



®

MIRAB CO.

Manufacturer of Industrial Valves
and Relevant Equipment

Hollow Jet Valves



www.mirab-valves.com

Hollow Jet Valves

Size: DN 500-2000 mm

Pressure: PN 6-25 bar

Flanges: according to DIN EN 1092 - 2 (DIN 2501)

Product features:

In dam application, control valves such as Hollow Jet Valves are installed after the butterfly valves on the outlet side. These valves always work as flow regulating or control valves. Hollow jet valves are designed to perform regulating or control function in water supply system without any vibration as much as valve opening. This valve regulates the flow by moving the cone piston to upstream direction.

Hallow screw type:

These valves are divided into two main groups of manual and electrical. Both types can be provided with a balancer chamber inside of the valve (inside of piston). The water inlet to chamber piston would be done through the holes which are located on the face of piston so it will reduce the Hydrostatics pressure in opposite surface of piston, this means that pressure adjusting needs less force to obtain the minimum adjustment.

Comparing Hallow jet valves with other valves, the adjustment force in Hallow jet valves is much less than others when the piston is thoroughly closed, all the packings are absolutly sealed.

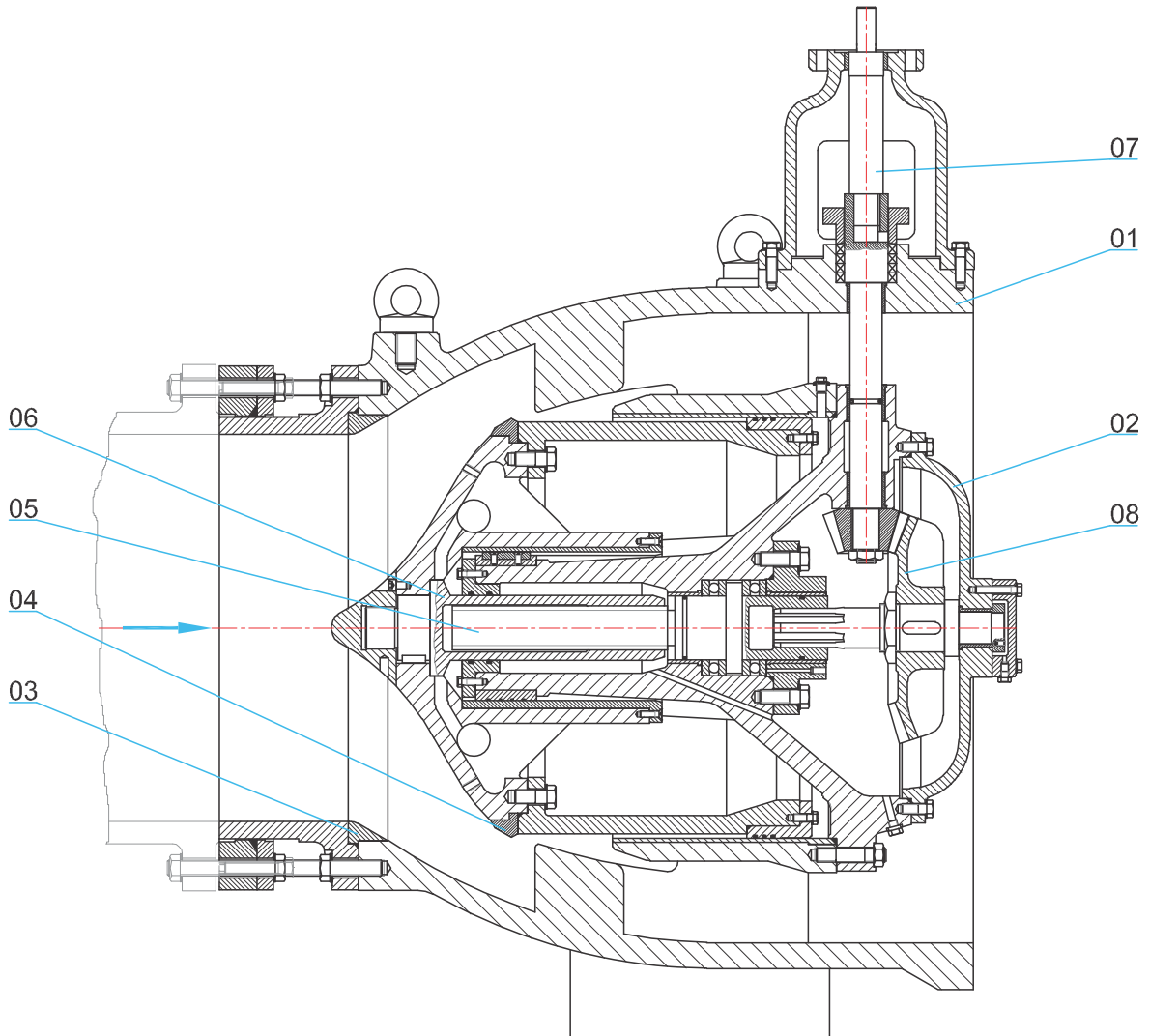
The movement of piston governs by means of a screw which is under control. The Hallow jet screw Type can be used with either manual or electrical actuator which works via conic gears (bevel gear), stem and stem nut.

