



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

Thermodynamic 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.

Thermodynamic (disc) Steam Trap

Thermodynamic traps are widely used in low, medium and high pressure steam delivery pipes, process heat tracing, and small displacement equipment due to their small size, large displacement, energy saving, long life, and low temperature resistance.

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

High Strength Corrosion Resistance

Using A105 (15CrMo) material, the corrosion allowance, minimum shell wall thickness, pressure and temperature grade are fully considered in the design.

Unique Valve Seat And Valve Disc

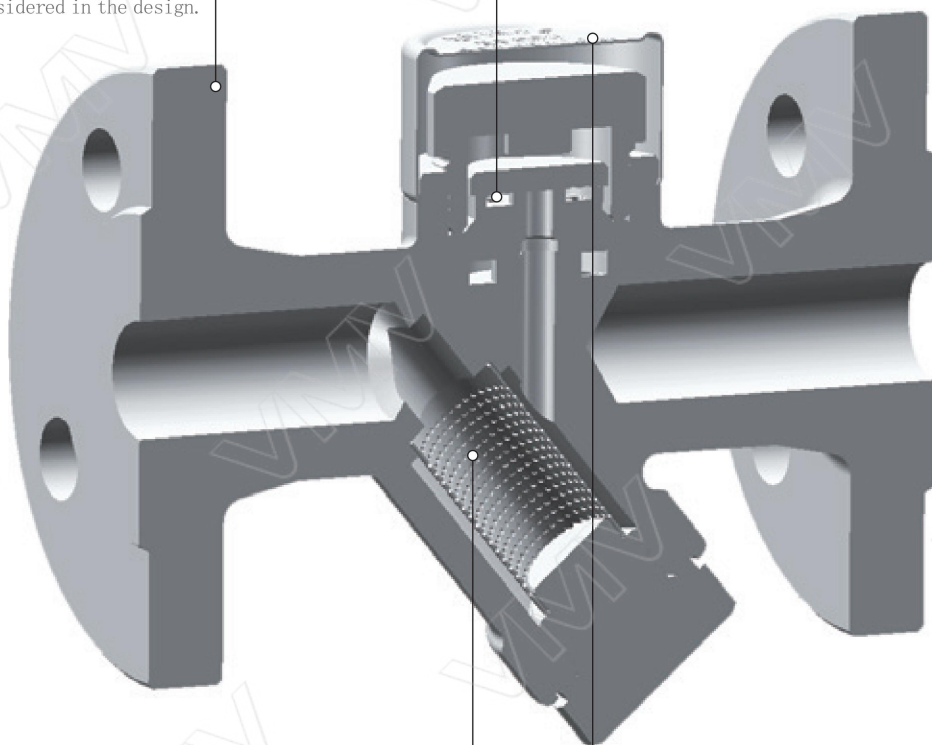
The valve seat and valve plate are made of martensitic stainless steel. The unique heat treatment can provide low temperature (less flash steam) and saturated condensate removal solutions according to different working conditions.

Built-in Filtering Device

Effectively prevent pipeline impurities from entering the valve, ensure the normal operation of the trap.

Stainless steel insulation cover

Stainless steel insulation cover ensures that the internal transformer chamber will not be affected by the outdoor environment to eliminate the number of runaways and movement developments.



