VMV®
Make Security Eternal

NEWTON Fluid Technology CO., LTD

Inverted Bucket Steam Trap

Pilot-inverted Bucket SteamTrap

Ball Float Steam Trap

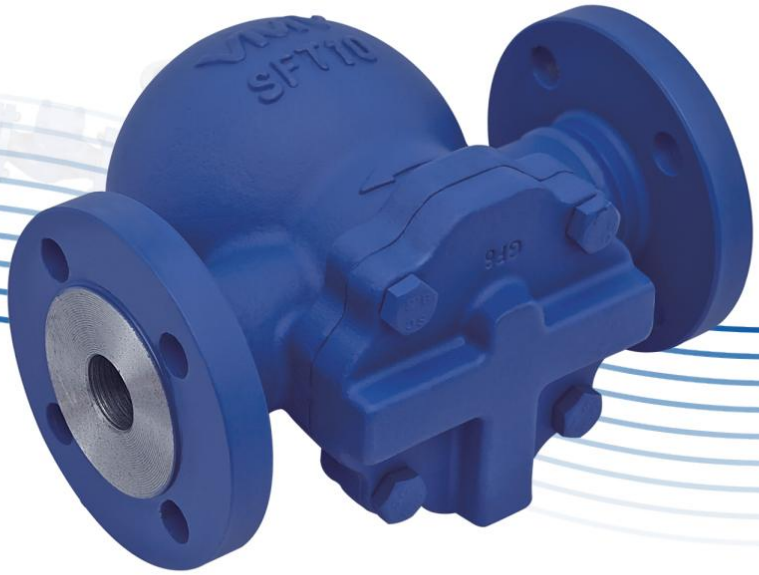
Thermodynamic Steam Trap

Thermostatic(bimetallic) Steam Trap

Thermostatic(film box) SteamTrap

STEAM TRAP

Ball Float Steam Trap



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.

Secure System Generates
Smart Energy Conservation

www.steamvalves.com

Ball Float Steam Trap

Ball float steam traps are characterized by large displacement, long life, good energy-saving effects, water hammer resistance, and beautiful appearance. They are widely used in process heat tracing, jacket heating kettles, reboilers and other equipment.

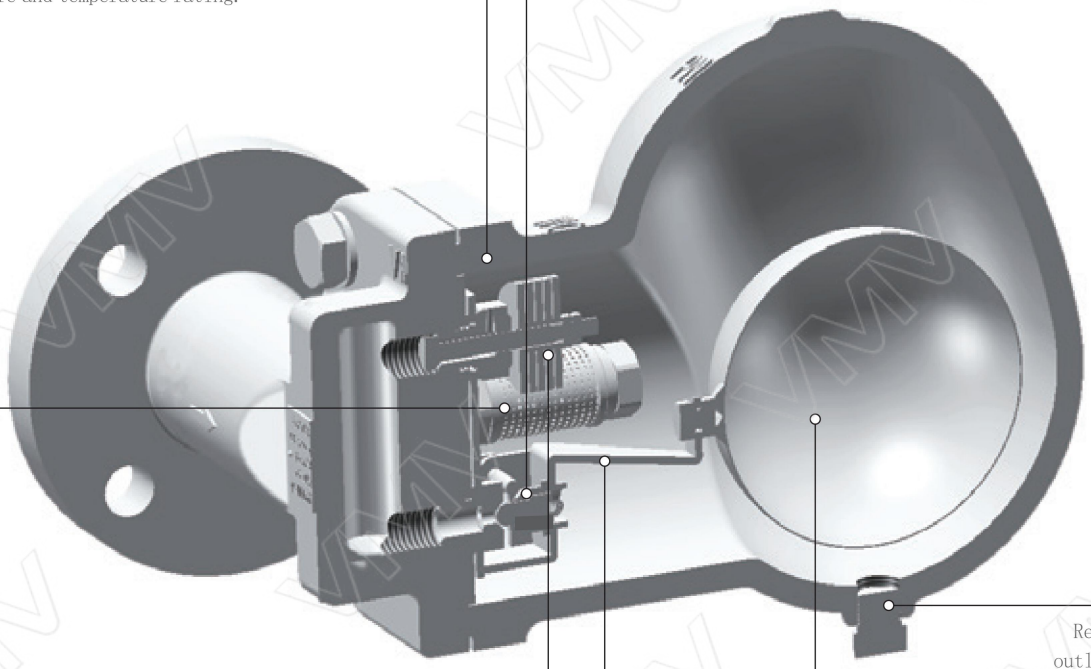
The technical advantages of VMV traps are: unique and reasonable structure and high-precision internals!

