ASAHI AV VALVE AND PIPING SYSTEMS

ASAHI AV VALVES

Edition: March 2012

AURO ARMATUREN- UND ROHRHANDELSGESELLSCHAFT M.B.H.

is engaged as a wholesaler of pipes, fittings and valves in plastic such as PP; PE; PVC;PVDF; PCTFE. Those products are used in the chemical industry, galvanic industry and also in the gas and water supply.

AURO was founded in Vienna (Austria) in 1985. Some years later subsidiaries in Czech Republic and Hungaria were established. Thanks to the expansion of the European Union Romania and Bulgaria became attractive for us and we decided to form branches there as well in 2003.

Our company is the main representative of AGRU KUNSTSTOFFTECHNIK GMBH – an Austrian manufacturer. We are also the exponent of the Japanese company ASAHI ORGANICAL CHEMICAL INDUSTRY CO. LTD., which is engaged in the production of plastic valves since 1945.

ASAHI AV VALVE AND PIPING SYSTEMS

ASAHI AV VALVES

The specifications in this brochure are subject to change without prior notice due to improvements and modifications.

ASAHI AV VALVES

ASAHI AV VALVE

Asahi AV Products
Make Your Systems More Sophisticated.

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BALL CHECK AND BALL FOOT VALVE

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Y-SEDIMENT STRAINER

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To meet your specific requirements, Asahi AV Valves are made of wide variety of materials and are available in various types and sizes.
You are surely making the best choice for your systems when selecting Asahi AV products.

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ASAHI AV VALVE

Range of Nominal Size and Materials

Type		DIAPHAGM VALVE TYPE 14	TRUE UNION DIAPHRAGM VALVE TYPE 14								
Body Materials		PVC, C-PVC, PP, PVDF	PVC		C-PVC		PP		PVDF		
End Connectors		Flanged	Threaded	Socket	Threaded	Socket	Threaded	Socket (welded)	Threaded	Socket (welded)※	Spigot※
Nominal Size mm	inch										
15	1/2	○	○	○	○	○	○	○	○	○	○
20	3/4	○	○	○	○	○	○	○	○	○	○
25	1	○	○	○	○	○	○	○	○	○	○
32	1 1/4	○	○	○	○	○	○	○	○	○	○
40	1 1/2	○	○	○	○	○	○	○	○	○	○
50	2	○	○	○	○	○	○	○	○	○	○
65	2 1/2	○	–	–	–	–	–	–	–	–	–
80	3	○	–	–	–	–	–	–	–	–	–
100	4	○	–	–	–	–	–	–	–	–	–

Type		DIAPHRAGM VALVE TYPE 15
Body Materials		PVC, PP, PVDF
End Connectors		Flanged
Nominal Size mm	inch	
125	5	○
150	6	○

Type		DIAPHRAGM VALVE TYPE 72
Body Materials		PVC, PP, PVDF
End Connectors		Flanged
Nominal Size mm	inch	
200	8	○
250	10	○

Type		BALL VALVE TYPE 21												
Body Materials		PVC			C-PVC			PP			PVDF			
End Connectors		Flanged	Threaded	Socket	Flanged	Threaded	Socket	Flanged	Threaded	Socket (welded)	Flanged	Threaded	Socket (welded)※	Spigot※
Nominal Size mm	inch													
15	1/2	○	○	○	○	○	○	○	○	○	○	○	○	○
20	3/4	○	○	○	○	○	○	○	○	○	○	○	○	○
25	1	○	○	○	○	○	○	○	○	○	○	○	○	○
32	1 1/4	○	○	○	○	○	○	○	○	○	○	○	○	○
40	1 1/2	○	○	○	○	○	○	○	○	○	○	○	○	○
50	2	○	○	○	○	○	○	○	○	○	○	○	○	○
65	2 1/2	○	○	○	○	○	○	○	○	○	○	○	○	○
80	3	○	○	○	○	○	○	○	○	○	○	○	○	○
100	4	○	○	○	○	○	○	○	○	○	○	○	○	○

Type	LAB COCK
Body Materials	PVC
End Connectors	Male Thread, Female Thread, Hose
Nominal Size	Male Thread 1/4 1/2
	Female Thread 1/4 3/8

Type		3-WAY BALL VALVE TYPE 23※										COMPACT BALL VALVE			
Body Materials		PVC			C-PVC			PP	PVDF			PVC		C-PVC	
End Connectors		Flanged	Threaded	Socket	Flanged	Threaded	Socket	Threaded	Socket (welded)	Flanged	Threaded	Socket (welded)	Threaded	Socket	Threaded	Socket
Nominal Size mm	inch															
13	3/8	–	–	–	–	–	–	–	–	–	–	–	○	○	○	○
15	1/2	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
20	3/4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
25	1	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
32	1 1/4	–	–	–	–	–	–	–	–	–	–	–	○	○	○	○
40	1 1/2	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
50	2	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
65	2 1/2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
80	3	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
100	4	○	○	○	○	○	○	○	○	○	○	○	–	–	–	–

Type		BUTTERFLY VALVE TYPE 57			BUTTERFLY VALVE TYPE 56		BUTTERFLY VALVE TYPE 75		BUTTERFLY VALVE TYPE 57L(Lug Style)		ROTARY DAMPER			BUTTERFLY VALVE TYPE 55
Body Materials		PVC	PP	PVDF	PP	PVDF	PP	PVDF	PDCPD	PVC	PVC (PP DISC)	PP	PVDF	FCD-S
End Connectors		Wafer	Wafer	Wafer	Wafer	Wafer	Wafer	Wafer	Wafer	Wafer	Wafer	Wafer	Wafer	Wafer
Nominal Size mm	inch													
40	1 1/2	○	○	○	–	–	–	–	–	–	○	○	○	–
50	2	○	○	○	–	–	–	–	–	–	○	○	○	○
65	2 1/2	○	○	○	–	–	–	–	–	–	○	○	○	–
80	3	○	○	○	–	–	–	–	○	○	○	○	○	○
100	4	○	○	○	–	–	–	–	○	○	○	○	○	○
125	5	○	○	○	–	–	–	–	–	–	○	○	○	○
150	6	○	○	○	–	–	–	–	○	○	○	○	○	○
200	8	○	○	○	–	–	–	–	–	○	○	○	○	○
250	10	○	○	○	–	–	–	–	–	○	○	○	○	○
300	12	○	○	○	–	–	–	–	–	○	○	○	○	–
350	14	○	○	○	–	–	–	–	–	–	○	○	○	–
400	16	–	–	–	○	○	–	–	–	–	–	○	○	–
450	18	–	–	–	–	–	○	○	–	–	–	○※	○	–
500	20	–	–	–	–	–	○	○	–	–	–	○	○	–
600	24	–	–	–	–	–	○	○	–	–	–	○	○	–

Type		PDCPD BUTTERFLY VALVE
Body Materials		PDCPD
Models		Wafer
Nominal Size mm	inch	
700	28	○
800	32	○
850	34	○
900	36	○
1000	40	○
1100	44	○
1200	48	○

Type		SWING CHECK VALVE		
Body Materials		HI-PVC	PP	PVDF
End Connectors		Flanged	Flanged	Flanged
Nominal Size mm	inch			
15	1/2	○	○	○
20	3/4	○	○	○
25	1	○	○	○
32	1 1/4	○	○	○
40	1 1/2	○	○	○
50	2	○	○	○
65	2 1/2	○	○	○
80	3	○	○	○
100	4	○	○	○
125	5	○	○	○
150	6	○	○	○
200	8	○	○	○

Type		BALL CHECK VALVE AND BALL FOOT VALVE									
Body Materials		PVC			C-PVC			PP		PVDF	
End Connectors		Flanged	Threaded	Socket	Flanged	Threaded	Socket	Threaded	Socket (welded)	Threaded	Socket (welded)
Nominal Size mm	inch										
15	1/2	○	○	○	○	○	○	○	○	○	○
20	3/4	○	○	○	○	○	○	○	○	○	○
25	1	○	○	○	○	○	○	○	○	○	○
32	1 1/4	–	–	–	–	–	–	–	–	–	–
40	1 1/2	○	○	○	○	○	○	○	○	○	○
50	2	○	○	○	○	○	○	○	○	○	○
65	2 1/2	–	–	–	–	–	–	–	–	–	–
80	3	○	○	○	○	○	※ ○	○	○	○	○
100	4	○	○	○	○	○	○	○	○	○	○

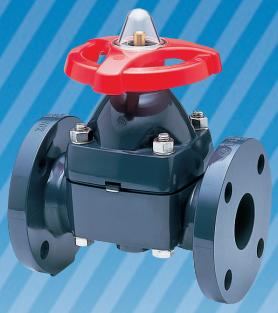
Type		TRUE UNION BALL CHECK VALVE									
Body Materials		PVC			C-PVC			PP		PVDF	
End Connectors		Flanged	Threaded	Socket	Flanged	Threaded	Socket	Threaded	Socket (welded)	Threaded	Socket (welded)
Nominal Size mm	inch										
15	1/2	○	○	○	○	○	○	○	○	○	○
20	3/4	○	○	○	○	○	○	○	○	○	○
25	1	○	○	○	○	○	○	○	○	○	○
32	1 1/4	–	–	–	–	–	–	–	–	–	–
40	1 1/2	○	○	○	○	○	○	○	○	○	○
50	2	○	○	○	○	○	○	○	○	○	○

Type		STRAINER(Y)		
Body Materials		PVC(Clear)		
End Connectors		Flanged	Threaded	Flanged
Nominal Size mm	inch			
15	1/2	○	○	○
20	3/4	○	○	○
25	1	○	○	○
32	1 1/4	–	–	–
40	1 1/2	○	○	○
50	2	○	○	○
65	2 1/2	–	–	–
80	3	○	○	○
100	4	○	○	○

ASAHI AV VALVE

DIAPHRAGM VALVE TYPE 14 15mm - 100mm(1/2inch - 4inch)

● 15mm(1/2inch) — 50mm(2inch)



● 65mm(2 1/2inch) — 100mm(4inch)

FEATURES

Excellent Sealing Property

The DIAPHRAGM VALVE TYPE 14 uses a high quality rubber material, exhibiting lower compressive strain, for its diaphragm and cushion, resulting in optimum sealing performance.

Tight Seal at Low Torque

Using dynamic analysis by CAE, DIAPHRAGM VALVE TYPE 14 is designed so that pressure is distributed evenly.
This design allows the hand wheel torque be reduced and maintain shut off at low torque.

Easier Maintenance

A bayonet mechanism, provided between the diaphragm and compressor, allows the diaphragm to be replaced easily.

Bottom Stand for Easy Support

Having a new bottom stand with an insert hole, DIAPHRAGM VALVE TYPE 14 helps support the piping. The valve is also provided with a flange stand to increase installation safety.

Built-in Travel Stop

DIAPHRAGM VALVE TYPE 14 contains a revolutionary travel stop mechanism protecting the diaphragm.

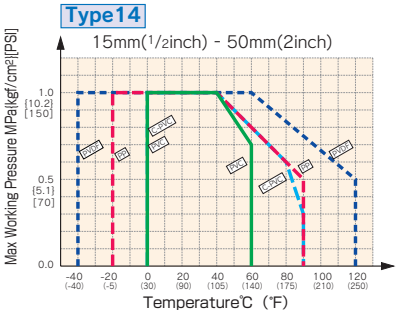
Visual Indicator

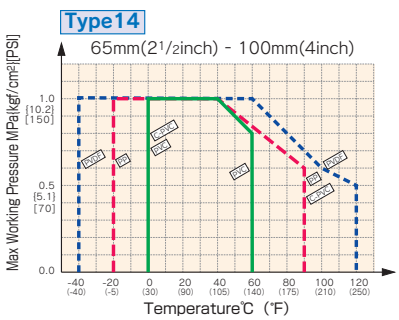
A color indicator clearly shows whether the valve is fully-opened, half-opened, or fully-closed. Because the indicator enters the handle, going out of view when the valve is fully-closed, the operator would know at glance of valve positionvalve is fully-opened, half-opened.

MATERIAL AND WORKING TEMPERATURE

Body Material	Nominal Size mm(inch)	Working Temperature ℃ (°F)	Max. Working Pressure at 20℃(70°F) MPa{kgf/cm²} [PSI] 15mm - 100mm(1/2inch - 4inch)	End Connectors
PVC	15 - 100(1/2 - 4)	0 - 60 (30 - 140)	1.0 {10.2} [150]	Flanged End
C-PVC	15 - 100(1/2 - 4)	0 - 90 (30 - 195)	1.0 {10.2} [150]	Flanged End
PP	15 - 100(1/2 - 4)	−20 - 90 (−5 - 195)	1.0 {10.2} [150]	Flanged End
PVDF	15 - 100(1/2 - 4)	−40 - 120 (−40 - 250)	1.0 {10.2} [150]	Flanged End

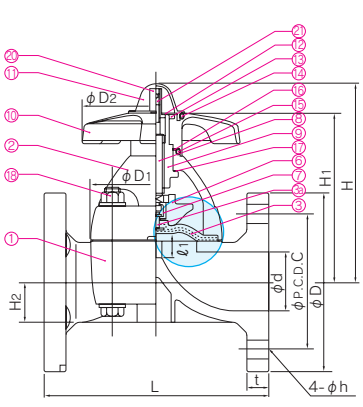
WORKING PRESSURE VS. TEMPERATURE

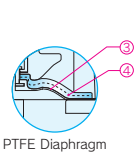




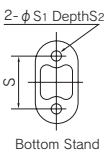
DIMENSION

● 15mm(1/2inch) - 50mm(2inch)



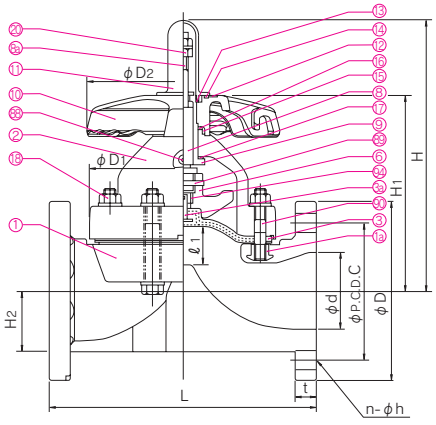


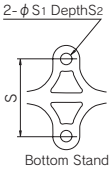
PTFE Diaphragm



Bottom Stand

● 65mm(2 1/2inch) - 100mm(4inch)





