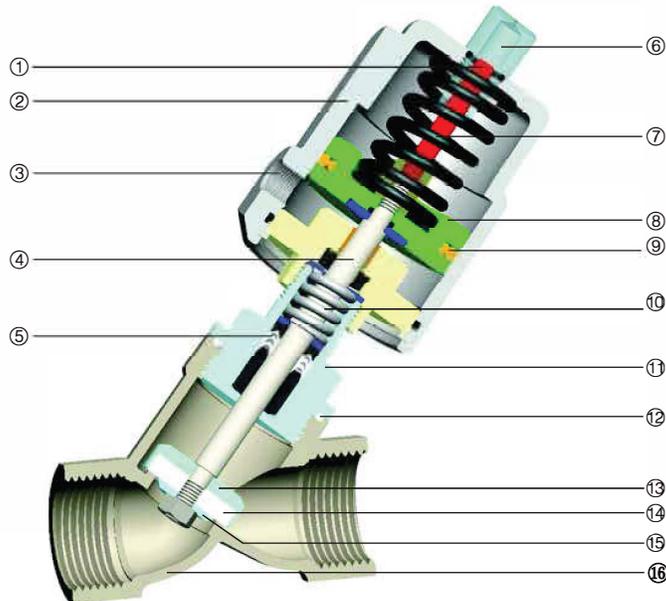


# Pneumatic Angle Seat Valve



- ① Indication Rod (nylon)
- ② Actuator (CF8)
- ③ Pilot Port (1/8")
- ④ Stem (AISI316/304)
- ⑤ Stem Seal (PTFE)
- ⑥ Cap (PC)
- ⑦ Spring (Steel 65Mn)
- ⑧ Piston (Alu.alloy)
- ⑨ Piston Seal (Viton)
- ⑩ Seal Spring (AISI304)
- ⑪ Connecting Piece (CF8M/CF8)
- ⑫ Body Seal (PTFE)
- ⑬ Valve core (CF8M/CF8)
- ⑭ Seat Seal (PTFE)
- ⑮ Gasket (AISI316/304)
- ⑯ Body (CF8M/CF8)

## Function Principle

Valve stays closed(open) by spring force in its normal state. When piston is actuated by compressed air, valve becomes opened(closed). For double acting type, valve is opened and closed by compressed air.

## Applications

- Beer & Drinks Bottling Machinery
- Textile Printing & Dyeing
- Gas Industry
- Pharmacy & Medical Equipment
- Chemical Industry
- High-temperature disinfection
- Frothing Equipment
- Water/Sewage treatment

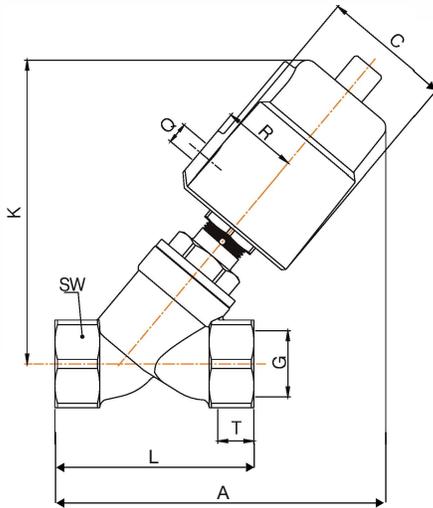
## Advantages

- Large flux, low resistance, no water-hammer
- Y-type shape with enlarged flowing section raises flux by 30% and smoothens the flow.
- Superb service life.
- The stem adjusts and lubricates itself automatically, minimizing needs for maintenance.
- The cylinder can rotate 360° unconstrained, and uses stainless steel material, which enables superior performance.

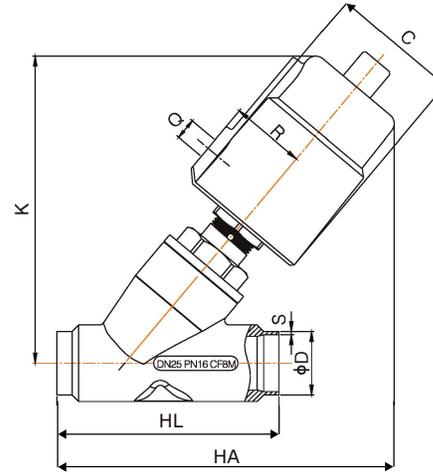
## Technical Specification

<b>Fluid Pressure</b>	Max 1.6MPa(232psi)
<b>Control Pressure</b>	0.3 — 0.8MPa (43.5 — 116psi)
<b>Control Fluid</b>	Neutral gas, Air
<b>Body Material</b>	CF8M/CF8
<b>Seals Material</b>	PTFE
<b>Actuator Material</b>	CF8
<b>Actuator Size</b>	40mm, 50mm, 63mm, 90mm, 125mm
<b>Applicable Fluid</b>	Water, Alcohol, Oil, Fuel, Steam, Neutral gas or liquid, Organic solvent, Acid and lye
<b>Fluid Viscosity</b>	Max 600mm <sup>2</sup> /s
<b>Fluid Temperature</b>	-10°C — +180°C, +25°C — +220°C
<b>Ambient Temperature</b>	-10°C — +80°C
<b>Control Type</b>	Normally closed, Normally open, Double acting
<b>Connection</b>	Threaded(BSP, BSPT, NPT), Welded, Flanged, Tri-clamp

# Pneumatic Angle Seat Valve



Threaded Connection

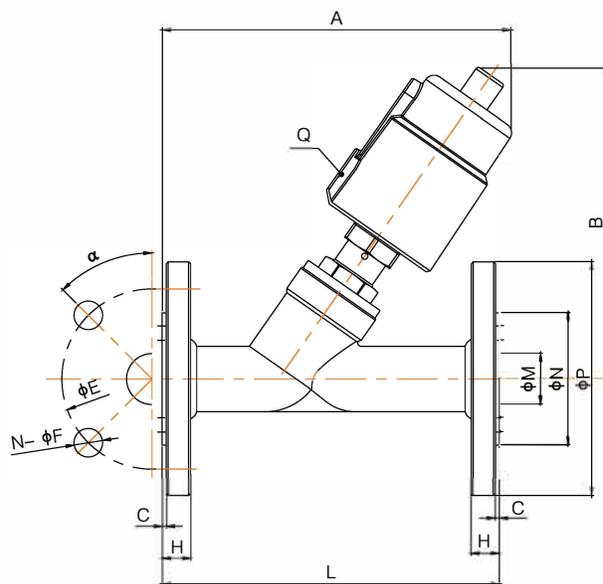


Welded Connection

## Main Dimension

Size	Actuator (mm)	Q	C	R	K	Threaded connection					Welded connection					
						G	T	A	L	SW	HA	HL	DIN11850-2		DIN11850-3	
													D	S	D	S
DN10	40	1/8"	50.5	27	112	3/8"	12	124	68	27	-	-	-	-	-	-
	50	1/8"	60	33	125			135			-	-	-	-	-	-
DN15	40	1/8"	50.5	27	112	1/2"	15	124	68	27	118	70	19	1.5	20	2
	50	1/8"	60	33	125			135			128					
DN20	50	1/8"	60	33	132	3/4"	16	140	75	32	135	82	23	1.5	24	2
DN25	50	1/8"	60	33	136	1'	17	150	90	40	150	100	29	1.5	30	2
	63	1/8"	75	41	162			175								
	90AL	1/8"	112	57	210			216								
	90	1/8"	106	55	211			218								
DN32	63	1/8"	75	41	174	1 1/4"	21	190	116	50	186	125	35	1.5	36	2
	90AL	1/8"	112	57	220			230								
	90	1/8"	106	55	223			235								
DN40	63	1/8"	75	41	175	1 1/2"	21	190	116	56	190	130	41	1.5	42	2
	90AL	1/8"	112	57	220			230								
	90	1/8"	106	55	223			235								
DN50	63	1/8"	75	41	183	2'	22	205	138	69	206	155	53	1.5	54	2
	90AL	1/8"	112	57	232			245								
	90	1/8"	106	55	232			250								
	125AL	1/4"	170	85	300			305								
DN65	90AL	1/8"	112	57	262	2 1/2"	26	282	178	85	-	-	-	-	-	-
	90	1/8"	106	55	265			285			-	-	-	-	-	-
	125AL	1/4"	170	85	315			327			-	-	-	-	-	-
DN65 Square Opening	90AL	1/8"	112	57	280	2 1/2"	26	270	178	85	315	270	70	2	-	-
	90	1/8"	106	55	280			275			320				-	-
	125AL	1/4"	170	85	330			320			360				-	-
	DN80 Square Opening	125AL	1/4"	170	85			355			3'				27	340
DN80	125AL	1/4"	170	85	327	380	-	-	-	-		-	-			

# Flange Ends Angle Seat Valve

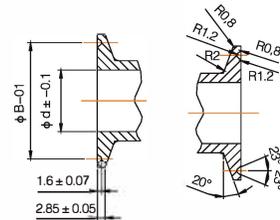
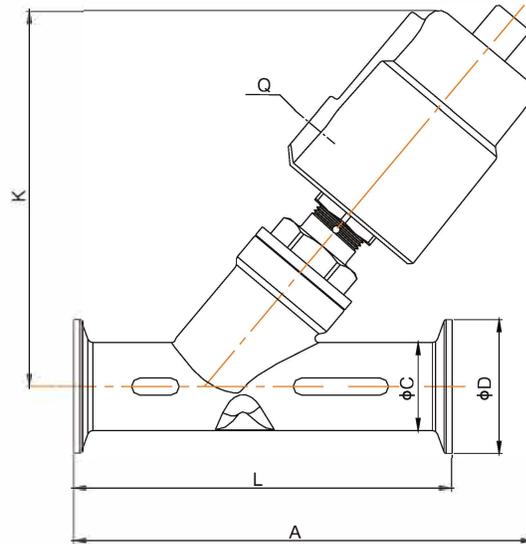


Flange specification:  
DIN2576(JB/T82.1); customization available, ISO/DIN/JIS is also available

## Main Dimension

Size	Actuator (mm)	Q	A	B	L	C	H	$\phi E$	N- $\phi F$	$\phi M$	$\phi N$	$\phi P$	$\alpha$
DN15	40	G1/8	135	125	130	2	14	65	4-14	16	45	95	45°
	50		145	140									
DN20	50	G1/8	165	140	150	2	14	75	4-14	19	56	105	45°
DN25	50	G1/8	170	145	160	2	14	85	4-14	26	65	115	45°
	63		190	175									
DN32	63	G1/8	190	188	180	2	16	100	4-18	31	78	140	45°
	90		230	235									
	90AL		225	234									
DN40	63	G1/8	206	190	200	3	16	110	4-18	38	84	150	45°
	90		250	240									
	90AL		244	235									
DN50	63	G1/8	235	195	230	3	16	125	4-18	49	100	165	45°
	90		277	245									
	90AL		275	245									
	125AL	G1/4	330	310									
DN65 Square opening	90	G1/8	330	280	290	3	18	145	4-18	66	120	185	45°
	90AL		325	280									
	125AL	G1/4	375	330									
DN80 Square opening	125AL	G1/4	380	355	310	3	20	160	8-18	78	135	200	22.5°
DN100	125AL	G1/4	420	395	350	3	20	180	8-18	96	155	215	22.5°

# Tri-clamp Ends Angle Seat Valve



Clamp Specification:  
ISO2852-1993, customization available.

## Main Dimension

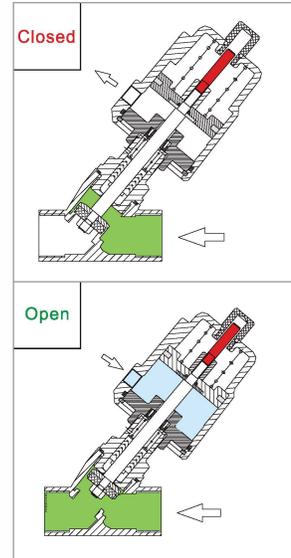
Size	Actuator (mm)	Q	A	K	L	C	B	φ d	φ D
DN15	40	1/8"	130	115	80	19	27.5	15	34
	50	1/8"	140	126					
DN20	50	1/8"	158	148	130	25	43.5	19	50.5
	63	1/8"	175	163					
DN25	50	1/8"	165	140	130	32	43.5	27	50.5
	63	1/8"	188	166					
DN32	63	1/8"	200	174	146	37	43.5	31	50.5
	90	1/8"	245	223					
	90AL	1/8"	242	222					
DN40	63	1/8"	210	175	160	40	56.5	33	64
	90	1/8"	255	223					
	90AL	1/8"	254	222					
DN50	63	1/8"	221	185	175	53	56.5	45	64
	90	1/8"	265	235					
	90AL	1/8"	265	232					
	125AL	1/4"	325	296					
DN65 Square opening	90	1/8"	325	280	278	75	83.5	66	91
	90AL	1/8"	320	280					
	125AL	1/4"	360	330					
DN80 Square opening	125AL	1/4"	360	352	290	89	97	78	106

# Pressure Data Sheet

## Single Acting, Normally Closed (NC) – Enter Above Seat

Suitable for condensable media, such as air, steam, and low pressure liquid media.

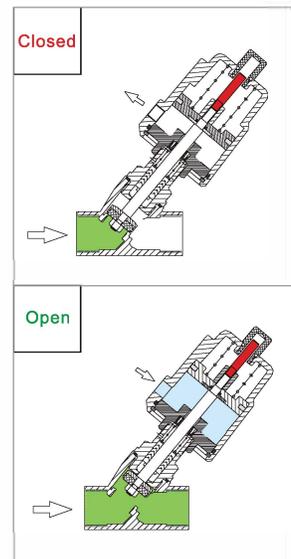
Size	Thread end	Orifice (mm)	Kv (m <sup>3</sup> /h)	Actuator (mm)	ΔP(MPa)	Control pressure (MPa)
DN10	G3/8"	13	3.8	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN15	G1/2"	13	4.7	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN20	G3/4"	18	9.5	50	0–1.6	0.3–0.4
DN25	G1"	24	18.1	50	0–1.6	0.3–0.45
				63	0–1.6	0.3–0.35
				90	0–1.6	0.2–0.25
DN32	G1–1/4"	31	23.1	63	0–1.6	0.3–0.55
				90	0–1.6	0.2–0.35
DN40	G1–1/2"	35	32.9	63	0–1.6	0.3–0.65
				90	0–1.6	0.2–0.4
DN50	G2"	45	52.8	63	0–0.9	0.3–0.7
				90	0–1.6	0.2–0.45
				125	0–1.6	0.2–0.3
DN65	G2–1/2"	61	82.6	90	0–1.0	0.2–0.6
				125	0–1.6	0.2–0.4
DN80	G3"	80	127	125	0–1.2	0.2–0.7



## Single Acting, Normally Closed (NC) – Enter Below Seat (NO Water-hammer)

Flow enters below seat, avoid water hammer

Size	Thread end	Orifice (mm)	Kv (m <sup>3</sup> /h)	Actuator (mm)	ΔP(MPa)	Control pressure (MPa)
DN10	G3/8"	13	3.8	40	0–1.3	0.4
				50	0–1.4	0.45
DN15	G1/2"	13	4.7	40	0–1.3	0.4
				50	0–1.4	0.45
DN20	G3/4"	18	9.5	50	0–1.4	0.45
				50	0–0.8	0.45
DN25	G1"	24	18.1	63	0–1.3	0.5
				90	0–1.4	0.35
DN32	G1–1/4"	31	23.1	63	0–0.6	0.5
				90	0–1.6	0.6
DN40	G1–1/2"	35	32.9	63	0–0.5	0.5
				90	0–1.6	0.6
DN50	G2"	45	52.8	63	0–0.3	0.5
				90	0–1.0	0.6
				125	0–1.6	0.55
DN65	G2–1/2"	61	82.6	90	0–0.6	0.6
				125	0–0.9	0.55
DN80	G3"	80	127	125	0–0.5	0.55
DN100	G4"	90	143	125	0–0.25	0.55

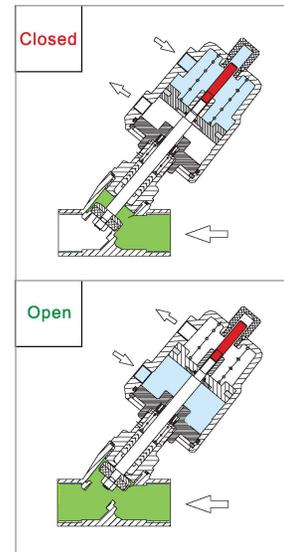


# Pressure Data Sheet

## Double Acting, Normally Closed (NC) – Enter Above Seat

Suitable for higher ΔP; valve can close automatically in case of emergency.

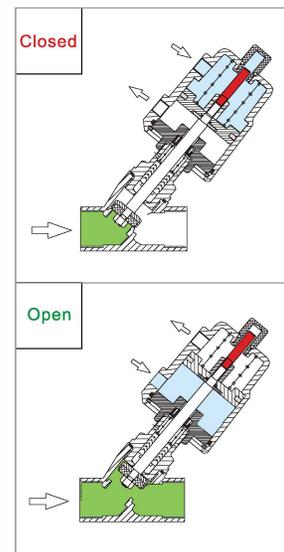
Size	Thread end	Orifice (mm)	Kv (m <sup>3</sup> /h)	Actuator (mm)	ΔP(MPa)	Control pressure (MPa)
DN10	G3/8"	13	3.8	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN15	G1/2"	13	4.7	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN20	G3/4"	18	9.5	50	0–1.6	0.3–0.4
DN25	G1"	24	18.1	50	0–1.6	0.3–0.45
				63	0–1.6	0.3–0.35
				90	0–1.6	0.2–0.25
DN32	G1–1/4"	31	23.1	63	0–1.6	0.3–0.55
				90	0–1.6	0.2–0.35
DN40	G1–1/2"	35	32.9	63	0–1.6	0.3–0.65
				90	0–1.6	0.2–0.4
DN50	G2"	45	52.8	63	0–0.9	0.3–0.7
				90	0–1.6	0.2–0.45
				125	0–1.6	0.2–0.3
DN65	G2–1/2"	61	82.6	90	0–1.0	0.2–0.6
				125	0–1.6	0.2–0.4
DN80	G3"	80	127	125	0–1.2	0.2–0.7



## Double Acting, Normally Closed (NC) – Enter Below Seat(No Water-hammer)

Flow enters below seat, avoid water hammer, suitable for higher ΔP.