Flexible Closing System

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

High Strength Corrosion Resistance

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



Built-in Filtering Device

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

Reserved sewage outlet for discharge

Stainless Steel Float

The flawless laser-welded floating ball ensures the long working life of the steam trap.

Unique Exhaust Valve

The unique air exhaust valve prevents the trap from being blocked by non-condensable gases such as air during initial or normal operation.

Unique Float Assembly

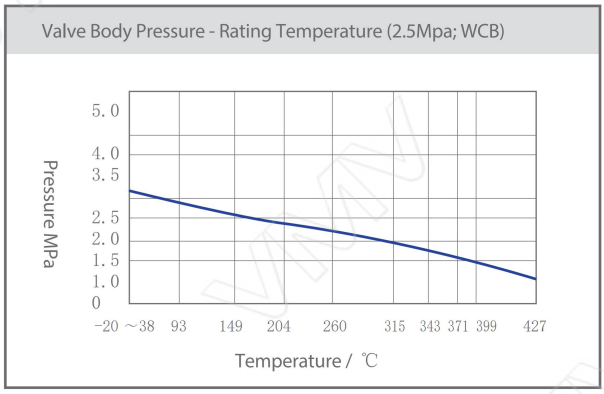
Precisely calculated floating ball component structure makes the closing system work under water seal without steam leakage.

Structural Features

VMV applies the flexible closing system to the ball float steam trap, which solves the problems of short life-time and bad sealing. In the design, factors such as shell strength, pressure and temperature grade, casting processability, fluid flow path, impact caused by water and vapor mixing, closing of the auxiliary water seal, and the strength of the valve cover gasket affected by the low temperature environment are fully considered.

The ball float type steam trap relies on the density difference between steam and condensate to work. When the valve body is full of condensed water and non-condensable gas, the air exhaust valve is opened to remove the non-condensable gas, and the floating ball moves up to drive the valve core to open. After draining the condensed water, the float ball drives the valve core to move down to close the trap.

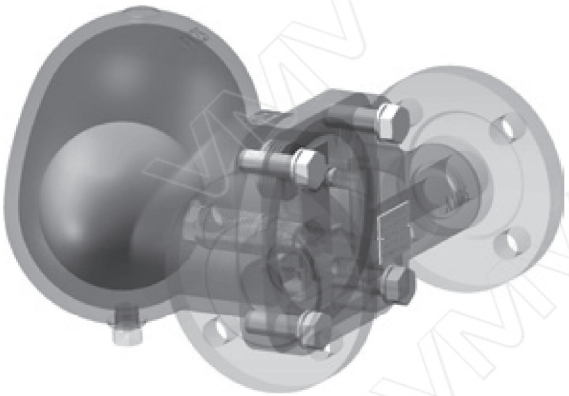
The biggest advantage of the ball float steam trap is high back pressure rate (it can work under the pressure difference of 0.01bar), long life, reliable operation, convenient maintenance, with no original steam leakage.



Ball Float Type Steam Trap Selection and Installation

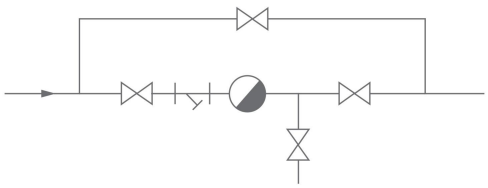
The ball-float steam trap can drain water continuously. The subcooling degree is about 5℃, and the back pressure rate is above 95% (back-end pipeline pressure/steam pressure). It is suitable for pipelines and small equipment to remove condensate and back pressure to recover condensate. Generally, the 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 type selection. The displacement of the same type of trap increases with the increase of pressure difference. Check the displacement curve in detail.

