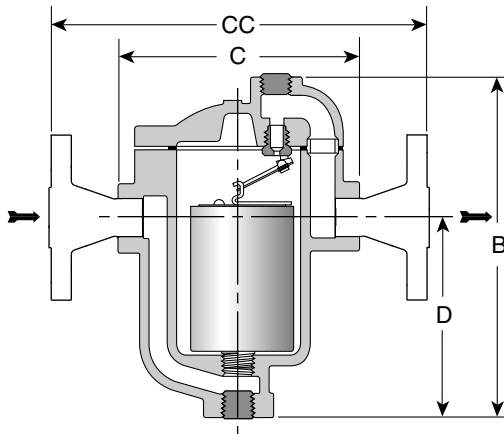


# 814-816 Series Inverted Bucket Steam Traps

Cast Iron for Horizontal Installation

For Pressures to 17 bar...Capacities to 9 000 kg/h



Steam Traps

## Description

The most reliable steam trap known – the inverted bucket – provides efficient condensate drainage of virtually all types of steam-using equipment. Put the inverted bucket to work in a tough cast iron package, and you have the best of both worlds. Because they operate efficiently for longer periods of time, Armstrong cast iron inverted buckets add solid energy savings to lower replacement/labor costs. All Armstrong cast iron inverted bucket steam traps are repairable for even bigger maintenance savings.

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, which provides continuous automatic air and CO<sub>2</sub> venting at steam temperature.

Inverted bucket traps drain continuously, although discharging intermittently, allowing no condensate backup. They are also resistant to water hammer.

## Maximum Operating Conditions

Maximum allowable pressure  
(vessel design): 17 bar @ 232°C  
Maximum operating pressure: 17 bar  
Maximum back pressure: 99% of inlet pressure

## Connections

Screwed BSPT and NPT  
Flanged DIN or ANSI (screw on)

## Materials

Body: ASTM A48 Class 30  
Internals: All stainless steel – 304  
Valve and seat: Hardened chrome steel – 440F  
Test plug: Carbon steel

## Options

- Stainless steel internal check valve
- Thermic vent bucket
- Stainless steel pop drain
- Probe connection
- Thermo drain
- Scrub wire

## Specification

Inverted bucket steam trap, type ... in cast iron, with continuous air venting at steam temperature, free-floating stainless steel mechanism, and discharge orifice at the top of the trap. Maximum allowable back pressure 99% of inlet pressure.

## How to Order

- Specify:
- Model number
  - Size and type of pipe connection
  - Maximum working pressure that will be encountered or orifice size
  - Any options required

**Table ST-78-1. 814-816 Series Side Inlet, Side Outlet Trap (dimensions in mm)**

Add suffix "CV" to model number for internal check valve, "T" for thermic vent bucket.

Model No.	814	815	816
Pipe Connections	25 – 32	25 – 32 – 40 – 50	50 – 65
Test plug	1"	1 1/2"	2"
"B" Height	346	413	541
"C" Face-to-Face (screwed)	229	260	330
"CC" Face-to-Face (flanged PN40*)	293 – 355	382 – 386 – 392 – 398	468 – 480
"D" Bottom to $\varnothing$ Inlet	198	203	279
Number of Bolts	8		
Weight in kg (screwed)	20,0	32,2	59,4
Weight in kg (flanged PN40*)	23,0 – 24,6	34,6 – 36,2 – 36,6 – 38,2	65,4 – 68,2

\* Other flange sizes, ratings and face-to-face dimensions are available on request.  
All models are CE Marked according to the PED (97/23/EC), but PMA for 816 is 15 bar.

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

# 814-816 Series Inverted Bucket Steam Traps

Cast Iron for Horizontal Installation

For Pressures to 17 bar...Capacities to 9 000 kg/h



Table ST-79-1. Model 814 Capacity

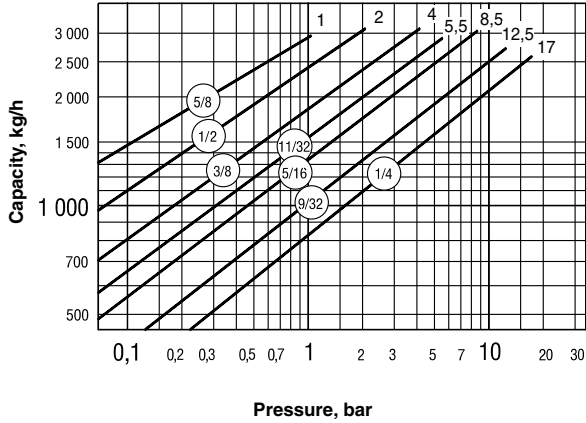


Table ST-79-2. Model 815 Capacity

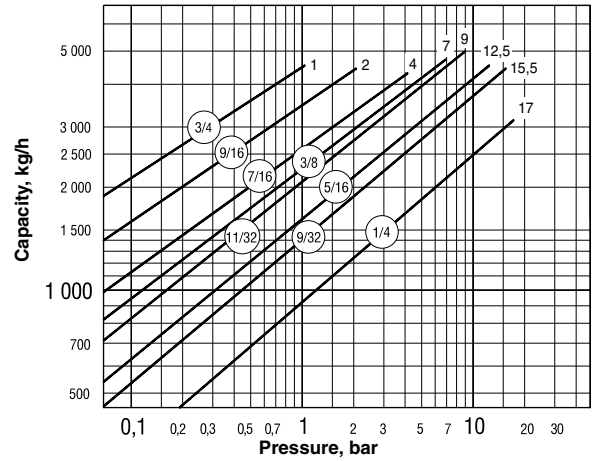
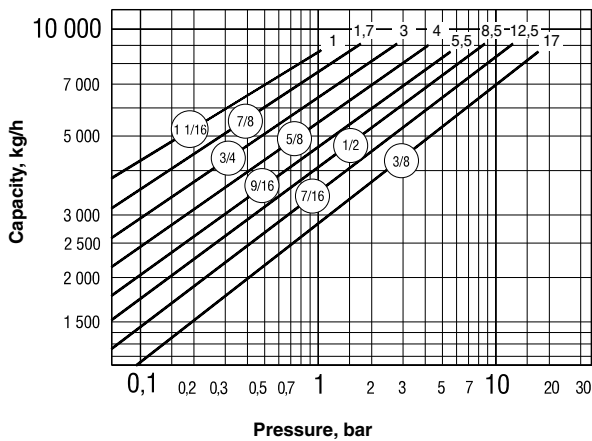


Table ST-79-3. Model 816 Capacity



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