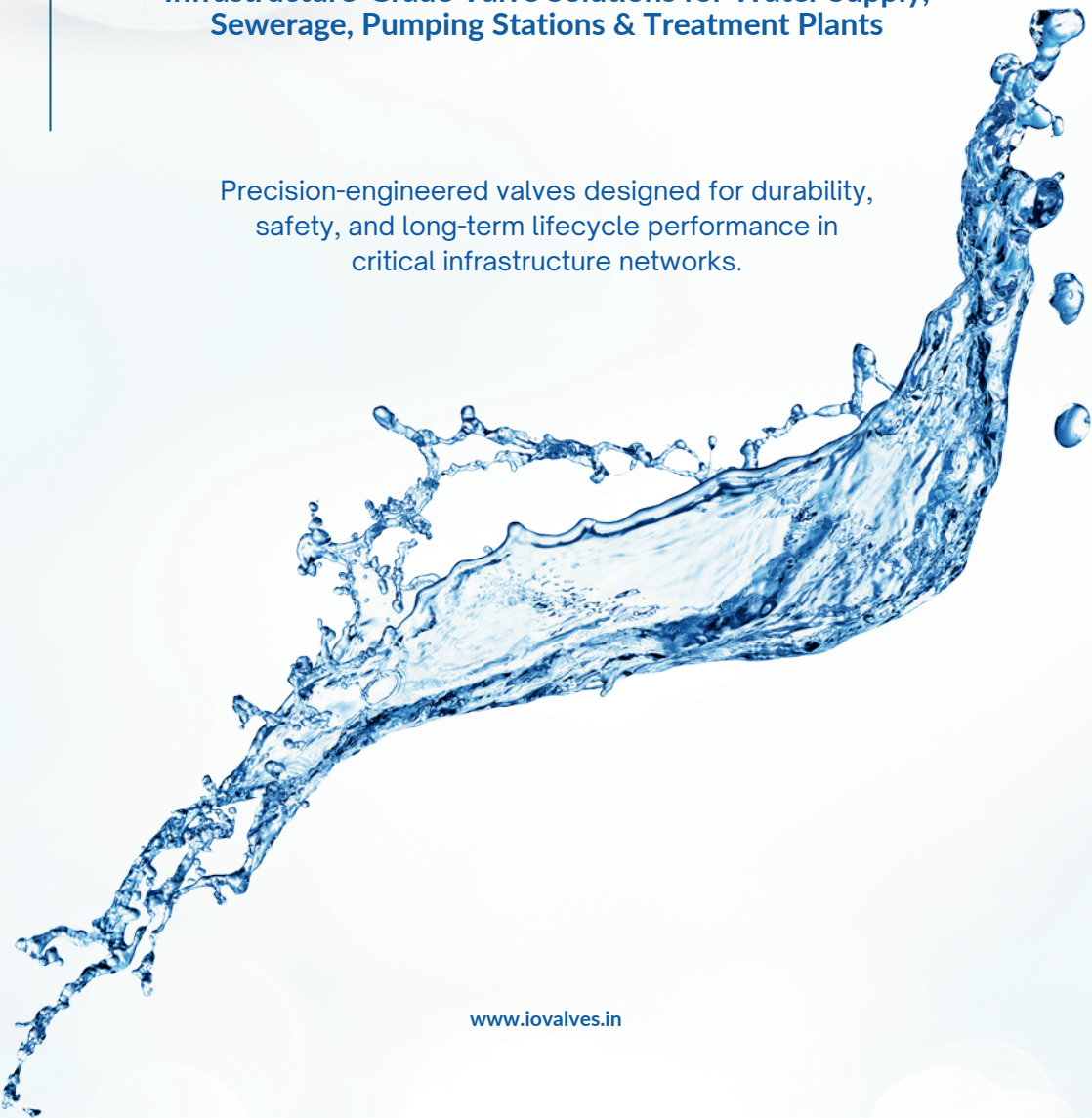
IO VALVES
India Private Limited

Infrastructure-Grade Valve Solutions for Water Supply, Sewerage, Pumping Stations & Treatment Plants

Precision-engineered valves designed for durability, safety, and long-term lifecycle performance in critical infrastructure networks.



www.iovalves.in

About

IO Valves India Private Limited was incorporated in 2025 with a clear objective - to design, manufacture, and supply high-performance valves specifically engineered for water supply, wastewater, sewerage, pumping stations, and water treatment plant applications.

