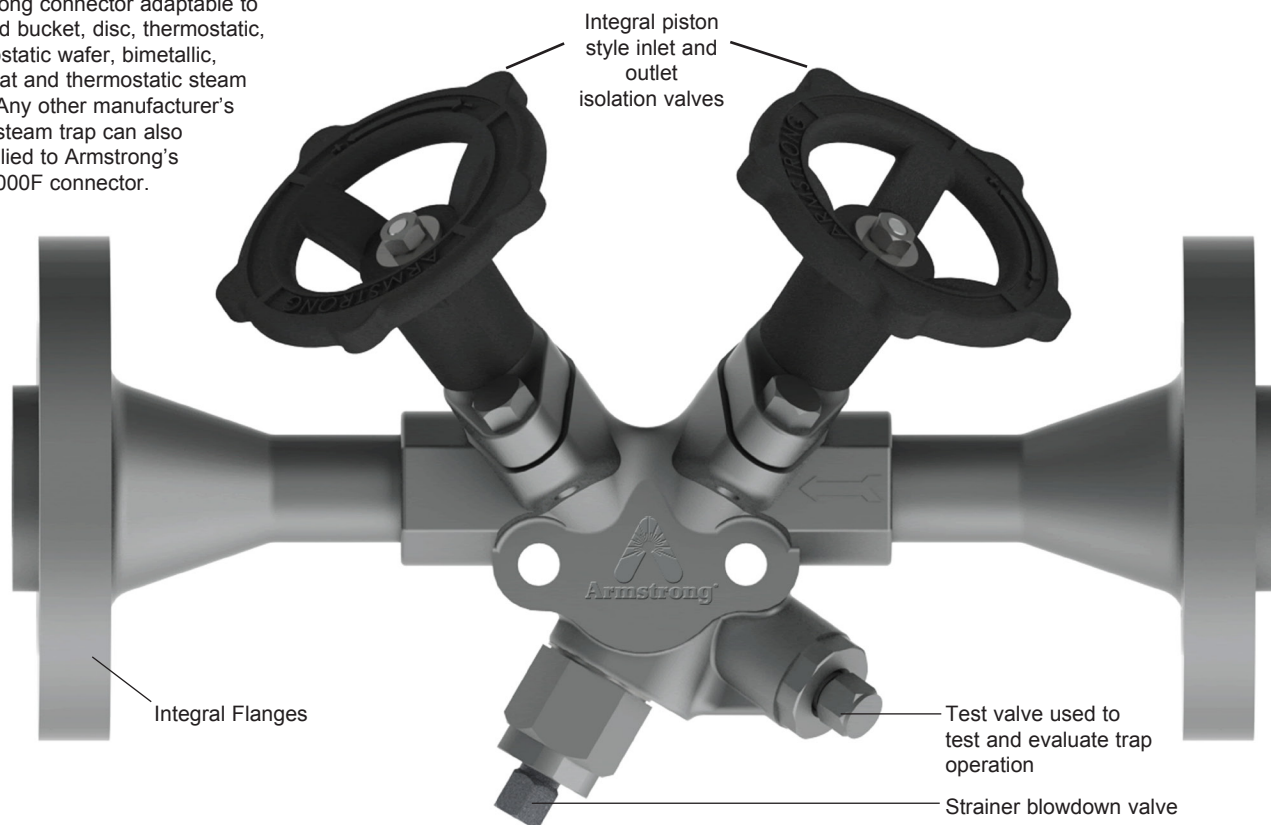


shopvalves.com TVS 4000F Series Stainless Steel Trap Valve Station

For Pressures to 650 psig (45 bar)...Capacities to 1,300 lb/hr (590 kg/hr) (Using 2000 Series Inverted Bucket Steam Traps)



Armstrong connector adaptable to inverted bucket, disc, thermostatic, thermostatic wafer, bimetallic, and float and thermostatic steam traps. Any other manufacturer's 2-bolt steam trap can also be applied to Armstrong's TVS 4000F connector.