Size	Thread end	Orifice (mm)	Kv (m <sup>3</sup> /h)	Actuator (mm)	ΔP(MPa)	Control pressure (MPa)
DN10	G3/8"	13	3.8	40	0–1.6	≥0.3
				50	0–1.6	≥0.3
DN15	G1/2"	13	4.7	40	0–1.6	≥0.3
				50	0–1.6	≥0.3
DN20	G3/4"	18	9.5	50	0–1.6	≥0.3
DN25	G1"	24	18.1	50	0–1.3	0.3–0.6
				63	0–1.6	0.3–0.4
				90	0–1.6	0.2–0.3
DN32	G1–1/4"	31	23.1	63	0–1.6	0.3–0.6
				90	0–1.6	0.2–0.4
DN40	G1–1/2"	35	32.9	63	0–1.6	0.3–0.7
				90	0–1.6	0.2–0.5
DN50	G2"	45	52.8	63	0–0.8	0.3–0.75
				90	0–1.6	0.2–0.6
				125	0–1.6	0.2–0.4
DN65	G2–1/2"	61	82.6	90	0–1.1	0.2–0.7
				125	0–1.6	0.2–0.55
DN80	G3"	80	127	125	0–1.6	0.2–0.65
DN100	G4"	90	143	125	0–1.2	0.4–0.5

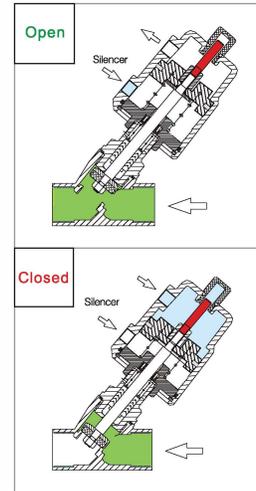


# Pressure Data Sheet

## Normally Open(NO)-Enter Above Seat

Suitable for long time open-valve application. With the silencer taken off, valve can be changed to double acting-NO type.

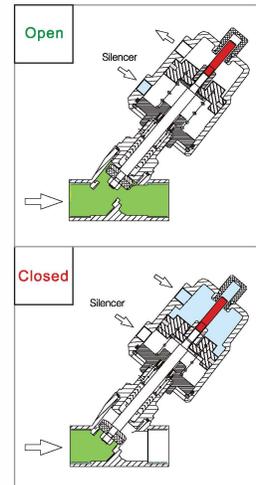
Size	Thread end	Orifice(mm)	Kv(m <sup>3</sup> /h)	Actuator(mm)	Δ P(MPa)	Control pressure (MPa)
DN10	G3/8"	13	3.8	40	0-1.6	≥ 0.3
				50	0-1.6	≥ 0.3
DN15	G1/2"	13	4.7	40	0-1.6	≥ 0.3
				50	0-1.6	≥ 0.3
DN20	G3/4"	18	9.5	50	0-1.2	≥ 0.3
DN25	G1"	24	18.1	50	0-0.3	≥ 0.3
				63	0-1.6	≥ 0.45
DN32	G1-1/4"	31	23.1	63	0-1.4	≥ 0.45
DN40	G1-1/2"	35	32.9	63	0-1.4	≥ 0.45
DN50	G2"	45	52.8	63	0-0.6	≥ 0.45



## Normally Open(NO)-Enter Below Seat (NO water-hammer)

Suitable for long time open-valve application, avoid water hammer. With the silencer taken off, valve can be changed to double acting-NO type.

Size	Thread end	Orifice (mm)	Kv (m <sup>3</sup> /h)	Actuator (mm)	Δ P(MPa)	Control pressure (MPa)
DN10	G3/8"	13	3.8	40	0-1.6	0.2-0.5
				50	0-1.6	0.2-0.4
DN15	G1/2"	13	4.7	40	0-1.6	0.2-0.5
				50	0-1.6	0.2-0.4
DN20	G3/4"	18	9.5	50	0-1.6	0.2-0.6
DN25	G1"	24	18.1	50	0-1.3	0.2-0.6
				63	0-1.6	0.25-0.5
DN32	G1-1/4"	31	23.1	63	0-1.3	0.25-0.6
DN40	G1-1/2"	35	32.9	63	0-0.7	0.25-0.6
				90	0-1.6	0.3-0.35
DN50	G2"	45	52.8	63	0-0.5	0.25-0.6
				90	0-1.2	0.25-0.6
DN65	G2-1/2"	61	82.6	90	0-0.75	0.25-0.5
				125	0-1.4	0.25-0.7
DN80	G3"	80	127	125	0-1.2	0.25-0.7



## Order Instruction

JF 1XX XX X XX X X X

Angle seat valve — JF

Series NO. — 1XX

27/32/40/50/63/90/90AL/125AL Actuator size — XX

0 Normally open  
1 Normally closed  
Valve operating 2 Double acting, with spring  
3 Double acting — X

annex — X

Connection — XX

Installation direction — X

Size DN10, 15, 20, 25, 32, 40, 50, 65, 80, 100 — X

- D — Solenoid
- S — Manual Override
- J — Proximity Switch
- H — Position Indicator
- G — BSP Thread
- T — BSPT Thread
- N — NPT Thread
- H — Welded
- F — Flange
- K — Clamp
- Y — Above seat
- W — Below seat

Example: JF 100 50 1 25 Y G  
Means: Angle seat valve, Series 100, Actuator Φ50, Normally close single acting, DN25 enter above seat, BSP thread.

# Angle Seat Valve Accessory

## Solenoid Valve

Apply to angle seat valve with any aperture size. Connect to 2/5 or 2/3 way solenoid valve.

### Technical Specification

Connection: G1/8"  
 Power: 24V DC or 220V AC  
 Air pressure: 0.15–0.8 MPa  
 Temperature range: –5°C — +50°C  
 Protection class: IP65



## Manual Override for Stroke Actuator

Can adjust piston position, restrict travel, and regulate flow. Applicable to all types of angle seat valves. Can be used for emergency control, in case of lack of control fluids or electrical/ mechanical failure.



## Proximity Switch

Switch can be installed on any actuator to signal open/close state of the valve.

### Technical Specification

Voltage: 10–30V DC  
 Protection level: IP67  
 Detection distance: 3mm ± 10%  
 Temperature range: –25°C — +70°C  
 Shell material: shell: brass nickel plating  
 Probe material: ABS

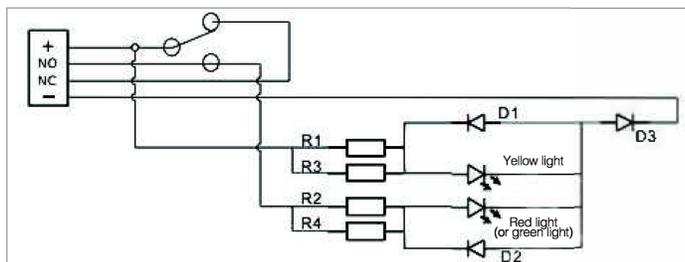


## Position Indicator

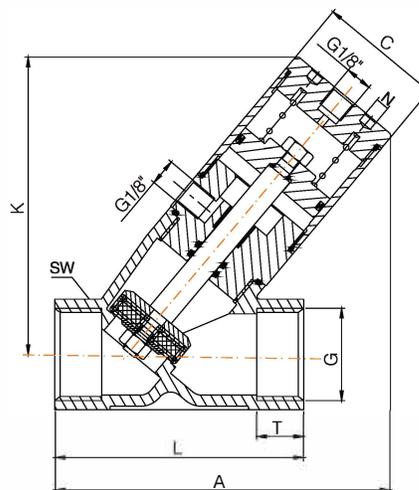
Switch can be installed on any actuator to signal open/close state of the valve.

### Technical Specification

Voltage: 12–48V DC  
 Power: DC12V–0.11W, DC24V–0.45W, DC48V–1.8W  
 Indicator: visually signal valve open/close state  
 Protection level: IP65  
 Temperature range: –20°C~60°C  
 Shell material: PA6 + PC  
 Wiring instruction: open clear lid, thread the cord through opening and connect to desired ports.



# Economy Type Angle Seat Valve



## Function Principle

Actuator has lightweight design, fine aesthetics, tight structure and excellent performance. Available as double acting type (normally closed by spring)

## Application

Widely used in food, packaging, petrochemical, metallurgical, spraying, auto mobile, printing and dyeing machinery equipment.

## Technical Specification

<b>Fluid Pressure</b>	Max 1.0MPa
<b>Control Pressure</b>	0.3 — 0.8MPa (43.5–116psi )
<b>Control Medium</b>	Neutral gas, Air
<b>Body Material</b>	CF8M/CF8
<b>Seal Material</b>	PTFE
<b>Applicable Medium</b>	Water、 Oil、 Gas、 Pulp and other Neutral liquid
<b>Medium Temperature</b>	–10°C — +80°C
<b>Ambient Temperature</b>	–10°C — +80°C
<b>Control Type</b>	Double acting with spring
<b>Connection Type</b>	Threaded(BSP, BSPT, NPT), Welded

## Main Dimension

Size	Actuator	G	N	K	C	T	A	L	SW	Weight(Kg)
DN10	32	3/8"	5	99	38	12	112	68	27	0.42
DN15	32	1/2"	5	99	38	13.5	112	68	27	0.41
DN20	32	3/4"	5	105	38	15.5	118	75	32	0.48
DN25	40	1"	5	110	45	16.5	125	90	40	0.76
DN32	50	1 1/4"	5	135	55	20.5	156	116	50	1.33
DN40	50	1 1/2"	5	138	55	19	158	116	56	1.46
DN50	63	2"	5	160	69	21.5	190	138	69	2.43

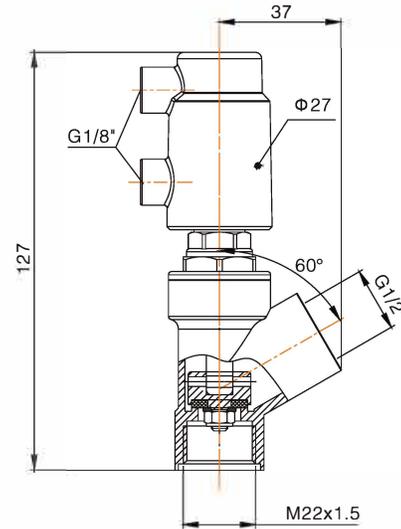
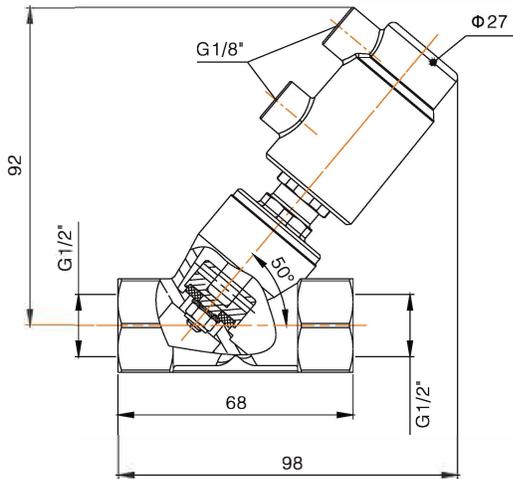
# Filling Valve



101-A, DN15



101-B, DN15



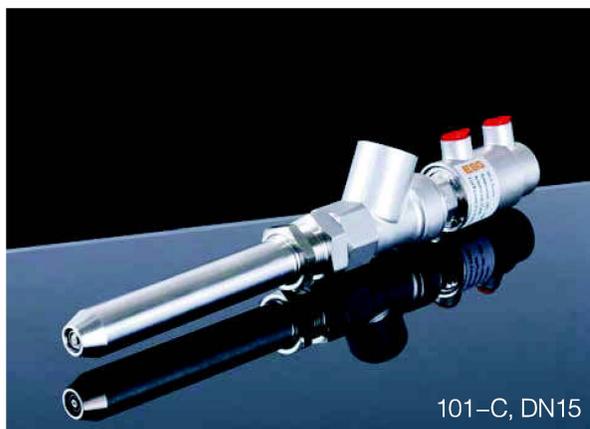
### Advantages

Compact design, allowing this valve to work in tight space.  
Movable seat with excellent sealing.

### Technical Specification

Control type: double acting(no spring)  
Fluid pressure: 0–0.7MPa  
Control medium: Air  
Control pressure: 0.3–0.35MPa  
Body material: CF8 or CF8M  
Seal material: PTFE  
Medium temperature: –10°C — +120°C  
Connection type: Thread(BSP, BSPT, NPT)

# Filling Valve



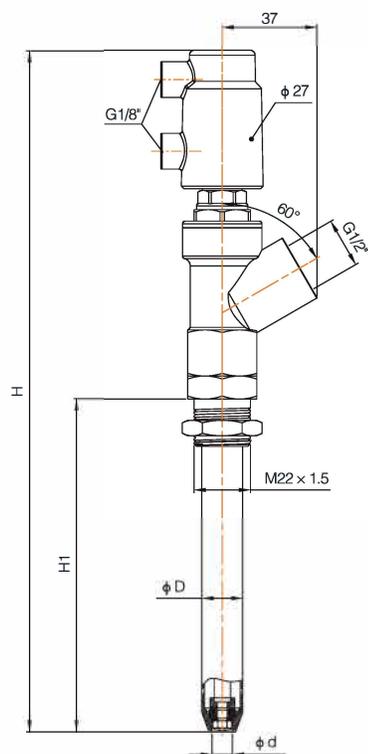
101-C, DN15

## Advantages

1. It is widely used in filling machinery, especially for applications with viscous, pasty and even foamy fluids.
2. Fast, accurate and stable filling.
3. Delicate and compact, easy to arrange pipeline layout.
4. Special nozzle structure and sealing design ensure no dripping leakage.
5. Bottom chamfer structure of the filling nozzle self-locates and enables submerged filling.

## Technical Specification

Control type: double acting(no spring)  
 Fluid pressure: 0–0.7MPa  
 Control pressure: 0.3–0.45 MPa  
 Body material: CF8M  
 Seal material: PTFE  
 Medium temperature:  $-10^{\circ}\text{C}$  —  $+120^{\circ}\text{C}$



Filling valve with internal sealing

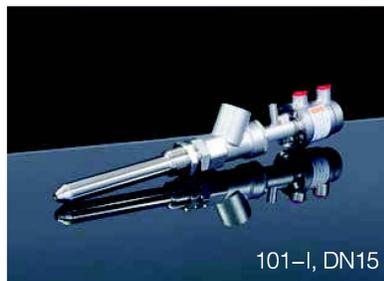
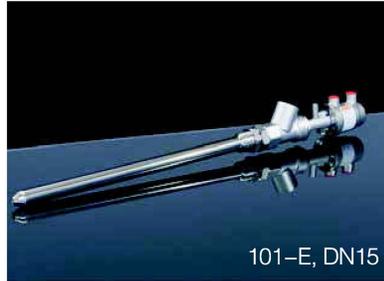
## Main Dimension

Size	H	H1	d	D
101-C	267	130	10	20
101-C(M)18-130	267	130	9	18
101-C(M)16-130	267	130	8	16





# Filling Valve

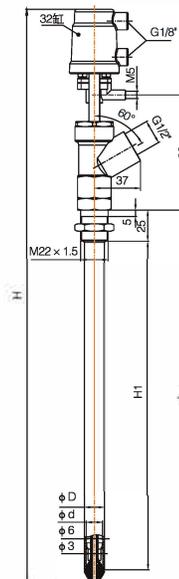


## Advantages

1. It is widely used in filling machinery, especially for applications with viscous, pasty and even foamy fluids.
2. Fast, accurate and stable filling.
3. Delicate and compact, easy to arrange pipeline layout.
4. Special nozzle structure and sealing design ensure no dripping leakage.
5. Bottom chamfer structure of the filling nozzle self-locates and enables submerged filling.
6. Internal suction structure recovers dripping liquid along the pipe wall.

## Technical Specification

Control type: double acting(no spring)/Double acting normally closed  
 Fluid pressure: 0-0.7MPa  
 Control pressure: 0.3-0.35MPa  
 Body material: CF8M  
 Seal material: PTFE  
 Medium temperature: -10°C — +120°C



## Main Dimension

Size	φ D	φ d	L	H	H1
101-J	20	17	300	462	265
101-G	20	17	130	292	95
101-E	16	13	300	462	265
101-I	16	13	130	292	95
101-K	12	10	300	462	265
101-H	12	10	130	292	95

# Three Way Angle Seat Valve

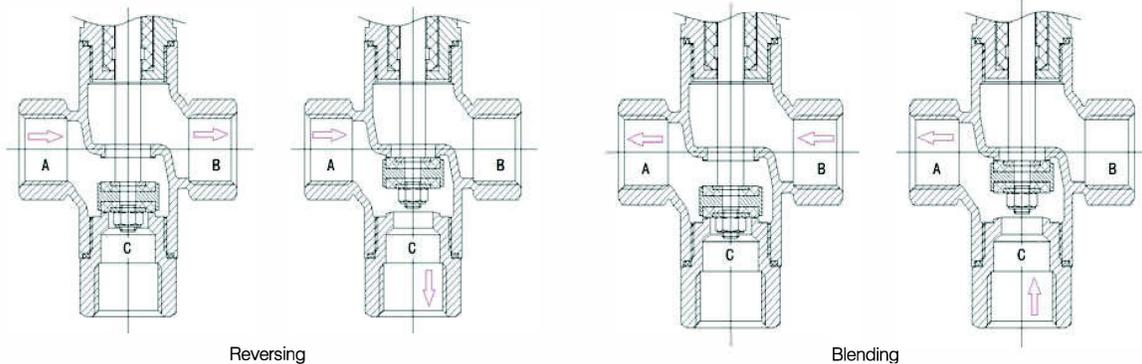


## Function Principle

The valve has three ports that enable "reversing" and "blending" features. When the valve is in idle state, C port is closed due to force spring. When the actuator piston is compressed, C port is opened and B port is closed. When double acting, the valve opens and closes by compressed air.