Though young as an independent valve manufacturing entity, IO Valves draws its strength from a deeply established infrastructure lineage. The company is a sister concern of IO Infrastructure (founded in 2012) and part of a family-owned civil contracting group established in 1992, with decades of hands-on experience in executing large public infrastructure projects, including transmission mains, pumping stations, water treatment facilities, and sewerage systems.

This execution-driven background enables IO Valves to blend real-world site experience with disciplined engineering, robust manufacturing practices, and structured quality systems - ensuring valves are designed not as commodities, but as critical assets within infrastructure networks.

Why Us?

Built on Infrastructure Experience. Focused on Performance Reliability.

IO Valves has been conceptualised with a simple belief: valves are not accessories - they are core components that determine system safety, efficiency, and lifecycle cost. Our strengths include:

- Deep understanding of field conditions and operating challenges
- Application-centric valve engineering
- Infrastructure-grade material selection and coatings
- ISO-certified manufacturing and quality systems
- Technical support for EPC contractors, consultants, and utilities
- Valves designed for long service life and reduced maintenance

By aligning valve design with actual hydraulic and operational conditions, IO Valves helps reduce energy losses, improve network reliability, andlower total cost of ownership.

IO VALVES
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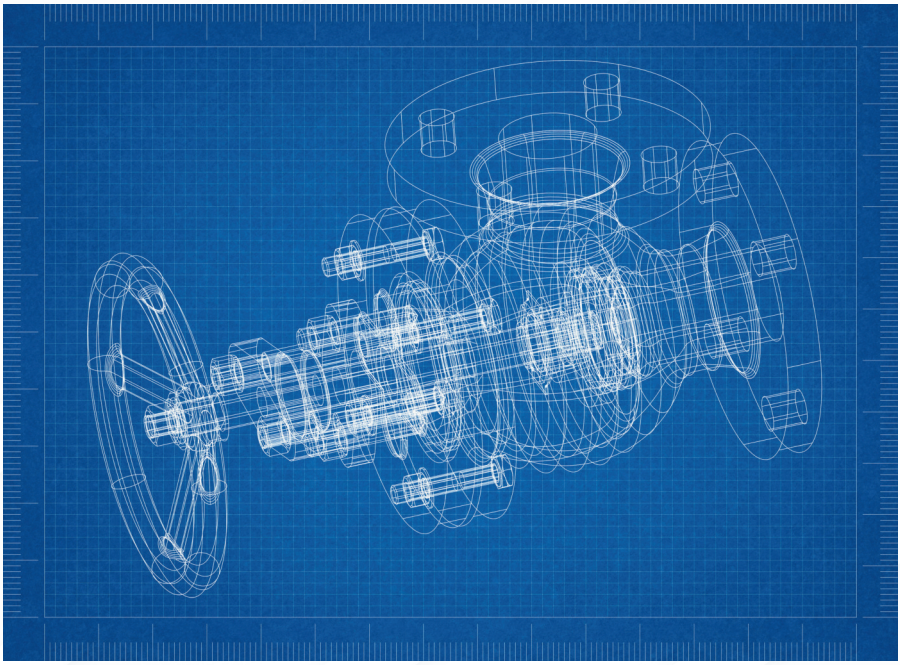
Vision

To emerge as a trusted Indian valve manufacturer, recognised for engineering integrity, infrastructure-grade quality, and customer-centric innovation, contributing meaningfully to India's water security and sanitation infrastructure.



Supporting nation-building infrastructure projects

Delivering reliable and efficient valve solutions

Mission

Building long-term partnerships with utilities, EPC contractors, and consultants

Continuously improving through engineering excellence & ethical practices

IO VALVES
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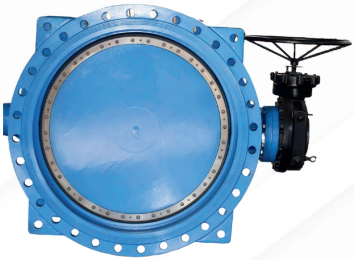
Products Portfolio

