

Pressure Relief, Sustaining or Backpressure Control Valve (W-500X-25C)

◆ Application:

The Watts W-500X Pressure Relief, Sustaining or Backpressure Control Valve is designed to control the pressure of pipeline system, eliminate the excess pressure of pipe, and keep the pressure of system on the preset pressure point, ensuring the safe operation of the pipeline system. It's generally used in building services, water treatment, etc.

◆ Features:

1. Opening and closing without friction;
2. Modularization structure;
3. Reliable sealing performance;
4. Easy to operate;
5. Wide application scope.



◆ Operating Principles:

As a Pressure Relief Valve: When the pressure relief/sustaining pilot valve is adjusted to pressure relief condition, water flows to the outlet through the needle valve, the main valve control room, the ball valve, pressure relief/sustaining pilot valve, at this time, the main valve is fully open. When the inlet pressure exceeds the safe value set by the pressure relief/sustaining pilot valve, pressure relief pilot valve will automatically open, let out part water through ball valve, and make the pressure of pipeline unloading. When the pressure recovers to the safe value, pressure relief valve automatically shuts down. As a pressure relief valve, every ball valve normally opens.

As a Pressure Sustaining Valve: When the pressure relief/sustaining pilot valve is adjusted to pressure sustaining condition, as long as the pressure of main valve inlet is lower than the set point of pilot valve, pilot valve closes. The pressure of main valve control room increases, the main valve shuts down. When the upstream supplying water pressure of main valve exceeds the set pressure of pilot valve, pressure sustaining pilot valve opens, water in the control room flows to the outlet through the ball valve, the pressure of control room decreases and the main valve opens, water supply starts, it means the upstream water pressure is maintained. As a pressure sustaining valve, ball valve normally closes or is substituted by a plug.

◆ Technical Specification:

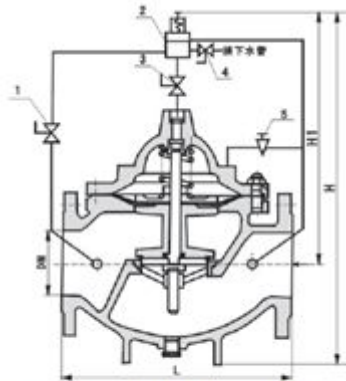
Nominal Diameter:	DN50~DN600
Nominal Pressure:	PN25
Working Temperature:	0℃~80℃
Fluid Medium:	Water
Pressure Regulating Range:	0.2MPa~1.7MPa
Design Standard:	JB/T 10674-2006
Test Standard:	GB/T 13927-2008

Material:

Part	Body	Bonnet	Pilot Valve	Connecting Pipe
Material	Carbon Steel Coated with Epoxy	Carbon Steel Coated with Epoxy	Copper	Copper / Stainless Steel

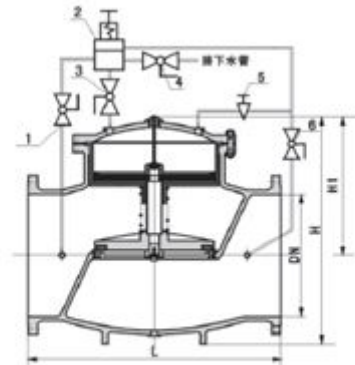
Installation Dimensions:

Connection Dimension: GB/T 9113;



1.Small Ball Valve 2.Pilot Valve 3.Small Ball Valve
4.Small Ball Valve 5.Needle Valve

DN50-450



1.Small Ball Valve 2.Pilot Valve 3.Small Ball Valve
4.Small Ball Valve 5.Needle Valve 6.Small Ball

DN500-600

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L	203	216	241	292	330	356	495	622	698	787	914	978	1075	1230
H1	516	520	537	596	653	709	805	855	953	990	1030	1030	620	695
H	610	625	642	750	808	864	1135	1185	1325	1385	1445	1445	750	850

Typical Application:

1. Water plant and water source project;
2. Environmental protection;
3. Municipal facilities;
4. Electric power and utilities;
5. Construction industry.

Installation Instructions:

- (1) The valve's rated parameters should match the equipment's. Make sure that the valve's rated flow satisfies the actual demand;
- (2) The installer must be trained or experienced so as to operate the installation correctly;
- (3) A thorough check after installation is needed to ensure no errors;
- (4) A thorough cleaning before installation is needed (chemical reagent can be applied if it is necessary) to ensure that there is not any rusting or dirt in the pipe. All the filters must be removed before washing to keep the pipe smoothly open;
- (5) When beginning to wash the system, it is suggested to install the valve on a temporary pipe. After finishing system cleaning, move the valve back and install it on the system's pipe;
- (6) This product should not be used when the fluid medium has high viscosity (contains much grease or

mineral oil), or under corrosive circumstances;

(7) Use flange and the corresponding bolts that meet the standard to connect the valve;

(8) The direction of flow must accord with the direction of the arrow head on the valve body;

(9) For the size below DN200, the main valve can be installed horizontally or vertically, but horizontal installation is better. The size above DN200 only can be installed horizontally.