Corrosion protection:

All casting parts are fully coated with blue electrostatic powder paint (RAL 5005 or RAI 5015, with minimum 250 micron thickness).

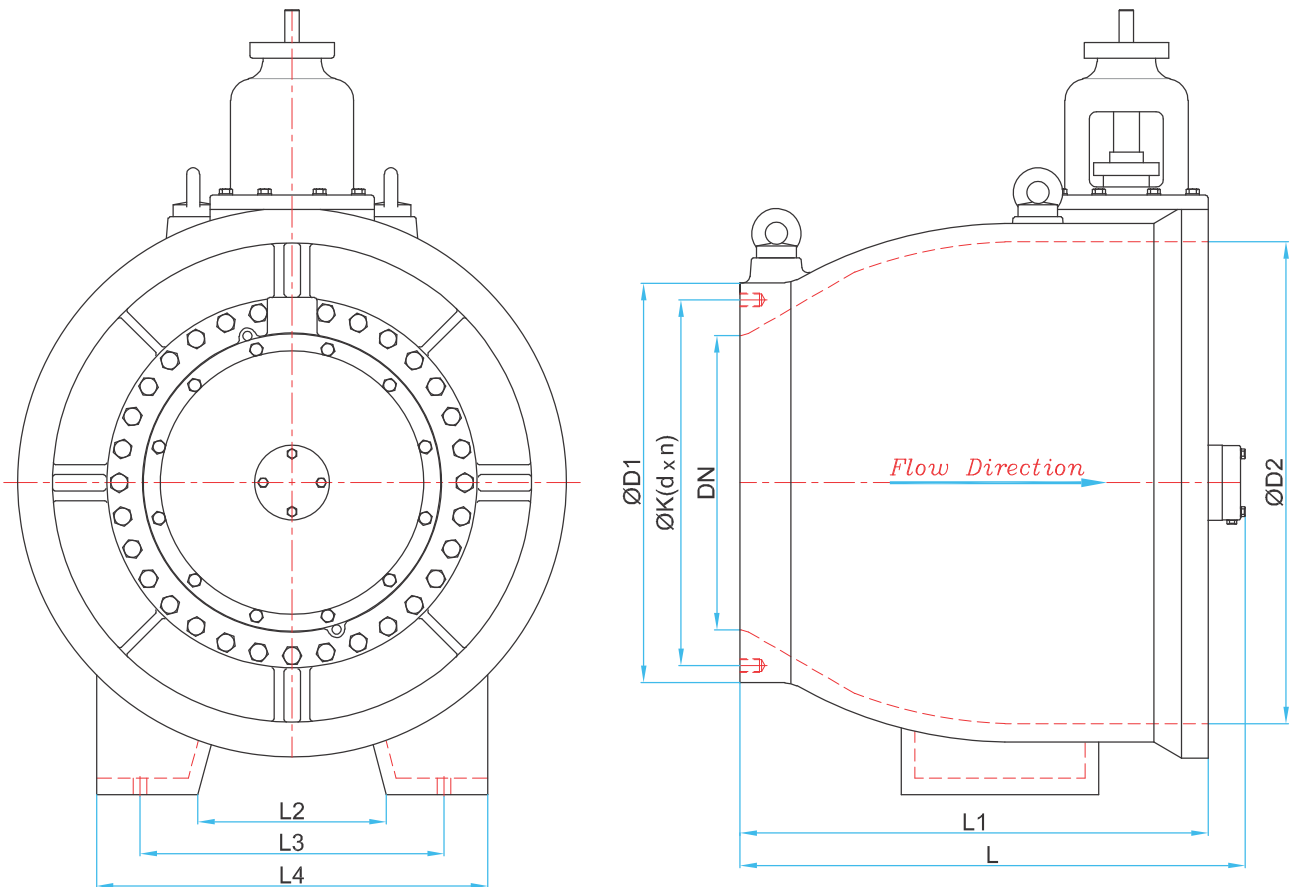
| Hydrostatic test Pressure (bar) according to DIN EN 12266-1 | |
|---|---------------------------|
| Nominal pressure PN (bar) | Test Pressure, with water |
| | Closure test |
| 6 | 7 |
| 10 | 11 |
| 16 | 18 |
| 25 | 28 |