## Technical Specification

Fluid pressure: Max1.6MPa  
 Control pressure: 0.3–0.8MPa  
 Control medium: Neutral gas or air  
 Body material: CF8M  
 Actuator material: CF8  
 Seal material: PTFE  
 Medium temperature:  $-10^{\circ}\text{C}$  —  $+180^{\circ}\text{C}$   
 Ambient temperature:  $-10^{\circ}\text{C}$  —  $+80^{\circ}\text{C}$   
 Control type: Normally closed, Double acting with spring, Double acting with compressed air.  
 Connection: Thread, Tri-clamp  
 Applicable medium: Water, steam, oil, neutral gas or liquid, organic solvent, acid base solution, etc



## Three Way Angle Seat Valve

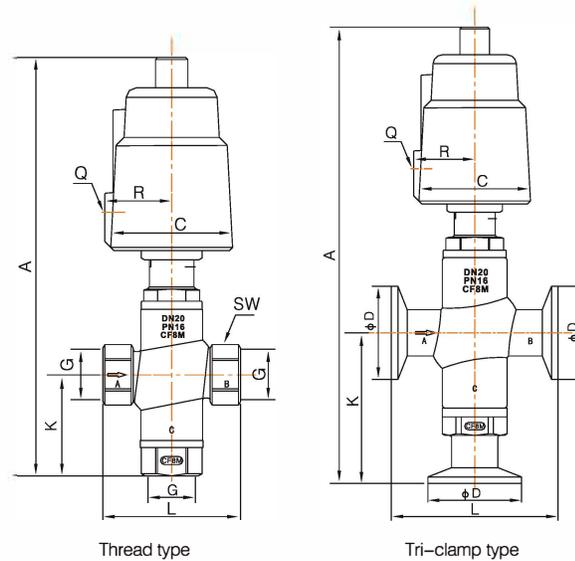
### Dimension

#### Thread type

Size	Actuator	Q	C	R	G	A	K	L	SW	Weight (kg)
DN15	40	G1/8	50.5	27	1/2"	195	50	68	27	0.91
DN20	50	G1/8	60	33	3/4"	230	60	75	32	1.25
DN25	50	G1/8	60	33	1"	242	68	90	40	1.64
DN32	90	G1/8	106	55	1 1/4"	355	86	116	50	4.62
DN40	90	G1/8	106	55	1 1/2"	360	90	116	56	5.15
DN50	90	G1/8	106	55	2"	382	102	138	69	6.52

#### Tri-clamp type

Size	Actuator	Q	C	R	D	A	K	L	Weight (kg)
DN15	40	G1/8	50.5	27	34	223	80	90	0.99
DN20	50	G1/8	60	33	50.5	246	80	90	1.48
DN25	50	G1/8	60	33	50.5	262	90	100	1.78
DN32	90	G1/8	106	55	50.5	373	104	130	4.75
DN40	90	G1/8	106	55	64	381	111	150	5.45
DN50	90	G1/8	106	55	64	408	128	160	6.65



### Pressure Data

#### Type 1 : Single acting , with Normal Spring

Size	Actuator	Interface	Inner hole	Flow rate KV ( m <sup>3</sup> /h )		Differential pressure range $\Delta P(\text{MPa})A \rightarrow B/A \rightarrow C$	Differential pressure range $\Delta P(\text{MPa})C \rightarrow A$	Control pressure ( MPa )
				A→B	A→C			
DN15	40	1/2"	14	4.1	4.9	0-1.6	1.2	0.4-0.6
DN20	50	3/4"	18	5.8	6.5	0-1.6	0.8	0.3-0.5
DN25	50	1"	24	13.9	14.4	0-1.4	0.4	0.3-0.65
DN32	90	1 1/4"	31	20.9	22.8	0-1.6	0.2	0.3-0.45
DN40	90	1 1/2"	35	24.4	26.6	0-1.6	0.1	0.3-0.5
DN50	90	2"	45	29.3	31.9	0-1.6	0.1	0.3-0.6

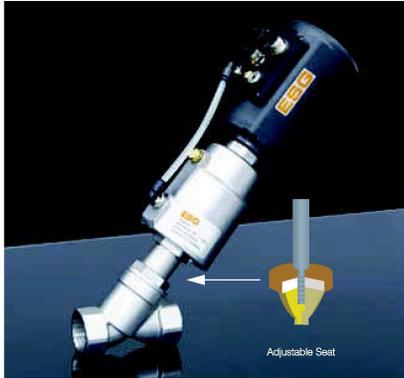
#### Type 2 : Single acting , with Strong Spring

Size	Actuator	Interface	Inner hole	Flow rate KV ( m <sup>3</sup> /h )		Differential pressure range $\Delta P(\text{MPa})A \rightarrow B/A \rightarrow C$	Differential pressure range $\Delta P(\text{MPa})C \rightarrow A$	Control pressure ( MPa )
				A→B	A→C			
DN15	40	1/2"	14	4.1	4.9	0-1.6	1.2	0.4-0.6
DN20	50	3/4"	18	5.8	6.5	0-1.6	1.4	0.45-0.65
DN25	50	1"	24	13.9	14.4	0-1.1	0.6	0.45-0.65
DN32	90-A	1 1/4"	31	20.9	22.8	0-0.55	1.6	0.6-0.7
	90-B					0-1.4	1.2	0.45-0.7
DN40	90-A	1 1/2"	35	24.4	26.6	0-0.45	1.6	0.6-0.7
	90-B					0-1.2	1.0	0.45-0.7
DN50	90-A	2"	45	29.3	31.9	0-0.25	0.9	0.6-0.7
	90-B					0-0.9	0.5	0.45-0.7

#### Type 3 : Double acting , with Normal Spring

Size	Actuator	Interface	Inner hole	Flow rate KV ( m <sup>3</sup> /h )		Differential pressure range $\Delta P(\text{MPa})A \rightarrow B/A \rightarrow C$	Differential pressure range $\Delta P(\text{MPa})C \rightarrow A$	Control pressure ( MPa )
				A→B	A→C			
DN15	40	1/2"	14	4.1	4.9	0-1.6	1.6	0.4-0.6
DN20	50	3/4"	18	5.8	6.5	0-1.6	1.6	0.3-0.5
DN25	50	1"	24	13.9	14.4	0-1.4	1.4	0.3-0.65
DN32	90	1 1/4"	31	20.9	22.8	0-1.6	1.6	0.3-0.55
DN40	90	1 1/2"	35	24.4	26.6	0-1.6	1.6	0.3-0.6
DN50	90	2"	45	29.3	31.9	0-1.6	1.6	0.3-0.65

# Proportional Control Angle Seat Valve(105 series)



## Function Principle

Positioner receives 4–20mA electrical signals from controls system and converts them into air signals to control the valve and make precise flow adjustment using the adjustable seat.

## Advantages

- Convenient to adjust and easy to operate.
- Stable operation with minimal vibration.
- The unique design of adjustable seat establishes a proportional linear relationship between open/close state of the valve with the flow rate, achieving precise flow adjustment.

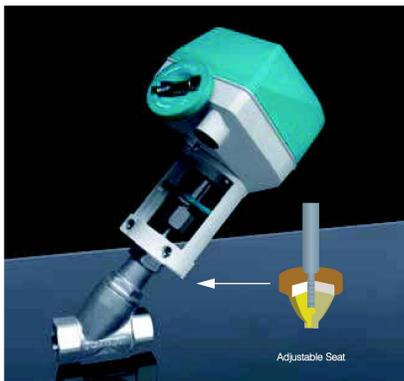
## Attention

- If the valve body needs to be taken off during installation, please recalibrate the zero-point. Keep the positioner upright at all time.
- To ensure accurate adjustment, please install the valve in below seat direction.
- Please ensure water proof of the positioner.

## Technical Specification

<b>Size</b>	DN15–DN100	<b>Protection Level</b>	IP65
<b>Connection Type</b>	Threaded, Welded, Flanged, Tri-clamp	<b>Fluid Pressure</b>	≤1.0MPa
<b>Medium Temperature</b>	–10°C — +180°C, +25°C — +220°C	<b>Control Pressure</b>	0.3~0.7MPa
<b>Ambient Temperature</b>	0~+60°C (Customization for high temperature available)	<b>Control Power</b>	24VDC ± 10%
<b>Air Quality Requirements</b>	ISO8573–1 Clean and dry air, gas quality accord with ISO8573–1	<b>Valve Setting Signal</b>	0/4 ~20 mA or 0 ~ 5/10V
<b>Maximum Density of Solid Particles</b>	10mg/m <sup>3</sup>	<b>Power Consumption</b>	< 5W
<b>Maximum Particle Diameter</b>	40μm	<b>Input Signal Impedance</b>	0/4–20 mA input signal 240 Ω, 0–5/10V input signal 21 k Ω
<b>Maximum Oil Content</b>	25mg/m <sup>3</sup>	<b>Analog Output Signal</b>	0/4–20mA Max load 560 Ω, 0–5/10V Max current 10mA

# Motor Control Angle seat Valve(106 series)



## Function Principle

Positioner receives 4–20mA electrical signals from controls system and converts them into air signals to control the valve and make precise flow adjustment using the adjustable seat.

## Advantages

- Convenient to adjust and easy to operate.
- Stable operation with minimal vibration.
- The unique design of adjustable seat establishes a proportional linear relationship between open/close state of the valve with the flow rate, achieving precise flow adjustment.

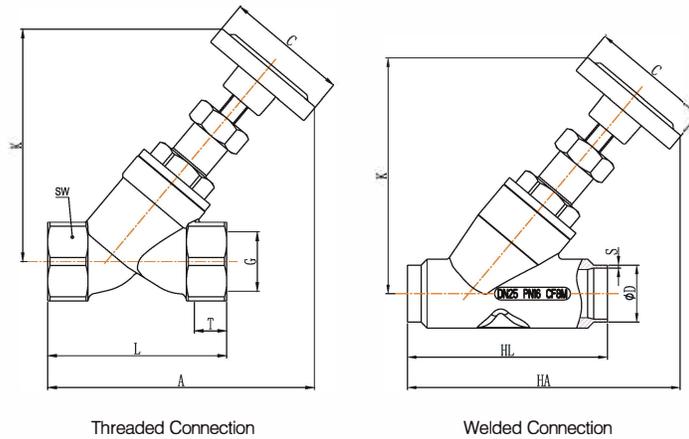
## Attention

- If the valve body needs to be taken off during installation, please recalibrate the zero-point. Keep the positioner upright at all time.
- To ensure accurate adjustment, please install the valve in below seat direction.
- Please ensure water proof of the positioner.

## Technical Specification

<b>Size</b>	DN10–DN100	<b>Connection</b>	Threaded, Welded, Flanged, Tri-clamp
<b>Voltage</b>	220V AC or 24V AC	<b>Actuator</b>	GINICE Motor control actuator
<b>Control Power</b>	4~20mA or 0–10V DC	<b>Protection Level</b>	IP54

# Y-Type Manual Angle Seat Valve



## Technical Specification

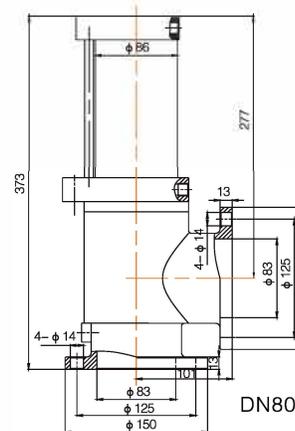
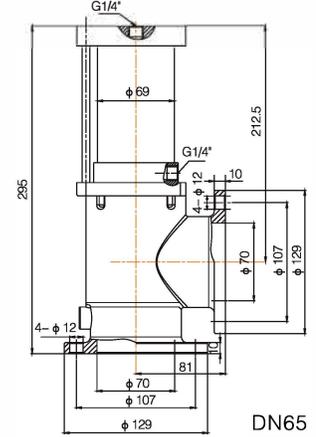
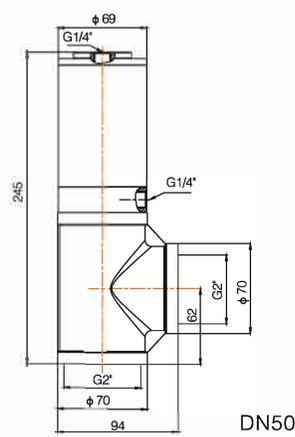
<b>Fluid Pressure</b>	0–1.6Mpa
<b>Body Material</b>	CF8M/CF8
<b>Valve Seal</b>	PTFE
<b>Valve Size</b>	DN10–DN65
<b>Applicable Medium</b>	Water, Alcohol, Oil, Fuel, Steam, Neutral gas or liquid, Organic solvent, Acid and lye
<b>Medium Temperature</b>	–10°C — +180°C
<b>Medium Viscosity</b>	600mm <sup>2</sup> /s
<b>Connection Type</b>	Threaded (BSP, BSPT, NPT), Welded, Flanged, Tri-clamp

Note: Adjustable seat for manual control is also available.

## Main Dimension

Size	C	K	Threaded					Welding type						
			G	T	A	L	SW	HA	HL	DIN11850-2		DIN11850-3		
										D	S	D	S	
DN10	62	115	3/8"	12	128	68	27	–	–	–	–	–	–	
DN15	62	115	1/2"	15	128	68	27	120	70	19	1.5	20	2	
DN20	62	120	3/4"	16	133	75	32	128	82	23	1.5	24	2	
DN25	62	125	1"	17	142	90	40	144	100	29	1.5	30	2	
DN32	62	146	1 1/4"	21	166	116	50	165	125	35	1.5	36	2	
DN40	62	148	1 1/2"	21	168	116	56	168	130	41	1.5	42	2	
DN50	62	155	2"	22	182	138	69	182	155	53	1.5	54	2	
DN65	80	202	2 1/2"	26	233	178	85	–	–	–	–	–	–	
DN65	80	211	2 1/2"	26	226	178	85	270	270	70	2			

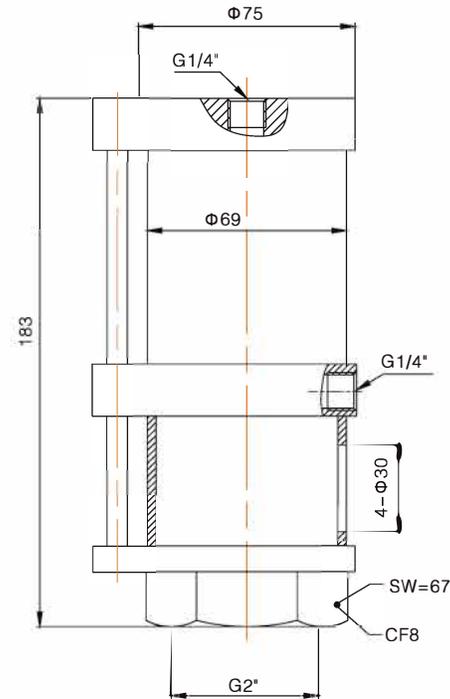
# Drain Valve



## Technical Specification

<b>Size</b>	DN50: Threaded Type DN65、DN80: Flanged Type
<b>Fluid Pressure</b>	0–1.6MPa
<b>Control Pressure</b>	0.3–0.8MPa
<b>Control Medium</b>	Neutral gas, Air
<b>Body Material</b>	CF8
<b>Seal Material</b>	PTFE
<b>Applicable Medium</b>	Water, Gas, Pulp and other liquid
<b>Cylinder Size</b>	108 Series: 63mm, 80mm
<b>Medium Temperature</b>	–10 — +120°C
<b>Ambient Temperature</b>	–10 — +80°C
<b>Control Type</b>	Double acting

# Exhaust Valve

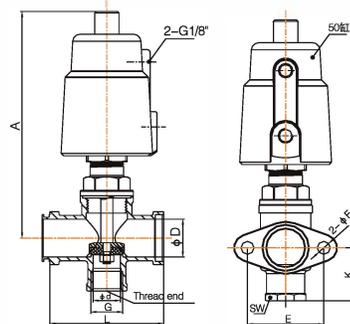
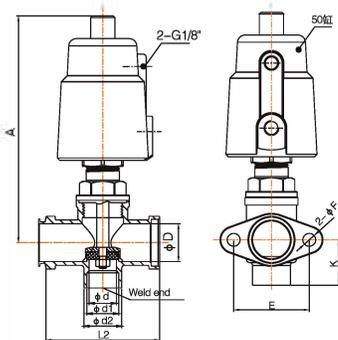
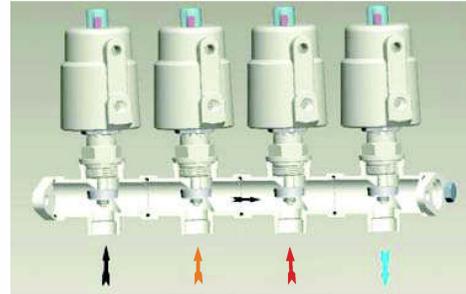


DN50-I

## Technical Specification

<b>Size</b>	DN50: Threaded Type
<b>Fluid Pressure</b>	0-1.0MPa
<b>Control Pressure</b>	0.3-0.8MPa
<b>Control Medium</b>	Neutral gas, Air
<b>Body Material</b>	CF8
<b>Seal Material</b>	PTFE
<b>Applicable Medium</b>	Gas
<b>Cylinder Size</b>	109 Series: 63mm, 80mm
<b>Medium Temperature</b>	-10 — +120°C
<b>Ambient Temperature</b>	-10 — +80°C
<b>Control Type</b>	Double acting

