

Inverted Bucket Steam Traps

Model: IB18H

CAST IRON HORIZONTAL INVERTED BUCKET STEAM TRAPS

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

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
- **Unique linkage system** – multiplies the force exerted by the bucket for assisted opening against pressure for maximum flow capacities



ORDERING SCHEMATIC

MODEL					6	7	8
I	B	1	8	H			

6	SIZE
2	1/2"
3	3/4"
4	1"
5	1-1/4"
6	1-1/2"
7	2"
8	2-1/2"

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
1-1/2"	= 18	9/32	180 psi
	= 22	11/32	80 psi
2"	= 18	9/32	225 psi
	= 22	11/32	125 psi
2-1/2"	= 24	3/8	250 psi
	= 32	1/2	125 psi

CAST IRON HORIZONTAL INVERTED BUCKET STEAM TRAPS

Model: 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)

SPECIFICATIONS

Maximum Temperature: 400°F (204°C)

Maximum Differential Pressure: 1/2": 150 psi (10,3 bar); 3/4" – 2-1/2": 250 psi (17,2 bar)

MATERIALS

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

Valve Seat: Hardened Stainless Steel

Bucket & Linkage: Stainless Steel

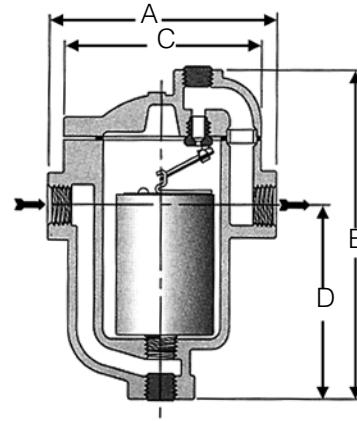
Strainer: Stainless Steel 304

Gasket: Non-Asbestos Fiber

PRESSURE RATINGS

Size	Standard Orifice	Product Designator	Max ΔP	Max Allowable Pressure
1/2"	6	IB18H210-6	150 psi	150 psi
	6	IB18H310-6	250 psi	250 psi
3/4"	8	IB18H310-8	125 psi	125 psi
	10	IB18H410-10	250 psi	250 psi
1"	7	IB18H410-7	250 psi	250 psi
	12	IB18H510-12	250 psi	250 psi
1-1/4"	16	IB18H510-16	125 psi	125 psi
	18	IB18H610-18	180 psi	180 psi
1-1/2"	22	IB18H610-22	80 psi	80 psi
	18	IB18H710-18	225 psi	225 psi
2"	22	IB18H710-22	125 psi	130 psi
	24	IB18H810-24	250 psi	250 psi
2-1/2"	32	IB18H810-32	125 psi	125 psi

DIMENSIONS



Size	A	B	C	D	# Bolts	Weight
1/2"	5.06	5.94	3.75	3.31	6	5.7 lb
	128	150	95	84		2.6 kg
3/4"	5.06	7.00	3.75	4.38	6	6.7 lb
	128	178	95	111		3.0 kg
1"	7.00	9.09	5.63	5.00	8	22 lb
	178	231	143	127		10 kg
1-1/4"	8.13	12.25	7.00	7.25	6	32 lb
	206	311	178	181		14.5 kg
1-1/2", 2"	10.19	16.06	9.06	7.88	8	75 lb
	258	408	230	200		34 kg
2-1/2"	13.00	20.69	11.25	11.00	8	125 lb
	330	525	285	279		57 kg

CAPACITY CHARTS: DISCHARGE CAPACITIES

Size	Orifice #	Differential Pressure, PSI																		
		1	5	10	15	20	25	40	50	60	70	80	100	125	150	180	200	225	250	
1/2"	3/32	40	70	110	150	200	240	310	340	375	420	440	480	540	570					
		(18)	(32)	(50)	(68)	(91)	(109)	(141)	(155)	(170)	(191)	(200)	(218)	(245)	(259)					
3/4"	3/32	60	100	150	190	240	260	340	380	420	450	470	520	575	620	670	700	730	760	
		(27)	(45)	(68)	(86)	(109)	(118)	(155)	(173)	(191)	(205)	(214)	(236)	(261)	(282)	(305)	(318)	(332)	(345)	
3/4"	1/8	130	220	340	390	460	490	590	650	700	750	800	860	950						
		(59)	(100)	(155)	(177)	(209)	(223)	(268)	(295)	(318)	(341)	(364)	(391)	(432)						
1"	7/64	130	240	340	370	420	470	590	650	700	760	810	900	1010	1100	1165	1230	1265	1300	
		(59)	(109)	(155)	(168)	(191)	(214)	(268)	(295)	(318)	(345)	(368)	(409)	(459)	(500)	(530)	(559)	(575)	(591)	
1"	5/32	300	560	680	800	900	1000	1220	1320	1440	1600	1650	1800	2000						
		(136)	(255)	(309)	(364)	(409)	(455)	(555)	(600)	(655)	(727)	(750)	(818)	(909)						
1-1/4"	3/16	400	700	950	1100	1300	1550	1800	1900	2030	2150	2300	2500	2600	2800	3000	3200	3350	3500	
		(182)	(318)	(432)	(500)	(591)	(705)	(818)	(864)	(923)	(977)	(1045)	(1136)	(1182)	(1273)	(1364)	(1455)	(1523)	(1591)	
1-1/4"	1/4	600	1100	1300	1600	1800	1900	2300	2600	2850	3050	3300	3600	3900						
		(273)	(500)	(591)	(727)	(818)	(864)	(1045)	(1182)	(1295)	(1386)	(1500)	(1636)	(1773)						
1-1/2"	9/32	1000	1900	2400	2800	3250	3600	4400	4750	5300	5700	6100	6600	7500	8000	8600				
		(455)	(864)	(1091)	(1273)	(1477)	(1636)	(2000)	(2159)	(2409)	(2591)	(2773)	(3000)	(3409)	(3636)	(3909)				
1-1/2"	11/32	1500	2600	3200	3900	4500	5100	6200	6900	7500	8150	8500								
		(682)	(1182)	(1455)	(1773)	(2045)	(2318)	(2818)	(3136)	(3409)	(3705)	(3864)								
2"	9/32	1000	1900	2400	2800	3250	3600	4400	4750	5300	5700	6100	6600	7500	8000	8600	9100	9600		
		(455)	(864)	(1091)	(1273)	(1477)	(1636)	(2000)	(2159)	(2409)	(2591)	(273)	(3000)	(3409)	(3636)	(3909)	(4136)	(4364)		
2"	11/32	1500	2600	3200	3900	4500	5100	6200	6900	7500	8150	8500	9600	11000						
		(682)	(1182)	(1455)	(1773)	(2045)	(2318)	(2818)	(3136)	(3409)	(3705)	(3684)	(4364)	(5000)						
2-1/2"	3/8	1800	3400	4500	5400	6100	6900	8500	9200	9650	10500	11500	12800	14200	15600	15900	17500	18250	19000	
		(818)	(1545)	(2045)	(2455)	(2773)	(3136)	(3864)	(4182)	(4386)	(4773)	(5227)	(5818)	(6455)	(7091)	(7227)	(7955)	(8295)	(8636)	
2-1/2"	1/2	2600	5000	6400	7800	8900	9700	12000	1300	14400	15900	16300	18000	20000						
		(1182)	(2273)	(2727)	(3545)	(4045)	(4409)	(5455)	(5909)	(6565)	(7227)	(7409)	(8182)	(9091)						

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