

TB-20 Inverted bucket steam trap maintains the efficiency and to prevent water hammer on all types of equipments, such as air heater, heat exchanger, steam kettle, steam press, and to discharge condensate from steam transportation piping. The reliable TB-20 lasts years longer and it will reduce energy wasted to provide positive situation on the environment.

■ Features

1. By adoption of a FGL (Free-Guide-Lever) mechanism, there is almost no wear with a lever and a fixed axis, and long durability is realized.
2. Since the valve is hemisphere form, the partial wear does not occur and the operation without steam loss is carried out.
3. The upper plug is made of stainless steel, and is excellent in wear resistance.
4. The body is made of high durable material ductile cast iron.
5. Excellent in the safety to a human body and environmental preservation by using non-asbestos gasket.



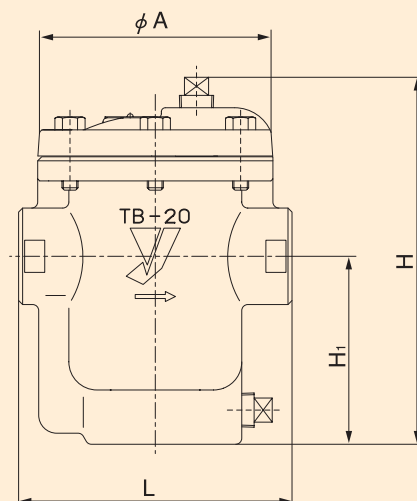
■ Specification

Model	TB-20			
Nominal size	15A, 20A, 25A			
Application	Steam condensate			
Working pressure	(A) 0.01~0.3MPa {0.1~3kgf/cm ² G}	(B) 0.2~0.6 MPa {2~6kgf/cm ² G}	(C) 0.3~1.0MPa {3~10kgf/cm ² G}	(D) 0.6~1.6 MPa {6~16kgf/cm ² G}
Min. differential pressure	0.01 MPa {0.1kgf/cm ² }	0.03 MPa {0.3kgf/cm ² }	0.10 MPa {1kgf/cm ² }	0.10 MPa {1kgf/cm ² }
Max. temperature	220°C			
Connection	JIS Rc (PT screwed)*			
Material	Body	Ductile cast iron		
	Valve	Stainless steel		
	Valve seat	Stainless steel		

* NPT connection is also available.

■ Dimensions & Weight

Nominal Size	Connection	L	H	H ₁	A	Weight (kg)
15A	Rc 1/2	136	183	94	117	4.3
20A	Rc 3/4					
25A	Rc 1					



Benefits

Energy saving

Seating surface of valve and valve seat is always under the water level in the body -means existing condensate works as waterseal. Hence, there is no chance to have steam loss.

Energy efficiency

TB-20 inverted bucket steam trap operates by the difference in density between condensate and steam. It ensures that condensate always will be discharged and no accumulation of condensate within the

Unique design for long life

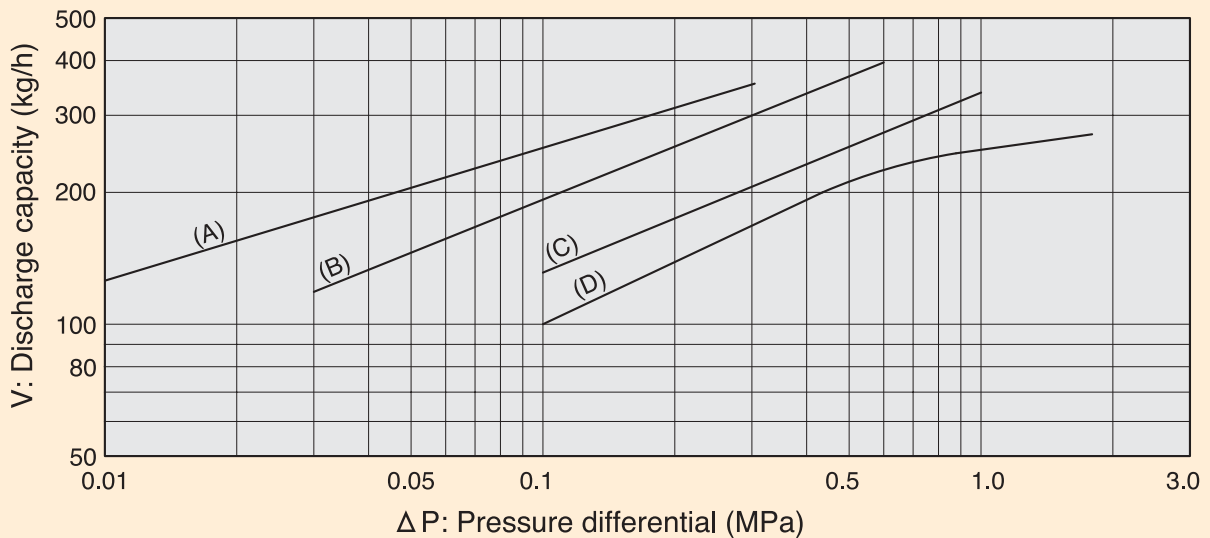
Unique Free-Guide Lever mechanism makes almost no wear or friction at moving parts. This innovated design will be free from sticking and clogging and makes long durability.

High corrosion resistant

All internal parts are corrosion resistant material stainless steel in order to protect against the possibility of problem caused by corrosion.

Discharge Capacity

1. Be sure to consider the outlet pressure of the steam trap since the discharge capacity is based on the pressure difference between inlet and outlet. For example, the discharge capacity at 0.5MPa inlet pressure and 0.2MPa outlet pressure is determined at 0.3MPa pressure difference.
2. Secure a safety factor of 2~3. For example, it should be used a steam trap whose discharge capacity is 200~300kg/h when 100kg/h discharge is needed.



Capacity table

(kg/h)

Working pressure	ΔP: Pressure differential (MPa)																		
	0.01	0.03	0.05	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
(A) 0.01~0.3MPa	110	165	202	240	305	360	—	—	—	—	—	—	—	—	—	—	—	—	—
(B) 0.2~0.6MPa	—	110	135	190	230	300	315	343	390	—	—	—	—	—	—	—	—	—	—
(C) 0.3~1.0MPa	—	—	—	120	152	203	213	230	250	285	302	310	325	—	—	—	—	—	—
(D) 0.6~1.6MPa	—	—	—	99.8	130	155	189	210	220	225	230	235	238	242	248	255	260	265	270