Steam Trapping and
Steam Tracing Equipment

Description

A complete package featuring two piston-style isolation valves, test valve and integral stainless steel strainer with blowdown valve. You'll realize all the benefits of a piston valve integrated into the same space-saving package.

Maximum Operating Conditions

Maximum allowable pressure:
650 psig @ 600°F (45 bar @ 315°C)

Materials—TVS 4000F Connector

Connector ASTM A351 Gr. CF8M
Strainer screen Stainless steel
Test valve Stainless steel
Blowdown valve..... Stainless steel

Isolation Valve Components

All wetted parts..... Stainless steel
Valve sealing rings Graphite and stainless steel
Handwheel..... Ductile iron or CF8M

Weight

14 lb (6.4 kg)

How to Order

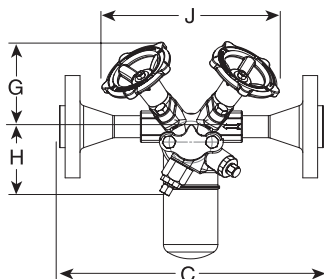
Model	Connection	Type of Connection Inlet/Outlet	Flow Direction	Trap Type
TVS 4000F	3/4"	Flanged ASME B16.5 Class 150, 300, 600	R = Right to Left L = Left to Right	Inverted Bucket • Disc • Thermostatic wafer Bimetallic • Float and Thermostatic
	1"	Flanged ASME B16.5 Class 150, 300		

Features

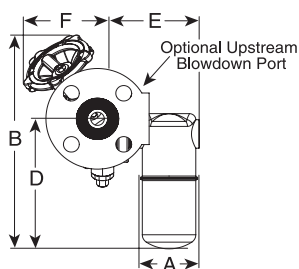
- **Reduced costs.** TVS saves on these fronts: reduced leak points, installation and maintenance time.
- **A full range of features.** TVS has test and strainer blowdown valves. When installed with Armstrong Model 2011 and 2022 steam traps, it will also accommodate the Armstrong pop drain as well as TrapAlert[®] and SteamEye[®]—remote steam trap monitoring and testing devices.
- **Reduced design time.** Permits combining products with exact face-to-face dimensions.
- **Three-year guarantee.** The TVS 4000F is guaranteed for three years.
- **Easy, in-line reparability with maximum safety.** TVS allows isolation at point of service with upstream/downstream depressurization.
- **Installation versatility.** The connector design makes the TVS adaptable to any manufacturer's 2-bolt steam trap and piping configuration.
- **Simplified trap testing.** TVS enhances your capability to check trap operation and offers a built-in method to block and bleed traps.
- **Integral Flanges.** The body and connections are of one piece construction, free of welds and other potential leak paths.

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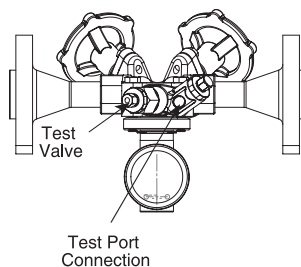
Designs, materials, weights and performance ratings are approximate and subject to change without notice. Visit armstronginternational.com for up-to-date information.



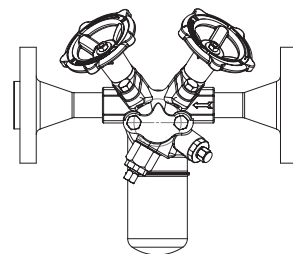
**Model TVS 4000F
with
2000 Series SS Trap**
Front View



**Model TVS 4000F
with
2000 Series SS Trap**
Side View



**Model TVS 4000F
with
2000 Series SS Trap**
Bottom View



**Strainer
Blowdown
Valve**

Same principle. Different package with two piston-style isolation valves, test valve and integral stainless steel strainer with blowdown valve. Now the energy-saving performance and reliability of the inverted bucket steam trap are available in a versatile new package. You'll still enjoy all the familiar benefits. And the same efficient condensate drainage from virtually every kind of steam-using equipment. What you'll find new are all the benefits of a piston valve integrated into the same space-saving package.

