

## AV-5AS SANITARY ANGLE SEAT VALVES



### APPLICATION

AV-5AS angle seat valve is widely used in food, beverage, beer processing, textile printing & dyeing, pharmacy and medical equipment, chemical industry, disinfection, frothing equipment, water treatment, especially in steam piping systems. Applicable fluid includes water, alcohol, oil, fuel, steam, neutral gas or liquid, organic solvent, acid and lye.

### MATERIAL

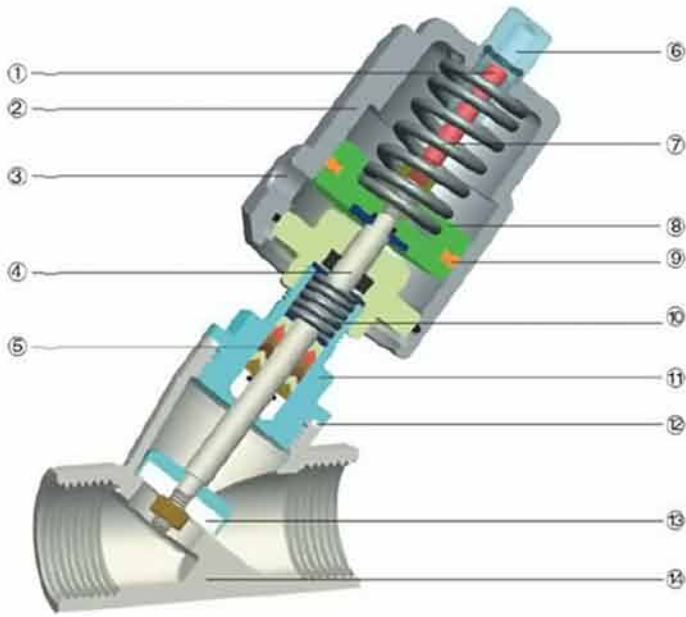
Product wetted: AISI 304 or AISI 316. AISI 316L available for bulk ordering.

Other steel parts: AISI 304

Valve plug and seal: Teflon (PTFE)

### DESIGN FEATURES

- Size available: DN10-3/8" to DN80-3"
- End connections: BSP/BSTP/NPT thread, weld, clamp, flange or others upon request.
- NO/NC/AA pneumatic operation for choose from
- Large flux, low resistance, no water-hammer
- Y shape body enlarges the flowing section, raises the flux by 30% and makes flow more smooth.
- Large flux, low resistance, no water-hammer
- Stem adjusting and lubricating automatically

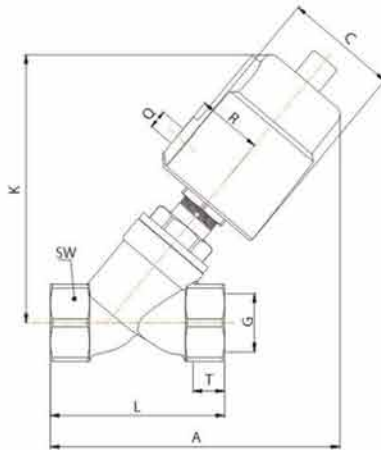


No#	Parts	Material
1	Indicate Rod	Nylon
2	Actuator	304
3	Air Tube Port	1/8"
4	Stem	304/316
5	Stem Seal	Teflon (PTFE)
6	Cap	PC
7	Spring	Steel 65Mn
8	Piston	Alum. alloy
9	Piston seal	Teflon (PTFE)
10	Seal Spring	304
11	Connecting Piece	304
12	Valve Body Seal	Teflon (PTFE)
13	Valve Seat	Teflon (PTFE)
14	Valve Body	304/316

