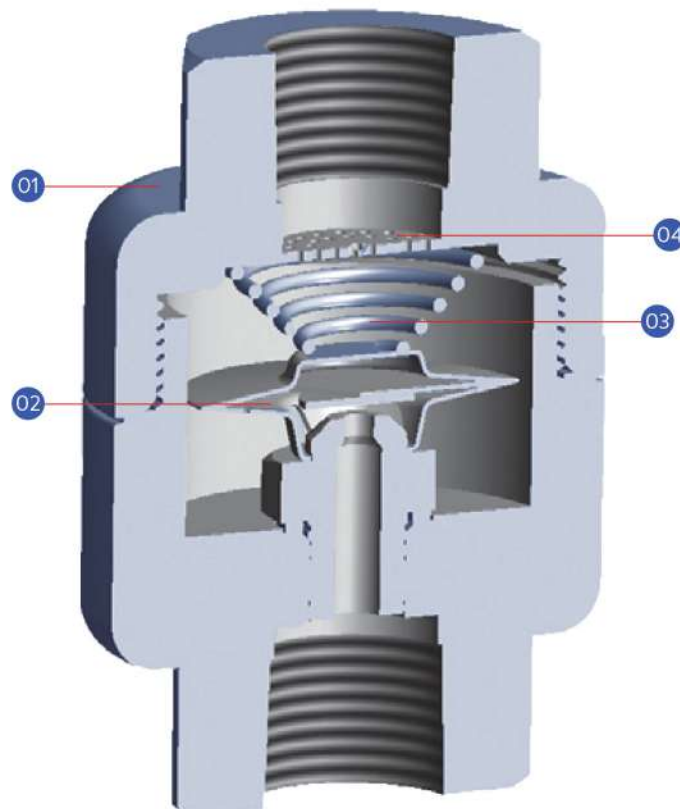


THERMOSTATIC (CAPSULE) STEAM TRAP

Thermostatic (Capsule) steam traps are commonly used in heat tracing pipelines and equipment requiring small displacement and low-temperature operation. Their Compact design, large subcooling capability, strong energy-saving performance, and excellent resistance to low temperatures make them ideal for such applications.

The technical advantages of ValveWerkz traps lie in their precise internal components and well-engineered construction.



1. High Strength Corrosion Resistance

Constructed from SS304 stainless steel, offering excellent corrosion resistance along with a polished, hygienic appearance.

2. Large Subcooling Capsule Module

Designed with a subcooling range of 15°C, the capsule trap effectively removes condensate below the saturation temperature, ensuring high energy efficiency.

3. Suitable for Clean Applications

All internal components are made from 304 stainless steel, making this trap suitable for use in food, pharmaceutical, and other sanitary industries.

4. Integrated Filtration Design

Built-in filtration prevents pipeline impurities from entering the valve, ensuring consistent and reliable operation.

Structural Features

ValveWerkz capsule steam trap uses a valve body and cover made from 304 stainless steel, making it suitable for clean environments such as medical, sanitation, food, and pharmaceutical industries. The trap operates with a condensate discharge temperature range of 15–20°C.

It features a face-sealed closure system that is noiseless, provides excellent air exhaust capability, and maximises the sensible heat of condensate for improved energy efficiency.



The capsule steam trap works based on the temperature difference between steam and condensate. When high pipeline temperatures prevent immediate condensate discharge, the diaphragm inside the trap responds by opening the valve seat as the heat energy decreases, allowing the condensate to be expelled.

Additionally, the capsule steam trap can function as an air exhaust valve.

Material and Performance Specifications

The body of the capsule steam trap is made from 304 stainless steel. The internal components, including the capsule, are also constructed from stainless steel. The inlet is equipped with a built-in filter to ensure clean operation.

- Nominal pressure: PN25
- Maximum allowable temperature: 400°C
- Maximum working pressure: 16 Bar
- Maximum working temperature: 400°C
- Connection options: Threaded RC or flange (GB/T9115.1–2000; HG/T20615–2009; HG/T20592–2009, etc.)