Materials—TVS 4000F Connector

Connector	ASTM A351 Gr. CF8M
Strainer screen	Stainless steel
Screen retainer	Stainless steel
Gasket	Stainless steel
Retainer unit	Stainless steel
Test valve	Stainless steel
Blowdown valve	Stainless steel

Isolation Valve Components

Handwheel	Ductile iron or CF8M
Nut	Stainless steel
Stem, washers	Stainless steel
Bonnet	ASTM A351 Gr. CF8M
Bonnet, bolts	DIN 933, Gr. 8.8 per DIN 267
Valve plug	Stainless steel
Disc springs	Stainless steel
Valve sealing rings	Graphite and stainless steel
Lantern bushing	Stainless steel
Valve washers	Stainless steel

Materials—Series 2000 Traps

Body	ASTM A240 Gr. 304L
Internals	All stainless steel—304
Valve and seat	Hardened chrome steel—17-4PH

TVS 4000 Series With 2000 Series Inverted Bucket Steam Trap

Model No.	2010		2011		2022	
	in	mm	in	mm	in	mm
Pipe Connections	3/4, 1	20, 25	3/4, 1	20, 25	3/4, 1	20, 25
“A” Trap Diameter	2-11/16	68	2-11/16	68	3-7/8	98
“B” Height (Valve Open)	8	203	10-1/2	268	12-1/2	318
“C” Face to Face	12	305	12	305	12	305
“D” Connection $\varnothing$ to Bottom	4-3/4	120	6	154	8	203
“E” Connection $\varnothing$ to Outside of Trap	4-1/2	114	4-13/16	122	5-7/8	149
“F” Connection $\varnothing$ to Front of Handwheel (Valve Open)	3-1/2	89	3-7/8	98	3-7/8	98
“G” Connection $\varnothing$ to Top of Handwheel (Valve Open)	3-1/4	83	4-1/2	114	4-1/2	114
“H” Connection $\varnothing$ to Bottom of Connector	1-7/8	47	3-1/4	83	3-1/4	83
“J” Width Across Handwheels (Valve Open)	9-1/4	235	8-3/4	222	8-3/4	222
Test Port Connection	1/4 NPT	6	1/4 NPT	6	1/4 NPT	6
Weight lb (kg)	16	7.3	16.5	7.5	19	8.6
Maximum Operating Pressure (Trap)	200 psi (14 bar)		400 psi (28 bar)		650 psig (45 bar)	
Maximum Allowable Pressure (Trap)	400 psi (28 bar) @ 800°F (427°C)				650 psig @ 600°F (45 bar @ 315°C)	

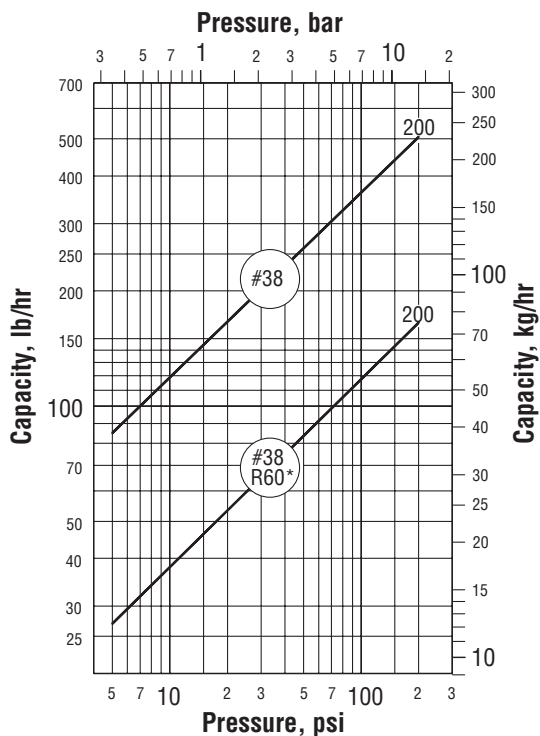
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Steam Trapping and
Steam Tracing Equipment

