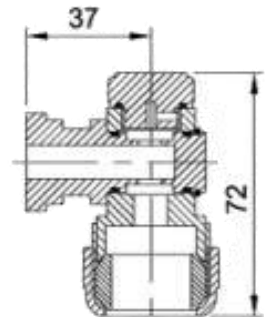
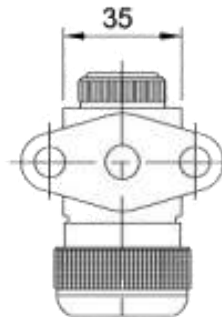
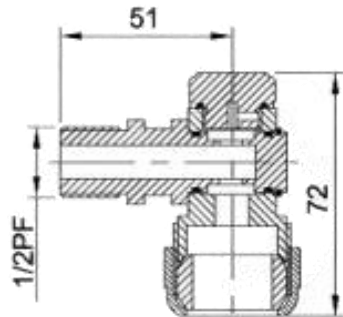


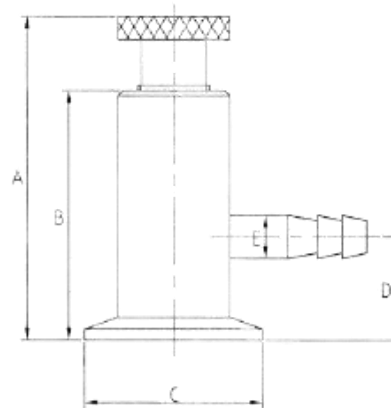
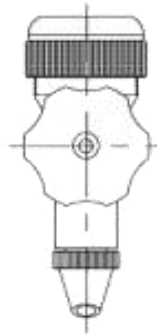
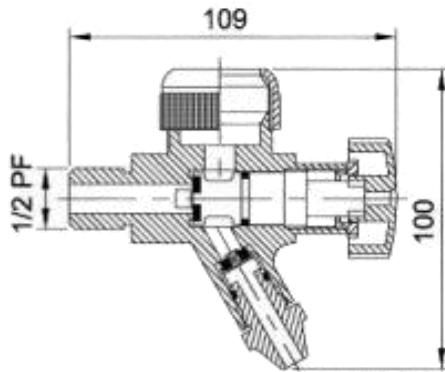
# Valves

## Level Gauge Valve and Samplings Valve

### Upper Valves

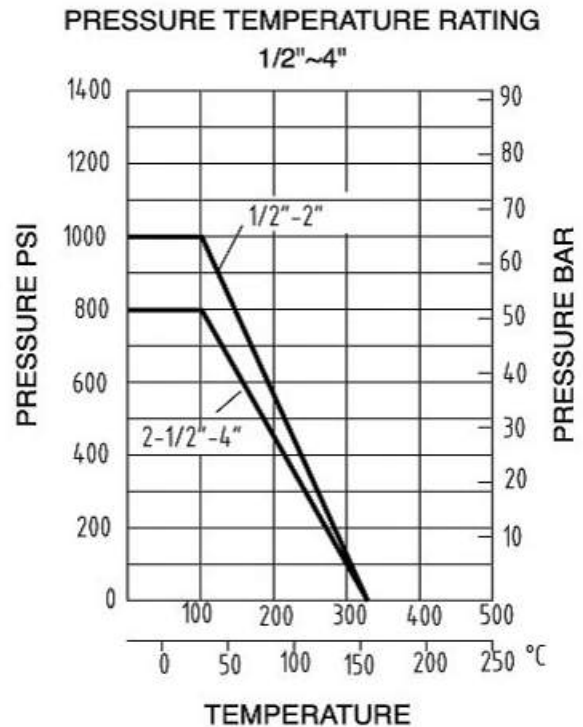
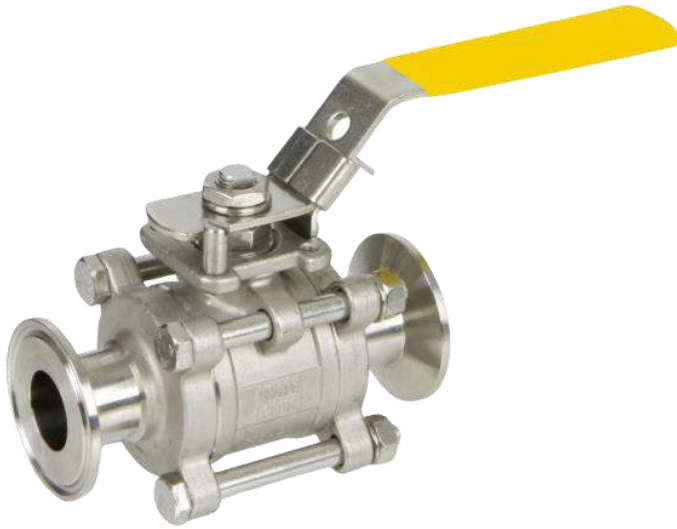


