

IB21V & IB41V Series Steel Inverted Bucket Steam Traps



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 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.



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IB21V & IB41V Series Steel Inverted Bucket Steam Traps

Specifications

Models

- IB21V
- IB41V

Line Sizes

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

End Connections: NPT (socket weld ends)

Materials

- Body & Cover: Carbon Steel (ASTM A105)
- Bucket & Linkage: Stainless Steel
- Valve & Seat: heat treated chrome steel, 44Rc
- Body/Cover Gasket: Non-Asbestos fiber

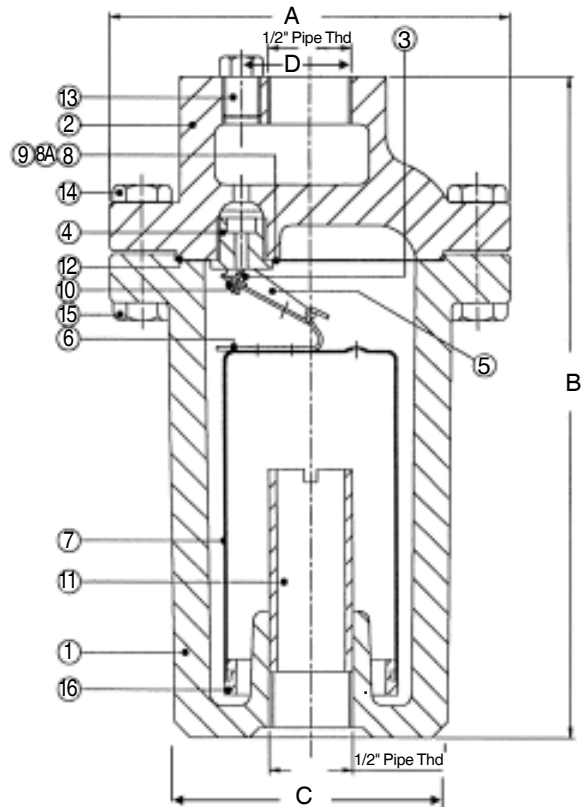
Maximum Temperature: 850°F (454°C)

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

Material Specifications

Item #	Name	Material
1	Body	C.I. ASTM A48 Class 30
2	Cover	C.I. ASTM A48 Class 30
3	Valve	Chrome Steel
4	Valve Seat	Chrome Steel
5	Lever	AISI 304
6	Buck Clip	AISI 304
7	Bucket	AISI 304
8	Guide Pin Plate	AISI 304
8A	Guide Pins	AISI 304
9	Screw for Guide Pin Plate	AISI 304
10	Valve Clip	AISI 304
11	Internal Tube	C.I. Pipe
12	Gasket	PTFE
13	Plug	Steel
14	Bolt	SAE Gr. 5
15	Nut	SAE Gr. 5
16	Bucket Weight	Steel

Dimensions



Model Size	IB21C 1/2"	IB21V 3/4"	IB41V 1/2"-3/4"	IB41V 1"	IB41V 1-1/2"	IB41V 2"
A	4.6 (116)	5.6 (143)	7.4 (187)	8.0 (203)	9.8 (248)	11.5 (301)
B	6.9 (176)	7.8 (199)	8.4 (214)	10.3 (262)	13.6 (345)	15.0 (380)
C	3.3 (83)	4.1 (105)	5.0 (127)	5.2 (131)	6.6 (168)	8.4 (213)
D	0.79 (20)	1.14 (29)	1.5 (39)	1.5 (39)	1.6 (41)	2.0 (50)
# Bolts	6	8	8	8	9	10
Weight Lbs (Kgs)	10 (4,5)	22 (10)	35 (16)	51 (23)	90 (41)	139 (63)

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																		
		10	25	50	75	100	125	150	175	200	225	250	275	300	350	400	450	500	550	600
IB21V 1/2"	3/32	150 (68)	260 (118)	380 (173)	460 (209)	520 (236)	575 (261)	620 (282)	665 (302)	700 (318)	730 (332)	760 (345)	780 (354)	800 (364)						
IB21V 3/4"	7/64	150 (68)	275 (125)	425 (193)	575 (261)	700 (318)	825 (375)	900 (409)	975 (443)	1050 (477)	1125 (511)	1200 (545)	1250 (568)	1300 (591)						
IB41V 1/2"	7/64	300 (136)	400 (182)	600 (273)	750 (341)	790 (359)	825 (375)	875 (398)	925 (420)	975 (443)	1060 (482)	1150 (523)	1200 (545)	1250 (568)	1375 (625)	1450 (659)	1500 (682)	1650 (750)	1725 (784)	1800 (818)
IB41V 3/4"	1/8	325 (148)	490 (223)	725 (329)	950 (432)	1100 (500)	1250 (568)	1400 (636)	1500 (682)	1600 (727)	1680 (764)	1750 (795)	1825 (829)	1900 (864)	2000 (909)	2085 (948)	2170 (986)	2250 (1023)	2325 (1057)	2400 (1091)
IB41V 1"	1/8	325 (148)	490 (223)	725 (329)	950 (432)	1100 (500)	1250 (568)	1400 (636)	1500 (682)	1600 (727)	1680 (764)	1750 (795)	1825 (829)	1900 (864)	2000 (909)	2085 (948)	2170 (986)	2250 (1023)	2325 (1057)	2400 (1091)
IB41V 1-1/2"	3/16	900 (409)	1400 (636)	1900 (864)	2300 (1045)	2600 (1182)	2900 (1318)	3200 (1454)	3400 (1545)	3500 (1591)	3700 (1682)	4000 (1818)	4150 (1886)	4300 (1954)	4500 (2045)	4700 (2136)	4900 (2227)	5100 (2318)	5400 (2454)	5700 (2591)
IB41V 2"	9/32	2500 (1136)	3500 (1591)	4600 (2091)	5700 (2591)	6500 (2954)	7100 (3227)	7700 (3500)	8300 (3773)	9000 (4091)	9250 (4204)	9500 (4204)	10000 (4545)	10500 (4773)	11000 (5000)	11800 (5364)	12300 (5591)	13000 (5909)	13500 (6136)	14000 (6364)

Utilize proper safety factors when selecting application.