



NEWTON Fluid Technology CO., LTD

Inverted Bucket Steam Trap

Pilot-inverted Bucket Steam Trap

Ball Float Steam Trap

Thermodynamic Steam Trap

Thermostatic(bimetallic) Steam Trap

Thermostatic(film box) Steam Trap

STEAM TRAP

Inverted Bucket Steam Trap



Secure System Generates
Smart Energy Conservation

www.steamvalves.com

VMV Newton has become a well-known high-end brand manufacturer and end-user service provider in the field of steam and thermal energy engineering systems.

Inverted Bucket Steam Trap

Inverted bucket Steam traps are widely used in steam pipelines, process heat tracing, jacket heating kettles, reboilers and other equipment due to their safety, reliability, energy saving, longevity, and low temperature resistance.

The technical advantages of VMV traps are: unique and reasonable structure and high-precision internals!

High Corrosion Resistance

Adopting WCB material, full consideration of corrosion allowance, minimum shell wall thickness, pressure and temperature rating.

Flexible Closing System

Micron-level high-precision seat and valve core ensure the reliability of the closing system with no steam leakage.

Stainless Steel Bucket Exhaust Structure

There are small holes in the upper part of the bucket to remove air and other non-condensable gases to prevent steam lock.

None-leakage Structure Design

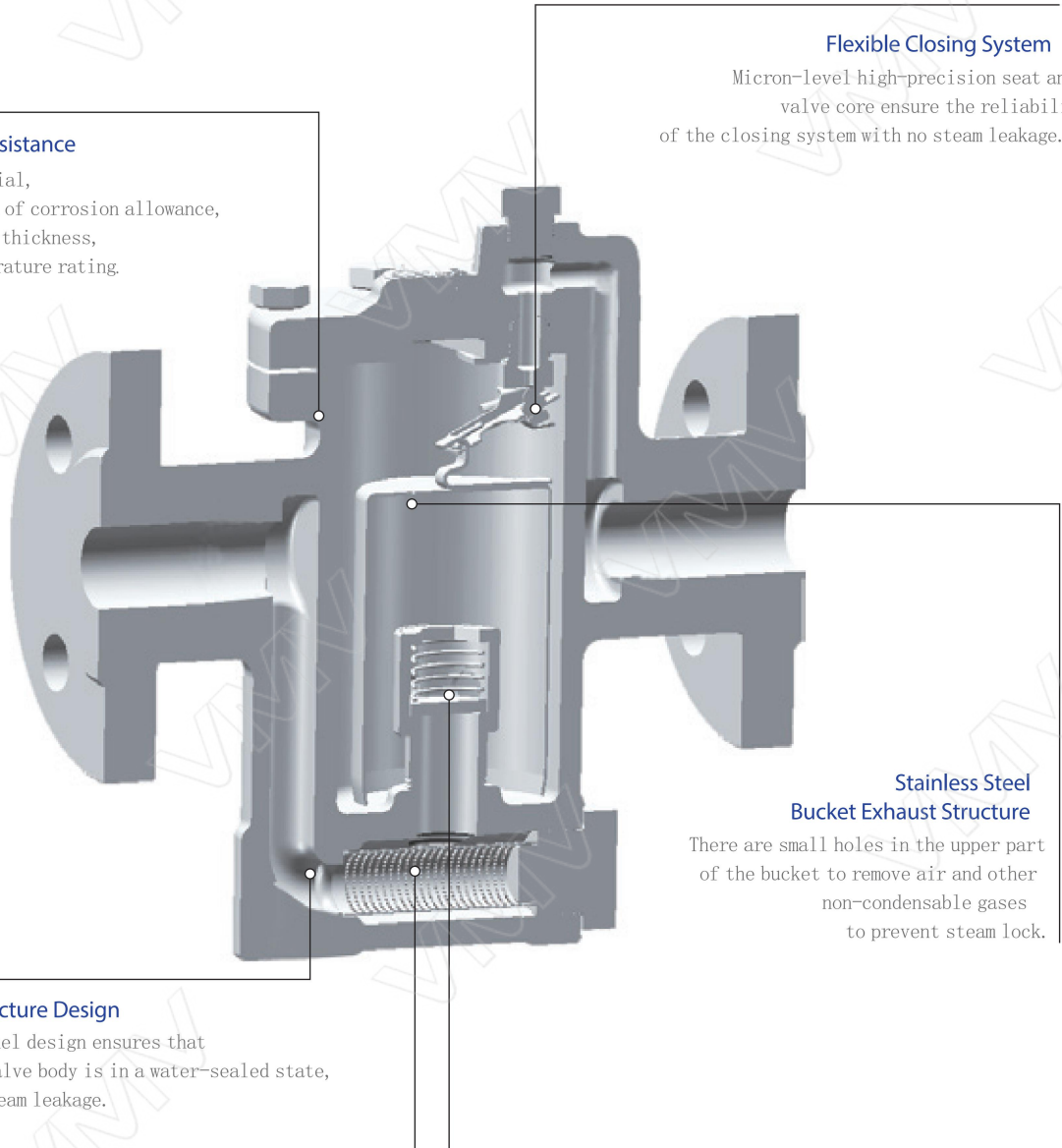
U-shaped flow channel design ensures that the inside of the valve body is in a water-sealed state, with no original steam leakage.

