

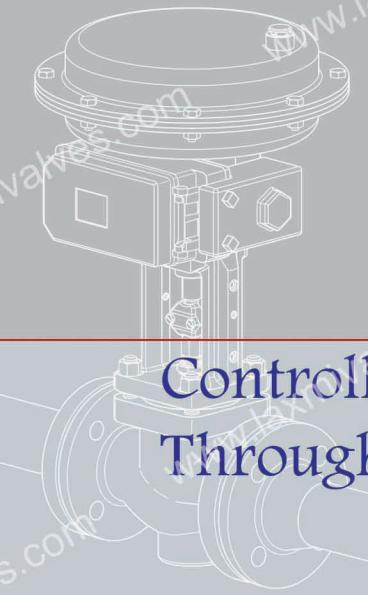


# LAXMI ENGINEERING CO.

ISO 9001:2015 Certified Company

HIGH QUALITY VALVE  
DELIVERING EXCELLENCE





## Controlling Fluid ... Through Laxmi Valve

### PRODUCT RANGE: CAST IRON/DUCTILE IRON & CAST STEEL VALVES

|                             |                   |
|-----------------------------|-------------------|
| SLUICE VALVE                | 50 MM TO 1500 MM  |
| BUTTERFLY VALVE             | 50 MM TO 2000 MM  |
| NON RETURN VALVE            | 50 MM TO 1500 MM  |
| DUAL PLATE VALVE            | 50 MM TO 2000 MM  |
| AIR VALVE                   | UP TO 200 MM      |
| GLOBE VALVE                 | 50 MM TO 400 MM   |
| SLUICE GATE                 | UP TO 2500 MM     |
| BALL VALVE                  | 15 MM TO 200 MM   |
| FOOT VALVE                  | UP TO 600 MM      |
| TAMPER PROOF AIR VALVE      | 40 MM TO 300 MM   |
| KNIFE GATE VALVE            | 50 MM TO 1200 MM  |
| DIAPHRAGM VALVE             | UP TO 200 MM      |
| FIRE HYDRANT VALVE          | UP TO 100 MM      |
| BALL FLOAT VALVE            | UP TO 600 MM      |
| PRESSURE RELIEF VALVE       | UP TO 200 MM      |
| ANTI VACUUM VALVE           | UP TO 380 MM      |
| PLUG VALVE                  | UP TO 250 MM      |
| BASKET & Y- STRAINER        | UP TO 600 MM      |
| RESILIENT SEATED GATE VALVE | 50 MM TO 1200 MM  |
| SLANTED SEATED CHECK VALVE  | 200 MM TO 1000 MM |
| SINGLE CHAMBER AIR VALVE    | 40 MM TO 200 MM   |
| OPEN CHANNEL GATE           | UP TO 3000 MM     |
| C.S./S.S. GATE VALVE        | 50 MM TO 600 MM   |
| C.S./ S.S. GLOBE VALVE      | 50 MM TO 450 MM   |
| C.S. / S.S. CHECK VALVE     | 50 MM TO 600 MM   |
| F.C.S. / F.S.S. GATE VALVE  | UP TO 50 MM       |
| F.C.S. / F.S.S. GLOBE VALVE | UP TO 50 MM       |
| F.C.S. /F.S.S. CHECK VALVE  | UP TO 50 MM       |
| G.M. GATE / GLOBE / CHECK   | UP TO 100 MM      |
| EXPANSION BELLOW            | UP TO 2000 MM     |
| EXPANSION JOINT             | UP TO 2000 MM     |
| DISMANTLING JOINT           | UP TO 2000 MM     |
| AIR CUSHION VALVE           | UP TO 300 MM      |
| ZERO VELOCITY VALVE         | UP TO 2000 MM     |

### ABOUT US

with a considerable industry experience, we have become one of the prominent manufacturers and suppliers of quality Industrial Valves. Our range of products as stated. These products have been gaining a huge popularity among clients for their durability, precision designing, dimensional accuracy and resistance to corrosion. Our products are widely demanded by the clients, because of their applicability in various applications. These products are made available by us in the nationwide markets for our valuable clients. Our policy has aim to satisfy its customers by manufacturing & supplying of valves of committed quality of Competitive price with prompt services.

- We realize your need



## SLUICE VALVES

(NON RISING STEM,  
FLANGED ENDS)



### Standard Specifications

|                                   |                                                             |
|-----------------------------------|-------------------------------------------------------------|
| Size                              | : 50mm to 1500mm                                            |
| Design Std.                       | : IS 14846/2000 or<br>BS 5150 or BS 5163                    |
| Pressure rating                   | : PN 1.0 or PN 1.6                                          |
| Ends connection                   | : IS1538/93 (Tab-4&6), (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>                  |                                                             |
| Body, Wedge &<br>other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260                              |
| Stem                              | : S.S. / Brass                                              |
| Seat ring                         | : Bronze / S.S.                                             |
| Operation by                      | : Cap, H/Wheel, Gear, Electrical<br>Actuator                |
| Others Features                   | : By-pass, Extn. shafting &<br>headstock etc.               |
| Application                       | : Water Works                                               |

## NON RETURN VALVES

(SWING TYPE, FLANGED  
ENDS)



### Standard Specifications

|                                  |                                                             |
|----------------------------------|-------------------------------------------------------------|
| Size                             | : 50mm to 600mm                                             |
| Design Std.                      | : IS 5312(Part-1)/2004 or BS 5153                           |
| Pressure rating                  | : PN 1.0 & PN 1.6                                           |
| Ends connection                  | : IS1538/93 (Tab-4&6), (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>                 |                                                             |
| Body, Disc &<br>other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260                              |
| Hinge Pin                        | : S.S. / Brass                                              |
| Seat ring                        | : Bronze / S.S.                                             |
| Disc face                        | : Natural Rubber                                            |
| Operation                        | : Self / Counter weight<br>with dashpot arrgt.              |
| Others Features                  | : By-pass arrangement                                       |
| Application                      | : Water & Sewage                                            |

## BUTTERFLY VALVES

(WAFER / WEFER LUGGED  
& FLANGED ENDS)



### Standard Specifications

|                  |                                                  |
|------------------|--------------------------------------------------|
| Size             | : 50mm to 600mm                                  |
| Design Std.      | : IS 13095 or BS 5155 or AWWA<br>C-504           |
| Pressure rating  | : PN 1.0 & PN 1.6                                |
| Ends connection  | : Suit to IS/BS/ANSI/DIN<br>& AWWA flanges       |
| <b>Materials</b> |                                                  |
| Body             | : C.I., IS: 210 Gr.FG-200 /260                   |
| Disc             | : C.I./D... (Epoxy Coated)                       |
| Lining/Seating   | : Nitrile/EPDM rubber                            |
| Shaft            | : S.S. 410/304/316/431                           |
| Operating by     | : Lever, Gear, Electrical,<br>Pneumatic Actuator |
| Application      | : Water Systems                                  |

## NON RETURN VALVES

(MULTI DOOR TYPE,  
FLANGED ENDS)



### Standard Specifications

|                                  |                                                             |
|----------------------------------|-------------------------------------------------------------|
| Size                             | : 600mm to 1500mm                                           |
| Design Std.                      | : IS 5312(Part-II)/1986<br>or G&K Catalogue                 |
| Pressure rating                  | : PN 1.0 & PN 1.6                                           |
| Ends connection                  | : IS 1538/93 (Tab-4&6) (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>                 |                                                             |
| Body, Disc &<br>other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260                              |
| Hinge Pin                        | : S.S. / Brass                                              |
| Seat ring                        | : Bronze / S.S.                                             |
| Disc face                        | : Natural Rubber                                            |
| Operation                        | : Self                                                      |
| Others Features                  | : By-pass arrangement                                       |
| Application                      | : Water & Sewage                                            |

## BUTTERFLY VALVES

(FLANGED / WAFER ENDS)



### Standard Specifications

|                                  |                                                             |
|----------------------------------|-------------------------------------------------------------|
| Size                             | : 200mm to 2000mm                                           |
| Design Std.                      | : IS 13095 or BS 5155<br>or AWWA C-504                      |
| Pressure rating                  | : PN 1.0 & PN 1.6                                           |
| Ends connection                  | : IS 1538/93 (Tab-4&6) (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>                 |                                                             |
| Body, Disc &<br>other C.I. parts | : C.I., IS : 210 Gr.FG-200 /260                             |
| Shaft                            | : S.S. 410/304/316/431                                      |
| Seat ring                        | : S.S., 304/316                                             |
| Disc Seal                        | : Nitrile/EPDM rubber                                       |
| Operating by                     | : Worm Gear, Electrical,Hydraulic<br>Actuation              |
| Application                      | : Water Systems                                             |

## DUAL DISC CHECK VALVES

(FLANGED / WAFER ENDS)



### Standard Specifications

|                                  |                                                             |
|----------------------------------|-------------------------------------------------------------|
| Size                             | : 50mm to 2000mm                                            |
| Design Std.                      | : API 594 or API 6D                                         |
| Testing Std.                     | : API 598                                                   |
| Pressure rating                  | : PN 1.0/1.6 or CL 125                                      |
| Ends connection                  | : IS 1538/93 (Tab-4&6) (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>                 |                                                             |
| Body, Disc &<br>other C.I. Parts | : C.I., IS : 210 Gr.FG-200 /260                             |
| Hinge Pin                        | : S.S. 410/304/316/431                                      |
| Seat ring                        | : S.S. / Bronze                                             |
| Disc Seal                        | : EPDM/Nitrile Rubber                                       |
| Operation                        | : Self                                                      |
| Application                      | : Water & Sewage                                            |

## AIR RELEASE VALVES

(SINGLE / DOUBLE  
ORIFICE TYPE)



### Standard Specifications

|                                   |                                                       |
|-----------------------------------|-------------------------------------------------------|
| Size                              | : 15 mm to 200mm                                      |
| Design Std.                       | : IS 14845/2000 or G&K Catalogue                      |
| Pressure rating                   | : PN 1.0 & PN 1.6                                     |
| Ends connection                   | : IS1538/93 (Tab-4&6), & Screwed end to IS:554 & BSPT |
| <b>Materials</b>                  |                                                       |
| Body, Cover &<br>other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260                        |
| Seat Ring                         | : Moulded Nitrile/Natural                             |
| Orifice Nipple                    | : Bronze / S.S.                                       |
| Float                             | : Rubber/Ebonite/S.S.                                 |
| Trim                              | : Bronze/S.S.                                         |
| Operation                         | : Self                                                |
| Application                       | : Water Systems                                       |