Part list


| Part No. | Part Name | Part Material | Spare Part |
|----------|-------------------|-------------------------------------|------------|
| 01 | Body | St37-2 or EN-GJS-400-15 (1) | |
| 02 | Shutter | EN-GJS-400-15 (1) | |
| 03 | Body seal ring | Welding with Co-Ni- Electrodes(307) | ● |
| 04 | Shutter seal ring | Welding with Co-Ni- Electrodes(307) | ● |
| 05 | Stem | 1.4021 | |
| 06 | Stem nut | Al.Bz. | |
| 07 | Shaft | 1.4021 | |
| 08 | Bevel gear | GS60 cast steel | |

(1) EN-GJS-500-7 can be produced as requested.

Dimensions


| DN mm | L mm | ØD1 mm | ØK mm | d mm | n | ØD2 mm | L1 mm | L2 mm | L3 mm | L4 mm | Stroke |
|----------|---------|-----------|----------|---------|----|-----------|----------|----------|----------|----------|--------|
| 500 | 860 | 675 | 620 | M24 | 20 | 813 | 755 | 920 | 1120 | 1320 | 200 |
| 600 | 1045 | 826 | 715 | M22 | 31 | 993 | 968 | 390 | 629 | 809 | 203 |
| 750 | 1470 | 963 | 895 | M30 | 28 | 1220 | 1315 | 1340 | 1590 | 1840 | 300 |
| 900 | 1610 | 1120 | 1050 | M30 | 28 | 140 | 1360 | 1600 | 1950 | 2200 | 360 |
| 1200 | 2110 | 1465 | 1380 | M36 | 32 | 1950 | 1810 | 2100 | 2400 | 2700 | 480 |
| 1320 | 1962 | 1490 | 1500 | M30 | 36 | 1985 | 1605 | 1920 | 2300 | 2550 | 461 |
| 1500 | 3200 | 1795 | 1700 | M42 | 40 | 2440 | 2265 | 2600 | 2950 | 3300 | 600 |
| 1800 | 3200 | 2115 | 2020 | M48 | 44 | 2920 | 2720 | 3070 | 3420 | 3770 | 720 |

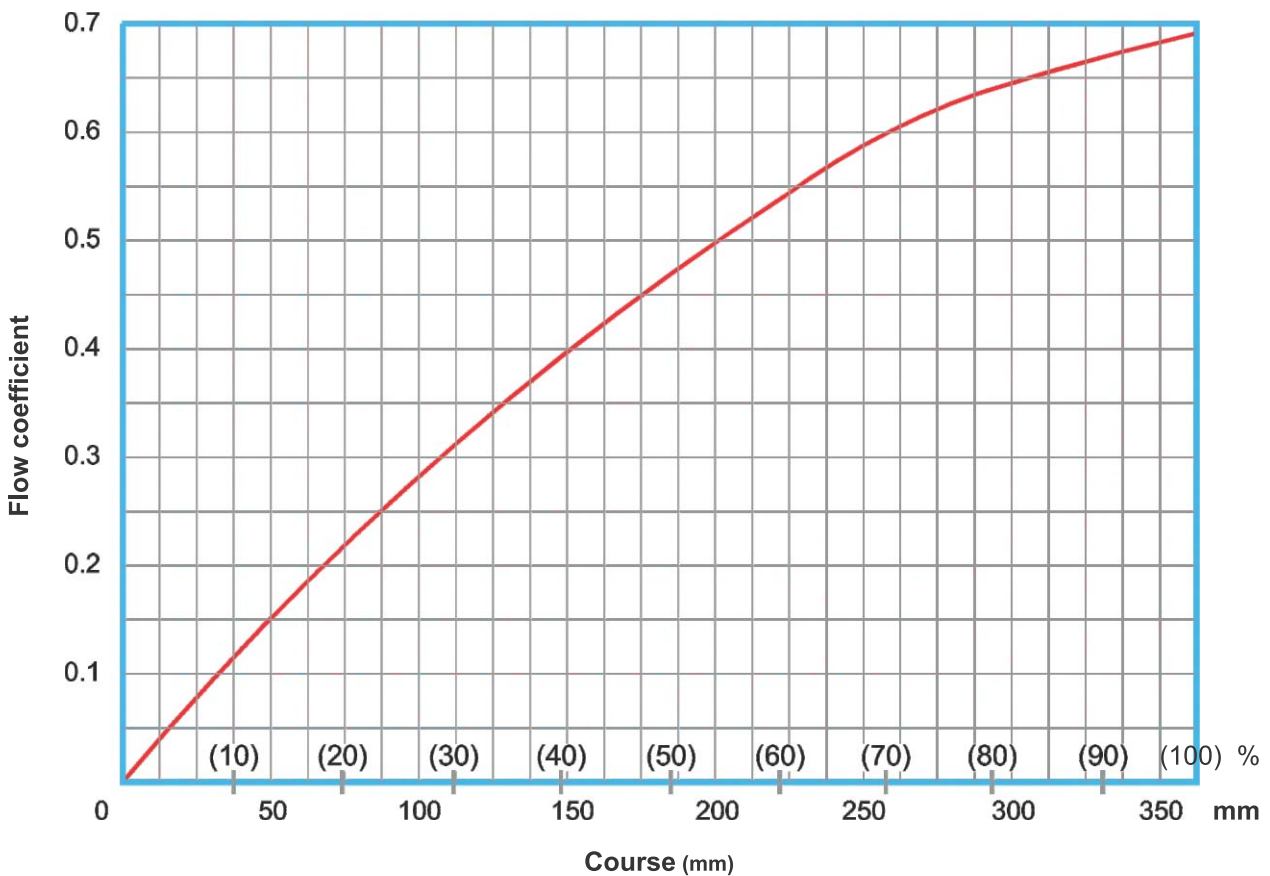
Above Dimensions are for PN10 and for other sizes & rating according to order.