Bottom Stand

PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/BONNET, PVC/PVC,C-PVC/PP,PP/PP,PVDF/PPG,PVDF/PVDF	⑬	RETAINING RING-C TYPE	1	STAINLESS STEEL304
②	BONNET	1		⑭	O-RING(A)	1	EPDM
③	DIAPHRAGM	1	EPDM,IIR,NBR,CSM,CPE,FKM VIFLON C (FKM-C), VIFLON F (FKM-F), PTFE	⑮	O-RING(B)	1	EPDM
				⑯	THRUST RING(A)	1	UHMWPE
③a	INSERTED METAL OF DIAPHRAGM	1	STAINLESS STEEL304	⑰	THRUST RING(B)	1	UHMWPE
④	CUSHION	1	EPDM[1)]	⑱	BOLT・NUT	4	STAINLESS STEEL304
⑤	PVDF GAS BARRIER(OPTION)	1	PVDF	⑳	STOPPER	1	COPPER ALLOY[2)], STAINLESS STEEL[3)]304
⑥	COMPRESSOR	1	PVDF	㉑	SCREW[2)]	1	STAINLESS STEEL304
⑦	JOINT[2)]	1	STAINLESS STEEL304	㊽	GREASE NIPPLE[3)]	1	COPPER ALLOY (C3604)
⑧	STEM	1	COPPER ALLOY	㊾	COMPRESSOR PIN[3)]	1	STAINLESS STEEL304
⑧a	INDICATOR ROD2)	1	STAINLESS STEEL304	㊿	STUD BOLT・NUT[3)]	4	STAINLESS STEEL304
⑨	SLEEVE	1	COPPER ALLOY (C3604)	㊹	METAL OF COMPRESSOR	1	STAINLESS STEEL304
⑩	HAND WHEEL	1	PP	⑱a	INSERTED NUT[3)]	4	COPPER ALLOY (C3604) STAINLESS STEEL304
⑪	GAUGE COVER	1	POLYCARBONATE				
⑫	NAME PLATE	1	PVC				

Note. 1) Used for PTFE diaphragm
2) Used for 15mm(1/2inch)-50mm(2inch)
3) Used for size 65mm(2 1/2inch)-100mm(4inch)

DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		d	DIN 2501 PN10				D_1	D_2	ℓ_1 (LIFT)	L	t		H	H_1	H_2	S	S_1	S_2
mm	inch		D	C	n	h					PVC C-PVC	PP PVDF						
15	1/2	16	95	65	4	14	54×66	100	10	130	12	12	104	86	19.5	25	7	13
20	3/4	20	105	75	4	14	54×66	100	10	150	13	13	106	88	17.5	25	7	13
25	1	25	115	85	4	14	67×80	100	12	160	13	13	111	93	18.5	25	7	13
32	1 1/4	32	140	100	4	18	67×80	100	12	180	16	16	116	97	22.5	25	7	13
40	1 1/2	40	150	110	4	18	108×108	156	21	200	20	20	177	144	27.5	45	9	15
50	2	52	165	125	4	18	123×123	156	25	230	22	22	191	158	36	45	9	15
65	2 1/2	67	185	145	4	18	175	220	34	290	22	22	266	188	61	85	11	20
80	3	78	200	160	8	18	201	220	42	310	24	24	280	202	63	100	15	28
100	4	100	220	180	8	18	241	257	50	350	24	26	329	241	78	120	15	28

ANSI

Unit:inch

Nominal Size		d	ANSI CLASS 150				D_1	D_2	ℓ_1 (LIFT)	L		t		H	H_1	H_2	S	S_1	S_2
inch	mm		D	C	n	h				G-STANDARD	A-STANDARD	PVC C-PVC	PP PVDF						
1/2	15	0.63	3.50	2.38	4	0.62	2.13×2.60	3.94	0.39	4.25	4.33	0.43	0.43	4.09	3.39	0.77	0.98	0.28	0.51
3/4	20	0.79	3.88	2.75	4	0.62	2.13×2.60	3.94	0.39	5.88	4.72	0.51	0.51	4.17	3.46	0.69	0.98	0.28	0.51
1	25	0.98	4.25	3.12	4	0.62	2.64×3.15	3.94	0.47	5.88	5.12	0.59	0.59	4.37	3.66	0.73	0.98	0.28	0.51
1 1/4	32	1.26	4.62	3.50	4	0.62	2.64×3.15	3.94	0.47	6.38	—	0.63	0.63	4.57	3.82	0.89	0.98	0.28	0.51
1 1/2	40	1.57	5.00	3.88	4	0.62	4.25×4.25	6.14	0.83	6.94	7.09	0.63	0.63	6.97	5.67	1.08	1.77	0.35	0.59
2	50	2.05	6.00	4.75	4	0.75	4.84×4.84	6.14	0.98	7.94	8.27	0.79	0.79	7.52	6.22	1.42	1.77	0.35	0.59
2 1/2	65	2.64	7.00	5.50	4	0.75	6.89	8.66	1.34	—	9.84	0.87	0.91	10.47	7.40	2.40	3.35	0.43	0.79
3	80	3.07	7.50	6.00	4	0.75	7.91	8.66	1.65	10.37	11.02	0.87	0.91	11.02	7.95	2.48	3.94	0.59	1.10
4	100	3.94	9.00	7.50	8	0.75	9.49	10.12	1.97	12.93	13.39	0.87	0.94	12.95	9.49	3.07	4.72	0.59	1.10

ASAHI AV VALVE

TRUE UNION DIAPHRAGM VALVE TYPE 14 15mm - 50mm(1/2inch - 2inch)

FEATURES

Easy Maintenance

The valve body can be removed from the pipe line by loosening the union nuts at both ends.

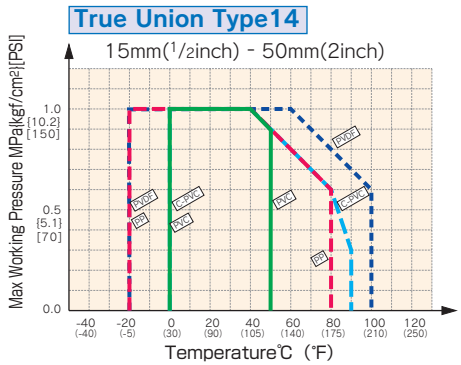
Bottom Stand for Easy Support

Having a new bottom stand with an insert hole, DIAPHRAGM VALVE TYPE 14 helps support the piping. The valve is also provided with a flange stand to increase installation safety.

MATERIAL AND WORKING TEMPERATURE

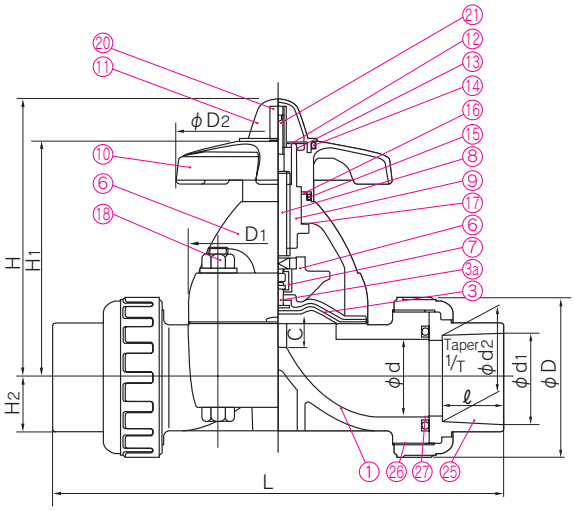
Body Material	Nominal Sze mm(inch)	Working Temperature ℃ (°F)	Max. Working Pressure at 20℃(70°F) MPa{kgf/cm²}[PSI]	End Connectors
Unplasticized Polyvinyl Chloride(PVC)	15 - 50(1/2 - 2)	0 - 50(30 - 120)	1.0{10.2}[150]	Socket End. Threaded End
Chlorinated Polyvinyl Chloride(C-PVC)	15 - 50(1/2 - 2)	0 - 90(30 - 195)	1.0{10.2}[150]	Socket End. Threaded End
Polypropylene(PP)	15 - 50(1/2 - 2)	−20 - 80(−5 - 175)	1.0{10.2}[150]	Socket End. Threaded End
Polyvinylidene Fluoride(PVDF)	15 - 50(1/2 - 2)	−20 - 100(−5 - 210)	1.0{10.2}[150]	Socket End. Threaded End. Spigot End

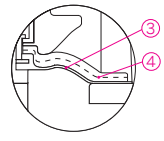
WORKING PRESSURE VS. TEMPERATURE

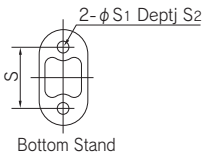


DIMENSION

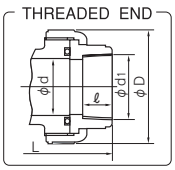
SOCKET END




With PTFE Diaphragm



Bottom Stand



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/BONNET PVC/PVC C-PVC/PP PP/PP PVDF/PPG PVDF/PVDF	⑪	GAUGE COVER	1	PC
②	BONNET			⑫	NAME PLATE	1	PVC
③	DIAPHRAGM	1	EPDM IIR NBR,CSM CPE,FKM VIFLON C (FKM-C) VIFLON F (FKM-F) PTFE	⑬	RETAINING RING-C TYPE	1	STAINLESS STEEL304
				⑭	O-RING(A)	1	EPDM
				⑮	O-RING(B)	1	EPDM
				⑯	THRUST RING(A)	1	UHMWPE
				⑰	THRUST RING(B)	1	UHMWPE
				⑱	BOLT･NUT	4	STAINLESS STEEL304
③a	INSERTED METAL OF DIAPHRAGM	1	STAINLESS STEEL304	⑳	STOPPER	1	COPPER ALLOY (C3604)
				㉑	SCREW	1	STAINLESS STEEL304
④	CUSHION	1	EPDM＊	㉕	ENDCONNECTOR	2	PVC C-PVC PP PVDF
⑥	COMPRESSOR	1	PVDF				
⑦	JOINT	1	STAINLESS STEEL304	㉖	UNION NUT	2	
⑧	STEM	1	COPPER ALLOY (C3604)	㉗	O-RING(C)	2	EPDM FKM Others
⑨	SLEEVE	1	COPPER ALLOY (C3604)				
⑩	HAND WHEEL	1	PP				

＊With PTFE Diaphragm

DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		d	Socket End							Threaded End				Spigot End								D	D_1	D_2	C (LIFT)	H	H_1	H_2	S	S_1	S_2
			PVC, C-PVC			PP, PVDF				DIN 2999		L		PVC			PP, PVDF															
			DIN 8063		L	DIN 16962(PP)			L					DIN 3441		L	DIN 3442		PP	PVDF	L											
mm	inch		d_1	ℓ		d_1	d_2	ℓ		d_1	ℓ	PVC, C-PVC	PP, PVDF	d_1	ℓ		d_1	ℓ	t	t													
15	1/2	16	20	16	128	19.5	19.3	14.5	125	Rp 1/2	15	128	128	20	18.5	150	20	18.5	2.5	1.9	150	48	54×66	100	10	104	86	19.5	25	7	13
20	3/4	20	25	19	147	24.5	24.3	16	141	Rp 3/4	17	148	148	25	24	172	25	22	2.7	1.9	172	60	54×66	100	10	106	88	17.5	25	7	13
25	1	25	32	22	172	31.5	31.3	18	164	Rp 1	20	172	172	32	24.5	195	32	22.5	3.0	2.4	195	70	67×80	100	12	111	93	18.5	25	7	13
32	1 1/4	32	40	26	188	39.45	39.2	20.5	177	Rp 1 1/4	22	188	188	40	28	212	40	26	3.7	2.4	212	82	67×80	100	12	116	97	22.5	25	7	13
40	1 1/2	40	50	31	246	49.45	49.2	23.5	231	Rp 1 1/2	25	245	245	50	34	276	50	32	4.6	3.0	276	100	108×108	156	21	177	144	27.5	45	9	15
50	2	52	63	38	294	62.5	62.1	27.5	274	Rp 2	28	281	278	63	38.5	308	63	36	5.8	3.0	307	106	123×123	156	25	191	158	36	45	9	15

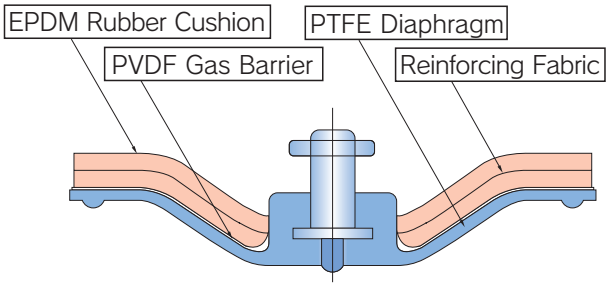
ANSI

Unit:inch

Nominal Size		d	Socket End							Threaded End				D	D_1	D_2	C (LIFT)	H	H_1	H_2	S	S_1	S_2
			PVC, C-PVC				PP, PVDF(IPS)			ANSI/ASME B1・20・1	L												
			ASTM SCH80			L	d_1	ℓ	L														
inch	mm		d_1	d_2	ℓ					d_1	ℓ	PVC, C-PVC	PP, PVDF										
1/2	15	0.63	0.848	0.836	0.875	5.47	0.83	0.87	5.43	1/2-14NPT	0.59	5.04	5.04	1.89	2.13×2.60	3.94	0.39	4.09	3.39	0.77	0.98	0.28	0.51
3/4	20	0.79	1.058	1.046	1.000	6.18	1.03	1.00	6.09	3/4-14NPT	0.67	5.83	5.83	2.36	2.13×2.60	3.94	0.39	4.17	3.46	0.69	0.98	0.28	0.51
1	25	0.98	1.325	1.310	1.125	7.32	1.30	1.13	7.24	1-11 1/2NPT	0.79	6.77	6.77	2.76	2.64×3.15	3.94	0.47	4.37	3.66	0.73	0.98	0.28	0.51
1 1/4	32	1.26	1.670	1.655	1.250	7.95	1.65	1.25	7.80	1 1/4-11 1/2NPT	0.87	7.40	7.40	3.23	2.64×3.15	3.94	0.47	4.57	3.82	0.89	0.98	0.28	0.51
1 1/2	40	1.57	1.912	1.894	1.375	10.47	1.89	1.37	10.28	1 1/2-11 1/2NPT	0.98	9.65	9.65	3.94	4.25×4.25	6.14	0.83	6.97	5.67	1.08	1.77	0.35	0.59
2	50	2.05	2.387	2.369	1.500	11.54	2.36	1.50	11.54	2-11 1/2NPT	1.10	11.06	10.95	4.17	4.84×4.84	6.14	0.98	7.52	6.22	1.42	1.77	0.35	0.59

DIAPHRAGM VALVE TYPE 14

- We recommend that a PVDF Gas Barrier should be installed with PTFE DIAPHRAGM VALVE if it is used in an application that has corrosive gas.
- Temperature variations during operation or long periods of storage may cause the diaphragm to settle. In this case, it is recommended to check bonnet bolt torque,prior to installation(See the table below).



