

# Multi-Purpose Valves

- Combination valve replaces the features of a check valve, balancing valve and a shut off valve
- Available in 2"–12" sizes
- Cast iron body with ANSI flanged connections
- Working pressure is 175 psig @ 250°F

The Patterson Pump Triple Service Valve is a multipurpose valve designed for the hydronic and industrial markets. The TSV eliminates the need for a separate check and balancing valve in the piping design. The Ductile Iron Body allows the valve to be used in higher pressure applications with each valve tested to 400 PSI. This allows the valves to be matched up with the Class 150 steel flanges that are rated to 275 PSI. The rubber O ring seal offers bubble tight sealing on both the check and shutoff features of the TSV valve.

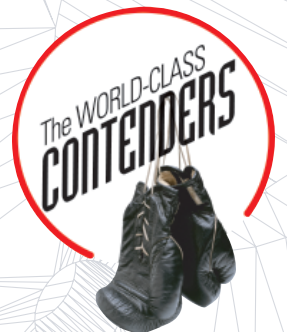
The Brass metering schraders on the flanges allows for the balancing feature to be used by setting the memory stop and flow indicator ring on the top of the plug. The compact design of the plug valve offers installation convenience combined with lighter handling weight when installed in all mechanical rooms. The design of the TSV allows for both vertical and horizontal installations of this valve. Handles are included with each valve.

**Patterson**

A Subsidiary of The Gorman-Rupp Company  
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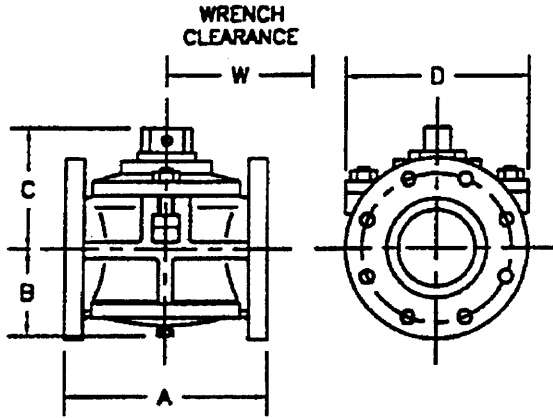


Mfg. by American HVAC for Patterson Pump Co.





# Triple Service Valves



Materials of Construction	
Body and Cover	ASTM A536 Ductile Iron
Clapper and Plug	ASTM A536 Ductile Iron
Spring and Clapper Pin	316 Stainless Steel
Metering Connections	Brass Schraders
Studs and Nuts	304 Stainless Steel
O'rings and Clapper Seal	Nitrile Rubber O'rings

Part #	Size	A	A	Flange Holes Tapped	B	C	D	W	Wt. Lbs
TSV-15T	1.5" Thread	6 3/8	**	N/A	2 1/8	4 7/8	5 5/8	14	17
TSV-2T	2" Thread	6 3/8	**	N/A	2 3/8	5 3/8	5 3/4	14	19
TSV-25T	2.5" Thread	8 1/4	**	N/A	2 3/4	5 3/4	7 1/2	16 1/4	31
TSV-2F	2" Flange	**	7	No	2 3/8	5 3/8	5 5/8	14	25
TSV-25F	2.5"	**	8	Yes	2 3/4	5 3/4	5 3/4	16 1/4	40
TSV-3F	3"	**	8	Yes	2 3/4	5 3/4	7 1/2	16 1/4	43
TSV-4F	4"	**	9	Yes	3 5/8	6 7/8	7 1/2	16 1/4	65
TSV-5F	5"	**	10	No	3 5/8	6 7/8	5 7/8	16 1/4	80
TSV-6F	6"	**	10 1/2	Yes	4 1/2	8 3/4	7 1/4	23	124
TSV-8F	8"	**	11 1/2	Yes	5 1/4	8 7/8	8 3/8	23	175
TSV-10F	10"	**	16	No	6 3/8	10 1/4	13 1/2	31	295
TSV-12F	12"	**	19	No	7 1/4	11 3/8	14 1/2	31	420

