

LEVEL GAUGE & SAMPLE COCK VALVE

Level Gauge Valve with Ferrule End

Application- Used to detect the level of liquid inside a storage tank.

Size Availability- 1"

Material Availability- SS 316L

Connection Availability- Ferrule End



Upper Valve



Lower Valve

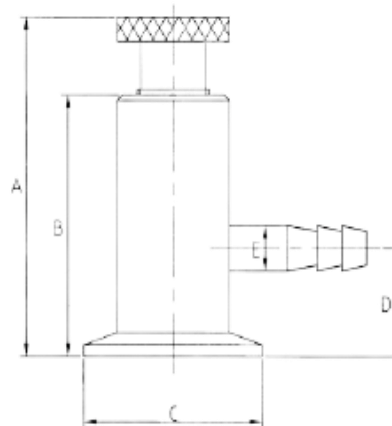
Sample Cock Valve with Ferrule End

Method of Operation- Turning the handle allows collection of samples.

Size Availability- 1"

Material Availability- SS 316L

Connection Availability- Ferrule End



| Size | A | B | C | D | E |
|------|------|----|------|----|----|
| 1" | 91.5 | 70 | 50.5 | 29 | 12 |
| 1.5" | 91.5 | 70 | 50.5 | 29 | 12 |

SANITARY THREE-PIECE BODY BALL VALVE



Method of Operation-

Turning the handle turns the valve ball either parallel or perpendicular to the flow to control or shut off flow. Can be mounted to most commercial actuators due.

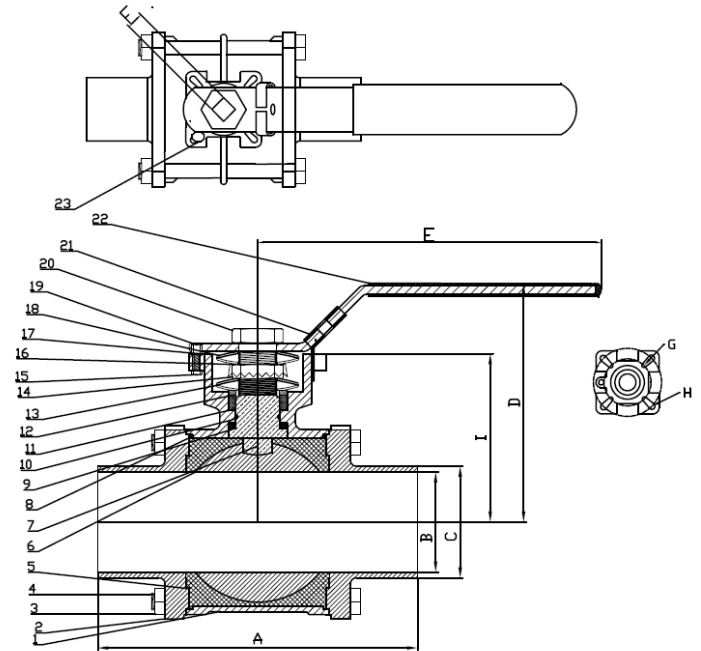
Size Availability- 0.5" to 4"

