

Inverted Bucket Steam Traps

Models
IB21V
IB41V

STEEL 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 psig (20.7 bar), select the 1/2" or 3/4" IB21V Series. For pressures up to 600 psig (41,5 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	2	1	6

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
1	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

CARBON STEEL VERTICAL INVERTED BUCKET STEAM TRAPS

Model:

- IB21V
- IB41V

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)

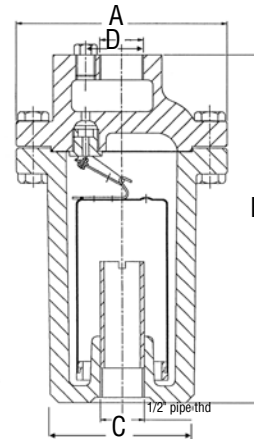
Bucket & Linkage: Stainless Steel

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
mm	116	176	83	87		4.5
3/4"	A	B	C	D	8	22
mm	143	199	105	113		10

- **IB41V Series**

	A	B	C	D	# Bolts	Weight
1/2" & 3/4"	7.4	8.4	5.0	1.5	8	35
mm	187	214	127	39		16
1"	A	B	C	D	8	51
mm	203	262	131	39		23
1-1/2"	A	B	C	D	9	90
mm	248	345	168	41		41
2"	A	B	C	D	10	139
mm	301	380	213	50		63

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	400	600	750	790	825	875	925	975	1060	1150	1200	1250	1375	1450	1500	1650	1725	1800
		(136)	(181)	(272)	(340)	(358)	(374)	(397)	(420)	(442)	(481)	(522)	(544)	(567)	(624)	(658)	(680)	(748)	(782)	(816)
3/4"	1/8	325	490	725	950	1100	1250	1400	1500	1600	1680	1750	1825	1900	2000	2085	2170	2250	2325	2400
		(147)	(222)	(329)	(431)	(499)	(567)	(635)	(680)	(726)	(762)	(795)	(828)	(862)	(907)	(946)	(984)	(1021)	(1055)	(1088)
1"	1/8	325	490	725	950	1100	1250	1400	1500	1600	1680	1750	1825	1900	2000	2085	2170	2250	2325	2400
		(147)	(222)	(329)	(431)	(499)	(567)	(635)	(680)	(726)	(762)	(794)	(828)	(862)	(907)	(946)	(984)	(1021)	(1055)	(1088)
1-1/2"	3/16	900	1400	1900	2300	2600	2900	3200	3400	3500	3700	4000	4150	4300	4500	4700	4900	5100	5400	5700
		(408)	(635)	(862)	(1043)	(1179)	(1315)	(1451)	(1542)	(1588)	(1678)	(1814)	(1882)	(1950)	(2041)	(2131)	(2223)	(2313)	(2449)	(2585)
2"	9/32	2500	3500	4600	5700	6500	7100	7700	8300	9000	9250	9500	10000	10500	11000	11800	12300	13000	13500	14000
		(1134)	(1588)	(2087)	(2585)	(2948)	(3221)	(3492)	(3765)	(4082)	(4196)	(4309)	(4536)	(4763)	(4990)	(5352)	(5579)	(5597)	(6123)	(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.