Built-in Check Valve

Prevent water hammer from damaging internal parts and also apply to superheated steam environment.

Built-in Filtering Device

Effectively prevent pipeline impurities from entering the valve to ensure the proper operation of the trap.

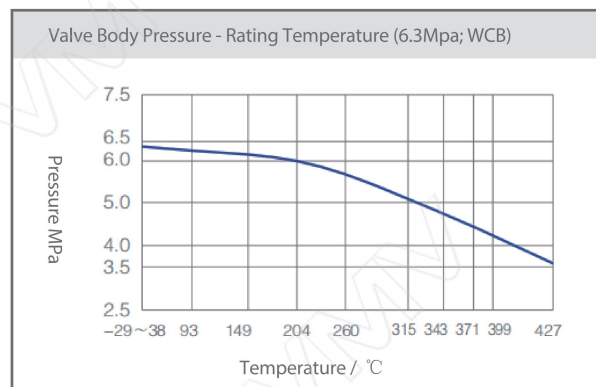
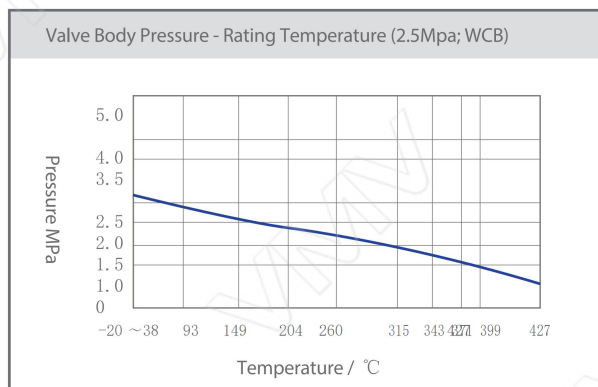
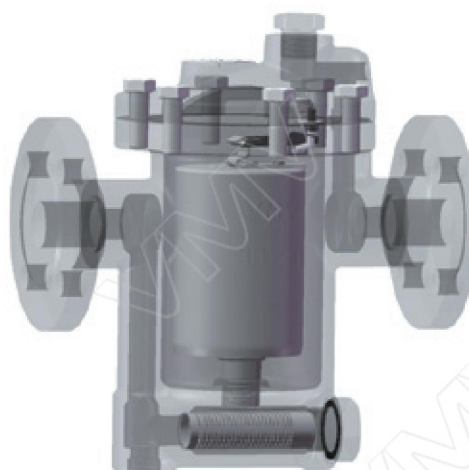


Structural Features

VMV Inverted Bucket Steam Trap has been designed in full consideration of shell strength and pressure temperature grade, casting processability, tightness of valve core valve seat closure, impact caused by water vapor mixing, and the strength of the valve cover cushion affected by low temperature environment, etc.

The inverted bucket steam trap relies on the density difference between steam and condensate to work. When the bucket is full of condensed water and non-condensable gas, the vent on the upper part of the bucket removes the non-condensable gas. The bucket loses buoyancy and drives the valve core to move down. The trap opens to drain. When steam enters the bucket after draining, the bucket floats and drives the valve and the core closes the trap.

