



## STEAM TRAPS

**IB Series**

## Inverted Bucket Steam Traps

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

| Watson Model                 | Armstrong Model |
|------------------------------|-----------------|
| (Without Integral Strainer)  |                 |
| 1031                         | 800             |
| 1032                         | 811             |
| 1033                         | 812             |
| 1034                         | 813             |
| (Includes Integral Strainer) |                 |
| 1031S/1038S                  | N/A             |
| 1041                         | 880             |
| 1042                         | 881             |
| 1044                         | 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")