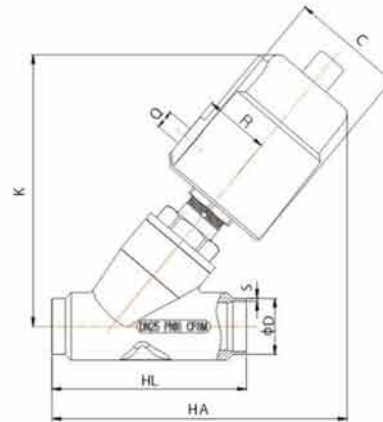
#### TECHNICAL PARAMETER

Steel Material	Product wetted steel parts	AISI 304 / AISI 316	Provided with material inspection report
Material	Other steel parts	AISI 304	
Seal Material	Standard	Teflon (PTFE)	All seal materials comply with FDA 21CFR117.2600
Material	Option		
Pressure	Working Pressure	Max.: ≤16bar (232 PSI)	
	Supply pressure for air actuator	Min.- Max.: 3~8bar (43.5-116 PSI)	
Temperature	Working temperature	14° F to 248 ° F (-10°C to 120°C )	
		Please contact us if higher configuration needed	
Surface Treatment	Inside surface treatment	Ra 32 μ in (0.8 μm)	
Connection	Threaded (BSP or NPT), Welded, Flanged, Clamp		
Actuator	• Actuator sizes available: 40mm, 50mm, 63mm, 90mm, 125mm		
	• Stainless steel 304 material.		
	• Normally Closed (NC)--Air to open and spring to close; (Single-acting)		
	• Normally Open (NO)--Air to close and spring to open; (Single-acting)		
	• Air to Air (AA)--Air to open, air to close. (Double-acting)		
	• Air control: Neutral gas or clean air		
Fluid Viscosity:	Max 600mm <sup>2</sup> /s		

### Thread Ends and Welded Ends Angle Seat Valves



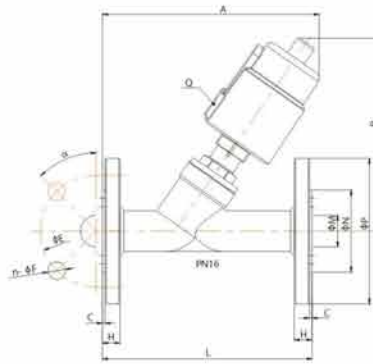
Threaded Connection



Welded Connection

Size	Actuator (mm)	Q	C		R		K		Threaded Connection							Welded Connection														
									G		T		A		L		SW		HA		HL		DIN11850-2				DIN11850-3			
			Inch	mm	Inch	mm	Inch	mm	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
DN10	40	1/8"	1.988	50.5	1.063	27	4.409	112	3/8"	0.472	12	4.882	124	2.677	68	1.063	27	-	-	-	-	-	-	-	-	-	-	-	-	
	50	1/8"	2.362	60	1.299	33	4.921	125	3/8"	0.472	12	5.315	135	2.677	68	1.063	27	-	-	-	-	-	-	-	-	-	-	-		
DN15	40	1/8"	1.988	50.5	1.063	27	4.409	112	1/2"	0.591	15	4.882	124	2.677	68	1.063	27	4.646	118	2.756	70	0.748	19	0.059	1.5	0.787	20	0.079	2	
	50	1/8"	2.362	60	1.299	33	4.921	125	1/2"	0.591	15	5.315	135	2.677	68	1.063	27	5.039	128	2.756	70	0.748	19	0.059	1.5	0.787	20	0.079	2	
DN20	50	1/8"	2.362	60	1.299	33	5.197	132	3/4"	0.63	16	5.512	140	2.953	75	1.26	32	5.315	135	3.228	82	0.906	23	0.059	1.5	0.945	24	0.079	2	
	50	1/8"	2.362	60	1.299	33	5.354	136	1"	0.669	17	5.906	150	3.543	90	1.575	40	5.906	150	3.937	100	1.142	29	0.059	1.5	1.181	30	0.079	2	
DN25	63	1/8"	2.953	75	1.614	41	6.378	162	1"	0.669	17	6.772	172	3.543	90	1.575	40	6.89	175	3.937	100	1.142	29	0.059	1.5	1.181	30	0.079	2	
	90AL	1/8"	4.409	112	2.244	57	8.268	210	1"	0.669	17	8.465	215	3.543	90	1.575	40	8.504	216	3.937	100	1.142	29	0.059	1.5	1.181	30	0.079	2	
	90	1/8"	4.173	106	2.165	55	8.307	211	1"	0.669	17	8.504	216	3.543	90	1.575	40	8.583	218	3.937	100	1.142	29	0.059	1.5	1.181	30	0.079	2	
DN32	63	1/8"	2.953	75	1.614	41	6.85	174	1 1/4"	0.827	21	7.48	190	4.567	116	1.969	50	7.323	186	4.921	125	1.378	35	0.059	1.5	1.417	36	0.079	2	
	90AL	1/8"	4.409	112	2.244	57	8.661	220	1 1/4"	0.827	21	9.055	230	4.567	116	1.969	50	9.055	230	4.921	125	1.378	35	0.059	1.5	1.417	36	0.079	2	
	90	1/8"	4.173	106	2.165	55	8.78	223	1 1/4"	0.827	21	9.252	235	4.567	116	1.969	50	9.134	232	4.921	125	1.378	35	0.059	1.5	1.417	36	0.079	2	
DN40	63	1/8"	2.953	75	1.614	41	6.89	175	1 1/2"	0.827	21	7.48	190	4.567	116	2.205	56	7.48	190	5.118	130	1.614	41	0.059	1.5	1.654	42	0.079	2	
	90AL	1/8"	4.409	112	2.244	57	8.661	220	1 1/2"	0.827	21	9.055	230	4.567	116	2.205	56	9.134	232	5.118	130	1.614	41	0.059	1.5	1.654	42	0.079	2	
	90	1/8"	4.173	106	2.165	55	8.78	223	1 1/2"	0.827	21	9.252	235	4.567	116	2.205	56	9.252	235	5.118	130	1.614	41	0.059	1.5	1.654	42	0.079	2	
DN50	63	1/8"	2.953	75	1.614	41	7.205	183	2"	0.866	22	8.071	205	5.433	138	2.717	69	8.11	206	6.102	155	2.087	53	0.059	1.5	2.126	54	0.079	2	
	90AL	1/8"	4.409	112	2.244	57	9.134	232	2"	0.866	22	9.646	245	5.433	138	2.717	69	9.724	247	6.102	155	2.087	53	0.059	1.5	2.126	54	0.079	2	
	90	1/8"	4.173	106	2.165	55	9.134	232	2"	0.866	22	9.843	250	5.433	138	2.717	69	9.843	250	6.102	155	2.087	53	0.059	1.5	2.126	54	0.079	2	
	125AL	1/4"	5.827	148	2.913	74	11.299	287	2"	0.866	22	11.575	294	5.433	138	2.717	69	9.843	250	6.102	155	2.087	53	0.059	1.5	2.126	54	0.079	2	
DN65	90AL	1/8"	4.409	112	2.244	57	10.315	262	2 1/2"	1.024	26	11.102	282	7.008	178	3.346	85	12.598	320	10.63	270	2.756	70	0.079	2	-	-	-	-	
	125AL	1/4"	5.827	148	2.913	74	11.89	302	2 1/2"	1.024	26	12.598	320	7.008	178	3.346	85	14.37	365	10.63	270	2.756	70	0.079	2	-	-	-	-	
DN80	125AL	1/4"	5.827	148	2.913	74	12.323	313	3"	1.063	27	14.646	372	8.268	210	3.937	100	14.567	370	11.181	284	3.346	85	0.079	2	-	-	-	-	

