

# ART. 267 - THERMAL RELEASE VALVE WITH REFILLING

## FUNCTION

ICMA thermal release valve prevents overheating in thermal generators (for example: biomass-fired boilers).

When the working temperature is reached, the valve opens, enabling hot water in excess to be discharged, and letting cold water flow into the boiler.

Thanks to a wax sensor, at water temperatures above 95°, the valve opens to both release hot water and, at the same time, to let cold water flow into the boiler so that it continues to operate at a safe temperature.

Once the water temperature in the boiler is back to normal, the valve closes automatically both the incoming and the discharge flows.

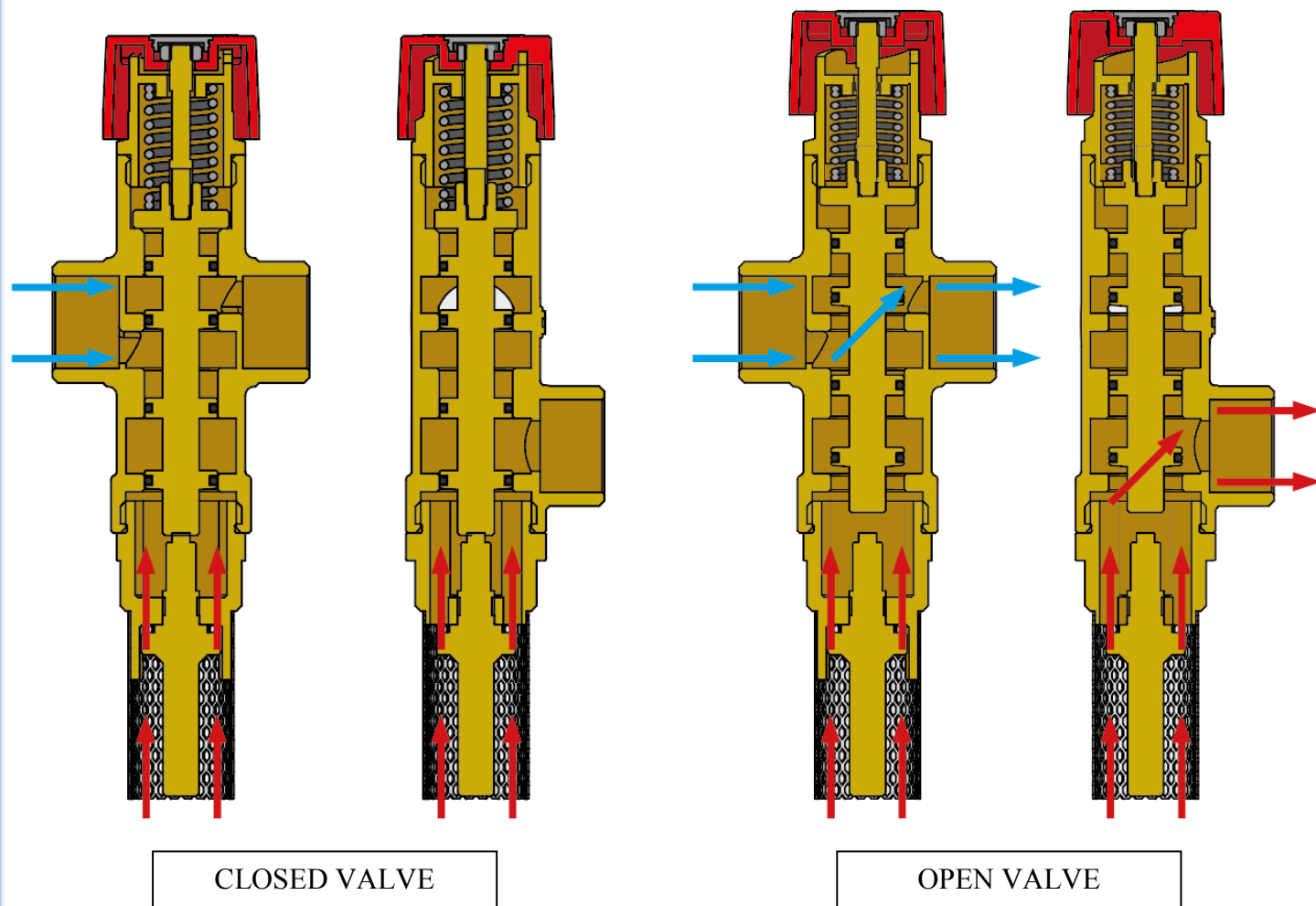
ATTENTION: the thermal release valve does not replace the safety valve.