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



The ball float steam trap is made of ASTM216 WCB cast steel, part of the valve cover is made of ASTM A105, the internals are made of stainless steel, with built-in filter.

- Nominal pressure: PN25;
- Maximum allowable temperature: 425 ℃;
- Maximum working pressure: 1.6MPa;
- Maximum working temperature: 400 ℃;
- Connection method: threaded RC or flange (GB/T 9115.1-2000; HG/T20615-2009; HG/T20592-2009, etc.)



The ballfloat steam trap is installed horizontally at the bottom of the pipeline or equipment. The SFT10 trap can be installed horizontally or vertically. The basic configuration is shown on the graph.

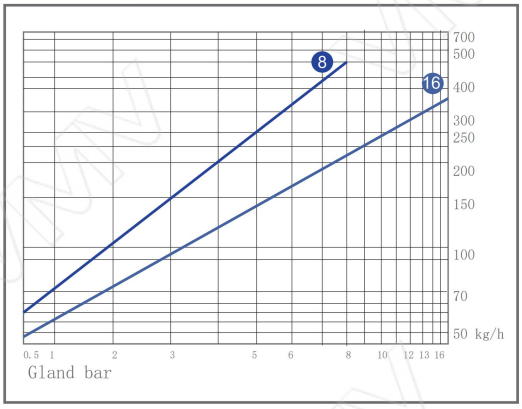
The lever float steam trap is most suitable for back pressure recovery of condensate.

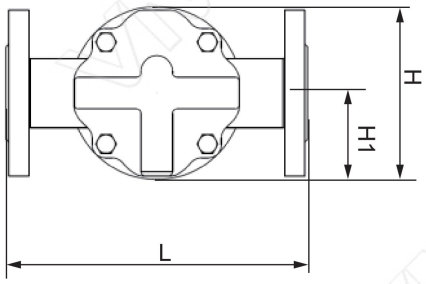
SFT10
Ball Floating Steam Trap

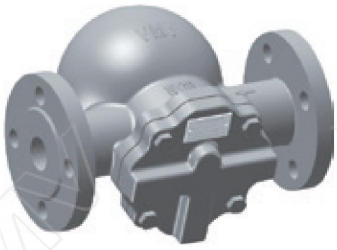
Structural features

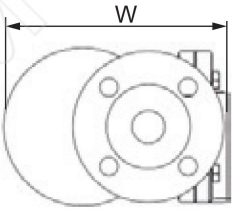
1. The working principle of the ball float steam trap is based on the density of vapor and liquid.
2. The valve body and bonnet are made of cast steel/forged steel.
3. All internal parts are made of stainless steel, and the wear allowance has been fully considered in the design of movable parts, which improves the service life of the trap.
4. Special flow channel design to achieve zero water hammer.
5. Patented flexible closing system and micron-level precision closing system double guarantee no steam leakage and long service life.
6. Built-in air exhaust valve to prevent steam lock.
7. The independent filter makes the trap work in a clean environment.
8. Choose different displacement curves according to the pressure.
9. The back pressure rate is as high as 95%
10. The drain plug is designed at the bottom of the trap to ensure that the internal water is removed after stopping, to prevented floating ball from freezing in cold weather.

SFT10 Displacement Curve









Applications

1. The steam transmission pipeline guide.
2. Small heat exchanger and kettle.
3. Heat tracing system (high back pressure recovery system)
4. The coil is heated by air.

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	
SFT 10T	Thread	15-25	25	0.05-1.6	400/1.57	150	120	60	170	5.5
SFT 10W	SW	15-25	25	0.05-1.6	400/1.57	150	120	60	170	5.5
SFT 10F	RF	15-25	25	0.05-1.6	400/1.57	210	120	60	170	8

