# WE KNOW THE WORTH OF WATER

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# **ABOUT US**

**"YES"** make valves and accessories are used to ensure that water is distributed and regulated reliably from the source to the usage point. With a varied range of isolation, distribution and control valves, as well as various accessories and fittings for drinking water, Irrigation and wastewater systems, YES plays an important role in ensuring the system performance.

Continuous interaction with end users, consultants, operators and contractors involved in water supply, Irrigation, wastewater from different geographical locations is instrumental in providing YES Valve's design team a thorough grasp of what is called for. Solid works 3D software, CAD and design algorithm driven program is used extensively to conceive, design and draw-up new products and their variants and this is clearly reflects in the innovative design. Some of these designs are honed further by assessing valve characteristics vis-a-vis virtual flow analysis high end CFD software

We are deeply committed to find the best solutions for our customers and users in meeting the highest quality requirement. Our customers' requirements in terms of quality as well as the normative pressure, have been a great opportunity for us to improve our practices and set apart from our counterparts.



# **HIGH PERFORMANCE GATE VALVE :**

## Metal Seated Gate Valve





The purpose of the wedge shape is to ensure high supplementary seating load that enables metalsealed wedge gate valves to seal against not only high, but also low fluid pressure. The wedge shape also results in a seal on both sides of the gate. Since the wedge is in contact with the seats only when the valve is closed, the wedge gate valve offers a maximum resistance to wear, where turbulent flow is present.

## **Design Features**

- ► MOC: Ductile Iron/Cast Iron/ASTM A 216 Gr. WCB.
- Flanged end, Bolted bonnet
- ► Operation : Handwheel / Gear / Actuator
- ► Non-rising stem / Rising stem
- Paper Ind: Pressure rating up to PN 16 (50 to 2000 mm NB)
- ► Coal Ind: Suitable for Raw, Clear, Waste & Sea water
- Oil & Gas: Tailor made for special applications and corrosive fluids
- Bypass Arrangement
- Extended Stem

# Standards

- ▶ Manufacturing generally as per API 600 & IS 14846
- ▶ Face to face as per IS 14846 / ASME B16.10
- ▶ Testing as per IS 14846 / API 598

## Operation

 Manual thru hand wheel or gearbox / Electric / Pneumatic / Hydraulic / Head stock

## **Applications**

- ► Temperatures up to 200° C
- Higher pressures
- Aggressive mediums
- Industrial heating and cooling systems
- Transformer oil applications



## Resilient Seated Gate Valve



Resilient seat gate valves come with an elastomer-lined wedge. They are specially used for drinking water supply, wastewater and irrigation. Valves are of gland-less design and thus 100% leakproof. Low operating torque makes the valves easy to operate. These valves have a longer life and are maintenance - free too. They can be buried directly under the ground without constructing any valve chamber. The waterway is clear, unobstructed and free from pockets to allow smooth flow of water. Valves have corrosion-resistant fusion bonded epoxy coated body and bonnet.

#### **Design Features**

- ▶ MOC: Grey Cast Iron/Ductile Iron
- ► SIZES: DN 50-600mm (Larger sizes available on request)
- Light weight design
- Low operating torque
- Lower operation forces&Extended lifetime
- Less wear&Smaller actuators
- Valves are of non-rising spindle type
- ► (Rising spindle type can be offered on request)
- ▶ Pressures greater than 16 bar.

### Standards

- ► Manufacturing generally as per IS 14846
- ▶ Face to face as per IS 14846
- ► Testing as per IS 14846

## **Applicable Standards**

- Resilient seated to EN 1171
- ▶ Face-to-face to IS 14846/ EN 558-1
- ► Elastomer approved in acc. with WRAS
- ▶ Testing as per IS 14846

#### **Operation**

 Valve supplied with Cap / Handwheel / Gearbox / Electric actuator

## **Applications**

- ▶ Temperatures up to 50° C
- Mostly water applications
- Sewage application

Gate valves are widely used for various applications and are suitable for both above ground and underground installation. These valves are designed for fully open or fully closed service. Normally Gate valves are installed in pipelines as isolating valves.

