

# Operation Manuel

Plunger Valve (Needle Valve) DN150 - 1800



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6. Operation
7. Maintenance

## 1. Description of Products

- The plunger valves use for control of flow rate, pressure and water level at the systems which have high pressure difference. The plunger valves have very high safety coefficient
- Max Temperature 50 °C
- Suitable for PN 10/16/25

## 2. Design Features

- ON – OFF AND PROPORTIONAL CONTROL VALVE
- NESTED SINGLE – PART BODY DESIGN
- AXIAL MOVEMENT FOR PLUNGER
- METALLIC SEALING, IN ADDITION EPDM SEALING RING
- LINEAR REGULATION ABILITY
- V – PORT RING FOR HIGH PRESSURE DIFFERENCE
- Body Ductine Iron
- Internal movement parts Stainless Steell
- Valve shaft stainless steel
- Shaft bearing bronze
- Plunger sealing ring EPDM

## 3. Flanges

- Double Flanged
- Flanges DIN EN 1092
- Face to Face EN 558-1 Series 15 (1,5xDN from DN500)

## 4. Transportation

The valve should be transported or stored, respectively, in a way, that it will not come in contact with harmful material. For protecting the functionality of the valve and its sealing elements, outdoor storage should be avoided. If a longer storage period is required, a storage place should be provided, which complies with following conditions: frost free, cool, dry, dust free and light protected. During transport and storage care should always be taken. The valve may be damaged in case of improper handling. These defects must be properly repaired prior to installation.



**During transport, storage and mounting a stable stand has to be observed, if required support valve or fix with bolts.**

## 5. Installation

Remove all packing material from the valve. Prior to installation, check the pipeline for impurities and foreign matters and clean it if necessary.

### ATTENTION !



**For valves with an arrow showing the flow direction, this direction must be observed! For valves with foot plate or foundation plate, this plate only serves as a support of the valve.**

The valve has to be mounted in flow direction according to the embossed arrow. In exceptional cases short-term operation in the opposite arrow direction is permissible after consulting the supplier. It is important that all around the valve there is free access for operation and maintenance. For outdoor installation, the customer has to protect the valve against the direct effects of the weather. During installation of the valve, the distance between the pipe flanges should exceed the valve face-to-face dimension by at least 20 mm. Thus, the raised faces will not be damaged and the gaskets can be inserted.



### CAUTION !

**During transport or installation of the service saddle there might be a danger of crushing your fingers / hand.**

Tighten the connecting bolts evenly (without distortion) and crosswise. The pipeline mustn't by any means be pulled up to the valve.

## 6. Operation and application

After installation, check the valve for ease of operation moving it over the whole travel by means of the handwheel.



### CAUTION!

**Do not put your hand or fingers into the inner part of the Needle Valve during open or close movement of the piston. There is the danger of crushing your fingers / hand.**



**Danger of liquids  
squirting out under  
high pressure**

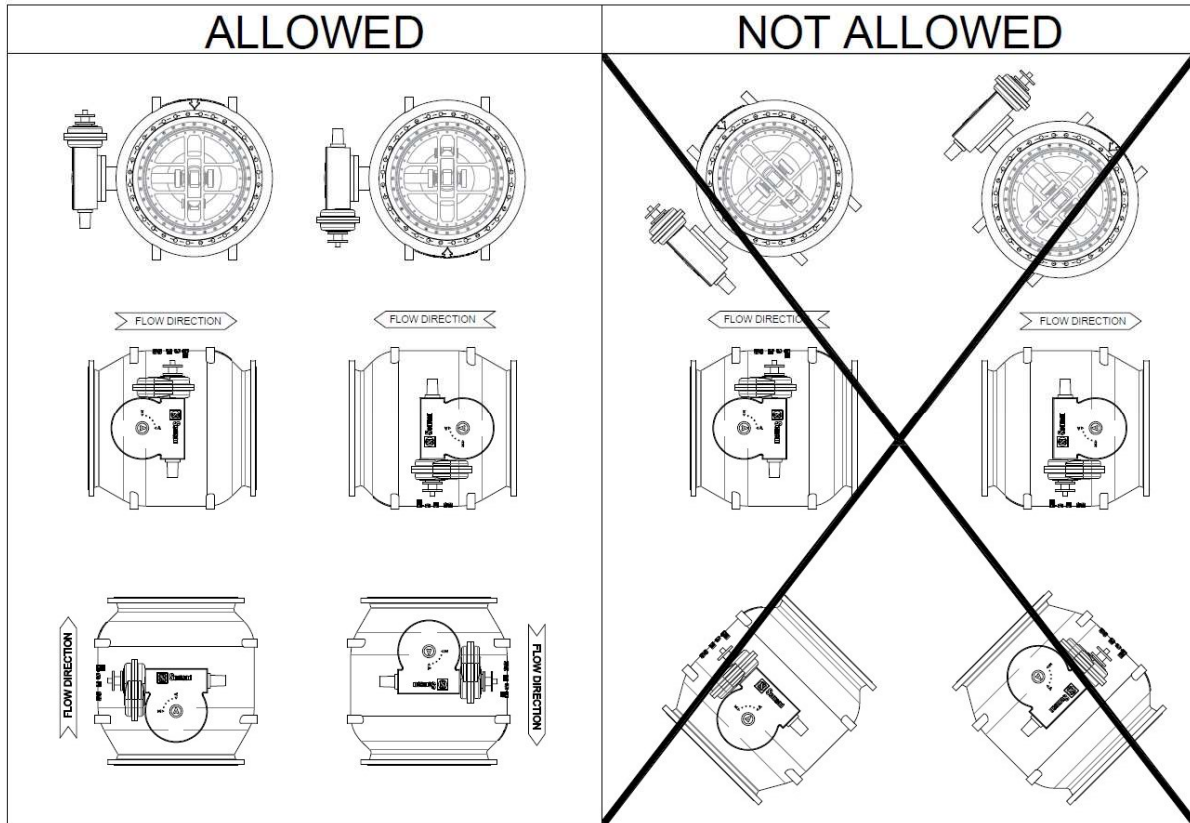
**Attention!**

**Check tightness of flange connections prior to  
initial operation and after maintenance, check  
bolt connections or replace gaskets.  
The test pressure may not be exceeded.**