# Pneumatic Manifold Valve



## Main Dimension

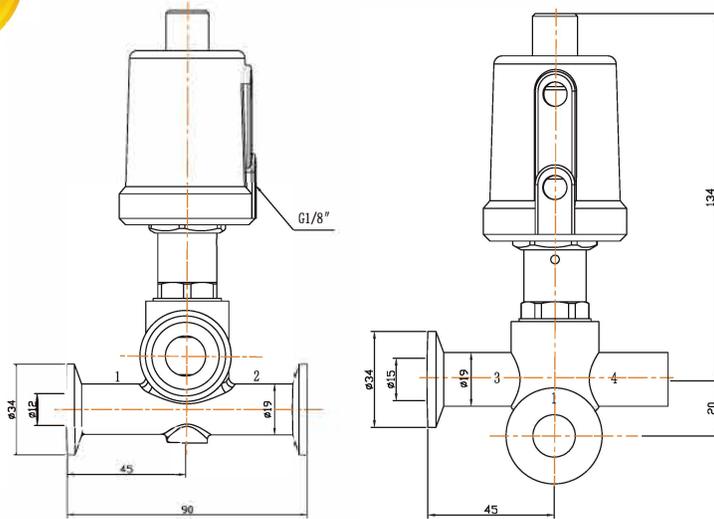
Size	A	K	L	D	d	d1	d2	φE	2-φF	Kv (m <sup>3</sup> /h)	Weld end	
											Weight (Kg)	
DN20	153	30	76	25	18	21	25	50	8.5	8.1	1.2	
DN25	153	36	90	32	24	27	32	57	8.5	14.8	1.6	

Size	A	K	L	D	d	G	SW	φE	2-φF	Kv (m <sup>3</sup> /h)	Thread end	
											Weight (Kg)	
DN15	153	35	76	25	18	1/2"	27	50	8.5	8.1	1.2	
DN25	153	46	90	32	24	1"	39	57	8.5	14.8	1.6	

## Technical Specification

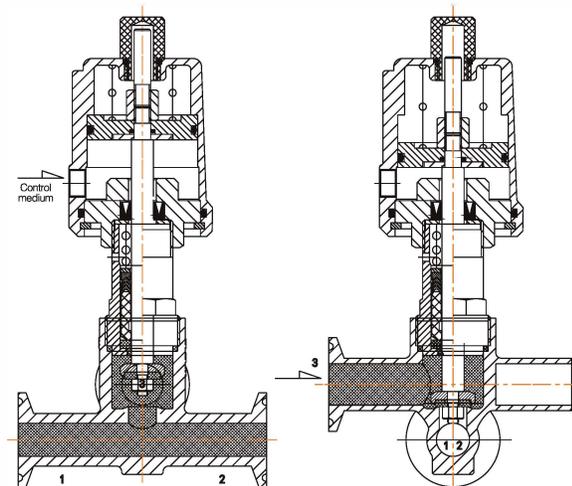
<b>Fluid Pressure</b>	0–1.6MPa
<b>Control Pressure</b>	0.3–0.8MPa
<b>Advantages</b>	3–Way body; Assemble easily and save space; Best choice for mixing fluids.
<b>Control Medium</b>	Neutral gas, Air
<b>Seal Material</b>	PTFE
<b>Applicable Medium</b>	Water, Oil, Air and other liquid
<b>Medium Temperature</b>	–10°C — +180°C, +25°C — +220°C
<b>Ambient Temperature</b>	–10°C — +80°C
<b>Connection Type</b>	Flanged
<b>Control Type</b>	Normally closed, Double acting with spring, Double acting

## Modular Valve System



### Function Principle

When the valve is in idle state, due to the spring force the valve is Normally Closed(No.3 port), the bottom two ports are Normally Open(No.2 port); When the actuator piston is pressed by air, the valve opens, fluids from NO.3 port goes into No.1 and No.2 ports. When Double Acting, the valve opens/closes by compressed air.



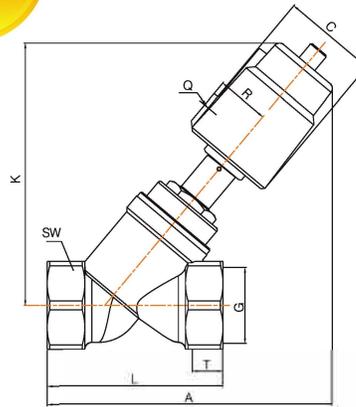
### Technical Specification

Fluid pressure: Max1.6MPa  
 Control pressure: 0.3–0.8MPa  
 Control medium: Neutral gas, Air  
 Body material: CF8M  
 Actuator material: CF8  
 Seal material: PTFE  
 Medium temperature: -10°C — +180°C  
 Ambient temperature: -10°C — +80°C  
 Control type: Normally Closed, Double Acting With Spring, Double Acting, Normally Open  
 Connection type: Tri-clamp  
 Applicable medium: Water, Seam, Oil, Neutral gas or Liquid, Organic solvent, Acid and lye

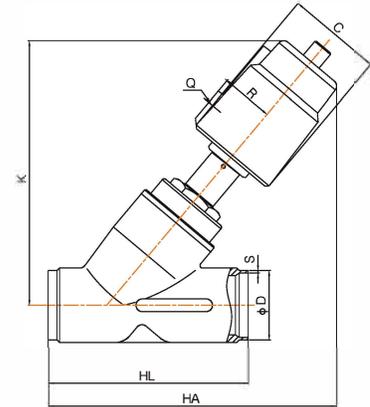
### Advantages

1. Easy to clean
  - a. Seat is separate from the public ports. Well machined inner wall of the public ports ensures a smooth flow.
  - B. The valve utilizes bottom seal and seal ring for connection to valve stem in order to avoid fluid residue and allow effortless cleaning.
2. The modular valve system is easy to install and assemble, allowing many different layouts. It is a good choice for mixing, distributing and collecting fluids.

# Balance Type Pneumatic Angle Seat Valve



Threaded Connection



Welded Connection

## Function Principle

This product uses a smaller cylinder to achieve high sealing pressure protection. As the medium enters sealing cavity between the valve core and connecting piece through small holes in the valve core, it applies secondary force on the valve core, thereby further improving valve sealing pressure protection. Because the valve sealing force is applied mainly by medium, this valve can achieve high reverse valve sealing pressure protection with minimal valve control force.

## Technical Specification

<b>Fluid Pressure</b>	Max 1.6 Mpa
<b>Control Pressure</b>	0.4 MPa
<b>Body Material</b>	CF8/CF8M
<b>Seal Material</b>	FKM, PTFE
<b>Medium Temperature</b>	-10°C — +180 °C
<b>Control Type</b>	Single acting normally closed
<b>Control Medium</b>	Air or gas
<b>Applicable Medium</b>	Water, Alcohol, Oil, gas or liquid, organic solvents, such as the viscous medium

## Main Dimension

Size	Actuator	Q	C	R	K	Threaded Connection						Welded Connection				
						G	T	A	L	SW	HA	HL	DIN11850-2		DIN11850-3	
													D	S	D	S
DN50	63	1/8"	75	41	210	2"	22	228	138	69	230	155	53	1.5	54	2
DN65	63	1/8"	75	41	235	2 1/2"	26	235	178	85	280	270	70	2	—	—
DN80	90	1/8"	106	55	340	3"	27	329	210	100	346	284	85	2	—	—

# Pneumatic Shuttle Valve



## Function Principle

This valve opens and closes through piston motion forced by compressed air. As fluid pressure acts onto valve seat, the piston experiences little resistance and thereby enables the valve to quickly open/close. The latest design improvement results in more efficient fluid dynamics and less pressure loss.

## Advantages

- Compact and aesthetic design. Stainless steel body ensures superb durability.
- Easy to use with many possible mounting positions. Valve operates efficiently with minimum pressure loss.
- Excellent sealing, work well with relative vacuum

## Applications

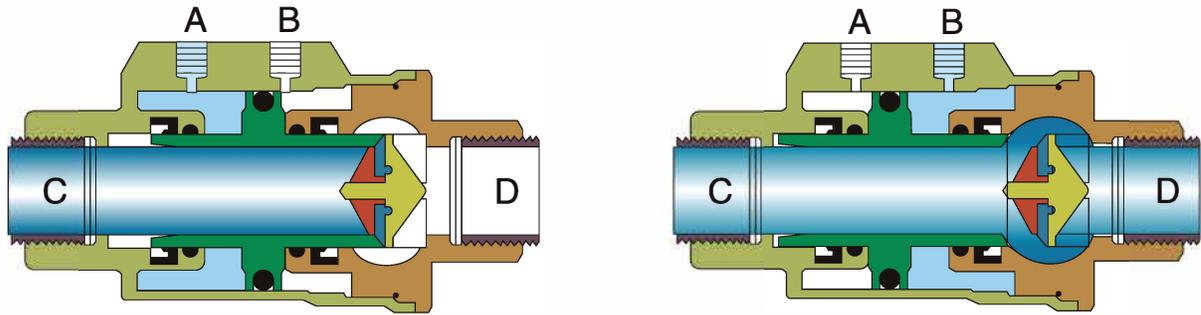
- Beer & Drinks Filling Machinery
- Textile Printing & Dyeing
- Gas Industry
- Pharmacy & Medical Equipment
- Rubber Machinery
- Chemical Industry
- Disinfection
- Frothing Equipment
- Water/sewage Disposal

## Technical Specification

<b>Fluid Pressure</b>	Max 1.6MPa (232psi)
<b>Control Pressure</b>	0.3–0.8MPa (43.5–116psi)
<b>Control Medium</b>	Neutral gas, Air
<b>Body Material</b>	CF8M/CF8
<b>Seal Material</b>	EPDM / FKM (VITON)
<b>Applicable Medium</b>	FKM–Suitable for most fluid, except for steam. EPDM–Suitable for steam and hot water, unsuitable for oils, greases, fuels etc.
<b>Medium Temperature</b>	–20°C — +150°C(FKM), –20°C — +130°C(EPDM)
<b>Ambient Temperature</b>	–20°C — +80°C
<b>Control Type</b>	Normally closed, Normally open, Double acting with spring, Double acting
<b>Connection Type</b>	Threaded(BSP,NPT,BSPT)

# Pneumatic Shuttle Valve

## Open/Close



### Closing

When hole "A" is supplied with air (hole "B" must be discharging), the piston moves towards and eventually presses onto the seat, thereby closing the valve.

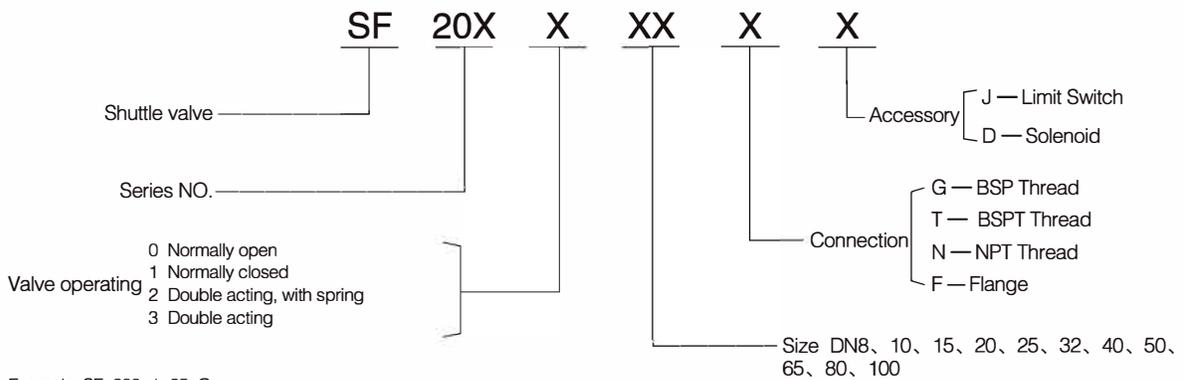
For a single acting N.C. shuttle valve, a spring is installed in "A" pressing the piston against seat seal and allowing the valve to remain closed in its idle state.

### Opening

When hole "B" is supplied with air (hole "A" must be discharging), the piston move towards "C" and away from seat seal, thereby opening the valve.

For a single-acting N.O. shuttle valve, a spring is installed in "B", forcing the piston away from seat seal and allowing the valve to remain open in its idle state.

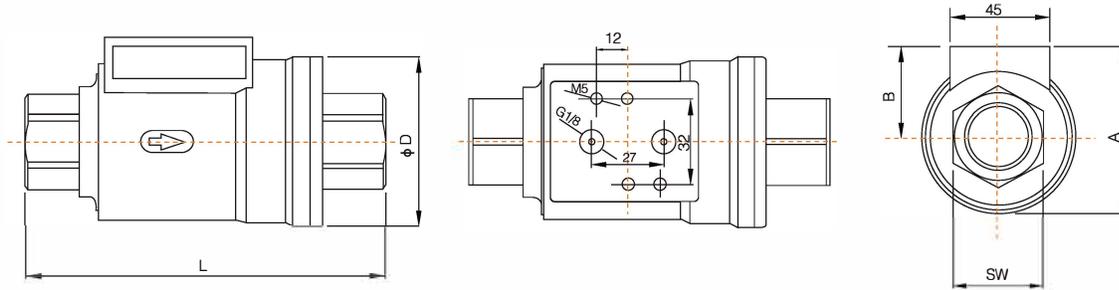
## Order Instruction



Example: SF 200 1 25 G  
Means: Shuttle valve, Series 200, Normally closed, DN25, BSP thread.

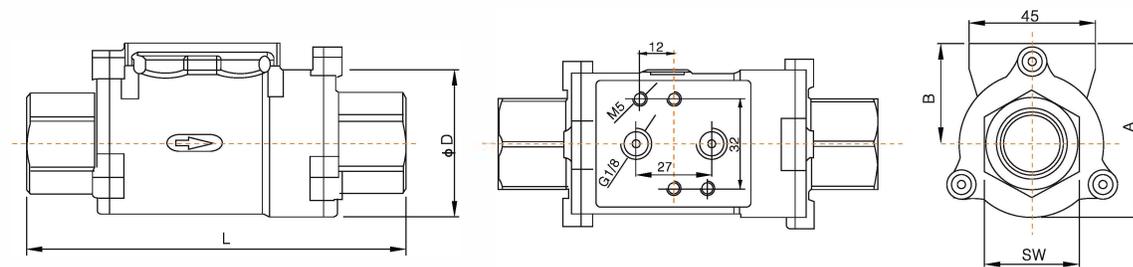
# Pneumatic Shuttle Valve

## Main Dimension for 200 Series



Size	DN10	DN15	DN20	DN25	DN32	DN40	DN50
Thread End	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A (mm)	56	61	72	78	94	104	116
D (mm)	46	52	64	69	86	96	108
SW (mm)	22	26.5	32	41	50	56	70
B (mm)	33	35	40	43	51	56	62
L (mm)	98	112	135	143	165	180	207
Weight (Kg)	0.76	0.94	1.43	1.85	2.98	3.66	5.64

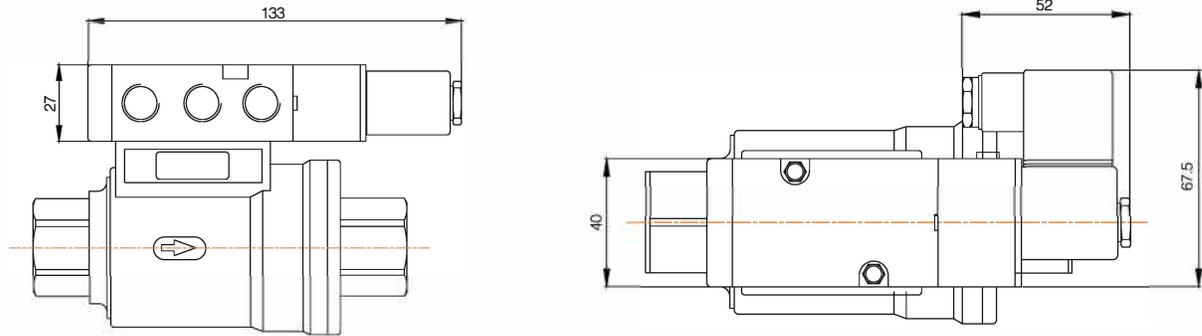
## Main Dimension for 201 Series



Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
Thread End	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A (mm)	49.5	49.5	53.3	63.5	70	85.5	95	109
D (mm)	37	37	42.5	52	60	75	84	97
SW (mm)	22	22	26	32	40	49	53	68
B (mm)	31	31	32	37.5	40	48	53	60
L (mm)	98	98	112	135	143	165	180	207
Weight (Kg)	0.54	0.54	0.67	1.05	1.45	2.32	2.82	4.38

# Shuttle Valve Accessory

## NAMUR Solenoid Valve



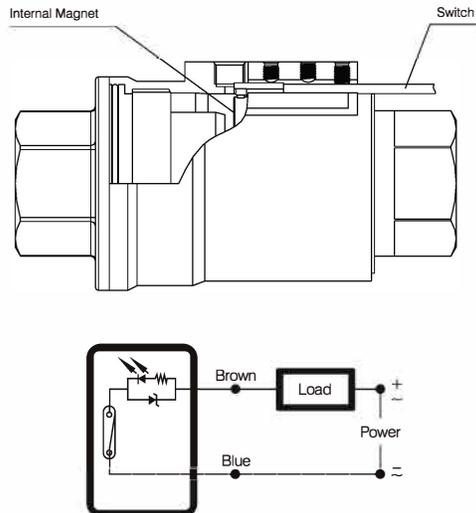
2/5 way NAMUR solenoid valve is suitable for 200 and 201 series.

### Technical Specification

<b>Connection</b>	G1/4"
<b>Control Pressure</b>	0.3–0.8Mpa
<b>Power</b>	AC: 220V DC: 24V
<b>Voltage Range</b>	± 10%
<b>Power Consumption</b>	AC 4.5W DC 3W
<b>Ambient Temperature</b>	5 — 55°C
<b>Max Frequency</b>	3 times/second
<b>Protection Level</b>	IP65

## Magnetic limit switch

The valve can be provided with magnetic limit switches and signaling LED.