# **BUTTERFLY VALVES**



Butterfly valves have widespread usage among diverse industries and applications such as water supply, wastewater treatment, fire protection, gas supply, fuel handling, pharmaceutical, chemical and oil, food etc. These valves are available in very large sizes and are suitable for handling slurries, and liquids with relatively large amounts of solids at low pressures.

Butterfly valve is essentially a quarter turn, shut-off valve with a relatively simple construction. In closed position, the disc blocks the valve bore; while in open position, the disc is turned to allow flow. The valves can be operated by levers, gears or actuators according to your specific need.

## Manufacturing & testing standard

General Design & Manufacturing : IS13095/API609/EN593(BS5155) Valve Inspection & Testing : IS13095/API598/EN12266

## ► Wafer-style

A wafer-style butterfly valve is the most economical version and it is sandwiched between two pipe flanges. The pipe flanges are connected through long bolts that cross the entire valve body.

- ▶ MOC: Cast Iron/ Ductile Iron
- ▶ Size [50 NB to 700 NB]
- ▶ Bi directional shut off valve
- ▶ PN 10 / 16
- Cast Iron / DI body with fully vulcanized liner seat preventing corrosion between liner and body
- Disc in SS Cf8 / CF8M / DI powder coating
- Operation by Lever, Gear or Electric actuator
- For manual operation Lever up to 200 NB and larger with Worm Gear box
- Suitable for easy installation between flanges PN10, PN16, 150#
- ► No need of a separate gasket for installation





## Lug-style



The lug-style butterfly valve has threaded inserts (lugs) outside the valve body. Two sets of bolts connect pipe flanges to each side of the bolt inserts without nuts. This design enables the disconnection of one side without affecting the other for dead-end service. The lug-style butterfly valves, unlike the wafer-style, carry the weight of the piping through the valve body.

- Size :[50 NB to 700 NB]
- > Allows bi-directional flow of fluid and provides air tight shut-off at full rated pressure
- ► Valve body and disc can be of ductile cast iron and Cast steel.
- ▶ Rigid and sturdy design with minimum loss of head across the valve
- Ease of operation, low operating torques
- ► Compact, light-weight and Can be easily installed or replaced
- ► Need very little maintenance and Long service life; Wear resistant
- Surface protection with epoxy paint
- Long and short face-to-face length

# Flanged End





The double flanged body pattern ensures precise installation in pipeline, and can be used as an end to the line valve. The unique feature of this valve is its adaptability for lined pipes, due to negligible disc protrusion beyond the body laying length. Suitable for easy installation between flanges.

## Design

- ► MOC: Ductile Iron (DN600-2400)/above larger sizes available (fabricated) on request.
- ► CENTRIC Double Flanged Butterfly Valve (50-600 NB)-
- ► ECCENTRIC Double Flanged Butterfly Valve (600-2400 NB)
- ▶ Pressure rating PN 6 to PN 16 for Size to 2400 mm NB
- Manufactured in GGG50 with a variety of shaft and trim materials for service conditions / Cast Iron.
- ► High Grade materials Seat Ring, Disc and Shaft materials are selected for service conditions from SS 304, 316 to Super Duplex.
- ► Gearbox design to IP67 or IP68 for buried and submersible service
- ▶ Power operation electric / pneumatic / hydraulic

# NON RETURN VALVES/ CHECK VALVE



# Dual plate check



Check valve/non-return valve (NRV) allows a medium to flow in only one direction. Non return valve is mainly used to restrict the flow of a fluid in reverse direction so that a fluid flows in the right direction.

Dual plate check valve is an all-purpose Non return valve that is lighter in weight, smaller in size compared to a conventional swing check valve.

The Dual Plate Check Valve employs two spring-loaded plates hinged on a central hinge pin. With decreasing flow, the plates close by spring action.

