STEAM TRAPS WSIB/WSIBH Inverted Bucket Steam Trap

Units: inches

Model	WSIB, WSIBH
Size	1/2″, 3/4″
Connections	NPT, SW
Body Material	Stainless Steel
PMO Max. Operating Pressure	450 PSIG*
TMO Max. Operating Temperature	750°F
PMA Max. Allowable Pressure	720 PSIG @ 100°F
TMA Max. Allowable Temperature	750°F @ 400 PSIG

*750°F @ operating pressures below 400 PSIG. See installation note regarding using trap in superheated applications.

TYPICAL APPLICATIONS

DRIP, TRACER: The WSIB inverted bucket trap is primarily used in drip and tracer applications. Inverted bucket traps can handle superheated steam when a check valve is used. These traps are also used on unit heaters, laundry equipment, and other small process equipment where slow start-up due to poor air handling capability can be tolerated.

HOW IT WORKS

When there is condensate in the system, the inverted bucket inside the steam trap sits on the bottom of the trap due to its inherent weight. This allows condensate to enter the trap and to be discharged through the seat orifice located at the top. When steam enters the trap, the bucket floats to the surface and closes off the discharge valve containing the steam in the system. Eventually steam is bled off through a small hole in the top of the bucket causing the bucket to sink which repeats the cycle.

FEATURES

- All stainless steel body
- Acceptable for superheated steam (with check valve installed at inlet)
- Water hammer resistant
- Valve & seat are at the top of the trap making it less sensitive to dirt
- All stainless steel internals with hardened valve & seat

4.55 WSIB 6.56 WSIBH 7.81 WSIR 5.81 WSIBH 6.56 **WSIB Inverted Bucket** 3.0 Steam Trap FI OW

SAMPLE SPECIFICATION

Steam trap shall be an all stainless steel module design inverted bucket type with a frictionless valve lever assembly.

INSTALLATION & MAINTENANCE

Trap must be installed in upright position to function properly. Steam trap is non-repairable. If a new trap is required, remove and replace. With superheated steam, a check valve must be installed at inlet of trap. For full maintenance details, see Installation and Maintenance Manual.

MATERIALS	
Body	Stainless Steel GR CF3
Cover	304L Stainless Steel
Internals	300 Series Stainless Steel
Valve Plug & Seat	420F Stainless Steel

CAPACI	IES	- Col	nden	sate	(lbs/ł	רזר)															
	Orifice	PMO	Differential Pressure (PSI)																		
Model	Size	(PSIG)	5	10	15	20	25	30	40	50	60	70	80	100	125	150	180	200	250	350	450
WSIB-20	3/16″	20	450	560	640	690															
WSIB-80	1/8″	80	300	350	400	440	460	500	550	580	635	660	690								
WSIB-150	#38	150	210	250	280	300	320	350	380	400	420	450	470	500	550	570					
WSIB-450	.057	450	31	50	70	84	95	105	120	133	145	152	160	174	187	198	208	215	228	248	263
WSIB <u>H</u> -15	1/4″	15	830	950	1060																
WSIB <u>H</u> -30	3/16″	30	530	700	820	880	950	1000													
WSIB <u>H</u> -70	5/32″	70	380	500	560	620	680	710	770	840	90	950									
WSIB <u>H</u> -125	1/8″	125	285	375	440	485	530	560	620	670	720	780	800	860	950						
WSIB <u>H</u> -200	7/64″	200	205	265	315	350	385	410	465	500	580	590	620	650	700	810	840	860			
WSIB <u>H</u> -250	#38	250	155	205	240	270	295	320	360	400	500	530	550	580	630	660	690	710	760		
WSIB <u>H</u> -450	.057	450	31	50	70	84	95	105	120	133	145	152	160	174	187	198	208	215	228	248	263



STEAM TRAPS **IB Series** Inverted Bucket Steam Traps

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Model 1031, 1032, 1033, 1034, 10315, 1041, 1042, 1044, 1038S Sizes 1/2", 3/4", 1", 11/4", 11/2" Connections NPT **Body Material Cast Iron** Options Internal check valve, air vent PMO Max. Operating Pressure **250 PSIG** 450°F TMO Max. Operating Temperature 250 PSIG up to 450°F PMA Max. Allowable Pressure TMA Max. Allowable Temperature 450°F @ 250 PSIG

TYPICAL APPLICATIONS

DRIP, TRACER, PROCESS: The **IB Series** inverted bucket traps are available in several sizes and capacity ranges. Inverted bucket traps can handle superheated steam when a check valve is used. The smaller traps are primarily used in drip and tracer applications. These traps are also used on unit heaters, laundry equipment, and other process equipment where slow start-up due to poor air handling capability can be tolerated. Larger sizes are used on process equipment; however, since bucket traps have limited air handling capability, F&T traps are the preferred choice.

HOW IT WORKS

When there is condensate in the system, the inverted bucket inside the steam trap sits on the bottom of the trap due to its inherent weight. This allows condensate to enter the trap and to be discharged through the seat orifice located at the top. When steam enters the trap, the bucket floats to the surface and closes off the discharge valve containing the steam in the system. Eventually steam is bled off through a small hole in the top of the bucket causing the bucket to sink which repeats the cycle.

FEATURES

- Water hammer resistant
- Suitable for superheated steam
- (use internal check valve option to eliminate loss of prime)
- In-line repairability is simplified by having all internals attached to the cover
- Valve & seat are at the top of the trap making it less sensitive to dirt
- All stainless steel internals with hardened valve & seat

SAMPLE SPECIFICATION

The steam trap shall be of an inverted bucket trap design. Trap body and cover shall be of cast iron construction with all stainless steel internals and hardened seat and disc.

MAINTENANCE

All working components can be replaced with the trap body remaining in-line. The repair kit for the traps contain a lever and seat assembly with gasket. With superheated steam, a check valve must be installed at inlet of trap. For full maintenance details see Installation and Maintenance Manual.



1031/1032/1033/1034 (No Strainer) 1031S (with Strainer)

1041/1042/1044/1038S (with Strainer)

DIRECT REPLACEMENT FOR THE FOLLOWING ARMSTRONG MODELS

Armstrong Model							
(Without Integral Strainer)							
800							
811							
812							
813							
(Includes Integral Strainer)							
N/A							
880							
881							
883							

OPTIONS

Blowdown valve connection available on 1041, 1042, 1044 & 1038S. Thermic vent to improve air handling capability. Internal check valve for superheated or condensate backflow applications.

HOW TO SIZE/ORDER

From the capacity chart, select the model that can handle the working pressure of the system (PMO). Select the appropriate trap that will meet the capacity requirements at the differential pressure. Example:

Application: 1000 lbs/hr at 75 PSIG working pressure and 2 PSI differential pressure

Note: Specify Model, PMO and Connection Size

Size/Model: **IB-1034, 80 PSIG**, Specify pipe size (3/4", 1"), or **IB-1044, 80 PSIG**, Specify pipe size (3/4", 1")