## KINETIC AIR VALVES

(WITH ISOLATING  
SLUICE VALVE)



### Standard Specifications

|                                   |                                                              |
|-----------------------------------|--------------------------------------------------------------|
| Size                              | : 40mm to 200mm                                              |
| Design Std.                       | : IS14845/2000 or G&K Catalogue                              |
| Pressure rating                   | : PN 1.0 & PN 1.6                                            |
| Ends connection                   | : IS 1538/93 (Tab-4&6), (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>                  |                                                              |
| Body, Cover &<br>other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260                               |
| Orifice Nipple                    | : Bronze / S.S.                                              |
| Float                             | : Rubber/Ebonite/S.S.                                        |
| Trim                              | : Bronze/S.S.                                                |
| Operation                         | : Self/Manual                                                |
| Application                       | : Water Systems                                              |

## GATE VALVES

(RISING / NON RISING  
STEM, FLANGED ENDS)



### Standard Specifications

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| Size            | : 50mm to 1500mm                                            |
| Design Std.     | : IS 14846/2000 or BS 5150 or BS 5163                       |
| Pressure rating | : PN 1.0 or PN 1.6                                          |
| Ends connection | : IS 1538/93 (Tab-4&6) (Flange on request) BS/ANSI/AWWA/DIN |

### Materials

|                                |                                            |
|--------------------------------|--------------------------------------------|
| Body, Wedge & other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260             |
| Stem                           | : S.S. / Brass                             |
| Seat ring                      | : Bronze / S.S.                            |
| Operation by                   | : Cap, H/Wheel, Gear, Electrical Actuator  |
| Others Features                | : By-pass, Extn. shafting & headstock Etc. |
| Application                    | : Water Works                              |

## GLOBE VALVES

(STOP & CHECK TYPE,  
FLANGED ENDS)



### Standard Specifications

|                 |                                                              |
|-----------------|--------------------------------------------------------------|
| Size            | : 50mm to 450mm                                              |
| Design Std.     | : IS 9338/84 or BS 5152                                      |
| Pressure rating | : PN 1.0 & PN 1.6                                            |
| Ends connection | : IS 1538/93 (Tab-4&6), (Flange on request) BS/ANSI/AWWA/DIN |

### Materials

|                               |                                            |
|-------------------------------|--------------------------------------------|
| Body, Disc & other C.I. parts | : C.I., IS: 210 Gr.FG-200/260              |
| Stem                          | : S.S. / Brass                             |
| Seat ring                     | : Bronze / S.S.                            |
| Operation by                  | : H/Wheel, Bevel Gear, Electrical Actuator |
| Application                   | : Water Works                              |

## PRESSURE RELIEF VALVES

(Spring Loaded Type)



### Standard Specifications

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| Size            | : 50mm to 200mm                                             |
| Design Std.     | : G&K Catalogue                                             |
| Pressure rating | : PN 1.0 & PN 1.6                                           |
| Ends connection | : IS 1538/93 (Tab-4&6) (Flange on request) BS/ANSI/AWWA/DIN |

### Materials

|                               |                                |
|-------------------------------|--------------------------------|
| Body, Disc & other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260 |
| Stem                          | : S.S. 410/304                 |
| Seat ring                     | : Bronze / S.S.                |
| Disc Seal                     | : Natural/Nitrile Rubber       |
| Operation by                  | : Self (Adjustable type)       |
| Application                   | : Water Works                  |

## AIR VALVES

(TAMPER PROOF TYPE))



### Standard Specifications

|                 |                                                              |
|-----------------|--------------------------------------------------------------|
| Size            | : 40mm to 200mm                                              |
| Design Std.     | : AWWA C 512 or G&K Catalogue                                |
| Pressure rating | : PN 1.0 & PN 1.6                                            |
| Ends connection | : IS 1538/93 (Tab-4&6), (Flange on request) BS/ANSI/AWWA/DIN |

### Materials

|                                |                               |
|--------------------------------|-------------------------------|
| Body, Cover & other C.I. parts | : C.I., IS: 210 Gr.FG-200/260 |
| Orifice                        | : Bronze / S.S.               |
| Float                          | : S.S.                        |
| Orifice Seal                   | : Nitrile (Rolling seal type) |
| Operation                      | : Self                        |
| Application                    | : Water Systems               |

## FOOT VALVES

(LIFT / SWING TYPE)



### Standard Specifications

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| Size            | : 50mm to 600mm                                             |
| Design Std.     | : IS 4038 or ASA or G&K Catalogue                           |
| Pressure rating | : PN 0.4                                                    |
| Ends connection | : IS 1538/93 (Tab-4&6) (Flange on request) BS/ANSI/AWWA/DIN |

### Materials

|                               |                                |
|-------------------------------|--------------------------------|
| Body, Disc & other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260 |
| Shaft/Pin                     | : S.S. 410/304                 |
| Seat ring                     | : Bronze / S.S.                |
| Disc Seal                     | : Natural/Nitrile Rubber       |
| Strainer                      | : C.I. / M.S.                  |
| Operation                     | : Self                         |
| Application                   | : Water Works                  |

## BALL VALVES

(FLANGED / SCREWED / SOCKET TYPE)



### Standard Specifications

|                 |                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------|
| Size            | : 15mm to 200mm                                                                             |
| Design Std.     | : BS 5351 or BS 5159                                                                        |
| Pressure rating | : PN 1.0 & PN 1.6                                                                           |
| Ends connection | : IS 1538/93 (Tab-4&6), (Flange on request) BS/ANSI/AWWA/DIN & Screwed end to IS:554 & BSPT |

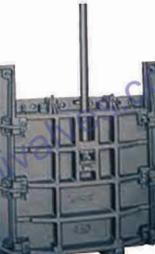
### Materials

|                         |                                |
|-------------------------|--------------------------------|
| Body & other C.I. parts | : C.I., IS: 210 Gr.FG-200 /260 |
| Stem                    | : S.S. 410/304/316             |
| Seat/Seal               | : PTFE/Teflon                  |
| Float/Ball              | : S.S. 304/316                 |

Operation by : Lever, Gear, Electrical, Pneumatic Actuation

## SLUICE GATE

(THIMBLE MOUNTED  
RISING SPINDLE)



### Standard Specifications

|                 |                                 |
|-----------------|---------------------------------|
| Size            | : 200mm to 2500mm               |
| Design Std.     | : IS 13349/92 or AWWA C 501     |
| Pressure rating | : CLASS-1/2/3                   |
| Ends connection | : Thimble Mounted               |
| Opening         | : Circular/ Square/ rectangular |
| Head of water : | : Seating / Unseating           |

### Materials

|                                |                                              |
|--------------------------------|----------------------------------------------|
| Frame, Door & other C.I. parts | : C.I. IS: 210 Gr.FG-200 /260                |
| Thimble                        | : C.I./M.S.                                  |
| Spindle                        | : M.S./S.S.                                  |
| Seat ring                      | : Bronze/S.S.                                |
| Fasteners                      | : Carbon Steel/S.S.                          |
| Operation by                   | : H/Wheel, Bevel Gear, & Electrical Actuator |

## SLUICE GATE / PENSTOCK

(WALL MOUNTED  
RISING SPINDLE)



### Standard Specifications

|                 |                                 |
|-----------------|---------------------------------|
| Size            | : 200mm to 2500mm               |
| Design Std.     | : IS 3042/65                    |
| Pressure rating | : CLASS-1/2/3                   |
| Ends connection | : Integral spigot end           |
| Opening         | : Circular/ Square/ rectangular |
| Head of water   | : Seating                       |

### Materials

|                                |                                              |
|--------------------------------|----------------------------------------------|
| Frame, Door & other C.I. parts | : C.I., IS: 210 Gr.FG-200/260                |
| Spindle                        | : M.S./S.S.                                  |
| Seat ring                      | : Bronze/S.S.                                |
| Fasteners                      | : Carbon Steel/S.S.                          |
| Operation by                   | : H/Wheel, Bevel Gear, & Electrical Actuator |

## KNIFE EDGE GATE VALVES

(RISING SPINDLE,  
WAFER LUG TYPE )



### Standard Specifications

|                  |                                                           |
|------------------|-----------------------------------------------------------|
| Size             | : 50mm to 1200mm                                          |
| Design Std.      | : MSS SP-81                                               |
| Design           | : Metal to metal/Rubber Sealing                           |
| Pressure rating  | : PN 1.0 or PN 1.6                                        |
| Ends connection  | : Suit to 1538/93 (Tab-6) (Wafer End) OR BS/ANSI/AWWA/DIN |
| <b>Materials</b> |                                                           |
| Body &           |                                                           |
| Gland : C.I., IS | : 210 Gr.FG-200 / 260                                     |
| Knife Plate      | : S.S. AISI 304/316                                       |
| Stem             | : S.S. 410/431                                            |
| Seating          | : S.S./Rubber                                             |
| Voice            | : Fab. Steel                                              |
| Sleeve Nut       | : Bronze/Cr. Steel                                        |
| Operation by     | : H/Wheel, Gear or<br>Electrical Actuator                 |
| Application      | : Water Works                                             |

## BALL FLOAT VALVES

(RIGHT ANGLE TYPE,  
FLANGED ENDS)



### Standard Specifications

|                  |                                                             |
|------------------|-------------------------------------------------------------|
| Size             | : 50mm to 600mm                                             |
| Design Std.      | : G&K Catalogue (H-48)                                      |
| Type             | : Equilibrium Ball Float                                    |
| Pressure rating  | : PN 1.0 or PN 1.6                                          |
| Ends connection  | : IS 1538/93 (Tab-486) (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b> |                                                             |
| Body, Cover &    |                                                             |
| other C.I. parts | : C.I., IS: 210 Gr.FG-200                                   |
| Float            | : Tinned Copper                                             |
| Lever & Fulcrum  | : M.S. Galvanised                                           |
| Face & Piston    | : Leather/Synthetic Rubber                                  |
| Seat & Liner     | : G.M./Bronze/Brass                                         |
| Operation by     | : Self                                                      |
| Application      | : Water Works                                               |