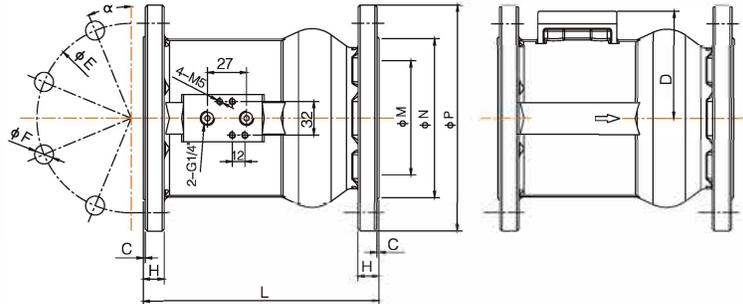


### Technical Specification

<b>Size</b>	DN10–DN50
<b>Indication</b>	Red LED
<b>Power</b>	5–120V DC/AC
<b>Max.current</b>	100mA
<b>Cable</b>	PVC; 2 PVC cables
<b>Working temperature</b>	-10 — +70°C
<b>Protection Level</b>	IP67

Note: Since the magnets must be assembled inside the valve, the limit switches must be requested when ordering the valve.

# Flange End Pneumatic Shuttle Valve



Flange specification: JB/T82.1-1994; DIN2543-2000

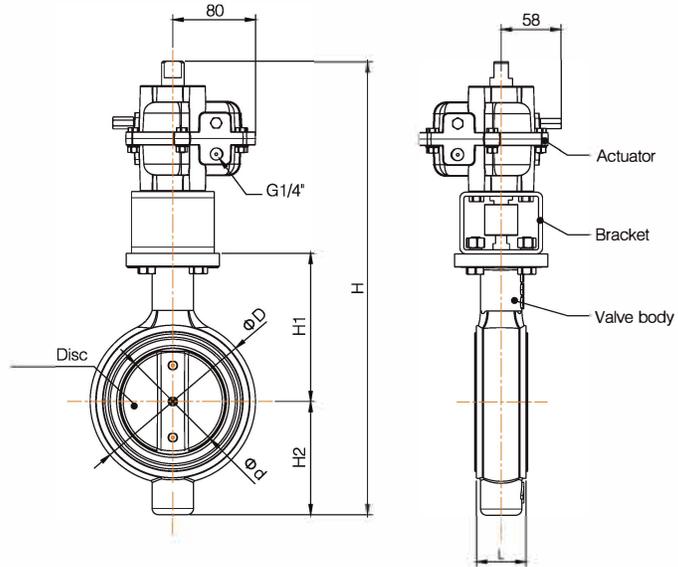
## Technical Specification

<b>Fluid Pressure</b>	(Above seat): Max 1.6MPa (232psi), (Below seat): Max 1.2MPa (174psi)
<b>Control Pressure</b>	0.3-0.5MPa (43.5-72.5psi)
<b>Control Medium</b>	Neutral gas, Air
<b>Body Material</b>	CF8
<b>Seal Material</b>	EPDM(FKM can be customized)
<b>Applicable Medium</b>	EPDM-Suitable for steam and hot water, unsuitable for oils, greases, fuels etc. FKM-Suitable for most fluid, except for steam.
<b>Medium Temperature</b>	-20°C — +130°C
<b>Ambient Temperature</b>	-20°C — +80°C
<b>Control Type</b>	Double acting
<b>Connection Type</b>	Flanged

## Main Dimension

Size	D	L	φ E	φ F	H	C	φ M	φ N	φ P	α	Kv(m <sup>3</sup> /h)	weight(Kg)
DN65	85	192	145	4-φ 18	20	2	66	120	180	45°	139.3	10.0
DN80	92	212	160	8-φ 18	22	2	75	135	195	22.5°	202.6	13.32
DN100	102	227	180	8-φ 18	22	2	94	155	215	22.5°	288	16.30

# Pneumatic Butterfly Valve

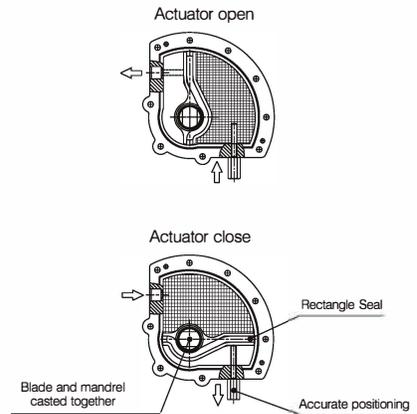


## Function Principle

Compressed air rotates the blade, thereby opening and closing the valve. Unique valve design ensures low power loss, high efficiency, long maintenance-free life, and stable operation

## Technical Specification

<b>Fluid Pressure</b>	Max 1.6MPa(232psi)
<b>Control Pressure</b>	0.3–0.8MPa (43.5—116psi )
<b>Applicable Medium</b>	EPDM—Suitable for steam and hot water, unsuitable for oils, greases, fuels etc.
<b>Medium Temperature</b>	–10°C — +120°C
<b>Valve Body Material</b>	HT250
<b>Seal Material</b>	EPDM
<b>Disc Material</b>	CF8
<b>Control Type</b>	Double acting



## Main Dimension

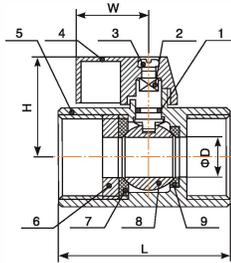
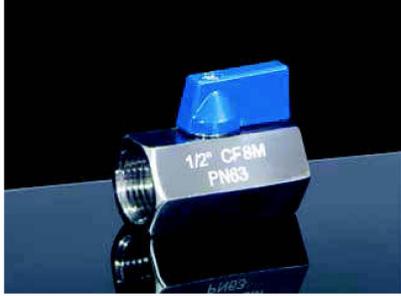
Size	Fluid pressure (Mpa)	Control pressure (Mpa)	L (mm)	H (mm)	H1 (mm)	H2 (mm)	Φ d (mm)	D (mm)	Weight (Kg)
DN50	0 — 1.6	0.3 — 0.8	38	372	110	75	52	102	4.7
DN65	0 — 1.6	0.3 — 0.8	38	380	117	76	66.5	110	4.8
DN80	0 — 1.6	0.3 — 0.8	42	395	120	89	76.5	128	5.3
DN100	0 — 1.6	0.3 — 0.8	48	442	144	110	100.5	160	7.7
DN150	0 — 1.6	0.3 — 0.8	52	512	180	145	152.5	218	10.8



# Mini Ball Valve

## Mini Ball Valve-1

Model: 400 001



### Technical Specification

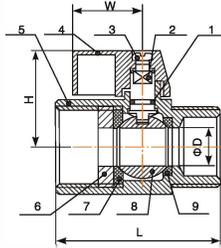
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

ITEM	SIZE	1/8"	1/4"	3/8"	1/2"	3/4"	1"
ΦD		7	7	7	9.2	12.5	15
L		42	42	42	46	54	65
H		26.5	26.5	26.5	28.3	31.5	34
W		22.8	22.8	22.8	22.8	22.8	22.8

## Mini Ball Valve-2

Model: 400 002



### Technical Specification

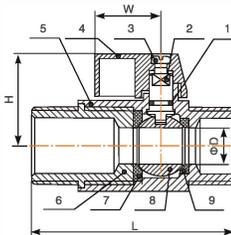
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

ITEM	SIZE	1/8"	1/4"	3/8"	1/2"	3/4"	1"
ΦD		7	7	7	9.2	12.5	15
L		40	40	40	46	54	65
H		26.5	26.5	26.5	28.3	31.5	34
W		22.8	22.8	22.8	22.8	22.8	22.8

## Mini Ball Valve-3

Model: 400 003



### Technical Specification

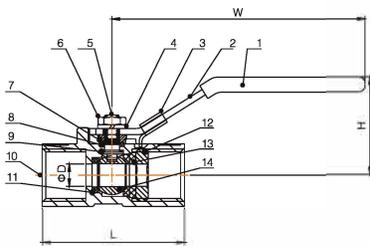
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

ITEM	SIZE	1/8"	1/4"	3/8"	1/2"	3/4"	1"
ΦD		7	7	7	9.2	12.5	15
L		50	50	50	58	71.5	83
H		26.5	26.5	26.5	28.3	31.5	34
W		22.8	22.8	22.8	22.8	22.8	22.8

# 1-PC Ball Valve

Model: 400 101



### Technical Specification

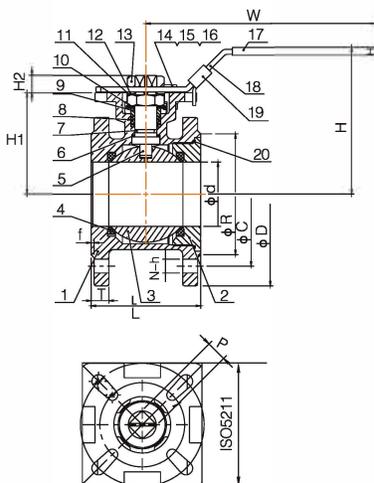
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Φ D	5	7	9	13	16	20	25	32	38	50
L	39	44	57	58	71	78	82	100	127	153
H	33	36	37	42	52	56	65	70	70	77
W	68.5	67	93	93	103	103	125	125	189	189

# 1-PC Flanged Ball Valve With Mounting Pad

Model: 400 102



### Technical Specification

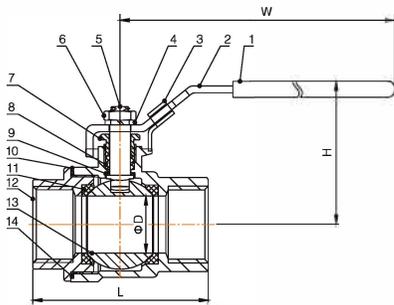
Nominal pressure: PN16  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)

### Main Dimension

SIZE	d	L	D	φ C	φ R	T	H	W	P	ISO5211	N-h
1/2"	15	36	95	65	45	11	89	120	9	F03/F04	4-M12
3/4"	20	38	105	75	58	11	94	120	9	F03/F04	4-M12
1"	25	50	115	85	68	12	90	160	11	F04/F05	4-M12
1-1/4"	32	53	140	100	78	14	100	160	11	F04/F05	4-M16
1-1/2"	40	65	150	110	88	15	105	200	14	F05/F07	4-M16
2"	50	78	165	125	102	16	125	200	14	F05/F07	4-M16
2-1/2"	65	98	185	145	122	16	140	255	17	F07/F10	4-M16
3"	76	118	200	160	138	18	145	255	17	F07/F10	8-M16
4"	94	140	220	180	158	18	175	300	17	F07/F10	8-M16

## 2-PC Ball Valve(F/F)

Model: 400 201



### Technical Specification

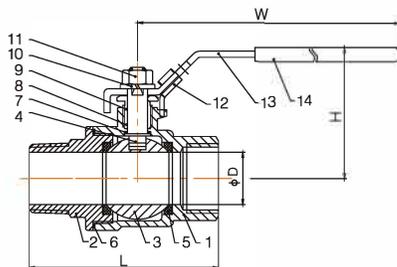
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ΦD	12.5	12.5	15	20	25	32	38	50	65	80	100
L	49	49	58	66	77	90	98	121	145	166	240
H	48	48	52	61	65	79	83	97	135	144	159
W	100	100	100	127	127	154	154	192	244	244	275

## 2-PC Ball Valve(F/M)

Model: 400 202



### Technical Specification

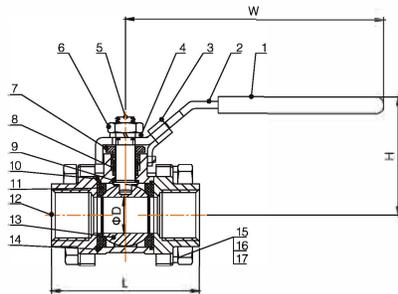
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	8	8	13.6	18.2	23	31	36	48
L	55	55	67.5	78	91	101	107	132
W	106	106	106	116	148	148	182	182
H	49	49	51	58	73	79	85	95

# 3-PC Thread Ball Valve

Model: 400 301



### Technical Specification

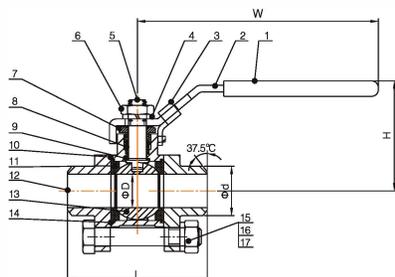
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ΦD	12.5	12.5	15	20	25	32	38	50	65	80	100
L	50.5	50.5	61.5	70	80.5	93	103	125	158	179	213
H	48	48	52	61	65	79	83	97	135	144	149
W	100	100	100	127	127	154	154	192	244	244	285

# 3-PC Butt Weld Ball Valve

Model: 400 302



### Technical Specification

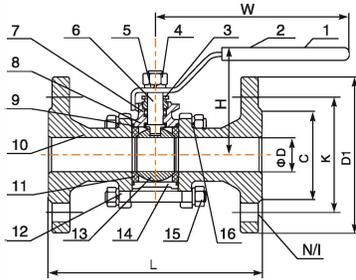
Nominal pressure: PA63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Welded Connection

### Main Dimension

SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ΦD	9.7	12.5	15	20	25	32	38	50	64	76	100
Φd	15.2	18	22	27.5	33.5	44	50	61.6	76	92	116
L	61	52.4	62.4	72.2	81.6	95	106	127.2	160.2	182.2	220
H	50	48	52	61	65	79	83	97	135	144	160
W	103	100	100	127	127	154	154	192	244	244	278

# 3-PC Flanged Ball Valve

Model: 400 303



### Technical Specification

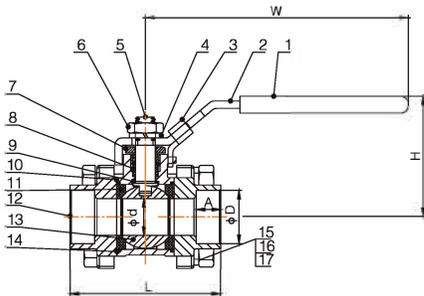
Nominal pressure: PN40  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Flange type: DIN2543

### Main Dimension

SIZE	φ D	D1	K	C	L	H	W	N/I
1/2"	15	95	65	45	130	84	146	4-14
3/4"	20	105	75	58	150	87	146	4-14
1"	25	115	85	68	160	93	153	4-14
1-1/4"	32	140	100	78	180	99	153	4-18
1-1/2"	40	150	110	88	200	114	217	4-18
2"	50	165	125	102	230	122	217	4-18
2-1/2"	65	185	145	122	290	150	251	8-18
3"	76	200	160	138	310	161	251	8-18
4"	94	235	190	162	350	180	291	8-22

# 3-PC Socket Weld Ball Valve

Model: 400 305



### Technical Specification

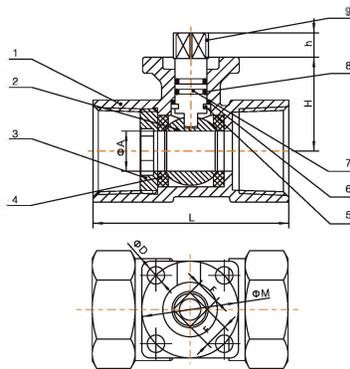
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Welded Connection

### Main Dimension

SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
φ D	14.1	17.6	21.7	27.1	33.9	42.6	48.7	61.1
A	10	10	10	13	13	13	13	16
φ d	12.5	12.5	15	20	25	32	38	50
L	50.5	50.5	61.5	70	80.5	93	103	125
H	48	48	52	61	65	79	83	97
W	100	100	100	127	127	154	154	192

## 1-PC Ball Valve With Mounting Pad

Model: 400 401



### Technical Specification

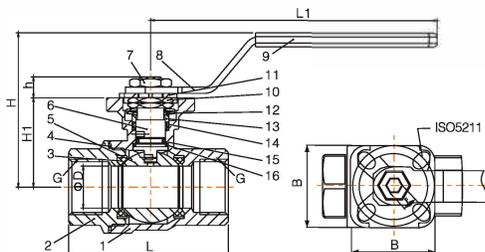
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

SIZE ITEM	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
L	45	55	60	73	78	89	100
A	7	9.2	12.5	15	20	25	32
H	24	26	32	35	38	42	50
C	36	36	36	36	36	50	50
H	9	9	9	9	9	11	11
D	6.5	6.5	6.5	6.5	6.5	7	7
M	36	36	36	36	36	50	50
F	9	9	9	9	9	11	11

## 2-PC Ball Valve With Mounting Pad

Model: 400 402



### Technical Specification

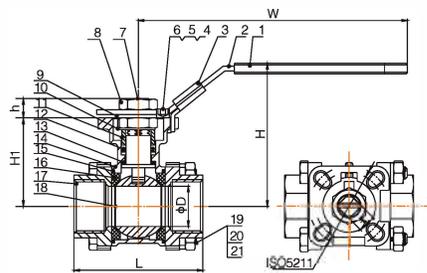
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

G	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	15	20	25	32	38	50
L	58.6	66.5	79.5	94.5	103	125
L1	140	140	160	160	185	185
H	68	72.5	87	100	109	118.5
H1	36.5	40.5	49	62	68	77.5
F	9	9	11	11	14	14
ISO5211	F03/F04	F03/F04	F04/F05	F04/F05	F05/F07	F05/F07

# 3-PC Ball Valve With Mounting Pad

Model: 400 403



### Technical Specification

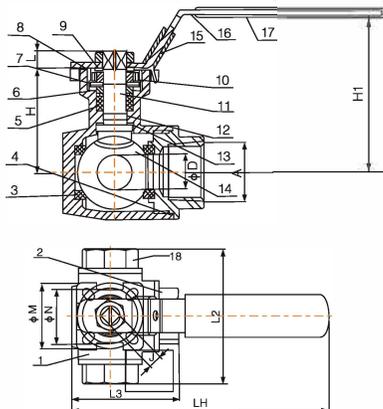
Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

SIZE	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
D	12.5	12.5	15	20	25	32	38	50	65	76	94
L	50.5	50.5	61.5	70	80.5	93	103	125	170	186	226
H	72	72	75	81	88	94	106	121	155	164	168
W	140	140	140	140	160	160	185	185	235	235	333
H1	38	38	41	48	55	60	70	85	109	118	116
h	11	11	11	11	11	11	15	15	20	20	20
E	9	9	9	9	11	11	14	14	17	17	17
ISO5211	F03 F04	F03 F04	F03 F04	F03 F04	F04 F05	F04 F05	F05 F07	F05 F07	F07 F10	F07 F10	F07 F10

# 3-Way Ball Valve With Mounting Pad

Model: 400 404



### Technical Specification

Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT

### Main Dimension

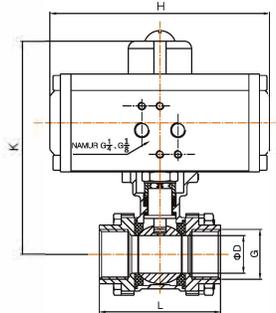
ITEM SIZE	A	ΦD	H	H1	L	N	M	J	R1	R2	L2	L3	LH
1/2"	1/2"	12.5	42	75	9	36	42	9	3	3	79	64	163
3/4"	3/4"	16	49	82	9	36	42	9	3	3	83	68	165
1"	1"	20	59.5	97	11	42	50	11	3	3.5	104	82	190
1 1/4"	1 1/4"	25	63	101	11	42	50	11	3	3.5	111	90	195
1 1/2"	1 1/2"	32	73.5	115	14	50	70	14	3.5	4.5	126	106	227
2"	2"	38	82.5	122	14	50	70	14	3.5	4.5	147	123	235

# Pneumatic Ball Valve



Model: 400 501

TYPE A



### Technical Specification

Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP , BSPT, DIN2999, NPT  
 Control type: Double acting  
 (If single-acting control is needed instead, a special request should be made.)