### Level Valves



Sampling Valve					
Size	A	B	C	D	E
1" / 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 to standard.

### Pros and Cons-

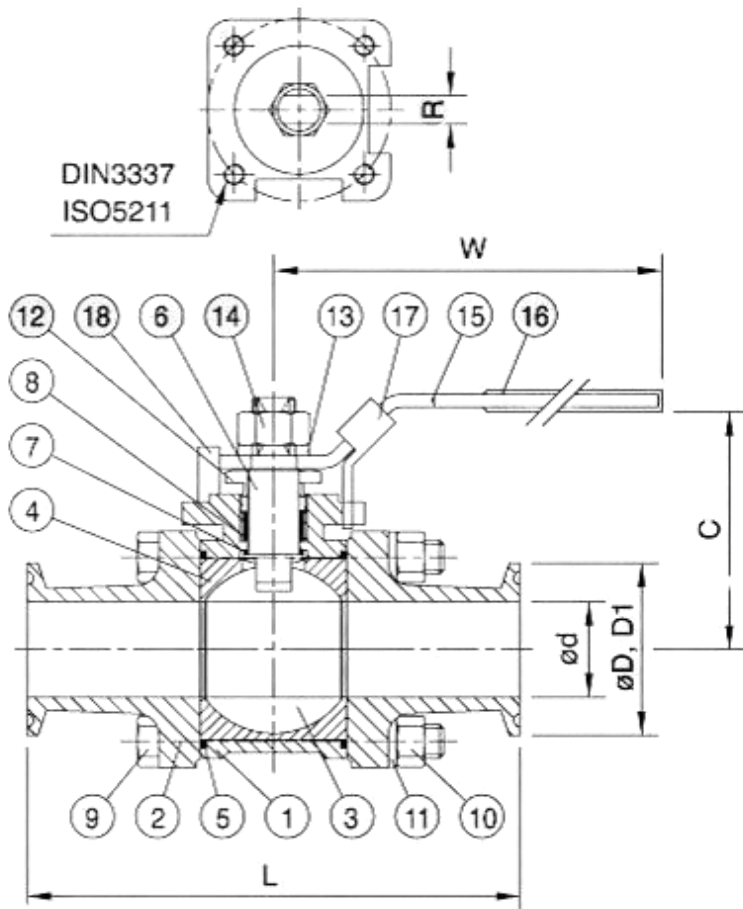
- Highest pressure Sanitary Valve
- Can achieve perfect shut off even after years of disuse
- Can be mounted to most commercial actuators
- When valve is open, no obstruction in valve means no drop in flow pressure
- Hard to clean by CIP systems, have to dismantled
- More expensive than butterfly valves

**Size Availability-** 0.5" to 4" (*if you need a different size, call us to request it*)

**Material Availability-** Body in SS 316L, Gaskets in PTFE

**Connection Availability-** Weld end, Ferrule End

**Pressure to Open Valve-** Up to 68 bar, reduces along with size



Component List		
No.	Part Name	Material
1	Body	ASTM-A351-CF8M
2	Cap	ASTM-A351-CF8M
3	Ball	A351-CF8M
4	Seat	PTFE
5	Gasket	PTFE
6	Stem	316
7	Thrust Washer	PTFE
8	Stem Packing	PTFE
9	Bolt	304
10	Hex Nut	304
11	Bolt Washer	304
12	Gland	304
13	Washer	304
14	Nut	304
15	Handle	304
16	Plastic Cover	Plastic
17	Lock Device	304
18	Stop Pin	304

