

Bypass mixing valve size 2"

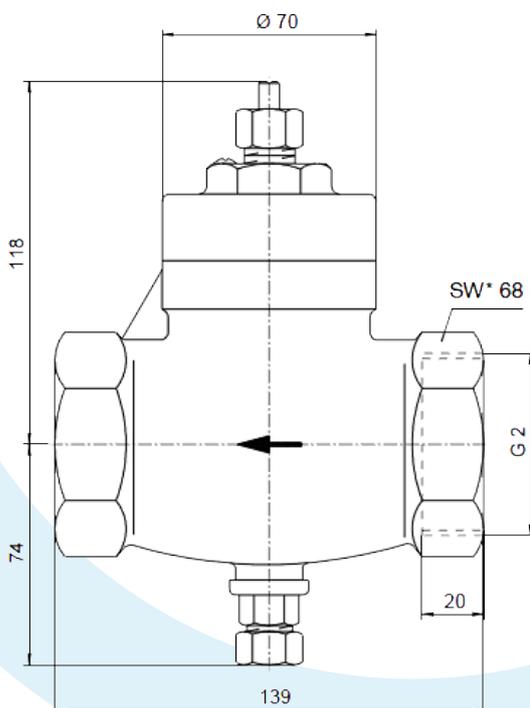


ION EXCHANGE

MOUNTING ACCESSORIES

BYPASS MIXING VALVE 2"

- ⦿ Bypass mixing valves are automatic mixing valves for potable water softening installations. The model described here was especially designed for larger plants. The bypass mixing valve is installed in the bypass pipe, replacing the usual gate valve.
- ⦿ Once it has been set, the bypass mixing valve automatically maintains the hardness of the mixed water irrespective of consumption and pressure variations. The hardness of the water is only set once, during installation. If the hardness of the untreated water changes significantly (e.g. the water authority supplies a different type of water) it is of course necessary to readjust not only the water softener, but also the bypass mixing valve.
- ⦿ The body of the the bypass mixing valve is made of exceptionally corrosion-resistant bronze according to DIN 1705 standard. All other components are made of brass and the control diaphragm of a special buna N composition.



*SW : spanner size

APPLICATIONS

Potable water softening installations PN 10 for trade, industry and large consumers such as schools, hospitals, etc.

Max. water temperature 90 °C.

Observe minimum flow rate.

Bypass mixing valve 2"

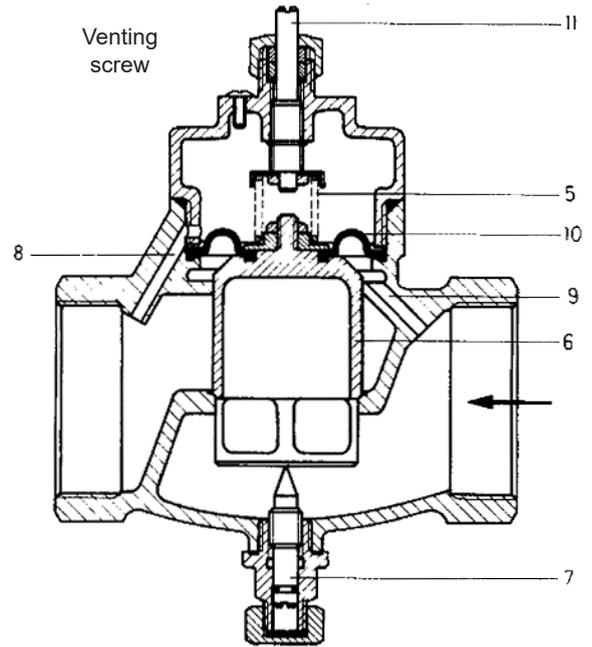
FUNCTION

Depending on the desired water hardness, a certain quantity of untreated water is added to the water softened to 0° dH (German hardness) via the bypass mixing valve. The quantity of hard water added depends on the consumption and the pressure within the pipework.

By turning the regulating screw (7) to the right, the isolating disc (6) inside the bypass mixing valve is lifted from the seat allowing the flow of untreated water through the bypass pipe.

With a low water consumption, the position of the regulating screw (7) determines the quantity of untreated water added to the soft water supplied by the water softener.