Complete Valve Solutions for Water & Wastewater Infrastructure

IO Valves India offers a comprehensive range of engineered valves designed for water supply, wastewater, and infrastructure applications. The product portfolio covers isolation, air management, flow regulation, and system protection, ensuring reliable and efficient pipeline performance across municipal, industrial, and utility projects. The product range includes:

ISOLATION VALVES

Resilient Seated Gate Valve



Double Offset Butterfly Valve (DOBFV)

AIR VALVES

Combination Air Release Valve

High Performance Triple Function Air Valve (TFAV)

Dual Function Air Valves

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CHECK VALVES

Axial Flow Non-Slam Check Valve (NSCV)

Dual Plate Check Valve (DPCV)

Swing Check Valve

CONTROL VALVES

Diaphragm Type Hydraulic Control Valve

Plunger / Needle Type Control Valve

Each product is engineered with a focus on durability, hydraulic efficiency, operational safety, and compliance with applicable Indian and international standards. All products are WRAS approved.

WRAS APPROVED PRODUCT

IO VALVES
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RESILIENT SEATED GATE VALVE

Reliable Isolation for Water & Wastewater Networks

Product Overview: IO Valves Resilient Seated Gate Valves are designed for dependable shut-off and isolation in water supply and wastewater systems. The valves feature a fully elastomer-encapsulated wedge and corrosion-resistant ductile iron construction, ensuring leak-tight performance, smooth operation, and long service life under demanding operating conditions.

Key Features

- Bubble-tight shut-off for reliable isolation
- Fully EPDM-encapsulated wedge ensuring consistent sealing
- Full bore design enabling unobstructed flow and minimal pressure loss
- Fusion bonded epoxy coating on internal and external surfaces (≥ 250 microns)
- Multiple O-ring stem sealing for leak-free operation and extended service life
- Replaceable top stem O-rings, serviceable under pressure
- Low operating torque through optimized liner and disc geometry
- Surge-resistant bonnet design with gasket seated in a precision-machined recess
- Clockwise closing (CWC) operation as standard for water utility applications

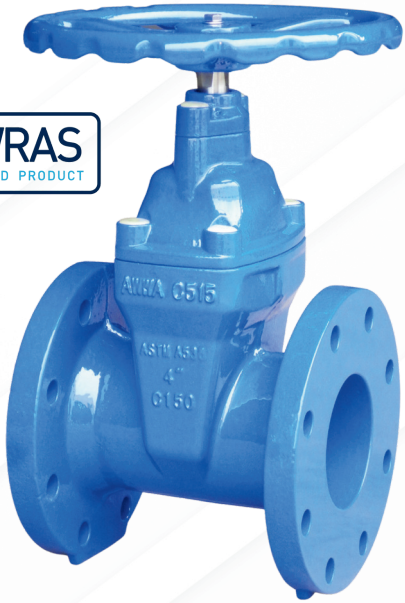
Design & Range

Size Range
DN 50 – DN 1000

Pressure Rating
PN 10/PN 16/PN 25

Medium
Water/Wastewater

WRAS APPROVED PRODUCT



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Design & Testing Standards

- Product Standard: BS EN 1074 (Part 1 & 2)
- Face-to-Face: BS EN 558 Series 14 & 15
- Flange Drilling: EN 1092-2
- Testing: EN 12266-1
- Operating Temperature: 0 °C to +80 °C

Material of Construction

- Body & Bonnet: Ductile Iron GGG 50
- Disc/Wedge: Ductile Iron fully encapsulated with EPDM
- Stem: Stainless Steel SS 420
- Stem Nut: Brass
- Stem O-rings: NBR
- Thrust Washer & Sleeve: EPDM
- Hand wheel: Ductile Iron GGG 50
- Coating: Epoxy Powder Coating (≥ 250 µm)

Typical Applications

Municipal Water Distribution

Pumping Stations

Water and Waste Water Treatment Plants

Utility & Infrastructure Pipelines

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DOUBLE OFFSET BUTTERFLY VALVE

High-Performance Valves for Large Diameter Pipelines

Product Overview: IO Valves Double Offset Butterfly Valves are engineered for isolation and flow control in large diameter pipelines. The double offset disc design reduces seat wear during operation, resulting in low operating torque, extended service life, and reliable sealing performance.