### Main Dimension

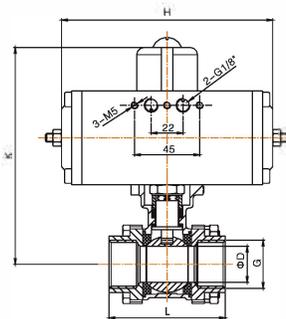
SIZE	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
D	12.5	12.5	15	20	25	32	38	50
L	50	50	62	70	80	93	103	125
H	122	122	122	122	122	147	168	168
K	120	120	125	130	135	155	180	195

Note: this dimension is based on control air pressure of 5 bar

Model: 400 502



TYPE B



### Technical Specification

Nominal pressure: PN63(1000Psi)  
 Applicable temperature: -10°C — +150°C  
 Body and Bonnet: CF8(304) or CF8M(316)  
 Ball: CF8(304) or CF8M(316)  
 Stem: 304 or 316  
 Seal ring and Packing: (PTFE)  
 Thread end: BSP, BSPT, DIN2999, NPT  
 Control type: Double acting  
 (If single-acting control is needed instead, a special request should be made.)

### Main Dimension

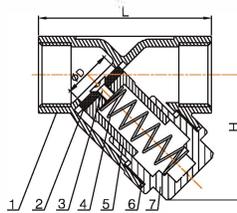
SIZE	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
D	12.5	12.5	15	20	25	32	38	50
L	50	50	62	70	80	93	103	125
H	142	142	142	146	146	146	168	168
K	105	105	108	145	150	165	190	205

Note: this dimension is based on control air pressure of 5 bar

# Check Valve

## Y-Spring Check Valve ( PN55)

Model: 500 001



### Part List

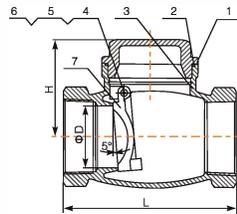
NO	Name	Material
1	Body	CF8/CF8M
2	Seat	PTFE
3	Sunk Screw	316
4	Spring	304
5	Sleeve	CF8/CF8M
6	Gasket	PTFE
7	Bonnet	CF8/CF8M

### Main Dimension

SIZE	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	14	14	14	20	25	32	40	50
H	44	44	44	52	65	70	78	90
L	65	65	65	80	90	105	120	138

## Swing Check Valve(PN16)

Model: 500 002



### Part List

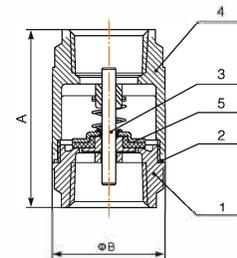
NO	Name	Material
1	Bonnet	CF8/CF8M
2	Gasket	PTFE
3	Body	CF8/CF8M
4	Pin	304
5	Plug gasket	PTFE
6	Plug	304
7	Disc	CF8/CF8M

### Main Dimension

SIZE ITEM	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	15	20	25	32	40	50
L	65	79	90	103.5	120	140
H	43	53	62	66.5	80.5	84

## 2-PC Spring Vertical Check Valve(PN63)

Model: 500 003



### Part List

NO	Name	Material
1	Bonnet	CF8/CF8M
2	Gasket	PTFE
3	Stem	304/316
4	Body	CF8M
5	Disc	304/316

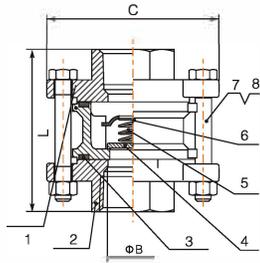
### Main Dimension

SIZE	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	51	51	61	69	82	92	107	120
ΦB	30.5	30.5	37	42	48	58	70	82

## Check Valve

### 3-PC Spring Vertical Check Valve (PN63)

Model:500 004



#### Part List

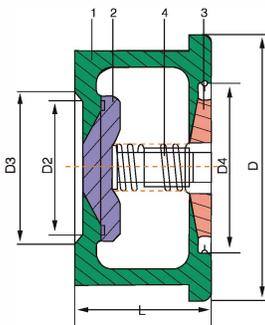
NO	Name	Material
1	Body	CF8/CF8M
2	Bonnet	CF8M
3	Seal	PTFE
4	Disc	304
5	Spring	304
6	Plug	304
7	Bolt	304
8	Nut	304

#### Main Dimension

Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
B	8	10	15	20	25	32	40	50	65	76	94
C	45	45	53.5	62.5	71	88	95	117	147	167	224
L	48.5	48.5	56.5	65	74	83	92	110	125.5	141	164

### Wafer Type Disc Check Valve (PN25, PN40)

Model: 500 005



#### Part List

NO	Name	Material
1	Body	CS, CF8, CF8M
2	Disc	CF8, CF8M
3	Holder	CS, CF8, CF8M
4	Spring	304, 316

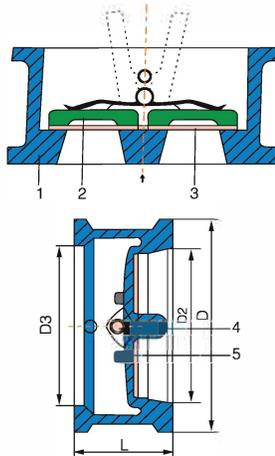
#### Main Dimension

Size		15	20	25	32	40	50	65	80	100	125	150	200	250
PN25	L	25	25	30	32	38	45	50	60	75	85	102	110	150
	D	52	62	72	83	93	108	128	142	168	194	224	284	341
PN40	L	25	25	30	32	38	45	50	60	75	85	102	110	150
	D	52	62	72	83	93	108	128	142	168	194	224	291	353

# Check Valve

## Wafer Type Dual Disk Check Valve (PN16)

Model: 500 006



### Part List

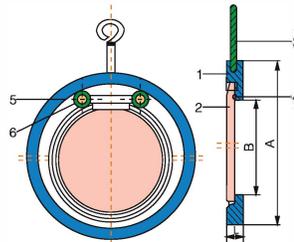
NO	Name	Material
1	Body	CF8, CF8M,
2	Disc	CF8, CF8M,
3	Seat	EPDM
4	Holder	Stainless steel (304 or 316)
5	Spring	Stainless steel (304 or 316)

### Main Dimension

Size	50	65	80	100	125	150	200	250	300	350	400	450	500	600
L	60	67	73	73	86	98	127	146	181	184	191	203	219	222
D	108	128	142	162	192	218	273	328	378	438	489	539	594	695
D2	51	65	80	102	127	152	203	254	305	350	400	450	500	600
D3	56	73	88	108	132	160	210	266	310	355	405	455	505	605

## Wafer Type Swing Check Valve (PN16)

Model: 500 007



### Part List

NO	Name	Material
1	Body	CS, CF8, CF8M,
2	Disc	CS, CF8, CF8M
3	Eye Bolt	Carbon Steel Plated
4	O-Ring	FKM, NBR, EPDM
5	Bolt	SS304, SS316
6	Washer	FKM, NBR, EPDM

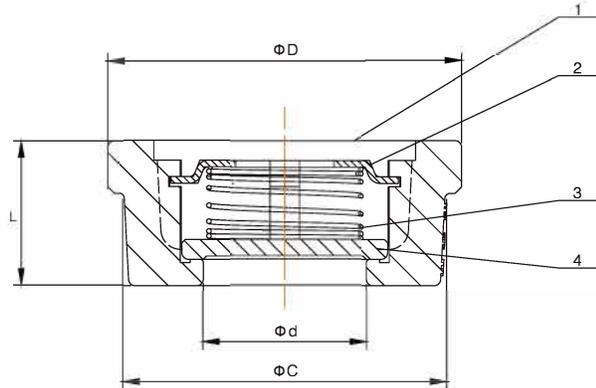
### Main Dimension

Size	40	50	65	80	100	125	150	200	250	300
B	24	28	45	55	76	93	118	160	200	230
A	93	108	128	142	162	192	218	273	329	385
L	16	16	16	16	16	16	19	28	28	38

# Check Valve

## Wafer Type Disc Check Valve

Model: 500 008



Flange standards: DIN PN16, 25, 40  
ANSI 150/300 Lbs  
Structure length: DIN3202 – K4  
Pressure level: PN40  
Material: CF8 /CF8M

### Technical Specification

ITEM \ SIZE	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
MIN Open pressure (mbar)	35	35	35	35	35	35	35	35	35
Kv(m <sup>3</sup> /h) at 0.1bar ΔP	0.45	0.75	1.2	1.8	2.6	4.2	5.8	9.5	15

### Main Dimension

ITEM \ SIZE	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
D	39	46	54	70	80	94	112	132	150
d	15	20	25	32	40	46	62	75	86
C	34	40	50	62	70	85	100	120	140
L	16	19	22	28	32	40	46	50	60

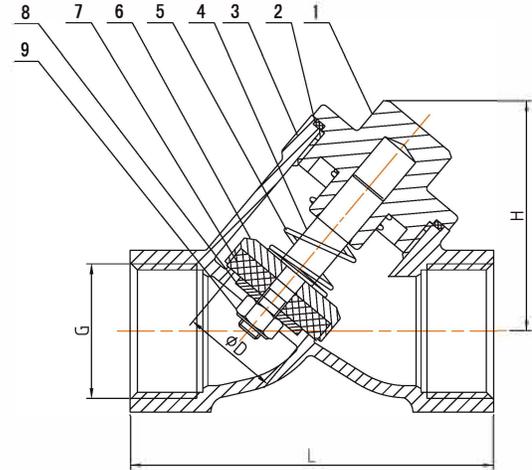
### Part List

NO	Name	Material
1	Body	CF8/CF8M
2	Spring support	316
3	Spring	304/316
4	Disc	CF8/CF8M

# Check Valve

## Y-Spring Check Valve (PN16)

Model: 500 009



### Function Principle

The medium enters valve body through inlet opening, pushes the valve stem and valve core upward, and thereby opens the valve. When the medium starts to flow back from the outlet, the spring force and pressure applied by the medium itself push the valve stem and valve core down, and thereby close the valve.

### Technical Specification

Nominal pressure: PN16

Valve specification: DN15–DN50

Medium temperature:  $-10^{\circ}\text{C}$  —  $+180^{\circ}\text{C}$

Open pressure: 30–40mbar

Connection: Thread, welding fast mounting, flange

### Part List

NO.	Name	Material
1	Bonnet	CF8/CF8M
2	Body seal	PTFE
3	Body	CF8/CF8M
4	Spring	304
5	Stem	304/316
6	Core	CF8/CF8M
7	Seat	PTFE
8	Core gasket	CF8/CF8M
9	Self-locking Nut	304

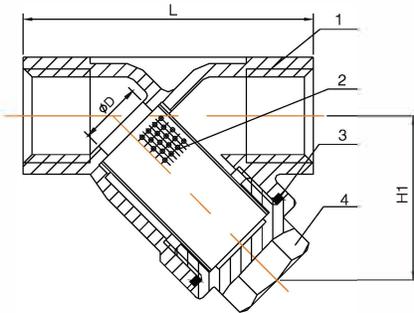
### Main Dimension (thread type)

SIZE	1/2"	3/4"	1"	1 1/4 "	1 1/2 "	2"
L	68	75	90	116	116	138
H	43	48.5	57	72	77	89
$\phi$ D	13	18	24	31	35	45
G	1/2"	3/4"	1"	1 1/4 "	1 1/2 "	2"

# Y-Type Strainer

## Single Cap Type

Model: 600 001



## Technical Specification

Nominal pressure: 5.5MPa

## Part List

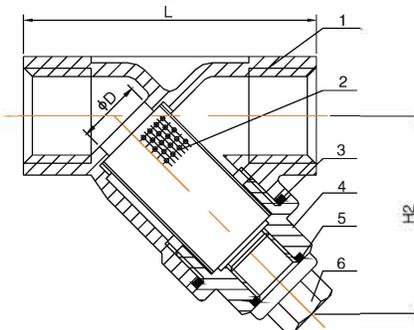
NO	Name	Material
1	Body	CF8M/CF8
2	Filter	304(Wired or perforated mesh)
3	Gasket	PTFE
4	Bonnet	CF8M/CF8

## Main Dimension

SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
D	14	14	14	20	25	32	40	50	60	80
H1	37	37	37	45	54	59	66	77	93	118
L	65	65	65	80	90	105	120	138	178	210

## Double Cap Type

Model: 600 002



## Technical Specification

Nominal pressure: 5.5MPa

## Part List

NO	Name	Material
1	Body	CF8M/CF8
2	Filter	304(Wired or perforated mesh)
3	Gasket	PTFE
4	Bonnet	CF8M/CF8
5	Bolt Seal	PTFE
6	Discharge Plug	CF8M/CF8

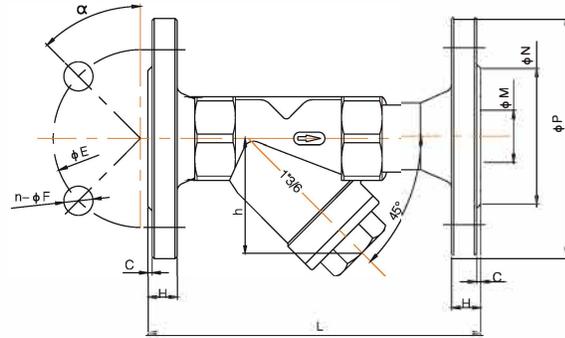
## Main Dimension

SIZE ITEM	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
D	14	14	14	20	25	32	40	50	60	80
H2	44	44	44	52	63	67	74	86	104	128
L	65	65	65	80	90	105	120	138	178	210

# Y-Type Flange End Strainer

## Flange End Strainer

Model: 600 003



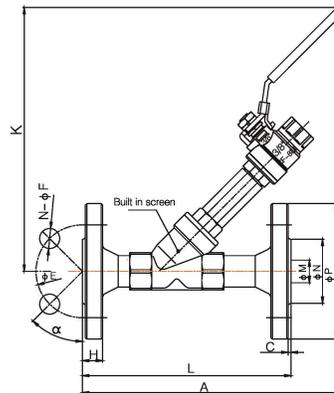
Flange specification: JB/T82.1-1994; ISO/DIN/JIS is also available

### Main Dimension

Size	L	C	H	h	φ E	n-φ F	φ M	φ N	φ P	α
DN15	145	2	14	37	65	4-14	16	45	95	45°
DN20	155	2	14	45	75	4-14	20	56	105	45°
DN25	155	2	14	54	85	4-14	25	65	115	45°
DN32	185	2	16	59	100	4-18	32	78	140	45°
DN40	200	3	16	66	110	4-18	36	84	150	45°
DN50	215	3	16	77	125	4-18	49	100	165	45°
DN65	290	3	18	93	145	4-18	66	120	185	45°
DN80	315	3	20	118	160	4-18	78	135	200	22.5°

## Filter Discharge Valve

Model: 600 004

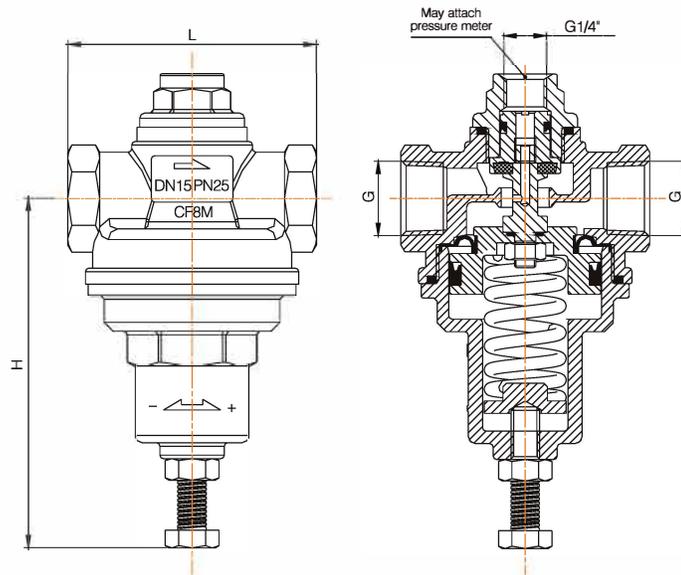


Flange specification: JB/T82.1-1994; ISO/DIN/JIS is also available

### Main Dimension

Size	L	C	H	φ E	φ F	φ M	φ N	φ P	A	K	α
DN15	145	2	14	65	4-14	16	45	95	256	205	45°
DN20	155	2	14	75	4-14	20	56	105	270	215	45°
DN25	155	2	14	85	4-14	25	65	115	280	235	45°
DN32	185	2	16	100	4-18	32	78	140	300	240	45°
DN40	200	3	16	110	4-18	36	84	150	310	250	45°
DN50	215	3	16	125	4-18	49	100	165	320	260	45°
DN65	290	3	18	145	4-18	66	120	185	340	265	45°
DN80	315	3	20	160	8-18	78	135	200	385	300	22.5°

# Pressure Reducing Valve



## Function Principle

Pressure reducing valve is a N.O. valve that controls incoming fluid pressure to a desired range at outlet, by adjusting spring force and balancing it with the pressure applied by the passing medium. It ensures stabilized fluid pressure in a pipeline after the valve.

