

spirax/sarco

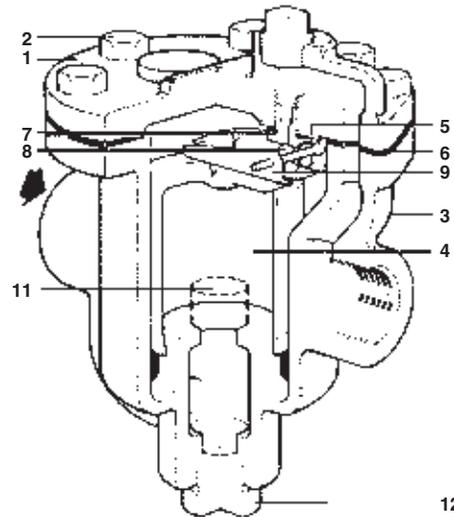
Cast Iron Inverted Bucket Steam Traps B Series

Steam Traps
Inverted Buckets

The trap contains an inverted bucket mechanism which responds to the difference in density between steam and condensate. The discharge action is cyclic. Condensate is discharged close to steam temperature.

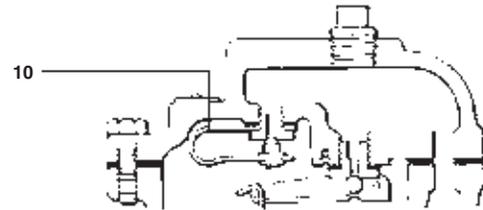
Model	B1H	B2	B3	B4	B5
PMO	250 psig (see below)				
Sizes	1/2", 3/4"	3/4"	1"	1-1/4"	2"
Connections	NPT				
Construction	Cast Iron Body, Stainless Steel Mechanism				
Options	Stainless Steel Bucket Bimetal air vent (add '2' to model No. eg. B12HS, B22S, etc.) Integral strainer (add 'S' to model No. eg. B1HS, B2S, etc.) (when bimetal is required, strainer becomes standard)				

Note: Top plug not provided on B1H-15, 30, 75, 125 B1H, B2, B5



12A
12B

FOR CAPACITIES — SEE TIS 2.408



Construction Materials

No.	Part	Material	
1	Cover	Cast Iron	ASTM A126 CL B
2	Cover Screws	Steel	ASTM A 449
3	Body	Cast Iron	ASTM A126 CL B
4	Bucket	Stainless Steel	
5	Valve Guide Plate (Seat Bracket)		
6	Cover Gasket	Graphite	
7	Valve Seat	Stainless Steel (hardened)	
8	Valve Head (Ball)	Stainless Steel (hardened)	
9	Valve Lever (Bucket Arm)	Stainless Steel	
10	Air Vent (optional)	Stainless Steel	
11	Strainer Screen (optional)		
	B1HS	Stainless Steel, 20 mesh	
	B2S to B5S	Stainless Steel, 1/16" perf.	
12 A	Cap on strainer models B1HS etc.	Brass Steel	
12 B	Plug in standard model BIH, B2, B3, B4, B5		

Typical Applications

Steam main drip stations, laundry equipment, industrial dryers and storage tanks.

Optional Bimetal Air Vent

The optional bimetal air vent allows rapid air removal on cold start-up. The vent closes at approximately 200°F, and will remain closed during normal operation of the trap.

Limiting Operating Conditions

Max. Operating Pressure (PMO)	15 psig (1 barg)	125 psig (9 barg)
	30 psig (2 barg)	180 psig (12 barg)
	75 psig (5 barg)	250 psig (17 barg)
<small>(Determined by Orifice selected. See Capacity and Selection Data on TIS 2.408)</small>		
Max. Operating Temperature	450°F (232°C) at all operating pressures	

