

## Automatic control valves E5000 / E6000 series



PAM's range of automatic valves, comprising the full bore E6000 series and the reduced bore E5000 series, is based on a PN 40 class, flow-through globe valve design, made entirely of spheroidal cast iron and steel with stainless steel internal components.

This piston valve, equipped with circuits, pilots and other accessories that varied according to function, it is mainly used for pressure reduction and support.

All information in this manual, unless otherwise specified, refers to both the E5000 and E6000 valve series.

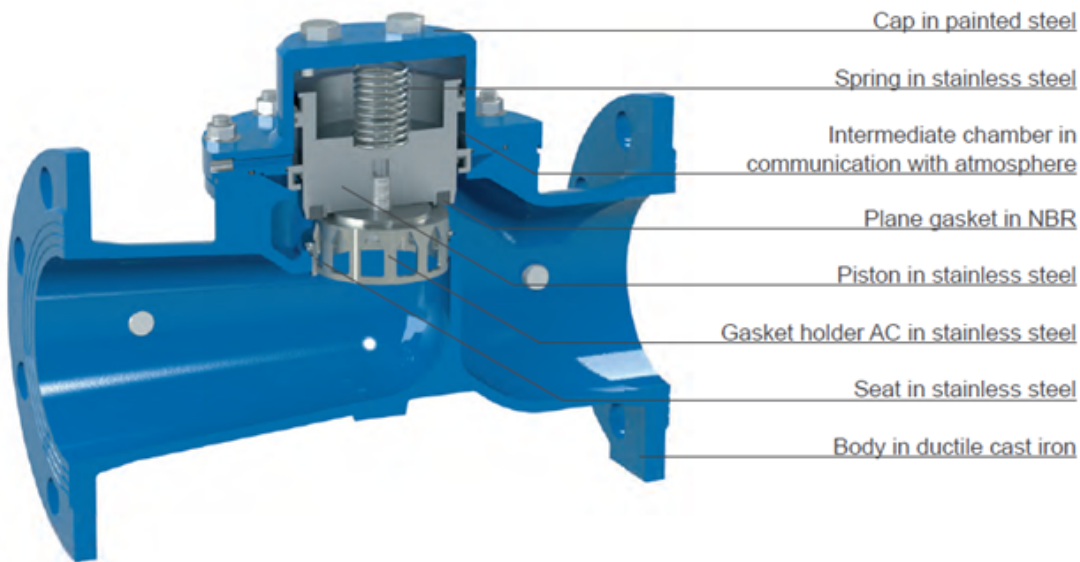
### Construction features and advantages

- Globe valve with spheroidal cast iron body, PN 40 bar class. Tested according to EN 1074 and available from DN 50 to 200 mm.
- The internal profile has been specially designed to reduce pressure losses as well as vibration and noise during operation.
- Stainless steel internal components.
- Needle valve ensuring stability at low flow rates.
- Maintenance can easily be carried out from above, without removing the valve from the pipeline.
- Reduced risk of cavitation thanks to the large expansion chamber and flow regulating devices, for stability even at low flow rates, for high pressure drops, with two perforated baskets sliding into each other.

### Main applications

- High-pressure pipelines.
- Industrial plants.
- Cooling systems.
- Pipeline sections with high gradients

## Technical features



## V-PORT version for low flow and cavitation resistance



1. Low flow stability gasket holder for cavitation prevention
2. Obstacle free seat

The V-PORT system features a special free passage seat and a progressive opening device to ensure high stability even in low flow conditions, good resistance to cavitation as well as improved guidance of the moving block.

The intermediate chamber, at atmospheric pressure and located between top and bottom of the piston, ensures smooth and precise sliding of the moving block.

## ANTICAVITATION version for maximum cavitation resistance



The ANTICAVITATION system, designed for maximum resistance against cavitation, provides a double stage of energy dissipation by passing holes whose DN and number changes depending on the application and performance required.

### Operating principle - On-off mode



#### Valve opening

If the control chamber is connected to the downstream inlet, the upstream pressure acts on the piston, pushing it upwards, so that

#### Modulating valve

If, during operation, the control chamber is completely isolated, the valve's moving block maintains its position, generating a pressure

#### Closing the valve

If the control chamber is put communication with the upstream pressure, due to the difference in surface area between the upper part of the piston, which is larger,

## Operating principle - Modulating - Downstream pressure reduction



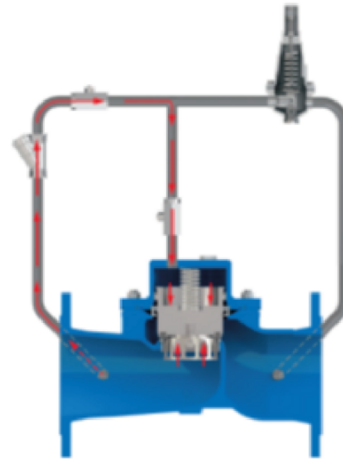
### Valve opening

In the event that the downstream pressure is lower than the set pressure of the pilot, the latter opens, releasing pressure from the control chamber and thus causing the valve to open.