The biggest advantage of the inverted bucket trap is high back pressure rate, long life, reliable action, convenient maintenance with no original steam leakage.

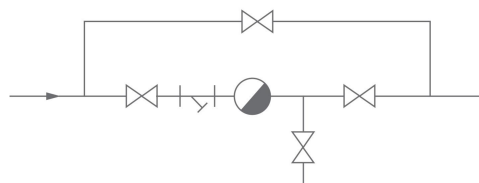


Inverted Bucket Steam Trap selection and installation

The inverted bucket steam trap is for intermittent drainage, with a subcooling degree of 5-10° C and a back pressure rate of more than 85% (back-end pipeline pressure/steam pressure). It is suitable for pipelines and small equipment to remove condensate and back pressure to recover condensate. Generally, the safety factor is 2-3 times when selecting models, and 5-8 times for air separation units and drying cylinders.

The condensed water volume and pressure difference of steam equipment are important indicators for model selection. The displacement of the same model of steam trap increases with the pressure difference increases. Check the displacement curve in detail.

Special reminder: Please don't mistake it for a large-diameter trap with a large displacement.



Inverted Bucket Steam Trap can be installed anywhere at the bottom of the pipeline or equipment. The basic configuration of the trap is shown in the figure above.

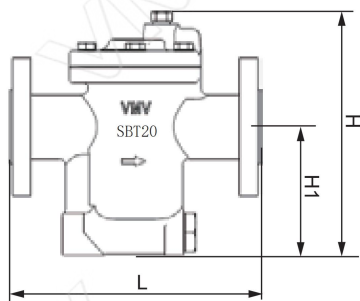
When the pipeline is superheated steam, a check valve must be installed to prevent the trap from failing due to the superheated steam evaporating the water seal in the trap.

SBT10

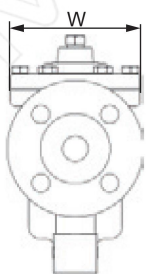
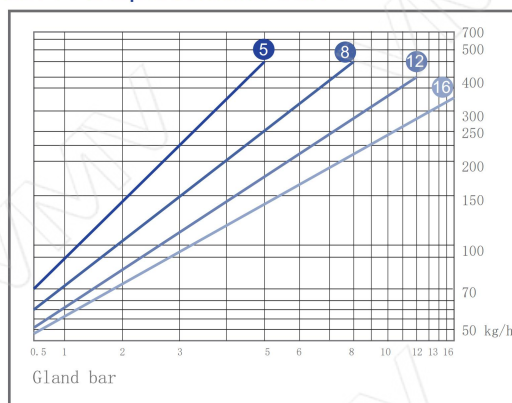
Inverted Bucket Steam Trap

Structural features

1. The working principle of the inverted bucket steam trap is based on the difference of vapor and liquid density.
2. The valve body and bonnet are made of forged steel/cast steel.
3. All internal parts are made of stainless steel, and the wear allowance has been fully considered in the design of movable parts, which improves the service life of the trap.
4. U-shaped flow channel design realizes water sealing effect without leaking steam.
5. Patented flexible closing system, no steam leakage.
6. Equipped with a water-proof device so that the fluid entering the valve body will not produce water-hammer.
7. Built-in check valve is suitable for superheated steam environment.
8. Built-in filter makes the water valve work in a clean environment.
9. Choose different displacement curves according to the pressure.
10. The back pressure rate is as high as 90%.
11. The screw plug can drain the condensed water after stopping to prevent damage to the trap due to freezing or low temperature.



SBT10 Displacement Curve



Applications

1. Guide for steam transmission pipeline.
2. Small heat exchanger and kettle.
3. Heat tracing system (high back pressure recovery system)
4. coil air heating

Material

| | |
|-----------------|-----------------|
| Cap | A105 |
| Valve Body | WCB |
| Seat | Stainless Steel |
| Disc | Stainless Steel |
| Other Internals | Stainless Steel |