Diaphragm with PVDF Gas Barrier

▼ Tightening Torque for Diaphragm Valve Bonnet for TYPE 14

Unit:N・m{kgf・cm}

Material \ Nominal Size mm(inch)	15 (1/2)	20 (3/4)	25 (1)	32 (1 1/4)	40 (1 1/2)	50 (2)	65 (2 1/2)	80 (3)	100 (4)
Rubber Diaphragm	3.0 {31}	3.0 {31}	5.0 {51}	5.0 {51}	12.0 {122}	15.0 {153}	13.0 {133}	18.0 {184}	35.0 {357}
PTFE Diaphragm	5.0 {51}	5.0 {51}	8.0 {82}	8.0 {82}	15.0 {153}	20.0 {204}	15.0 {153}	20.0 {204}	40.0 {408}

ASAHI AV VALVE

DIAPHRAGM VALVE TYPE 15 125mm, 150mm(5inch, 6inch)

Flanged End type

● 125mm(5inch) • 150mm(6inch)

FEATURES

Improved outside sealing ability

By means of 3D CAD/CAE analysis, Type 15 diaphragm valve has increased body thickness. In addition, using the elastomer that has high impact resilience, the sealing ability of valve is improved against high temperature changes.

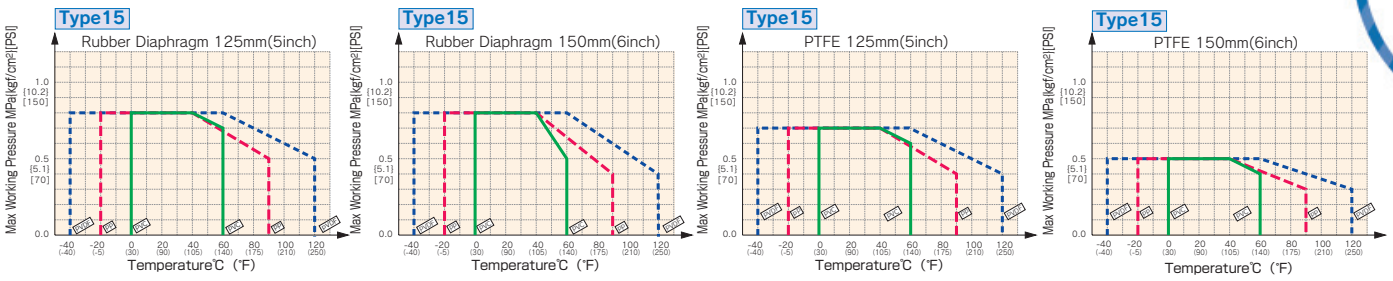
Easier to operate

In order to reduce frictional force, material and shape of sliding parts are redesigned.
Also improved hand wheel design which allows for easy operation.

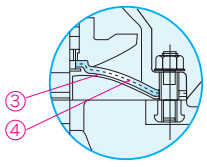
MATERIAL AND WORKING TEMPERATURE

Body material	Nominal size mm(inch)	Working Temperature ℃ (°F)	Max. Working Pressure at 20℃(70°F) MPa{kgf/cm²}[PSI]			
			Rubber Diaphragm		PTFE Diaphragm	
			125mm(5inch)	150mm(6inch)	125mm(5inch)	150mm(6inch)
PVC	125(5)•150(6)	0 - 60(30 - 140)	0.8{8.2}[115]	0.8{8.2}[115]	0.7{7.1}[100]	0.5{5.1}[70]
PP	125(5)•150(6)	−20 - 90(−5 - 195)	0.8{8.2}[115]	0.8{8.2}[115]	0.7{7.1}[100]	0.5{5.1}[70]
PVDF	125(5)•150(6)	−40 - 120(−40 - 250)	0.8{8.2}[115]	0.8{8.2}[115]	0.7{7.1}[100]	0.5{5.1}[70]

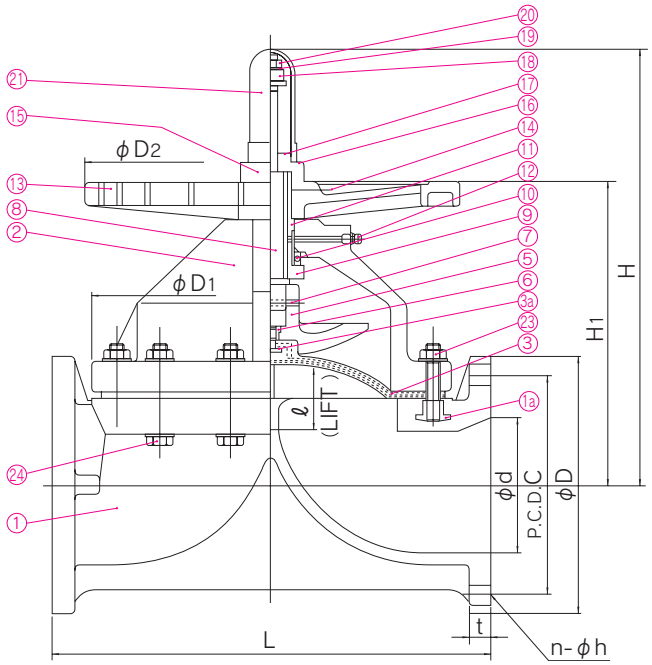
WORKING PRESSURE VS. TEMPERATURE



DIMENSION



With PTFE Diaphragm



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/BONNET PVC/PVC PP/PP PVDF/PPG PVDF/PVDF	⑪	O-RING(A)	1	NBR
②	BONNET	1		⑫	GREASE NIPPLE	1	COPPER ALLOY (C3604)
③	DIAPHRAGM	1	EPDM,PTFE,FKM,NBR VIFLON F (FKM-F) VIFLON C (FKM-C)	⑬	HAND WHEEL	1	PP
				⑭	NAME PLATE	1	PVC
				⑮	CAP	1	PP
				⑯	SHEET GASKET(A)	1	EPDM
				⑰	SHEET RING	1	STAINLESS STEEL304
③a	INSERTED METAL OF DIAPHRAGM	1	STAINLESS STEEL304 Others	⑱	STOPPER	1	Chromized STEEL (SS400)
				⑲	SPRING WASHER	1	STAINLESS STEEL304
④	CUSION[1)]	1	EPDM	⑳	SET NUT	1	STAINLESS STEEL304
⑤	COMPRESSOR	1	PVDF	㉑	GAUGE COVER	1	POLYCARBONATE
⑥	COMPRESSOR NUT	1	COPPER ALLOY (C3604)	㉓	STUD BOLT・NUT	4	STAINLESS STEEL304
⑦	COMPRESSOR PIN	1	STAINLESS STEEL304	㉔	BOLT・NUT	—	STAINLESS STEEL304
⑧	STEM	1	COPPER ALLOY	⑱a	INSERTED NUT	4	COPPER ALLOY[2)] STAINLESS STEEL304[3)]
⑨	SLEEVE(A)	1	COPPER ALLOY				
⑩	THRUST BEARING(A)	1	HIGH CARBON CHROMIUM BEARING(SUJ2)				

Note : 1) Used for PTFE diaphragm
2) Used for PVC,PP Body
3) Used for PVDF Body

DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		d	DIN 2501 PN10				L	t		D_1	D_2	ℓ	H	H_1
mm	inch		D	C	n	h		PVC	PP,PVDF					
125	5	125	250	210	8	18	400	22	23	320	300	60	420	308
150	6	148	285	240	8	22	480	24	27	385	410	70	476	334

ANSI

Unit:inch

Nominal Size		d	ANSI CLASS 150				L	t		D_1	D_2	ℓ	H	H_1
inch	mm		D	C	n	h		PVC	PP,PVDF					
5	125	4.92	10.00	8.50	8	0.88	16.14	0.87	0.94	12.60	11.81	2.36	16.54	12.13
6	150	5.83	11.00	9.50	8	0.88	18.90	0.94	1.06	15.16	16.14	2.76	18.74	13.15

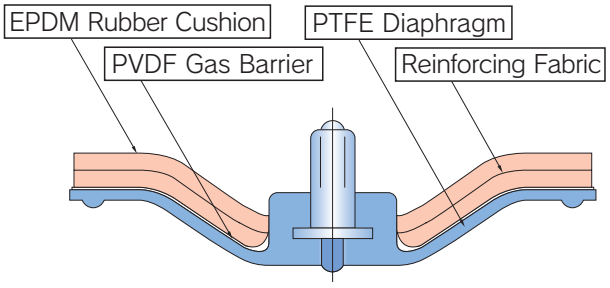
DIAPHRAGM VALVE TYPE 15

- We recommend that a PVDF gas barrier should be installed with PTFE DIAPHRAGM VALVE if it is used in an application that has corrosive gas.
- Temperature variations during operation or long periods of storage may cause the diaphragm to settle. In this case, it is recommended to check bonnet bolt torque,prior to installation(See the table below).

▼ Tightening Torque for Diaphragm Valve Bonnet for TYPE 15

Unit:N・m{kgf・cm}

Material \ Nominal Size mm(inch)	125 (5)	150 (6)
Rubber Diaphragm	45.0 {459}	45.0 {459}
PTFE Diaphragm	45.0 {459}	45.0 {459}



Diaphragm with PVDF Gas Barrier

ASAHI AV VALVE

DIAPHRAGM VALVE TYPE 72 200mm, 250mm(8inch, 10inch)

● 200mm(8inch)・250mm(10inch)

FEATURES

Sealed Bonnet
Having a sealed bonnet with an O-ring, prevents rain water or external atmosphere from entering the bonnet, DIAPHRAGM VALVE TYPE 72 can be safely used outdoors.

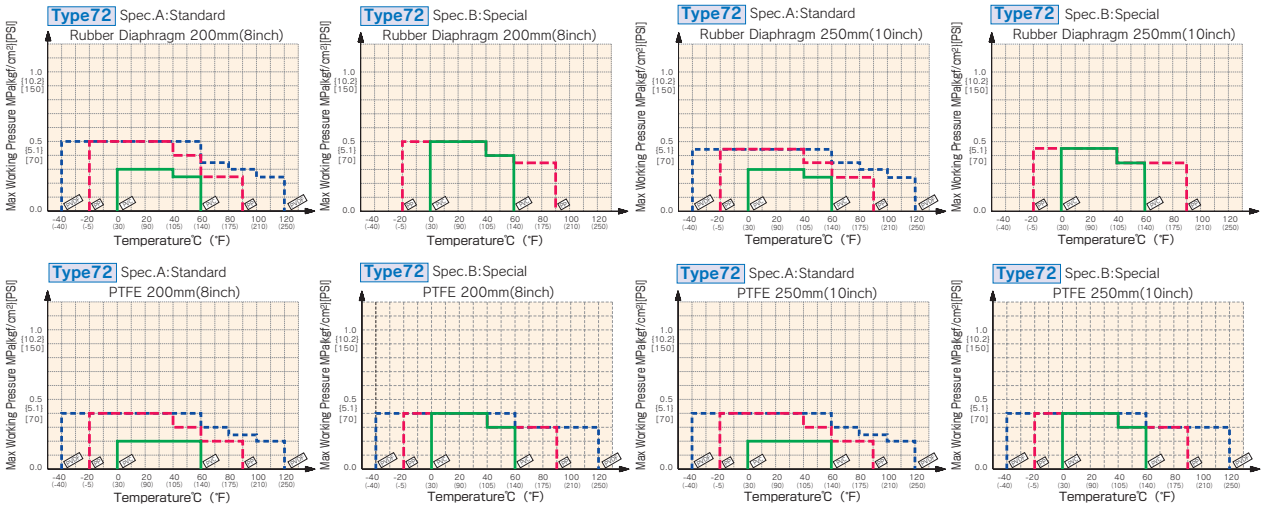
Sealed Indicator
Because a clear indicator gauge protects the exposed metallic part on top of the stem against atmosphere, corrosive gas or fluid does not of the valve.

Position Indication
The position indicator also shows the degree of the valve position.

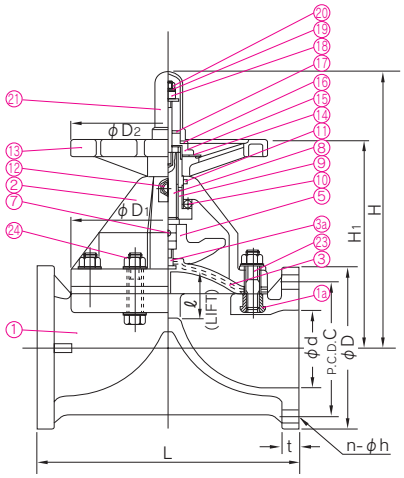
MATERIAL AND WORKING TEMPERATURE

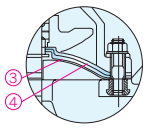
Body material	Nominal size mm(inch)	Working Temperature ℃(˚F)	Max. Working Pressure at 20℃(70˚F) MPa{kgf/cm²}[PSI]			
			Rubber Diaphragm		PTFE Diaphragm	
			200mm(8inch)	250mm(10inch)	200mm(8inch)	250mm(10inch)
PVC	200(8)・250(10)	0 - 60(30 - 140)	0.3{3.1}[40]	0.3{3.1}[40]	0.2{2.0}[30]	0.2{2.0}[30]
PP	200(8)・250(10)	−20 - 90(−5 - 195)	0.5{5.1}[70]	0.45{4.6}[65]	0.4{4.1}[55]	0.4{4.1}[55]
PVDF	200(8)・250(10)	−40 - 120(−40 - 250)	0.5{5.1}[70]	0.45{4.6}[65]	0.4{4.1}[55]	0.4{4.1}[55]

