to DIN 3239 Type 2.
The steam main/condensate return connection is **DN40**.
The tracer line and drain connections are available as;
DN15 - butt weld
DN15, **DN20** and **25** - PN40 and PN64 flanged.

Optional extras
The following are available at extra cost:
- Mounting kit comprising of studs, spacers and nuts.
- Insulating jacket for body and flanges.

Limiting conditions

Body design conditions	DIN PN63
Designed for a maximum cold hydraulic test pressure of 95 bar g	

Operating range



The product must not be used in this region.
***** PMO Maximum operating pressure for steam service.
A - B Flanged PN64 and butt weld.
A - C Flanged PN40.

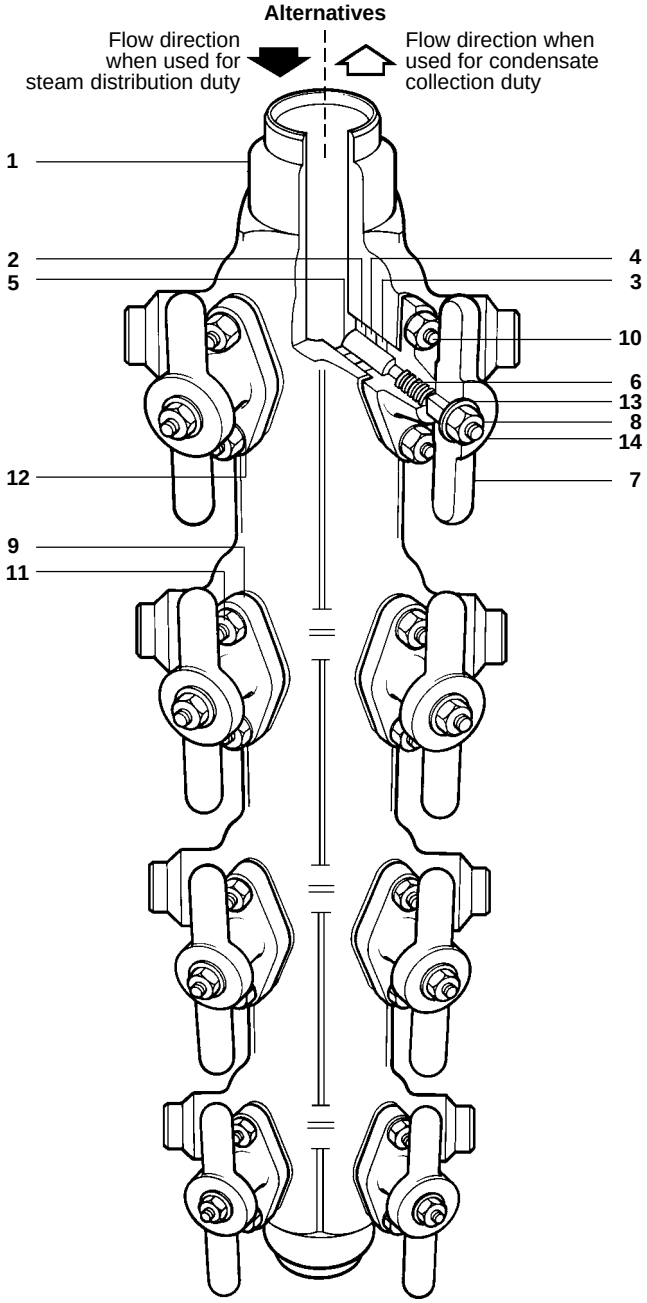
K_V values

All sizes	K_V 1.8

For conversion: $C_V(UK) = K_V \times 0.963$ $C_V(US) = K_V \times 1.156$
The K_V stated is for each valve rather than the complete manifold.

