

# TSD-42,42F

ULTRA STEAM TRAP  
**TRAP STAR™**

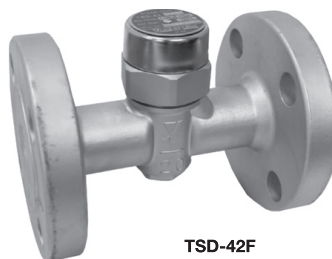
|           |              |            |                 |
|-----------|--------------|------------|-----------------|
| Bucket    | Float        | Disc       | Bellows         |
| Bimetal   | Wafer        | By-pass    | Stainless steel |
| Connector | Side to side | Down to Up | Up to Down      |

## ■Features

1. Stainless steel used for main parts, making a contribution to improve corrosion resistance.
2. Since it can operate under 425°C temperature and 4.2 MPa pressure conditions, it can be applied in various types of industries, such as heavy, light, and general industries.
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. "Insulation cover" avoids frequent on-off operation.
5. Plumbing is easy to perform because it can be installed vertically or horizontally as desired.



TSD-42



TSD-42F

## ■Specifications

| Model                   |            | TSD-42                                   | TSD-42F         |                 |                 |                 |
|-------------------------|------------|------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Nominal Size            |            | 10-25A                                   | 15-25A          |                 |                 |                 |
| Application             |            | Steam condensate                         |                 |                 |                 |                 |
| Working pressure        |            | 0.035-4.2 MPa                            | 0.035-1.0 MPa*1 | 0.035-2.0 MPa*1 | 0.035-3.0 MPa*1 | 0.035-4.2 MPa*1 |
| Allowable back pressure |            | 50% or less of inlet pressure            |                 |                 |                 |                 |
| Maximum temperature     |            | 425°C                                    | 300°C*1         | 425°C*1         |                 |                 |
| Material                | Body       | Stainless steel (SCS2A)                  |                 |                 |                 |                 |
|                         | Disc, seat | Stainless steel (special heat treatment) |                 |                 |                 |                 |
| Connection              |            | JIS Rc, NPT, BSPT screwed                | JIS10KRF        | JIS20KRF        | JIS30KRF        | JIS40KRF        |

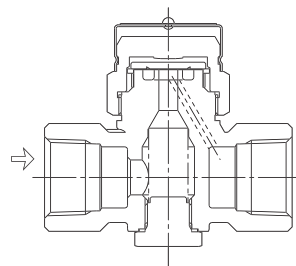
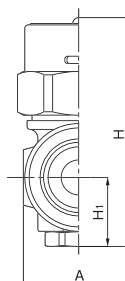
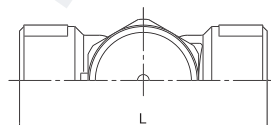
\*Available with ASME flanged and EN standard connection.

\*1 Relationship between the max. pressure and the max. temperature is according to the JIS B2220 Pressure - temperature rating.

## ■Dimensions (mm) and Weights (kg)

### •TSD-42

| Nominal size | L  | H  | H <sub>i</sub> | A  | Weight |
|--------------|----|----|----------------|----|--------|
| 10A          | 78 | 76 | 23             | 32 | 0.65   |
| 15A          | 78 | 76 | 23             | 32 | 0.6    |
| 20A          | 85 | 79 | 24             | 38 | 0.7    |
| 25A          | 95 | 86 | 27.5           | 45 | 0.9    |



■Dimensions (mm) and Weights (kg)

·TSD-42F (JIS 10・20KRF)

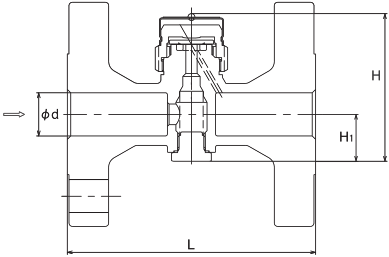
| Nominal size | d  | L   | H  | H <sub>1</sub> | Weight |
|--------------|----|-----|----|----------------|--------|
| 15A          | 15 | 127 | 76 | 23             | 2.0    |
| 20A          | 20 | 131 | 79 | 24             | 2.4    |
| 25A          | 25 | 131 | 86 | 27.5           | 3.5    |

·TSD-42F (JIS 30KRF)

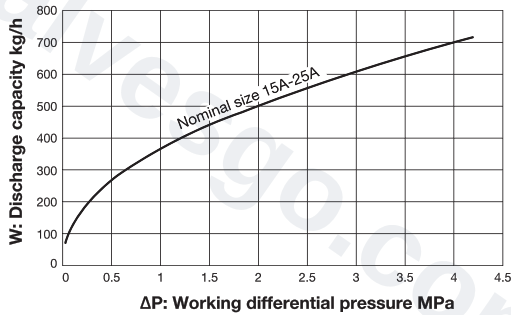
| Nominal size | d  | L   | H  | H <sub>1</sub> | Weight |
|--------------|----|-----|----|----------------|--------|
| 15A          | 15 | 135 | 76 | 23             | 3.4    |
| 20A          | 20 | 135 | 79 | 24             | 3.6    |
| 25A          | 25 | 139 | 86 | 27.5           | 4.6    |

·TSD-42F (JIS 40KRF)

| Nominal size | d  | L   | H  | H <sub>1</sub> | Weight |
|--------------|----|-----|----|----------------|--------|
| 15A          | 15 | 139 | 76 | 23             | 3.6    |
| 20A          | 20 | 139 | 79 | 24             | 4.0    |
| 25A          | 25 | 144 | 86 | 27.5           | 5.0    |



■Maximum Continuous Discharge Capacity (10A~25A)



- To select the product size, secure the safety factor of 4 to 5. For example, if you need a steam trap with a capacity of 100 kg/h, the trap with a capacity of 400 to 500 kg/h should be selected for maximum efficiency.
- The back pressure (outlet pressure) should be considered in selecting discharge capacity. This is because discharge capacity of a trap depends on the operating differential pressure (the difference between the inlet and the outlet pressure). For example, to find the discharge capacity obtained by the inlet pressure is 1.0 MPa and the outlet pressure is 0.2 MPa, trace up from the point of the operating differential pressure of 0.8 MPa in the above chart.

■Installation Posture