WORKING PRESSURE VS. TEMPERATURE



DIMENSION





With PTFE Diaphragm

PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/BONNET PVC/PVC PP/PP PVDF/PPG PVDF/PVDF	⑪	O-RING(A)	1	NBR
				⑫	GREASE NIPPLE	1	COPPER ALLOY(C3604)
②	BONNET	1		⑬	HAND WHEEL	1	PP
				⑭	NAME PLATE	1	PVC
③	DIAPHRAGM	1	EPDM,PTFE,FKM,NBR VIFLON F(FKM-F) VIFLON C(FKM-C)	⑮	CAP	1	PP
				⑯	SEAT GASKET(A)	1	EPDM
				⑰	SEAT RING	1	STAINLESS STEEL304
④	CUSION[1]	1	EPDM	⑱	STOPPER	1	CHROMIZED STEEL(SS400)
⑤	COMPRESSOR	1	GRAY IRON CASTING	⑲	SPRING WASHER	1	STAINLESS STEEL304
⑥	COMPRESSOR NUT	1	COPPER ALLOY(C3604)	⑳	SET NUT	1	STAINLESS STEEL304
⑦	COMPRESSOR PIN	1	STAINLESS STEEL304	㉑	GAUGE COVER	1	POLYCARBONATE
⑧	STEM	1	SUM23	㉓	STUD BOLT・NUT	—	STAINLESS STEEL304
⑨	SLEEVE(A)	1	GRAY IRON CASTING	㉔	BOLT・NUT	—	STAINLESS STEEL304
⑩	THRUST BEARING(A)	1	HIGH CARBON CHROMIUM BEARING(SUJ2)	⑬a	INSERTED NUT	—	COPPER ALLOY(C3604)[2] STAINLESS STEEL304[3]
				③a	INSERTED METAL OF DIAPHRAGM	1	STAINLESS STEEL304 Others

Note : 1) Used for PTFE Diaphragm
2) Used for PVC,PP Body
3) Used for PVDF Body

DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		※ d	DIN 2501 PN10				※ D_1	D_2	ℓ	L	t		※ H_1	H
mm	inch		C	※ D	h	n					PVC	PP,PVDF		
200	8	196	295	340	22	8	430	410	95	600	30	34	419	627
250	10	247	350	395	22	12	540	560	128	730	34	36	510	778

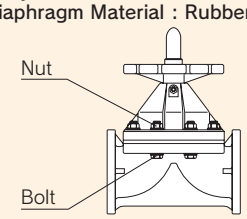
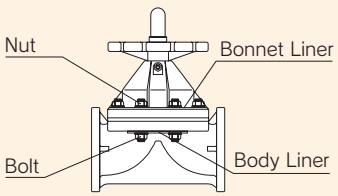
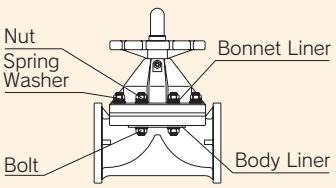
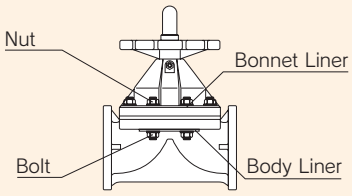
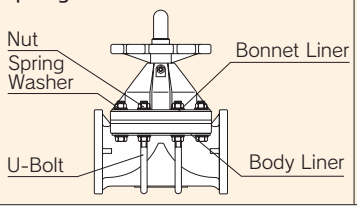
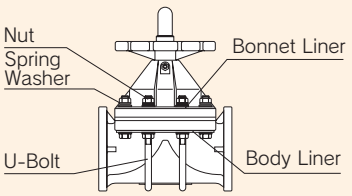
※……Standard dimensions based on PVC material

ANSI

Unit:inch

Nominal Size		※ d	ANSI CLASS 150				※ D_1	D_2	ℓ	L	t	※ H_1	H
inch	mm		C	※ D	h	n					PVC,PP,PVDF		
8	200	7.72	11.75	13.50	0.88	8	16.93	16.14	3.74	22.44	1.26	16.50	24.69
10	250	9.72	14.25	16.00	1.00	12	21.26	22.05	5.04	26.77	1.46	20.08	30.63

※……Standard dimensions based on PVC material

SPEC. A (Standard)	Body Material:PVC Diaphragm Material : Rubbers or PTFE 	Body Material:PP Diaphragm Material : Rubbers or PTFE 	Body Material:PVDF Diaphragm Material : Rubbers or PTFE 
SPEC. B (Special)	Body Material:PVC Diaphragm Material : Rubbers or PTFE 	Body Material:PP Diaphragm Material : Rubbers or PTFE 	Body Material:PVDF Diaphragm Material : PTFE 

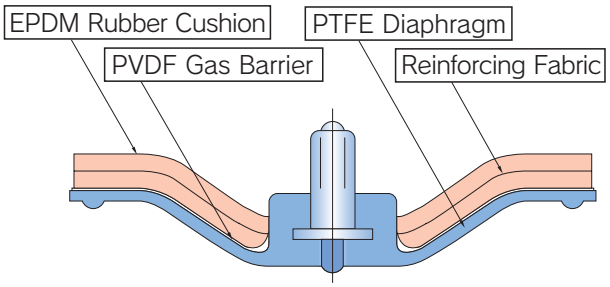
DIAPHRAGM VALVE TYPE 72

- We recommend that a PVDF Gas Barrier should be installed with PTFE DIAPHRAGM VALVE if it is used in an application that has corrosive gas.
- Temperature variations during operation or long periods of storage may cause the diaphragm to settle. In this case, it is recommended to check bonnet bolt torque,prior to installation(See the table below).

▼ Tightening Torque for Diaphragm Valve Bonnet for TYPE 72

Unit:N・m{kgf・cm}

Material \ Nominal Size mm(inch)	200 (8)	250 (10)
Rubber Diaphragm	25.0 {255}	25.0 {255}
PTFE Diaphragm	25.0 {255}	25.0 {255}



Diaphragm with PVDF Gas Barrier

MATERIAL AND WORKING TEMPERATURE (SPEC. B-Special)

Body material	Nominal size mm(inch)	Working Temperature ℃ (°F)	Max. Working Pressure at 20℃(70°F) MPa{kgf/cm²} [PSI]			
			Rubber Diaphragm		PTFE Diaphragm	
			200mm(8inch)	250mm(10inch)	200mm(8inch)	250mm(10inch)
PVC	200(8)・250(10)	0 - 60(30 - 140)	0.5{5.1}[70]	0.45{4.6}[65]	0.4{4.1}[55]	0.4{4.1}[55]
PP	200(8)・250(10)	−20 - 90(−5 - 195)	0.5{5.1}[70]	0.45{4.6}[65]	0.4{4.1}[55]	0.4{4.1}[55]
PVDF	200(8)・250(10)	−40 - 120(−40 - 250)	—	—	0.4{4.1}[55]	0.4{4.1}[55]

ASAHI AV VALVE

DIAPHRAGM VALVE/Chlor-Alkali Specification & EL Specification

FEATURES

As a solution for blister or crack problem on the surface of the valve body or the diaphragm in the severe working conditions especially for Chlor/Brine application, we prepared a special specification "EL-Specification".
The "EL-Specification", which has EL-PVDF body and EL-PTFE diaphragm, provides excellent chemical resistance and longer product life.
According to the result of our field tests, it is confirmed that the "EL-Specification" has 2 to 5 times longer product life than standard "C/A Specification" in the same working condition.

The detail of EL-Specification

Feature:To prevent the generation of blister and crack by applying special material.

Medium:High temperature brine, Sodium hypochlorite, Hydrofluoric acid and so on.

Countermeasure:for blister, crack, peeling-off and so on.

Parts:EL-PVDF(Body) and EL-PTFE(Diaphragm)

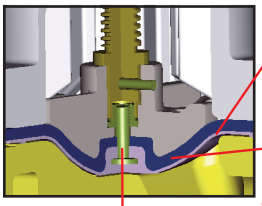
Target:Chlor/Alkali industry, pulp & paper industry, steel industry and so on.

Reference:Many factories especially in Electrolysis plants in world wide.

Size

15mm (1/2inch) - 100mm (4inch)

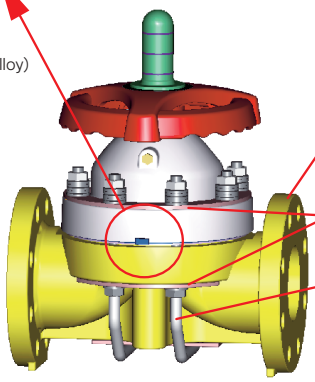
Contents of EL-Specification



PVDF Cushion Cover(Gas Barrier) (PVDF)
※PVDF Cushion cover is installed between diaphragm and EPDM cushion.

PTFE Diaphragm (EL-PTFE)

Inserted Metal for Diaphragm (High corrosion resistant special alloy)



Body (EL-PVDF)

Body/Bonnet Liner (for reinforcement)

U-Bolt (for reinforcement)
※Equipped for 65mm and above.

Field Test Result

EL-PVDF/No blister is observed

PVDF/Blister is observed

Electrolysis Plant/ Return Brine
88℃, 0.3MPa, after 5years service

Comparison table between EL-Specification and Chlor/Alkali specification

Parts / Specification	Body	PTFE Diaphragm	Inserted Metal for PTFE Diaphragm	PVDF Cushion Cover	Remark
EL Spec.	EL-PVDF	EL-PTFE	Special Alloy	Equipped	c/w Body/Bonnet Liner and Conical Spring Washer
C/A Spec.	PVDF	PTFE	Special Alloy	Equipped	c/w Body/Bonnet Liner and Conical Spring Washer

Note : Please contact us for further information.

BALL VALVE TYPE 21 15mm - 100mm(1/2inch - 4inch)

FEATURES

Easy to Be Automated (No Modification Required)

Featuring a new integral molded top flange. The BALL VALVE TYPE 21 can easily be converted from the manual to automatic without replacing the body.

Simple Installation on Panel Piping

New bottom stand with an insert hole allows the valve to be secured on bench or panel only by inserting a metallic insert.

Double-O-ring

The stem uses a double-O-ring, sealing arrangement improving durability sealing performance. The upper O-ring groove is deeper than the lower O-ring groove. Because of this design, the stem would break first at the upper O-ring groove, acting as a back up seal.

Multi Functional Handle

Removing the handle and placing the raised lugs into the carrier allow for easy disassembly of the valve.

*The handle has other colors. (blue, white, yellow)

Locking Device (Option)

The handle lock can be done by full-open (close)

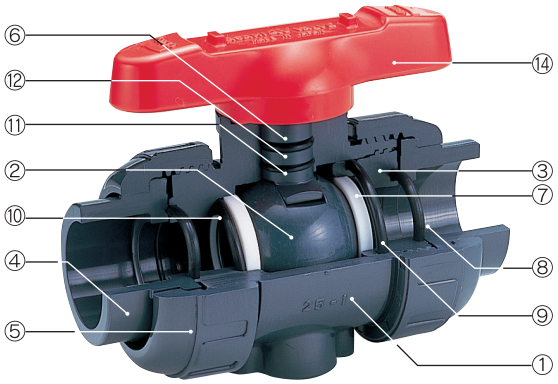
NSF Product

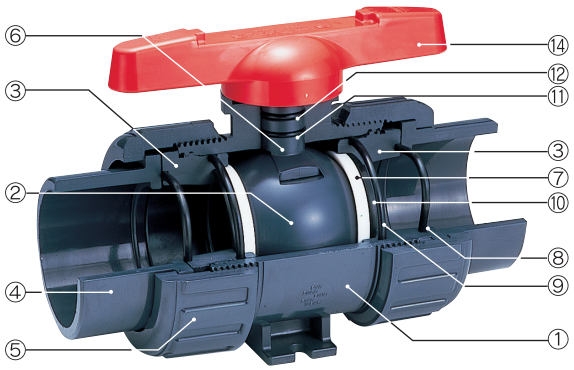
NSF("NSF/ANSI STANDARD 61" Drinking Water System Components-Health Effects)Product.
:BALL VALVE TYPE 21(Material:PVC+EPDM,FKM)
*Certified products bear an NSF Certification Mark.

MATERIAL AND WORKING TEMPERATURE

Body Material	Working Temperature ℃ (°F)	Max.Working Pressure(at R.T.) MPa{kgf/cm²}[PSI]	End Connecters			
			Socket End	Threaded End	Flanged End	Spigot End
Unplasticized Polyvinyl Chloride(PVC)	0 - 50(30 - 120)	1.0{10.2} [150]	○	○	○	—
Chlorinated Polyvinyl Chloride(C-PVC)	0 - 90(30 - 195)	1.0{10.2} [150]	○	○	○	—
Polypropylene(PP)	−20 - 80(−5 - 175)	1.0{10.2} [150]	○	○	○	○
Polyvinylidene Fluoride(PVDF)	−20 - 100(−5 - 210)	1.0{10.2} [150]	○	○	○	○

※ PP and PVDF ball valves of the Socket End type and PVDF ball valves of the Spigot End type are welded valves.
Notes : 1. There is a dead space in a ball valve. Volatile liquids, such as a hydrogen peroxide(H_2O_2)and Sodium hypochlorite (NaClO) may vaporize in the dead space, thus causing an abnormal pressure increase in the valve.
(Important: Gas is compressible. Thus if pressure rises abnormally, the valve can burst ejecting dangerous fragments.)





