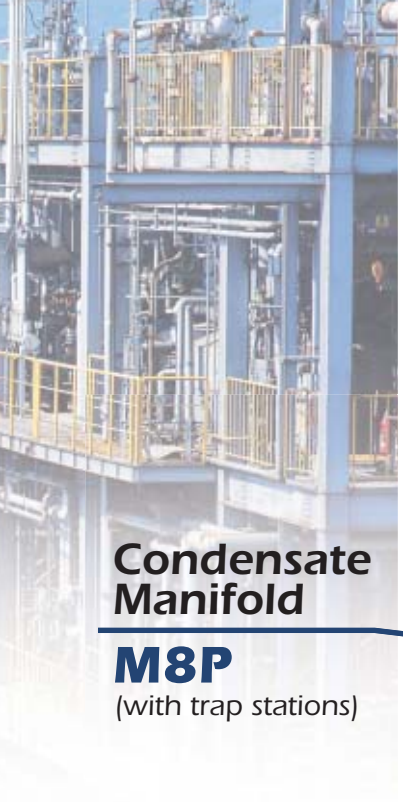
Pamphlet A4808

TLV®

STEAM & CONDENSATE MANIFOLDS

MP/M Series



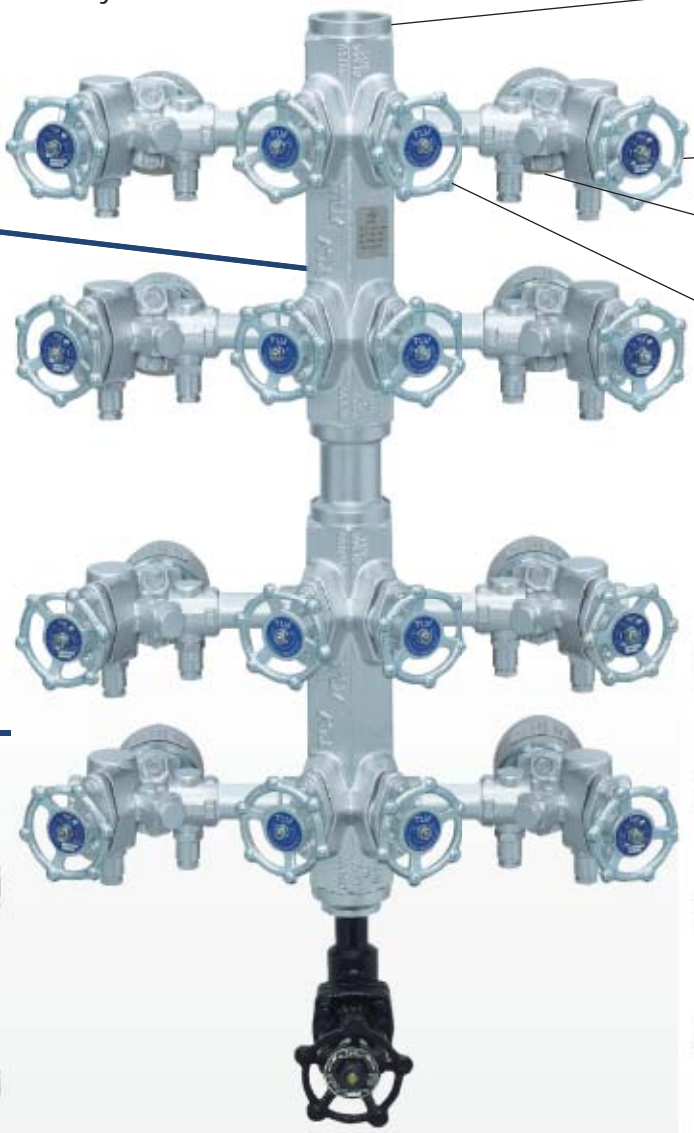
Streamline Your

A typical plant uses countless steam supply and condensate recovery lines requiring huge numbers of valves and steam traps.
TLV's rugged and versatile all-in-one packages for steam distribution and condensate collection simplify the control and management of your steam system.