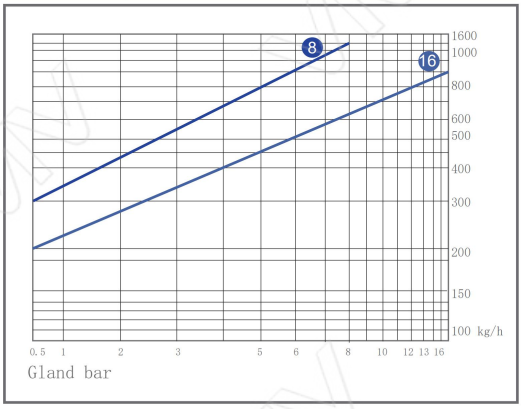
SFT20

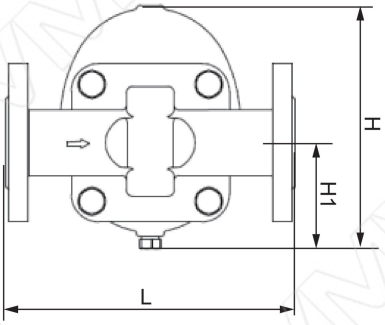
Ball Floating Steam Trap

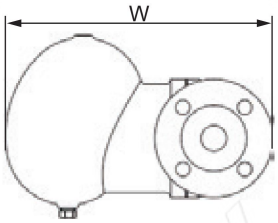
Structural features

1. The working principle of the ball float steam trap is based on the density of vapor and liquid.
2. The valve body and bonnet are made of cast steel/forged 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. Special flow channel design to achieve zero water hammer.
5. Patented flexible closing system and micron-level precision closing system double guarantee no steam leakage and long service life.
6. Built-in air exhaust valve to prevent steam lock.
7. The independent filter makes the trap work in a clean environment.
8. Choose different displacement curves according to the pressure.
9. The back pressure rate is as high as 95%
10. The drain plug is designed at the bottom of the trap to ensure that the internal water is removed after stopping, to prevented floating ball from freezing in cold weather.

SFT20 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 heavy oil pipeline).

Material

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

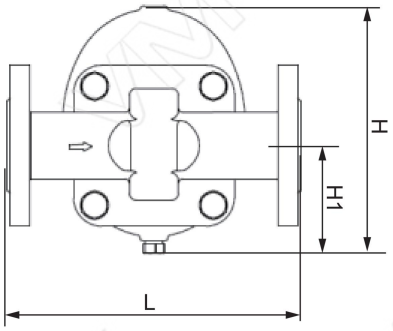
Data Size Table

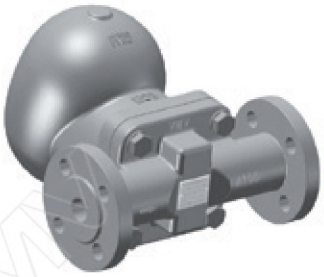
Type	Conn	DN	PN	Working Pressure MPa	Temperature°C Pressure MPa	Diameter (mm)				U.W Kg
						L	H	H1	W	
SFT 20T	Thread	15-25	25	0.05-1.6	400/1.57	150	175	75	227	8.5
SFT 20W	SW	15-25	25	0.05-1.6	400/1.57	150	175	75	227	8.5
SFT 20F	RF	15-25	25	0.05-1.6	400/1.57	210	175	75	260	11

SFT30
Ball Floating Steam Trap

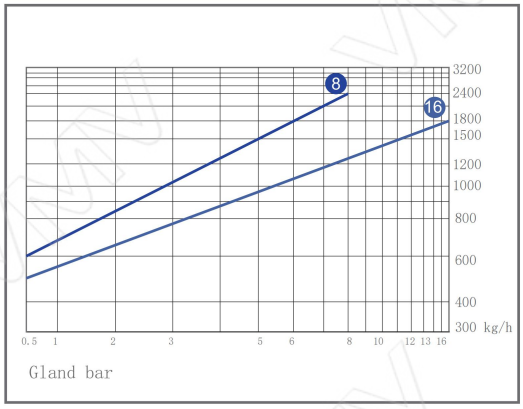
Structural features

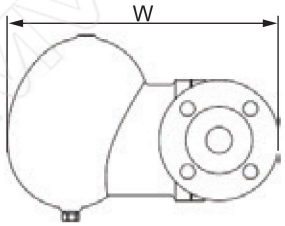
1. The working principle of the ball float steam trap is based on the density of vapor and liquid.
2. The valve body and bonnet are made of cast steel/forged steel.
3. All internal parts are made of stainless steel, and the wear allowance has been fully considered in the design of movable parts, which improves the service life of the trap.
4. Special flow channel design to achieve zero water hammer.
5. Patented flexible closing system and micron-level precision closing system double guarantee no steam leakage and long service life.
6. Built-in air exhaust valve to prevent steam lock.
7. The independent filter makes the trap work in a clean environment.
8. Choose different displacement curves according to the pressure.
9. The back pressure rate is as high as 95%.
10. The drain plug is designed at the bottom of the trap to ensure that the internal water is removed after stopping, to prevented floating ball from freezing in cold weather.