## ZERO VELOCITY VALVES (PSLC)

(PLANE / FLANGED ENDS)



### Standard Specifications

|                  |                                                            |
|------------------|------------------------------------------------------------|
| Size             | : 100mm to 2000mm                                          |
| Design Std.      | : Mfr's Std.                                               |
| Pressure rating  | : PN15/PN20 & PN25                                         |
| Ends connection  | : Plane/Barrel End (Flange on request) IS/BS/ANSI/AWWA/DIN |
| <b>Materials</b> |                                                            |
| Body, Disc &     |                                                            |
| other parts      | : M.S. IS:2062 Gr.B                                        |
| Central Shaft    | : M.S.(SS-Cladded)/SS410                                   |
| Seat ring        | : S.S. AISI 304                                            |
| Disc Seal        | : EPDM/Nitrile/Natura                                      |
| Spring           | : Spring Steel                                             |
| Operation        | : Self                                                     |
| Features         | : By-pass arrangement                                      |
| Application      | : Water Systems                                            |

## AIR CUSHION VALVES (QRDA)

(SURGE PROTECTION /  
VACUUM BREAKER)



### Standard Specifications

|                 |                                                              |
|-----------------|--------------------------------------------------------------|
| Size            | : 50mm to 300mm                                              |
| Design Std.     | : AWWA C 51                                                  |
| Pressure rating | : PN15/PN20 & PN25                                           |
| Ends connection | : IS 1538/93 (Tab-4&6), (Flange on request) BS/ANSI/AWWA/DIN |

### Materials

|                     |                           |
|---------------------|---------------------------|
| Inlet/Outlet Body & |                           |
| other parts         | : C.S./M.S. IS:2062 Gr. B |
| Seat                | : Brass                   |
| Float               | : S.S.                    |
| Seal                | : Neoprene Rubber         |
| Air Inlet Valve     | : Mfr's Std.              |
| Air Outlet Valve    | : Mfr's Std.              |
| Operation           | : Self                    |
| Application         | : Water Systems           |

## DISMANTLING JOINT

(3-PIECE DESIGN,  
FLANGED ENDS)



### Standard Specifications

|                  |                                                              |
|------------------|--------------------------------------------------------------|
| Size             | : 100mm to 2000mm                                            |
| Design Std.      | : Mfr's Std.                                                 |
| Movement         | : Axial                                                      |
| Adjustment       | : 50 to 100mm longitudinal                                   |
| Pressure rating  | : PN10/PN16 & PN25                                           |
| Mounting         | : On full faced flange                                       |
| Ends connection  | : IS 1538/93 (Tab-486), (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b> |                                                              |
| Flange pipe &    |                                                              |
| Retaining flange | : C.I./D.I./M.S. IS:2062                                     |
| Sealing Ring     | : EPDM/Nitrile/Natura                                        |
| Tie Bolt & Nut   | : M.S.(Zinc Plated)/S.S.                                     |
| Operation        | : Self, Adjustable type                                      |
| Application      | : Water Works                                                |

## EXPANSION BELLOW / JOINT

(RUBBER / STAINLESS  
STEEL)



### Standard Specifications

|                 |                                                              |
|-----------------|--------------------------------------------------------------|
| Size            | : 100mm to 2000mm                                            |
| Design Std.     | : EJMA/Mfr's Std.                                            |
| Movement        | : Axial/Lateral/Angular                                      |
| Adjustment      | : 25 to 50mm longitudinal                                    |
| Pressure rating | : PN10/PN16                                                  |
| Mounting        | : On full faced flange                                       |
| Ends connection | : IS 1538/93 (Tab-486), (Flange on request) BS/ANSI/AWWA/DIN |

### Materials

|                |                          |
|----------------|--------------------------|
| End flange     | : M.S. IS:2062 Gr.B/S.S. |
| Inner Sleeve   | : S.S. AISI-304          |
| Bellow         | : Rubber/S.S. AISI-304   |
| Tie Bolt & Nut | : M.S.(Zinc Plated)      |
| Operation      | : Self, Adjustable type  |
| Application    | : Water Works            |

## STRAINER

(Y- STRAINER / BASKET  
STRAINER)



### Standard Specifications

|                  |                                                              |
|------------------|--------------------------------------------------------------|
| Size             | : Upto 600mm                                                 |
| Design Std.      | : Mfr's Std.                                                 |
| Pressure rating  | : PN10/PN16                                                  |
| Service          | : One Way Flow                                               |
| Ends connection  | : IS 1538/93 (Tab-486), (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b> |                                                              |
| Body & Cover     | : C.I./M.S. IS:2062 Gr.B                                     |
| Screen           | : S.S. Perforated/Wire Mesh                                  |
| Screen Cage      | : S.S. AISI-304                                              |
| Plug             | : S.S.                                                       |
| Operation        | : Self                                                       |
| Application      | : Water Systems                                              |

## FIRE HYDRANT VALVES

(STAND POST TYPE)



### Standard Specifications

|                                            |                                                              |
|--------------------------------------------|--------------------------------------------------------------|
| Size                                       | : 80mm/100mm                                                 |
| Design Std.                                | : IS 908                                                     |
| Mounting                                   | : Underground pipeline                                       |
| Pressure rating                            | : PN10/PN16                                                  |
| Ends connection                            | : IS 1538/93 (Tab-4&6), (Flange on request) BS/ANSI/AWWA/DIN |
| Operation                                  | : Single/Double Outlet                                       |
| Application                                | : Fire Fighting Purpose                                      |
| <b>Materials</b>                           |                                                              |
| C.I. Sluice Valve with cap                 |                                                              |
| C.I. Duckfoot bend                         |                                                              |
| C.I. Flange Riser Short Piece              |                                                              |
| C.I. Stand Post Column(Single/Double Mouth |                                                              |
| C.I. Road Surface Box                      |                                                              |
| G.M. Male Coupling                         |                                                              |

**CAST STEEL GATE VALVES**(RISING / NON RISING  
SPINDLE, FLANGED ENDS)**Standard Specifications**

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Size                          | : 50mm to 1000mm                              |
| Design Std.                   | : API 600/BS 1414 or IS: 14846/BS 5150        |
| Testing Std.                  | : API 598                                     |
| Pressure rating               | : Class 150/300 or PN-25/40                   |
| Ends connection               | : ANSI B16.5 (CL150/300) or IS:1538/EN 1092-1 |
| <b>Materials</b>              |                                               |
| Body, Disc & other C.S. parts | : C.S., ASTM A216 Gr.WCB                      |
| Stem                          | : S.S., AISI-410                              |
| Seat ring                     | : S.S., AISI-304/316                          |
| Operation by                  | : H/Wheel, Gear, & Electrical Actuator        |
| Application                   | : Water & Sewage/Oil                          |

**DUCTILE IRON GATE VALVE**(RESILIENT SEATED,  
NON RISING & RISING  
SPINDLE TYPE)**Standard Specifications**

|                         |                                                            |
|-------------------------|------------------------------------------------------------|
| Size                    | : 50mm to 1200mm                                           |
| Design Std.             | : IS 14846/2000 or BS 5163                                 |
| Pressure rating         | : PN10/PN16 or PN25                                        |
| Ends connection         | : IS 1538/93 (Tab-6), (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>        |                                                            |
| Body & other D.I. parts | : GGG40/50 or 400/15 & 500/7                               |
| Disc                    | : D.I., Fully rubber lined with EPDM                       |
| Stem                    | : S.S. / Brass                                             |
| Coating                 | : Epoxy Powder(250microns)                                 |
| Operation by            | : Cap, H/Wheel, Gear, & Electrical Actuator                |
| Application             | : Water Works                                              |

**CAST STEEL SWING CHECK VALVES**(SWING DISC / NON RETURN,  
FLANGED ENDS)**Standard Specifications**

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Size                          | : 50mm to 600mm                               |
| Design Std.                   | : BS 1868                                     |
| Testing Std.                  | : API 598 or BS 6755                          |
| Pressure rating               | : Class 150/300 or PN-25/40                   |
| Ends connection               | : ANSI B16.5 (CL150/300) or IS:1538/EN 1092-1 |
| <b>Materials</b>              |                                               |
| Body, Disc & other C.S. parts | : C.S., ASTM A216 Gr.WCB                      |
| Arm Pin                       | : S.S., AISI-410/431                          |
| Seat ring                     | : S.S., AISI-304/316                          |
| Operation                     | : Self Actuation                              |
| Application                   | : Water & Sewage/Oil                          |

**DUCTILE IRON BUTTERFLY VALVE**(RESILIENT SEATED &  
WAFER / FLANGED ENDS)**Standard Specifications**

|                               |                                                             |
|-------------------------------|-------------------------------------------------------------|
| Size                          | : 50mm to 2000mm                                            |
| Design Std.                   | : IS 13095 or BS 5155 or AWWA C-504                         |
| Pressure rating               | : PN10/PN16 or PN25                                         |
| Ends connection               | : IS 1538/93 (Tab-4&6) (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>              |                                                             |
| Body, Disc & other C.I. parts | : GGG40/50 or 400/15 & 500/7                                |
| Shaft                         | : S.S. AISI-410/304/431                                     |
| Seat ring                     | : S.S., 304/316                                             |
| Disc Seal                     | : Nitrile/EPDM rubber                                       |
| Operating by                  | : Worm Gear, Electrical, & Hydraulic Actuator               |
| Coating                       | : Liquid Epoxy(250microns)                                  |
| Application                   | : Water Systems                                             |

**CAST STEEL/MS FAB BUTTERFLY VALVES**(WAFER / WEFER LUGGED  
& FLANGED ENDS)**Standard Specifications**

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Size                          | : 200mm to 2000mm                             |
| Design Std.                   | : IS 13095 or BS 5155 or AWWA C-504           |
| Pressure rating               | : Class 150/300 or PN-25/40                   |
| Ends connection               | : ANSI B16.5 (CL150/300) or IS:1538/EN 1092-1 |
| <b>Materials</b>              |                                               |
| Body, Disc & other C.S. parts | : C.S., ASTM A216 Gr.WCB / IS:2062            |
| Shaft                         | : S.S. 410/304/431                            |
| Seat ring                     | : S.S., 304/316                               |
| Disc Seal                     | : Nitrile/EPDM rubber                         |
| Operating by                  | : Worm Gear, Electrical, & Hydraulic Actuator |
| Application                   | : Water Systems                               |

