

## TECHNICAL INFORMATION

# STEAM-Traps

**An intermediate condensate discharge out of steam systems is absolutely necessary to retain the biggest possible capacity of the heat exchanger and to minimize the danger of corrosion and water-hammering.**

It is the task of all following steam traps to discharge condensate out of steam pipes and steam consumers but to keep the steam inside.

### Float-Controlled Steam Traps:

Rising level opens, declining level closes the outlet.

The rotary slide is regulating and shut-off device at the same time.

The RIFOX rotary slide valve control has only one moving point.

The rotary slide valve control opens and closes the outlet cross section proportional to the occurring liquid.

Even dirt particles will be discharged and can not settle and cause a sudden leakage.

### Advantages:

- Instant, automatic and mechanic drainage without any external intervention
- Discharging independent from pressure and temperature changes
- Reliably tight because of the water bed
- High capacity, even at low pressures
- Ideal for steam side regulated heat exchangers

### Bimetallic Steam Traps:

A Bimetal comprises of two seamlessly interconnected, corrosion-resistant metals with different thermal expansions.

Temperature changes cause the thermostatic bending of the bimetal.

While opening, the enlarged cross-section affects the valve cone additionally (thermodynamic effect).

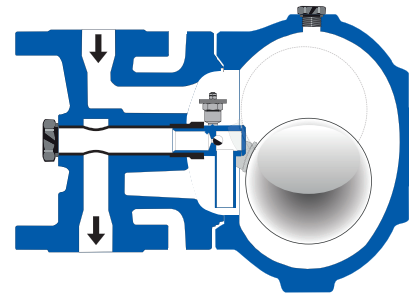
The condensate is discharged undercooled. These Traps are mainly used for heat tracing lines.

### Advantages:

- Secure discharging with adjustable under cooling
- good approximation to the saturated steam curve
- Robust and solid
- Good venting characteristics

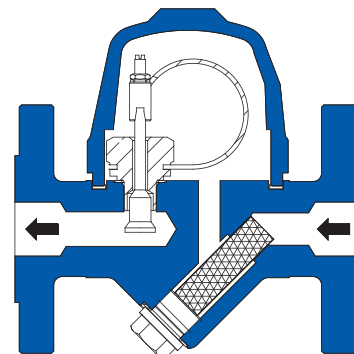
Examples from our RIFOX product line:

### Float Steam Trap



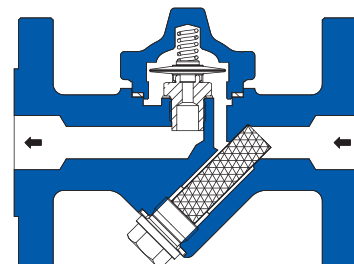
RIFOmat Vario 1200, PN 40

### Bimetallic Steam Trap



RIFObi 2227, PN 40

### Membrane Capsule Steam Trap



RIFOkA 10210, PN 40

**Thermostatic Steam Trap (Membrane Capsule Steam Trap):**

This principle is called thermostatic.

A special fluid between the membrane and the upper part of the housing evaporates and condenses only a few degrees under the boiling temperature of water. When the alcoholic fluid evaporates the membrane and the disc are pushed against the outlet bore. The valve opens when the filling fluid condenses.

Advantages:

- Secure function principle by adjusting to the saturated steam curve
- Discharging with defined under cooling (capsule type)
- Robust and solid
- Very good venting characteristics

**Thermodynamic Steam Trap:**

A short steam burst enters from below, flows around the disc inside the housing cap, is stopped and pushes the disc into the seat. The now captured steam condenses and the operating pressure pushes the disc back into the open position.

Advantages:

- Adjusts very well to pressure differences
- Function acoustically checkable
- Robust, solid, inexpensive

**Draining Sterile Steam:**

Concerning the chemical, pharmaceutical, medical and food industry there are often steam traps required that are suitable for sterile steam applications.

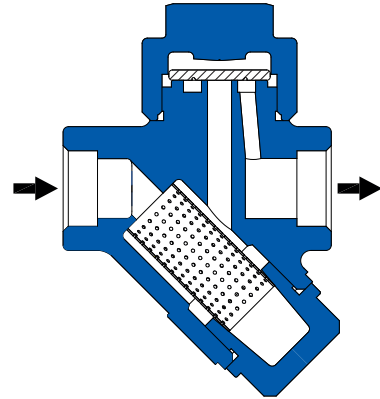
Here the approved, fast-reacting RIFOkA Steam Traps (Model 10260-N) offer good opportunities.

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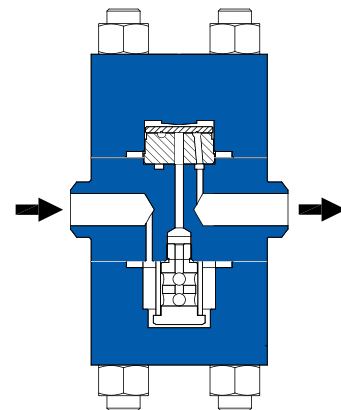
Our steam traps do not have a potential ignition source and therefore do not apply for the guideline 94/9/EG (ATEX).

Examples from our RIFOX product line:

**Thermodynamic Steam Trap**

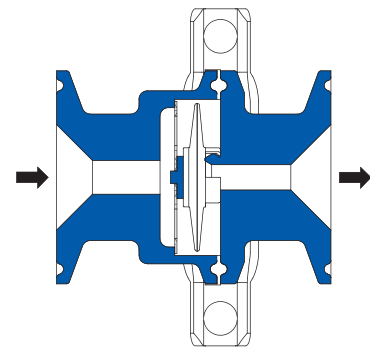


RIFOdyn RD 321, PN 40



RIFOdyn RD 361, PN 250

**Draining Sterile Steam**



RIFOkA 10260-N, PN 6