

AUTOMATIC MIXING FITTING VERNER

SIMPLICITY - RELIABILITY - SUITABILITY

This product is designed for the boiler low-temperature rust protection. It is used in the central heating systems where it is not provided otherwise so the return water temperature into the boiler did not fall down under 60°C.

The automatic mixing fitting VERNER reduces the acid condensation in the stoking chamber in case of the gas-fired boiler for the wood, and thereby it extends notably the boiler working time.

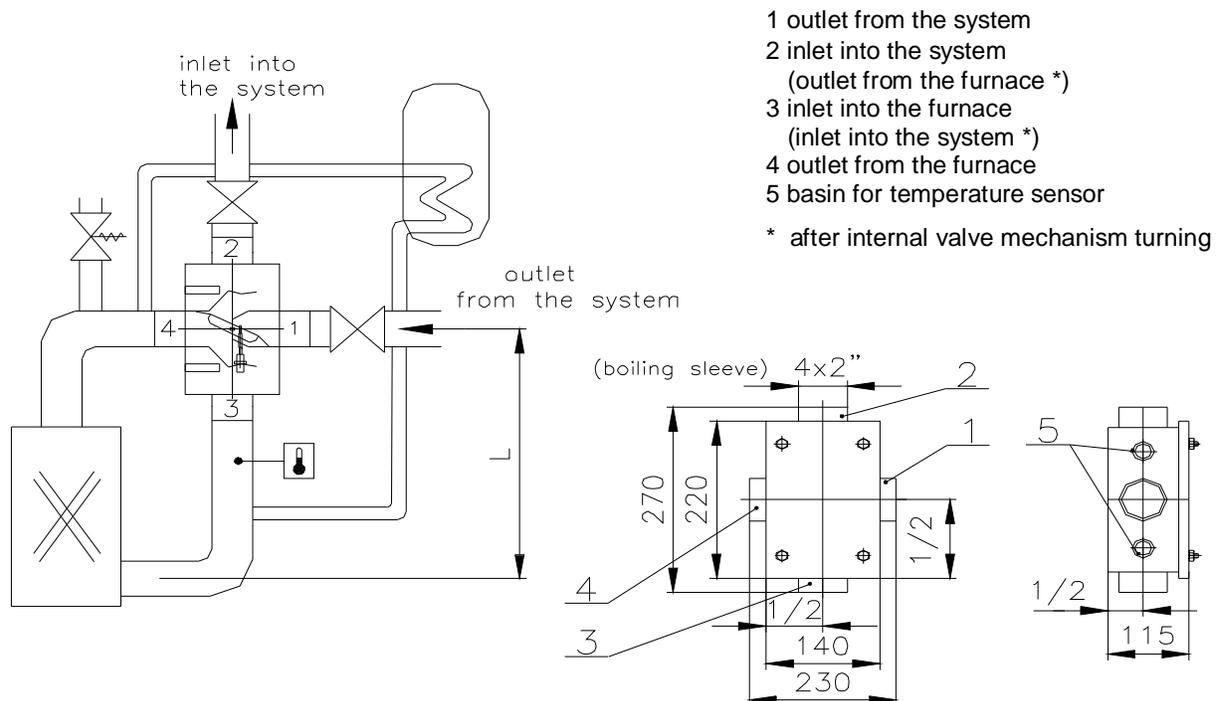
The function of the mixing fitting is based on the principle of the temperature expansibility. Thanks to that it doesn't depend on the electric energy supply, works completely automatically, without the demands on the attendance.

The fitting can be assembled into the gravity circulation and the forced circulation systems.

Parameters:

Weight	7kg
Max. total hydraulic loss (for 2")	$\xi = 8$
Water temperature at boiler inlet	60°C
Connecting sleeves	2"
Max. operation overpressure	0,3 MPa

Scheme:



Other technical information:

The minimum specified fitting height above the furnace must be kept at gravity circulation (pls. see the picture). For the VERNER type boilers the gravity circulation requirements are mentioned in the table. The fitting height of other boilers must be specified by the hydraulic calculation. Grossly this height can be specified by as follows:

$$L = 80 + 2 \times P$$

explanation: L ... height of the fitting centre above the inlet into the furnace in cm
P ... boiler rated capacity in kW

For the capacity above 45kW the boiler circuit must be designed as forced circulation.

The fitting is supplied in a basic model- right. Left model is reached by the interval mechanism turning. If the right model installation doesn't support sufficient access to a fitting cover, its internal mechanism can be turned. By that the effect of the outlets 2 and 3 will be switched over, the fitting will be connected „upside down“ and the cover will be on the opposite side.

At gravity circulation systems we recommend to consult the mixing fitting installation with a design heating engineer (if the fitting insertion does not endanger the heating system function). If the heating system circulation doesn't have a certain capacity reserve, a pump must be mounted into the system. We recommend to install the pump into the heating system at the capacity above 20 kW.

We advise to place on the inlet and outlet into the system the valves by which the system can be switched off for the eventual check or repair of the fitting, event. furnace.

If the boiler regulator demands to place the temperature sensor at the inlet into the system (VERNER boilers with a regulator R4), it is possible to insert it into the upper basin in the valve body.

We recommend to put the thermometer on the reversible water pipe (cca 20 m under the fitting) for the fitting right function check-up during the service.

BOILER RATED CAPACITY	20 kW	25 kW	45 kW
Min. distance „L“	85 cm	140 cm	170 cm
Number of 90° elbows in boiler circuit	2	4	5
Internal diameter of boiler circuit tubes	2“	2“	2“

It is necessary to increase the size „L“ by 50 mm for every other elbow in the circuit.

Combination of mixing fitting VERNER and regulator R4:

The latest type of the boiler regulator VERNER R4 enables to set up directly the day and night temperature modes in the heated building and to set on the switching clock its optional 24-hours programme. The boiler with the regulator R4 and with the VERNER mixing fitting enables maximum service comfort without using another regulation unit (a four-way valve with servo-drive). A signal light of the house sensor also informs the operator about the boiler operation (f.e. need of fuel stoking).



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