

Integral piston style inlet and outlet isolation valves

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 4000 connector.

Connection flexibility (SW, NPT, BSPT options)

**3-years guarantee**

Test valve used to test and evaluate trap operation

Strainer blowdown valve

### Description

Same principle. Different package with two piston-style isolation valves, test valve and integral stainless steel strainer with blowdown valve. What you'll find new are all the benefits of a piston valve integrated into the same space-saving package.

### Maximum Operating Conditions

Maximum allowable pressure:  
45 bar @ 315°C

### Materials—TVS 4000 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

### Weight

2,9 kg

### Description

- **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 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 4000 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.

**Table ST-154-1. How to Order**

Model	Connection	Type of Connection Inlet/Outlet	Flow Direction	Trap Type
TVS-4000	1/2" 3/4"	NPT SW BSPT Flanged*	R = Right to Left L = Left to Right	Inverted Bucket Disc Thermostatic wafer Bimetallic Float and Thermostatic

\*Consult factory.



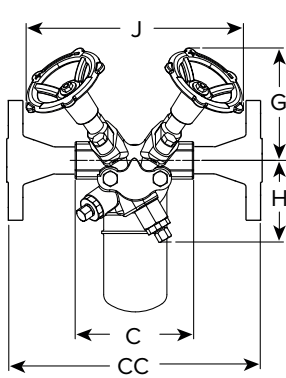


# TVS-4000 Stainless Steel Trap Valve Station

**Stainless Steel with 360° Connector**

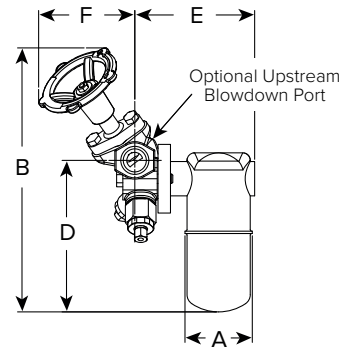
For Pressures to 45 bar...Capacities to 590 kg/h  
(Using 2000 Series Inverted Bucket Steam Traps)

Steam Trapping and Steam Tracing Equipment



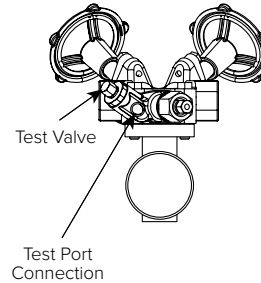
Model TVS-4000 with 2000 series SS Trap

Front View



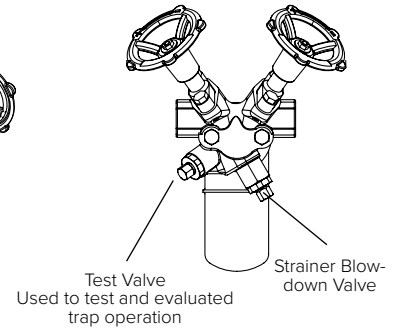
Model TVS-4000 with 2000 series SS Trap

Side View



Model TVS-4000 with 2000 series SS Trap

Bottom View



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-4000 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:	Cast iron
Nut:	Stainless steel
Stem, Washers:	Stainless steel
Bonnet:	ASTM A351 Gr. CF8M
Bonnet, Bolts:	Stainless steel Gr. A2
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:	Stainless Steel 17-4PH (<35 bar)
	Titanium (>35 bar)

### Connections

- Screwed BSPT and NPT
- Socketweld
- Flanged DIN or ANSI (welded)

**Table ST-156-1. TVS-4000 Series with 2000 Series Inverted Bucket Steam Trap (dimensions in mm)**

Model No.	2010	2011	2022
Pipe Connections	15 – 20	15 – 20	15 – 20
"A" Trap Diameter	68	68	98
"B" Height Valve Open	203	268	318
"C" Face-to-Face (screwed & SW)	120	120	120
"CC" Face-to-Face (flanged PN40*)	384	384	384
"D" Connection $\varnothing$ to Bottom	120	154	203
"E" Connection $\varnothing$ to Outside of Trap	114	122	149
"F" Connection $\varnothing$ to Front of Handwheel (Valve Open)	98	98	98
"G" Connection $\varnothing$ to Top of Handwheel (Valve Open)	114	114	114
"H" Connection $\varnothing$ to Bottom of Connector	83	83	83
"J" Width Across Handwheels (Valve Open)	235	235	235
Weight in kg (screwed & SW)	4,1	4,3	5,4
Weight in kg (flanged PN40*)	5,8 – 6,4	6,0 – 6,6	7,1 – 7,7
Maximum Operating Pressure (Trap)	14 bar	28 bar	45 bar
Maximum Allowable Pressure (Trap) †	28 bar @ 399°C	28 bar @ 399°C	45 bar @ 315°C

\* Standard flanges are in carbon steel, stainless steel flanges are optional. Other flange sizes, ratings and face-to-face dimensions are available on request.

All models comply with the Article 4.3 of the PED (2014/68/UE).

† May be derated depending on flange rating and type.

