



STEAM & CONDENSATE MANIFOLD

MODEL M4P/M8P/M12P

RUGGED MANIFOLD WITH BUILT-IN PISTON VALVES RATED TO 1098 PMO

Benefits

CLASS 800 forged steel manifolds for steam distribution and condensate recovery on tracing and other applications.

1. Rugged and versatile CLASS 800 design minimizes installation area and easily adapts to plant requirements.
2. Each line has a built-in piston valve, minimizing installation space.
3. Employs a high performance piston valve comprised of upper and lower valve rings made of alternating layers of stainless steel and graphite that provide exceptional tight-sealing.
4. The CLASS 800 design and fully maintainable piston valves provide for long service reliability.
5. Complete condensate manifold packages are available, incorporating shutoff valves and steam traps.



Specifications

Model		M4P		M8P		M12P	
Steam Outlet* / Condensate Inlet**	No. of Connections	4		8		12	
	Connection***	Screwed	Socket Weld	Screwed	Socket Weld	Screwed	Socket Weld
	Size (in)	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4	1/2, 3/4
Steam Inlet* / Condensate Outlet**	Connection***	Socket Weld					
	Size (in)	1 1/2					
Drain* / Blowdown**	Connection***	Socket Weld					
	Size (in)	1 1/2					
Maximum Operating Pressure (psig)	PMO			1098			
Maximum Operating Temperature (°F)	TMO			800			
Maximum Allowable Pressure (psig)	PMA			1098			
Maximum Allowable Temperature (°F)	TMA			800			
Seat Leakage (Gas test in accordance with API 598)		0 bubbles/15 seconds @ 87 psig					

* When used as a steam manifold ** When used as a condensate manifold

Connections and sizes in bold are standard

*** Flanged connections available as an option

Compact M4P/M8P/M12P with short pitch available as option. Contact TLV for details.

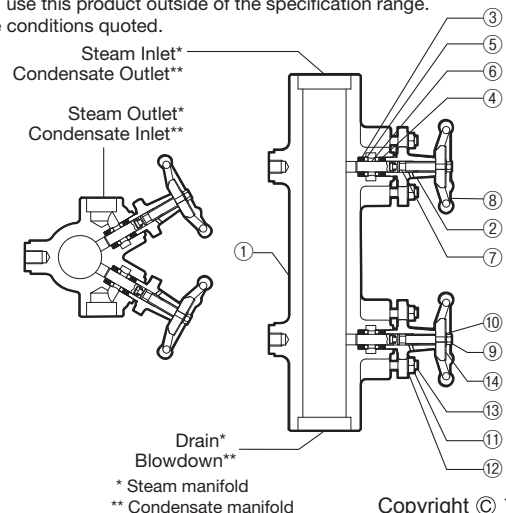


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

No.	Description	Material	ASTM/AISI	JIS
①	Body	Carbon Steel	A105	—
②	Valve Bonnet	Carbon Steel	A105	—
③	Lower Valve Ring	Graphite/Stainless Steel	—	—
④	Upper Valve Ring	Graphite/Stainless Steel	—	—
⑤	Lantern Bushing	Stainless Steel	A182 F316	—
⑥	Piston	Stainless Steel	A182 F316	—
⑦	Spindle	Stainless Steel	A479 410	—
⑧	Handwheel	Carbon Steel	A105	—
⑨	Handwheel Nut	Carbon Steel	—	—
⑩	Washer	Carbon Steel	—	—
⑪	Bonnet Nut	Carbon Steel	A194 2H	—
⑫	Washer	Carbon Steel	—	—
⑬	Bonnet Bolt	Alloy Steel	A193 B7	—
⑭	Design Plate	Aluminum	—	—

* Equivalent

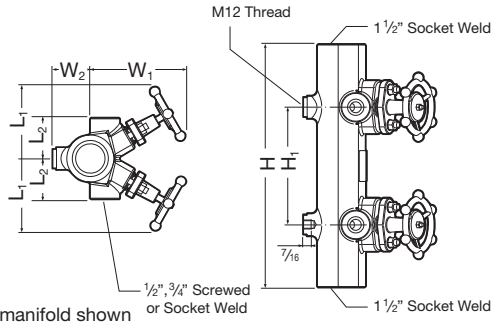
Repair parts are not provided. If repairs are required for any reason, consult TLV.