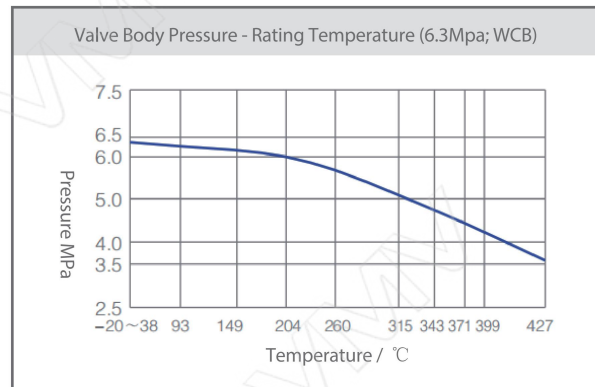
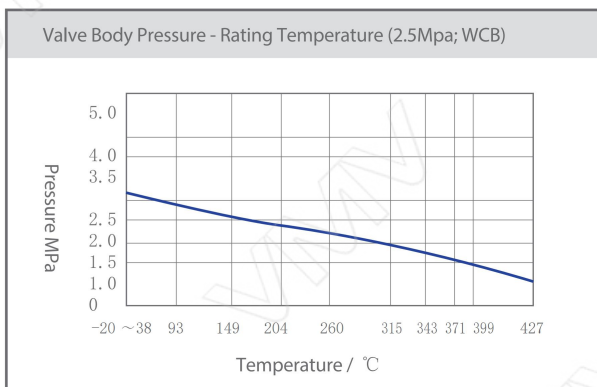
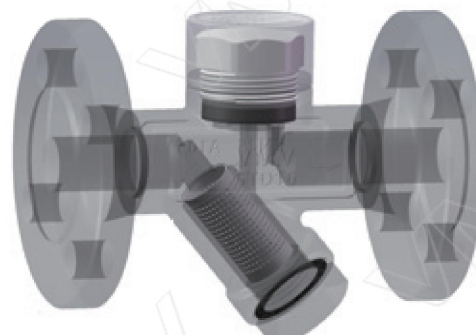
Structural Features

VMV thermal power trap low pressure trap valve body uses A105, medium pressure trap valve body adopts 15CrMo.

According to Bernoulli's equation, after repeated calculations and a large number of experiments, it is finally determined that each product can provide low temperature type and saturated type. The low-temperature type discharges low temperature (large subcooling) and with low noise but poor air discharge capacity; the saturated type discharges condensed water close to the saturation temperature (low subcooling), with greater noise and good air discharge capability.

Thermodynamic steam traps work on the difference in flow rates between steam and condensate. When the condensed water passes through the valve seat, the flow rate is small, and the valve opens to remove the condensed water; when the steam enters the valve seat, the valve seat is closed due to the high flow rate. The low-temperature trap is a flash steam to close the valve seat.

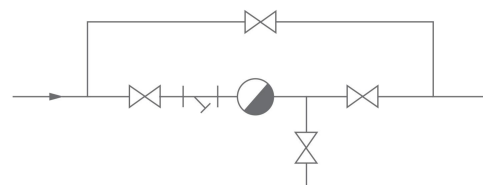
VMV breaks through the problems of thermal power traps that are not energy-saving, noisy, and emit original steam, and become the best steam pipe guide trap. Its advantages are small size, long life, reliable action, convenient maintenance, and low noise (Low temperature type) No original steam leakage.



Thermal Power Trap Selection and Installation

Thermodynamic steam traps are intermittent drainage. Normally, STD16 traps have a subcooling degree of 5-10° C, and STD42 has a subcooling degree of 20-50° C. If there is a requirement for subcooling, indicate when ordering. The back pressure rate of thermodynamic traps can reach 80% (back-end pipeline pressure/steam pressure), which is suitable for pipelines and small equipment to remove condensate. In general, the safety factor is 2-3 times.

Warm reminder: The condensed water volume and pressure difference of steam equipment are important indicators for type selection.



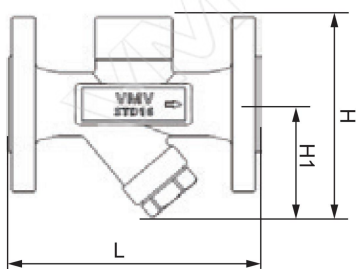
The displacement of the same type of trap increases as the pressure difference increases. Please check the displacement curve in detail. Please don't mistake it for a large-diameter trap with a large displacement.