Condensate Manifold

M8P

(with trap stations)



Condensate Collection Manifold Package Example
(M8P + V1P Trap Stations)

Basic Steam Manifold

M4P M4

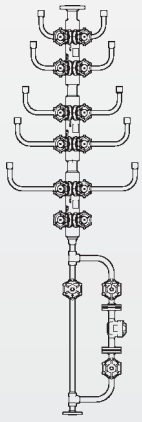
M8

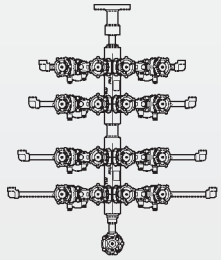
Condensate Collection Manifold Package Example
(M8 + Steam Traps + Globe Valves)

Basic Product Lineup

Model	M4P	M8P	M12P	M4	M8	M12
Integrated Valve	Piston Valve			Bellows Sealed Valve		
Number of Station Connections	4	8	12	4	8	12
Max. Operating Pressure (psig)	1098*			710*		
Max. Operating Temperature (˚F)	800*			752*		

Basic Manifolds for use with both steam and condensate
* Manifold Packages are further restricted by attached valves/traps





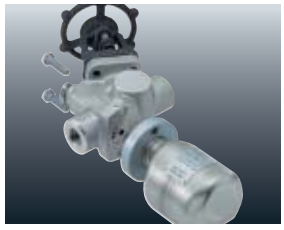
Special orders to meet individual design constraints possible.
Please consult TLV for details.

Steam Line

Features

Durable - Forged Steel Body

- TLV Manifolds are constructed with a forged steel body for high endurance and an extremely long service life, minimizing maintenance and replacement costs.
- Valves rated for 3,000 operation cycles.



Easy Trap Replacement

Trap Station + **QuickTrap®**

- Allows easy removal and replacement of steam traps with only 2 bolts, greatly reducing maintenance time and labour costs.
- Traps can be removed and replaced without disturbing piping.
- Built-in blowdown valve and strainer reduce scale build up.
- Built-in **TrapMan®** test point.

Choice of Steam Trap - QuickTrap®

- Freely choose from 3 different types of steam trap - free float, disc or thermostatic type - depending on the application requirements. (See back page for further information.)

Long Term Reliable Seal

Piston Valve (MP Series, V1P/V2P Series)

- 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. Also, it is possible to operate with the valve partially open.
- The nuts for the valve bonnet can be tightened to stop any leaks from the seat area.

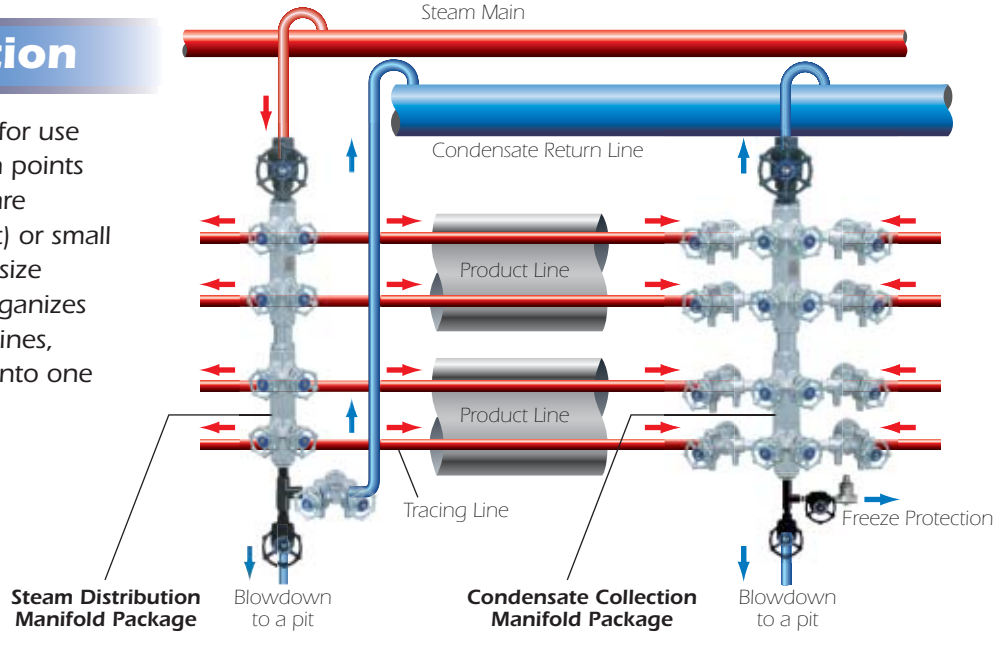
No Gland Leak

Bellows Sealed Valve (M Series, V1/V2 Series)

- Conserves energy by eliminating gland leaks.
- Improves safety and working environment by removing steam clouds.
- Enjoys a long service life through the utilization of stellite-hardened surfaces on valve plug and valve seat.

Typical Application

TLV manifold packages are ideal for use in areas where steam distribution points or condensate collection points are gathered, e.g. tube tracing (right) or small equipment piping. The compact size reduces installation space and organizes different steam and condensate lines, steam traps and isolation valves into one manageable package.



Trap Stations - V1/V2/V1P/V2P

Combining a steam trap and a valve, Trap Stations facilitate simplification of piping.