Data Size Table

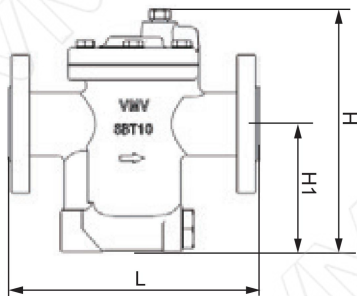
| Type | Conn | DN | PN | Working Pressure MPa | Temperature°C Pressure MPa | Diameter (mm) | | | | U.W Kg |
|---------|--------|-------|----|----------------------|----------------------------|---------------|-----|----|-----|--------|
| | | | | | | L | H | H1 | W | |
| SBT 10T | Thread | 15-25 | 25 | 0.05-1.6 | 400/1.57 | 130 | 185 | 38 | 100 | 4 |
| SBT 10W | SW | 15-25 | 25 | 0.05-1.6 | 400/1.57 | 130 | 185 | 38 | 100 | 4 |
| SBT 10F | RF | 15-25 | 25 | 0.05-1.6 | 400/1.57 | 190 | 185 | 38 | 100 | 6.5 |

SBT20

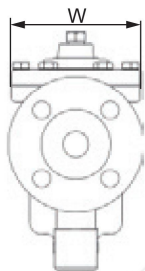
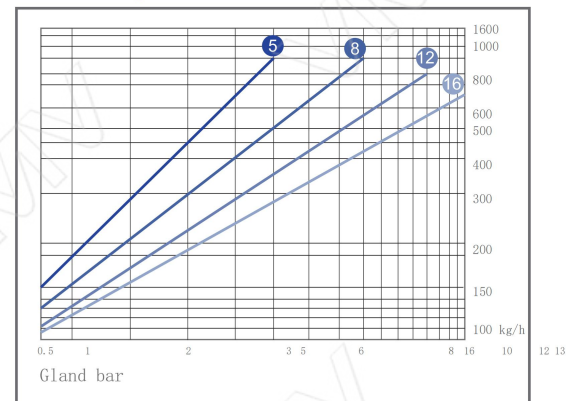
Inverted Bucket Steam Trap

Structural features

1. The working principle of the inverted bucket steam trap is based on the difference of vapor and liquid density.
2. The valve body and bonnet are made of forged steel/cast steel.
3. All internal parts are made of stainless steel, and the wear allowance has been fully considered in the design of movable parts, which improves the service life of the trap.
4. U-shaped flow channel design realizes water sealing effect without leaking steam.
5. Patented flexible closing system, no steam leakage.
6. Equipped with a water-proof device so that the fluid entering the valve body will not produce water-hammer.
7. Built-in check valve is suitable for superheated steam environment.
8. Built-in filter makes the water valve work in a clean environment.
9. Choose different displacement curves according to the pressure.
10. The back pressure rate is as high as 90%.
11. The screw plug can drain the condensed water after stopping to prevent damage to the trap due to freezing or low temperature.



SBT20 Displacement Curve



Applications

1. Small heat exchanger, kettle and sub-cylinder.
2. Coil air heating, drying equipment, vulcanizing equipment, etc.
3. Process heating system (storage tank, oil tank, weight).

Material

| | |
|-----------------|-----------------|
| Cap | A105 |
| Valve Body | WCB |
| Seat | Stainless Steel |
| Disc | Stainless Steel |
| Other Internals | Stainless Steel |

Data Size Table

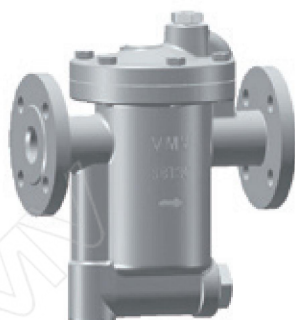
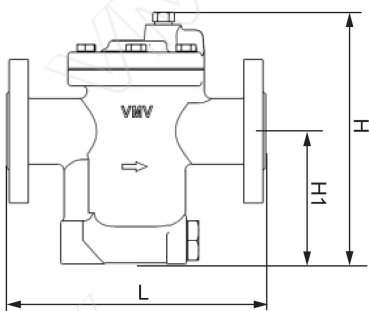
| Type | Conn | DN | PN | Working Pressure MPa | Temperature°C Pressure MPa | Diameter (mm) | | | | U.W Kg |
|---------|--------|-------|----|----------------------|----------------------------|---------------|-----|-----|-----|--------|
| | | | | | | L | H | H1 | W | |
| SBT 20T | Thread | 15-25 | 25 | 0.05-1.6 | 400/1.57 | 170 | 245 | 133 | 140 | 8 |
| SBT 20W | SW | 15-25 | 25 | 0.05-1.6 | 400/1.57 | 170 | 245 | 133 | 140 | 8 |
| SBT 20F | RF | 15-40 | 25 | 0.05-1.6 | 400/1.57 | 230 | 245 | 133 | 140 | 10.5 |

