TSD-7,7F

ULTRA STEAM TRAP
TRAP STAR™

Bucket	Float	Disc	Bellows
Bimetal	Wafer	By-pass	Stainless steel
Connector	Side to side	Down to Up	Up to Down

■Features

1. Four functions (STOP / BY-PASS / TRAP / TEST) can be switched easily with a spanner or monkey wrench.
2. The integrated bypass function helps reduce piping and construction work costs significantly.
3. Bimetal solves air-binding problem and ensures a smooth discharge of cold condensate or air at the start of operation, enabling steam equipment to efficiently start to run.
4. Can be checked without being affected by back pressure.
5. The stainless steel valve disc and valve seat are subjected to special heat treatment and very durable.
6. Equipped with a built-in strainer.
7. Can be installed vertically or horizontally as desired.
8. Rain cover is available as options for outdoor use.

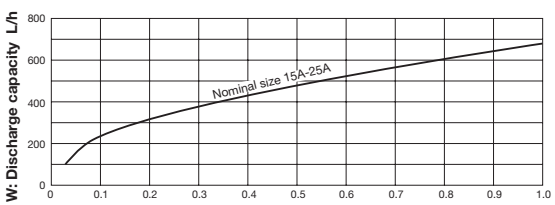
TSD-7

TSD-7F

■Specifications

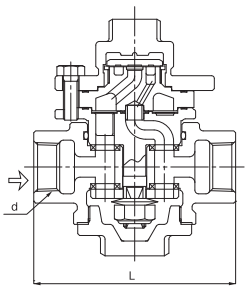
Model		TSD-7	TSD-7F
Application		Steam condensate	
Working pressure		0.035-1.0 MPa	
Allowable back pressure		50% of inlet pressure	
Maximum temperature		183°C	
Installation posture		At any angle between vertical and horizontal (Do not put the cover under the horizontal level.)	
Material	Body	Ductile cast iron	
	Disc, seat	Stainless steel (special heat treatment)	
Connection		JIS Rc screwed	JIS 10K FF flanged

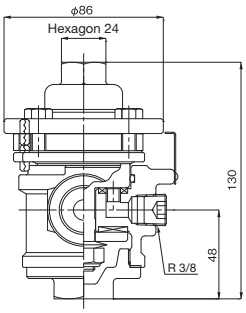
■Maximum Continuous Discharge Capacity Chart



· The discharge capacity shown on the above chart is the maximum value.
In designing a system, select a steam trap with a sufficient safety factor (four to five times the regular level). That is, for example, if a discharge capacity of 100 kg/h is required, select a steam trap capable of discharging 400 to 500 kg/h.

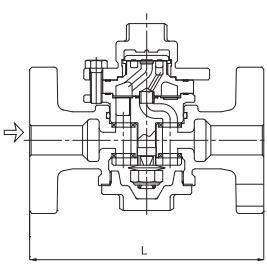
■Dimensions (mm) and Weights (kg)

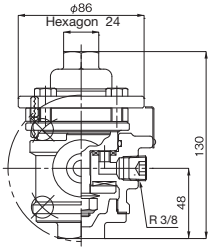




· TSD-7

Nominal size	d	H	Weight
15A	Rc 1/2	107	2.5
20A	Rc 3/4	109	2.6
25A	Rc 1	115	2.7

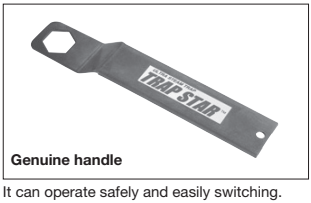




· TSD-7F

Nominal size	L	Weight
15A	156	4.1
20A	160	4.6
25A	160	5.7

■Option



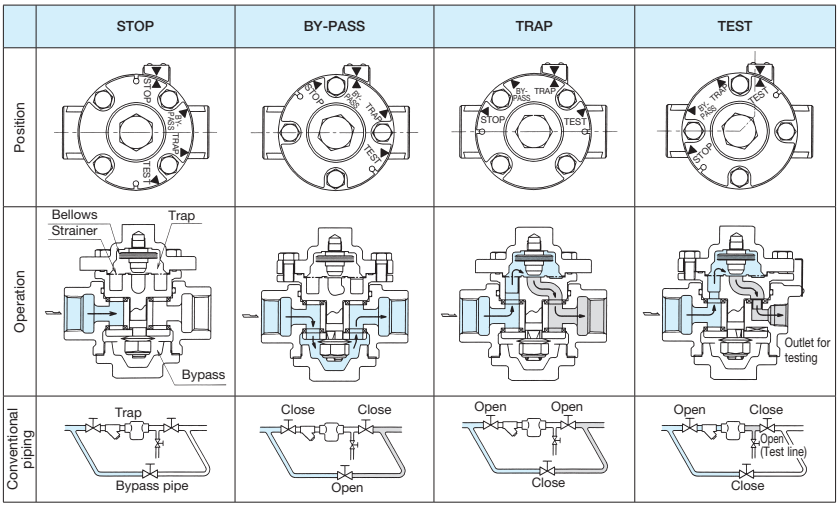
Genuine handle

It can operate safely and easily switching.

Rain cover

It can effect on prevention of working blank shot from wet rain.

■Switching Mechanism and Operation



· All steam traps are set at the "STOP" position when delivered.

1. STOP: Fluid does not flow into the trap and out of the bypass because the inlet, the outlet, and the bypass are closed, and the strainer can be cleaned and the bellows can be inspected.
2. BY-PASS: Fluid flows through the bypass directly to the outlet. Select this position when blowing the piping during plumbing or discharging a large quantity of condensate before starting operation. Since fluid does not flow to the outlet through the trap, the strainer can be cleaned and he bellows can be inspected. (Do not use at BY-PASS condition for a long time).
3. TRAP: In this position, the steam trap performs regular trap operation, and condensate flows from the inlet to the outlet through the trap. It does not flow out of the bypass.
4. TEST: In this position, condensate is discharged from the inlet to the outlet for testing through the trap, and the operation of the trap can be checked. This check can be carried out with the outlet closed and without being affected by back pressure. Fluid does not flow out of the bypass.

■Precaution for Installation

1. Carefully blow the piping before installing the steam trap.
2. Connect the steam trap to the piping according to its arrow indicating the direction of flow.
3. Slope the piping and place the product at as a low position as possible in order to make condensate flow into the product by its own weight.
4. Do not insulate the piping inlet and the steam trap.
5. To install the product in a main steam pipe, provide a drip leg at the inlet side of the product.
6. Secure enough space for switching operation of the cock and maintenance (such as cleaning the strainer and inspection of the bellows).
7. If discharge capacity is not enough, install more than one trap. In this case, connect the traps to the piping so that their inlets are in the same level.
8. Do not install the steam trap in a place where ambient temperature is higher than the condensate to be discharged.

■Piping Example