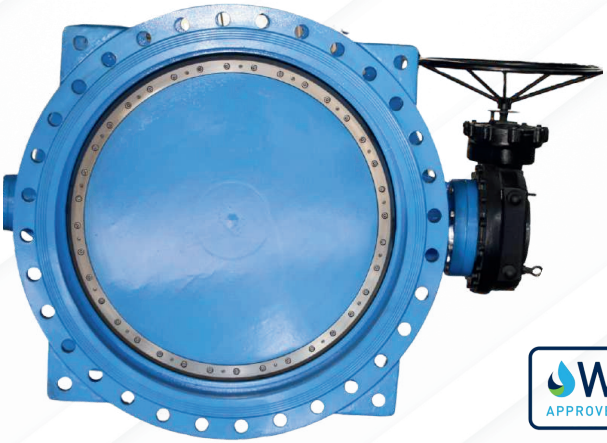
Key Features

- Double Offset design minimising seat wear
- A dry hub design with multiple O-rings isolates the shaft and bearings from process media and external moisture, ensuring smooth operation and consistently low operating torque throughout the valve's service life
- Arch shape disc design ensures larger flow area, stable flow, minimised head loss and low energy consumption
- Self-lubricating bearings minimises static friction coefficient which provides lower operating torque
- At non drive end tail opening ring is used as a plane bearing to bear the axial force of the steam due to which it can be mounted horizontally and vertically.

Design & Range

Size Range
DN 200 – DN 2400

Pressure Rating
PN 10/PN 16



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IO VALVES
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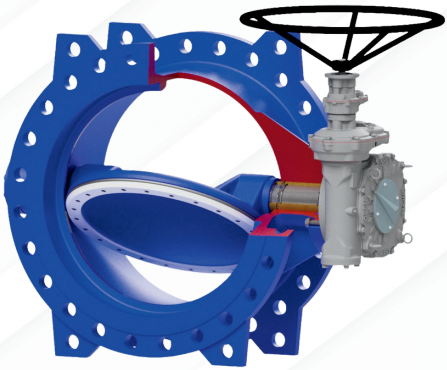
Design & Testing Standards

- Design Standard: EN 593 | IS 13095
- Face-to-Face: BS EN 558 Series 13 & 14
- Flange Drilling: EN 1092-2
- Testing: EN 12266-1



Material of Construction

- Body: Ductile Iron GGG 50
- Disc: Ductile Iron GGG 50
- Shaft: Stainless Steel SS 420
- Body Seat Ring: SS 304
- Weld Overlay Retainer Ring: SS 304
- Seat: EPDM
- Bearings: Tin Bronze
- Coating: Epoxy Powder Coating ≥ 250 m

Typical Applications

Transmission Mains

Water Treatment Plants

Pumping Stations

Industrial & Utility Pipelines

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COMBINATION AIR RELEASE VALVE

Automatic Air Release & Vacuum Protection

Product Overview: IO Valves Combination Air Release Valves are designed to automatically release large volumes of air during pipeline filling and admit air during pipeline draining, while also releasing accumulated air during normal pipeline operation. This triple-function performance ensures efficient pipeline operation and protects the system from vacuum conditions, surge, and water hammer.

Key Features

- Triple function operation enabling large air release, air admission, and continuous air release during operation
- Anti-shock / non-slam design to minimize water hammer during air discharge
- Float-operated mechanism ensuring fully automatic operation without external power
- Stainless steel float (SS 304/SS 316) for corrosion resistance & long service life
- Full-bore valve body allowing unrestricted airflow and efficient system performance
- Stainless steel anti-insect screen for reliable and maintenance-free operation
- Precision-machined seating for dependable sealing and leak-free performance

Design & Range

Size Range
DN 40 – DN 300

Pressure Rating
PN 10/PN 16/PN 25

Performance Characteristics

- Minimum Sealing Pressure: 0.2 bar
- Water Tightness: 100% leak-tight
- Operating Mode: Automatic, float-operated
- Installation: Vertical (pipeline high points)

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IO VALVES
India Private Limited

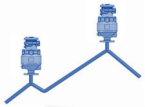
Design & Testing Standards

- Design Standard: EN 1074-4
- Flange Drilling: EN 1092-2
- Testing: EN 12266-1
- Operating Temperature: 0 °C to +80 °C