## Advantages

1. All valve parts are made of stainless steel CF8M, suitable for water, weak acid and weak base, etc.
2. The valve combines the structure design of a piston type valve and a diaphragm type valve to achieve superior service life.
3. Simple structure, fast reaction and accurate pressure adjustment.

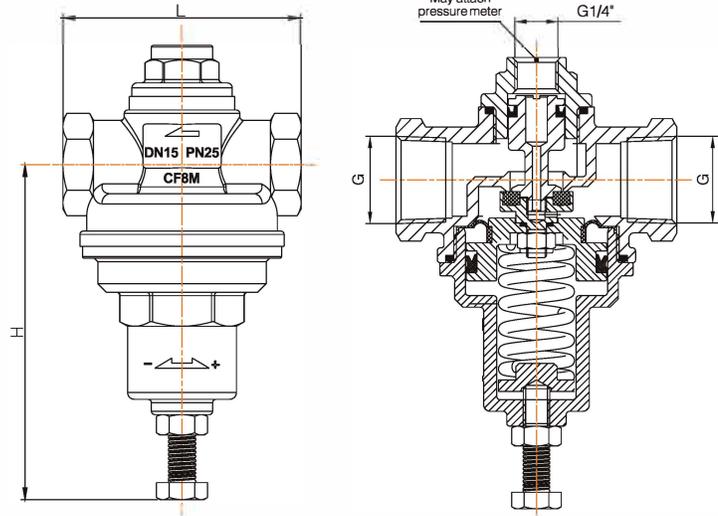
## Technical Specification

Nominal Pressure: PN25  
 Pressure Range : 1–6bar、4–10bar、8–13bar(3 options available)  
 Medium Temperature: -15°C — +100°C  
 Seal Material: FPM  
 Connection: Thread(BSP,BSPT,NPT)

## Main Dimension

Size	G	H	L	Kv(m <sup>2</sup> /h)
DN15	1/2"	100	70	2.1
DN20	3/4"	100	85	3.4
DN25	1"	105	92	5.5

# Overflow valve



## Function Principle

Overflow valve is a N.C valve that limits fluid pressure under a desired threshold, by adjusting the spring force and balancing it with the pressure applied by medium at the inlet. It ensures stabilized fluid pressure in a pipeline before the valve.

## Advantages

1. All valve parts are made of stainless steel CF8M, suitable for water, weak acid and weak base, etc.
2. The valve combines the structure design of a piston type valve and a diaphragm type valve to achieve better service life.
3. Simple structure, fast reaction and accurate pressure adjustment

## Technical Specification

Nominal pressure: PN25  
 Pressure range: 1–10bar  
 Medium temperature:  $-15^{\circ}\text{C}$  —  $+100^{\circ}\text{C}$   
 Seal material: FPM  
 Connection: Thread end

## Dimension

Size	G	H	L	Kv(m <sup>3</sup> /h)
DN15	1/2"	100	70	2.1
DN20	3/4"	100	85	3.4
DN25	1"	105	92	5.5

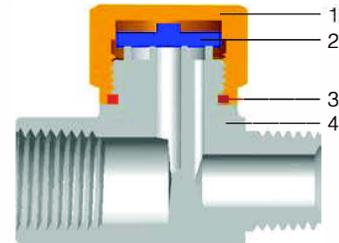
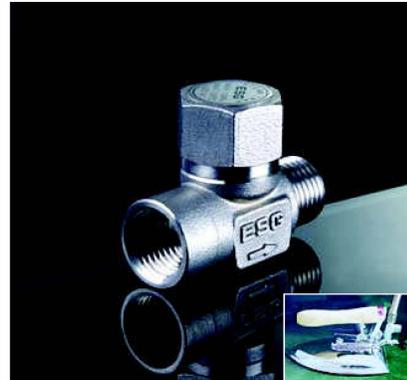
# Thermodynamic Steam Trap

## DN8 Advantages

1. Small and compact, highly efficient.
  2. Superb energy efficiency.
  3. Easy to install and operate.
- Application: Drip legs, steam tracing, laundry equipment.

## DN8 Part list

NO	Name	Material
1	Bonnet	Stainless steel 304 (CF8)
2	Disk	Stainless steel 420
3	O-ring	Silicon rubber
4	Body	Stainless steel 304 (CF8)

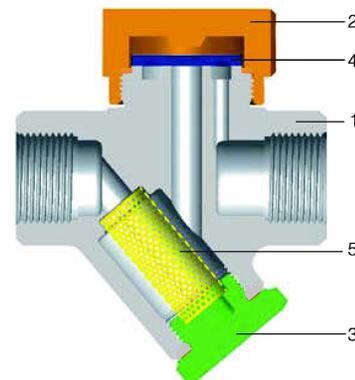


## DN15/20/25 Advantages

1. Compact structure.
  2. High durability due to stainless steel inner components and valve body.
  3. Long service life.
- Application: Steam pipelines, iron machines, drying units, etc.

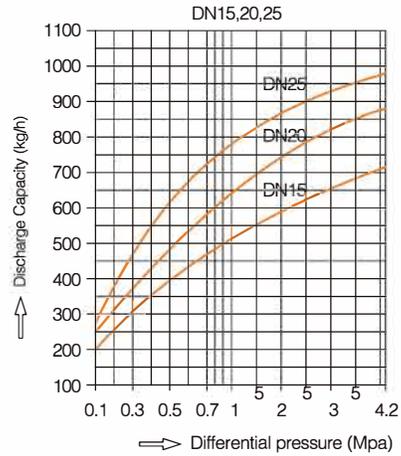
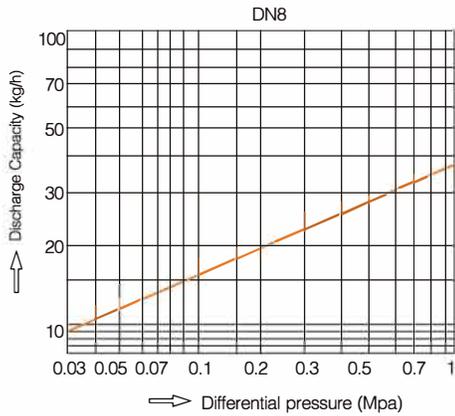
## DN15/20/25 Part list

NO	Name	Material
1	Body	ASTM CA40
2	Bonnet	Stainless steel 304(CF8)
3	Discharge Bolt	Stainless steel 304(CF8)
4	Disk	Stainless steel 420
5	Strainer Screen	Stainless steel 304

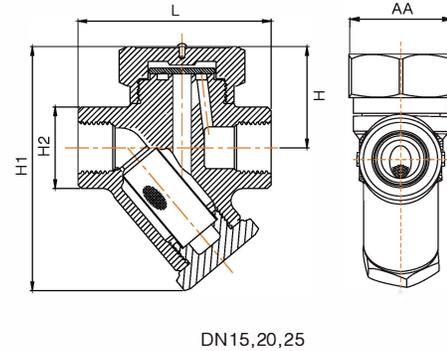
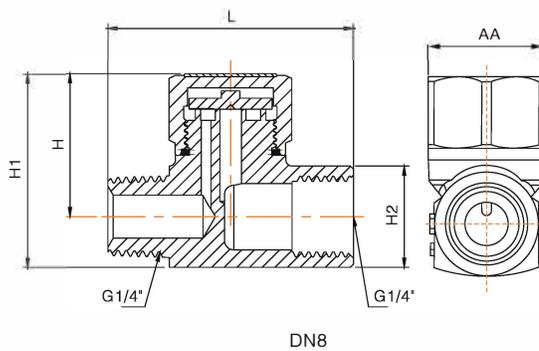


# Thermodynamic Steam Trap

## Discharge Capacity

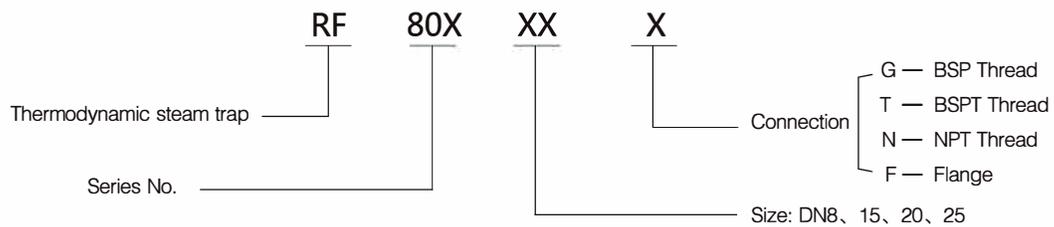


## Dimension



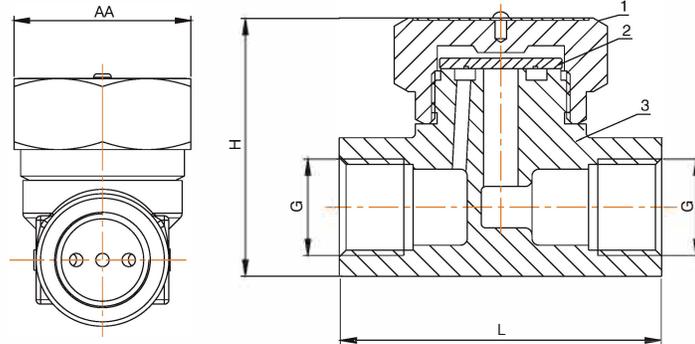
Size	Thread end	Dimension(mm)					Operating Pressure (Mpa)	Max. Operating Temp (°C)	Weight (kg)
		L	H	H1	H2	AA			
DN8	1/4"	40	23	31	16.5	18	0.03-1.0	200	0.07
DN15	1/2"	78	40	99.6	33	44	0.15-4.2	400	0.9
DN20	3/4"	90	49.2	109.2	39	48			1.2
DN25	1"	95	57.5	121.6	45	56			1.7

## Order Instruction

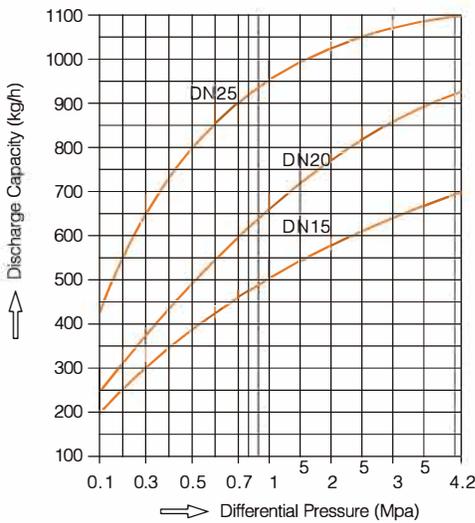


Example: RF 800 25 G  
 Means: Steam Trap, Series 800, DN25, BSP thread.

# Thermodynamic Steam Trap



## Discharge Capacity



## Part List

NO	Name	Material
1	Bonnet	Stainless Steel 304(CF8)
2	Disk	Stainless Steel 420
3	Body	ASTM CA40

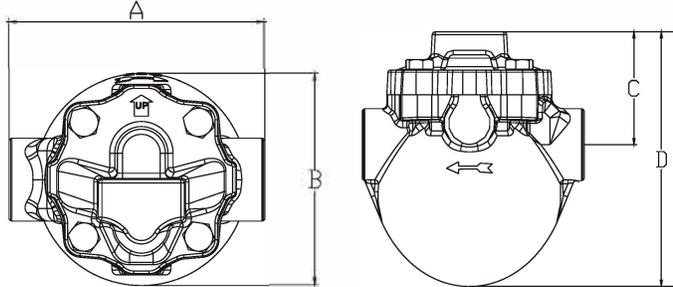
## Advantages

1. Compact structure.
  2. High durability due to stainless steel inner components and valve body.
  3. Long service life.
  4. Easy to service and repair.
- Application: Steam pipelines, iron machines, drying units, etc.

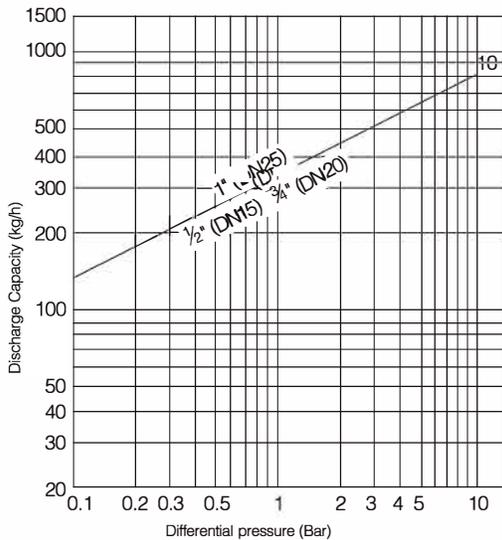
## Dimension

Size	G	L	H	AA	Operating Pressure (Mpa)	Max. Operating Temp (°C)	Weight (Kg)
DN15	1/2"	41	70	40	0.25-4.2	400	0.5
DN20	3/4"	43	80	44			0.8
DN25	1"	52	89	55			1.25

# Ball Float Steam Traps



## Discharge Capacity



## Advantages

1. Support both horizontal and vertical installation.
2. Stainless steel material with excellent corrosion resistance and durability.
3. Continuous discharge, with no impact from temperature, pressure and flow. Prevent water hammer due to steam condensation.
4. No steam leakage, minimal heat loss.
5. Automatically discharge non-condensing gas to avoid air resistance.
6. Large discharge capacity improves work efficiency.

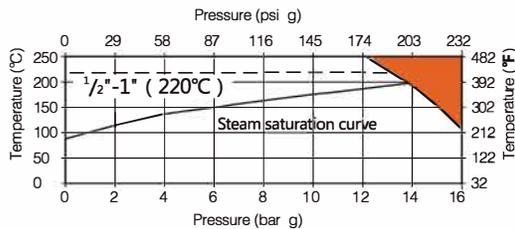
## Technical Specification

1. Nominal pressure: PN16
2. PMA Max.Allowable pressure: 16Bar
3. TMA Max.Allowable temperature: 250°C
4. Max.Differential pressure: 10Bar
5. Connection: Thread ( BSP, BSPT, NPT )

## Dimension

Size	A	B	C	D
DN15	145	108	74	169
DN20	145	108	74	169
DN25	145	108	74	169

## Operating Condition

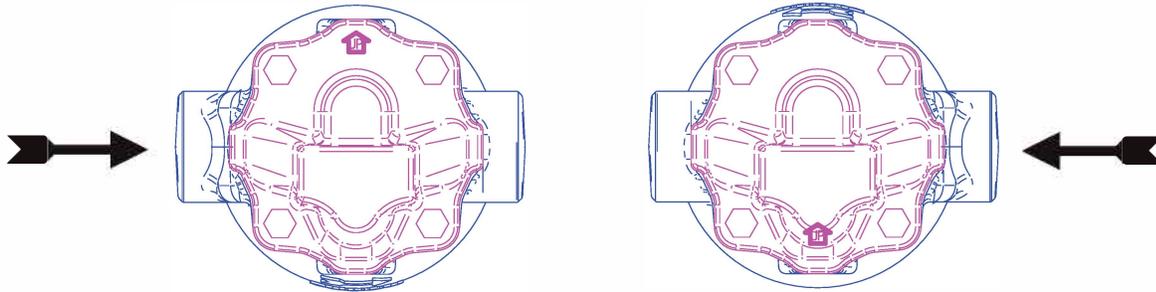


■ The product must not be used under the red condition.

## Part List

<b>Body and Bonnet</b>	CF8/CF8M
<b>Bolt</b>	304
<b>Gasket</b>	Soft Graphite
<b>Internal component</b>	Stainless Steel

# Ball Float Steam Traps



## Attention

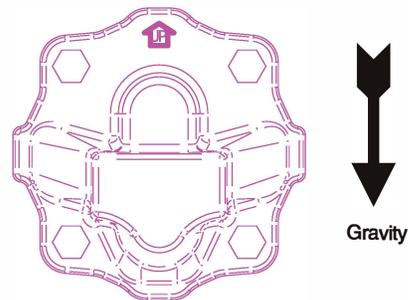
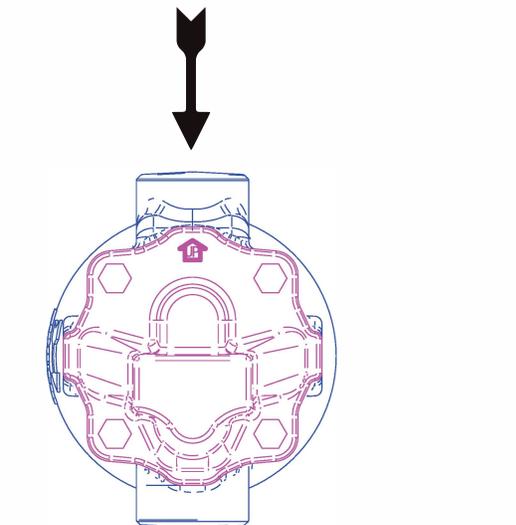
1. The steam trap can be applied in three directions (as shown below), please indicate when ordering.
2. BSP、BSPT、NPT、SW can be provided.
3. Steam lock module is available as add-on. Please indicate before ordering .

## Advantages

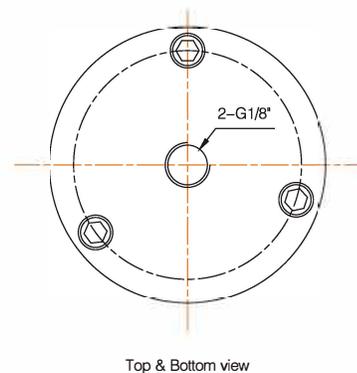
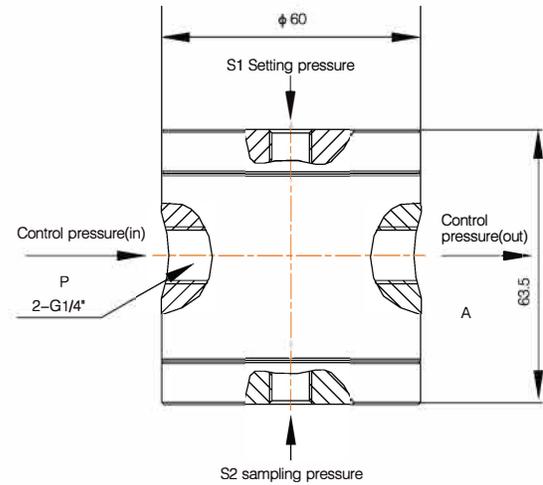
1. Work efficiently under both light and heavy condensate loads.
2. Large discharge capacity ensures minimal condensation .
3. Strong structure and compact in size.
4. Support both vertical and horizontal installation, reducing installation cost .
5. Stainless steel material, corrosion-resistant, superb service life .

