ZAHO Cast Steel Inverted Bucket Trap

IB 680 – 686F SERIES MOP: UP TO 41BARG @ 345°C

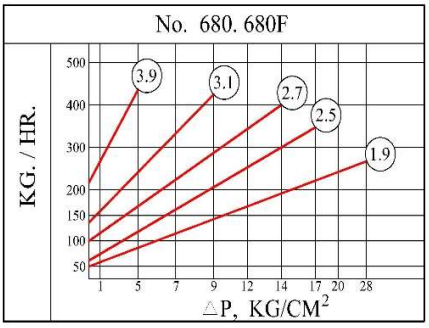
SVR SOLUTION ENGINEERING

ZAHO

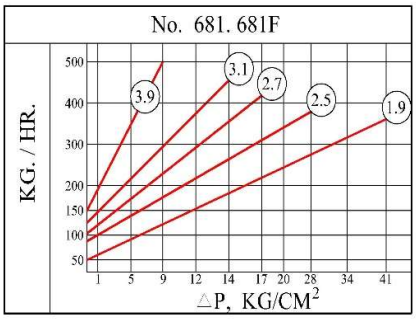
- Cast steel Inverted Bucket, focusing on increasing energy efficiency and one of the most reliable steam traps. It is suitable to use for superheated steam applications such as steam separator for steam turbine, steam mainline drainage. Commonly used industrial such as Petrochemicals, Palm Oil Mills, and Power Plants.

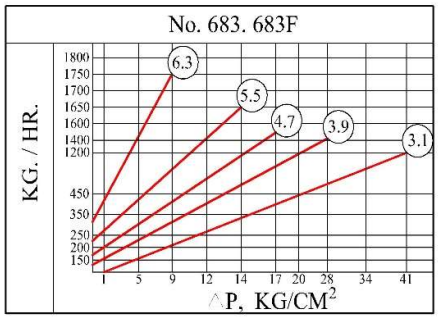
- These durable traps are designed to withstand corrosion, dirt, and water hammer to provide long lasting service. For optimum working conditions and protection of the steam trap, it is recommended an external Y-Strainer to be installed at upstream to prevent possible damage to the internal mechanism to ensure working well during peak operation within your plant.

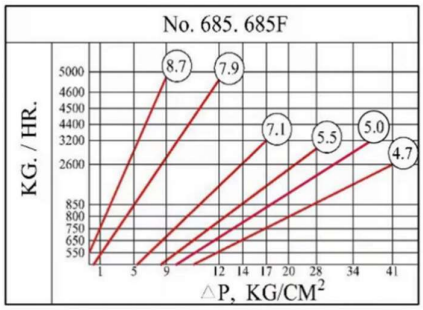
- A plug that located at top cover will be included for the inspection of steam trap condition such as air releasing and dirt flushing.
- Characteristics: For medium load, intermittent discharge, full load, continuous discharge
- Internal parts are made of stainless steel, hardened chromium steel valve seat that can tolerate with corrosive condensate.
- On applications where air and non-condensable gases are present, an external air vent can be fitted to assist the normal operation.
- When plant shut down, the valve seat is opened.
- The steam trap is designed to install horizontally.

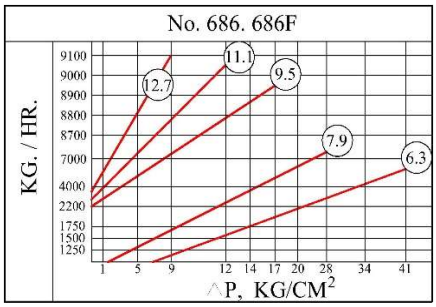


Sizing Capacities ：Condensate load in kg/hr









Materials

Body	ASTM A216 Carbon Steel
Bucket	Stainless Steel
Internal mechanism	Stainless Steel
Valve seat	Hardened chromium steel
Gasket	Stainless steel wire mesh graphite
Strainer Screen	Stainless Steel
Check Valve	Stainless Steel
Bolt	ASTM A193 - B7 Alloy Steel
Nut	ASTM A194 - 2H Alloy Steel

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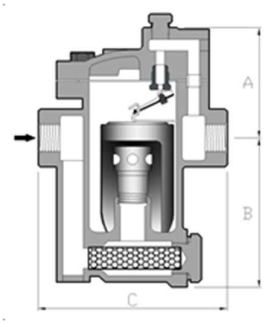
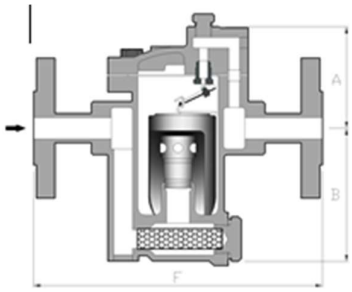
Dimensions /weights **(approximate) in mm and kg**