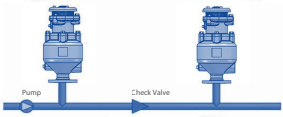
Material of Construction

- Body & Bonnet: Ductile Iron GGG 50
- Float: Stainless Steel SS 304 (SS 316 optional)
- Disc: Stainless Steel SS 304
- Guide Rod: Brass
- Bushing: Stainless Steel SS 304
- O-Rings: NBR
- Dust Screen & Cover: Stainless Steel SS 304
- Fasteners: Stainless Steel SS 304
- Coating: Fusion Bonded Epoxy Coating ≥ 250 µm

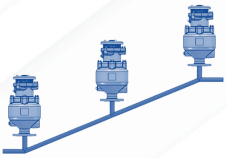
Typical Applications



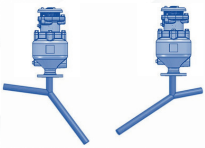
High Geometrical Points



Pumping Station

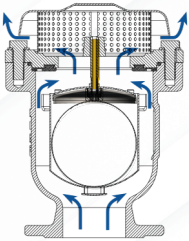


Ascending Segment

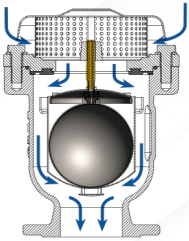


Negative Slope Change

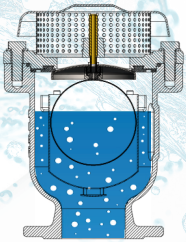
Triple Functions



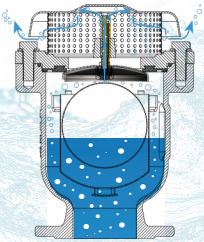
Release of large quantities of air
During filling, the line will be ventilated via the large orifice with big volume



Entrance of large volumes of air
During pipeline, drainage bring in large volume air to avoid negative pressure



Closure
After ventilation the valve closes automatically



Release of small quantities of air
During operation of a line, ventilation is carried out via the top small orifice

IO VALVES
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HIGH PERFORMANCE TRIPLE FUNCTION AIR VALVE

Enhanced Air Management for Large Diameter Pipelines

Product Overview: IO Valves High Performance Triple Function Air Valves are designed for efficient air management in large diameter and high-flow water pipelines. These valves offer rapid air release and intake capacity, ensuring pipeline protection during filling, operation, and draining under demanding hydraulic conditions.

Key Features

- Triple function operation providing large air release, continuous air release, and air admission
- Double orifice design for improved air discharge control and effective surge mitigation
- Reduced surge and water hammer by stabilizing pressure during pipeline filling and emptying
- Low maintenance construction with a simple and reliable float mechanism
- Corrosion-resistant ductile iron body with fusion bonded epoxy coating
- Fully automatic, float-controlled operation without external power

Design & Range

Size Range
DN 40 – DN 150

Pressure Rating
PN 10/PN 16/PN 25

WRAS APPROVED PRODUCT

IO VALVES
India Private Limited

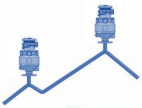
Design & Testing Standards

- Design Standard: EN 1074-4
- Flange Drilling: EN 1092-2
- Testing: EN 12266-1
- Operating Temperature: 0 °C to +80 °C

Material of Construction

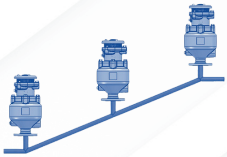
- Body / Cover / Cowl: Ductile Iron GGG 50
- Float & Float Guide: ABS
- Seat & Seat Ring: EPDM
- Hinge Pin: Stainless Steel SS 304
- O-Rings: NBR
- Bracket: Brass
- Cap: Brass
- Fasteners: Stainless Steel SS 304
- Coating: Epoxy Powder Coating ≥ 250 µm

Typical Applications

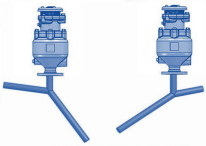


High Geometrical Points in Water Networks & Junctions

Pumping Station



High Demand Gravity Line



Control Points in Pipeline Systems

IO VALVES
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DUAL FUNCTION AIR VALVE

Reliable Air Release & Vacuum Protection

Product Overview: IO Valves Dual Function Air Valves are designed to release large volumes of air during pipeline filling and admit air during pipeline draining. These valves do not release air under normal operating pressure, making them suitable for applications where continuous air release is not required.