Material Availability- Body in SS 304 and SS 316L, Gasket in PTFE

Connection Availability- Weld Ends, Ferrule Ends

THREE-PIECE BODY BALL VALVE

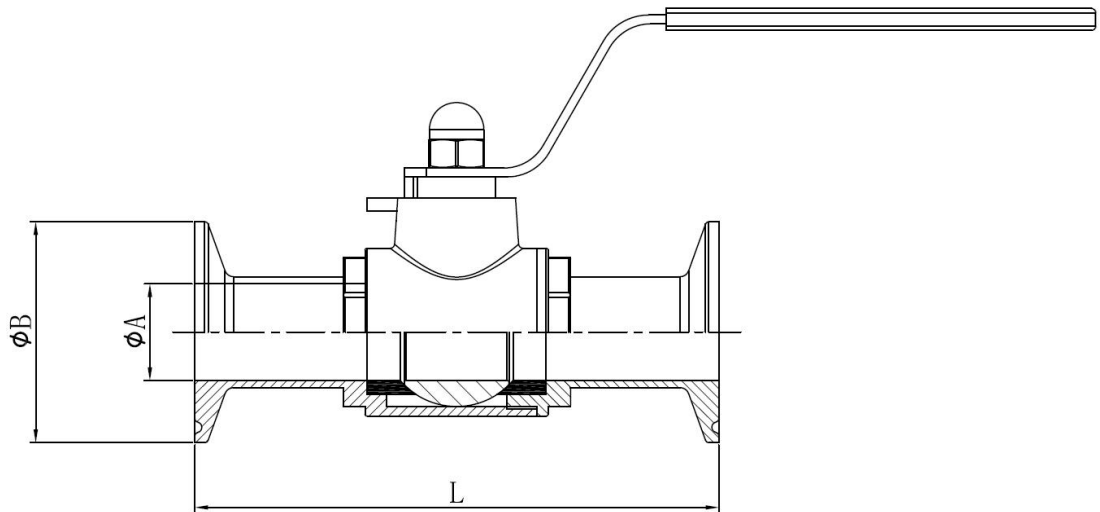
| No. | Part Name | Material |
|-----|------------------|----------------|
| 1 | Body | ASTM A351 CF8M |
| 2 | Cap | ASTM-A351 CF8M |
| 3 | Hex Nut | 304 |
| 4 | Bolt | 304 |
| 5 | Seat | PTFE |
| 6 | Ball | A351 CF8M |
| 7 | Stem | 316 |
| 8 | Stem Packing | PTFE |
| 9 | Ring | PTFE |
| 10 | O-Ring | Viton |
| 11 | Thrust Washer | PTFE |
| 12 | Gasket | PTFE |
| 13 | Butterfly Spring | 304 |
| 14 | Hex Nut | 304 |
| 15 | Hex Nut | 304 |
| 16 | Washer | 304 |
| 17 | Bolt | 304 |
| 18 | Butterfly Spring | 304 |
| 19 | Handle | 304 |
| 20 | Handle Nut | 304 |
| 21 | Lock Washer | 304 |
| 22 | Handle Cover | Plastic |
| 23 | Stop Pin | 304 |



Three-Piece Body Ball Valve Ferrule & Weld Ends

| Size | A | B | C Weld | C Ferrule | D | E | F | G | H | I | Torque |
|-------|-------|-------|-----------|--------------|-------|-----|----|-----|-----|-------|--------|
| 0.5" | 90.5 | 9.4 | 12.7 | 25.2 | 64 | 131 | 9 | F03 | F04 | 37 | 4~10 |
| 0.75" | 103.4 | 15.75 | 19.5 | 25.2 | 68 | 131 | 9 | F03 | F04 | 43 | 4~10 |
| 1" | 114.2 | 22.1 | 25.4 | 50.5 | 86 | 169 | 11 | F04 | F05 | 51 | 5~15 |
| 1.5" | 136.7 | 34.8 | 38.1 | 50.5 | 122.5 | 213 | 14 | F05 | F07 | 71 | 10~25 |
| 2" | 153.2 | 47.5 | 50.8 | 64 | 122.5 | 213 | 14 | F05 | F07 | 79 | 15~30 |
| 2.5" | 167.3 | 60.2 | 63.5 | 77.5 | 139.5 | 213 | 14 | F05 | F07 | 94 | 20~35 |
| 3" | 192.3 | 82.9 | 76.2 | 91 | 165 | 320 | 17 | F07 | F10 | 109.5 | 40~65 |
| 4" | 239.5 | 97.4 | 101.6 | 119 | 177 | 320 | 17 | F07 | F10 | 123 | 40~80 |

TWO-PIECE BODY BALL VALVE



Two-Piece Body Ball Valve

| Size | ϕA | ϕB | L |
|-------------|----------|----------|-------|
| 0.5" | 9.4 | 25 | 74 |
| 0.75 | 15.8 | 25 | 99.5 |
| 1" | 22.1 | 50.5 | 110 |
| 1.5" | 34.8 | 50.5 | 134 |
| 2" | 47.5 | 64 | 156.5 |
| 2.5" | 60.2 | 77.5 | 170 |
| 3" | 72.9 | 91 | 195 |
| 4" | 97.4 | 119 | 240 |

BUTTERFLY VALVE



Method of Operation-

Turning the handle turns the disc either parallel or perpendicular or anywhere in between to control the flow.

Can be equipped with an Actuator to be controlled by air, spring, or electric.

Size Availability- 0.5" to 4", DN25 to DN100

Material Availability- Body in SS 304 and SS 316L, Gaskets in EPDM, Silicone, or BUNA

Connection Availability- Weld Ends, Ferrule Ends, other Sanitary Union connections

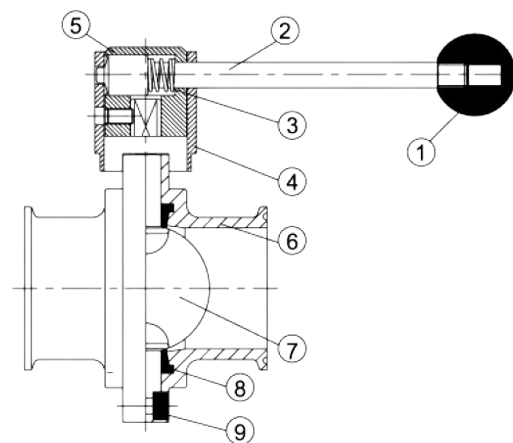
Pressure Rating- Up to 9.5 bar, decreases along with size

