

IB18H Series

Cast Iron Horizontal Inverted Bucket Steam Traps



Bestobell's IB18H Series steam traps are horizontal type bucket traps featuring a side inlet and side outlet. They are ideal for general steam service and feature a heavy-duty cast iron body and stainless steel bucket for long-term operation and reliability. For process, heating, and dripleg services with pressures to 250 psig (17,2 bar). Available in 1/2" through 2-1/2" sizes.

Inverted bucket steam traps utilize the difference between the density of gas and liquid. The bucket is submerged, once the trap has been primed after installation. When steam enters the trap, it collects in the inverted bucket causing it to become buoyant, and rise to close the discharge valve. When condensate enters the trap, and the steam condenses within the bucket, the weight of the bucket multiplied by the linkage's leverage, exceeds the differential pressure holding the valve to the seat and the bucket sinks. This opens the discharge valve to discharge accumulated air, CO₂, other non-condensable gases and the condensate. As the condensate drains and steam enters the trap, the cycle repeats with the bucket filling with steam, rising again to close the discharge valve.

- **Easy in-line inspection and maintenance** — simply remove the top for easy access to the trap internals for inspection or repair.
- **Unique linkage system** — multiplies the force exerted by the bucket for assisted opening against pressure for maximum flow capacities.
- **Hardened stainless steel valve and seat** — for minimal corrosion and increased operating life of the steam trap.



3170 Wasson Road • Cincinnati, Ohio 45209 USA
Phone 513-533-5600 • Fax 513-871-0105
Toll-Free Phone: 800-543-7311
E-Mail: steam@richardsind.com
URL: www.bestobellsteamtraps.com

IB18H Series

Cast Iron Horizontal Inverted Bucket Steam Traps

Specifications

Models

- IB18H: horizontal type, side inlet, side outlet

Line Sizes: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2"

End Connections: threaded (NPT)

Materials

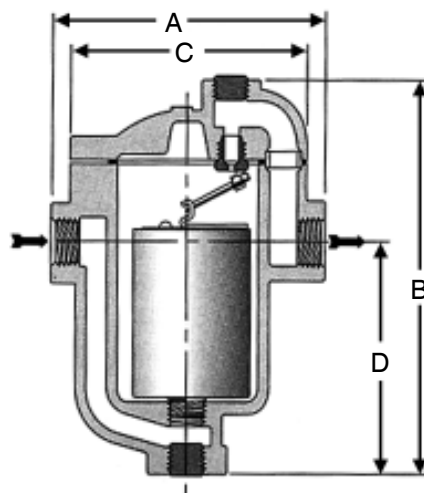
- Body & Cover: Cast Iron (ASTM A48, Cl. 30)
- Bucket & Linkage: Stainless Steel
- Valve & Seat: hardened Stainless Steel
- Body/Cover Gasket: Non-Asbestos Fiber

Maximum Temperature: 450°F

Pressure Ratings

Model Size	Standard Orifice	Product Designator	Max. ΔP	Max. Allowable Pressure
1/2"	6	IB18H210-6	150	150
3/4"	6	IB18H310-6	250	250
	8	IB18H310-8	125	250
1"	7	IB18H410-7	250	250
	10	IB18H410-10	125	250
1-1/4"	12	IB18H510-12	250	250
	16	IB18H510-16	125	250
1-1/2"	18	IB18H610-18	225	250
	22	IB18H610-22	125	250
2"	18	IB18H710-18	225	250
	22	IB18H710-22	125	250
2-1/2"	24	IB18H810-24	250	250
	32	IB18H810-32	125	250

Dimensions



Model Size	IB18H 1/2"	IB18H 3/4"	IB18H 1"	IB18H 1-1/4"	IB18H 1-1/2", 2"	IB18H 2-1/2"
A	5.06 (128)	5.06 (128)	7.00 (178)	8.13 (206)	10.19 (258)	13.00 (330)
B	5.94 (150)	7.00 (178)	9.09 (231)	12.25 (311)	16.06 (408)	20.69 (525)
C	3.75 (95)	3.75 (95)	5.63 (143)	7.00 (178)	9.06 (230)	11.25 (285)
D	3.31 (84)	4.38 (111)	5.00 (127)	7.25 (181)	7.88 (200)	11.00 (279)
# Bolts	6	6	8	6	8	8
Weight Lbs (Kgs)	5.7 (2,6)	6.7 (3,0)	22 (10)	32 (14,5)	75 (34)	125 (57)

Note: dimensions shown in () represent mm.

Discharge Capacities

Capacities shown in black represent condensate in lbs. per hour; kg/hr shown in (). 1 psi = 14.5 bar.