Proper alignment while installing is vital; mis-alignment can leave the plates hanging only to be slam shut by the reverse flow thus adding to the surge.

## **Features**

- Design & mfg. std. API594
- ► Size: 50 600mm
- ▶ Pressure rating PN 10 and PN 16
- ► Inspection & testing std : EN12266.1/API598
- Body and disc can be given in Ductile iron or grey cast iron
- Soft seating ensures zero leakage
- End connection: wafer type or flanged end as per size.



# Swing Check Valves



Swing Check Valves are used to prevent the back flow of fluid by closing before flow reversal, thereby preventing slam and water hammer. Swing Check Valves have been successfully installed in clean and dirty applications including sewage treatment, water treatment, water distribution, Irrigation and wastewater services.

- ▶ sizes :50-1700mm
- ▶ Pressure rating : PN10 and PN 16 / 150#
- Closure control devices include Air Cushioned Cylinder, Oil Controlled Cylinder, Bottom Mounted Buffer, Lever & Spring and Lever & Weight (Optional).





# **Ball Type Check Valve**

A ball check valve is a simple and reliable valve with the only moving part to block the reverse flow, is a spherical ball. The full-ported valve seat is uniquely designed allowing the ball to seat leak-tight without getting wedge into the valve seat.

Ball check valves provide backflow checking inside a piping system. Pressure lifts the valve in a conical shaped valve body, allowing for flow in the designed direction and using gravity to close the valve when flow pressure decreases.



## **TECHNICAL DATA**

Design & Mfg Std	:	BS 5155	
Insp & Test Std	:	IS 5312 Part I-1984	
Range	:	50mm To 200mm	
Pressure Rating	:	150#, PN10	
End Connection	:	Flange End As Per B16.5	
Мос	:	C.I/C.S	
Trims	:	Nitrile Ruber Coated Wooden Ball	
Seat	:	Nitrile, EPDM	

# Non slam check valve

Non-slam check valves are designed specifically as per requirement. As their name implies, these valves close without slamming, meaning no excess pressure spikes are created. The disc of a nonslam check valve has an internal spring opposing the opening fluid flow pressure.



## **TECHNICAL DATA**

Design & Mfg Std : API6D Range Pressure Rating End Connection Moc Trims Operation

Insp & Test Std : En12266-1/API598 25mm To 150mm : 150#, PN10, PN16 : Wafer Type To Suit-ASME B16.5 150# /PN10/PN16 : C.I/WCB/CFB/CF8M : S.S410/S.S304/S.S316 : Auto (Lift Type NRV)

# Wafer check valves

Wafer check valves are designed to be slim and unlikely to clog. This design makes them ideal for use with materials containing solid particles or debris. This type of valve can be mounted either vertically or horizontally, as long as the back pressure required to seat the check valve is sufficient



## **TECHNICAL DATA**

Design & Mfg Std : Insp & Test Std : Range : Pressure Rating : 150#, PN10, PN16 End Connection : Wafer To Suit Moc Trims Seat

API6D En12266-1/API598 50mm To 300mm C.I/WCB/CFB/CF8M S.S.410/S.S.304/S.S.316 Nitrile, EPDM, Teflon

# **AIR VALVE**



We offer an excellent range of air release valves for most applications. We have single, double and triple function versions in Cast Iron/ Ductile Iron GGG50 with Stainless Steel Trim suitable for both clean water and Irrigation applications.

Suitably designed "YES" air valves carry out the following functions :

- Automatically exhaust air from the pipeline during filling
- Release air accumulating during pressurised operation
- Admit air when the pipeline is emptying

Air release valves are installed at the highest points in a pipeline where air naturally collects. Air bubbles enter the valve and displace the liquid inside, lowering the liquid level. When the level drops to where it no longer buoys the float, the float drops.