Selection and Installation

The bellows-type capsule steam trap provides continuous drainage. Standard models are factory-set to discharge at a subcooling range of 15–20°C. If a specific subcooling requirement is needed, please indicate this when placing your order.

The back pressure ratio of the bellows trap can reach up to 50% (back-end pipeline pressure to steam pressure). While not suitable for closed recovery systems, it is ideal for pipelines and heating systems used for condensate removal.

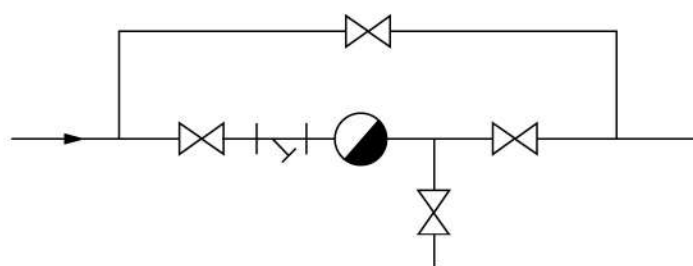
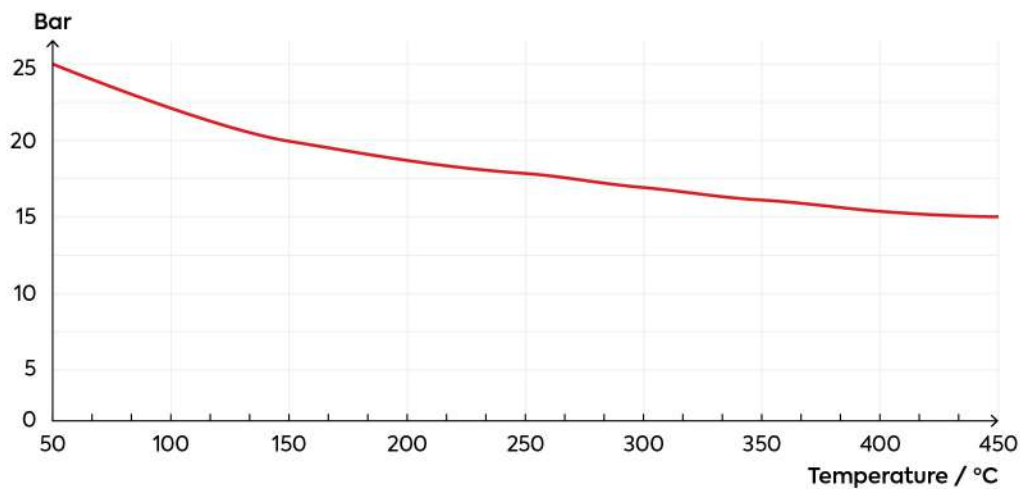
As a general rule, a safety factor of 2 to 3 times is recommended during model selection.

Important

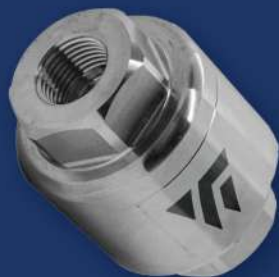
The condensate volume and pressure differential of your steam system are key factors when selecting the appropriate trap. Displacement increases as pressure difference rises. Always refer to the displacement curve for accurate sizing.

Do not confuse high displacement capability with a large-diameter trap.

Valve Body Pressure - Rating Temperature (25 Bar; SS 304)



The capsule steam trap can be installed at any position within the pipeline or equipment as required. The diagram above illustrates the standard configuration for correct installation.



ST63 Series

Thermostatic (Capsule) Steam Trap

SS304

SS316

Threaded End

Flanged End

DN15 (½") to DN25 (1")