Torque Required for Full Open and Close-

| 1" | 1.5" | 2" | 2.5" | 3" | 4" | 6" |
|-------|-------|------|------|------|------|------|
| 9.8Nm | 9.8Nm | 13Nm | 15Nm | 20Nm | 30Nm | 70Nm |

Components List:

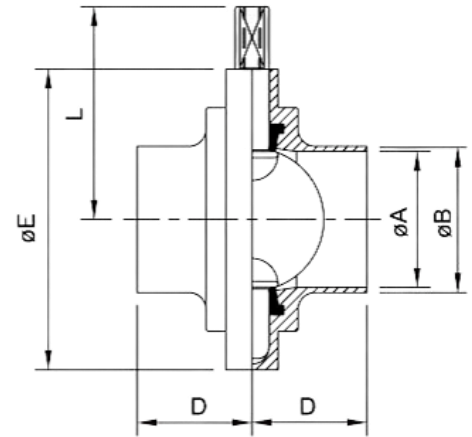
| No. | Name |
|-----|------------------|
| 1 | Knob |
| 2 | Steel Bar |
| 3 | Spring ST.ST |
| 4 | ST.ST |
| 5 | Holder |
| 6 | Body |
| 7 | Disc |
| 8 | EPDM Rubber Seat |
| 9 | Screw Bolt |



BUTTERFLY VALVE

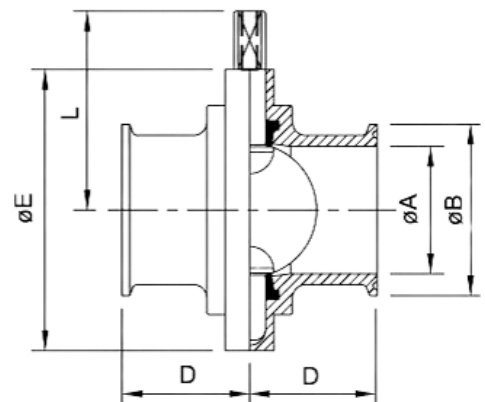
Butterfly Valve with Weld Ends

| Size | ϕA | ϕB | D | ϕE | L |
|------|----------|----------|------|----------|------|
| 0.5" | 9.5 | 12.7 | 23 | 79 | 49.5 |
| 0.75 | 15.8 | 19.50 | 23 | 79 | 49.5 |
| 1" | 22.1 | 25.4 | 23.5 | 79 | 49.5 |
| 1.5" | 34.8 | 38.1 | 23.5 | 85 | 52.5 |
| 2" | 47.5 | 50.8 | 26 | 100 | 60 |
| 2.5" | 60.2 | 63.5 | 27 | 115 | 67.5 |
| 3" | 72.2 | 76.2 | 28 | 127 | 73.5 |
| 4" | 97.6 | 101.6 | 30 | 156 | 88 |
| 6" | 146.8 | 152.4 | 40.5 | 215 | 142 |



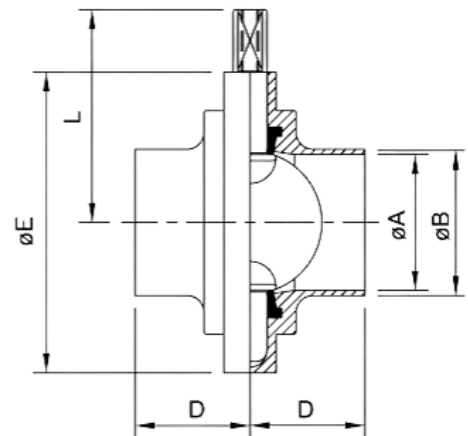
Butterfly Valve with Ferrule Ends

| Size | ϕA | ϕB | D | ϕE | L |
|------|----------|----------|------|----------|------|
| 0.5" | 9.5 | 25.2 | 35 | 79 | 49.5 |
| 0.75 | 15.8 | 25.2 | 35 | 79 | 49.5 |
| 1" | 22.1 | 50.5 | 35 | 79 | 49.5 |
| 1.5" | 34.8 | 50.5 | 35 | 85 | 52.5 |
| 2" | 47.5 | 64.0 | 37 | 100 | 60 |
| 2.5" | 60.2 | 77.5 | 38 | 115 | 67.5 |
| 3" | 72.2 | 91.0 | 39 | 127 | 73.5 |
| 4" | 97.6 | 119.0 | 45 | 156 | 88 |
| 6" | 146.8 | 166.8 | 62.2 | 215 | 142 |