# ► Single chamber, double orifice, triple function Air valve

#### **Salient Features**

- Most compact design and very few parts
- Completely tamper-proof
- Performs triple action i.e; aeration of pipeline when emptying, ventilation of pipeline when filling and venting the pipeline under full operating pressure
- Bend can be given on request
- ► Valve body is of Ductile Iron/ Cast Iron
- Rating : PN 1.6 and PN 10
- ► End connection : Flanged end
- ► Epoxy coated surface protection
- ► Inside metal parts are made of stainless steel
- ► Steel/Timber Wood with Rubber Coating



# "YES VALVES TOTAL SOLUTIONS"





# **Kinetic Air valve**





Pipe lines must breathe, inhale air when being emptied (to prevent collapse) or exhale when being charged with water. And while the pipeline is running full, the dissolved air in water must be purged from time to time to ensure optimum health of the system.

An isolating valve must essentially be provided below the air valve to isolate it for carrying out maintenance in the air valve, with the pipe line below running full.

#### **Salient Features**

- High rate of air discharge and ventilation
- ► Can be made tamper-proof
- ► Effective sealing and long life
- Valve body and cover is of Grey cast iron / Ductile iron
- Rating : PN 1.0 / PN 1.6
- ► Floats material Stainless steel
- ► Coating : Epoxy coated surface protection

- ▶ Mfg. Std.: IS 14845
- ► END Connection : IS 1538
- ► MOC:CI/DI
- Float : Timber Core Rubber Moulded or SS Float

# **STRAINERS**





Strainers are used as a filter to separate solid particles from water or other fluid, flowing through a pipeline or a system. They can catch dirt and debris in the water which makes them useful in the plumbing situations.



МОС	:	Ductile Iron/ Carbon Steel/ MS/ Bronze/ SS
Construction	:	Bolted Cover 'Y' Type Flanged End Fabricated Strainer
Design & Mfg Std	:	ASME B16.34
Insp & Test Std	:	As Per API-598/BS 6755-PT-1
Face To Face	:	As Per ASME B16.10/DIN - 3202 - Fl
End Connection	:	Flanged As Per ASME B16.5 RF - Serrated Face

# **BALL VALVES**





#### Feature

- ► Blowout-proof Steam
- ► High Performance PTFE Ball Seat
- Actuator Mounting Pad to ISO 5211

#### **Technical Data**

#### 2 PC Ball Valve

DESIGN & MANUFACTURING STD: BS EN ISO 17292 / ASME B16.34 END CONNECTIONS: FLANGE ENDS TO ASME B16.5, 150#/ 300# FACE TO FACE: ASME B16.10 TEST & INSPECTION STANDARDS: BS EN2266-1 RATING: PN10 , PN16 , 150# , 300#

#### 2 PC Ball Valve

DESIGN & MANUFACTURING STD: BS EN ISO 17292 / ASME B16.34 END CONNECTIONS: FLANGE ENDS TO ASME B16.5, 150#/ 300# FACE TO FACE: ASME B16.10 TEST & INSPECTION STANDARDS: BS EN2266-1 RATING: PN10 , PN16 , 150# , 300#

#### 3 PC Ball Valve

DESIGN & MANUFACTURING STD: BS EN ISO 17292 / ASME B16.34 END CONNECTIONS: FLANGE ENDS TO ASME B16.5, 150#/ 300# FACE TO FACE: ASME B16.10 TEST & INSPECTION STANDARDS: BS EN2266-1 RATING: PN10 , PN16 , 150# , 300# (800# on request)

# **KNIFE GATE VALVES**





Knife gate valves are designed mainly for on-off and isolation services in systems with high content of suspended solids. Knife gate valves are especially beneficial for handling slurry, viscous, corrosive and abrasive media. The valves have a minimised pressure drop in fully open position, they are easy to actuate, they have a relatively low weight and are cost effective.

Knife gate valves are designed to work in some of the harshest environments, typically having a sharpened blade to cut through heavy liquids.

