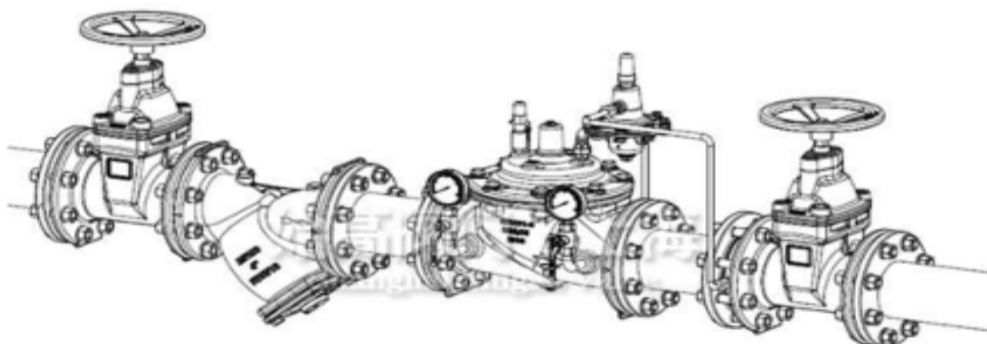


DI FLOW CONTROL VALVES – WORKING PRINCIPLE & DEBUGGING



Working principle:

The Flow Control Valve consists of a main valve and other external control valves. When working, the water pressure at the inlet end of the main valve enters the valve body and the valve control chamber through the micro-control valve. If the ball valve is opened at this time, the water in the control chamber will be discharged through the pilot control valve, and the discharge flow is greater than the water inlet flow of the micro-adjustment valve, and the main valve will be opened. If the adjustable pressure reducing valve is closed, the water pressure in the control chamber will rise, thereby closing the main valve. If the flow rate when the adjustable pressure reducing valve is opened is kept equal, the main valve will be in a floating equilibrium state, and the water flow through the main valve will form a throttling and pressure reduction effect. By inputting the pressure of the inlet and outlet to the adjustable pressure reducing valve, the outlet pressure can be constant, so that it will not change due to changes in the inlet pressure. It will not change due to changes in the outlet flow. And through pressure transmission, the main valve can be adjusted with the changes of the very small size of the pilot valve.

Install:

1. The best way to install the main valve is to install it horizontally on the pipeline with the valve cover facing upward. Other installation methods are not recommended. Before installation, the debris in the pipeline should be cleared. Pay attention to the direction of the water flow arrow outside the main valve body. The direction indicated by the arrow is the direction of the medium flow. Follow the direction to install. After installation, ensure that there is no management stress on the valve body and valve internal parts.
2. A gate valve and a filter should be installed before the main valve, and a gate valve should also be installed behind the main valve to facilitate maintenance.
3. A bypass gate valve should be installed on important main valve piping systems.
4. The piping system must be cleaned before water is passed.

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PREETAM® Slanted Seat NRV

PREETAM FERROWORKS PRIVATE LIMITED

CIN: U41001TN2025PTC181794 GSTIN: 33AAPCP9197D1ZX



Debugging method:

(1) The pressure of the product when leaving the factory is $P_1 = 0.6\text{MPa}$, $P_2 = 0.3\text{MPa}$, and the needle valve is in the state of 2 turns of opening.

(2) The valve does not need to be statically debugged (the pressure behind the valve is 0.05Mpa higher in static state than in dynamic state).

Dynamic debugging

(1) The needle valve is opened two turns.

(2) Unscrew the anti-loosening nut, open the adjustable pressure reducing valve, loosen the adjustable bolt counterclockwise, and fully open the ball valve.

(3) Open the stop valve behind the valve and the stop valve in front of the valve. (4) If "hunting vibration" occurs during the initial operation (i.e. the valve valve moves up and down too frequently), the needle valve opening should be slightly closed in the clockwise direction to reduce the closing speed of the shut-off port and eliminate the "hunting vibration" phenomenon.

Adjust to smooth operation.

(5) Adjust the adjusting bolt of the adjustable pressure reducing valve clockwise until the pressure behind the valve is the required value. (If the pressure behind the valve is adjusted to be greater than the required value, the adjustable nut must be loosened a certain number of times and then readjusted).

(6) Tighten the lock nut.



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PREETAM® DEGATE VALVE



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