Key Features

- Dual function operation enabling large air release during pipeline filling and air admission during draining
- Effective vacuum protection to prevent pipeline collapse under negative pressure conditions
- Robust ductile iron construction designed for long and reliable service life
- Simple float-operated mechanism ensuring automatic operation with minimal maintenance
- Corrosion-resistant epoxy powder coating suitable for water service
- EN-compliant design, manufactured and tested to applicable EN standards

Design & Range

Size Range
DN 40 – DN 150

Pressure Rating
PN 10 / PN 16

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IO VALVES
India Private Limited

Design & Testing Standards

- Design Standard: EN 1074-4
- Flange Drilling: EN 1092-2
- Testing: EN 12266-1
- Operating Temperature: 0 °C to +80 °C

Material of Construction

- Body: Ductile Iron GGG 50
- Bucket: Ductile Iron GGG 50
- Ball Float: ABS
- Inside Cover: Ductile Iron GGG 50
- Outside Cover: Ductile Iron GGG 50
- Gasket: NBR
- Bolts: Carbon Steel
- Coating: Epoxy Powder Coating ≥ 250 µm

Typical Applications

Main Water Transmission Pipelines

Water Utility Lines

Irrigation Systems

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AXIAL FLOW NON-SLAM CHECK VALVE

Silent Operation & Advanced Pump Protection

Product Overview: IO Valves Axial Flow Non-Slam Check Valves are designed to prevent reverse flow and eliminate water hammer in pumping and pipeline systems. The axial flow design ensures smooth, streamlined flow with minimal head loss, while the spring-assisted disc enables rapid, non-slam closure before flow reversal occurs. These valves are particularly suited for pump discharge applications where system stability, equipment protection, and quiet operation are critical.

Key Features

- Non-slam, silent closing operation
- Spring-assisted disc for rapid response before flow reversal
- Axial flow path with minimal head loss
- Reduced surge and water hammer effects
- Compact, lightweight design compared to conventional check valves
- Suitable for high-velocity and variable flow conditions
- Low maintenance and long service life

Design & Range

Size Range
DN 50 – DN 1000

Pressure Rating
PN 10 / PN 16/ PN 25/ PN 40

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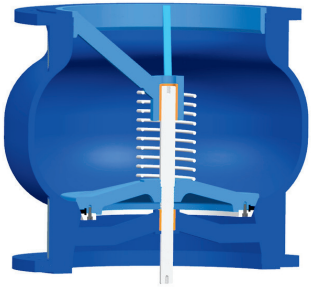
Design & Testing Standards

- Installation: Horizontal or Vertical
- Medium: Water
- Operating Temperature: –10 °C to +80 °C
- Flange Drilling: EN 1092-2



Material of Construction

- Body / Disc / Guiding Body: Ductile Iron
- Shaft: Stainless Steel (X20Cr13)
- Seat Ring: Stainless Steel Weld Overlay
- Seal: EPDM (Food Grade)
- Spring: Stainless Steel SS 304 / SS 316
- Nuts: Bronze
- Coating: Epoxy Powder Coating ≥ 250 µm

Typical Applications

Municipal & Industrial Water System

Rising mains & pumping stations

Water Treatment Plants (WTPs)

Water transmission pipelines

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DUAL PLATE CHECK VALVE

Compact Non-Return Protection with Non-Slam Performance

Product Overview: IO Valves Dual Plate Wafer Check Valves are compact, automatic non-return valves designed to prevent reverse flow in water supply, transmission, and distribution systems. The valve operates using two spring-assisted discs mounted on a central hinge, allowing smooth opening during forward flow and rapid closure as flow decelerates. The non-slam closing action minimizes pressure surges and water hammer, making the valve ideal for pumping systems and space-constrained installations. The wafer-type construction enables easy installation between standard flanges while maintaining low head loss and reliable sealing performance.