### Modulating valve

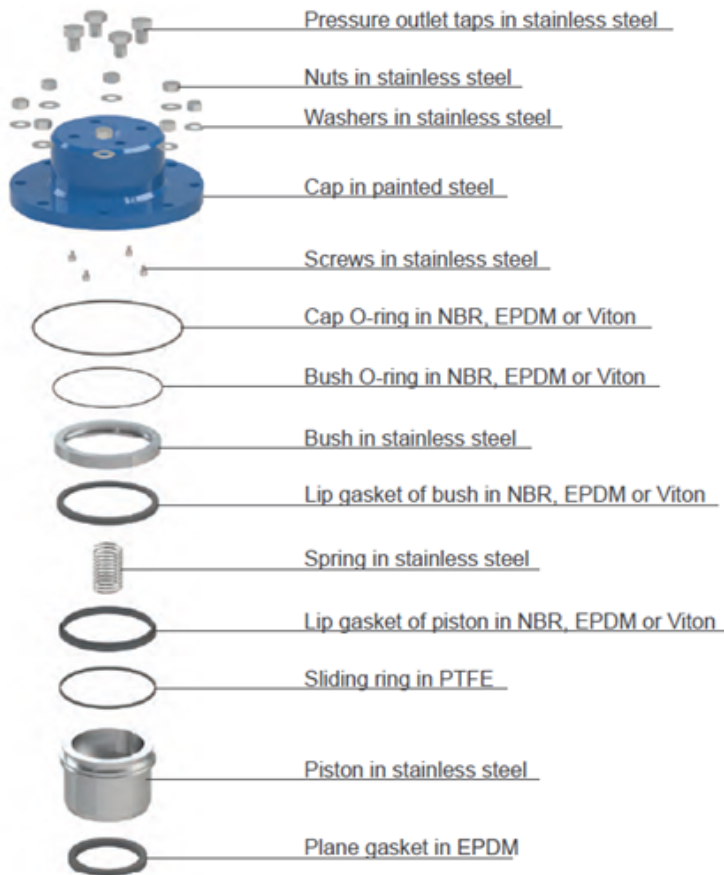
As the downstream and upstream pressures change, the pilot, by modulating, causes the moving block, on which the pressure drop across the valve depends, to move in order to keep the downstream pressure constant.

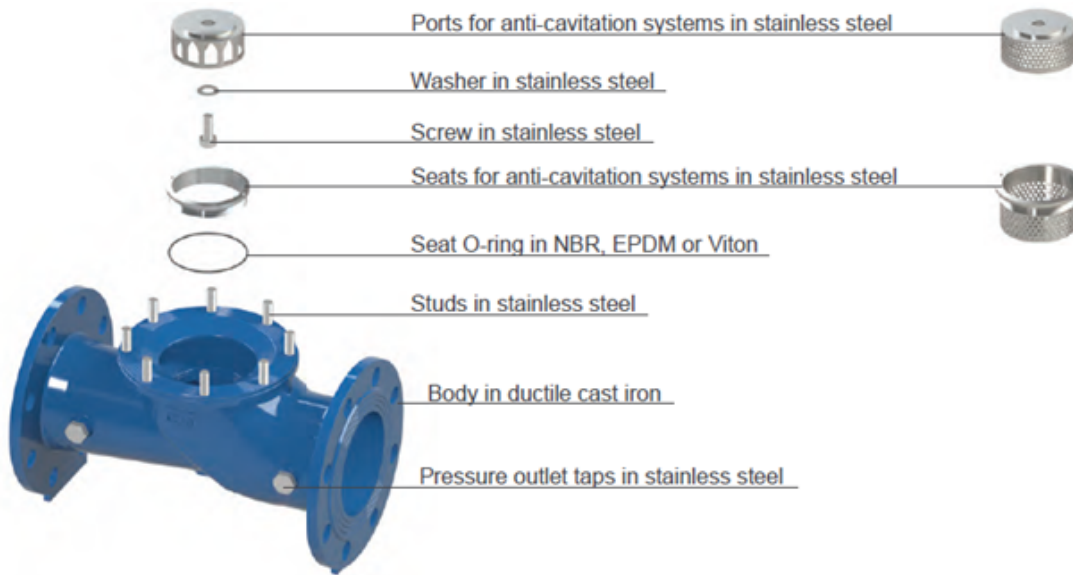


### Closing the valve

In the case of downstream pressure is greater than that of calibration, the pilot closes; the whole upstream pressure then acts in the control room of the valve, causing it to close.

## E5000 and E6000 - Spare Parts





*The information on this sketch is, to the best of our knowledge correct at the time of printing. However Saint-Gobain are constantly looking at ways of improving their products and services therefore reserve the right to change without prior notice, any of the data shown. Any orders placed will be subject to our Standard Conditions of Sale, available on request.*