

# TL42X Plunger Valve

BY ZHENGZHOU PUMP VALVE SINCE 1995





## Plunger valve

The operational system of the plunger valve can consist of the following:

- Hydraulic cylinder.
- Electric motorised gearbox
- Manual
- Special operational system defined and agreed with the customer

A typical range of applications are:

- Diameter up to DN1600
- Pressure up to PN40

× × × ×  
× × × ×



Project of plunger valve in Xe Pian-Xe  
Namnoy Project in Laos



Zhengzhou pump valve



The Plunger Valves are special type control valves that are designed specifically for variable water flow rates.

Project running with our plunger valves.

## Flow control valve

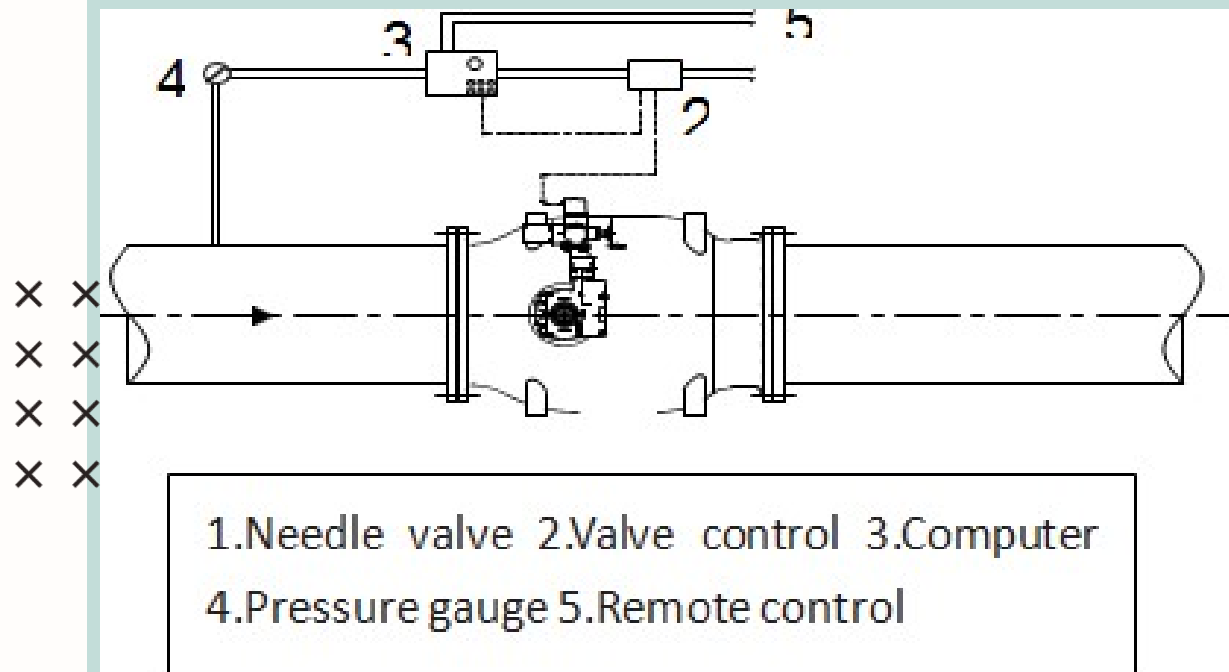
These valves are also used for flow control systems. In this case the plunger valve provided of flow meter is an excellent instrument for flow control crossing a fixed point of a complicate hydraulic circuit. It is also possible to program a water delivery according to a prefixed law that can be changed during the time, as required in modern irrigation plants.