Pressure Shell Design Conditions

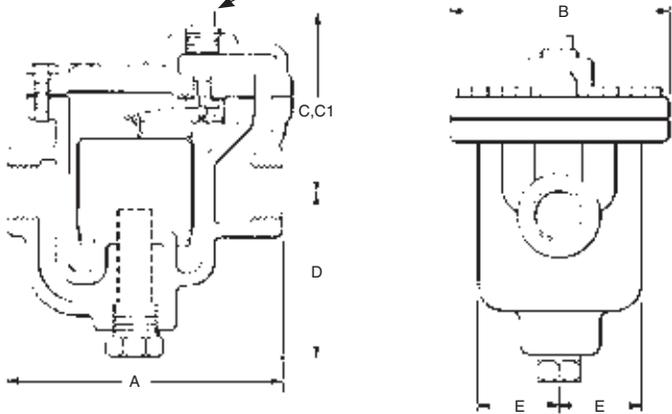
PMA Max. allowable pressure	250 psig/up to 450°F	17 barg/up to 232°C
TMA Max. allowable temperature	450°F/0-250 psig	232°C/0-17 barg

*Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.*

TI-2-407-US 10.10

Cast Iron Inverted Bucket Steam Traps B Series

Top plug not provided on B1H-15, 30, 75, 125, B12HS, B2, B22S, B5, B52S.



Dimensions (nominal) in inches and millimeters								
Size	Type	A	B	C	C1*	D	E	Weight
1/2", 3/4"	B1H	5	4	3.3	3.8	3	1.4	6.2 lb
		127	102	85	95	76	36	2.8 kg
3/4"	B2	6.6	5.3	3.5	4.0	4.1	1.9	12.5 lb
		168	135	89	102	104	48	5.7 kg
1"	B3	7.9	5.9	4.4	4.4	4.8	2.2	19.5 lb
		200	149	112	112	122	57	8.8 kg
1-1/4"	B4	9.3	7	5.6	5.4	7.4	2.3	40 lb
		237	178	143	137	187	58	18.2 kg
2"	B5	11.2	8.8	6.3	6.6	10.7	3.4	75 lb
		186	222	160	168	272	86	34 kg

*C1 Dimension for traps supplied with bi-metal air vents (B12HS, B22S, B32S, B42S, B52S)

Sample Specification

Steam traps shall be of the mechanical inverted bucket type with cast iron bodies, screwed NPT horizontal connections and stainless steel valve head, seat and bucket. An internal bi-metal air vent and/or strainer screen shall be available as options.

Installation

A pipeline strainer should be installed ahead of any trap to protect the head and seat from dirt and scale. Suitable full-port isolation valves should be placed around trap to permit servicing. The trap should be installed below the equipment drainage connection in a horizontal position so that the bucket will rise and fall vertically. For superheated steam applications, a check valve should be installed at the trap inlet.

Maintenance

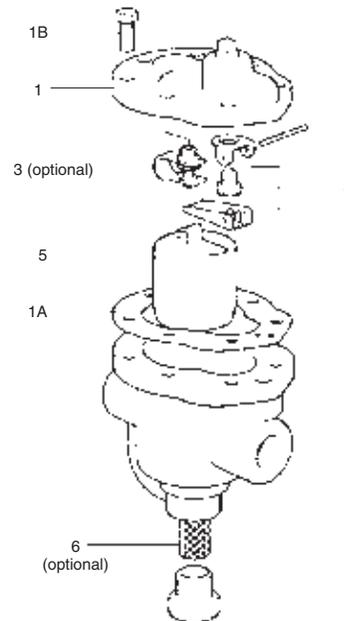
This product can be maintained without disturbing the piping connections. Complete isolation of the trap from both supply and return line is required before any servicing is performed.

The trap should be disassembled periodically for inspection and cleaning of the valve head and seat, and operating mechanism. The bucket vent hole must be clear. The optional strainer screen should be removed and cleaned.

Worn or damaged parts should be replaced using a complete mechanism assembly kit.

Complete installation and maintenance instructions are given in IMI 2.400, which accompanies the product.

Spare Parts



Cover w/ Gasket Specify if standard or w/ bi-metal air vent	1, 1A
Cover Gasket	1A
Cover Cap Screws, Set	1B
Air Vent Assembly	3
Complete Mechanism (specify pressure range)	4
Bucket (Stainless Steel)	5
Strainer (Stainless Steel)	6