PARTS & MATERIALS

● 15mm(1/2inch) − 50mm(2inch)

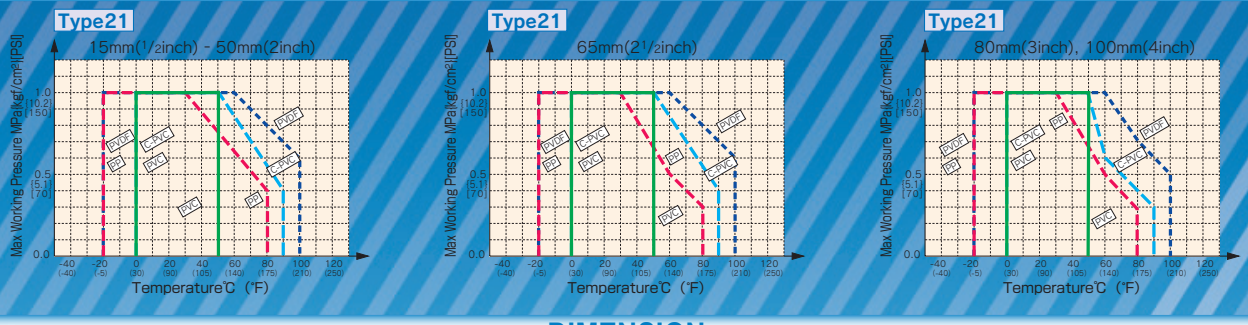
No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC、C-PVC、PP、PVDF	⑨	O-RING(B)	1	EPDM、FKM、etc
②	BALL	1	PVC、C-PVC、PP、PVDF	⑩	O-RING(C)	2	EPDM、FKM、etc
③	CARRIER	1	PVC、C-PVC、PP、PVDF	⑪	O-RING(D)	1	EPDM、FKM、etc
④	END CONNECTOR	2	PVC、C-PVC、PP、PVDF	⑫	O-RING(E)	1	EPDM、FKM、etc
⑤	UNION NUT	2	PVC、C-PVC、PP、PVDF	⑬	STOP RING	2	PVDF(used for flanged End)
⑥	STEM	1	PVC、C-PVC、PP、PVDF	⑭	HANDLE	1	ABS
⑦	SEAT	2	PTFE				
⑧	O-RING(A)	2	EPDM、FKM、etc				

● 65mm(2 1/2inch) − 100mm(4inch)

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC、C-PVC、PP、PVDF	⑨	O-RING(B)	2	EPDM、FKM、etc
②	BALL	1	PVC、C-PVC、PP、PVDF	⑩	CUSHION	2	EPDM、FKM、etc
③	CARRIER	2	PVC、C-PVC、PP、PVDF	⑪	O-RING(D)	1	EPDM、FKM、etc
④	END CONNECTOR	2	PVC、C-PVC、PP、PVDF	⑫	O-RING(E)	1	EPDM、FKM、etc
⑤	UNION NUT	2	PVC、C-PVC、PP、PVDF	⑬	STOP RING	2	PVDF(used for flanged End)
⑥	STEM	1	PVC、C-PVC、PP、PVDF	⑭	HANDLE	1	ABS
⑦	SEAT	2	PTFE	⑮	SCREW	1	STAINLESS STEEL(304)
⑧	O-RING(A)	2	EPDM、FKM、etc				

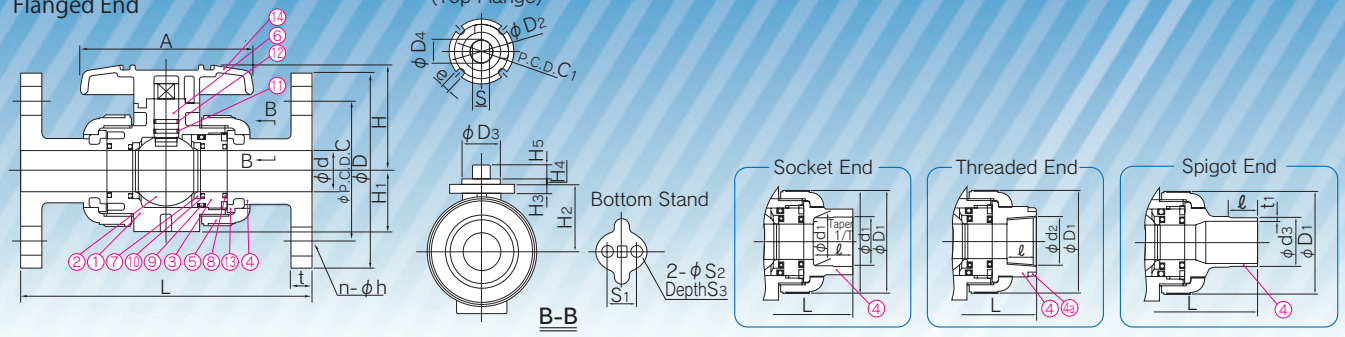
ASAHI AV VALVE

WORKING PRESSURE VS. TEMPERATURE

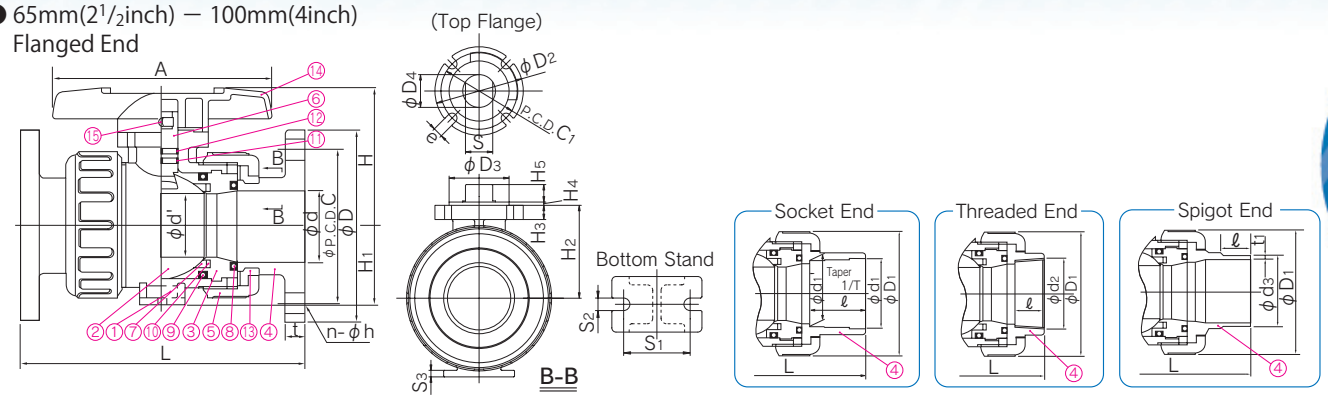


DIMENSION

● 15mm(1/2inch) — 50mm(2inch)
Flanged End



● 65mm(2 1/2inch) — 100mm(4inch)
Flanged End



DIMENSIONS TABLE

DIN Unit:mm

Nominal Size		d	d'	D1	D2	D3	D4	C1	H	H1	H2	H3	H4	H5	A	S	S1	S2	S3	e
mm	inch																			
10	3/8	13	—	46	—	—	—	—	43.5	—	—	—	—	—	80	—	—	—	—	—
15	1/2	15	—	48	42	25	13.5	36	51.5	29	30	6	3	8	92	10.5	19	7.3	11	5.5
20	3/4	20	—	60	42	25	15	36	59.5	35	36.5	6	3	10	100	11	19	7.3	11	5.5
25	1	25	—	70	42	25	15	36	68	39	43.5	6	3	10	110	11	19	7.3	11	5.5
32	1 1/4	32	—	82	48	30	19	42	80.5	47	52.5	8	3	10	121	15	30	9	15	5.5
40	1 1/2	40	—	100	57	35	23	50	89	55	61	10	3	12	131	18	30	9	15	6.5
50	2	51	—	126	57	35	23	50	102.5	66	72.5	10	3	12	159	18	30	9	15	6.5
65	2 1/2	65	58	133	81	55	30	70	126	72	85	13	3	16	200	24	48	9	6	9
80	3	78	68.5	152	81	55	30	70	140	85	94	13	3	19	240	24	55	11	7	9
100	4	100	90	210	116	70	40	102	178	110	126	16	3	23	300	34	65	11	8	11

Nominal Size		Flanged End DIN PN10							t	Socket End PVC、C-PVC			Socket End PP、PVDF					Threaded End					Spigot End PVC			Spigot End PP、PVDF					
						L										L			L								t		L	
mm	inch	D	C	n	h	PVC C-PVC	PP	PVDF		d1	ℓ	L	d1	d1'	ℓ	PP	PVDF	d2	ℓ	PVC C-PVC	PP	PVDF	d3	d3'	ℓ	d3	ℓ	PP	PVDF	PP	PVDF
10	3/8	90	60	4	14	120	119	119	12	16	14	99	15.5	15.4	13	96	96	Rp3/8	15	99	98	98	16	13	16	—	—	—	—	114	114
15	1/2	95	65	4	14	130	130	130	12	20	16	102	19.5	19.3	14.5	99	99	Rp1/2	15	102	100	100	20	15	18.5	20	18.5	2.5	1.9	124	124
20	3/4	105	75	4	14	150	150	150	14	25	19	120	24.5	24.3	16	113	113	Rp3/4	17	120	119	119	25	20	24	25	22	2.7	1.9	144	144
25	1	115	85	4	14	160	160	160	14	32	22	131	31.5	31.3	18	123	123	Rp1	20	131	130	130	32	25	24.5	32	22.5	3.0	2.4	154	154
32	1 1/4	140	100	4	18	180	180	180	16	40	26	150	39.45	39.2	20.5	139	139	Rp1 1/4	22	150	146	146	40	31	28	40	26	3.7	2.4	174	174
40	1 1/2	150	110	4	18	200	200	200	16	50	31	163	49.45	49.2	23.5	149	149	Rp1 1/2	25	163	160	160	50	40	34	50	32	4.6	3.0	194	194
50	2	165	125	4	18	230	230	230	16	63	38	197	62.5	62.1	27.5	176	176	Rp2	28	197	194	194	63	51	38	63	36	5.8	3.0	224	224
65	2 1/2	185	145	4	18	290	288	287	18	75	44	233	74.25	73.95	31	205	204	Rp2 1/2	32	215	213	212	75	65	44	75	38	6.9	3.6	245	244
80	3	200	160	8	18	312	311	308	21	90	51	284	89.2	88.85	35.5	252	249	Rp3	35	265	264	261	90	80	51	90	38	8.2	4.3	296	293
100	4	220	180	8	18	352	352	347	18	110	61	351	109.05	108.65	41.5	312	307	Rp4	45	340	340	335	110	93.6	46	110	44.5	10.0	5.3	355	350

ANSI

Unit:inch

Nominal Size		d	d'	D_1	D_2	D_3	D_4	C_1	H	H_1	H_2	H_3	H_4	H_5	A	S	S_1	S_2	S_3	e
inch	mm																			
1/2	15	0.59	—	1.89	1.65	0.98	0.53	1.42	2.03	1.14	1.18	0.24	0.12	0.31	3.62	0.41	0.75	0.29	0.43	0.22
3/4	20	0.79	—	2.36	1.65	0.98	0.59	1.42	2.34	1.38	1.44	0.24	0.12	0.39	3.94	0.43	0.75	0.29	0.43	0.22
1	25	0.98	—	2.76	1.65	0.98	0.59	1.42	2.68	1.54	1.71	0.24	0.12	0.39	4.33	0.43	0.75	0.29	0.43	0.22
1 1/4	32	1.26	—	3.23	1.89	1.18	0.75	1.65	3.17	1.85	2.07	0.31	0.12	0.39	4.76	0.59	1.18	0.35	0.59	0.22
1 1/2	40	1.57	—	3.94	2.24	1.38	0.91	1.97	3.50	2.17	2.40	0.39	0.12	0.47	5.16	0.71	1.18	0.35	0.59	0.26
2	50	2.01	—	4.96	2.24	1.38	0.91	1.97	4.04	2.60	2.85	0.39	0.12	0.47	6.26	0.71	1.18	0.35	0.59	0.26
2 1/2	65	2.56	2.28	5.24	3.19	2.17	1.18	2.76	4.96	2.83	3.35	0.51	0.12	0.63	7.87	0.94	1.89	0.35	0.24	0.35
3	80	3.07	2.70	5.98	3.19	2.17	1.18	2.76	5.51	3.35	3.70	0.51	0.12	0.75	9.45	0.94	2.17	0.43	0.28	0.35
4	100	3.94	3.54	8.27	4.57	2.76	1.57	4.02	7.01	4.33	4.96	0.63	0.12	0.91	11.81	1.34	2.56	0.43	0.31	0.43

Nominal Size		Flanged End								Socket End (IPS)												Threaded End				
		ANSI CLASS 150				L			t	PVC, C-PVC								PP, PVDF				d_2	ℓ	L		
		D	C	n	h	PVC, C-PVC	PP	PVDF		ASTM SCH40			L	ASTM SCH80			L	d_1	ℓ	L				PVC, C-PVC	PP	PVDF
inch	mm									d_1	d_1'	ℓ		d_1	d_1'	ℓ				PP	PVDF					
1/2	15	3.50	2.38	4	0.62	5.63	5.63	5.63	0.47	—	—	—	—	0.848	0.836	0.875	4.45	0.83	0.87	4.45	4.45	1/2-14 NPT	0.59	4.02	4.02	4.02
3/4	20	3.88	2.75	4	0.62	6.77	6.77	6.77	0.55	—	—	—	—	1.058	1.046	1.000	5.08	1.03	1.00	5.08	5.08	3/4-14 NPT	0.67	4.72	4.72	4.72
1	25	4.25	3.12	4	0.62	7.36	7.36	7.36	0.55	—	—	—	—	1.325	1.310	1.125	5.75	1.30	1.13	5.75	5.75	1-11 1/2NPT	0.79	5.16	5.16	5.16
1 1/4	32	4.62	3.50	4	0.62	7.48	7.48	7.48	0.63	—	—	—	—	1.670	1.655	1.250	6.46	1.65	1.25	6.46	6.46	1 1/4-11 1/2NPT	0.87	5.91	5.91	5.91
1 1/2	40	5.00	3.88	4	0.62	8.35	8.35	8.35	0.63	—	—	—	—	1.912	1.894	1.375	7.24	1.89	1.37	7.24	7.24	1 1/2-11 1/2NPT	0.98	6.42	6.42	6.42
2	50	6.00	4.75	4	0.75	9.21	9.21	9.21	0.63	—	—	—	—	2.387	2.369	1.500	8.23	2.36	1.50	8.23	8.23	2-11 1/2NPT	1.10	7.76	7.76	7.76
2 1/2	65	7.00	5.50	4	0.75	10.20	10.12	10.08	0.71	—	—	—	—	2.889	2.868	1.750	9.45	2.880	1.752	9.37	9.33	1/2-8 NPT	1.26	8.46	8.39	8.35
3	80	7.50	6.00	4	0.75	12.05	12.01	11.89	0.71	—	—	—	—	3.516	3.492	1.875	11.14	3.480	1.874	11.10	10.98	3-8 NPT	1.38	10.43	10.39	10.28
4	100	9.00	7.50	8	0.75	14.72	14.72	14.53	0.71	4.518	4.491	2.000	13.86	—	—	—	—	4.480	2.252	14.37	14.13	4-8 NPT	1.77	14.25	14.25	14.06

Note : Pay attention that the following chemicals such as Hydrogen Peroxide (H_2O_2)and Sodium hypochlorite(NaClO)are adapted will cause the abnormal pressure rising due to their vaporization nature.

ASAHI AV VALVE

3-WAY BALL VALVE TYPE 23 15mm - 100mm(1/2inch - 4inch)

FEATURES

Compact and Economic
The 3-WAY BALL VALVES allows two flow patterns, using one valve. The valve is suitable for a pipeline which requires two ball valves and a tee. That is, the 3-WAY BALL VALVES is economic because it makes piping compact and saves space.

Reversible Flow Direction
The 3-WAY BALL VALVE is based on the Asahi true union ball valve design which can be installed or removed just by tightening or loosening its union nut.
The 3-WAY BALL VALVES has a L-shaped fluid channel and a handle which can be rotated 360°. The arrow on top of the handle indicates the flow direction.