STD16

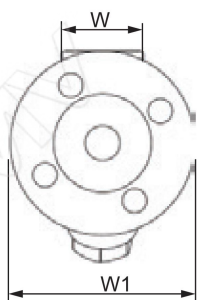
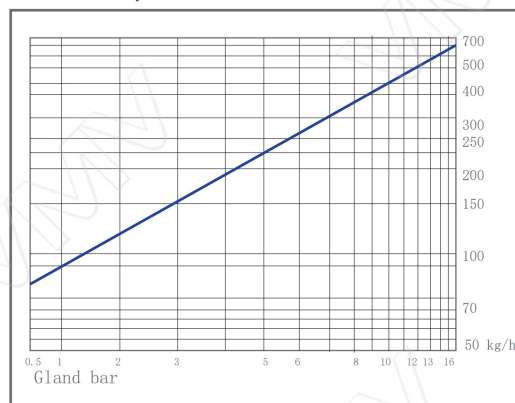
Thermodynamic (disc) Steam Trap

Structural features

1. The working principle of the thermodynamic steam trap is to rely on the difference of vapor and liquid density.
2. The valve body and bonnet are all made of forged steel/cast steel.
3. The valve clack and valve seat are made of special stainless steel. Through heat treatment and aging treatment, they are invariable and wear-resistant under high temperature and high pressure, which improves the service life of the trap.
4. The stainless steel heat preservation cover isolates and slows down heat loss, and prevents the air trap of the trap.
5. The fluid channel of the internal structure is designed strictly in accordance with Bernoulli equation, and the structure is reasonable.
6. Built-in filter makes the trap work in a clean environment.
7. Back pressure rate is as high as 80%.



STD16 Displacement Curve



Applications

1. The steam transmission pipeline guide.
2. Small heat exchanger and kettle.
3. Heating system.
4. The small coil is heated by air.

Material

Cap	A105
Valve Body	A105
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	
STD 16T	Thread	15-25	25	0.05-1.6	400/1.57	90	120	68	48	1/1.5
STD 16W	SW	15-25	25	0.05-1.6	400/1.57	90	120	68	48	1/1.5
STD 16F	RF	15-25	25	0.05-1.6	400/1.57	150	120	68	48	2.5-3

STD42

Thermodynamic (disc) Steam Trap

Structural features

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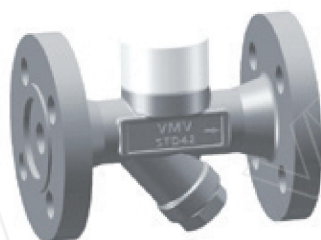
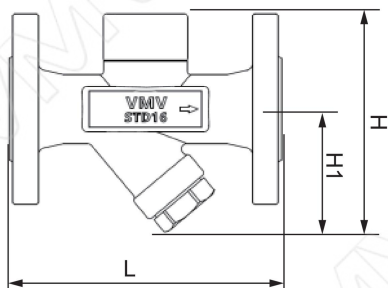
high temperature and high pressure, which improves the service life of the trap.

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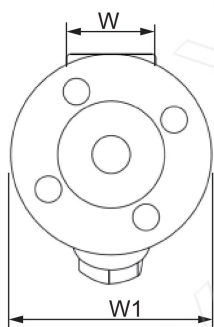
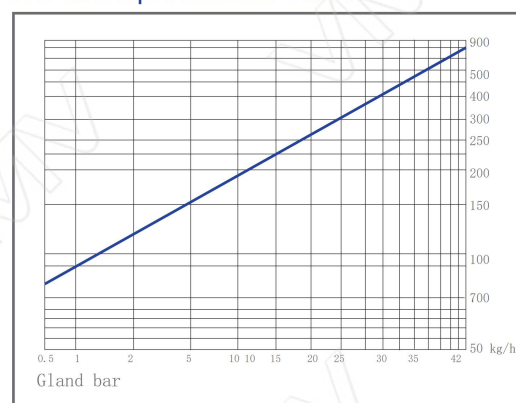
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6. Built-in filter makes the trap work in a clean environment.

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STD42 Displacement Curve



Applications

1. The steam transmission pipeline guide.
2. Small heat exchanger and kettle.
3. Heating system.
4. The small coil is heated by air.

Material

Cap	A105
Valve Body	A105
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	
STD 42T	Thread	15-25	63	0.05-4.2	400/1.57	90	126	68	55	1.8
STD 42W	SW	15-25	63	0.05-4.2	400/1.57	90	126	68	55	1.8
STD 42F	RF	15-25	63	0.05-4.2	400/1.57	150	126	68	55	5.5

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Smart Energy Conservation**



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