### Flange Ends Angle Seat Valves



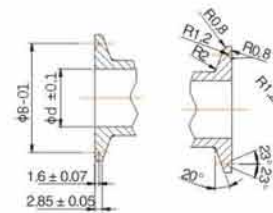
Flange Standard: DIN 2576(JB/T82.1), ISO/JIS or others available upon request

Size	Actuator (mm)	Q	A		B		L		C		H		E		F	M		N		P		α
			Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm		Inch	mm	Inch	mm	Inch	mm	
DN15	50	1/8"	5.709	145	5.512	140	5.906	150	0.079	2	0.551	14	2.559	65	4-φ14	0.63	16	1.772	45	3.74	95	45°
DN20	50	1/8"	6.496	165	5.512	140	6.299	160	0.079	2	0.551	14	2.953	75	4-φ14	0.748	19	2.205	56	4.134	105	45°
DN25	50	1/8"	6.693	170	5.709	145	6.299	160	0.079	2	0.551	14	3.346	85	4-φ14	1.024	26	2.559	65	4.409	112	45°
	63	1/8"	7.48	190	6.89	175	6.299	160	0.079	2	0.551	14	3.346	85	4-φ14	1.024	26	2.559	65	4.528	115	45°
DN32	63	1/8"	7.48	190	7.402	188	7.677	195	0.079	2	0.63	16	3.937	100	4-φ18	1.22	31	3.071	78	5.512	140	45°
	90	1/8"	9.055	230	9.252	235	7.677	195	0.079	2	0.63	16	3.937	100	4-φ18	1.22	31	3.071	78	5.512	140	45°
DN40	63	1/8"	8.11	206	7.48	190	7.874	200	0.118	3	0.63	16	4.331	110	4-φ18	1.496	38	3.307	84	5.906	150	45°
	90	1/8"	9.843	250	9.449	240	7.874	200	0.118	3	0.63	16	4.331	110	4-φ18	1.496	38	3.307	84	5.906	150	45°
DN50	63	1/8"	9.252	235	7.677	195	9.055	230	0.118	3	0.63	16	4.921	125	4-φ18	1.929	49	3.937	100	6.496	165	45°
	90	1/8"	10.906	277	9.646	245	9.055	230	0.118	3	0.63	16	4.921	125	4-φ18	1.929	49	3.937	100	6.496	165	45°
DN65	125AL	1/4"	13.11	333	12.205	310	9.055	230	0.118	3	0.63	16	4.921	125	4-φ18	1.929	49	3.937	100	6.496	165	45°
	90	1/8"	12.992	330	11.024	280	11.417	290	0.118	3	0.709	18	5.709	145	4-φ18	2.598	66	4.724	120	7.283	185	45°
DN80	125AL	1/4"	14.961	380	13.976	355	12.205	310	0.118	3	0.787	20	6.299	160	8-φ18	3.071	78	5.315	135	7.874	200	22.5°
	125AL	1/4"	16.142	410	15.039	382	13.78	350	6.89	175	0.787	20	7.087	180	8-φ18	3.78	96	6.102	155	8.465	215	22.5°

### Clamp Ends Angle Seat Valves



Clamp standard: ISO 2852-1993, others available upon request.