**DUCTILE IRON SLANTED SEATED CHECK VALVE**(TILTING DISC TYPE,  
FLANGED ENDS)**Standard Specifications**

|                               |                                                            |
|-------------------------------|------------------------------------------------------------|
| Size                          | : 200mm to 1000mm                                          |
| Design Std.                   | : EN 558-1(Basic series 14)                                |
| Testing Std.                  | : API 598                                                  |
| Pressure rating               | : PN10/PN16 or PN25                                        |
| Ends connection               | : IS 1538/93 (Tab-6), (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>              |                                                            |
| Body, Disc & other D.I. parts | : GGG40/50 or 400/15 or 500/7                              |
| Hinge Pin                     | : S.S., AISI-410/304/431                                   |
| Seat                          | : S.S./Nickel weld overlay                                 |
| Coating                       | : Epoxy Powder(250microns)                                 |
| Operation                     | : Self Actuation                                           |
| Application                   | : Water & Sewage                                           |

**CAST STEEL DUAL PLATE CHECK VALVES**

(FLANGED / WAFER ENDS)

**Standard Specifications**

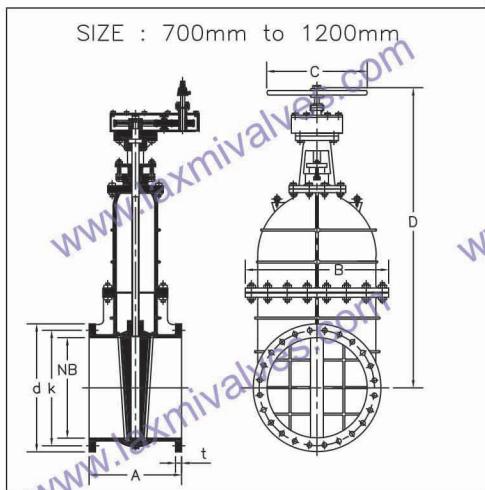
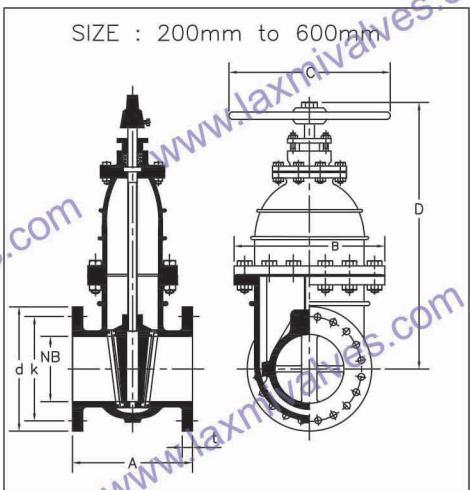
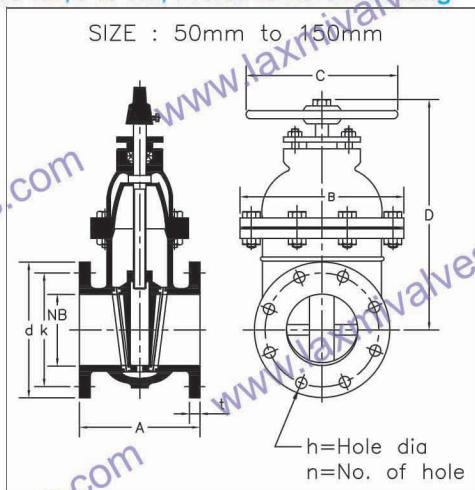
|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Size                          | : 100mm to 2000mm                             |
| Design Std.                   | : API 594/API 6D                              |
| Testing Std.                  | : API 598                                     |
| Pressure rating               | : Class 150/300 or PN-25/40                   |
| Ends connection               | : ANSI B16.5 (CL150/300) or IS:1538/EN 1092-1 |
| <b>Materials</b>              |                                               |
| Body, Disc & other C.S. parts | : C.S., ASTM A216 Gr.WCB                      |
| Hinge Pin                     | : S.S., AISI-410/431                          |
| Seat ring                     | : S.S., AISI-304/316                          |
| Optional Seal                 | : EPDM/Nitrile Rubber                         |
| Operation by                  | : Self Actuation                              |
| Application                   | : Water & Sewage                              |

**DUCTILE IRON TAMPER PROOF AIR VALVE**(SINGLE CHAMBER, TRIPLE  
FUNCTION)**Standard Specifications**

|                                |                                                            |
|--------------------------------|------------------------------------------------------------|
| Size                           | : 50mm to 200mm                                            |
| Design Std.                    | : AWWA C 512                                               |
| Pressure rating                | : PN10/PN16 or PN25                                        |
| Ends connection                | : IS 1538/93 (Tab-6), (Flange on request) BS/ANSI/AWWA/DIN |
| <b>Materials</b>               |                                                            |
| Body, Cover & other D.I. parts | : GGG40/50 or 400/15 or 500/7                              |
| Orifice                        | : Bronze / S.S.                                            |
| Float                          | : S.S. AISI-304/316                                        |
| Orifice Seal                   | : Nitrile(Rolling seal type)                               |
| Operation                      | : Self Actuation                                           |
| Coating                        | : Epoxy Powder(RAL5005)                                    |
| Application                    | : Water Systems                                            |

# Sluice Valves. DN 50-1200mm

PN 1.0, PN 1.6, PN2.5 & CL 150 Rating



Generally conforming to IS:14846 / BS 5163

(All dimensions are in mm)

| SIZE | WITH HAND WHEEL & CAP |     |     |     |     |     |     |     |     |      |      |      |      |      |
|------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
|      | 50                    | 65  | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350  | 400  | 450  | 500  | 600  |
| A    | 178                   | 190 | 203 | 229 | 254 | 267 | 292 | 330 | 356 | 381  | 406  | 432  | 457  | 508  |
| B    | 160                   | 215 | 220 | 250 | 310 | 330 | 460 | 495 | 585 | 650  | 750  | 830  | 900  | 1050 |
| C    | 225                   | 225 | 225 | 320 | 320 | 320 | 360 | 400 | 400 | 500  | 640  | 720  | 720  | 720  |
| D    | 365                   | 380 | 425 | 470 | 485 | 595 | 725 | 835 | 910 | 1020 | 1110 | 1200 | 1300 | 1500 |

| SIZE | WITH SPUR GEAR |      |      |      |      |      |      |
|------|----------------|------|------|------|------|------|------|
|      | 700            | 750  | 800  | 900  | 1000 | 1100 | 1200 |
| 610  | 610            | 660  | 711  | 811  | 811  | 811  | 811  |
| 1150 | 1200           | 1300 | 1400 | 1500 | 1650 | 1800 |      |
| 800  | 900            | 900  | 900  | 900  | 1000 | 1000 | 1000 |
| 1950 | 2070           | 2230 | 2390 | 2510 | 2760 | 2890 |      |

( FLANGED ENDS : STANDARD SUPPLY TO IS:1538/93 Table 4 & 6 )

|   |     |     |     |     |      |     |      |     |      |     |     |     |     |     |
|---|-----|-----|-----|-----|------|-----|------|-----|------|-----|-----|-----|-----|-----|
| d | 165 | 185 | 200 | 220 | 250  | 285 | 340  | 395 | 445  | 505 | 565 | 615 | 670 | 780 |
| k | 125 | 145 | 160 | 180 | 210  | 240 | 295  | 350 | 400  | 460 | 515 | 565 | 620 | 725 |
| t | 16  | 16  | 21  | 22  | 22.5 | 23  | 24.5 | 26  | 27.5 | 29  | 30  | 32  | 33  | 36  |
| h | 19  | 19  | 19  | 19  | 19   | 23  | 23   | 23  | 23   | 28  | 28  | 28  | 31  |     |
| n | 4   | 4   | 4   | 8   | 8    | 8   | 8    | 12  | 12   | 16  | 16  | 20  | 20  | 20  |

|      |     |      |      |      |      |      |
|------|-----|------|------|------|------|------|
| 895  | 950 | 1015 | 1115 | 1230 | 1340 | 1455 |
| 840  | 900 | 950  | 1050 | 1160 | 1270 | 1380 |
| 38.5 | 40  | 41.5 | 44   | 47   | 50   | 53   |
| 31   | 31  | 34   | 34   | 37   | 37   | 40   |
| 24   | 24  | 24   | 28   | 28   | 32   | 32   |

( HIGHER SIZES VALVES ARE ON REQUEST BASIS )

### MATERIALS OF CONSTRUCTION

| MATL.                 | Body/Wedge/Bonnet<br>Gland/Cap & H/wheel                                              | Body/Wedge Rings                                                                              | Stem/Spindle                                                                 | Stem Nut                                                                | Gasket                                           |
|-----------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|
| Cast Iron             | Cast Iron to<br>IS:210 Gr. FG-200/260<br>OR ASTM A126 &<br>BS 452 Gr. 220             | Leaded Tin Bronze<br>IS:318 Gr. LTB2<br>OR<br>BS 1400 Gr. LG2                                 | Stainless steel<br>IS:6603 Gr.12Cr12<br>OR<br>BS 970 Gr. 410S21              | L.T. Bronze<br>IS:318 Gr. LTB2<br>OR<br>BS 1872/BS 1874                 | Rubber to<br>IS:638<br>Type-B &                  |
| Ductile/<br>S.G. Iron | Ductile Iron<br>GGG-40 or GGG-50<br>OR<br>S.G. Iron<br>IS:1865 Gr. 400/15<br>or 500/7 | Leaded Tin Bronze<br>IS:318 Gr. LTB2<br>OR<br>S.S. to IS:6603<br>Gr. 04Cr19Ni9 or<br>AISI-304 | S.S. to AISI-410/<br>304/316/431<br>OR<br>H.T. Brass<br>IS:320 Gr. HT2       | L.T. Bronze<br>IS:318 Gr. LTB2<br>OR<br>H.T. Brass to<br>IS:320 Gr. HT2 | Neoprene/<br>EPDM<br>Rubber                      |
| Cast Steel            | Cast Steel<br>ASTM A216 Gr. WCB<br>OR<br>IS:1030 Gr.230-450W                          | Stainless steel<br>S.S. to AISI-304/316<br>OR<br>S.S. Weld overlay                            | Stainless steel<br>S.S. AISI-410/431<br>OR<br>BS 970 Gr. 410S21<br>or 431S29 | Chrom Steel<br>ASTM A439 Gr.D2<br>OR<br>L.T. Bronze<br>IS:318 Gr. LTB2  | Compressed<br>Fibre Board<br>to IS:2712<br>Gr. C |