Max Discharge = 300 kg/hr

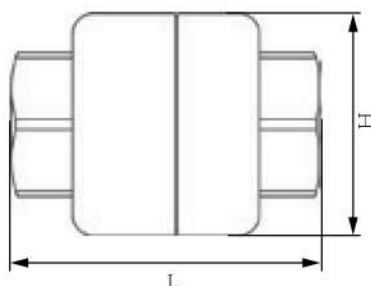
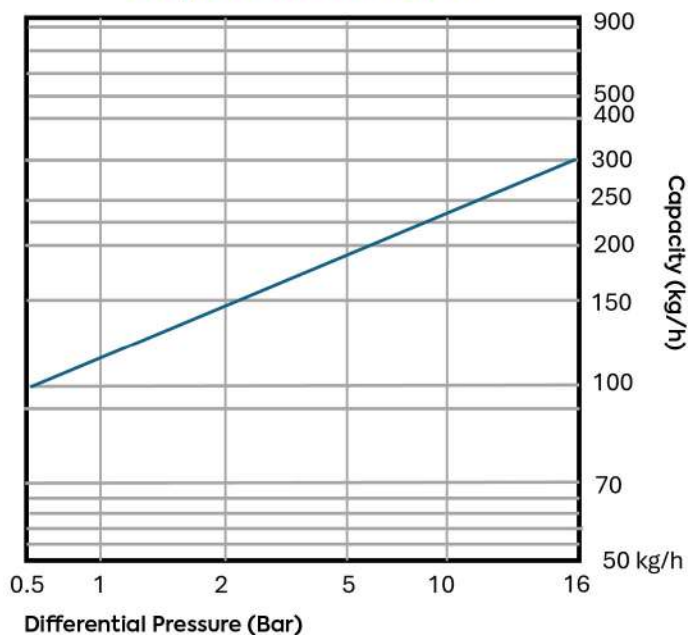
PN25

Max W.P = 16 Bar

Technical Parameters

Nominal pressure	PN25
Max. allowable pressure (Shell)	16 Bar / 250°C
Max. allowable temperature (Shell)	350°C / 14.6 Bar
Factory steam action test	>3 times / 16 Bar
Max. operating pressure	16 Bar
Max. operating temperature	204°C
Factory cold test pressure	38 Bar
Air test	6 Bar

Displacement Curve



Part Name	Material
Bonnet	SS304 / SS316
Body	SS304 / SS316
Seat	420
Valve Core	304
Other Internal Parts	304

Data Size Table

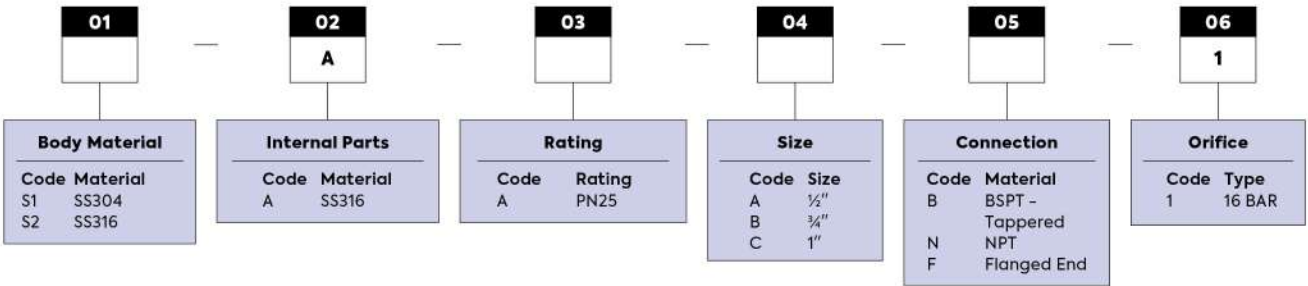
Connection	Size	L(mm)	H(mm)	Weight(kg)
Threaded	DN15 - 20	75	55	1
Butt Weld / Socket Weld	DN25	80	55	1.2
Flanged	DN15 - 25	120	125	3.8

REQUEST FOR QUOTE



*For further assistance with placing your order, please contact your local partner. A sales engineer will be assigned to assist you.

Valve Coding Sheet
Thermostatic (Capsule) Steam Trap



Your Valve Ordering Code:

ST63

01

02

03

04

05

06

Example:

ST63 – S1AABB1.
SS304 Body Material. SS316 Internal Parts. Pressure Rating of PN25, ½ inch size.
Connection Type of BSPT – Tapped. Orifice 16 BAR.

*For special material or customisation, please refer to our sales engineer.



SCAN FOR ONLINE ORDERING FORM

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