DIN Butterfly Valve with Weld Ends

| Size | ϕA | ϕB | D | ϕE | L |
|-------|----------|----------|------|----------|------|
| DN25 | 26 | 29 | 23.5 | 79 | 49.5 |
| DN32 | 32 | 35 | 23.5 | 82 | 48.5 |
| DN40 | 38 | 41 | 25 | 92 | 52.5 |
| DN50 | 50 | 53 | 26 | 106 | 63.5 |
| DN65 | 66 | 70 | 28 | 127 | 71.5 |
| DN80 | 81 | 85 | 29 | 140 | 78.5 |
| DN100 | 100 | 104 | 30 | 156 | 87.5 |



BUTTERFLY VALVE ACTUATOR



**Without Solenoid Valve
and Limit Switch**



**With Solenoid Valve
and Limit Switch**

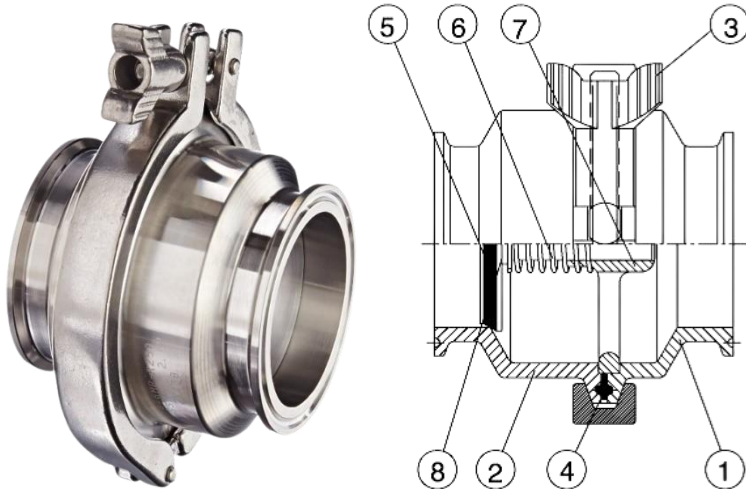
Operation Instructions:

- 1) Signal Transfer:
 - a) 10-30VDC proximity switch 1 or 2pcs (PNP or NPN),
 - b) or 3A 125 VAC, 30 VDC micro switch 2 pcs.

- 2) Air/Air (double effect) actuator or Air/Spring (single effect).

| | |
|--|--------------|
| Shut Off Time (seconds) | 1.5 |
| Weight (kg) | 2.5 |
| Operating Air Pressure 6Kg/cm² | 5-9 bar |
| Air Consumption at 5 bar | 0.266 liters |
| Material | SS 304 |
| Max Output Torque (N/M) | 20 |

NON-RETURN VALVE / CHECK VALVE



Components List:

| No. | Name |
|-----|--------------------|
| 1 | Short Body |
| 2 | Long Body |
| 3 | Clamp |
| 4 | 13 PG |
| 5 | Seal Ring |
| 6 | ST.ST Spring |
| 7 | Flow Support Plate |
| 8 | Disc |

The sanitary **Check Valve** contains a stainless-steel body which houses a disc supported by a spring. When enough pressure is applied, the disc opens and allows product to flow through.

Method of Operation-

Works automatically when enough flow pressure pushes the disc so that the product flows through.

When pressure is not high enough, the disc remains pushed shut so that the product does not flow through.

Size Availability- 0.5" to 4"

Material Availability- Body in SS 316L, Gaskets in EPDM

Connection Availability- Weld Ends, Ferrule Ends

Pressure to Open Valve- 0.5 psi to 3 psi, depending on size

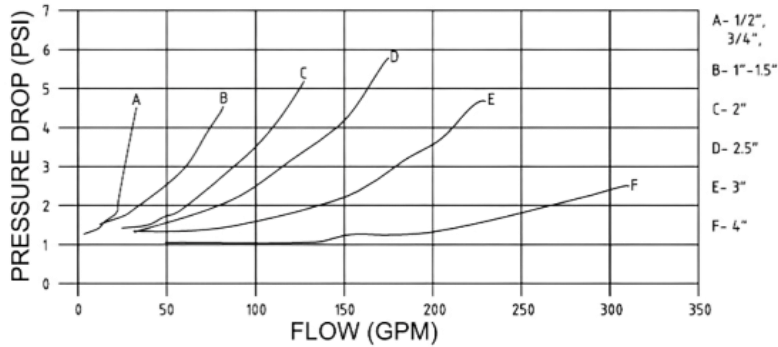
| Opening Pressure (PSI) | | | | | | | |
|------------------------|-------|----|------|-----|------|-----|-----|
| 0.5" | 0.75" | 1" | 1.5" | 2" | 2.5" | 3" | 4" |
| 0.5 | 0.5 | 3 | 1.6 | 0.6 | 1.3 | 0.8 | 0.9 |