### FLANGE END CONNECTIONS

|                 |                                                                                                                                                                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard Supply | Flange drilling to<br>IS:1538/93 Table-4&6                                                                                                                                                                                                  |
| ON REQUEST      | ANSI B16.1 Class-125<br>BS-10 Table-D/E<br>BS 4504 (PN10, PN16 & PN25)<br>IS:6392/71 Table-17 & 11<br>IS:9523/2000 (PN 10/16/25)<br>BSEN 1092-2 ((PN 10/16/25))<br>ISO 7005-1 (PN 10/16/25)<br>ANSI B16.5 CL-150<br>AWWA C207 (175-150 psi) |

### CONSTRUCTIONAL FEATURES

- \* Generally conforming to IS:14846 / BS 5163
- \* BS 5150 inside screw non-rising spindle type,
- \* Perfect interchangeability of components.
- \* Assured equal taper on both sides of the wedge.
- \* Perfect machining and pressing of body & wedge ring
- \* Low operating torque ensuring easy operation.
- \* Drop tight closure under full pressure.
- \* Long service life & leaktightness even after thousands of open/close cycle operation.
- \* The gearing and bearings are protected by water tight gearbox permanently packed with grease.
- \* Available in Glandless design & sealing with 'O' ring packing

### ACCESSORIES AVAILABLE

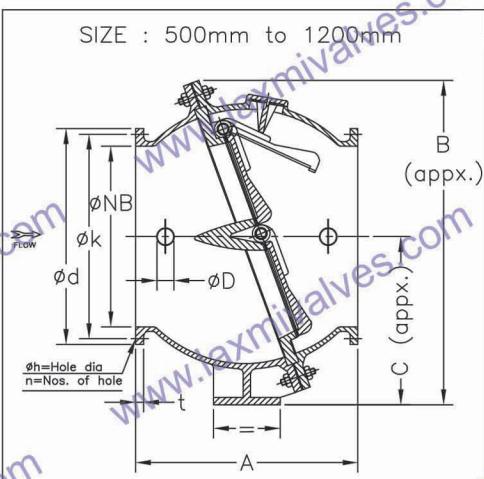
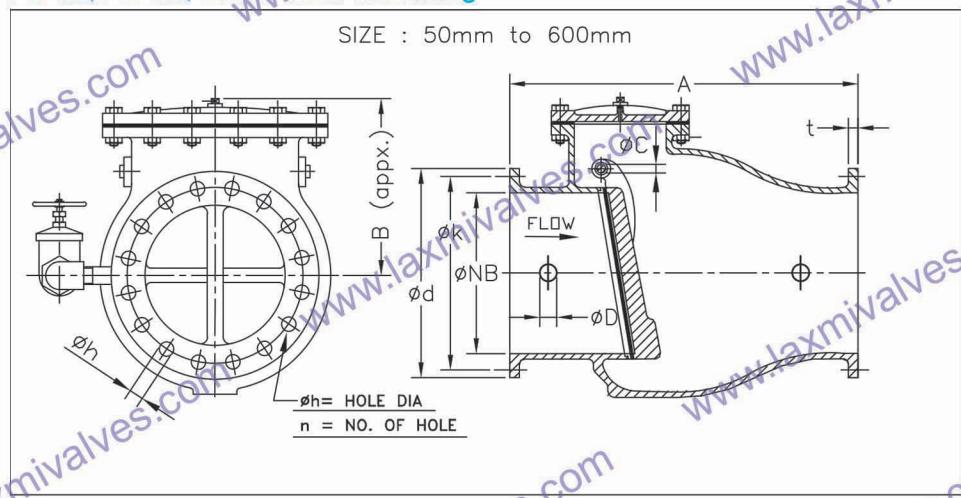
- \* Position indicator
- \* Bye-pass arrangement
- \* Repacking arrangement
- \* Electrical actuator
- \* Spur/Bevel/Worm gear arrangement
- \* Locking arrangement
- \* Thrust bearing arrangement
- \* Extension shafting and headstock
- \* Drain plug
- \* Channel and shoe arrangement
- \* Chain wheel
- \* Convert to rising spindle/extension arrangement
- \* Rubber/Ebonite lining
- \* Air plug
- \* Pneumatic Actuation
- \* Back Seating arrangement Etc.

### HYDROSTATIC TEST PRESSURE

| Applicable Materials | SIZE     | PRESSURE RATING | (Kg/cm <sup>2</sup> ) |      |
|----------------------|----------|-----------------|-----------------------|------|
|                      |          |                 | BODY                  | SEAT |
| C.I.                 | 50-1200  | PN-1.0          | 15                    | 10   |
|                      | 50-600   | PN-1.6          | 24                    | 16   |
| D.I./S.G.I.          | 700-1200 |                 |                       |      |
|                      | 50-1000  | PN-2.5          | 37.5                  | 25   |
| C.S.                 | 50-1200  | CL-150          | 30                    | 21   |

## Non Return Valves.. DN 50-1200mm

PN 1.0, PN 1.6, PN2.5 &amp; CL 150 Rating



Generally conforming to IS:5312 part-I / BS 5153 &amp; IS:5312 part-II

(All dimensions are in mm)

| SINGLE DOOR NON RETURN VALVE |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| SIZE                         | 50  | 65  | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600  |
| A                            | 203 | 216 | 241 | 292 | 330 | 356 | 495 | 622 | 698 | 787 | 914 | 978 | 978 | 1295 |
| B                            | 130 | 150 | 170 | 195 | 210 | 240 | 290 | 345 | 375 | 465 | 525 | 580 | 690 | 710  |
| C                            | 10  | 10  | 10  | 12  | 12  | 16  | 20  | 25  | 25  | 25  | 32  | 32  | 38  | 38   |
| D                            | 10  | 10  | 10  | 10  | 15  | 15  | 25  | 25  | 40  | 40  | 40  | 50  | 50  | 65   |

( FLANGED ENDS : STANDARD SUPPLY TO IS:1538/93 Table 4 &amp; 6 )

|   |     |     |     |     |      |     |      |     |      |     |     |     |     |     |
|---|-----|-----|-----|-----|------|-----|------|-----|------|-----|-----|-----|-----|-----|
| d | 165 | 185 | 200 | 220 | 250  | 285 | 340  | 395 | 445  | 505 | 565 | 615 | 670 | 780 |
| k | 125 | 145 | 160 | 180 | 210  | 240 | 295  | 350 | 400  | 460 | 515 | 565 | 620 | 725 |
| t | 16  | 16  | 21  | 22  | 22.5 | 23  | 24.5 | 26  | 27.5 | 29  | 30  | 32  | 33  | 36  |
| h | 19  | 19  | 19  | 19  | 19   | 23  | 23   | 23  | 23   | 23  | 28  | 28  | 28  | 31  |
| n | 4   | 4   | 4   | 8   | 8    | 8   | 12   | 12  | 16   | 16  | 20  | 20  | 20  | 20  |

( HIGHER SIZES VALVES ARE ON REQUEST BASIS )

| MATERIALS OF CONSTRUCTION |                                                                                       |                                                                                             |                                                                              |                                                    |                                                                               |
|---------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------|
| MATL.                     | Body/Disc/Cover/<br>Diaphragm & Hinge                                                 | Body/Disc Rings<br>& Bushes                                                                 | Hinge Pin &<br>Door Pin                                                      | Gasket                                             | Bye-Pass<br>Valve                                                             |
| Cast Iron                 | Cast Iron to<br>IS:210 Gr. FG-200/260<br>OR ASTM A126 &<br>BS 1452 Gr. 220            | Leaded Tin Bronze<br>IS:318 Gr. LTB2<br>OR<br>BS 1400 Gr. LG2                               | Stainless steel<br>IS:6603 Gr.12Cr12<br>OR<br>BS 970 Gr. 410S21              | Rubber to<br>IS:638<br>Type-B or<br>Natural Rubber | Upto 400mm<br>—Gun Metal<br>450mm & Above<br>—Cast Iron                       |
| Ductile/<br>S.G. Iron     | Ductile Iron<br>CGG-40 or CGG-50<br>OR<br>S.G. Iron<br>IS:1865 Gr. 400/15<br>or 500/7 | Leaded Tin Bronze<br>IS:318 Gr. LTB2<br>OR<br>S.S. to IS:6603<br>Gr.9Cr19Ni9 or<br>AISI-304 | S.S. to AISI-410/<br>304/316/431<br>OR<br>H.T. Brass<br>IS:320 Gr. HT2       | Neoprene/<br>EPDM<br>Rubber                        | Upto 400mm<br>— Gun Metal<br>450mm & Above<br>— D.I./S.G.I.<br>& Forged Steel |
| Cast Steel                | Cast Steel<br>ASTM A216 Gr. WCB<br>OR<br>IS:1030 Gr.230-450W                          | Stainless steel<br>S.S. to AISI-304/316<br>OR<br>S.S. Weld overlay                          | Stainless steel<br>S.S. AISI-410/431<br>OR<br>BS 970 Gr. 410S21<br>or 431S29 | Compressed<br>Fibre Board<br>to IS:2712<br>Gr. C   | Cast Steel/<br>Forged Steel                                                   |