- The V1/V2 series employs a bellows valve for zero gland leaks, and the V1P/V2P series uses a piston valve exhibiting reliable sealing.
- The steam trap can be selected from the QuickTrap series (free float, disc, and thermostatic types) to most suit the particular application.
- The V1/V1P series have a valve on the inlet side, the V2/V2P series have valves on the inlet and outlet sides. Models equipping a blowdown valve to flush out the interior, and a test valve to check trap operation are also available.
- The V1/V1P series are for applications with the outlet side open to the atmosphere. The V2/V2P series are for applications with the outlet side piping used for condensate recovery. (Manifolds, main lines, tracers, general processes, etc.)

MODEL	V1-RL	V1-RB	V1-LB	V2-RL	V2-RB	V2-LB
Valve Type	Bellows Sealed Valve					
Station Picture	or			or		
Flow Diagram	or			or		
Flow Direction	Right or Left	Right	Left	Right or Left	Right	Left
Blowdown Valve	—	✓	✓	—	✓	✓
Test Valve	—	—	—	—	✓	✓
Max. Operating Pressure (psig)	650*					
Max. Operating Temperature (°F)	752*					

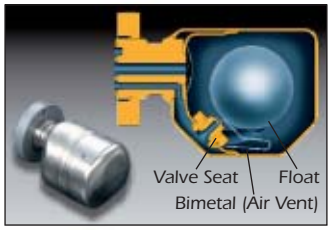
MODEL	V1P-RL	V1P-RB	V1P-LB	V1P-RW	V1P-LW	V1P-RV	V1P-LV	V2P-RL	V2P-RB	V2P-LB
Valve Type	Piston Valve									
Station Picture	or							or		
Flow Diagram	or							or		
Flow Direction	Right or Left	Right	Left	Right	Left	Right	Left	Right or Left	Right	Left
Blowdown Valve	—	✓	✓	✓	✓	—	—	—	✓	✓
Test Valve	—	—	—	✓	✓	✓	✓	—	✓	✓
Max. Operating Pressure (psig)	725*									
Max. Operating Temperature (°F)	800*									

Please see Specification Data Sheet (SDS) V1/V2, V1P/V2P for further details. * For trap station only; further restricted by mounted trap unit

QuickTrap® - Steam Trap Units

Free Float Steam Trap

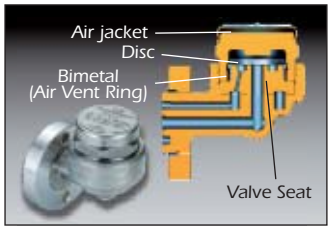
- Durable float rated to withstand surges of up to 1740 psi hydraulic pressure
- Unique 3-point seating provides tight shutoff
- Rapid removal of start-up air by internal thermostatic vent



Model*	S3	S5	S5H
PMO (psig)	300	450	650
TMO (°F)	752	752	800
Max. Discharge Capacity** (lb/h)	475	1510	530

Thermodynamic Steam Trap

- Rugged thermodynamic principle for arduous conditions
- Standard air-jacketed cap prevents no load actuation
- Rapid removal of start-up air by internal thermostatic vent

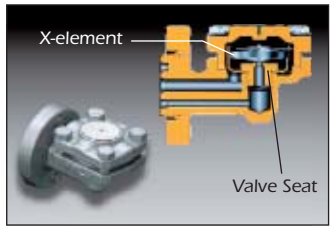


Model*	P46UC
PMO (psig)	640
TMO (°F)	752
Max. Discharge Capacity** (lb/h)	1630

Thermostatic Steam Traps

L Series

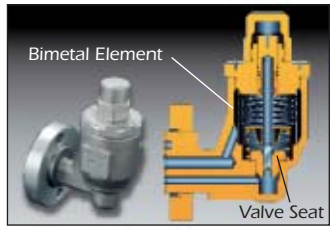
- Patented "Fail Open" feature of balanced pressure X-element
- Outstanding air venting capability
- Rugged, 4 diaphragm capsule



Model*	L21	L32
PMO (psig)	300	450
TMO (°F)	455	464
Max. Discharge Capacity** (lb/h)	1050	930

X1

- Discharge temperatures can be set between 120 and 390 °F to utilize the sensible heat in condensate.
- Built-in auger device removes scale from valve seat



Model*	X1
PMO (psig)	300
TMO (°F)	662
Max. Discharge Capacity** (lb/h)	650

* For more information, see the QuickTrap Specifications Data Sheet (SDS) 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.

** Actual discharge capacity will vary depending on operating conditions; see relevant SDS for details.

CAUTION 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.

CAUTION 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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Member of FCI Fluid Controls Institute, Inc. Technical Resources for Instrumentation and Fluid Control

Manufacturer
TLV® CO., LTD.
Kakogawa, Japan
is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001/ISO 14001