Model 2010 Capacity



*NOTE: Because the orifice is located at the top, inverted bucket steam traps handle dirt and scale better than other types of traps. However, in applications where extremely dirty conditions exist, care should be exercised in the use of all types of restricted-orifice, reduced-capacity traps.

Options

Insu-Pak™

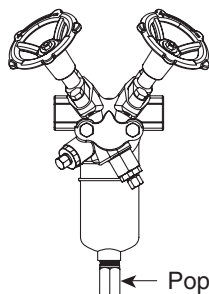
Now you can insulate the in-line traps in your plant without complicating regular trap maintenance. Insu-Pak, a simple reusable insulation package, cuts the time and cost of in-field installation because it goes on in a snap. And it comes off just as easily. The Insu-Pak can prevent trap freeze-up when used with a properly designed condensate manifold. Designed for use with Model 2010 and Model 2011 traps.



Pop Drain

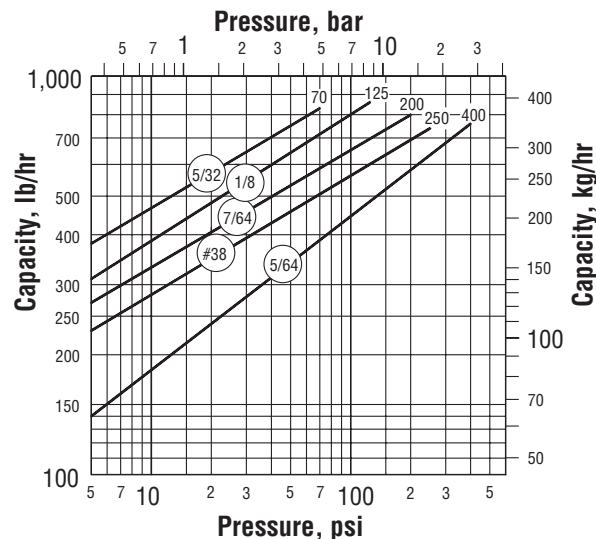
Simple but effective against freeze-up. Properly installed and maintained at low points in your system, the simple, pressure-actuated pop drain opens for condensate drainage at 5 psig (0.35 bar) for Models 2011 and 2022.

Probe Connections are available for trap monitoring on Models 2011 and 2022.

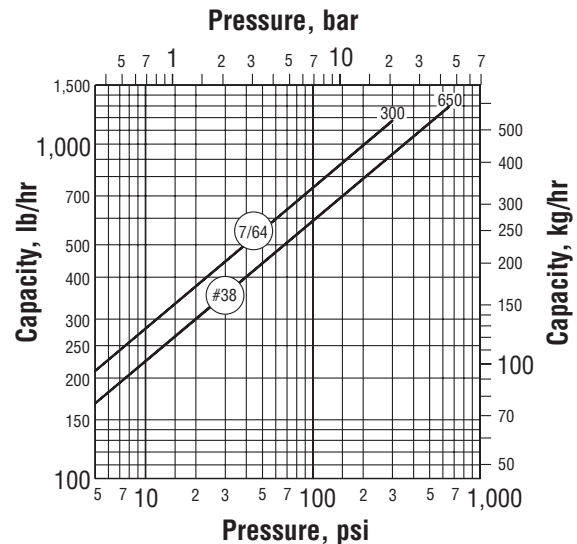


Pop Drain

Model 2011 Capacity



Model 2022 Capacity



U.S. Patent 6,467,503

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