

Inverted Bucket Steam Traps

Model: IB18S

CAST IRON INVERTED BUCKET STEAM TRAP WITH STRAINER

Bestobell's IB18S Series horizontal inverted bucket traps are ideal for general condensate removal service and feature a built-in strainer, heavy-duty cast iron body, and stainless steel bucket for long-term operation and reliability. For process, heating and dripleg services with differential pressures to 250 psi (17,2 bar). Available in 1/2" through 1-1/4".

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 close to 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 hold in the valve to the seat and the bucket sinks. This opens the discharge valve to discharge accumulated air, CO₂, other non-condensable gasses, 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
- **Built-in strainer** – for protection of trap and valve mechanism and the reduction of required piping and fittings



ORDERING SCHEMATIC

MODEL					6	7	8
I	B	1	8	S			

6	SIZE
2	1/2"
3	3/4"
4	1"
5	1-1/4"

7	CONNECTIONS
10	NPT

8	ORIFICE			
Size		Number	Size	Max ΔP
1/2"	=	6	3/32	150 psi
3/4"	=	6	3/32	250 psi
	=	8	1/8	125 psi
1"	=	7	7/64	250 psi
	=	10	5/32	125 psi
1-1/4"	=	12	3/16	250 psi
	=	16	1/4	125 psi



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CAST IRON INVERTED BUCKET STEAM TRAPS WITH STRAINER

Model: IB18S: horizontal type, side inlet, side outlet, with integral strainer

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

End Connections: Threaded (NPT)

MATERIALS

Body & Cover: Cast Iron (ASTM A48, Cl. 30)

Valve Seat: Hardened Stainless Steel

Bucket & Linkage: Stainless Steel

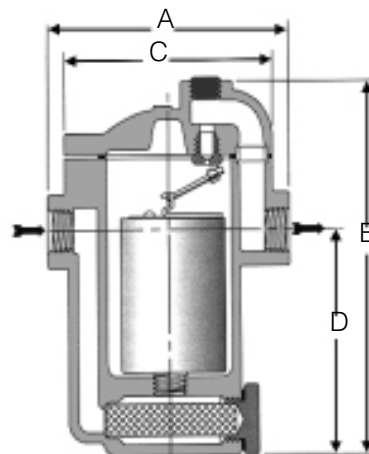
Strainer: Stainless Steel 304

Gasket: Non-Asbestos Fiber

SPECIFICATIONS

Maximum Temperature: 400°F (204°C)

DIMENSIONS



PRESSURE RATINGS

Size	Standard Orifice	Product Designator	Max ΔP	Max Allowable Pressure
1/2"	6	IB18S210-6	150 psi	150 psi
3/4"	6	IB18S310-6	250 psi	250 psi
	8	IB18SS10-8	125 psi	250 psi
1"	7	IB18S410-7	250 psi	250 psi
	10	IB18S410-10	125 psi	250 psi
1-1/4"	12	IB18S510-12	250 psi	250 psi
	16	IB18S510-16	125 psi	250 psi

1/2"	A	B	C	D	# Bolts	Weight
inches	5.06	6.50	3.75	3.44	6	7 lb
mm	128	165	95	87		3,2 kg
3/4"	A	B	C	D	#Bolts	Weight
inches	5.06	7.50	3.75	4.44	6	8 lb
mm	128	191	95	113		3.7 kg
1"	A	B	C	D	#Bolts	Weight
inches	7.00	9.06	5.63	5.75	8	22 lb
mm	178	230	143	146		10 kg
1-1/4"	A	B	C	D	#Bolts	Weight
inches	8.13	12.31	7.00	7.38	6	32 lb
mm	206	313	178	187		14,5 kg

CAPACITY CHARTS: DISCHARGE CAPACITIES

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)				
3/4"	3/32	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)
	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)					
1"	7/64	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)
	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)					
1-1/4"	3/16	400 (182)	700 (318)	950 (432)	1100 (500)	1300 (591)	1550 (705)	1700 (773)	1800 (818)	1900 (864)	2030 (923)	2150 (977)	2300 (1045)	2500 (1136)	2600 (1182)	2800 (1273)	3000 (1364)	3200 (1455)	3350 (1523)	3500 (1591)
	1/4	600 (273)	1100 (500)	1300 (591)	1600 (727)	1800 (818)	1900 (864)	2000 (909)	2300 (1045)	2600 (1182)	2850 (1295)	3050 (1386)	3300 (1500)	3600 (1636)	3900 (1773)					

Note: Utilize proper safety factors when selecting application. Capacities represent condensate in lbs per hour; kg/hr shown in (). 1 psi = 14.5 bar.

1 year parts & labor warranty available - consult factory for details