Clamp and Weld End										
Size	DN	ISO5211	C	L	W	ød	øD	øD1	R	L1
0.5"	15	F03	55	89	132	9.5	25.4	12.7	5	32.75
0.75"	20	F03	60	101	131.5	15.9	25.4	19.05	5	36.5
1"	25	F04	69	114	165	22.2	50.4	25.4	6.5	40
1.5"	40	F05	84	140	194.3	35	50.4	38.1	8.5	43.5
2"	50	F05	92	156	194.3	47.6	63.9	50.8	8.5	45.75
2.5"	65	F07	126.8	197	252	60.3	77.5	63.5	12	56
3"	80	F07	136	229	252	73	90.9	76.2	12	64.5
4"	100	F10	158.8	242.7	333	97.4	118.9	101.6	16	60.6

# 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.

## Pros and Cons-

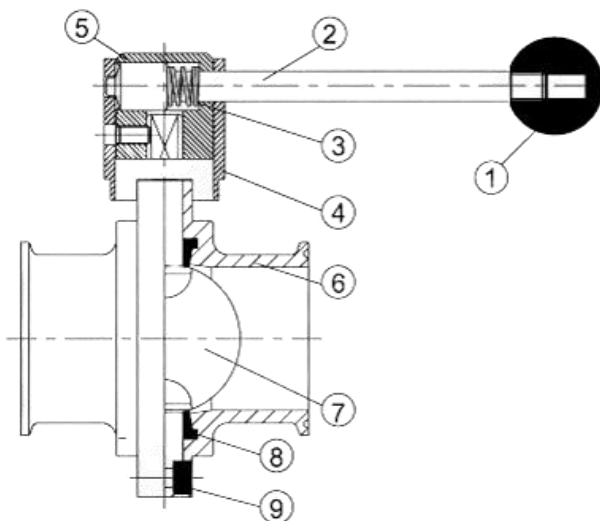
- Relatively inexpensive
- Few spare parts, easy to repair
- Lower pressure rating compared to ball valve

**Size Availability-** 0.5" to 4" (*if you need a different size, call us to request it*)

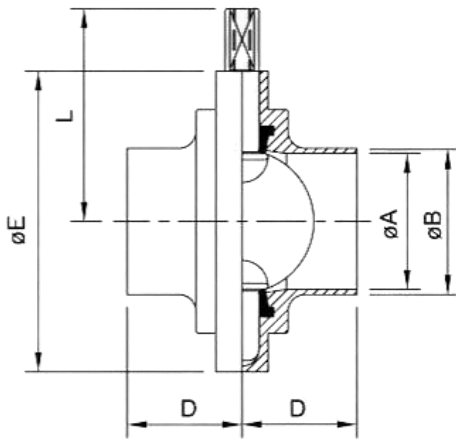
**Material Availability-** Body in SS 304 or SS 316L, Gasket in EPDM, Silicone, or BUNA

**Connection Availability-** Weld end, Ferrule End, other Sanitary Union connections

**Pressure Rating-** Up to 9.5 Bar, decreases along with size



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

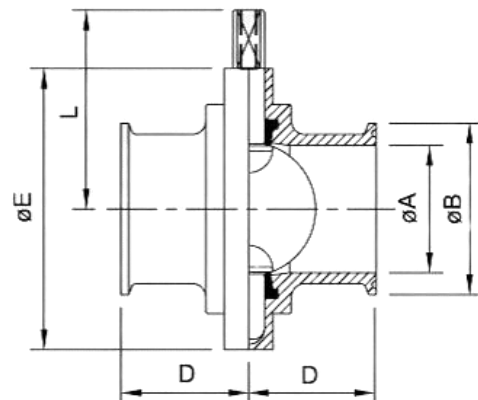


### 3A/BS/SMS Weld/Weld Butterfly Valves

Size	øA	øB	Size	øA	øB	D	øE	L
0.5"	9.5	12.7	-	-	-	34	79	61
0.75"	15.8	19.50	-	-	-	34	79	61
1"	22.1	25.4	DN25	22.5	25	34	79	61
1.5"	34.8	38.1	DN38	35.5	38	38	85	64.3
2"	47.5	50.8	DN51	48	51	40	105	74.3
2.5"	60.2	63.5	DN63	60.2	63.5	40	112	77.6
3"	72.2	76.2	DN76	72.1	76.1	41	125	84.8
4"	97.6	101.6	DN104	100	104	44	157	101.7
6"	146.8	152.4	-	-	-	57	214	138.9