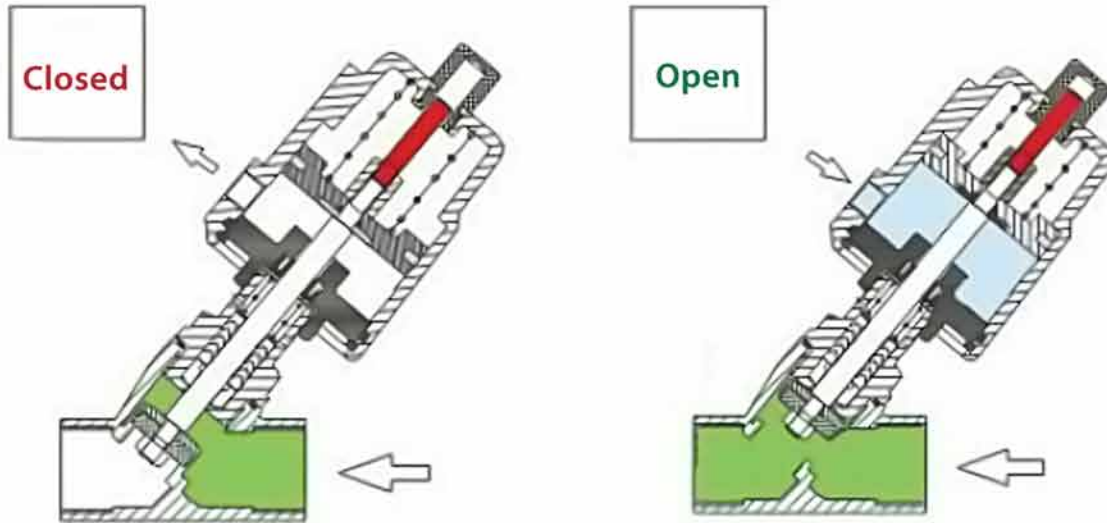


Size	Actuator (mm)	Q	A		K		L		C		B		d		D	
			Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
DN15	50	1/8"	5.512	140	4.961	126	3.15	80	0.748	19	1.083	28	0.591	15	1.339	34
DN20	50	1/8"	5.827	148	4.961	126	4.016	102	0.984	25	1.713	44	0.827	21	1.988	51
DN25	50	1/8"	6.496	165	5.512	140	5.118	130	1.26	32	1.713	44	1.063	27	1.988	51
	63	1/8"	7.402	188	6.535	166	5.118	130	1.26	32	1.713	44	1.063	27	1.988	51
DN32	63	1/8"	7.874	200	6.85	174	5.748	146	1.457	37	1.713	44	1.22	31	1.988	51
	90	1/8"	9.646	245	8.78	223	5.748	146	1.457	37	1.713	44	1.22	31	1.988	51
DN40	63	1/8"	8.268	210	6.89	175	6.299	160	1.575	40	2.224	57	1.299	33	2.52	64
	90	1/8"	10.039	255	8.78	223	6.299	160	1.575	40	2.224	57	1.299	33	2.52	64
DN50	63	1/8"	8.701	221	7.283	185	6.89	175	2.087	53	2.224	57	1.772	45	2.52	64
	90	1/8"	10.433	265	9.252	235	6.89	175	2.087	53	2.224	57	1.772	45	2.52	64
DN65	125AL	1/4"	12.795	325	9.055	230	6.89	175	2.087	53	2.224	57	1.772	45	2.52	64
	90	1/8"	11.024	280	12.992	330	10.945	278	2.953	75	3.287	84	2.598	66	3.583	91
DN80	125AL	1/4"	12.795	325	14.567	370	10.945	278	2.953	75	3.287	84	2.598	66	3.583	91
	125AL	1/4"	14.567	370	13.78	350	11.417	290	3.504	89	3.819	97	3.071	78	4.173	106