Dimensionals are Plus (+) or Minus (-) 1/16"

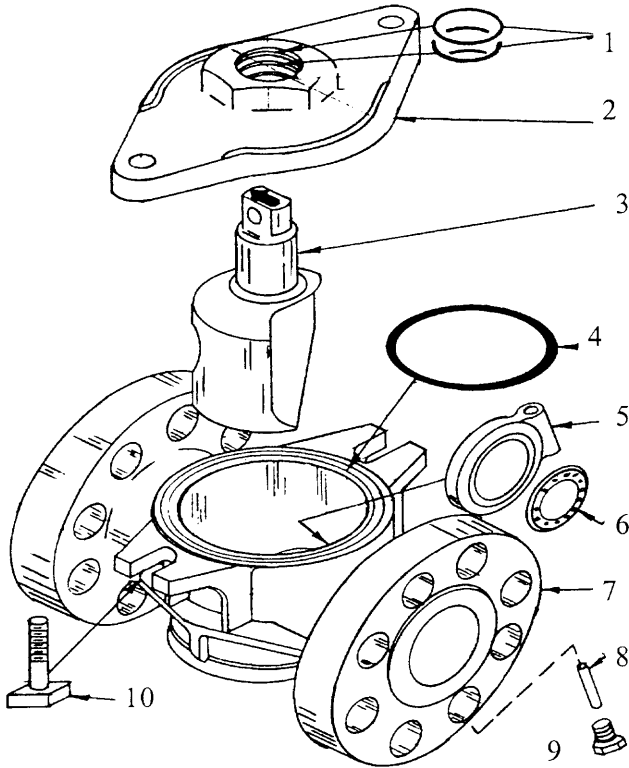
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Distributed By:

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## Triple Service Valve Operation and Instructions



### Design and Principle of Operation:

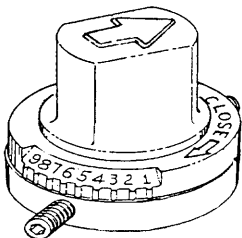
The Triple Service Valve is designed to be a Block, Check and Balancing Valve for installations needing these three features. This valve is a Quarter Turn Plug Valve with a built in Clapper for checking flow and the body is drilled and tapped for metering capabilities. When the valve is in the Open Position, the spring loaded check feature is being utilized to act as a check valve. In the Closed Position, the plug is turned and sealed against the clapper to create a bubble tight seal which is the block design of the valve. By adjusting the stem to the desired opening, flow can be controlled by using the balancing indicator shown below to get the correct flow desired.

### Maintenance

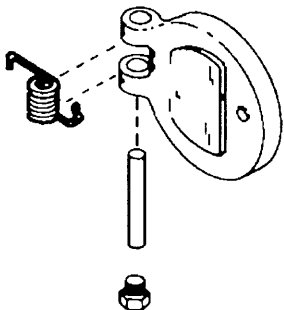
This valve is designed to be a non-lubricated plug valve with a Teflon coated stem. This makes the valve maintenance free.

The valve should be operated (open and closed) at least once a month to keep the valve in working order. This keeps the buildup of rust that is caused by improper water treatment, from building up around the plug area. By operating the valve, this will wash away any foreign particles that may be trapped in the valve.

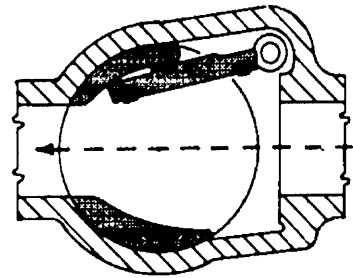
Be sure and bump the handle of the valve when closing to ensure a tight seal between the plug and clapper.



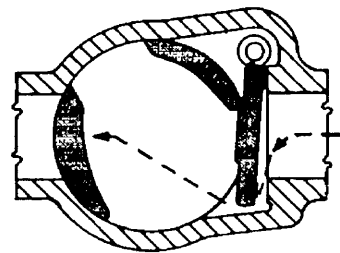
Flow Indicator



Clapper Assembly



Open Position



Closed Position