### DIN Weld/Weld Butterfly Valves

Size	øA	øB	D	øE	L
DN28	25	28	34	79	61
DN34	31	34	38	85	64.3
DN40	37	40	38	90	74.3
DN50	49	52	40	105	77.6
DN65	66	70	41	125	84.8
DN85	81	85	42	137	91.6
DN104	100	104	44	157	101.7



### 3A Clamp/Clamp Butterfly Valves

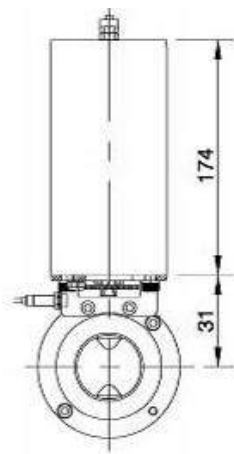
Size	øA	øB	D	øE	L
0.5"	9.5	25.2	34	79	61
0.75"	15.8	25.2	34	79	61
1"	22.1	50.5	33	79	61
1.5"	34.8	50.5	33	85	64.3
2"	47.5	64.0	35	105	74.3
2.5"	60.2	77.5	35	112	77.6
3"	72.2	91.0	38	125	84.8
4"	97.6	119.0	38	157	101.7
6"	146.8	166.8	57	213	138.9

# Butterfly Valve Actuator

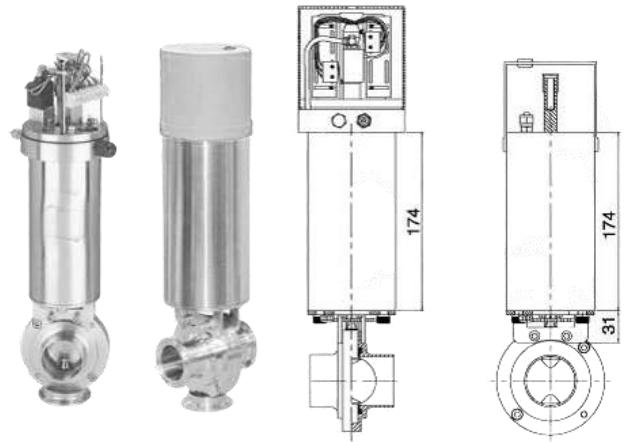
## Operation Instructions

- 1) Signal Transfer:
  - a) 10-30VDC proximity switch 1 or 2 pcs (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).

	<b>C2</b>	<b>C3</b>
<b>Shut Off Time (seconds)</b>	1.5	1.5
<b>Weight (kg)</b>	3.85	3.85
<b>Operating Air Pressure 6Kg/cm<sup>2</sup></b>	5-9 bar	5-9 bar
<b>Air Consumption at 5 bar</b>	0.266 liters	0.266 liters
<b>Material</b>	SS 304	SS 304
<b>Equipped with Actuator Control Box</b>	Yes	No
<b>Max Output Torque (N/M)</b>	20	20

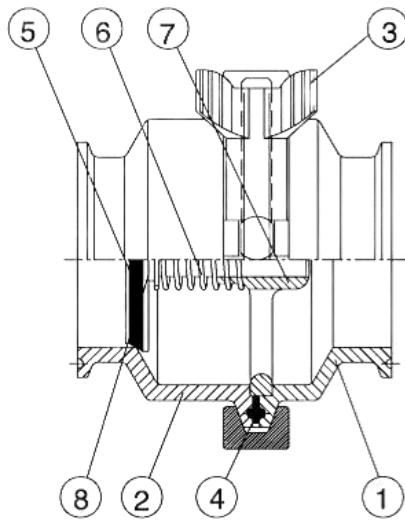


**C2 without control box**



**C3 with control box**

## .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 product does not flow through.

### Pros and Cons-

- Relatively small automatically operating valve body helps save space in tight pipe line situations
- Spare parts are few and replaceable
- A minimal pressure drop in pipe line flow due to disc always staying in the path of the flow

