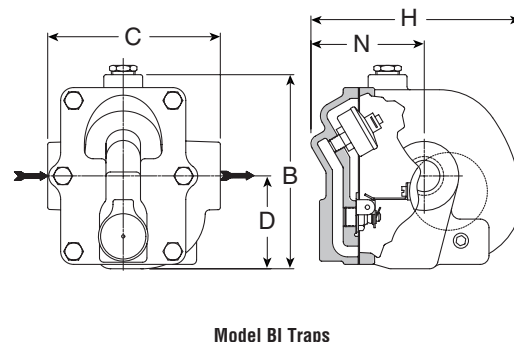
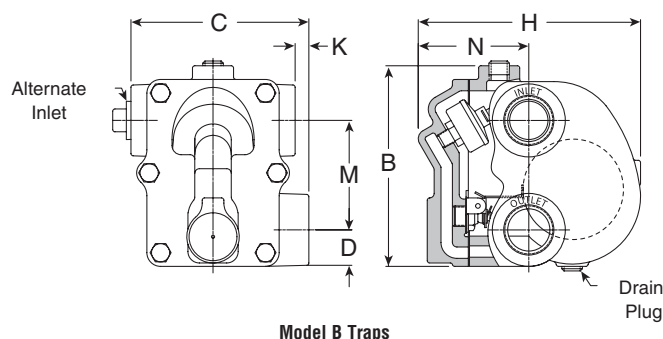




Description

Armstrong B and BI Series F&T traps combine high standards of performance and long life with economy for heating service where continuous drainage with high air-venting capacity is required.

Because of the wide use of vacuum returns in systems of this type, the thermostatic air vent element is charged to give it the capability of compensated response to the pressure-temperature curve of steam at any pressure from less than 20" (500 mm) Hg vacuum to 30 psig (2 bar) gauge. B and BI Series F&T traps will vent air at slightly below steam temperature throughout this entire range of operation.

All B Series traps, except the 1/2" (15 mm) and 3/4" (20 mm), have inlet connections on both sides of the body to provide flexibility in piping. The BI Series F&T traps in sizes 1/2", 3/4" and 1" feature the convenience of in-line connections with the same internals as the B Series.

Maximum Operating Conditions

Maximum allowable pressure (vessel design):

Model B2-B3: 125 psig @ 353°F (8.5 bar @ 178°C)
Model B4-B8: 175 psig @ 377°F (12 bar @ 191°C)

Maximum operating pressure:

15B, BI: 15 psig (1 bar) saturated steam
30B, BI: 30 psig (2 bar) saturated steam

NOTE: Cast iron traps should not be used in systems where excessive hydraulic or thermal shock are present.

Connections

Screwed NPT and BSPT

Materials

Body and cap:

Internals:

Valve:

Seat:

ASTM A48 Class 30

All stainless steel—304

Stainless steel—303 or 440

Stainless steel—303 (ASTM A582)

Stainless steel—440F in 1-1/2" and 2"

Stainless steel and bronze with phosphor bronze bellows, caged in stainless steel

Thermostatic air vent:

Options

Integral vacuum breaker. Add suffix VB to model number.

CAUTION: Do not use a conventional vacuum breaker open to the atmosphere in any system that incorporates a mechanical return system that carries pressure less than atmospheric pressure. This includes all return systems designated as vacuum returns, variable vacuum returns or subatmospheric returns. If a vacuum breaker must be installed in such a system, it should be of the type that is loaded to open only when the vacuum reaches a calibrated level well in excess of the design characteristics of the system.

Specification

Float and thermostatic steam trap, type ... in cast iron, with thermostatic air vent.

For a fully detailed certified drawing, refer to CD #1167.

How to Order

Pressure	Model	Connection Size	Option
15 30	B	2	VB
	B = Standard Connection	*2 = 1/2" *3 = 3/4" 4 = 1" 5 = 1-1/4" 6 = 1-1/2" 8 = 2"	VB = Vacuum Breaker
	BI = In-line Connection	2 = 1/2" 3 = 3/4" 4 = 1"	

*No alternate inlet available.