IB-680

MODEL	SIZE	A	B	C	MOP (BARG)	WEIGHT
680	15.20	73	100	100	28	3
681	15.20.25	105	134	134	41	5
683	25.32.40	117	196	196	41	20
685	40.50	145	250	250	41	43
686	50.65.80	210	275	310	41	78

* SCREWED BSP OR NPT AND SOCKET WELD ARE AVAILABLE
BUILT-IN CHECK VALVE FOR THIS MODEL



IB-680F (FLANGED)

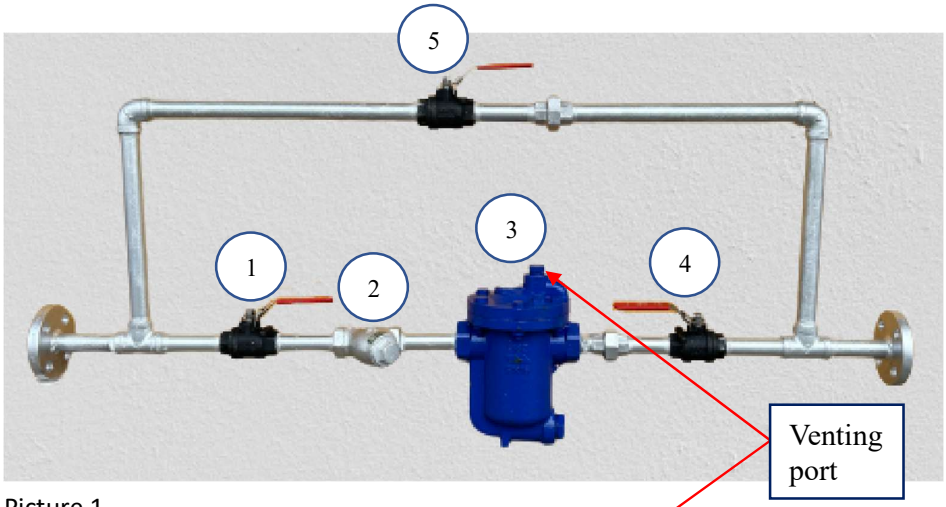
MODEL	SIZE	A	B	150# F	300# F	600# F
680F	15	73	100	216	216	
	20	73	100	228	234	
681F	15	105	134	219	219	229
	20	105	134	231	237	237
	25	105	134	236	245	245
683F	25	117	196	305	314	314
	40	117	196	316	324	327
685F	40	145	250	366	374	377
	50	145	250	372	385	391
686F	50	210	275	417	430	436
	65	210	275	430	442	449
	80	210	275	430	449	455

Additional features
Built-in check valve:
To prevent waterhammer from damaging internal parts and to protect against water seal of the steam trap where it is suitable for superheated steam environment.

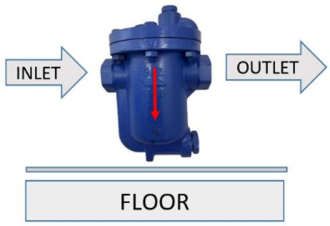
Warranty：

One year warranty will be given against manufacturing and material defects from the date of invoice.

Installation and Commissioning Instruction



Picture 1



Picture 2

Picture 3

1) Before installing a steam trap, please perform flushing on the inlet piping (before steam trap) as to remove any deposits, pipe debris and welding slug.

2) An arrow mark indicates the flow direction on every steam trap body. Install the trap following the inlet & outlet marking accordingly (refer to picture 2).

3) For easy maintenance, it is advisable to install the Isolation Valves before and after the steam trap as well as a bypass valve (as shown in picture 1)

4) To prolong the lifespan of the steam trap, it is recommended to install an external Y-Strainer before the trap as it is used to arrest the pipe scale, debris and welding slug.

Commissioning

1) As shown in picture 1, close the Isolation Valve (1 and 4) and open the bypass valve (5) for at least 5 minutes to flush out the pipe deposit and welding slug.

2) After performing the flushing, close the bypass valve and outlet isolation valve (4 and 5), then open the inlet isolation (1) for 2 minutes to get the trap to be primed as to get the water sealed in the trap. Thereafter open the outlet isolation valve (4) for running the trap.

Troubleshooting

Symptom	Cause	Check
1. No discharge at outlet	1. Trap may be hot & lost of water seal, so prime it again. 2. Possibility of Air-lock in the trap	1. Prime it again (follow the commissioning point no. 2). 2. Close the isolation valve (1) and dismantle the venting port of the Inverted Bucket as shown in picture 3. Then slowly open the isolation valve (1) to release the air for at least 3 minutes. Then, close the isolation valve (1), tighten the Venting nut and fully open the isolation valve (1) again. **Note: Safety precaution is a must when opening the Isolation valve (1) to release air at Vent port. This is to minimise the risk of physical hazard such as burn the face, eyes and skin.**