NON-RETURN VALVE / CHECK VALVE

Pressure required for opening the valve fitted in a vertical pipe (max pressure- 10 bar):

Spring Check Valve Pressure Drop

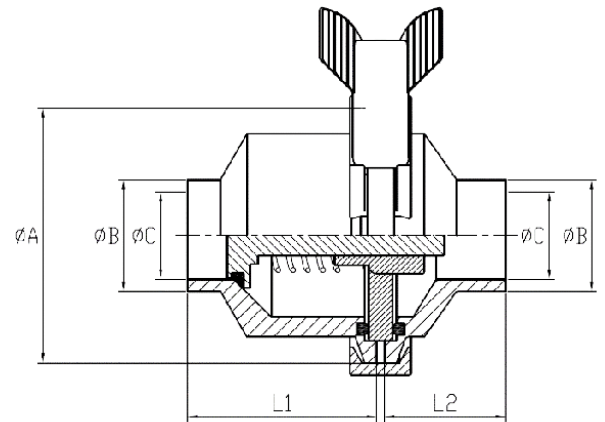
(fig. 3)



Note:
For the diagram the following applies:
Medium: Water(20°C)

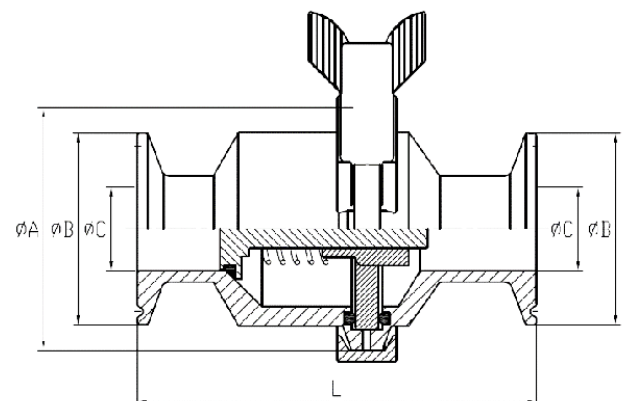
Check Valve with Weld Ends

| Size | øA | øB | øC | L1 | L2 |
|-------|-------|-------|-------|------|------|
| 0.5" | 50.5 | 12.7 | 9.4 | 35 | 22 |
| 0.75" | 64 | 19.05 | 15.75 | 35 | 22 |
| 1" | 64 | 25.4 | 22.1 | 47.5 | 30.5 |
| 1.5" | 77.5 | 38.1 | 34.8 | 50 | 30 |
| 2" | 91 | 50.8 | 47.5 | 58 | 30 |
| 2.5" | 106 | 63.5 | 60.2 | 58 | 37 |
| 3" | 119 | 76.2 | 72.9 | 70 | 36 |
| 4" | 144.5 | 101.6 | 97.6 | 68 | 37 |

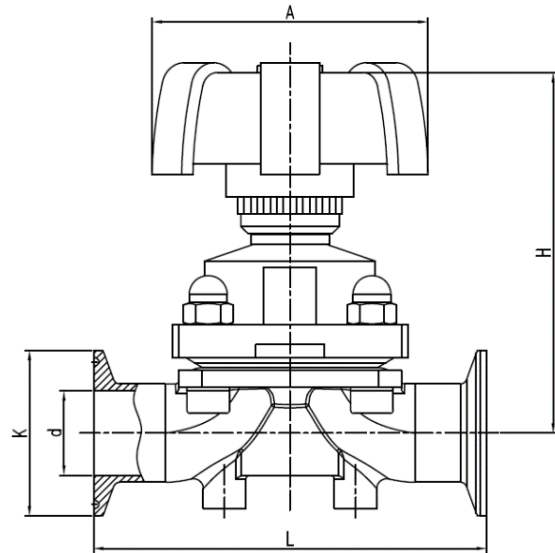


Check Valve with Ferrule Ends

| Size | øA | øB | øC | L |
|-------|-------|------|------|-------|
| 0.5" | 50.5 | 25 | 9.5 | 88.9 |
| 0.75" | 64 | 25 | 15.8 | 88.9 |
| 1" | 64 | 50.5 | 22.1 | 104.8 |
| 1.5" | 77.5 | 50.5 | 34.8 | 115.9 |
| 2" | 91 | 64 | 47.5 | 128.6 |
| 2.5" | 106 | 77.5 | 60.2 | 136.5 |
| 3" | 119 | 91 | 72.9 | 155.6 |
| 4" | 144.5 | 119 | 97.6 | 206.4 |



