Operating Principle

The operational principle of the bimetal trap is based on the temperature difference between high-temperature and low-temperature condensate, which causes deformation of the thermal sensing element, driving the opening and closing mechanism. Initially, the bimetal plate is flat, and under the action of a spring, the valve flap and valve seat are fully separated, allowing air and low-temperature condensate to be discharged. As the internal temperature rises, the valve core moves downward due to the deformation force of the bimetal plate, reducing drainage. When the internal temperature reaches a higher point, further deformation of the bimetal plate forces the valve core downward to close. Once the internal temperature drops to the preset discharge temperature, the bimetal plate returns to a flat state, and the valve core opens to discharge water under the force of spring.

Features

- SCCV Closing System, Reliable and durable.
- The discharge temperature can be adjusted during network operation, effectively utilizing the sensible heat in high-temperature condensate, with significant energy-saving benefits.
- High-temperature condensate is always present before the valve, creating a reliable water seal and preventing steam leakage.
- Silent operation, contributing to environmental protection.
- It can be installed in any orientation.
- Resistant to water hammer, with excellent air discharge performance.

Superior Energy Efficiency

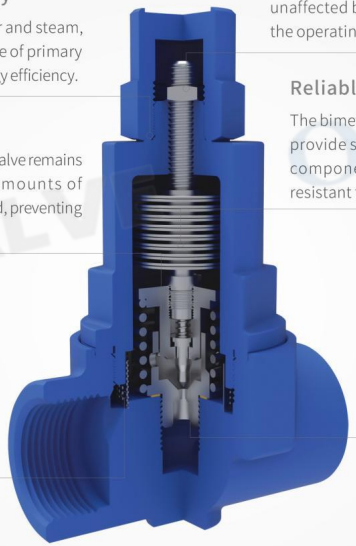
With complete separation of water and steam, this system prevents 100% leakage of primary steam, achieving outstanding energy efficiency.

No Air Blockages

In low-temperature conditions, the valve remains open, allowing air and large amounts of condensate to be quickly discharged, preventing air blockage.

Filtering Function

Built-in filter with powerful filtering function, effectively preventing debris from entering the valve.



Adjustable Discharge Temperature

The discharge temperature of condensate can be adjusted according to use conditions and is unaffected by changes in inlet pressure within the operating pressure range.

Reliable operation

The bimetal plates, imported from Germany, provide stable thermal thrust, and all other components are made of stainless steel, resistant to corrosion and cavitation.

SCCV Self Closing and Centering Valve System

This system allows internal components to make soft contact and ensures precise alignment for closing, thereby extending the service life.

No Installation Position Constraints

The entire range of bimetallic traps can be installed in any direction.

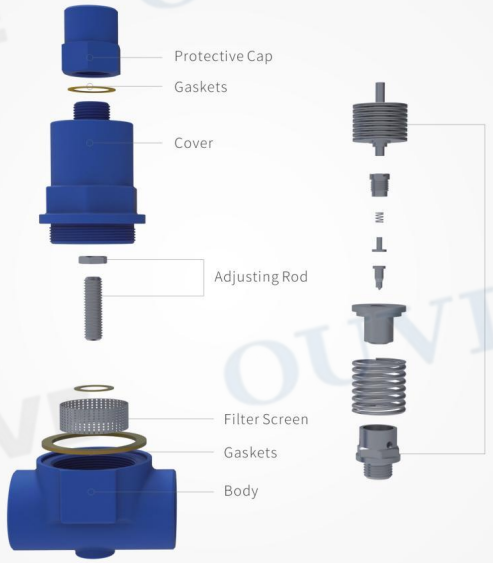
Durable

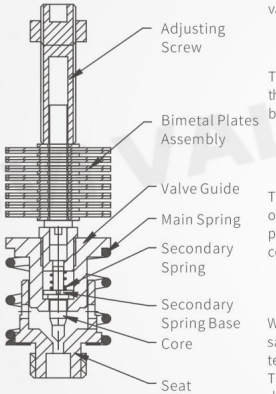
The entire range of bimetallic traps is frost-resistant and water hammer-resistant.

Energy Efficiency

Effectively utilizes the sensible heat in high-temperature condensate, resulting in significant energy savings.

OUVI® OUVI VALVE
Bimetallic Steam Trap (Online Adjustable)





Basic Principles

The valve core within the core holder "floats freely", allowing the core to close precisely at the center of the valve seat.

Centering

The spring leaf in the control chamber absorbs and slows the movement of the valve core entering the seat (Influenced by steam and steam temperature).

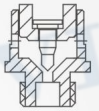
Adjustment

The design of the upstream valve core/seat and the lift of the valve core (the spacing when in open and closed positions) allows the valve core to close by the flow of condensate.

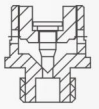
Soft Closure

When the temperature of the set steam trap approaches saturation, the discharge becomes continuous. As the temperature drops, the discharge becomes intermittent. The inlet pressure aids in maintaining a high seal between discharge cycles.

Leak-Free Discharge



Most condensate is rapidly discharged before the guide hole on the valve and seat opens fully.



The volume of condensate in large discharges is significantly reduced, which prolongs the time high-temperature condensate stays at the bimetal plate, allowing more effective heat transfer to the bimetal plate.