B and BI Series Traps												
Trap Series	B Model										BI Model	
Pipe Connections	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
"B" (Height)	1/2, 3/4	15, 20	1	25	1-1/4	32	1-1/2	40	2	50	1/2, 3/4, 1	15, 20, 25
"C" (Face to Face)	4-7/8	124	5-1/2	140	5-1/2	140	7-7/16	189	9-5/8	244	5-5/8	143
"D" (Bottom to ¢)	3-7/8	98	4-7/8	124	4-5/8	117	5-3/4	146	7-5/8	194	5	127
"H" (Width)	7/8	22.2	1	25.4	1-7/32	31.0	1-7/16	36.5	1-11/16	42.9	2-11/16	68
"K" (Connection Offset)	5-3/8	137	6	152	7-3/4	197	8-7/16	214	11-5/8	295	6-5/8	168
"M" (¢ to ¢)	1/8	3.2	3/8	9.5	—	—	—	—	—	—	—	—
"N" (Top to ¢)	2-3/4	69.8	3	76.2	3	76.2	4-3/16	106	6	152	—	—
"N" (Top to ¢)	2-9/16	65.1	3	76.2	3-3/8	85.7	3-3/4	95.2	5	127	3-9/32	83
Weight lb (kg)	6 (2.7)		8-1/2 (3.9)		11 (5.0)		19 (8.6)		40 (18.1)		9-3/4 (4.4)	

NOTE: Cast iron traps should not be used in systems where excessive hydraulic or thermal shock are present.

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

shopvalves.com

For Pressures From Vacuum to 30 psig (2 bar)...Capacities to 8,900 lb/hr (4,037 kg/hr)



Figure 1: Capacity vs. Pressure for Various Models

This graph illustrates the relationship between Capacity (lb/hr and kg/hr) and Pressure (psi and bar) for various models. The Y-axis represents Capacity, ranging from 300 to 10,000 lb/hr (150 to 4,000 kg/hr). The X-axis represents Pressure, ranging from 0.2 to 30 psi (0.02 to 2 bar).

The graph shows five distinct capacity curves, each corresponding to a different model or configuration. The curves are labeled as follows:

- B8**: Highest capacity curve, reaching approximately 9,000 lb/hr at 15 psi.
- B6**: Second highest capacity curve, reaching approximately 4,500 lb/hr at 15 psi.
- B5**: Third highest capacity curve, reaching approximately 2,500 lb/hr at 15 psi.
- B4, B14**: Fourth highest capacity curve, reaching approximately 2,200 lb/hr at 15 psi.
- B2, B12 & B3, B13**: Fifth highest capacity curve, reaching approximately 1,300 lb/hr at 15 psi.
- B7/32**: Lowest capacity curve, reaching approximately 700 lb/hr at 15 psi.

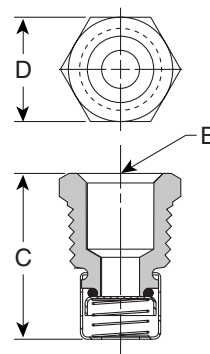
Key data points marked on the curves include:

- B8**: (15 psi, 9,000 lb/hr)
- B6**: (10 psi, 4,500 lb/hr)
- B5**: (10 psi, 2,500 lb/hr)
- B4, B14**: (10 psi, 2,200 lb/hr)
- B2, B12 & B3, B13**: (10 psi, 1,300 lb/hr)
- B7/32**: (10 psi, 700 lb/hr)

Vacuum Breakers 3/8" (10 mm) and 1/2" (15 mm) NPT

For maximum protection against freezing and water hammer in condensing equipment under modulated control, vacuum breakers are recommended. Armstrong B and BI Series F&T traps are available with integral vacuum breakers. Maximum pressure is 150 psig (10 bar).

Vacuum Breakers				
Size	in	mm	in	mm
	1/2 NPT	15 3/8	NPT	10
“B” Pipe Connections	3/8 NPT	10	1/4 NPT	6
“C” Height	1-1/4	32	1-3/32	28
“D” Width	7/8 Hex	22 Hex	11/16 Hex	17 Hex



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