DIAPHRAGM VALVE



Diaphragm Valve with Ferrule Ends and Weld Ends

| Size | L | A | K x d Ferrule | K x d Weld | H | |
|-------|---------|-----|------------------|---------------|--------------|-----|
| 0.5" | DN10 | 89 | 33 | 25 x 9.4 | 12.7 x 9.4 | 70 |
| 0.75 | DN15/20 | 109 | 58 | 25 x 15.8 | 19.1 x 15.8 | 70 |
| 1" | DN25 | 127 | 90 | 50.5 x 22.1 | 25.4 x 22.4 | 119 |
| 1.25" | DN32 | 159 | 90 | 50.5 x 28.5 | 31.8 x 28.5 | 139 |
| 1.5" | DN40 | 159 | 114 | 50.5 x 34.8 | 38.1 x 34.8 | 139 |
| 2" | DN50 | 190 | 140 | 64 x 47.5 | 50.8 x 47.5 | 150 |
| 2.5" | DN65 | 216 | 140 | 77.5 x 60.2 | 63.5 x 60.2 | 162 |
| 3" | DN80 | 256 | 140 | 91 x 72.9 | 76.2 x 72.9 | 170 |
| 4" | DN100 | 350 | 140 | 119 x 97.4 | 101.6 x 97.4 | |

PRESSURE RELIEF VALVE

The sanitary **Pressure Relief Valve** contains a disc supported by springs. When enough pressure is applied, the disc opens and allows unwanted pressure to flow through.

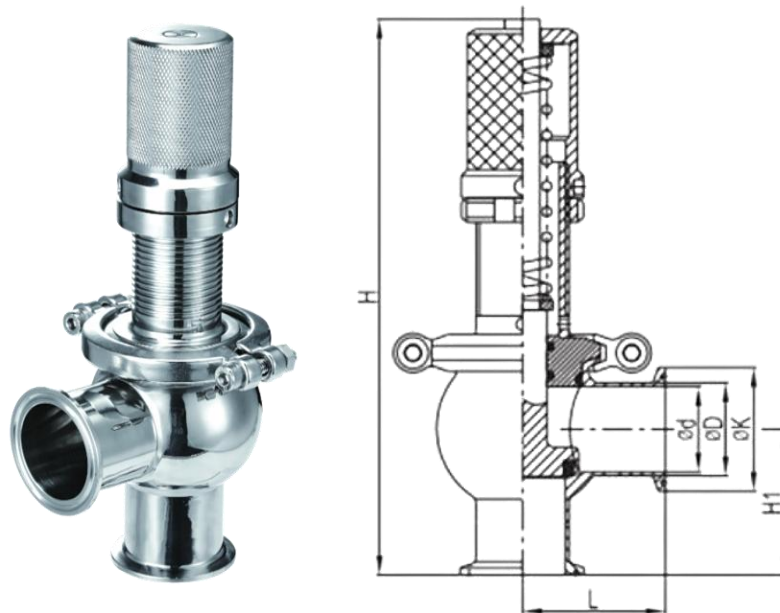
Method of Operation-

Works automatically when enough pressure pushes valve disc to release pipe line air pressure.

Size Availability- 1" to 4"

Material Availability- Body in SS 304 and SS 316L

Connection Availability- Weld Ends, Ferrule Ends



| Size | ød | øD | øK | H1 | L | H |
|------|------|-------|------|-----|-----|-----|
| 1" | 22.4 | 25.4 | 50.5 | 61 | 61 | 227 |
| 1.5" | 35.1 | 38.1 | 50.5 | 58 | 59 | 227 |
| 2" | 47.8 | 50.8 | 64 | 66 | 66 | 270 |
| 2.5" | 59.5 | 63.5 | 77.5 | 77 | 77 | 318 |
| 3" | 72.2 | 76.2 | 91 | 97 | 97 | 351 |
| 4" | 97.6 | 101.6 | 119 | 127 | 135 | 399 |

VACUUM RELIEF VALVE



The sanitary **Vacuum Relief Valve** contains a disc supported by springs. When enough pressure is applied, the disc opens and allows unwanted pipe line air to flow through.

Method of Operation-

When enough pressure pushes valve disc to release pipe line air pressure.

Similarly, when there is enough vacuum pressure present, the disc is pushed in the opposite direction to relief pipe line vacuum pressure.