× ×  
× ×  
× ×  
× ×



## Upper stream pressure control

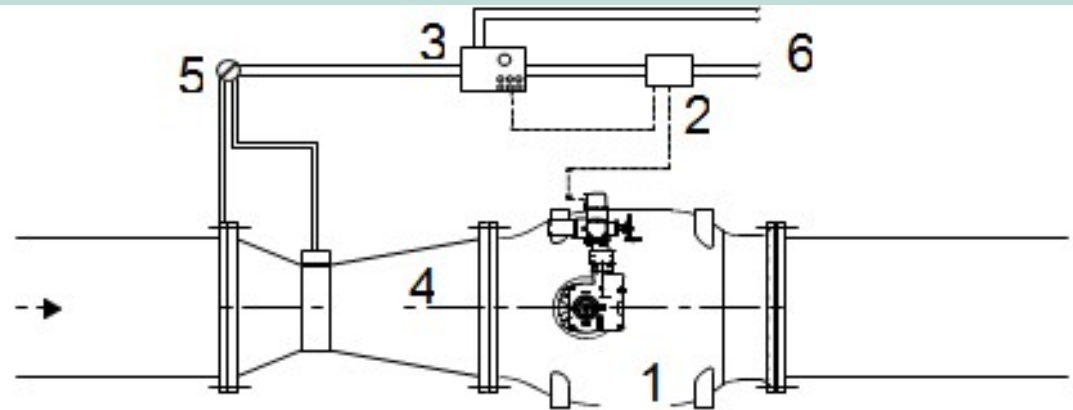
These valve with an upper stream pressure gauge controlled by a computer is an effective system to control the piezometric energy of the upper pipe line. This system is normally used on big hydraulic circuit as for aqueduct and irrigation plants.



## Down pressure control

These valve with down stream positioned pressure gauge controlled by computer, is a very good solution to keep the pressure constant into the down stream pipe line even in presence of big changes of pressure range into the upper stream adductor pipe line.

× ×  
× ×  
× ×  
× ×



1.Needle valve 2.Valve control 3.Computer  
4.Flow meter 5.Flow indicator 6.Remote control

## What is the working principle of plunger valve?

01

Its regulating function is achieved by means of axial movements made by a piston circular cylinder in the valve chamber, and it travels in the same as the flow direction in the pipeline.

02

Whatever position the piston moves to, the flow cross section on any position in the valve chamber is all annular and shrink to the axis center at the outlet, thus achieving the best resistance to cavitations .

## Plan your outlets



### 01 slotted cylinder

suitable design for high pressure differences. The water jets flowing from the outside to the inside through the slots are split up at the slots and reach a high velocity.



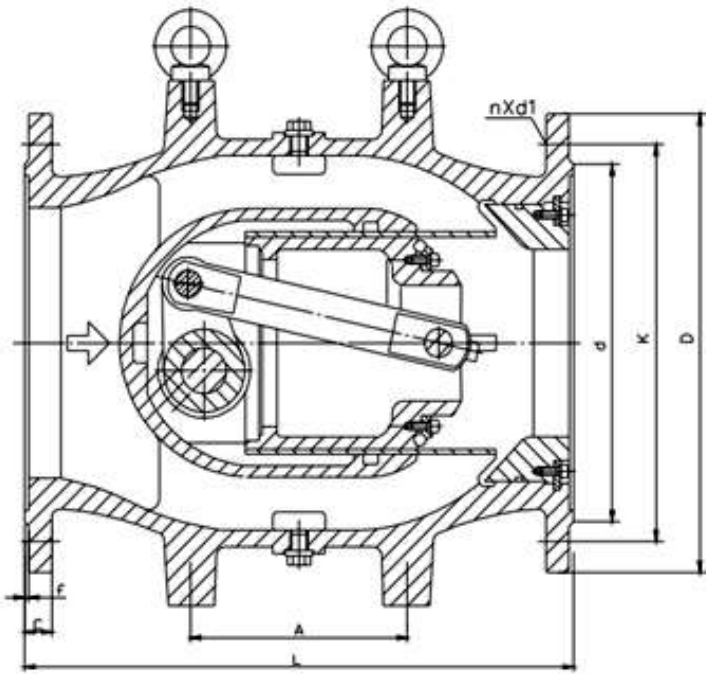
### 02 vaned ring

The vaned ring is a ring with uniformly arranged blades, which split the flow into individual flow filaments just before the discharge and due to their shape set them in a spiral movement.



### 03 perforated cylinder

The perforated cylinder, which functions in the same way as the slotted cylinder but has higher zeta values, is also suitable for high pressure differences.



× ×  
 × ×  
 × ×  
 × ×

## THE ADVANTAGES

- automatically adjust the preset pipeline medium parameter value to keep it constant within a certain accuracy, and the accuracy range can also be adjusted.
- the valve has good cavitations resistance.
- the control system of the valve can adopt integrated electric circuit, with small space, good reliability, high sensitivity and convenient installation and debugging.
- the leakage of full close is zero.
- the valve can be controlled by manual or electric mode.
- horizontally or vertically installation.