SFT30 Displacement Curve





Applications

1. Medium heat exchanger, kettle and sub-cylinder.
2. Coil air heating
3. Process heating system (storage tank, oil tank, heavy oil pipeline).

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	
SFT 30T	Thread	25-32	25	0.05-1.6	400/1.57	170	208	87	258	12
SFT 30W	SW	25-32	25	0.05-1.6	400/1.57	170	208	87	258	12
SFT 30F	RF	25-50	25	0.05-1.6	400/1.57	230	208	87	300	16.5

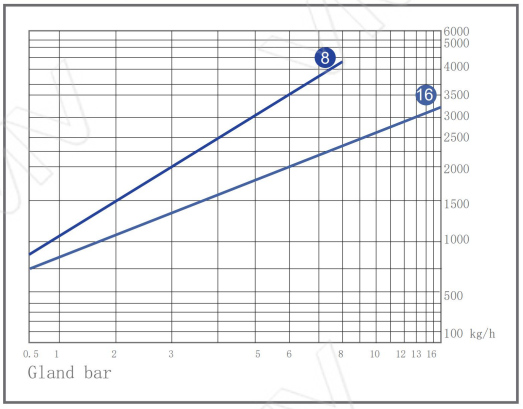
SFT40

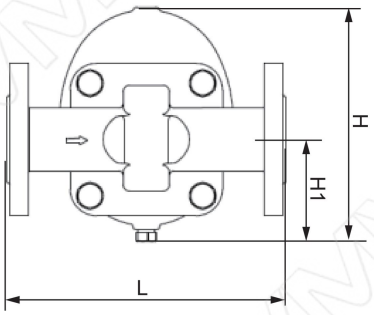
Ball Floating Steam Trap

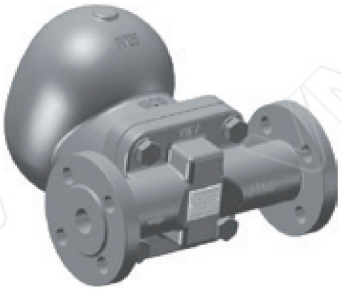
Structural features

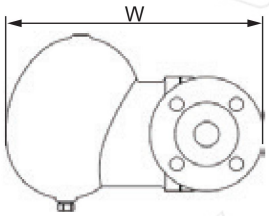
1. The working principle of the lever float steam trap is based on the density of vapor and liquid.
2. The valve body and bonnet are made of cast steel/forged steel.
3. All internal parts are made of stainless steel, and the wear allowance has been fully considered in the design of movable parts, which improves the service life of the trap.
4. Special flow channel design to achieve zero water hammer.
5. Patented flexible closing system and micron-level precision closing system double guarantee no steam leakage and long service life.
6. Built-in air exhaust valve to prevent steam lock.
7. The independent filter makes the trap work in a clean environment.
8. Choose different displacement curves according to the pressure.
9. The back pressure rate is as high as 95%
10. The drain plug is designed at the bottom of the trap to ensure that the internal water is removed after stopping, to prevented floating ball from freezing in cold weather.

SFT40 Displacement Curve









Applications

1. Large and medium-sized heat exchangers, kettles, reboilers, distillation and other heating equipment.
2. Large-scale air separation and coil heating equipment.

Material

Cap	WCB
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	
SFT 40T	Thread	25-32	25	0.05-1.6	400/1.57	210	254	107	315	20
SFT 40W	SW	25-32	25	0.05-1.6	400/1.57	210	254	107	315	20
SFT 40F	RF	25-50	25	0.05-1.6	400/1.57	270	254	107	315	26

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