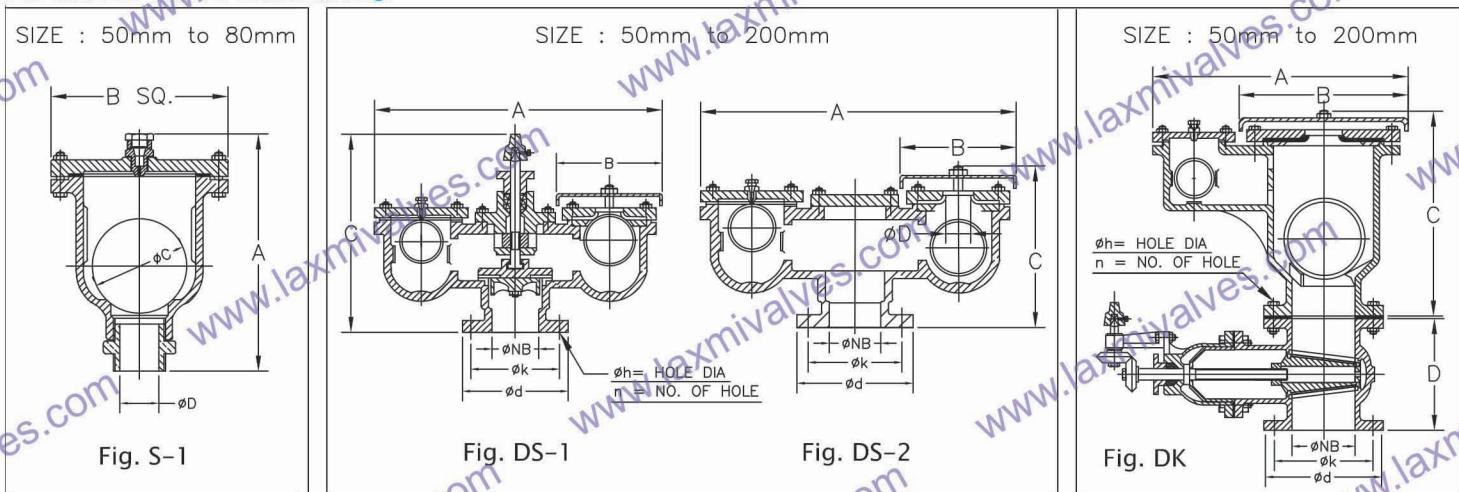
| FLANGE END CONNECTIONS |                                                                                                                                                                                                                                           |  |  |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Standard Supply        | Flange drilling to<br>IS:1538/93 Table-4&6                                                                                                                                                                                                |  |  |
| ON REQUEST             | ANSI B16.1 Class-125<br>BS-10 Table-D/E<br>BS 4504 (PN10, PN16 & PN25)<br>IS:6392/71 Table-17 & 11<br>IS:9523/2000 (PN 10/16/25)<br>BSEN 1092-2 (PN 10/16/25)<br>ISO 7005-1 (PN 10/16/25)<br>ANSI B16.5 CL-150<br>AWWA C207 (175-150 psi) |  |  |

| CONSTRUCTIONAL FEATURES                                                                                                                                                                                            |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| * Generally conforming to IS:5312 part-I/BS 5153 for single door & IS:5312 part-II for multi-door swing check valve                                                                                                |  |  |  |  |  |
| * 100% flow area * Drop tight seating * Non clog design * Inclined/Parallel seating surface                                                                                                                        |  |  |  |  |  |
| * Rigid and sturdy design with minimum loss of head across the valve                                                                                                                                               |  |  |  |  |  |
| * Metal seated & resilient seated both are designed. * Mounted always in the horizontal/vertical main. * Uni-directional & self acting 24 hours fluid operation * All working parts can be removed through the top |  |  |  |  |  |

| ACCESSORIES AVAILABLE                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| * Bye-pass arrangement * Lever with spring * Dashpot & counter weight arrangement * Drain plug * Air release plug * Rotating disc * Optional rubber seal moulded on face of disc i.e. ebonite, natural, epdm, nitrile & neoprene * Inspection door & Foot * Lifting Lug Etc. * Ball type NRV * Convert to foot valve with strainer design available. * Rubber/Ebonite/FRP lining on body & disc |  |  |  |  |  |

| HYDROSTATIC TEST PRESSURE |         |            |                       |
|---------------------------|---------|------------|-----------------------|
| Applicable Materials      | SIZE    | PRESSURE   | (Kg/Cm <sup>2</sup> ) |
|                           |         | RATING     | BODY SEAT             |
| C.I.                      | 50-1200 | PN-1.0     | 15                    |
|                           |         | PN-1.6     | 24                    |
| D.I./S.G.I.               | 50-1200 | PN-1.0/1.6 | 15/24                 |
|                           |         | PN-2.5     | 37.5                  |
| C.S.                      | 50-1200 | CL-150     | 30                    |
|                           |         |            | 21                    |

## Air Release Valves.. DN 15-200mm PN 1.0, PN 1.6, PN 2.5 Rating



Generally conforming to IS:4845/2000

(All dimensions are in mm)

| SINGLE AIR VALVE (S1) |     |     |     |     |
|-----------------------|-----|-----|-----|-----|
| SIZE                  | 15  | 20  | 25  | 40  |
| A                     | 196 | 225 | 255 | 290 |
| B                     | 118 | 135 | 158 | 158 |
| C                     | 75  | 75  | 100 | 100 |
| D                     | 15  | 20  | 25  | 40  |

| DOUBLE AIR VALVE (DS1) |     |     |     |     |     |
|------------------------|-----|-----|-----|-----|-----|
| 40                     | 50  | 80  | 100 | 150 | 200 |
| 442                    | 442 | 504 | 634 | 862 | 988 |
| 210                    | 210 | 236 | 280 | 430 | 506 |
| 371                    | 407 | 431 | 501 | 620 | 735 |
| 37                     | 37  | 49  | 65  | 110 | 134 |

| DOUBLE AIR VALVE (DS2) |     |     |     |     |     |
|------------------------|-----|-----|-----|-----|-----|
| 40                     | 50  | 80  | 100 | 150 | 200 |
| 442                    | 442 | 504 | 634 | 862 | 988 |
| 210                    | 210 | 236 | 280 | 430 | 506 |
| 371                    | 407 | 431 | 501 | 620 | 735 |
| 37                     | 37  | 49  | 65  | 110 | 134 |

| KINETIC AIR VALVE (DK) |     |     |     |     |     |
|------------------------|-----|-----|-----|-----|-----|
| 40                     | 50  | 80  | 100 | 150 | 200 |
| 260                    | 280 | 305 | 360 | 487 | 700 |
| 196                    | 211 | 236 | 280 | 450 | 560 |
| 324                    | 352 | 373 | 424 | 674 | 739 |
| 165                    | 178 | 203 | 229 | 267 | 292 |

| MATERIALS OF CONSTRUCTION |                                                                        |                                                                                |                                                                    |
|---------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------|
| MATL.                     | Body/Cover/Cowl & Other Parts                                          | Orifice Nipple/Seat & Nut                                                      | H.P. Float/ L.P. Float                                             |
| Cast Iron                 | Cast Iron to IS:210 Gr. FG-200/260 OR ASTM A126 & BS 1452 Gr. 220      | Leaded Tin Bronze IS:318 Gr. LTB2 OR BS 1400 Gr. LG2                           | Soft Rubber Coated/ Hard Ebonite Coated Timber Core OR SS AISI-304 |
| Ductile/ S.G. Iron        | Ductile Iron GGG-40 or GGG-50 OR S.G. Iron IS:1865 Gr. 400/15 or 500/7 | Leaded Tin Bronze IS:318 Gr. LTB2 OR S.S. to IS:6603 Gr. 04Cr19Ni9 or AISI-304 | S.S. to AISI-304 / AISI-316 OR Rubber Coated S.S. Ball             |

| PRESSURE RATING | HYDRO TEST PR. |      |
|-----------------|----------------|------|
|                 | BODY           | SEAT |
| PN-1.0          | 15             | 10   |
| PN-1.6          | 24             | 16   |
| PN-2.5          | 37.5           | 25   |

| Standard Supply   | Screwed End Valves as per IS:554 / BSP Or NPT                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | Flange End drilled to IS:1538/93 Table-4&6                                                                                                      |
| FLANGE ON REQUEST | ANSI B16.1 Class-125 BS-10 Table-D1 BS 4504 (PN10, PN16 & PN25) IS:6392/71 Table-17 & 11 IS:9523/2000 (PN 10/16/25) BSEN 1092-2 ((PN 10/16/25)) |

### PRINCIPAL OF AIR VALVES

As soon as the pump starts, water starts filling the main, which push the air from mains to atmosphere through the large orifice of these valves. When the pipe is full, valve closes and remains in its position due to buoyancy force of water below the floats and thus prevent loss of water. This valve also allow the air to admit in pipe line, when the main is being emptied.

### SINGLE AIR VALVES SMALL / LARGE ORIFICE TYPE

For releasing air accumulated in main under normal working condition. It consists of cast iron body with suitable lugs inside to provide the guide to float. Body is covered with cast iron small orifice cover. Float is seating on stainless steel or Brass air releaser, M.S. Galvanised ferrule is fixed at bottom end for mounting of valve on main. LARGE ORIFICE TYPE To release & admit air in main when filling and emptying respectively. It consists of body of cast iron with internal integral ribs to guide float in its operation, the cover of cast iron which hold rubber seat, vulcanite covered float is provided to facilitate effective closure with seat.