Key Features

- Spring-assisted dual disc design for rapid, non-slam closure
- Effective prevention of reverse flow and pressure surges
- Compact wafer construction with reduced face-to-face dimension
- Full flow passage ensuring low head loss
- Tight shut-off with resilient elastomer seating
- Suitable for horizontal and vertical (flow-up) installation
- Lightweight design for easy handling and maintenance

Design & Range

Size Range
DN 40 – DN 800

Pressure Rating
PN 6/ PN 10 / PN 16

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Design & Testing Standards

- Flange Drilling: EN1092-2
- Medium: Water
- Operating Temperature: -10°C to +80°

Material of Construction

- Body: Ductile Iron GJS 500/7
- Disc: Ductile CF8/CF8M/C954
- Seal: NBR/EPDM
- Spring: SS 304/ SS 316
- Washer: PTFE
- Rubber Strip: NBR / EPDM
- Plug/Eye Bolt: Carbon Steel
- Seat: NBR/EPDM
- Coating: Epoxy Powder Coating with Min.250µ

Typical Applications

Municipal Water Pumping Lines

Lift Irrigation Pumping Lines

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SWING CHECK VALVE

Simple & Reliable Backflow Prevention

Product Overview: IO Valves Swing Check Valves are designed to prevent reverse flow in water and wastewater pipeline systems. The valve operates through a hinged disc that opens with forward flow and closes automatically when flow stops or reverses, ensuring dependable non-return functionality. With a simple and robust construction, swing check valves are suitable for a wide range of general pipeline applications where reliable backflow prevention and minimal maintenance are required.

Key Features

- Effective prevention of reverse flow
- Simple hinged disc design for reliable operation
- Full bore flow path with low pressure loss
- Automatic closing without external power
- Suitable for horizontal and vertical installations
- Durable construction for long service life
- Low maintenance requirements

Design & Range

Size Range
DN 40 – DN 900

Pressure Rating
PN 10 / PN 16

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Design & Testing Standards

- Flange Drilling: EN1092-2
- Medium: Water
- Operating Temperature: -10°C to +80°C

Material of Construction

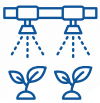
- Body: Ductile Iron
- Disc: Ductile Iron Encapsulated with EPDM
- Body Seat Ring: Brass
- Disc Seat Ring: Brass
- Washer/Nut/Cotter Pin/ Hinge Pin/ Plug/Bolt: SS 304
- Coating: Epoxy Powder Coating with Min.250µ

Typical Applications

Municipal Water Pumping Lines

Water Utility Lines

Booster Pumping Stations



Lift Irrigation Scheme Pumping Lines

IO VALVES
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DIAPHRAGM TYPE HYDRAULIC CONTROL VALVE

Integrated Solutions for Automatic Pipeline Control

Product Overview: IO Valves Hydraulic Control Valves are diaphragm-operated, pilot-controlled valves designed to automatically regulate pressure, flow, and level in water pipeline systems. Operating solely on line pressure, these valves require no external electrical power and provide reliable, fail-safe performance even in remote or unmanned installations. By combining a robust main valve with a modular pilot control system, a single hydraulic valve platform can be configured to perform multiple control functions based on project requirements.

Key Features

- Precise automatic control based on system pressure, flow, or level
- Straight-through flow design for low head loss and high flow efficiency
- Reinforced flexible EPDM diaphragm with nylon fabric reinforcement for extended service life
- Single moving assembly with simple internal construction & fewer moving parts
- Stable, noise-free operation with smooth modulation and no vibration
- Modular pilot control system supporting PRV, PSV, FCV, LCV, surge, and solenoid configurations
- SCADA and automation ready with solenoid-assisted control for remote ON/OFF operation via PLC/SCADA systems

Design & Range

Size Range
DN 50 – DN 800

Pressure Rating
PN 10 / PN 16/ PN 25

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Material of Construction & Standards

- Body: Ductile Iron (GJS 500-7)
- Bonnet: Ductile Iron
- Diaphragm: EPDM reinforced with nylon fabric
- Seat: Stainless Steel AISI 304 / 316
- Stem: Stainless Steel AISI 304 / 316
- Disc: Ductile Iron with EPDM sealing
- O-Rings: NBR
- Fasteners: Stainless Steel A2 / A4
- Coating: Fusion Bonded Epoxy ≥ 250 µm
- Operating Temperature: 0°C to 80°C
- Flange Standard: EN 1092-2

Available Control Functions

IO Valves Hydraulic Control Valves can be configured for the following applications by selecting appropriate pilot arrangements and accessories:

- **Pressure Reducing Control:** Automatically reduces and maintains downstream pressure to a preset value, protecting pipelines and end-user systems from excessive pressure.
- **Pressure Sustaining / Relief Control:** Maintains minimum upstream pressure or relieves excess pressure to safeguard pumping systems and transmission mains.
- **Flow Control:** Regulates flow rate to a preset maximum, ensuring controlled distribution and system balancing.
- **Level Control (Remote Float Control):** Maintains desired water level in tanks, reservoirs, and sumps using float-operated or pilot-based sensing.
- **Solenoid Control:** Enables remote ON/OFF control of the valve through electrical solenoid pilots, suitable for automation and SCADA integration.
- **Solenoid-Controlled Isolation:** Provides rapid and reliable pipeline isolation during emergency shutdowns or operational control.

Typical Applications

Reservoir inlet and outlet control

Water treatment plants

Pumping Stations & Water transmission pipelines

Irrigation networks

Pressure reducing stations, Pressure sustaining / relief systems

IO VALVES
India Private Limited

PLUNGER / NEEDLE TYPE CONTROL VALVE

Precise Flow Regulation & Cavitation Control

Product Overview: IO Valves Plunger (Needle) Type Control Valves are designed for accurate flow regulation, pressure control, and safe energy dissipation in high-pressure water systems. The axial movement of the plunger allows smooth throttling across a wide operating range while maintaining excellent hydraulic stability. These valves are ideally suited for applications involving high heads, variable flow conditions, and cavitation-prone locations such as pumping stations, transmission pipelines, and hydro projects.

Key Features

- Precise and stable flow regulation through axial plunger movement
- Low head loss in fully open position
- Effective cavitation, noise, and vibration control
- Bubble-tight shut-off with reliable sealing system
- Pressure-independent operation with low operating torque
- Gearbox-operated mechanism for smooth positioning
- Suitable for manual and electric actuator operation
- SCADA and automation compatible

Design & Range

Size Range
DN 65 – DN 1400

Pressure Rating
PN 10 / PN 16/PN 25/ PN 40/ PN 63

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APPROVED PRODUCT

IO VALVES
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Design & Testing Standards

- Medium: Water
- Operating Temperature: –10°C to +80°C
- Flange Standard: EN 1092-2

Material of Construction

- Body: Ductile Iron
- Cylinder: Stainless Steel (SS 304 / SS 316)
- Plunger / Disc: Stainless Steel (SS 304 / SS 316)
- Stem: Stainless Steel (SS 304 / SS 316)
- Sealing Surfaces: Stainless Steel
- Stem Nut: Bronze
- Sealing Gasket: EPDM
- O-Rings: EPDM / NBR
- Coating: Epoxy Powder Coating, minimum 250 microns

Typical Applications

Reservoir inlet and outlet control

Raw water intake and treatment plants

Water transmission and distribution pipelines

Irrigation and canal systems

Hydro electric power projects

Pump discharge and pump bypass systems

IO VALVES
India Private Limited

Quality, Standards & Certifications

IO Valves India operates under an integrated management system aligned with:

- ISO 9001 - Quality Management System
- ISO 14001 - Environmental Management System
- ISO 45001 - Occupational Health & Safety Management System

Precision machining and fabrication

Rigorous in-process and final inspection

Validated manufacturing processes

Complete material traceability

Compliance with IS, ISO, EN and other applicable standards

Epoxy coatings suitable for potable water applications

Our Clients

IO Valves India has partnered with a wide range of organizations across the public and private sectors, supplying reliable valve solutions for critical water and infrastructure projects. Our products are trusted by municipal bodies, government departments, EPC contractors, consultants, and industrial clients across India. With a focus on quality, timely delivery, and long-term performance, IO Valves continues to support projects that demand dependable engineering and consistent execution.

HMWSSB
HYDERABAD METROPOLITAN
WATER SUPPLY & SEWERAGE BOARD

Public Health and Municipal Engineering Department Telangana

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GOVERNMENT OF TELANGANA

AP RWS&S DEPARTMENT

जलम् प्रदेश जल निगम (आर्मी)
जलम् जीवनम्

VISHWA

GVPR
ENGINEERS LIMITED

GSK
WATER ENVIRO

meil

NCC
NCC Limited

Indian Hume Pipe

BRCo

RAYS
POWER INFRA

For Further Information, Please Contact:

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