

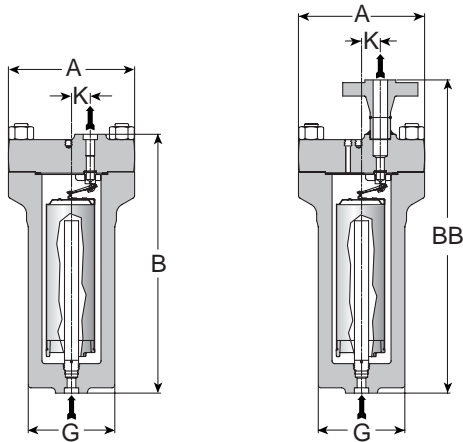


# 6000 Series Inverted Bucket Steam Trap

## Forged Chrome-moly Steel for Vertical Installation

For Pressures to 2,700 psig (186 bar)...Capacities to 6,500 lb/hr (2,948 kg/hr)

Steam Trapping and Steam Tracing Equipment



Model 6155G Traps

Model 6155G-FW Traps

### Description

Armstrong offers its 6000 Series forged chrome-moly steel traps for vertical installation with a choice of socketweld or flanged connections.

A unique leverage system multiplies the force provided by the bucket to open the valve against system pressure. The mechanism is free-floating and has no fixed pivots to create wear or friction.

Because the mechanism is located at the top of the trap, no dirt can collect on the orifice. Small particles of dirt are held in suspension until discharged by the full differential purging action when the bucket sinks, pulling the valve off the seat.

The discharge orifice is surrounded by a water seal, preventing live steam loss. Automatic air venting is provided by a small vent hole in the bucket. This provides continuous automatic air and CO<sub>2</sub> venting at steam temperature.

Inverted bucket traps drain continuously, although discharging intermittently, to prevent condensate backup. They are also resistant to water hammer.

**Operation on Superheat.** A normally operating bucket trap is filled with saturated steam and condensate. Superheated steam can enter only as fast as the steam inside can condense. As a result, the temperature of the trap is at (or slightly below) saturated steam temperature, regardless of the degree of superheat.

**Trap Selection.** The pressure-containing parts of the steam trap should safely withstand the maximum pressure and temperature conditions of the system. For example, a trap is required for a 1,500 psig (102 bar) main at 1,000°F (538°C). The normal operating temperature of the trap will be about 596°F (299°C). A Model 6155G trap should be selected, even though several smaller traps are capable of handling the working pressure.

#### For Superheat Service:

1. Don't oversize the orifice; a restricted orifice may be advisable.
2. Specify a burnished valve and seat and an extended inlet tube and check valve.
3. Provide a drip leg of adequate diameter and length.
4. Provide a generous length (2'-3') of inlet piping, with the trap below the main.
5. Don't insulate the trap or the inlet piping.

6000 Series Bottom Inlet, Top Outlet Traps		
Add suffix "CV" to trap number for internal check valve.		
Model No. Screwed or SW Model No. Flanged	6155G 6155G-FW	
	in	mm
Pipe Connections	1, 1-1/4	25, 32
"A" (Diameter)	11-3/4	298
"B" (Height, Screwed or SW)	24-1/8	613
"BB"	29-11/16*	724*
"G" (Body OD)	8-3/8	213
"K" (¢ Outlet to ¢ Inlet)	1-3/4	44.4
Number of Bolts	10	
Weight Scr. or SW lb (kg)	325 (147.4)	
Weight, Flanged lb (kg)	340 (154.2)	

\*"BB" dimensions shown are for Class 2500 flanged No. 6155G-FW traps. Consult factory for dimensions of models with other connection sizes and/or flanges.

### Connections

Socketweld  
Flanged

**See page ST-102 for dimensions information for flanged and socketweld connections.**

### Materials

Body: ASTM A182 F22 Class 3  
Internals: All stainless steel—304  
Valve and seat: Hardened chrome steel—17-4PH

### Options

- Stainless steel internal check valve
- Burnished valve and seat

Screwed connections are available in all sizes for pressures of 900 psi or less. Traps for pressures of 900 psi or higher are available with socketweld or flanged connections.

### Specification

Inverted bucket steam trap, type ... 6155G in forged chrome-moly steel, with continuous air venting at steam temperature, free-floating stainless steel mechanism, with the discharge orifice at the top of the trap.

### How to Order

- Specify:
- Model number
  - Size and type of pipe connection. When flanges are required, specify type of flange in detail
  - Maximum working pressure that will be encountered or orifice size
  - Any options required

**For a fully detailed certified drawing, refer to CD #1092.**

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

# 6000 Series Inverted Bucket Steam Trap

## Forged Chrome-moly Steel for Vertical Installation

For Pressures to 2,700 psig (186 bar)...Capacities to 6,500 lb/hr (2,948 kg/hr)

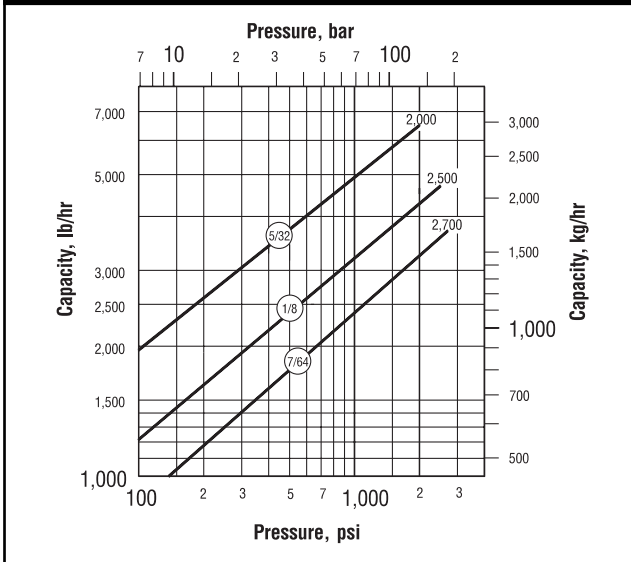


### Pressure-Temperature Rating for Forged Steel Traps

Model No.	Max. Oper. Pressure, Sat. Steam		Maximum Allowable Pressure (Vessel Design) of Pressure-Containing Parts at Indicated Temperature															
			°F		°C		°F		°C		°F		°C		°F		°C	
			-20/+650	-28/+343	700	371	750	399	800	427	850	454	900	482	950	510	1,000	538
	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
6155G	2,700	186	3,500	241	3,500	241	3,500	241	3,500	241	3,500	241	3,090	213	2,410	166	1,650	114

NOTES: Maximum operating pressure to be marked on nameplate will be determined by actual orifice used. Maximum allowable pressures shown in boldface will be marked on nameplate, unless otherwise requested. Traps with flanges may have different pressure-temperature ratings.

Model 6155G Capacity



### Options

**Internal Check Valves** are spring loaded stainless steel and screw into an extended inlet tube having a pipe coupling at the top to save fittings, labor and money. Internal check valves may result in slightly reduced capacities.