### DOUBLE AIR VALVES

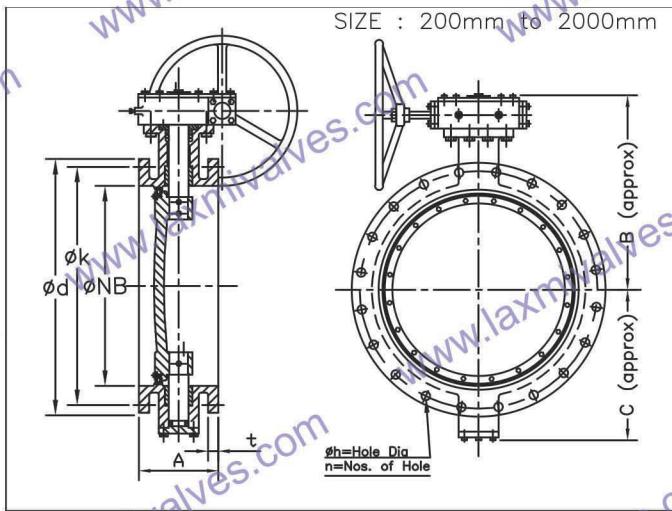
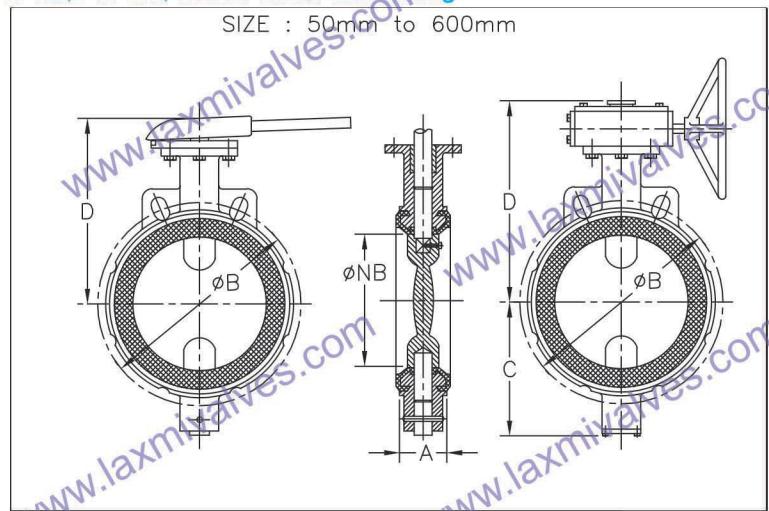
This valve is simply a combination of small and large orifice valves side by side in one unit with addition of an integral screw down valve for isolation purposes. This integral valve is very much essential to permit inspection/maintenance of the valve without shutting off the main. This valve consists of cast iron body, small orifice & large orifice cover, stuffing box, protection cover and gland. Seat ring and nut are made from G.M., spindle from S.S. Small orifice chamber is having rubber cover ball seating on st.st./brass orifice and large orifice chamber is having vulcanite covered ball for seating at rubber seat ring. Integral isolating valve consists of rubber face seating on a gunmetal ring fitted in the body. This isolating valve is to be operated by a cap fitted on top of the spindle.

### KINETIC AIR VALVES

Air valves are supplied with or without isolating sluice valves, operated by mitre wheel gear. When valves are required to discharge air at Air valves are supplied with or without isolating sluice valves, operated by mitre wheel gear. When valves are required to discharge air at the higher velocities, for ordinary double air valves, there is a risk that the ball may suddenly be caught up in the escaping air stream and valve may close pre-maturely and then refuse to open again until the pressure has been reduced. In this case the ball of the valve would have to be held down during filling operation. This difficulty has been overcome in an entirely rational manner by the application of " hydro-dynamic principal". Due to incorporation of this principal, premature closing of valve is totally avoided. A latest refinement has been made in design to cause the escaping air stream to flow around the ball in such a manner that the resultant pr. on the ball is in downward direction and it increases as the emergent air velocity increases.

**Butterfly Valves. DN 50-2000mm**

PN 1.0, PN 1.6, PN2.5 &amp; CL-150 Rating



(All dimensions are in mm)

| WAFER & WAFER LUG TYPE WITH LEVER/GEAR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|----------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SIZE                                   | 50  | 65  | 80  | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
| A                                      | 43  | 46  | 46  | 52  | 56  | 56  | 60  | 68  | 78  | 78  | 102 | 114 | 127 | 154 |
| B                                      | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 350 | 400 | 460 | 515 | 565 | 620 | 725 |
| C                                      | 70  | 95  | 95  | 115 | 130 | 155 | 185 | 225 | 255 | 310 | 340 | 365 | 375 | 425 |
| D                                      | 165 | 180 | 180 | 205 | 225 | 245 | 305 | 365 | 425 | 470 | 500 | 525 | 560 | 640 |

| MATERIALS OF CONSTRUCTION                              |                                                                                                                     |                                                                                                               |                                                                                               |  |  |  |  |  |  |  |  |  |  |  |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| MATL.                                                  | Cast Iron                                                                                                           | D.I. / S.G. Iron                                                                                              | Cast Steel/Fab Steel                                                                          |  |  |  |  |  |  |  |  |  |  |  |
| Body Disc<br>End Cover<br>Gland Plate                  | Cast Iron to<br>IS:210 Gr. FG-200/260<br>OR ASTM A126 &<br>BS 1452 Gr. 220<br>OR Cast Steel Disc<br>& CF8/CF8M Disc | Ductile Iron<br>GGG-40 or GGG-50<br>OR S.G. IRON<br>IS:1865 Gr. 400/15<br>OR Gr. 500/7 OR<br>SS CF8/CF8M Disc | Cast Steel<br>ASTM A216 Gr. WCB/<br>IS:1030 Gr.230-450W<br>OR<br>IS:2062-250 BR<br>Fe. 410W A |  |  |  |  |  |  |  |  |  |  |  |
| Drive Shaft<br>Stub Shaft<br>Dowel Pin                 | Stainless steel<br>IS:6603 Gr.12Cr12<br>OR AISI-410 &<br>AISI-431                                                   | S.S. AISI-410/304<br>OR AISI-316/431<br>BS 970 Gr. 410S21<br>OR 431S29                                        | Stainless steel<br>S.S. AISI-410/431 OR<br>BS 970 Gr. 410S21<br>or Gr. 431S29                 |  |  |  |  |  |  |  |  |  |  |  |
| Body Seat Ring<br>Seal Retaining<br>Internals Fastener | S.S. to IS:6603<br>Gr.04Cr19Ni9 OR<br>OR AISI-304/<br>AISI-316                                                      | Stainless steel<br>S.S. to AISI-304/316<br>OR<br>S.S. Weld overlay                                            | Stainless steel<br>S.S. to AISI-304/316<br>OR<br>S.S. Weld overlay                            |  |  |  |  |  |  |  |  |  |  |  |
| Disc Seal<br>Rubber 'O' ring<br>for Shaft              | EPDM Rubber<br>to BS 2494 OR<br>Nitrile Rubber                                                                      | EPDM Rubber<br>to BS 2494 OR<br>Nitrile Rubber/<br>Viton/Buna-N                                               | EPDM Rubber<br>to BS 2494 OR<br>Nitrile Rubber/<br>Viton/Buna-N                               |  |  |  |  |  |  |  |  |  |  |  |
| Bearing                                                | Gun Metal OR<br>Steel Backed PTFE<br>(Teflon)                                                                       | Gun Metal OR<br>Steel Backed PTFE<br>(Teflon)                                                                 | Gun Metal OR<br>Steel Backed PTFE<br>(Teflon)                                                 |  |  |  |  |  |  |  |  |  |  |  |

## HYDROSTATIC TEST PRESSURE

## Design Features

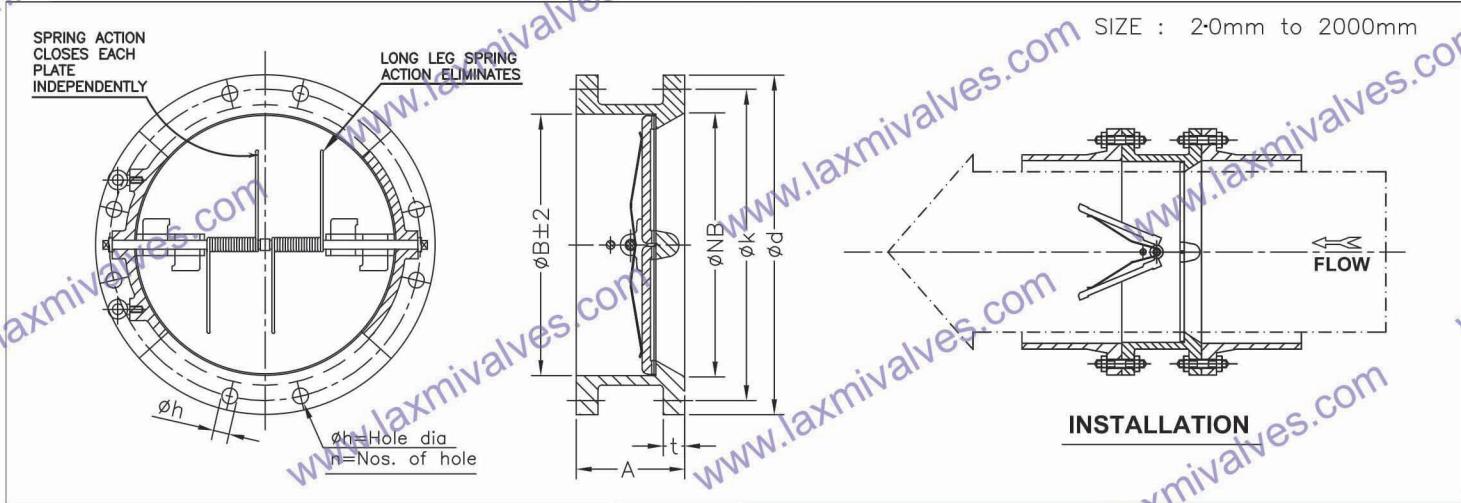
- \* Designed & manufactured according to standard of IS 13095-91 & also available as per BS 5155, EN 593 & AWWA C504
- \* Face to face dimensions are according to IS 13095-91, EN 558-1 series 14 & also available as per BS 5155 & AWWA C 504
- \* Testing & Inspection is according to standard of BS 6755 Part-1 Rate A or API 598
- \* Flange end connection as per IS 1538-93/BS 4504 also available as per BS EN 1092-2/ISO 7005/ANSI B16.5#150 & AWWA C207
- \* Metal to metal sealing available upon request
- \* Available in Stainless Steel valve (Upto 1200mm dia)
- \* Wafer & wafer lug type rubber lined valves are available
- \* Valve actuation with Lever/Gear/Electric or Pneumatic Actuator
- \* Wafer type valves are centric design with bi-directional & Flanged type are double eccentric with uni-directional