PRESSURE DATE SHEET

Single-acting, Normally Closed (NC)--Flow above seat

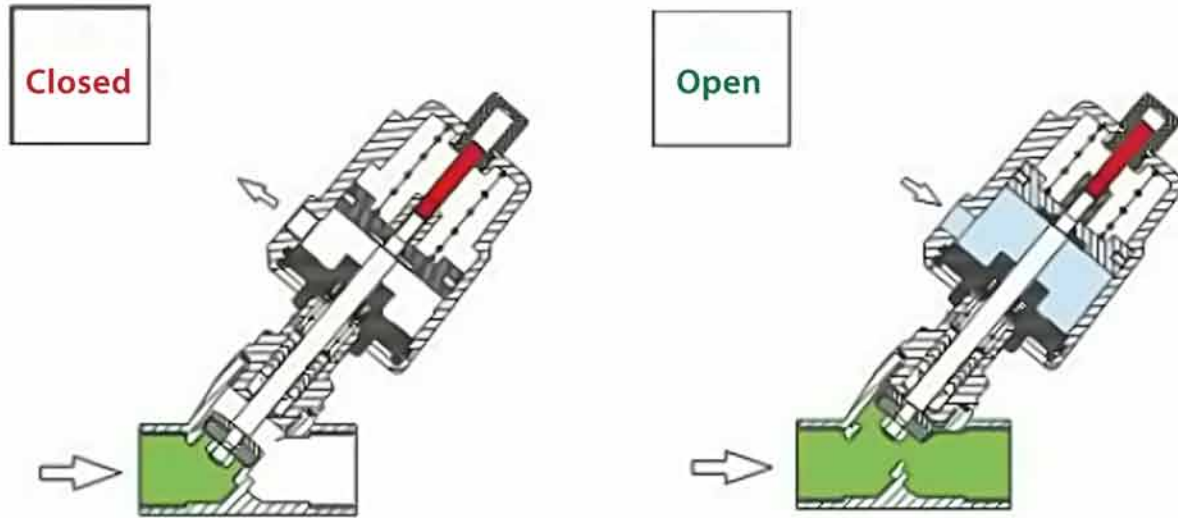
Applied for condensable medium, such as air, steam and low pressure liquid



Size	Thread Ends	Orifice (mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Pressure (MPa)	Air control (Mpa)
DN10	G3/8"	13	5.2	40	0-1.6	0.3-0.45
				50	0-1.6	0.3-0.35
DN15	G1/2"	13	6.3	40	0-1.6	0.3-0.45
				50	0-1.6	0.3-0.35
DN20	G3/4"	18	11.5	50	0-1.6	0.3-0.4
DN25	G1"	24	20.6	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	30.3	63	0-1.6	0.3-0.55
				90	0-1.6	0.2-0.35
DN40	G1 1/2"	35	42.3	63	0-1.6	0.3-0.65
				90	0-1.0	0.2-0.4
DN50	G2"	45	60.7	63	0-0.9	0.3-0.7
				90	0-1.6	0.25-0.45
				125	0-1.6	0.2-0.3
DN65	G2 1/2"	61	90.5	90	0-1.0	0.2-0.6
				125	0-1.6	0.2-0.4
DN80	G3"	80	135.1	125	0-1.6	0.2-0.7

Single-acting, Normally Closed (NC)--Flow below seat (No water hammer)

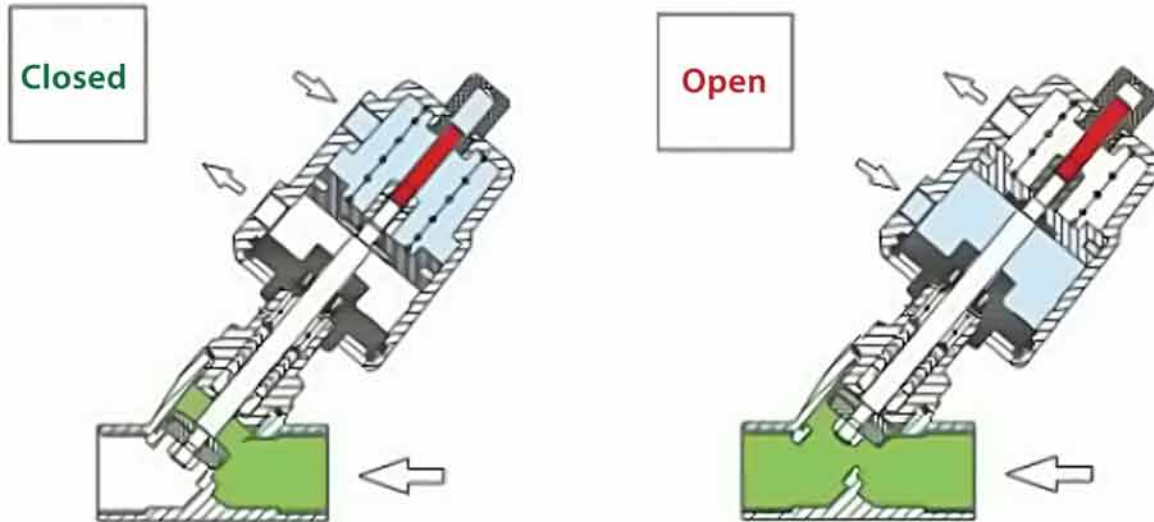
Flow comes below seat, avoid water hammer