**Size Availability-** 0.5" to 4" (*if you need a different size, call us to request it*)

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

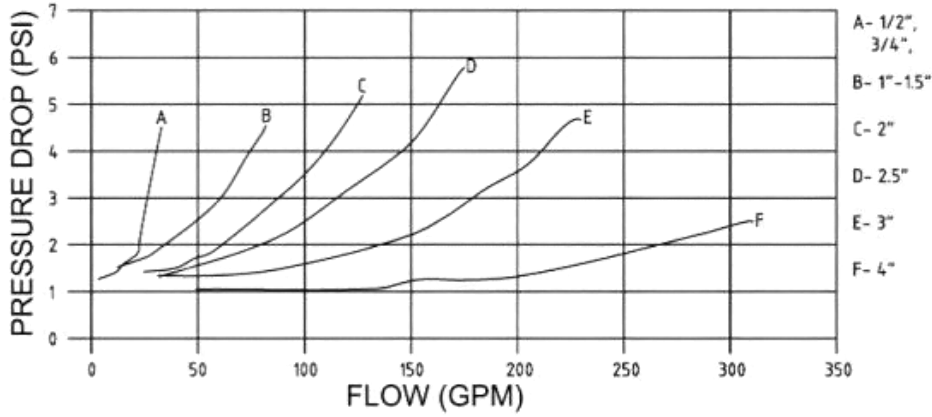
**Connection Availability-** Weld end, Ferrule End

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

Pressure required for opening the valve fitted in a vertical pipe, max pressure is 10 bar

**Spring Check Valve Pressure Drop**

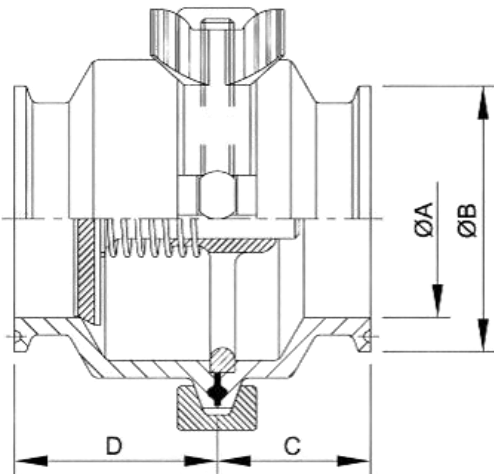
(fig. 3)



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

**Opening Pressure (PSI)**

<b>0.5"</b>	<b>0.75"</b>	<b>1"</b>	<b>1.5"</b>	<b>2"</b>	<b>2.5"</b>	<b>3"</b>	<b>4"</b>
0.5	0.5	3	1.6	0.6	1.3	0.8	0.9



<b>Check Valve with Ferrule Ends</b>					
<b>3A</b>	$\phi A$	$\phi B$	<b>DIN</b>	$\phi A$	$\phi B$
0.5"	9.5	25.2	-	-	-
0.75	15.8	25.2	-	-	-
1"	22.1	50.5	DN25	25	50.5
1.5"	34.8	50.5	DN32	31	50.5
2"	47.5	64	DN40	37	64
2.5"	60.2	77.5	DN50	49	77.5
3"	72.9	91	DN65	66	91
4"	97.6	119	DN100	100	119



## Pressure Relief Valve



The sanitary pressure relief valve contains a disc supported by springs, when enough pressure is applied, the disc opens to allow unwanted pressure to flow through.

### **Method of Operation-**

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

**Size Availability-** 1"-2.5"

**Material Availability-** Body in SS 304 and SS 316L

**Connection Availability-** Weld End and Ferrule End

## Vacuum Relief Valve



The sanitary vacuum relief valve contains a disc supported by springs, when enough pressure is applied, the disc opens to allow unwanted pipe line air to flow through.

### Method of Operation-

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

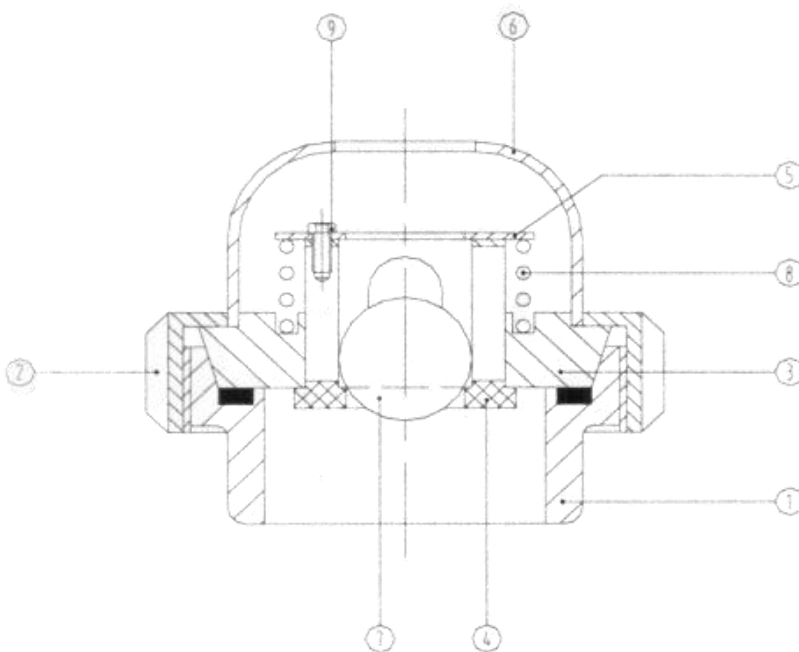
Similarly, when there is enough vacuum pressure present, the disc is pushed in the opposite direction to relief pipe line vacuum pressure.