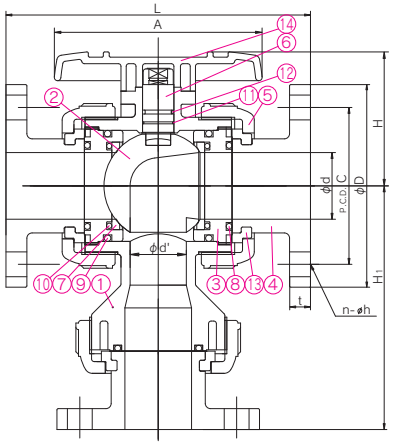
Equipped ISO Mounting Flange
The feature provides for easier mounting of actuators on valves.

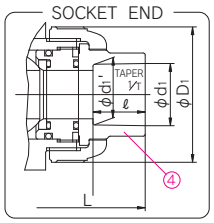
Interchangeable with Ball Valve Type21
The face to face dimensions, as well as the connecting parts, end connectors and union nuts, are the same as the ball valve Type21.

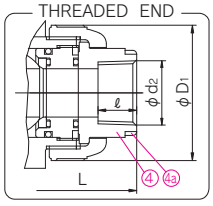
Other Special Features
- Double O-ring seal on stem for an added protection.
- W-L port ball and *Cross port ball are available upon request.
*Note: Cross port ball is available at the size of 15mm (1/2inch) up to 50mm (2inch).
- Built-in spanner wrench on the handle for valve disassembly and assembly.

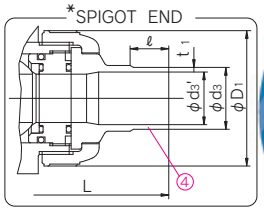
NSF Product
NSF("NSF/ANSI STANDARD 61" Drinking Water System Components-Health Effects)Product.
:3-WAY BALL VALVE TYPE 23(Material:PVC+EPDM,FKM)
*Certified products bear an NSF Certification Mark.

DIMENSION

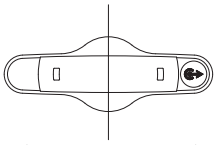




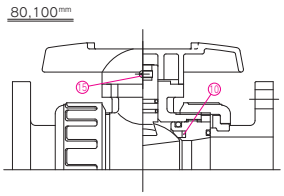


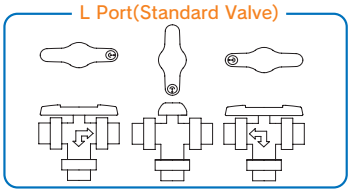


* JIS and DIN Standard only.

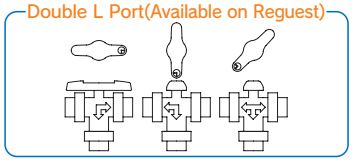


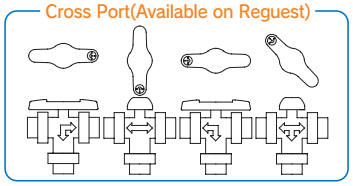
(Top view of the handle.)
NOTE. The shape and appearance of assembly differ a little with nominal size compared to this drawing.





Changing the ball allows for standard valve to be converted.
(only 15mm(1/2inch)~50mm(2inch))





*Available at the size of 15mm up to 50mm.

MATERIAL AND WORKING TEMPERATURE

Body Material	Working Temperature ℃ (°F)	Max.Working Pressure(at R.T.) MPa{kgf/cm²}[PSI]	End Connectors			
			Socket End	Threaded End	Flanged End	Spigot End
Unplasticized Polyvinyl Chloride(PVC)	0 - 50(30 - 120)	1.0{10.2} [150]	○	○	○	○
Chlorinated Polyvinyl Chloride(C-PVC)	0 - 90(30 - 195)	1.0{10.2} [150]	○	○	○	○
Polypropylene(PP)	−20 - 80(−5 - 175)	1.0{10.2} [150]	○ ※	○	○	○
Polyvinylidene Fluoride(PVDF)	−20 - 100(−5 - 210)	1.0{10.2} [150]	○ ※	○	○	○

＊ PP and PVDF 3-WAY BALL VALVES of the Socket End are welded valves.
Note : 1. There is a dead space in a ball valve. Volatile liquids, such as a hydrogen peroxide (H_2O_2) and Sodium hypochlorite (NaClO) may vaporize in the dead space, thus causing an abnormal pressure increase in the valve. (Important: Gas is compressible. Thus if its pressure rises abnormally, the valve can burst ejecting dangerous fragments.

PARTS & MATERIALS

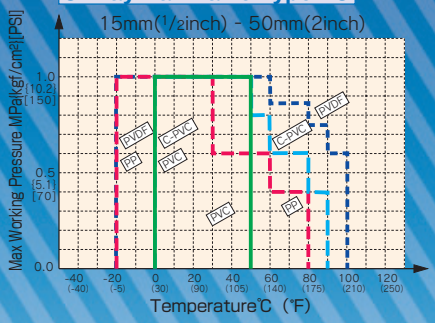
No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC,PP,C-PVC,PVDF	⑨	O-RING(B)	2	EPDM,FKM,others
②	BALL	1	PVC,PP,C-PVC,PVDF	⑩	O-RING(C), CUSHION	2	EPDM,FKM,others
③	CARRIER	2	PVC,PP,C-PVC,PVDF	⑪	O-RING(D)	1	EPDM,FKM,others
④	END CONNECTOR	3	PVC,PP,C-PVC,PVDF	⑫	O-RING(E)	1	EPDM,FKM,others
⑤	UNION NUT	3	PVC,PP,C-PVC,PVDF	⑬	STOP RING	3	PVDF(Used for Flanged End)
⑥	STEM	1	PVC,PP,C-PVC,PVDF	⑭	HANDLE	1	ABS
⑦	SEAT	2	PTFE	⑮	TAPPING SCREW(A)	1	STAINLESS STEEL304
⑧	O-RING(A)	3	EPDM,FKM,others	④a	RING	3	STAINLESS STEEL304

Note : The stop ring (⑫) is used for Flanged End valves only.
The ring (④a) is used for 15,20,and 25mm C-PVC valves.

WORKING PRESSURE VS. TEMPERATURE

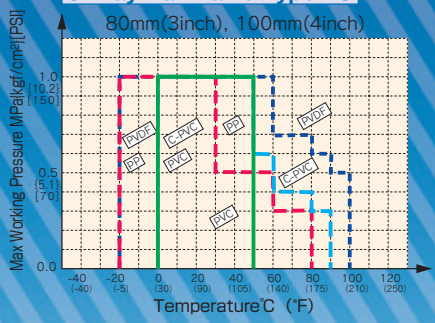
3-Way Ball Valve Type 23

15mm(1/2inch) - 50mm(2inch)



3-Way Ball Valve Type 23

80mm(3inch), 100mm(4inch)



DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		Flanged End							Socket End										Threaded End			
		DIN PN10				L	t	H_1	PVC , C-PVC				PP, PVDF									
mm	inch	D	C	n	h				d_1	ℓ	L	H_1	d_1	d_1'	ℓ	L	H1	d_2	ℓ	L	H_1
15	1/2	95	65	4	14	130	12	88	20	16	102	72	19.50	19.30	14.5	99	71	Rp 1/2	15	102	74
20	3/4	105	75	4	14	150	14	104	25	19	120	85	24.50	24.30	16	114	83	Rp 3/4	17	120	89
25	1	115	85	4	14	160	14	120	32	22	131	104	31.50	31.30	18	123	100	Rp 1	20	131	105
40	1 1/2	150	110	4	18	200	16	159	50	31	163	142	49.45	49.20	23.5	148	131	Rp 1 1/2	25	163	141
50	2	165	125	4	18	230	16	185	63	38	197	170	62.50	62.10	27.5	176	154	Rp 2	28	197	168
80	3	200	160	8	18	310	21	259	90	51	282	245	89.20	88.85	35.5	251	224	Rp 3	35	264	235
100	4	220	180	8	18	350	18	305	110	61	349	305	109.05	108.65	41.5	310	279	Rp 4	45	338	299

Nominal Size		Spigot End									
		PVC				PP, PVDF					
		d_3	d_3'	ℓ	H_1	d_3	ℓ	t		L	H_1
mm	inch							PP	PVDF		
15	1/2	20	15	18.5	83	20	18.5	2.5	1.9	124	83
20	3/4	25	20	24	99	25	22	2.7	1.9	144	99
25	1	32	25	24.5	115	32	22.5	3.0	2.4	154	115
40	1 1/2	50	40	34	153	50	32	4.6	3.0	194	153
50	2	63	51	38	178	63	36	5.8	3.0	224	178
80	3	90	80	51	252	90	38	8.2	4.3	295	246
100	4	110	93.6	61	308	110	44.5	10.0	5.3	353	301

ANSI

Unit:inch

Nominal Size		Flanged End							Socket End												Threaded End			
		ASTM Class 150				L	t	H_1	PVC , C-PVC								PP, PVDF							
									ASTM SCH40			L	ASTM SCH80			L	H_1	d_1	ℓ	L	H_1	d_2	ℓ	L	H_1
		D	C	n	h				d_1	d_1'	ℓ		d_1	d_1'	ℓ										
inch	mm																							
1/2	15	3.50	2.38	4	0.62	5.63	0.47	3.70	—	—	—	—	0.848	0.836	0.875	4.45	3.08	0.830	0.870	4.45	3.09	1/2- 14 NPT	0.59	4.02	2.89
3/4	20	3.88	2.75	4	0.62	6.77	0.55	4.50	—	—	—	—	1.058	1.046	1.000	5.08	3.56	1.030	1.000	5.08	3.61	3/4- 14 NPT	0.67	4.72	3.48
1	25	4.25	3.12	4	0.62	7.36	0.55	5.24	—	—	—	—	1.325	1.310	1.125	5.75	4.32	1.300	1.130	5.75	4.37	1- 1 1/2 NPT	0.79	5.16	4.13
1 1/2	40	5.00	3.88	4	0.62	8.35	0.63	6.50	—	—	—	—	1.912	1.894	1.375	7.24	5.71	1.890	1.370	7.24	5.85	1 1/2- 11 1/2 NPT	0.98	6.42	5.53
2	50	6.00	4.75	4	0.75	9.21	0.63	7.34	—	—	—	—	2.387	2.369	1.500	8.23	6.66	2.360	1.500	8.23	6.76	2- 11 1/2 NPT	1.10	7.76	6.61
3	80	7.50	6.00	4	0.75	11.97	0.71	10.06	—	—	—	—	3.516	3.492	1.875	11.10	9.59	3.480	1.874	11.10	11.10	3- 8 NPT	1.38	10.39	9.25
4	100	9.00	7.50	8	0.75	14.65	0.71	12.01	4.518	4.491	2.000	13.90	—	—	—	—	11.58	4.480	2.252	14.37	14.37	4- 8 NPT	1.77	14.17	11.77

Nominal Size		d	d'	D_1	D_2	D_3	D_4	C_1	H
inch	mm								
1/2	15	0.59	0.59	1.89	1.65	0.98	0.53	1.42	2.03
3/4	20	0.79	0.79	2.36	1.65	0.98	0.59	1.42	2.34
1	25	0.98	0.98	2.76	1.65	0.98	0.59	1.42	2.68
1 1/2	40	1.57	1.26	3.94	2.24	1.38	0.91	1.97	3.50
2	50	2.01	1.69	4.96	2.24	1.38	0.91	1.97	4.04
3	80	3.07	2.70	5.98	3.19	2.17	1.18	2.76	5.51
4	100	3.94	3.54	8.27	4.57	2.76	1.57	4.02	7.01

Nominal Size		d	d'	D_1	D_2	D_3	D_4	C_1	H	H_2	H_3	H_4	H_5	A	S	e
mm	inch															
15	1/2	15	15	48	42	25	13.5	36	51.5	30	6	3	8	92	10.5	5.5
20	3/4	20	20	60	42	25	15	36	59.5	36.5	6	3	10	100	11	5.5
25	1	25	25	70	42	25	15	36	68	43.5	6	3	10	110	11	5.5
40	1 1/2	40	32	100	57	35	23	50	89	61	10	3	12	131	18	6.5
50	2	51	43	126	57	35	23	50	102.5	72.5	10	3	12	159	18	6.5
80	3	78	68,5	152	81	55	30	70	140	94	13	3	19	240	24	9
100	4	100	90	210	116	70	40	102	178	126	16	3	23	300	34	11

ASAHI AV VALVE

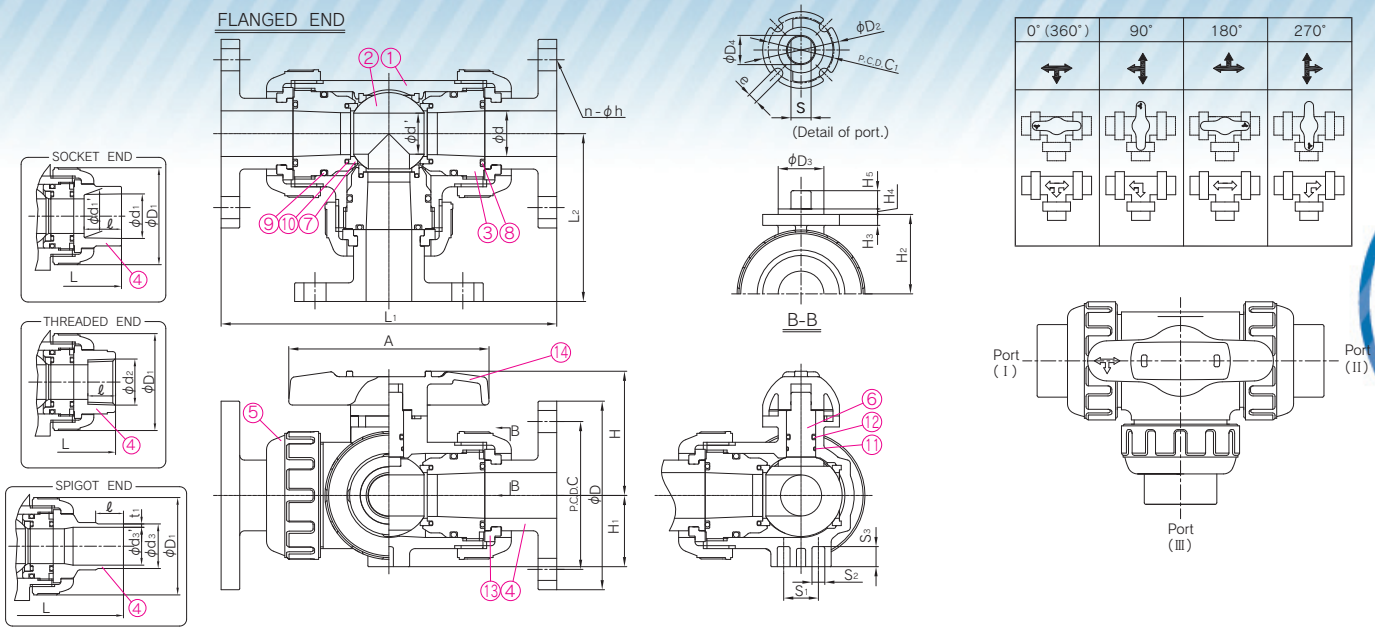
3-WAY BALL VALVE TYPE 23H 25mm - 40mm(1inch - 1 1/2inch)

FEATURES

Horizontal Model
The 3-WAY BALL VALVE TYPE 23H is horizontal model(T port).