**All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.**

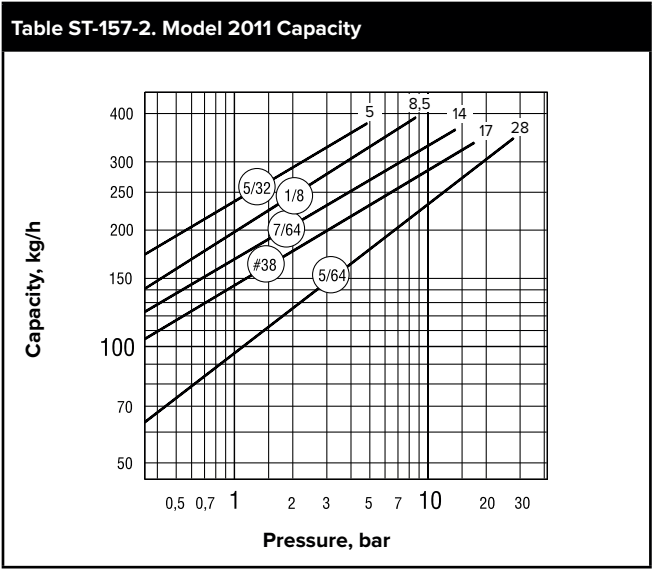
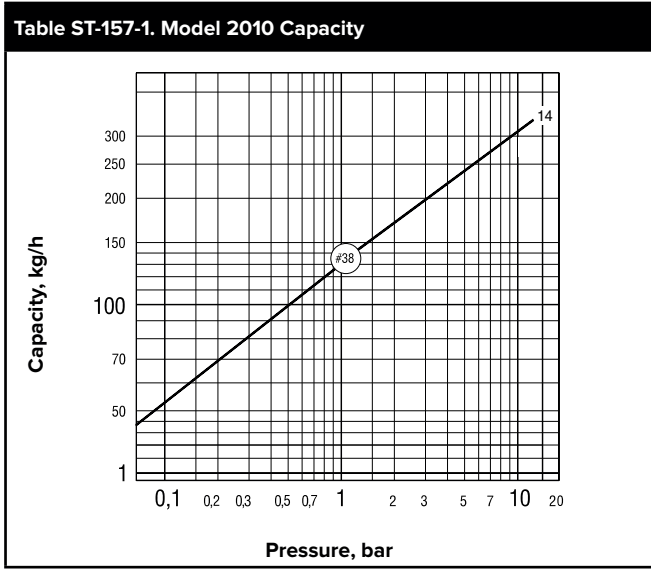
# TVS-4000 Stainless Steel Trap Valve Station

Stainless Steel with 360° Connector

For Pressures to 45 bar...Capacities to 590 kg/h  
(Using 2000 Series Inverted Bucket Steam Traps)

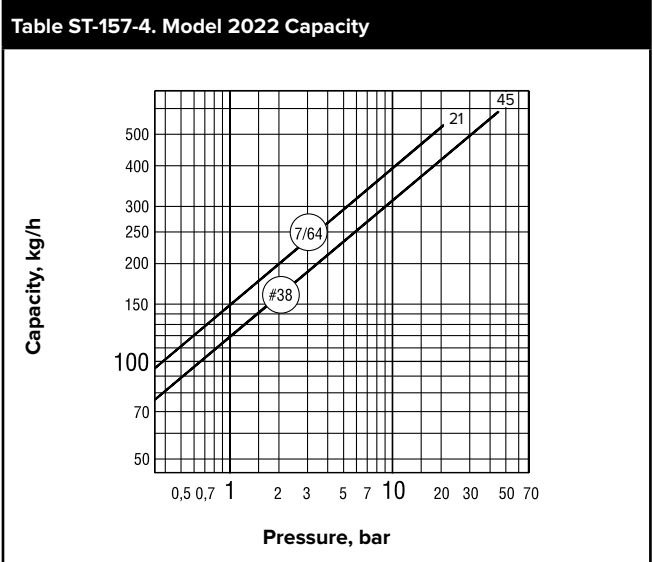


Steam Trapping and  
Steam Tracing Equipment



**Table ST-157-3. How to Order**

Model	Connection	Type of Connection Inlet/Outlet	Flow Direction	Trap Type
TVS-4000	15 20	NPT SW BSPT Flanged	R = Right to Left L = Left to Right	Inv. Bucket Disc Thermostatic Bimetallic F&T



**Options**

**Insu-Pak™**

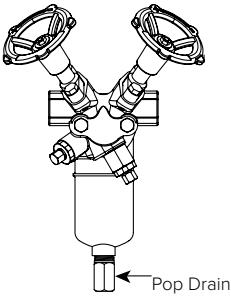
Now you can insulate the in-line traps in your plant without complicating regular trap maintenance. Insu-Pak, a simple reusable insulation package, cuts the time and cost of in-field installation because it goes on in a snap. And it comes off just as easily. The Insu-Pak can prevent trap freeze-up when 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 0,35 barg for Models 2011 and 2022.

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



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