With a higher water consumption, the pressure loss of the water softener causes a differential pressure within the bypass mixing valve, affecting the diaphragm (10) via the control channels (8) and (9). If the differential pressure increases, the resistance of the spring (5) is overcome. The valve disc (6) is then lifted even more from the seat so that a larger quantity of untreated water (depending on the chosen setting of the regulating screw (11)) is now added to the soft water supplied by the water softener.

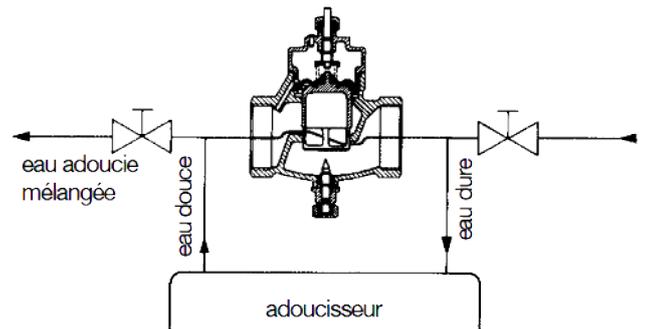


SETTING

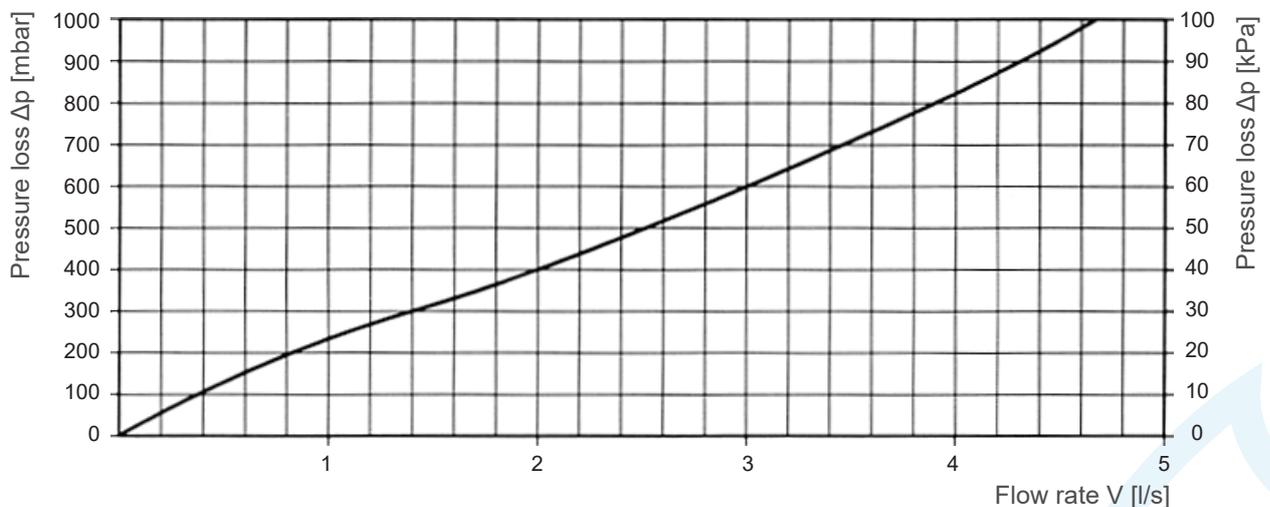
The setting of the desired hardness (normally 8.5 dH) requires an adjustment to be carried out under working conditions as follows:

First of all, the regulating screw (11) is turned to the right until stop and is then turned back 1 or 2 turns. With a flow capacity equal to 20% of the maximum capacity of the water softener, the desired water hardness is set by means of the regulating screw (7). If the hardness of the mixed water is below the required level, turn the regulating screw (7) slightly to the right (it may be necessary to open the screw (11) a little more). Now, with a flow rate equal to 75% of the maximum capacity of the water softener, the correct hardness of mixed water is set by means of the regulating screw (11). If the level of hardness is insufficient, turn the regulating screw (11) slightly to the left. The position of the regulating screw (7) must not be altered.

Exemple of installation



PRESSURE LOSS DEPENDING ON THE FLOW RATE



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