**6.1 Working permission**

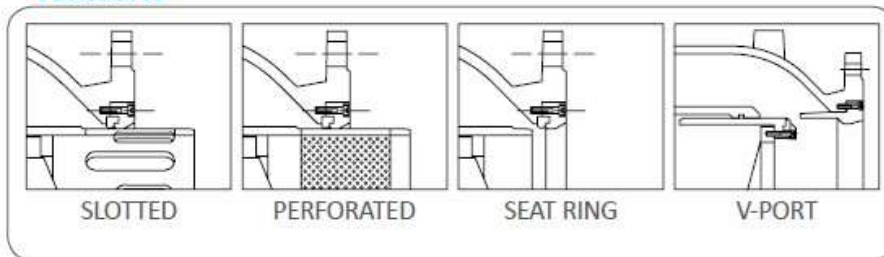
The valve is operated by means of the handwheel at the electric actuator.  
Do not apply excessive forces or torques. The valve closes when turning  
into clockwise direction.  
Valve should only be used for the specific operating conditions.

**6.2 Unallowed Modes of Operation**

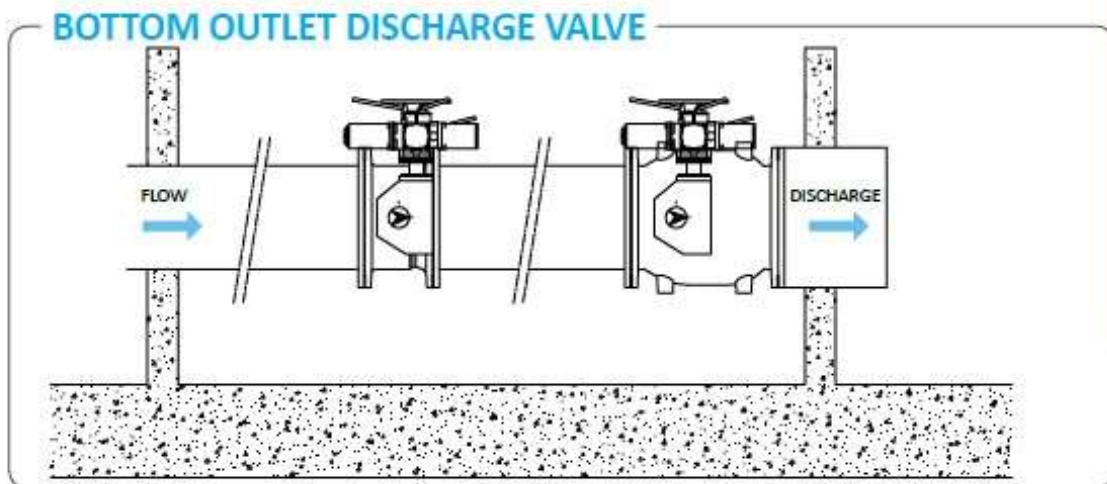
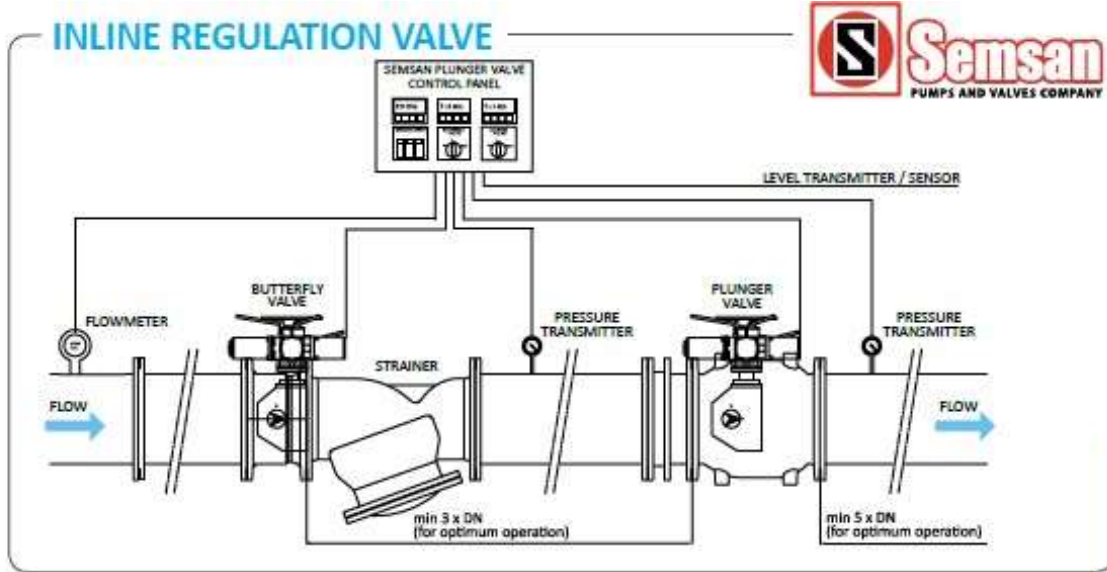


**7. Output Versions:**

**VERSIONS**



## 8.Operation Types:



### INLINE HYDROFLOW PLUNGER VALVE (WORKING WITH LINE PRESSURE)