Size	Thread Ends	Orifice (mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Pressure (MPa)	Air control (Mpa)
DN10	G3/8"	13	5.2	40	0-1.1	0.3
				50	0-1.4	0.45
DN15	G1/2"	13	6.3	40	0-1.1	0.3
				50	0-1.4	0.45
DN20	G3/4"	18	11.5	50	0-1.4	0.45
DN25	G1"	24	20.6	50	0-0.75	0.45
				63	0-1.4	0.5
				90	0-1.4	0.35
DN32	G1 1/4"	31	30.3	63	0-0.6	0.5
				90	0-1.6	0.6
DN40	G1 1/2"	35	42.3	63	0-0.5	0.45
				90	0-1.6	0.5
DN50	G2"	45	60.7	63	0-0.35	0.5
				90	0-1.1	0.6
				125	0-1.6	0.6
DN65	G2 1/2"	61	90.5	90	0-0.7	0.6
				125	0-0.9	0.6
DN80	G3"	80	135.1	125	0-0.6	0.6
DN100	G4"	90	158.4	125	0-0.25	0.6

Double-acting, Normally Closed (NC)--Flow above seat

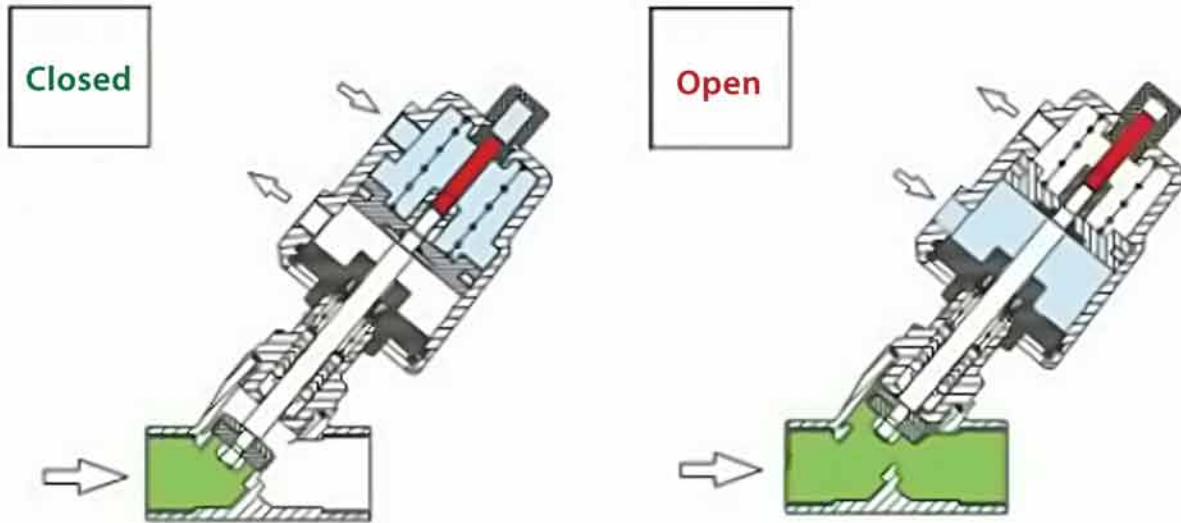
Applied for high pressure environment, valve would be closed under emergency.



Size	Thread Ends	Orifice (mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Pressure (MPa)	Air control (Mpa)
DN10	G3/8"	13	5.2	40	0-1.6	0.3-0.45
				50	0-1.6	0.3-0.35
DN15	G1/2"	13	6.3	40	0-1.6	0.3-0.45
				50	0-1.6	0.3-0.35
DN20	G3/4"	18	11.5	50	0-1.6	0.3-0.4
DN25	G1"	24	20.6	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	30.3	63	0-1.6	0.3-0.55
				90	0-1.6	0.2-0.35
DN40	G1 1/2"	35	42.3	63	0-1.6	0.3-0.65
				90	0-1.0	0.2-0.4
DN50	G2"	45	60.7	63	0-0.9	0.3-0.7
				90	0-1.6	0.25-0.45
				125	0-1.6	0.2-0.3
DN65	G2 1/2"	61	90.5	90	0-1.6	0.2-0.6
				125	0-1.6	0.2-0.4
DN80	G3"	80	135.1	125	0-1.6	0.2-0.7

Double-acting, Normally Closed (NC)--Flow below seat

Flow comes from below seat, avoiding water hammer, applied for high pressure.