SBT30

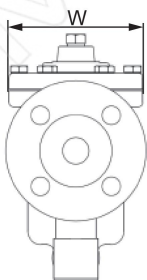
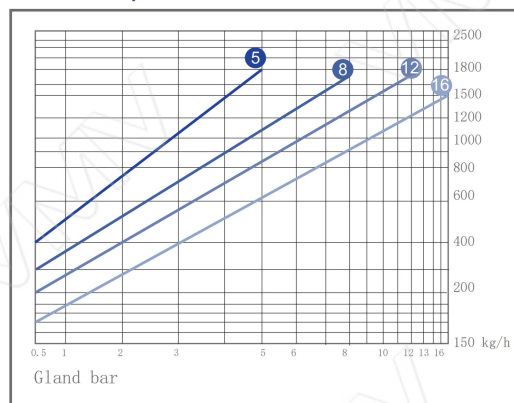
Inverted Bucket Steam Trap

Structural features

1. The working principle of the inverted bucket steam trap is based on the difference of vapor and liquid density.
2. The valve body and bonnet are made of cast steel.
3. All internal parts are made of stainless steel, and the movable parts are fully designed Considering the wear allowance, the service life of the trap is improved.
4. U-shaped runner design to achieve water sealing effect without leaking steam.
5. The patented flexible closing system has no steam leakage.
6. Equipped with a water-proof device so that the fluid entering the valve body will not produce water-hammer.
7. Built-in check valve is suitable for superheated steam environment.
8. Built-in filter makes the trap work in a clean environment.
9. Choose different displacement curves according to the pressure.
10. The back pressure rate is as high as 90%.
11. After stopping, the screw plug can drain the condensed water to prevent damage to the trap due to freezing at low temperature.



SBT30 Displacement Curve



Applications

1. Medium-sized heat exchanger, kettle and sub-cylinder.
2. Coil air heating, drying equipment, vulcanizing equipment, etc.
3. Process heating system (storage tank, oil tank, weight)

Material

| | |
|-----------------|-----------------|
| Cap | A105 |
| Valve Body | WCB |
| Seat | Stainless Steel |
| Disc | Stainless Steel |
| Other Internals | Stainless Steel |

Data Size Table

| Type | Conn | DN | PN | Working Pressure MPa | Temperature°C Pressure MPa | Diameter (mm) | | | | U.W Kg |
|---------|--------|-------|----|----------------------|-------------------------------|---------------|-----|-----|-----|--------|
| | | | | | | L | H | H1 | W | |
| SBT 30T | Thread | 25-32 | 25 | 0.05-1.6 | 400/1.57 | 210 | 320 | 187 | 174 | 15 |
| SBT 30W | SW | 25-32 | 25 | 0.05-1.6 | 400/1.57 | 210 | 320 | 187 | 174 | 15 |
| SBT 30F | RF | 25-50 | 25 | 0.05-1.6 | 400/1.57 | 270 | 320 | 187 | 174 | 19.5 |

VMV Headquarter (Wenzhou)
WuxingIndustrialArea,OubeiStreet,
YongjiaCounty,Zhejiang,China
Tell:+86-577-67978269
Fax:+86-577-6737-6711
Email:vmv@steamvalves.com



Shanghai R & D (Brand Operation) Center
Building12A,1818ChengbeiRoad,
JiadingDistrict,Shanghai,China
Tell:+86-21-60192016
Email:vmv@steamvalves.com

**Secure System Generates
Smart Energy Conservation**



WhatsApp/Skype/Wechat: +86 13375878802

Email: vmv@steamvalves.com

Mobile: +86 18989717702

Tel: +86-577-67978269

Fax: +86-577-6737-6711

Address: Wuxing Industrial Area,Oubei Street,Yongjia Country
Zhejiang,China,325105