Same Features as TYPE23
a) Compact and Economic
b) Reversible Flow Direction
c) Equipped ISO Mounting Flange
d) Interchangeable with Ball Valve Type21

DIMENSION



MATERIAL AND WORKING TEMPERATURE

Body Material	Working Temperature ℃ (°F)	Max.Working Pressure(at R.T.) MPa{kgf/cm²}[PSI]	End Connectors			
			Socket End	Threaded End	Flanged End	Spigot End
Polypropylene(PP)	−20 - 80(−5 - 175)	1.0{10.2} [150]	○ ※	○	○	○

＊ PP 3-WAY BALL VALVES of the Socket End are welded valves.

Note : 1. There is a dead space in a ball valve. Volatile liquids, such as a hydrogen peroxide (H_2O_2) and Sodium hypochlorite (NaClO) may vaporize in the dead space, thus causing an abnormal pressure increase in the valve. (Important: Gas is compressible. Thus if its pressure rises abnormally, the valve can burst ejecting dangerous fragments.

PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PP	⑧	O-RING(A)	3	EPDM,FKM,others
②	BALL	1	PP (T Port)	⑨	O-RING(B)	3	EPDM,FKM,others
③	CARRIER	3	PP	⑩	O-RING(C)	3	EPDM,FKM,others
④	END CONNECTOR	3	PP	⑪	O-RING(D)	1	EPDM,FKM,others
⑤	UNION NUT	3	PPG	⑫	O-RING(E)	1	EPDM,FKM,others
⑥	STEM	1	PP	⑬	STOP RING	3	PVDF(Used for Flanged End)
⑦	SEAT	4	PTFE	⑭	HANDLE	1	ABS

DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		Flanged End							Socket End					Threaded End				Spigot End				
		DIN PN10				t	L_1	L_2	d_1	d_1'	ℓ	L_1	L_2	d_2	ℓ	L_1	L_2	d_3	ℓ	t	L_1	L_2
mm	inch	D	C	n	h																	
25	1	115	85	4	14	14	189	94.5	31.5	31.3	18	152	76	Rp 1	20	159	79.5	32	22.5	3.0	183	91.5
32	$1^1/_4$	140	100	4	16	16	260	130	39.45	39.2	20.5	197	98.5	Rp $1^1/_4$	22	208	104	—	—	—	—	—
40	$1^1/_2$	150	110	4	16	16	248	124	49.45	49.2	23.5	197	98.5	Rp $1^1/_2$	25	208	104	50	32	4.6	242	121

Nominal Size		d	d'	D_1	D_2	D_3	D_4	C_1	H	H_1	H_2	H_3	H_4	H_5	A	S	S_1	S_2	S_3	e
mm	inch																			
25	1	25	22	70	42	25	15	36	68	39	43.5	6	3	10	110	11	19	7.3	11	5.5
32	$1^1/_4$	40	34	100	57	35	23	50	89	55	61	10	3	12	131	18	30	9	15	6.5
40	$1^1/_2$	40	34	100	57	35	23	50	89	55	61	10	3	12	131	18	30	9	15	6.5

ANSI

Unit:mm

Nominal Size		Flanged End							Socket End				Threaded End			
		ANSI Class150				t	L_1	L_2	d_1	ℓ	L_1	L_2	d_2	ℓ	L_1	L_2
mm	inch	D	C	n	h											
25	1	4.25	3.13	4	0.62	0.55	8.50	4.25	1.30	1.13	6.77	3.39	1-11 $^1/_2$NPT	0.79	6.26	3.13
32	$1^1/_4$	4.62	3.50	4	0.62	0.63	10.24	5.12	1.65	1.25	8.74	4.37	$1^1/_4$-11 $^1/_2$NPT	0.87	8.19	4.09
40	$1^1/_2$	5.00	3.88	4	0.62	0.63	10.24	5.12	1.89	1.37	8.94	4.47	$1^1/_2$-11 $^1/_2$NPT	0.98	8.19	4.09

Nominal Size		d	d'	D_1	D_2	D_3	D_4	C_1	H	H_1	H_2	H_3	H_4	H_5	A	S	S_1	S_2	S_3	e
mm	inch																			
25	1	0.98	0.87	2.76	1.65	0.98	0.59	1.42	2.68	1.54	1.71	0.24	0.12	0.39	4.33	0.43	0.75	0.29	0.43	0.22
32	$1^1/_4$	1.57	1.34	3.94	2.24	1.38	0.91	1.97	3.50	2.17	2.40	0.39	0.12	0.47	5.16	0.71	1.18	0.35	0.59	0.26
40	$1^1/_2$	1.57	1.34	3.94	2.24	1.38	0.91	1.97	3.50	2.17	2.40	0.39	0.12	0.47	5.16	0.71	1.18	0.35	0.59	0.26

ASAHI AV VALVE

COMPACT BALL VALVE 13mm - 80mm(3/8inch - 3inch)

FEATURES

• Features such as compact, light weight and assembly of a reduced number of parts, the COMPACT BALL VALVES can easily be installed in a small space.

NSF Product

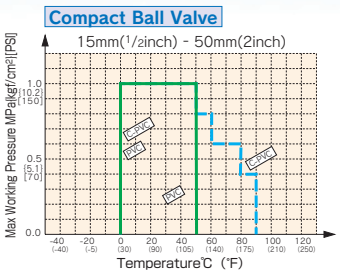
NSF("NSF/ANSI STANDARD 61" Drinking Water System Components-Health Effects)Product.
:Compact BALL VALVE (Material:PVC+EPDM)
*Certified products bear an NSF Certification Mark.

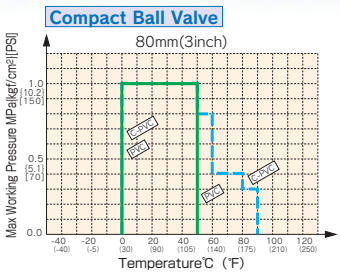
MATERIAL AND WORKING TEMPERATURE

Body material	Working Temperature ℃ (°F)	Max.Working Pressure(at R.T.) MPa{kgf/cm²}[PSI]	End Connectors	Color
Unplasticized Polyvinyl Chloride(PVC)	0-50(30-120)	1.0{10.2} [150]	Socket End Threaded End	Dark gray
Chlorinated Polyvinyl Chloride(C-PVC)	0-90 (30-195)	1.0{10.2} [150]	Socket End Threaded End	Brown or Light gray

Notes : 1 . There is a dead space in a ball valve. Volatile liquids, such as a hydrogen peroxide (H_2O_2) and sodium hypochlorite (NaClO) may vaporize in the dead space, thus causing an abnormal pressure increase in the valve. (Important: Gas is compressible. Thus if its pressure rises abnormally, the valve can burst ejectng dangerous fragments.)

WORKING PRESSURE VS. TEMPERATURE





DIMENSIONS TABLE

DIN

Unit:mm

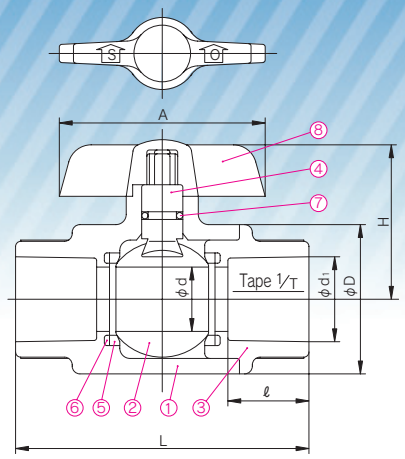
Nominal Size mm	Nominal Size inch	d	Socket End d1	Socket End ℓ	Socket End L	Threaded End DIN 2999 d1	Threaded End DIN 2999 ℓ	Threaded End L	D	H	A
13	3/8	13	16	14	85	Rc 3/8	15	85	35	42	60
15	1/2	15	20	16	97	Rc 1/2	15	97	39	44	70
20	3/4	20	25	19	102	Rc 3/4	17	102	48	55	80
25	1	25	32	22	114	Rc 1	20	114	58	60	80
32	1 1/4	31	40	26	127	Rc 1 1/4	22	127	66	70	95
40	1 1/2	35	50	31	152	Rc 1 1/2	25	152	72.5	76	110
50	2	45	63	38	176	Rc 2	28	176	88.5	85	110
80	3	68.5	90	51	236	Rc 3	35	236	130	124	200

ANSI

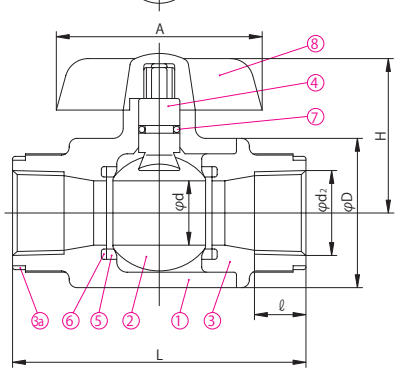
Unit:inch

Nominal Size inch	Nominal Size mm	d	Socket End ASTM SCH40 d1	Socket End ASTM SCH40 d2	Socket End ASTM SCH40 ℓ	Socket End L	Threaded End ANSI/ASME B1.20.1 d1	Threaded End ANSI/ASME B1.20.1 ℓ	Threaded End L	D	H	A
1/2	13	0.51	0.848	0.836	0.69	3.35	1/2-14NPT	0.59	3.35	1.38	1.65	2.36
3/4	20	0.79	1.058	1.046	0.72	4.02	3/4-14NPT	0.67	4.02	1.89	2.17	3.15
1	25	0.98	1.325	1.310	0.87	4.49	1-11 1/2NPT	0.79	4.49	2.28	2.36	3.15
1 1/4	32	1.22	1.670	1.655	0.94	5.00	1 1/4-11 1/2NPT	0.87	5.00	2.60	2.76	3.74
1 1/2	40	1.38	1.912	1.894	1.09	5.98	1 1/2-11 1/2NPT	0.98	5.98	2.85	2.99	4.33
2	50	1.77	2.387	2.369	1.16	6.93	2-11 1/2NPT	1.10	6.93	3.48	3.31	4.33
3	80	2.70	3.516	3.492	1.87	9.29	3-8NPT	1.17	9.29	5.12	4.88	7.87

▼ SOCKET END



▼ THREADED END

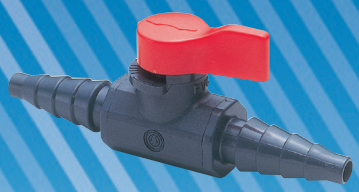


PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC、C-PVC
②	BALL	1	PVC、C-PVC
③	END CONNECTOR	1	PVC、C-PVC
④	STEM	1	PVC、C-PVC
⑤	SEAT	2	PTFE
⑥	CUSHION	2	EPDM、FKM
⑦	O-RING	1	EPDM、FKM
⑧	HANDLE	1	ABS
③a	RING※	2	STAINLESS STEEL304

Note : The ring (③a)is used for C-PVC valves 13mm ～ 25mm in nominal size.

LAB COCK



FEATURES

• The LAB COCK is a compact, light weight plastic valve which is highly corrosion-resistant, in durable.

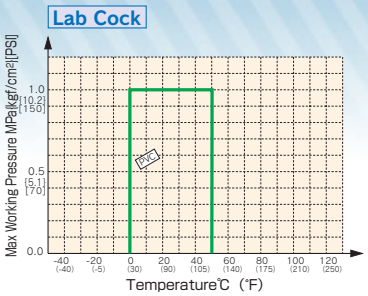
NSF Product

NSF("NSF/ANSI STANDARD 61" Drinking Water System Components-Health Effects)Product.
:LAB COCK(Material:PVC+EPDM)
*Certified products bear an NSF Certification Mark.