Materials

No.	Part	Material	
1	Body	Carbon steel	DIN 17243 C22.8 (1.0460)
2	Lower ring	Graphite and stainless steel	
3	Upper ring	Graphite and stainless steel	
4	Lantern bush	Carbon steel	
5	Piston	Stainless steel	X5 Cr. Ni Mo 17.122
6	Spindle	Stainless steel	X20 Cr 13 Warmebehandelt
7	Handle	Carbon steel	
8	Handle nut	Carbon steel	
9	Bonnet	Carbon steel	DIN C22.8
10	Studs	Carbon steel	5.6
11	Nuts	Carbon steel	5.2
12	Washers	Carbon steel	
13	Washers	Carbon steel	
14	Name-plate	Stainless steel	



Certification
This product is available with certification to EN 10204 3.1.B.
Note: All certification/inspection requirements must be stated at the time of order placement.

How to order
Example: 1 off Spirax Sarco MSC08 steam distribution and condensate collection manifold in forged carbon steel body with integral piston valves having 8 x DN15 butt weld connections to DIN 3239 Type 2. Complete with EN 10204 3.1.B certification as standard for the body and bonnet.

Local regulations may restrict the use of this product to below the conditions quoted.
In the interests of development and improvement of the product, we reserve the right to change the specification.

Dimensions/weight (approximate) in mm and kg

Type	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight
MSC08	650	160	85	140	69	43	25	100	96	110	47	M12	36	20

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P117-17) supplied with the product.

General

This manifold has been designed for vertical installation. Ensure that there is sufficient access to the handle to allow proper operation. The back is provided with threaded connnections, M12, for ease of installation by attaching to a support structure.

Mounting kits

The manifold is generally conveniently attached to the structural steelwork supporting the plant.

For ease of installation it is recommended that spacers are fitted to give the manifold a stand-off of at least 50 mm.

For convenience a mounting kit of fasteners and spacers are available (Note: The MSC08 requires 2 fasteners):

- A single set comprising 2 off each stud, nut and spacer suitable for installing one off MSC08 manifold.

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

Steam distribution duty

The recommended installation is with the steam inlet connection at the top of the manifold. A trap should be fitted to the bottom. The discharge from this trap set should ideally be returned. If it is to be discharged to atmosphere we recommend that a diffuser is fitted.

Condensate collection duty

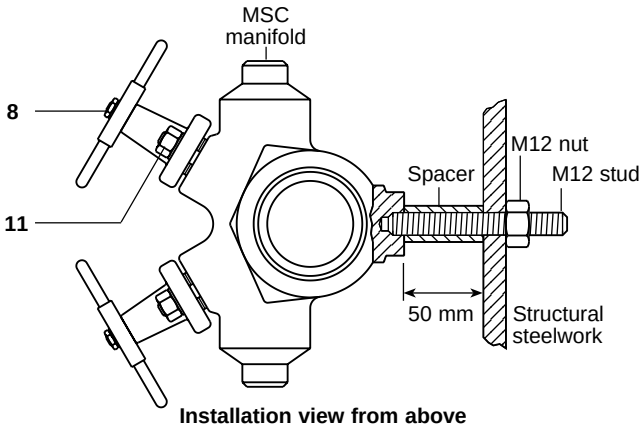
The recommended installation is with the condensate outlet at the top. The bottom of the manifold should be fitted with a stop valve for blowdown purposes. Again, we recommend that a diffuser is fitted.

Operation

In operation the piston valve should be either fully open or fully closed:

It is not intended for throttling duties.

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



Installation view from above

Recommended tightening torques

Item	or		N m
	mm		
8	8 A/F	M5	0.1
11	14 A/F	M8	10.0

Spare parts

The spare parts available are detailed below. For ease of replacement an extractor tool is available for removing the sealing rings.

Available spares	
Sealing ring set	**2, 3**
Valve internals set	**2, 3, 4, 5, 6, 8, 13**
Extractor tool	

How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the type and size of manifold.

Example: 1 off Sealing ring set for an integral piston valve on a carbon steel manifold MSC08 DN15 butt weld.