They are especially useful in wastewater applications where corrosion is an important issue. So, in addition to the valve design optimised for slurry media, it is beneficial to have a knife made of acidproof stainless steel as this makes it less susceptible to damages caused by corrosion and as a consequence it needs less frequent maintenance or even replacement.

Knife gate valves should only be used for applications requiring a completely open or completely closed position and should not be used to regulate flow unless they are designed for it. Whenever fluid is forced against a partially closed gate, there will be a vibration, gradually eroding the disc and seat. In addition, the knife gate valves are designed to slowly open and close to safeguard against the impacts of water hammer.

Both types can be used in applications involving:

<ul><li>Slurries</li><li>Heavy oils</li></ul>	Construction	: 'OS' & 'Y' Type Rising Stem & Non Rising Hand Wheel, Metal Seated, Wafer Type, Uni Directional Knife Edge Gate Valve
<ul> <li>Non-flammable viscous fluids</li> </ul>	Design & Mfg Std	: As Per MSS-SP-81
► Wastewater	Insp & Test Std	: As Per MSS-SP-81/MSS-SP-61
<ul> <li>Clean water</li> </ul>	Face To Face End Connection	: As Per Mss-SP-81 : Wafer To Suit As Per ASME B16.5 RF Flanges

# **DISMANTLING JOINT**





To enhance our pipeline products offering we offer a range of Dismantling Joints designed to provide additional flexibility at both the planning and installation stages of pipeline systems.

Dismantling Joint is a double flanged fitting that allows longitudinal adjustment in flanged pipe systems. They play a decisive role in the design and layout of pipelines and valves. They are an essential aid during the installation and removal of pipe sections and valves. They provide greater flexibility at both the planning and installation stages of flanged piping systems.

#### **Features**

- Longitudinal adjustment :Depending on diameter, longitudinal adjustments do vary. Once the required length is achieved, the Dismantling Joint can be locked at that length with the tie bars. This longitudinal adjustment allows fast and simple maintenance of valves, pumps etc. and simplifies future piping modifications, if required. This results in reduced down time and also eliminates the need for more complex anchoring systems.
- Ease to install
- Proper sealing ensured as the gasket is compressed to the required torque.
- ▶ sizes : 50-2400mm
- ▶ Pressure rating : PN10, PN16 and PN 25
- Constructed with a heavy ductile iron body and Cast iron.

The Dismantling Joint is particularly suitable for simplifying the installation and removal of :

- Isolation valves
- Non return valves
- Flow metering equipment
- Pump sets
- Pressure reducing valves
- Flanged pipe and fittings

# **PP / PVC BALL VALVES**





PVC (PolyVinyl Chloride) ball valves are widely used plastic shut off valves. The valve contains a rotary ball with a bore at the center.

A 2-way PVC ball valve is a straight ball valve with 2 ports, an inlet, and an outlet. The media only flows in one direction in such valves, and they are considered inline with the rest of the assembly. These valves can be either open or closed. The valve's quarter-turn feature makes it easier to use and to detect if the valve is open or closed. If the valve's handle is parallel to the pipe or hose, the valve is open, and the media will flow from the inlet, through the ball's bore, and out the outlet. If the handle is perpendicular to the pipe or hose, the valve is closed, and the media flow is shut off.

#### Feature

- Lightweight, durable, and long service life
- ► Recyclable and relatively low impact on the environment in comparison with other plastics
- ▶ No corrosion. Resistant to many chemicals, acids, and bases
- ► Often used for Irrigation applications, such as micro-irrigation.
- ▶ Most PVC ball valves up to DN200 have a maximum pressure rating of Pn16.
- ► SIZES: 1/2"inch to 5"inch

# **PP/ PVC BUTTERFLY VALVES**





PVC butterfly valves can both isolate and regulate flow in a system. These valves work in similar fashion to a ball valve, allowing for a fast shut off when necessary. They are a bit more affordable than ball valves of similar sizes, and also weigh less, so they do not require as much support as ball valves. PVC butterfly valves can be used in a variety of applications where precise flow pressure is not required, such as irrigation, food processing, chemical processing, manufacturing and home plumbing systems.