Size Availability- 2.5"

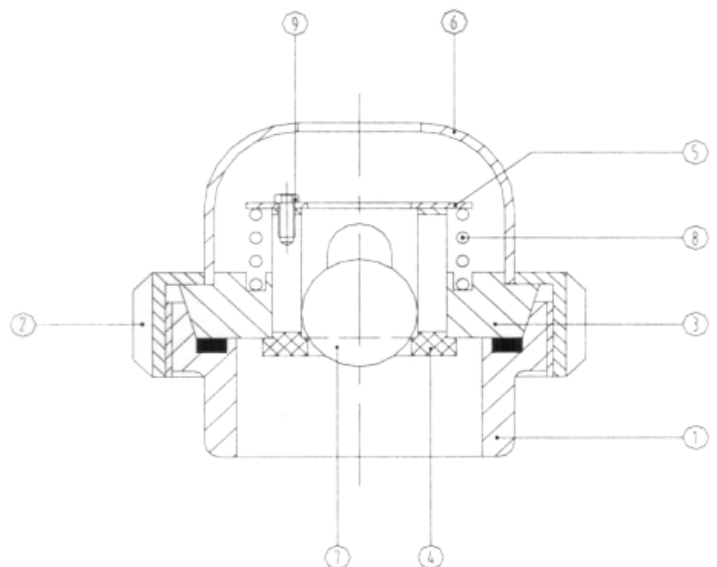
Material Availability- Body in SS 304 and SS 316L

Connection Availability- Weld End

Pressure to Open Valve- 0.02 bar Opening Pressure or 0.01 bar Vacuum Pressure

Components List:

| No. | Item Name | Material | Qty. |
|-----|----------------|-----------|------|
| 1 | Male Part | AISI 304L | 1 |
| 2 | Nut | AISI 304L | 1 |
| 3 | Taper Blank | AISI 304L | 1 |
| 4 | Locking Device | PTFE | 1 |
| 5 | Upper Disc | AISI 304 | 1 |
| 6 | Cap | AISI 304 | 1 |
| 7 | Ball | AISI 304 | 1 |
| 8 | Vacuum Spring | AISI 304 | 1 |
| 9 | Screw 3Max8 | AISI 304 | 2 |



THREE WAY PLUG VALVE



Method of Operation-

Turn the handle rotates the conical plug inside the valve to divert and shut off flow.

The only Sanitary Valve to achieve shut off and divert flow at the same time.

Size Availability- 0.5" to 4"

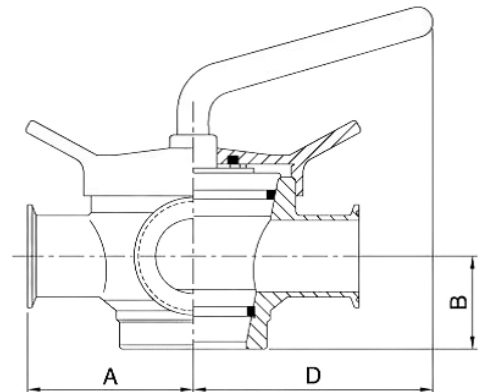
Material Availability- Body in SS 304 and SS 316L, Gaskets in EPDM or BUNA

Connection Availability- Weld Ends, Ferrule Ends, other Sanitary Union connections

Pressure Rating- Up to 1.7 bar, decreases along with size

Three Way Plug Valve with Weld/Male/Ferrule Ends

| OD 3A | OD DIN | A Weld | A Male | A Ferrule | B | D |
|----------|-----------|-----------|-----------|--------------|----|--------|
| 1" | DN25 | 66.3 | 95.3 | 94.9 | 26 | 139.19 |
| 1.5" | DN40 | 85.1 | 118.1 | 113.7 | 35 | 139.19 |
| 2" | DN50 | 114.2 | 149.2 | 142.8 | 45 | 143.01 |
| 2.5" | DN65 | 132 | 172 | 160.6 | 55 | 143.69 |
| 3" | DN80 | 168.6 | 213.6 | 197.2 | 70 | 143.81 |
| 4" | DN100 | 206.3 | 260.3 | 234.9 | 75 | 174.21 |



HIGH VACUUM BALL VALVE



Method of Operation-

Turning the handle turns the valve ball either parallel or perpendicular to the flow to control or shut off flow. Can be mounted to most commercial actuators due.

Size Availability- KF15-KF50

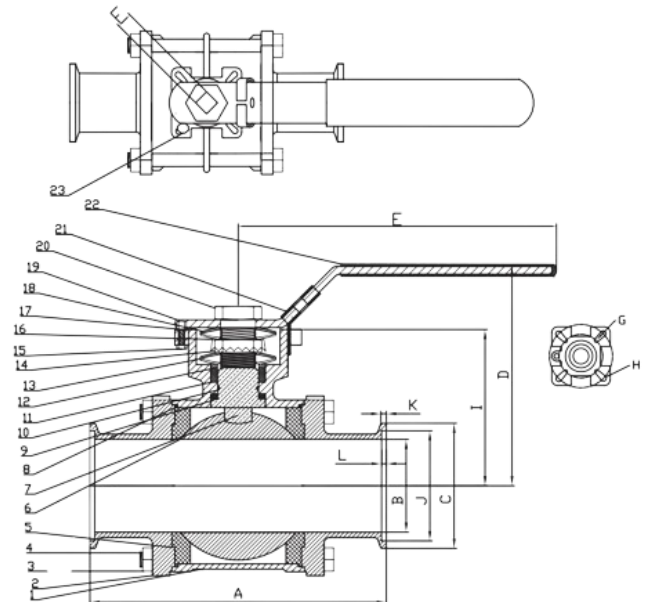
Material Availability- Body in SS 304 and SS 316L, Gasket in PTFE