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Dimensions

● M4P / M8P / M12P Screwed & Socket Weld

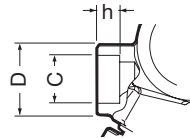


M4P / M8P / M12P Screwed (in)

Model	L ₁	L ₂	H	H ₁	W ₁ *	W ₂	Weight** (lb)
M4P			13 (9 7/16)	6 1/4 (4 3/4)	4 3/8	2	21 (19)
M8P	3 15/16	2 3/16	28 3/8 (20 1/2)				42 (37)
M12P			43 3/4 (31 1/2)				64 (57)

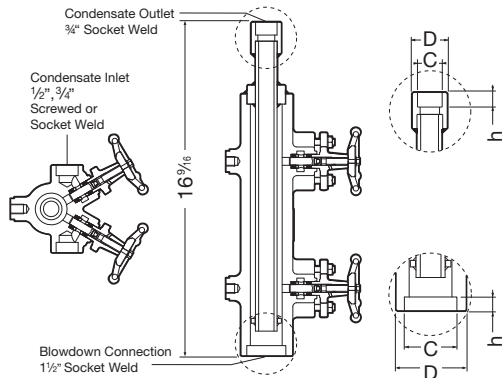
* At full open position **Approximate
() Optional compact model

● Socket Weld Connections (in)



Size	φD	φC	h
1/2	1 1/2	0.855	1/2
3/4		1.065	
1 1/2		1.915	

Optional Siphon Tube for Condensate Manifolds



M4P shown; optional siphon tubes are also available for M8P and M12P

Siphon Tube Socket Weld (in)

Connection	Size	φD	φC	h
Condensate Outlet	3/4	1 7/16	1.065	1/2
Blowdown	1 1/2	2 1/2	1.915	

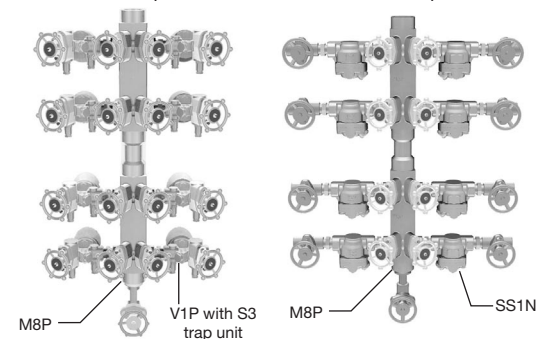
Note: Condensate inlet connections for manifolds with siphon tubes have the same dimensions as for standard M4P/M8P/M12P.

Optional Condensate Manifold Packages

Packages are available for the M4P, M8P and M12P manifolds (pictures show M8P manifold packages.)

Package	Components
① With V1P Trap Stations Trap station model: Shutoff valve type: Steam trap unit: (QuickTrap*)	V1P Series Piston valve (built-in) Free Float: S3/S5/S5H Thermodyne: P46UC Thermostatic: L21/L32/X1
② With Steam Traps & Valves Shutoff valve type (Trap Inlet): Shutoff valve type (Trap Outlet): Steam trap:	Various valve types** Piston valve (built-in) Free Float: SS1** Temperature Control: LEX3N-TZ** (with built-in scale removal feature)

① With V1P Trap Stations ② With Steam Traps & Valves



* For more information, see the QuickTrap specifications data sheet for the steam trap employing the desired trap unit (trap unit - QuickTrap data sheet): S3 - FS3/FS5; S5 - FS3/FS5; S5H - FS5H; P46UC - FP46UC; L21 - FL21/FL32; L32 - FL21/FL32; X1 - FX1
** Other steam trap types are available. Consult TLV for available valve types.

Note: The operating and allowable pressure and temperature ranges of the manifold package are limited to the lowest PMO/TMO and PMA/TMA of the steam trap or valves used. See the specifications data sheet for the steam trap or valve, or contact TLV for details.



DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE.
Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

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For Technical Service 1-800 "TLV TRAP"



Manufacturer

TLV CO., LTD.

Kakogawa, Japan

is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001
ISO 14001