| DOUBLE FLANGED WITH GEAR |                        |      |      |      |      |      |    |    |  |  |  |  |  |  |
|--------------------------|------------------------|------|------|------|------|------|----|----|--|--|--|--|--|--|
| SIZE                     | DIMENSIONAL DATA IN mm |      |      |      |      |      |    |    |  |  |  |  |  |  |
| mm                       | A                      | B    | C    | Ød   | Øk   | t    | Øh | n  |  |  |  |  |  |  |
| 200                      | 152                    | 362  | 235  | 340  | 295  | 24.5 | 23 | 8  |  |  |  |  |  |  |
| 250                      | 165                    | 394  | 264  | 395  | 350  | 26   | 23 | 12 |  |  |  |  |  |  |
| 300                      | 178                    | 428  | 277  | 445  | 400  | 27.5 | 23 | 12 |  |  |  |  |  |  |
| 350                      | 190                    | 452  | 324  | 505  | 460  | 29   | 23 | 16 |  |  |  |  |  |  |
| 400                      | 216                    | 487  | 345  | 565  | 515  | 30   | 28 | 16 |  |  |  |  |  |  |
| 450                      | 222                    | 510  | 368  | 615  | 565  | 32   | 28 | 20 |  |  |  |  |  |  |
| 500                      | 229                    | 554  | 417  | 670  | 620  | 33   | 28 | 20 |  |  |  |  |  |  |
| 600                      | 267                    | 633  | 496  | 780  | 725  | 36   | 31 | 20 |  |  |  |  |  |  |
| 700                      | 292                    | 687  | 545  | 895  | 840  | 38.5 | 31 | 24 |  |  |  |  |  |  |
| 750                      | 305                    | 734  | 586  | 960  | 900  | 40   | 31 | 24 |  |  |  |  |  |  |
| 800                      | 318                    | 773  | 615  | 1015 | 950  | 42   | 34 | 24 |  |  |  |  |  |  |
| 900                      | 330                    | 815  | 654  | 1115 | 1050 | 44   | 34 | 28 |  |  |  |  |  |  |
| 1000                     | 410                    | 877  | 757  | 1230 | 1160 | 47   | 37 | 28 |  |  |  |  |  |  |
| 1100                     | 440                    | 944  | 812  | 1340 | 1270 | 50   | 37 | 32 |  |  |  |  |  |  |
| 1200                     | 470                    | 1023 | 855  | 1455 | 1380 | 53   | 40 | 32 |  |  |  |  |  |  |
| 1400                     | 530                    | 1315 | 978  | 1675 | 1590 | 57   | 42 | 36 |  |  |  |  |  |  |
| 1500                     | 560                    | 1447 | 1023 | 1800 | 1710 | 61   | 43 | 40 |  |  |  |  |  |  |
| 1600                     | 600                    | 1568 | 1097 | 1915 | 1820 | 68   | 48 | 40 |  |  |  |  |  |  |
| 1800                     | 670                    | 1653 | 1207 | 2115 | 2020 | 70   | 48 | 44 |  |  |  |  |  |  |
| 2000                     | 760                    | 1768 | 1310 | 2325 | 2230 | 74   | 48 | 48 |  |  |  |  |  |  |

| Applicable Materials | SIZE    | PRESSURE RATING | (Kg/Cm <sup>2</sup> ) |       | TEST DURATION |        |
|----------------------|---------|-----------------|-----------------------|-------|---------------|--------|
|                      |         |                 | BODY                  | SEAT  | BODY          | SEAT   |
| C.I.                 | 50-2000 | PN-1.0          | 15                    | 10    | 5 Min.        | 2 Min. |
|                      |         | PN-1.6          | 24                    | 16    |               |        |
| D.I./S.G.I.          | 50-2000 | PN-1.0/1.6      | 15/24                 | 10/16 | 5 Min.        | 2 Min. |
|                      |         | PN-2.5          | 37.5                  | 25    |               |        |
| C.S.                 | 50-1200 | CL-150          | 30                    | 21    | 2 Min.        | 1 Min. |

## Dual Plate CheckValves. DN 50-2000mm

PN 1.0, PN 1.6, PN 2.5, &amp; CL- 150 Rating



## INSTALLATION

(All dimensions are in mm)

| MATERIALS OF CONSTRUCTION |                                                                                                                 |                                                                                                                         |                                                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| MATL                      | Cast Iron                                                                                                       | D.I./ S.G. Iron                                                                                                         | Cast Steel                                                                                                              |
| Body & Disc (Plate)       | Cast Iron to IS:210 Gr. FG-200/260 OR ASTM A126 & BS 1452 Gr. 220 OR Cast Steel Disc & CF8/CF8M Disc            | Ductile Iron GGG-40 or GGG-50 OR S.G. IRON IS:1865 Gr. 400/15 OR Gr. 500/7 OR SS CF8/CF8M Disc                          | Cast Steel ASTM A216 Gr. WCB OR IS:1030 Gr.230-450W OR SS CF8/CF8M Disc                                                 |
| Hinge Pin & Stop Pin      | Stainless steel IS:6603 Gr.12Cr12 OR AISI-410 & AISI-431                                                        | S.S. AISI-410/304 OR AISI-316/431 BS 970 Gr. 410S21 OR 431S29                                                           | Stainless steel S.S. AISI-410/431 OR BS 970 Gr. 410S21 or Gr. 431S29                                                    |
| Body Seat Ring            | S.S. to IS:6603 Gr.04Cr19Ni9 OR AISI-304/AISI-316 & 13%Cr. Steel/ G.M. to IS:318                                | S.S. BS 970 Gr.304S15 OR to AISI-304/316 & 13%Cr. Steel OR S.S. Weld overlay                                            | S.S. BS 970 Gr.304S15 OR to AISI-304/316 & 13%Cr. Steel OR S.S. Weld overlay                                            |
| Disc Seat/Seal            | S.S. to IS:6603 Gr.04Cr19Ni9 OR AISI-304/AISI-316 OR G.M. to IS:318 or Rubber 'O' ring of EPDM/Nitrile & Buna-N | S.S. BS 970 Gr.304S15 AISI-304/AISI-316 & 13%Cr. Steel OR S.S. Weld overlay or Rubber 'O' ring of EPDM/Nitrile & Buna-N | S.S. BS 970 Gr.304S15 AISI-304/AISI-316 & 13%Cr. Steel OR S.S. Weld overlay or Rubber 'O' ring of EPDM/Nitrile & Buna-N |
| Spring                    | Spring Steel to BS 970 En-45 or SS 304/SS 316                                                                   | Spring Steel to BS 970 En-45 or SS 304/SS 316/ Inconel X-750                                                            | Spring Steel to BS 970 En-45 or SS 304/SS 316/ Inconel X-750                                                            |
| Plug/ Retainer            | Galvanised Steel/ SS AISI-410/304                                                                               | Galvanised Steel/ SS AISI-410/304                                                                                       | Galvanised Steel/ SS AISI-410/304 OR Forged Steel                                                                       |

| SIZE | WAFER/DOUBLE FLANGED |                |           |      |      |      |    |    |
|------|----------------------|----------------|-----------|------|------|------|----|----|
|      | mm                   | A<br>C.I./D.I. | B<br>C.S. | Ød   | Øk   | t    | Øh | n  |
| 50   | 54                   | 60             | 60        | 165  | 125  | 16   | 19 | 4  |
| 65   | 60                   | 67             | 75        | 185  | 145  | 16   | 19 | 4  |
| 80   | 67                   | 73             | 90        | 200  | 160  | 21   | 19 | 4  |
| 100  | 67                   | 73             | 110       | 220  | 180  | 22   | 19 | 8  |
| 125  | 83                   | 83             | 135       | 250  | 210  | 22.5 | 19 | 8  |
| 150  | 95                   | 98             | 210       | 285  | 240  | 23   | 23 | 8  |
| 200  | 127                  | 127            | 210       | 340  | 295  | 24.5 | 23 | 8  |
| 250  | 140                  | 146            | 261       | 395  | 350  | 26   | 23 | 12 |
| 300  | 181                  | 181            | 311       | 445  | 400  | 27.5 | 23 | 12 |
| 350  | 184                  | 184            | 361       | 505  | 460  | 29   | 23 | 16 |
| 400  | 197                  | 191            | 412       | 565  | 515  | 30   | 28 | 16 |
| 450  | 203                  | 203            | 462       | 615  | 565  | 32   | 28 | 20 |
| 500  | 213                  | 219            | 512       | 670  | 620  | 33   | 28 | 20 |
| 600  | 222                  | 222            | 612       | 780  | 725  | 36   | 31 | 20 |
| 700  | 305                  | 305            | 713       | 895  | 840  | 38.5 | 31 | 24 |
| 750  | 305                  | 305            | 763       | 960  | 900  | 40   | 31 | 24 |
| 800  | 356                  | 356            | 813       | 1015 | 950  | 42   | 34 | 24 |
| 900  | 368                  | 368            | 914       | 1115 | 1050 | 44   | 34 | 28 |
| 1000 | 406                  | 406            | 1014      | 1230 | 1160 | 47   | 37 | 28 |
| 1100 | 432                  | 432            | 1115      | 1340 | 1270 | 50   | 37 | 32 |
| 1200 | 524                  | 524            | 1215      | 1455 | 1380 | 53   | 40 | 32 |
| 1400 | 530                  | 530            | 1416      | 1675 | 1590 | 57   | 42 | 36 |
| 1500 | 560                  | 560            | 1511      | 1800 | 1710 | 61   | 43 | 40 |
| 1600 | 600                  | 600            | 1617      | 1915 | 1820 | 68   | 48 | 40 |
| 1800 | 670                  | 670            | 1819      | 2115 | 2020 | 70   | 48 | 44 |
| 2000 | 760                  | 760            | 2020      | 2325 | 2230 | 74   | 48 | 48 |

## Design Features

- Designed & manufactured according to standard of API 594/API 6D
- Face to face dimensions are according to API 594 or EN 558-1 & ISO 5752 (Long Body)
- Testing & Inspection is according to standard to API 598
- Flange end connection as per IS 1538-93/BS 4504 also available as per BS EN 1092-2/ISO 7005/ANSI B16.5#150 & AWWA C207
- Metal to metal & Resilient seated sealing available upon request
- Available in Stainless Steel valve (Upto 100mm dia)



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