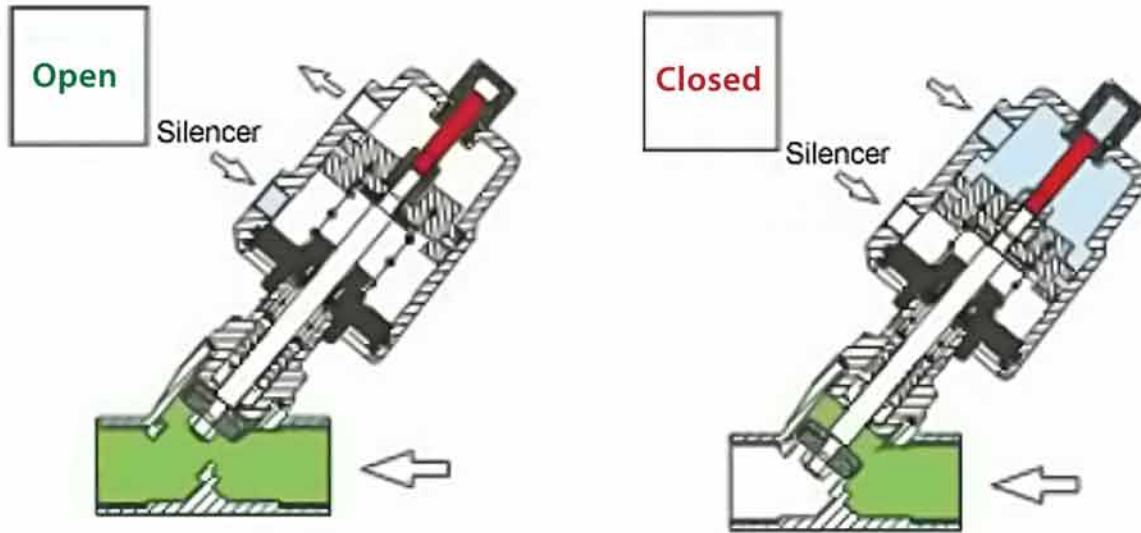


Size	Thread Ends	Orifice (mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Pressure (MPa)	Air control (Mpa)
DN10	G3/8"	13	5.2	40	0-1.6	≥0.3
				50	0-1.6	≥0.3
DN15	G1/2"	13	6.3	40	0-1.6	≥0.3
				50	0-1.6	≥0.3
DN20	G3/4"	18	11.5	50	0-1.6	≥0.3
DN25	G1"	24	20.6	50	0-1.3	0.3-0.6
				63	0-1.6	0.3-0.4
				90	0-1.6	0.2-0.3
DN32	G1 1/4"	31	30.3	63	0-1.6	0.3-0.6
				90	0-1.6	0.2-0.4
DN40	G1 1/2"	35	42.3	63	0-1.6	0.3-0.7
				90	0-1.6	0.2-0.5
DN50	G2"	45	60.7	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	90.5	90	0-1.1	0.2-0.7
				125	0-1.6	0.2-0.55
DN80	G3"	80	135.1	125	0-1.6	0.2-0.65
DN100	G4"	90	158.4	125	0-1.2	0.4-0.5



Normally Open (NO)--Flow above seat

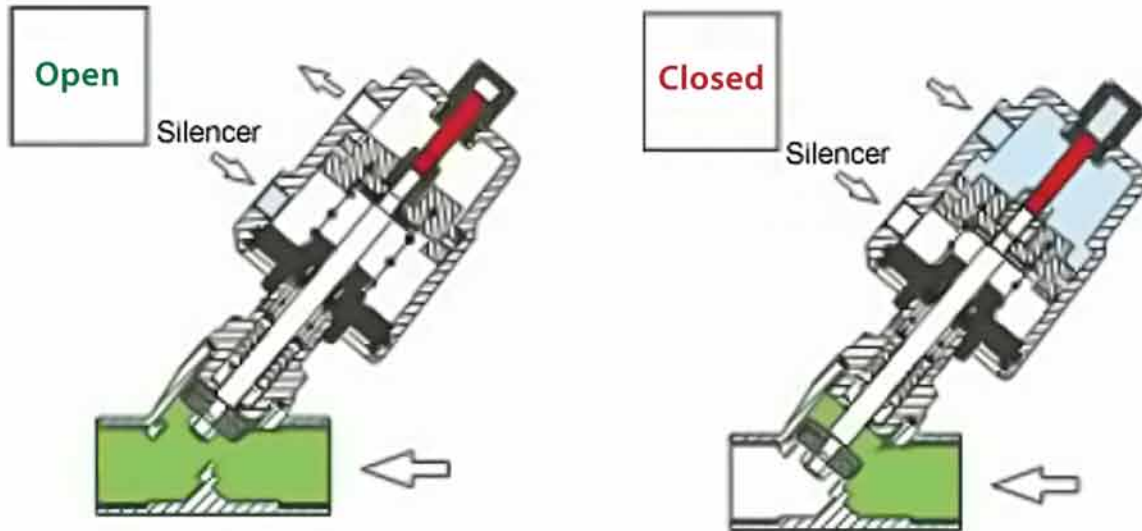
Applied for valves that need longtime open; taking off the silencer, the valve could be changed as Double-acting NO type.



