

Inverted Bucket Steam Traps

Models: IB21V, IB41V

FORGED STEEL VERTICAL INVERTED BUCKET STEAM TRAP

Bestobell's IB21V and IB41V Series inverted bucket traps are ideal for higher pressure services and feature a heavy-duty carbon steel body and stainless steel bucket for long-term operation and reliability. For process, heating and dripleg services. For applications to 300 psi (20,7 bar), select the 1/2" or 3/4" IB21V Series. For pressures up to 600 psi (41,4 bar), select the 1/2" to 2" IB41V Series.

- **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
- **Continuous air and CO₂ venting:** maximizes heat transfer while minimizing corrosion
- **Rugged design:** withstands the effects of water hammer, vibration and corrosive environments



ORDERING SCHEMATIC

MODEL					6	7	8
I	B	2	1	V			

6	SIZE
2	1/2" (21 & 41)
3	3/4" (21 & 41)
4	1" (41 only)
6	1-1/2" (41 only)
7	2" (41 only)

7	CONNECTIONS
10	NPT

8 ORIFICE – IB21V				
Size		Number	Size	Max ΔP
1/2"	=	6	3/32	300 psi
3/4"	=	7	7/64	300 psi

8 ORIFICE – IB41V				
Size		Number	Size	Max ΔP
1/2"	=	7	7/64	600 psi
3/4"	=	8	1/8	600 psi
1"	=	8	1/8	600 psi
1-1/2"	=	12	3/16	600 psi
2"	=	18	9/32	600 psi


BESTOBELLSTEAM

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FORGED STEEL VERTICAL INVERTED BUCKET STEAM TRAPS

Line Sizes:

- IB21V: 1/2", 3/4"
- IB41V: 1/2", 3/4", 1", 1-1/2", 2"

End Connections: NPT, FSW

MATERIALS

Body & Cover: Carbon Steel (ASTM A105)

Bucket & Linkage: Stainless Steel

Valve & Seat: heat treated chrome steel, 44Rc

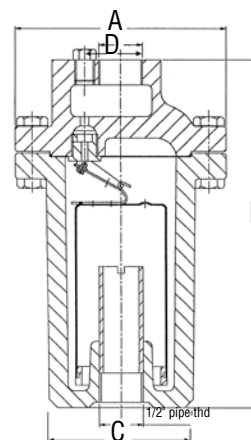
Body/Cover Gasket: Non-Asbestos Fiber

SPECIFICATIONS

Maximum Temperature: 450°F (232°C)

Pressure Ratings: PMA and PMO per capacity per model and size

DIMENSIONS



• IB21V Series

	A	B	C	D	# Bolts	Weight
1/2"	4.6	6.9	3.3	3.44	6	10 lb
mm	116	176	83	87		4.5 kg
3/4"	A	B	C	D	#Bolts	Weight
inches	5.6	7.8	4.1	4.44	8	22 lb
mm	143	199	105	113		10 kg

• IB41V Series

	A	B	C	D	# Bolts	Weight
1/2" & 3/4"	7.4	8.4	5.0	1.5	8	35 lb
inches	187	214	127	39		16 kg
mm	A	B	C	D	#Bolts	Weight
inches	8.0	10.3	5.2	1.5	8	51 lb
mm	203	262	131	39		23 kg
1-1/2"	A	B	C	D	#Bolts	Weight
inches	9.8	13.6	6.6	1.6	9	90 lb
mm	248	345	168	41		41 kg
2"	A	B	C	D	#Bolts	Weight
inches	11.5	15.0	8.4	2.0	10	139 lb
mm	301	380	213	50		63 kg

CAPACITY CHARTS: DISCHARGE CAPACITIES

• IB21V Series

Size	Orifice #	Differential Pressure, PSI																		
		10	25	50	75	100	125	150	175	200	225	250	275	300	350	400	450	500	550	600
1/2"	3/32	150	260	380	460	520	575	620	665	700	730	760	780	800						
		(68)	(118)	(172)	(209)	(236)	(261)	(281)	(302)	(318)	(331)	(345)	(354)	(363)						
3/4"	7/64	150	275	425	575	700	825	900	975	1050	1125	1200	1250	1300						
		(68)	(125)	(193)	(261)	(318)	(374)	(408)	(443)	(477)	(510)	(544)	(567)	(590)						

• IB41V Series

Size	Orifice #	Differential Pressure, PSI																		
		10	25	50	75	100	125	150	175	200	225	250	275	300	350	400	450	500	550	600
1/2"	7/64	300 (136)	400 (181)	600 (272)	750 (340)	790 (358)	825 (374)	875 (397)	925 (420)	975 (442)	1060 (481)	1150 (522)	1200 (544)	1250 (567)	1375 (624)	1450 (658)	1500 (680)	1650 (748)	1725 (782)	1800 (816)
3/4"	1/8	325 (147)	490 (222)	725 (329)	950 (431)	1100 (499)	1250 (567)	1400 (635)	1500 (680)	1600 (726)	1680 (762)	1750 (795)	1825 (828)	1900 (862)	2000 (907)	2085 (946)	2170 (984)	2250 (1021)	2325 (1055)	2400 (1088)
1"	1/8	325 (147)	490 (222)	725 (329)	950 (431)	1100 (499)	1250 (567)	1400 (635)	1500 (680)	1600 (726)	1680 (762)	1750 (794)	1825 (828)	1900 (862)	2000 (907)	2085 (946)	2170 (984)	2250 (1021)	2325 (1055)	2400 (1088)
1-1/2"	3/16	900 (408)	1400 (635)	1900 (862)	2300 (1043)	2600 (1179)	2900 (1315)	3200 (1451)	3400 (1542)	3500 (1588)	3700 (1678)	4000 (1814)	4150 (1882)	4300 (1950)	4500 (2041)	4700 (2131)	4900 (2223)	5100 (2313)	5400 (2449)	5700 (2585)
2"	9/32	2500 (1134)	3500 (1588)	4600 (2087)	5700 (2585)	6500 (2948)	7100 (3221)	7700 (3492)	8300 (3765)	9000 (4082)	9250 (4196)	9500 (4309)	10000 (4536)	10500 (4763)	11000 (4990)	11800 (5352)	12300 (5579)	13000 (5957)	13500 (6123)	14000 (6350)

Note: Utilize proper safety factors when selecting application. Capacities represent condensate in lbs per hour; kg/hr shown in (). 1 psi = 14.5 bar.
Do not use cast iron bodied traps in applications where thermal and hydraulic shock exist. See Delta Element models.

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