Specifications

- 1- Accurate adjustment
- 2- No vibration
- 3- Out of cavitation boundary
- 4- Manual operating needs less force. Regardless of piston situation, force required to move the piston extreme of thoroughly open and closed are the same
- 5- Because of discharging to air no cause of turbulence and no need to install anti water hammer in downstream.
- 6- Easy maintenance

In hollow jet valves the water flow is insulated by touching the piston surface to body seat ring. Against the needle valves, hollow jet valve create a jet of flow with hollow core by several bubbles of air with the special shape of body. This is the main advantage of this valve to increase the pressure of water.

Flow coefficients of Hollow jet (size DN 900)



Q = (m³/s) Discharge

A = (m²) Entrance valve cross section of Area

C = Flow coefficient

H = (m) Effective Head

g = 9.81(m/s²) Central of gravity

$$Q = CA\sqrt{2gH...}$$

MIRAB Co' PRODUCTS

Butterfly Valves Family: Double Flanged Type, Butt-weld End, Wafer Type, Lug Type, Hydraulic Actuated, Pneumatic Actuated.

Gate Valves Family: Soft-Sealing Gate Valve, Metal Seat Gate Valve, Knife Gate Valve, Sluice Gate Valve.

Non Return Valves Family: Tilting Disc with Counter Weight, Tilting Disk with Counter Weight and Hydraulic Damper, Swing Check Valve, Silent Check Valve, Foot Valve, Nozzle Check Valve, Wafer Pattern Check Valve, Flap Valve.

Air Vent Family: Single Chamber - Double Orifices , Double Chambers - Double Orifices, Sewage Air Valves, Large - Orifice Air Valve.

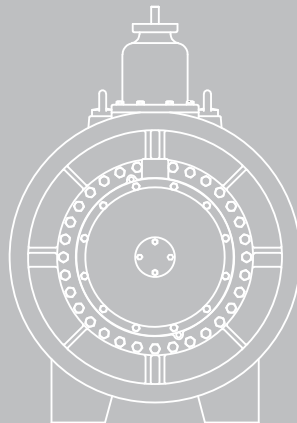
Control Valves Family: Automatic Control Valves, Needle Valve, Globe Valve, Fixed Cone Free Discharge Valve, Hollow Jet Valve, Sleeve Valve.

Hydrant Valves Family: Standing Type, Pit Type, Wet Barrel Fire Fighting Valve, Post Indicator Valve.

Strainers Family: Y Type, T Type, One Side Flanged Type.

Fittings Family: Dismantling Joint F1&F2, Pipe Coupling, Flange.

Actuators: Electrical, Hydraulic, Pneumatic, Portable Electrical.



Head office: #9, 14th Alley,
N. Gol Afshan St., Dadman Blvd.,
Shahrak-e-Qods,
Tehran, 14697-85171, Iran
Tel: +98 (0)21 88372220
Fax: +98 (0)21 88577508

Plant #1: 28th St.,
Km 10 of Karaj Special Rd.,
Tehran, 13897-15851,
Iran
Tel: +98 (0)21 44545650
Fax: +98 (0)21 44545658

Plant #2: Sarvestan Blvd.,
Shams-Abad Industrial zone,
Km 40 of Tehran-Qom Highway,
Tehran, 18341-86581,
Iran
Tel: +98 (0)21 44545656

P.O.Box: 18335-365

info@mirab-valves.com