**Size Availability-** 2.5" (if you need a different size, call us to request it)

**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.	Qty	Item Name	Material
1	1	Male Part	AISI 304L
2	1	Nut	AISI 304L
3	1	Taper Blank	AISI 304L
4	1	Locking Device	PTFE
5	1	Upper Disc	AISI 304
6	1	Cap	AISI 304
7	1	Ball	AISI 304
8	1	Vacuum Spring	AISI 304
9	2	Screw 3Max8	AISI 304

## Three Way Plug Valve



### Method of Operation-

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

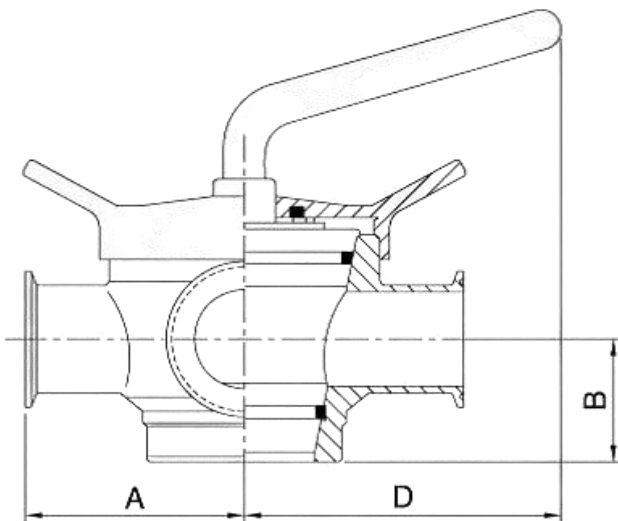
The only Sanitary Valve to achieve shut off and divert flow at the same time.

**Size Availability-** 0.5" to 4" (if you need a different size, call us to request it)

**Material Availability-** Body in SS 304 or SS 316L, Gasket in EPDM or BUNA

**Connection Availability-** Weld end, Ferrule End, other Sanitary Union connections

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



2/3 Way Plug Valve for Weld/Male/Clamp Ends					
Size (OD)	Weld A	Male A	Clamp A	B	D
DN25/1"	66.3	95.3	94.9	26	139.19
DN40/1.5"	85.1	118.1	113.7	35	139.19
DN50/2"	114.2	149.2	142.8	45	143.01
DN65/2.5"	132	172	160.6	55	143.69
DN80/3"	168.6	213.6	197.2	70	143.81
DN100/4"	206.3	260.3	234.9	75	174.21

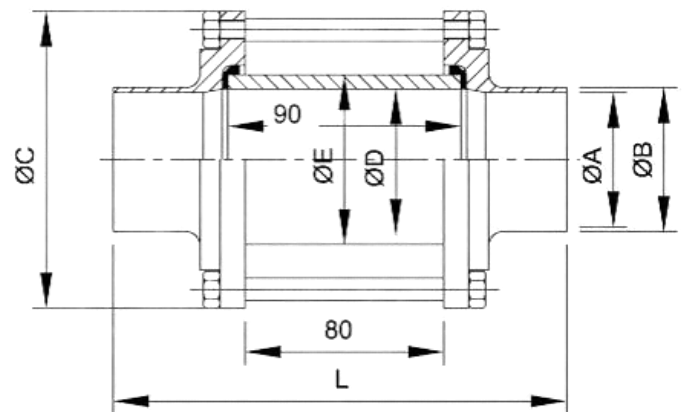
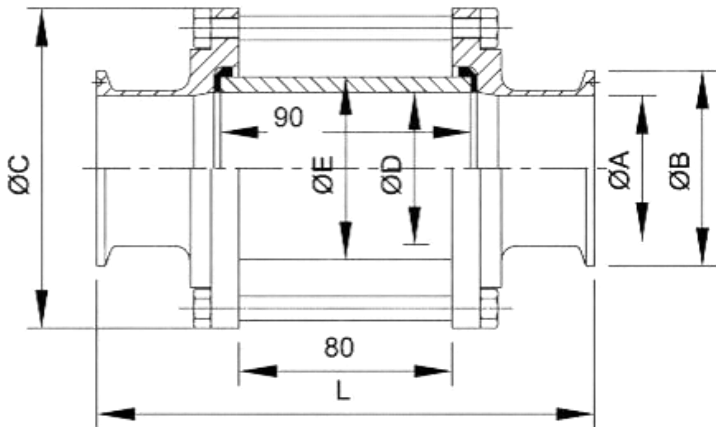
## Sight Glass