Size	Orifice #	Differential Pressure PSI																			
		1	5	10	15	20	25	30	40	50	60	70	80	100	125	150	180	200	225	250	
1/2"	3/32	40 (18)	70 (32)	110 (50)	150 (68)	200 (91)	240 (109)	270 (123)	310 (141)	340 (155)	375 (170)	420 (191)	440 (200)	480 (218)	540 (245)	570 (259)					
		60 (27)	100 (45)	150 (68)	190 (86)	240 (109)	260 (118)	290 (132)	340 (155)	380 (173)	420 (191)	450 (205)	470 (214)	520 (236)	575 (261)	620 (282)	670 (305)	700 (318)	730 (332)	760 (345)	
3/4"	1/8	130 (59)	220 (100)	340 (155)	390 (177)	460 (209)	490 (223)	510 (232)	590 (268)	650 (295)	700 (318)	750 (341)	800 (364)	860 (391)	950 (432)						
		130 (59)	240 (109)	340 (155)	370 (168)	420 (191)	470 (214)	520 (236)	590 (268)	650 (295)	700 (318)	760 (345)	810 (368)	900 (409)	1010 (459)	1100 (500)	1165 (530)	1230 (559)	1265 (575)	1300 (591)	
1"	5/32	300 (136)	560 (255)	680 (309)	800 (364)	900 (409)	1000 (455)	1070 (486)	1220 (555)	1320 (600)	1440 (655)	1600 (727)	1650 (750)	1800 (818)	2000 (909)						
		400 (182)	700 (318)	950 (432)	1100 (500)	1300 (591)	1550 (705)	1700 (773)	1800 (818)	1900 (864)	2030 (909)	2150 (1045)	2300 (1182)	2500 (1386)	2600 (1500)	2800 (1636)	3000 (1773)	3200 (1910)	3350 (2047)	3500 (2184)	
1-1/4"	1/4	1000 (455)	1900 (864)	2400 (1091)	2800 (1273)	3250 (1477)	3600 (1636)	3800 (1727)	4400 (2000)	4750 (2159)	5300 (2409)	5700 (2591)	6100 (2773)	6600 (3000)	7500 (3409)	8000 (3636)	8600 (3909)	9100 (4136)	9600 (4364)		
		1500 (682)	2600 (1182)	3200 (1455)	3900 (1773)	4500 (2045)	5100 (2318)	5400 (2455)	6200 (2818)	6900 (3136)	7500 (3409)	8150 (3705)	8500 (3864)	9600 (4364)	11000 (5000)						
1-1/2"	9/32	1000 (455)	1900 (864)	2400 (1091)	2800 (1273)	3250 (1477)	3600 (1636)	3800 (1727)	4400 (2000)	4750 (2159)	5300 (2409)	5700 (2591)	6100 (2773)	6600 (3000)	7500 (3409)	8000 (3636)	8600 (3909)	9100 (4136)	9600 (4364)		
		1500 (682)	2600 (1182)	3200 (1455)	3900 (1773)	4500 (2045)	5100 (2318)	5400 (2455)	6200 (2818)	6900 (3136)	7500 (3409)	8150 (3705)	8500 (3864)	9600 (4364)	11000 (5000)						
2"	9/32	1000 (455)	1900 (864)	2400 (1091)	2800 (1273)	3250 (1477)	3600 (1636)	3800 (1727)	4400 (2000)	4750 (2159)	5300 (2409)	5700 (2591)	6100 (2773)	6600 (3000)	7500 (3409)	8000 (3636)	8600 (3909)	9100 (4136)	9600 (4364)		
		1500 (682)	2600 (1182)	3200 (1455)	3900 (1773)	4500 (2045)	5100 (2318)	5400 (2455)	6200 (2818)	6900 (3136)	7500 (3409)	8150 (3705)	8500 (3864)	9600 (4364)	11000 (5000)						
2-1/2"	3/8	1800 (818)	3400 (1545)	4500 (2045)	5400 (2455)	6100 (2773)	6900 (3136)	7500 (3409)	8500 (3864)	9200 (4182)	9650 (4386)	10500 (4773)	11500 (5227)	12800 (5818)	14200 (6455)	15600 (7091)	15900 (7227)	17500 (7955)	18250 (8295)	19000 (8636)	
		2600 (1182)	5000 (2273)	6400 (2927)	7800 (3545)	8900 (4045)	9700 (4409)	10500 (4773)	12000 (5455)	13000 (5909)	14400 (6545)	15900 (7227)	16300 (7409)	18000 (8182)	20000 (9091)						

Utilize proper safety factors when selecting application.