Size	Thread Ends	Orifice (mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Pressure (MPa)	Air control (Mpa)
DN10	G3/8"	13	3.8	50	0-1.6	≥0.3
DN15	G1/2"	13	4.7	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)--Flow below seat (No water hammer)

Applied for valves that need keeping open; taking off the silencer, the valve could be changed as Double-acting NO type.



Size	Thread Ends	Orifice (mm)	Kv(m <sup>3</sup> /h)	Actuator (mm)	Pressure (MPa)	Air control (Mpa)
DN10	G3/8"	13	3.8	50	0-1.6	0.2-0.4
DN15	G1/2"	13	4.7	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

## ANGLE SEAT VALVES ACCESSORY

### PROXIMITY SWITCH

Switch can be installed on every actuator, indicating the valve on/off with signal.

#### Technical Date

Voltage: 10-30 V DC

Protection Class: IP67

Detection Distance: 3mm+10%, or others upon request.

Temperature range: -25°C to 70°C (-13°F to 158°F)

Material: Shell-Brass Nickel Plating; Detection: ABS



### SOLENOID VALVE

#### Technical Date

Connection: G 1/8"

Power: 24DC or 220V AC

Air pressure: 0.15-0.8 MPa

Temperature range: -5°C to 50°C (23°F to 122°F)

Protection Class: IP65

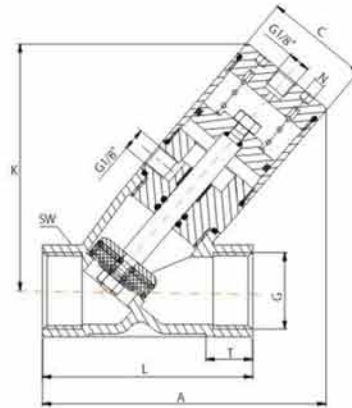


### MANUAL OVERRIDE FOR STROKE ACTUATOR

The design can adjust piston stroke, restrictions, regulating valves, applicable to all types of traffic block valves, another horn of air, without control in mechanical (electromagnetic) failure can also be used to emergency braking.



## NEW DESIGN ANGLE SEAT VALVES



### DESIGN FEATURES

Compact design, light weight, fine shape  
 NC/NO/AA operation for choose from  
 Applicable for food, packaging, petrochemical,  
 metallurgical, spraying, vehicles, printing and  
 dyeing machinery equipment.

### TECHNICAL DATA

- Fluid pressure: max. 232psi (1.6MPa)
- Air control: 43.5-116psi (0.3-0.8 bar)
- Control air: neutral gas, clean air
- Body material: CF8M (304) / CF8 (316)
- Seat material: PTFE
- Applicable fluid: water, oil, gas, neutral gas or liquid
- End connection: Thread (BSP, BSPT, NPT), weld, clamp, flange

Size	Actuator (mm)	G	N		K		C		T		A		L		SW	
			Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm		
DN15	32	1/2"	0.197	5	3.661	93	1.457	37	0.591	15	4.134	105	2.677	68	1.063	27
DN20	32	3/4"	0.197	5	3.78	96	1.457	37	0.63	16	4.331	110	2.953	75	1.26	32
DN25	40	1"	0.197	5	4.252	108	1.772	45	0.669	17	4.803	122	3.543	90	1.575	40
DN32	50	1 1/4"	0.197	5	6.063	154	2.165	55	0.827	21	6.614	168	4.567	116	1.969	50
DN40	50	1 1/2"	0.197	5	6.063	154	2.165	55	0.827	21	6.614	168	4.567	116	2.205	56
DN50	63	2"	0.197	5	6.063	154	2.717	69	0.866	22	7.008	178	5.433	138	2.717	69