## TECHNICAL FEATURES

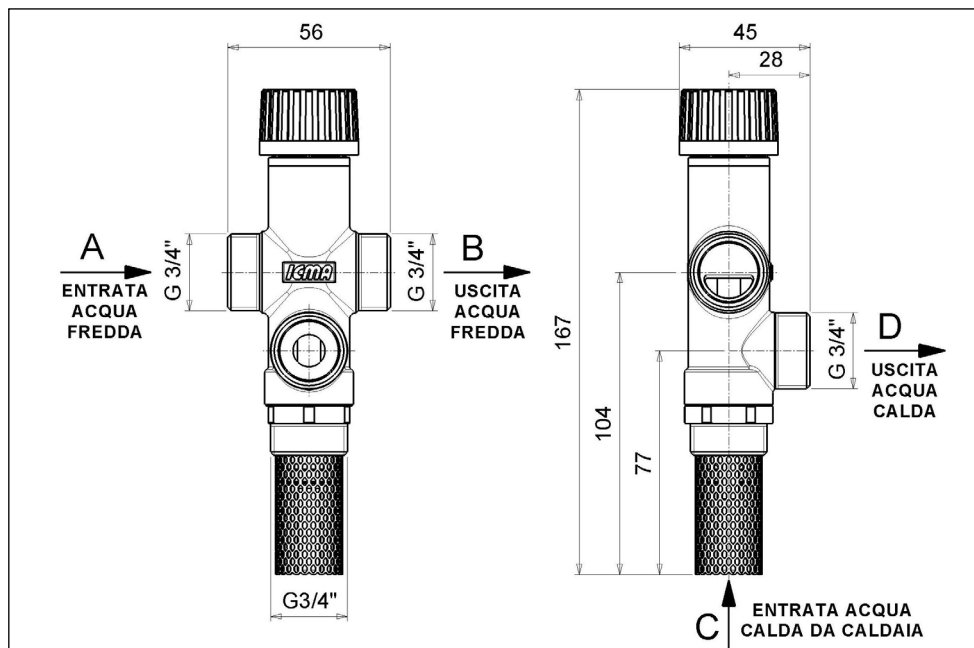
Opening temperature	95° C (+0° C +5° C)
Max temperature	120° C
Max pressure on the boiler side	4 Bar
Max pressure water inlet	6 Bar
Discharge flow rate at 1 Bar	1,9 m <sup>3</sup> /h
Max Capacity	100 KW – 86000 Kcal/h
Max flow	2000 Kg/h



## FLOW SCHEME



## DIMENSIONS



## INSTALLATION

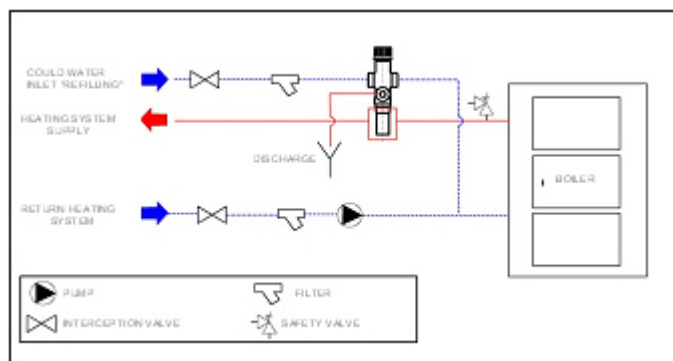
The installation of the thermal release valve must be done only by qualified staff.

To guarantee a correct functionality of the valve, it is necessary to follow carefully the installation table, specially the flow directions.

The valve must be installed on the piping at the hot water outlet of the thermal generator, or on the upper part of the generator, where the hot water comes out and enters the circuit. Check carefully that the thermostatic element in the inlet "C" is completely covered by hot water during its functioning. Now connect the exit "D" of the valve to the discharge piping.

Connect the "A" inlet to the cold water piping; this will lower the temperature in the thermal generator. Lastly, connect the outlet "B" of the valve to the return piping of the heating system towards the generator.

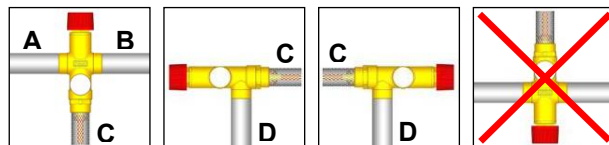
ATTENTION: on the cold water piping it is necessary to install a filter against the mechanical impurities.



## POSITION

It is possible to install the valve both vertically and horizontally. If installed horizontally, the exit direction of hot water "D" must be directed to be bottom.

The thermal release valve cannot be installed upside down!



## MAINTENANCE

This operation must be done once a year and during the first installation. Rotate the red knob clockwise (see the direction of the arrow on the knob) until you hear a click. This operation opens temporarily the thermal release valve allowing the discharge of possible impurities. Clean also the incoming cold water filter.