## Special note

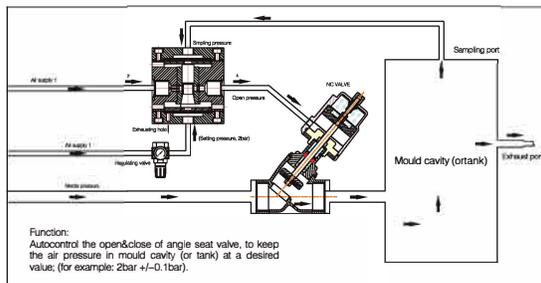
Please keep valve in opposite direction of gravity.  
(As shown on the right).



# Pneumatic Balancing Valve



## Work Flow Chart



## Function Principle

The balancing valve automatically controls the connected valve to maintain a certain working pressure of the equipment . Port A is controlled by fixing air pressure at S1 and adjusting it at S2. When  $(S1-S2) > 0.1\text{bar}$ , Port A will open and the connected valve will open. When  $(S2-S1) > 0.1\text{bar}$ , port A will close and the connected valve will also close .

## Advantages

Automatically adjusting and operating with no manual input required. High sensitivity: when the pressure changes by +/-0.1bar, balancing valve will auto switch .

## Technical Specification

Port Size:

P, A: G1/4", S1, S2: G1/8"

Pressure range:

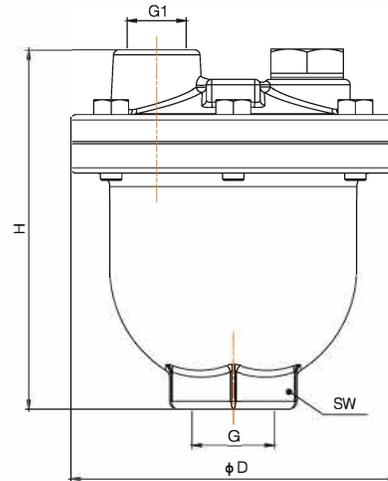
S1 port: setting pressure 0.2–4bar, depending on specific application. Filtered compressed air is commonly used.

S2 port: sampling pressure from equipment pipelines, will be  $S1 \pm 0.1\text{bar}$

P, A port: dependent on the control pressure of the connected angle seat valve, normally 2–8bar

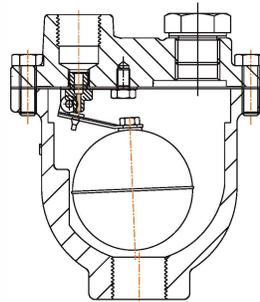
Temperature range: 0 — 100°C

# Air Eliminator (Float Type)

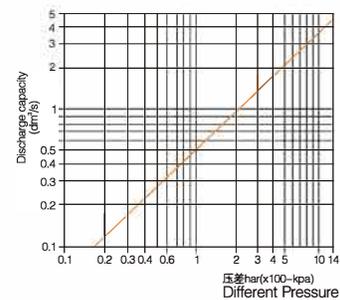


## Function Principle

This valve operates automatically due to density difference between gas and liquid. When a mixture of gas and liquid enters from bottom of the valve, gas exits through the outlet at the top, while liquid pushes the float ball up and blocks the gas outlet. This valve could be easily dismantled for maintenance, usually without disturbing pipe connections.



Different pressure/discharge capacity curve



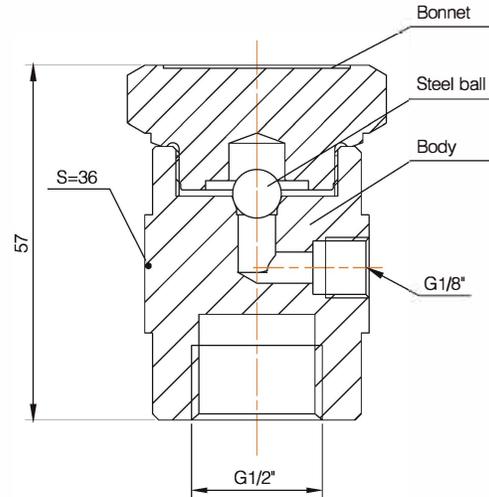
## Technical Specification

<b>Fluid pressure</b>	Max 1.6 MPa	<b>Control type</b>	Automatic
<b>Body material</b>	CF8M	<b>Medium temperature</b>	-20 °C to + 200 °C
<b>Seal material</b>	FKM	<b>Applicable medium</b>	Can be used for hot and cold water systems as well as other types of liquid medium

## Main Dimension

Size	G	G1	D	H	SW
1/2"	1/2"	1/2"	122	134	47.5
3/4"	3/4"	1/2"	122	134	47.5
1"	1"	1/2"	122	134	47.5

# Vacuum Breaker



## Function Principle

Under normal condition, a steel ball inside the valve blocks connection to atmosphere due to gravity and pressure from pipeline. When vacuum occurs inside pipeline, the steel ball gets pushed out by atmospheric pressure, allowing air into the pipeline and breaking vacuum inside the pipeline.

## Special Note

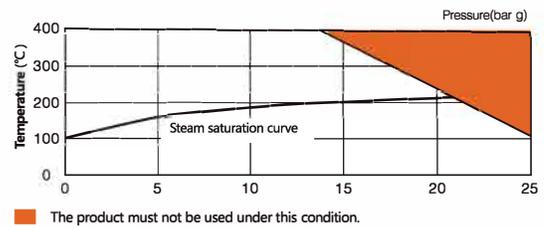
Valve installation: must be installed in vertical position. The system connection port is located at the bottom of the valve. If used for steam system, it must be installed at the top of the system to prevent the valve from being immersed in condensation.

## Technical Specification

Valve specification: DN15  
 Nominal pressure: PN25  
 Body material: 316/304  
 Applicable media: Mainly used for steam or liquid system

## Operating Condition

### Pressure/temperature limits



PMA Max.Allowable Pressure: 25bar, 120°C  
 TMA Max.Allowable Temperature: 400°C, 13bar  
 Max.Operating Pressure for saturated steam service: PMO: 21bar  
 TMO Max.Operating Temperature: 400°C, 13Bar  
 Min.Operating Temperature: 0°C

# Diaphragm Valve



## Application Industry

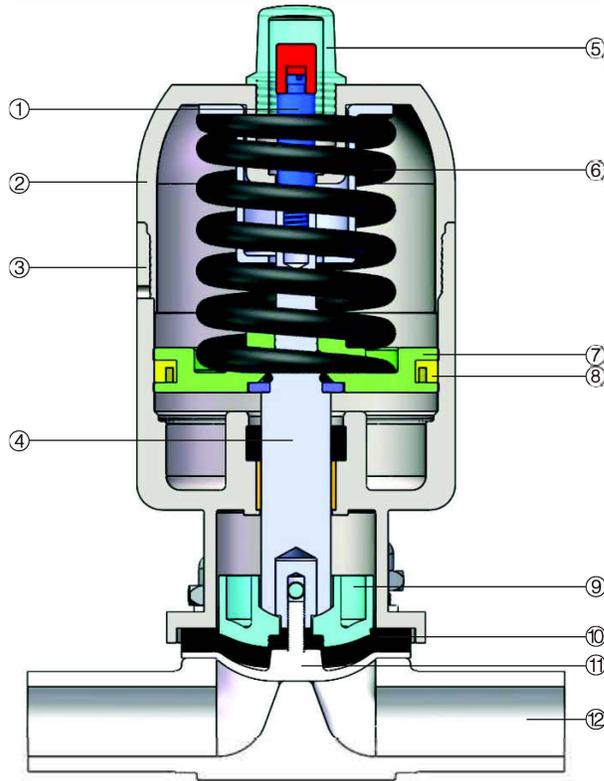
Pharmaceutical, food and beverages, cosmetics, brewing, chemicals, etc.



## Typical Applications

Fermentation tank, Preparation vessel, Filling machine, Sterilizing equipment, Aseptic fluid transfer, CIP/SIP, etc.

# Diaphragm Valve



- ① Indication Rod (nylon)
- ② Actuator Lid (CF8)
- ③ Actuator Body (CF8)
- ④ Stem (AISI316/304)
- ⑤ Cap (PC)
- ⑥ Spring (Steel 65Mn)
- ⑦ Piston (Alu.alloy)
- ⑧ Piston Seal (Viton)
- ⑨ Valve Core (CF8M/CF8)
- ⑩ Diaphragm 1 (EPDM)
- ⑪ Diaphragm 2 (PTFE)
- ⑫ Valve body (CF8M/CF8)

### Technical Specification

Fluid pressure: Max 1.0MPa (145 psi)  
 Control pressure: 0.45–0.7MPa (65–102 psi)  
 Diaphragm material: EPDM+PTFE  
 Body material: SS316L  
 Actuator material: SS304 (CF8)  
 Internal surface finish: Ra ≤0.4μm, mechanically polished  
 Fluid temperature: -5°C – 150°C  
 Connection: Welded, Tri-clamp

## Advantages

**01**

Patented stem structure with double guiding rings ensure more Stable operation

**02**

Patented spring seat design allow effortless maintenance

**03**

Patented design allowing valve stem and core to connect via internal concave surface and thereby ensuring tight sealing

**04**

Can be installed at any pipe location. Medium flow direction does not affect valve Opening /closing.

**05**

ESG diaphragms are capable of withstanding 1 million bending test cycles.

**06**

ESG diaphragms are tested by accredited third-party institution and approved for FDA and USP Certification.

# Diaphragm Valve



## Diaphragm Introduction

Safety, reliability and durability of diaphragm valves are heavily dependent upon performance of the diaphragm. Diaphragm is the soul of diaphragm valve. PTFE/EPDM two-piece diaphragm is a high-standard diaphragm typically used for aseptic and hygienic applications. PTFE diaphragms are developed and manufactured by ESG. High quality raw materials sourced globally are manufactured into highly dense, smooth and flexible diaphragm products. Our diaphragms are SIP-capable and autoclavable thanks to its high-temperature performance. We have tested our diaphragms through accredited institutions and obtained FDA 21CFR 177.1550 and USP40-NF25 certifications, which correspond to the highest standards in food, beverage and pharmaceutical industries.

ESG ensures its high diaphragm quality through the following measures:

1. All raw materials are sourced from ESG-approved vendors
2. Extensive testing on raw materials by accredited institutions
3. Storage of raw materials under controlled temperature and humidity
4. State-of-the-art manufacturing equipment and facilities
5. Closely monitored, controlled and documented production process
6. Diaphragm testing is conducted with test rigs developed by ESG

## Diaphragm certificate

ESG PTFE diaphragms are tested and certified by accredited 3rd party institution (SGS in Switzerland)



● FDA (Food and Drug Administration) Certificate

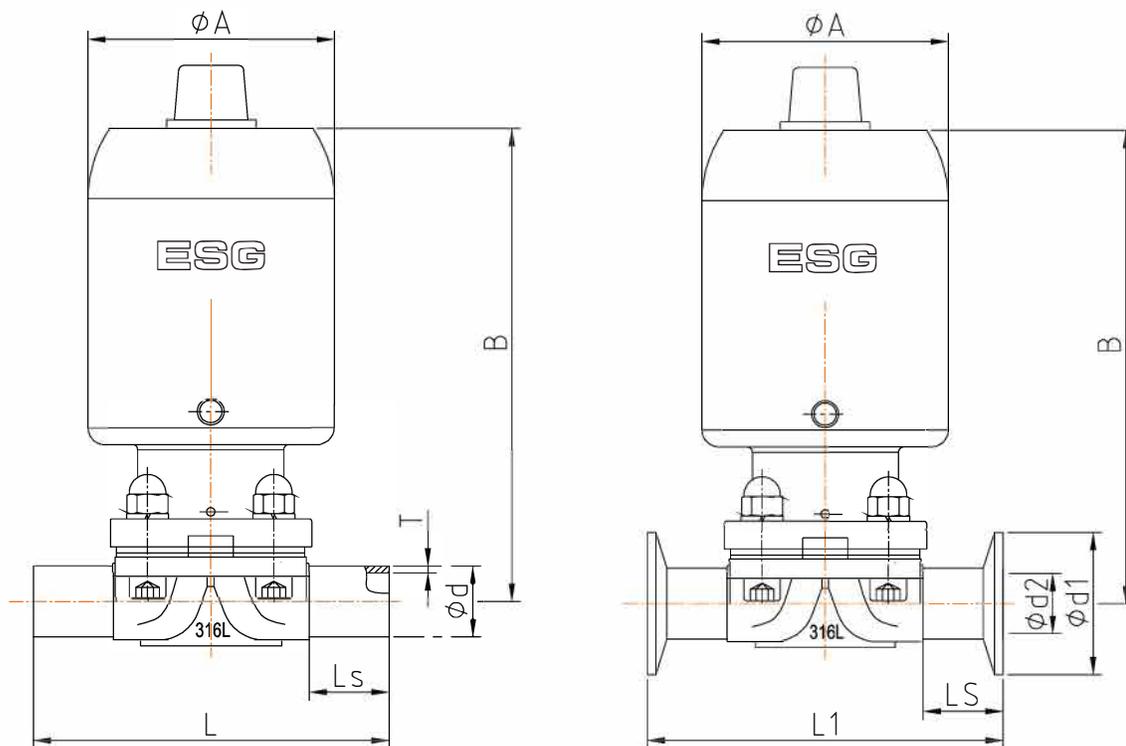


● USP (US Pharmacopeia) Certificate



**We Can Also Provide Test Certificate In Accordance With EN 10204**

# Diaphragm Valve



Welded

Tri-clamp

## Dimension

Welded							ASME-BPE	SMS3008	JIS-G3447
DN	NPS	MG	$\phi A$	B	L	LS	$\phi dxT$	$\phi dxT$	$\phi dxT$
DN15	1/2"	15	56	106	72	20	12.7 × 1.65	-	-
DN20	3/4"	20	64	134	108	29.5	19.05 × 1.65	-	-
DN25	1"	25	88	169	130	26.5	25.4 × 1.65	25.0 × 1.2	25.4 × 1.2

Other specifications available for customization.

Tri-clamp							ASME-BPE	SMS3008	JIS-G3447	
DN	NPS	MG	$\phi A$	B	L1	LS	$\phi d1$	$\phi d2$	$\phi d2$	$\phi d2$
DN15	1/2"	15	56	106	63.5	15.5	25	9.4	-	-
DN20	3/4"	20	64	134	117	34	25	15.75	15.75	-
DN25	1"	25	88	169	127	30	50.5	22.1	22.6	23

Other specifications available for customization.

# Seal Materials Chemical Compatibility Guide

Chemicals	NBR	EPDM	FPM	PTFE
Acetic acid–pure	–	O	–	+
Acetone–pure	–	+	–	+
Ammonia (gaseous)–pure	–	+	O	+
Ammonia (liquid)–pure	–	O	O	+
Battery acid (sulphuric acid 20%)	O	+	+	+
Brine (cooling brine)	+	+	+	+
Calcium hydroxide (lime water)–Aqueous	+	+	+	+
Calcium hypochlorite (chlorinated lime)–aqueous	–	+	O	+
Carbon dioxide (dry) pure	+	O	+	+
Carbon dioxide (humid)	+	O	O	+
Chlorinated lime (calcium hypochlorite)–aqueous	–	+	O	+
Chlorine bleaching lye (sodium hypo–chlorite)–aqueous	–	+	O	+
Chlorine (gaseous)–dry	–	–	O	+
Chlorine (liquid)–pure	–	–	O	+
Chlorine water (chlorine–humid)	–	–	O	+
Citric acid–aqueous	+	+	+	+
Dextrose (glycose)–aqueous	+	+	+	+
Ethanol (ethyl alcohol)–pure	O	+	O	+
Ethyl alcohol (ethanol)–pure	O	+	O	+
Ethyl alcohol + acetic acid	O	+	O	+
Ethyl alcohol–fermented mash	+	+	+	+
Ethylene glycol (glycol)–pure	+	+	+	+
Formaldehyde solution (formalin)–aqueous	O	O	O	+

# Seal Materials Chemical Compatibility Guide

Chemicals	NBR	EPDM	FPM	PTFE
Glycerine–aqueous	+	+	+	+
Glycerine–pure	O	+	+	+
Inert gases–pure	+	+	+	+
Lactic acid–aqueous	O	O	+	+
Malic acid–aqueous	+	+	+	+
Methanol (methyl alcohol)–pure	–	+	–	+
Methyl alcohol (methanol)–pure	–	+	–	+
Nitrogen–pure	+	+	+	+
Oxygen–pure	O	O	+	+
Ozone (humid and dry)	–	O	O	+
Silicone oil	+	+	+	+
Soda lye (sodium hydroxide)–aqueous	O	+	O	+
Sodium carbonate (soda)–aqueous	+	+	+	+
Sodium chloride (table salt)–aqueous	+	+	+	+
Sodium hydrogen carbonate (sodium bi-carbonate)–aqueous	+	+	+	+
Sodium hypochlorite (chlorine bleachinglye)–aqueous	–	O	+	+
Starch solution–aqueous	+	+	+	+
Toluene–pure	–	–	O	+
Water–distilled	+	+	+	+
Water (seawater)	+	+	+	+
Water vapour (130 °C)	O	+	+	+
Yeast–aqueous	+	+	+	+

+: suitable O: limited suitability –: unsuitable

Limited suitability parts are rated as wear parts and are not included in the standard warranty conditions.