**Size Availability-** 1" to 4" (if you need a different size, call us to request it)

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

**Connection Availability-** Weld end, Ferrule End

**Pressure Rating-** 10 bar



Clamp End Sight Glass						
Size	ØA	ØB	ØC	ØD	ØE	L
1"	22.1	50.5	79	26	32	143
1.5"	34.8	50.5	85	34	40	146
2"	47.5	64	105	50	60	150
2.5"	60.2	77.5	112	65	75	150
3"	72.9	91	125	75.4	85	156
4"	97.6	119	157	100	110	156

Weld End Sight Glass						
Size	ØA	ØB	ØC	ØD	ØE	L
DN25	22.5	25	79	26	32	148
DN38	35.4	38	85	34	40	156
DN51	48	51	105	50	60	160
DN63.5	60.2	63.5	112	65	75	160
DN76	72	76	125	75.4	85	162
DN104	100	104	157	100	110	168

# Tank Sight Glass

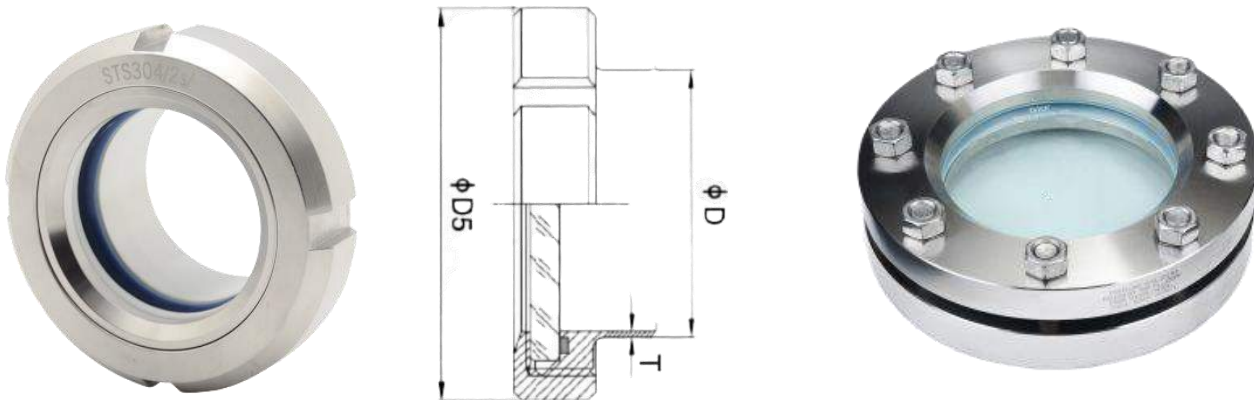
## Method of operation –

Installed by welding on a tank, it provides a means of viewing the insides.

Commonly used to observe liquid levels and contents of a tank.

**Material Availability-** Body comes in SS 304 and SS 316L, gaskets in EPDM, Teflon, Silicone.

**Pressure Rating –** 3 to 10 bar



<b>SMS Union Sight Glass</b>			
<b>Size</b>	<b><math>\phi D</math></b>	<b><math>\phi D5</math></b>	<b><math>\phi T</math></b>
1"	25.4	51	1.25
1.5"	38.1	74	1.25
2"	50.8	84	1.25
2.5"	63.5	100	1.5
3"	76.1	114	1.5
4"	101.6	138	2