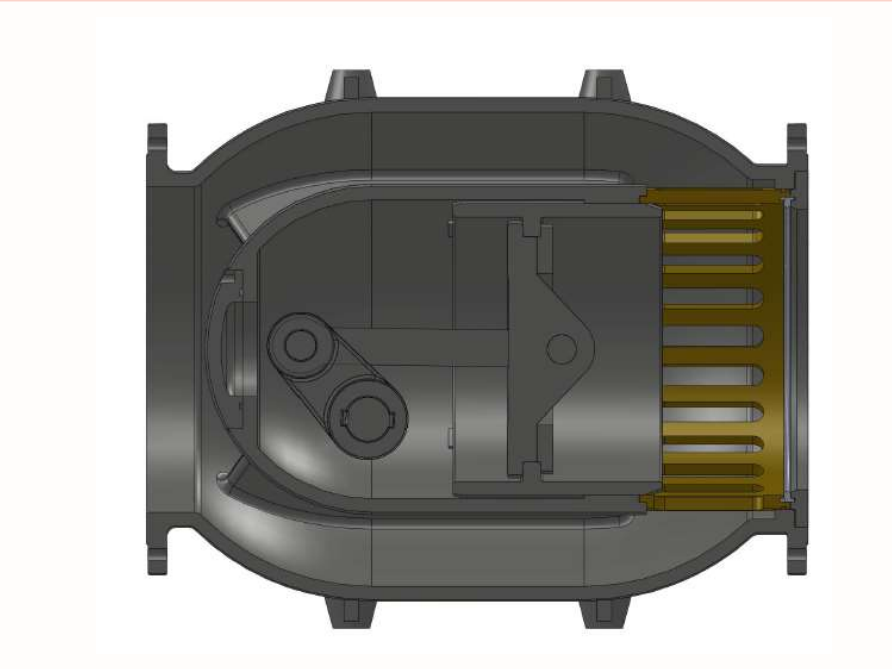
## DN1600 plunger valve



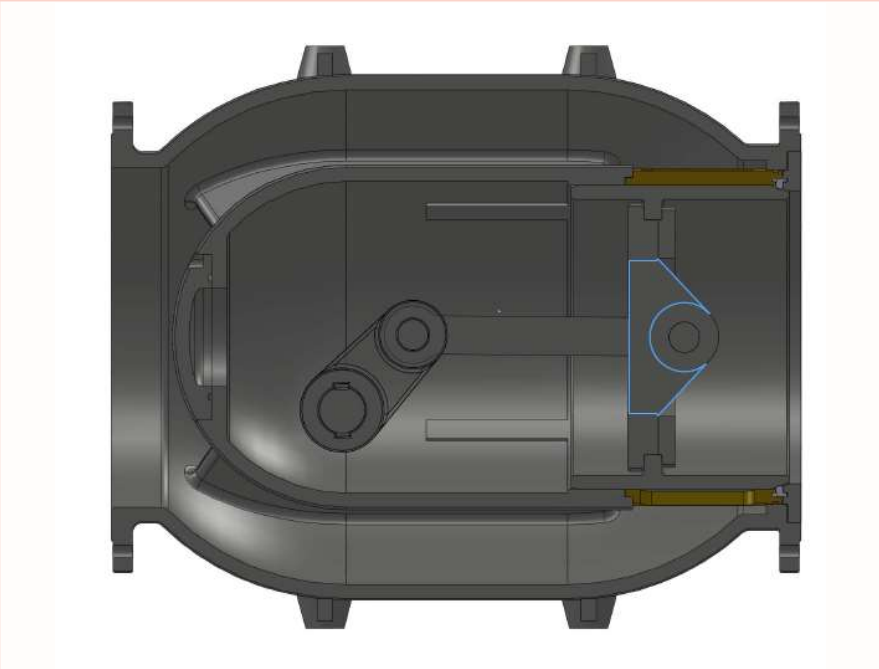
plunger valve manufacturing



Open and Close



full open state



full close state

## Testing and inspection by user





## Quality Assurance

All phases of the engineering design and fabrication through to final testing of are undertaken by Zhengzhou pump valve in compliance with UNI EN ISO 9001 Quality Management System.

## Contact us

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