# **FLANGES & FASTENER**

Flanges are used to connect pipes with each other, to valves, to fittings, and to specialty items such as strainers and pressure vessels.. Flanges are joined by bolting, and sealing is often completed with the use of gaskets or other methods.

YES make Stainless Steel Flanges of different shapes and sizes and with different specifications as per the customers' requirement.

### **Specifications**

- ► Body: PVC
- ► Disc : PVC
- ► Seats & Seals : EPDM
- ► End Connections : Wafer : 1 1/2" to 12"
- ► Temperature Range : 32°F to 140°F





# QUICK RESPONSE & VALUE ENGINEERING CENTER



### Y CUBE A Repair Intelligence

Y CUBE provides factory authorized valve repair, Actuation, Modification & Installation services to a broad spectrum of end-users like Power, Oil & Gas and other industries. Our 20,000 sq. ft. facility is located in Ahmedabad, Gujarat.

## The Critical Valve Performance Services Company

As a technically led organization our focus is on the critical flow control and safety isolation valves which affect production performance or safety compliance.

We offer a definitive service, configured to investigate condition and operating performance and provide a series of options and solutions for improvement.

# Services for Valves Repair and Actuation Repair

Y CUBE's service centers restore your assets to industry standards with factory warranties & installation support.

- Disassembly
- ► Inspection
- Parts replacement and reassembly
- Testing and recertification
- Painting and coating

#### **Parts and Spare Valves**

Y CUBE's Service facilities maintain a full inventory of new and reconditioned spare valves, actuators, and parts for immediate delivery.

- ▶ 24/7, 365 days a year support
- ► OEM spare valves, actuators, and parts
- Handling, storage, packaging, and delivery
- Dedicated stocking program

#### **Field Services**

Unlike other valve manufacturers, Y CUBE has an established network of strategically located field service centers that offer a full range of installation, repair, inspection, testing, spare parts, and maintenance services.

- ▶ 24/7 field service support and emergency mobilization
- Portable onshore trailers and offshore containers
- Preventive maintenance

Torque testing

#### **Equipment Testing and Diagnostics**

Y CUBE's engineers and technical experts offer comprehensive valve testing and recertification services.

- Hydrostatic testing 
   Fugitive emissions testing
- Leak detection
   PSV testing and recertification
  - Control valve diagnostics and repair



Refurbishment of 30 Inch Pump Check Valve and its Pneumatic actuator of IPS main pump P-201 and P-202 at Bhandup Pumping Station of Sewerage Operations Department, Municipal Corporation of Greater Mumbai, (MCGM).

#### Initial Condition of Product While received at our Plant Phase-I: Dismantling of Valves



Phase-II: UT & Hydro Test



**Phase-III:** 1. Machining of Body & Cover



2. Cu–Blasting of Body & Cover







Phase- IV: Glass flack coating of Valve and Fabrication of trims



Phase- V: Actuation and Assembling



**Valve After Refurbishment** 





# **OUR SERVICE OFFERING**

The Y Cube Total Care offering consists of well-defined standardized service packages. Choose the package that meets your needs, without the need for lengthy discussions. Since the service scope and price are defined in advance, you pay only for the services you require. Customized service packages, however, are available upon request.





Design and Consultancy



Installation and Commissioning



Maintenance Contract



Repair and Maintenance



Monitoring and Supervision



Rental and onsite service



Plant Operation and Maintenance



Parts and logistics



Financial Service



Asset Refurbishment



Training and Technical Support



Inspection and Auditing



# WE KNOW THE WORTH OF WATER

# MANUFACTURED BY YCUBE Engineered Solutions Pvt. Ltd.

## **HEAD OFFICE**

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## **OUR PRESENCE**

Ahmedabad Banglore Hyderabad Noida NewDelhi Mumbai Bhubaneswar

# **Overseas: UAE | GCC | Thailand**

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