Connection Availability- Weld Ends, KF Flange Ends

Pressure Rating- 10^{-6} - 10^{-10} Pa•m²/s

HIGH VACUUM BALL VALVE

| No. | Part Name | Material |
|-----|------------------|----------------|
| 1 | Body | ASTM A351 CF8M |
| 2 | Cap | ASTM-A351 CF8M |
| 3 | Hex Nut | 304 |
| 4 | Bolt | 304 |
| 5 | Seat | PTFE |
| 6 | Ball | 316 |
| 7 | Stem | 316 |
| 8 | Stem Packing | PTFE |
| 9 | Ring | PTFE |
| 10 | O-Ring | Viton |
| 11 | Thrust Washer | PTFE |
| 12 | Gasket | 304 |
| 13 | Butterfly Spring | 304 |
| 14 | Hex Nut | 304 |
| 15 | Hex Nut | 304 |
| 16 | Washer | 304 |
| 17 | Bolt | 304 |
| 18 | Butterfly Spring | 304 |
| 19 | Handle | 304 |
| 20 | Handle Nut | 304 |
| 21 | Lock Washer | 304 |
| 22 | Handle Cover | Plastic |
| 23 | Stop Pin | 304 |



Three-Piece Body Ball Valve with KF Flange Ends

| Size | A | B | C | D | E | F | G | H | I | J | K | L |
|------|-------|-------|------|-------|-----|----|-----|-----|----|------|---|------|
| KF10 | 103.4 | 9.4 | 30 | 68 | 131 | 9 | F03 | F04 | 43 | 12.2 | 3 | 2.54 |
| KF15 | 103.4 | 15.75 | 30 | 68 | 131 | 9 | F03 | F04 | 43 | 17.3 | 3 | 2.54 |
| KF25 | 114.2 | 22.1 | 50.5 | 86 | 169 | 11 | F04 | F05 | 51 | 26.2 | 3 | 2.54 |
| KF40 | 136.7 | 34.8 | 55 | 122.5 | 213 | 14 | F05 | F07 | 77 | 41.2 | 3 | 2.54 |
| KF50 | 153.2 | 46.5 | 75 | 122.5 | 213 | 14 | F05 | F07 | 79 | 52.3 | 3 | 2.54 |

INLINE SIGHT GLASS

Application- The clear tube allows operators an easy inspection of the product flow.

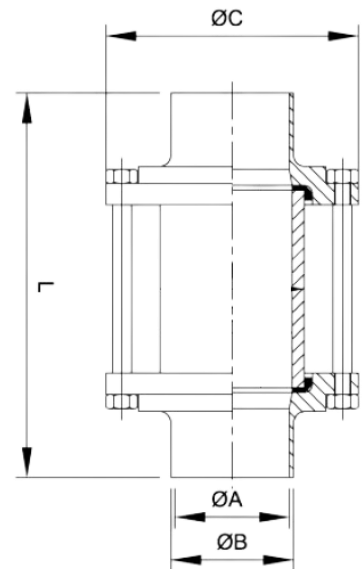
Size Availability- 1" to 4"

Material Availability- SS 316L body houses a Borosilicate Glass Tube

Connection Availability- Weld Ends, Ferrule Ends

Inline Sight Glass with Weld Ends

| Size | ØA | ØB | ØC | L |
|------|------|-------|-----|-----|
| 1" | 22.1 | 25.4 | 79 | 130 |
| 1.5" | 34.8 | 38.1 | 85 | 128 |
| 2" | 47.5 | 50.8 | 100 | 133 |
| 2.5" | 60.2 | 63.5 | 115 | 131 |
| 3" | 72.9 | 76.2 | 127 | 134 |
| 4" | 97.6 | 101.6 | 156 | 135 |



Inline Sight Glass with Ferrule Ends

| Size | ØA | ØB | ØC | L |
|------|------|------|-----|-----|
| 1" | 22.1 | 50.5 | 79 | 153 |
| 1.5" | 34.8 | 50.5 | 85 | 151 |
| 2" | 47.5 | 64 | 100 | 155 |
| 2.5" | 60.2 | 77.5 | 115 | 153 |
| 3" | 72.9 | 91 | 127 | 156 |
| 4" | 97.6 | 119 | 156 | 165 |