MATERIAL AND WORKING TEMPERATURE

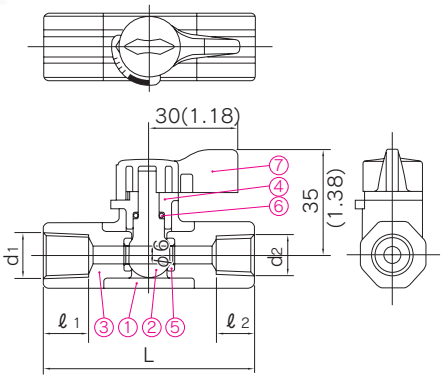
Body material	Unplasticized Polyvinyl Chloride(PVC)
Working Temperature	0℃ - 50℃ (30° F - 120° F)
Max.Working Pressure	1.0MPa{10.2kgf/cm²}[150PSI]
End Connectors	Hose, Male thread, Female thread
Nominal Size	●Hose:12 to 15mm(standard hose inner diameter) ●Male thread:1/4,1/2 ●Female thread:1/4,3/8

WORKING PRESSURE VS. TEMPERATURE

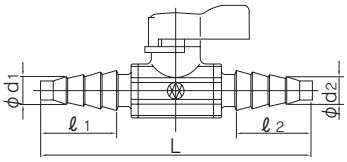


DIMENSION

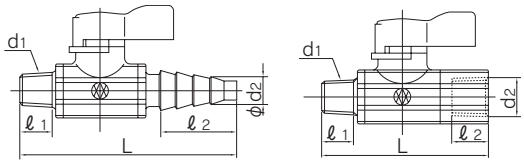
FEMALE THREAD×FEMALE THREAD



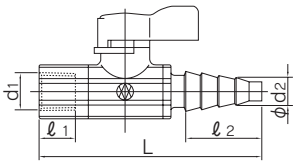
HOSE×HOSE



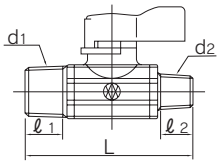
MALE THREAD×HOSE



FEMALE THREAD×HOSE



MALE THREAD×MALE THREAD



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC
②	BALL & STEM	1	PVC
③	END CONNECTOR	2	PVC
④	GLAND	1	PVC
⑤	SEAT	2	EPDM, PTFE, others
⑥	O-RING	1	EPDM, others
⑦	HANDLE	1	ABS

ASAHI AV VALVE

DIMENSIONS TABLE

DIN

Unit:mm

		d1	d2	ℓ1	ℓ2	L
①	FEMALE THREAD ×FEMALE THREAD	Rp 1/4	Rp 1/4	15	15	71
		Rp 3/8	Rp 1/4	15	15	71
		Rp 3/8	Rp 3/8	15	15	71
②	HOSE×HOSE	10	10	30.5	30.5	111
③	FEMALE THREAD ×HOSE	Rp 1/4	10	15	30.5	91
		Rp 3/8	10	15	30.5	91

		d1	d2	ℓ1	ℓ2	L
④	MALE THREAD ×HOSE	R 1/4	10	13	30.5	88.5
		R 1/2	10	15	30.5	91
⑤	MALE THREAD ×MALE THREAD	R 1/4	R 1/4	13	13	66
		R 1/2	R 1/4	15	13	68.5
		R 1/2	R 1/2	15	15	71
⑥	MALE THREAD ×FEMALE THREAD	R 1/4	Rp 1/4	13	15	68.5
		R 1/4	Rp 3/8	13	15	68.5
		R 1/2	Rp 1/4	15	15	71
		R 1/2	Rp 3/8	15	15	71

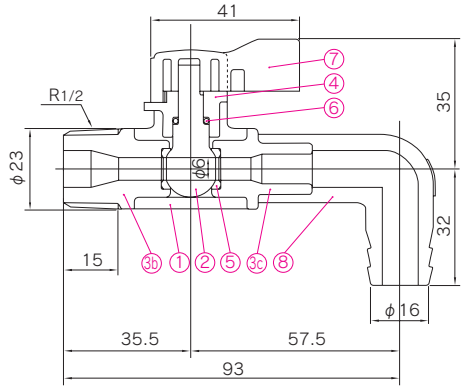
ANSI

Unit:inch

		d1	d2	ℓ1	ℓ2	L
①	FEMALE THREAD ×FEMALE THREAD	1/4-18NPT	1/4-18NPT	0.51	0.51	2.80
		3/8-18NPT	1/4-18NPT	0.59	0.51	2.80
		3/8-18NPT	3/8-18NPT	0.59	0.59	2.80
②	HOSE×HOSE	0.39	0.39	1.20	1.20	4.37
③	FEMALE THREAD ×HOSE	1/4-18NPT	0.39	0.51	1.20	3.58
		3/8-18NPT	0.39	0.59	1.20	3.58

		d1	d2	ℓ1	ℓ2	L
④	MALE THREAD ×HOSE	1/4-18NPT	0.39	0.51	1.20	3.48
		1/2-14NPT	0.39	0.59	1.20	3.58
⑤	MALE THREAD ×MALE THREAD	1/4-18NPT	1/4-18NPT	0.51	0.51	2.60
		1/2-14NPT	1/4-18NPT	0.59	0.51	2.70
		1/2-14NPT	1/2-14NPT	0.59	0.59	2.80
⑥	MALE THREAD ×FEMALE THREAD	1/4-18NPT	1/4-18NPT	0.51	0.51	2.70
		1/4-18NPT	3/8-18NPT	0.51	0.59	2.70
		1/2-14NPT	1/4-18NPT	0.59	0.51	2.80
		1/2-14NPT	3/8-18NPT	0.59	0.59	2.80
⑦	MALE THREAD ×ELBOW	1/2-14NPT	0.63	0.59	1.26	3.66

■ LAB COCK 1/2inch MALE THREAD×ELBOW16mm



MATERIAL AND WORKING TEMPERATURE

Body material	Unplasticized Polyvinyl Chloride(PVC)
Working Temperature	0℃ - 50℃ (30° F - 120° F)
Max.Working Pressure	1.0MPa{10.2kgf/cm²}[150PSI]
End Connectors	R1/2inch Male thread×Elbow16mm

PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC
②	BALL & STEM	1	PVC
③b	END CONNECTOR	1	PVC
③c	END CONNECTOR	1	PVC
④	GLAND	1	PVC
⑤	SEAT	2	PTFE
⑥	O-RING	1	EPDM, Others
⑦	HANDLE	1	ABS
⑧	ELBOW	1	PVC

Panel Mounting

●Diaphragm Valve Type14	15mm - 100mm(1/2inch - 4inch)
●Ball Valve Type21	15mm - 100mm(1/2inch - 4inch)

■Procedure

Refer to the User's Manual for Metal Insert (Ensat) by the Maker.

■Bottom Stand Dimension

Diaphragm Valve Type14

Unit:mm(inch)

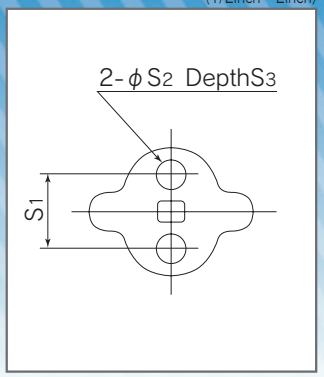
Nominal Size mm(inch)	S1	S2	S3
15mm - 32mm ($1/2$ - $1\,1/4$)	25 (0.98)	7 (0.28)	13 (0.51)
40mm, 50mm ($1\,1/2$, 2)	45 (1.8)	9 (0.35)	15 (0.59)
65mm ($2\,1/2$)	85 (3.35)	11 (0.43)	20 (0.79)
80mm (3)	100 (3.94)	15 (0.59)	28 (1.10)
100mm (4)	120 (4.72)	15 (0.59)	28 (1.10)

Ball Valve Type21

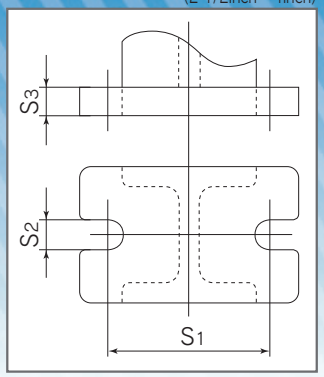
Unit:mm(inch)

Nominal Size mm(inch)	S1	S2	S3
15mm - 25mm ($1/2$ - 1)	19 (0.75)	7.3 (0.29)	11 (0.43)
32mm - 50mm ($1\,1/4$ - 2)	30 (1.18)	9 (0.35)	15 (0.59)
65mm ($2\,1/2$)	48 (1.89)	9 (0.35)	6 (0.24)
80mm (3)	55 (2.17)	11 (0.43)	7 (0.28)
100mm (4)	65 (2.56)	11 (0.43)	8 (0.31)

Diaphragm Valve Type14: 15mm - 100mm (1/2inch - 4inch)
Ball Valve Type21: 15mm - 50mm (1/2inch - 2inch)

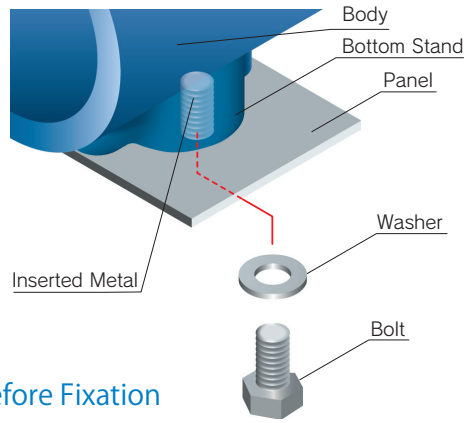


Ball Valve Type21: 65mm - 100mm (2 1/2inch - 4inch)

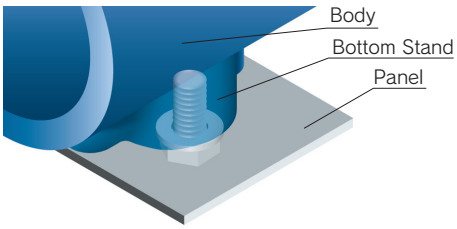


■Fixation of Bottom Stand with Panel

Nominal size 15 - 50mm(1/2inch - 2inch)

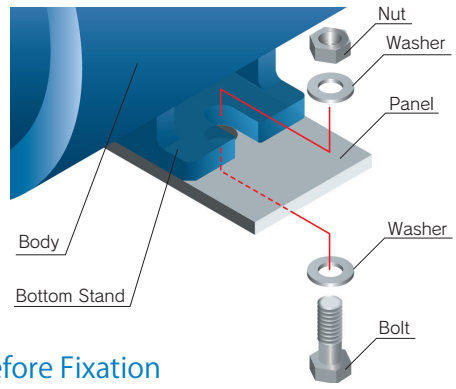


Before Fixation

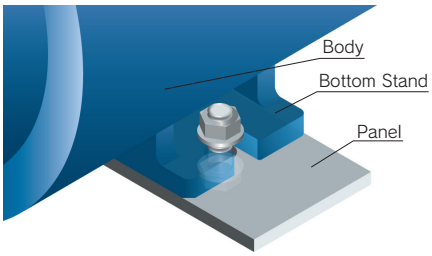


After Fixation

Nominal size 65 - 100mm(2 1/2inch - 4inch)



Before Fixation



After Fixation

ASAHI AV VALVE

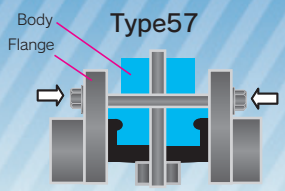
BUTTERFLY VALVE TYPE 57 40mm - 350mm(1 1/2inch - 14inch)

FEATURES

Excellent Sealing Performance
Sealing performance has been improved due to its specially designed seat "PAT pending".

Lowered Operating Torque
Required operating torque has been reduced by applying specially designed seat.

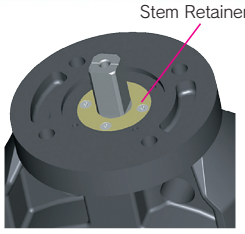
Protection for Over Tightening of Mating Flange
The valve body acts as a protector against over tightening to avoid breakage or deformation of the seat. (Please refer to sketch of below)



Body contacts flanges to protect the seat from deformation and to avoid increased operating torque.

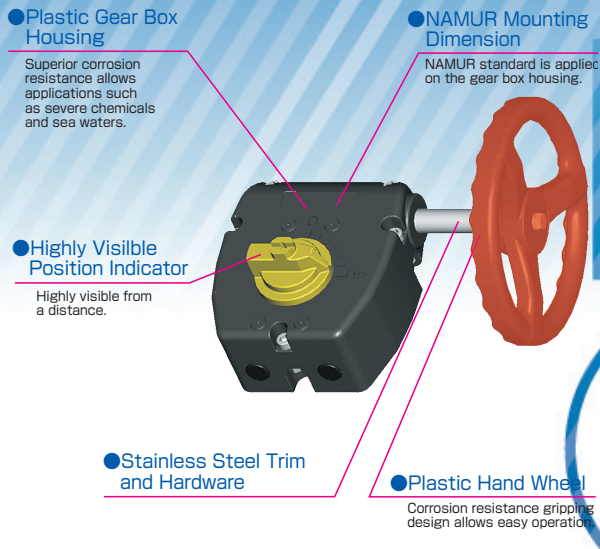
Spherical Design Disc
Spherical design disc provides superior durability and improved Cv value.

Stem Retainer
Stem retainer allows field automation or accessories preventing the stem from being removed.



Plastic Gear Box
Corrosion resistant plastic gear box provides a broader range of applications.

Wetted Part Lubricants Free
(SPECIAL)

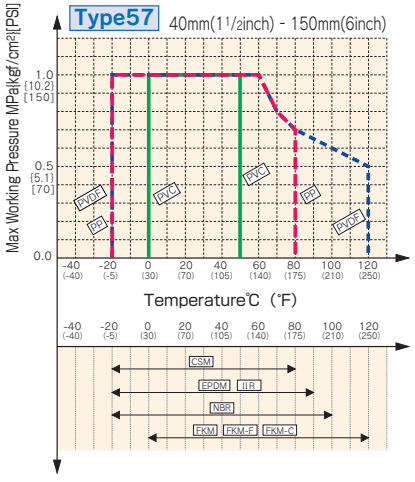


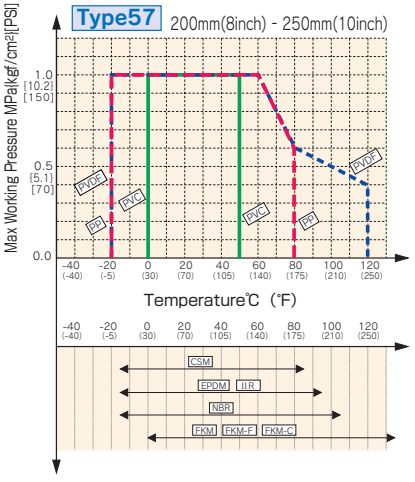
Note:Long stem type and chain drive type are available on special request.

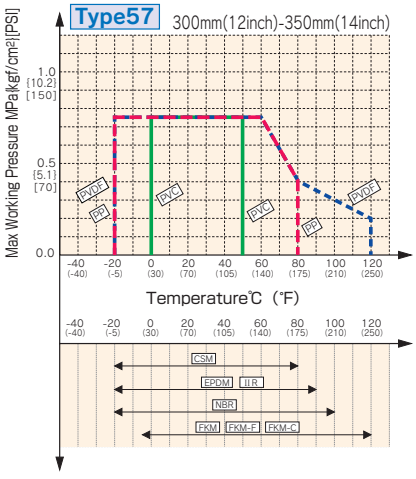
SPECIFICATIONS

Body material	Working Temperature ℃ (°F)	Max. Working Pressure MPa{kgf/cm²}[PSI]	
		40mm-250mm (1 1/2inch~10inch)	300mm・350mm (12inch・14inch)
Polyvinyl Chloride (PVC)	0 - 50 (30 - 120)	1.0 {10.2} [150]	0.75 {7.7} [110]
Polypropylene(PP)	−20 - 80 (20 - 175)	1.0 {10.2} [150]	0.75 {7.7} [110]
Polyvinylidene Fluoride(PVDF)	−20 - 120 (20 - 250)	1.0 {10.2} [150]	0.75 {7.7} [110]

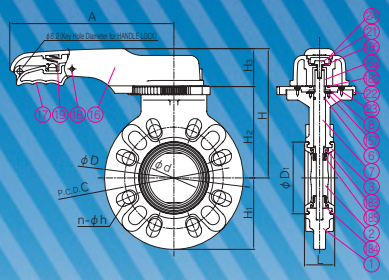
WORKING PRESSURE VS. TEMPERATURE



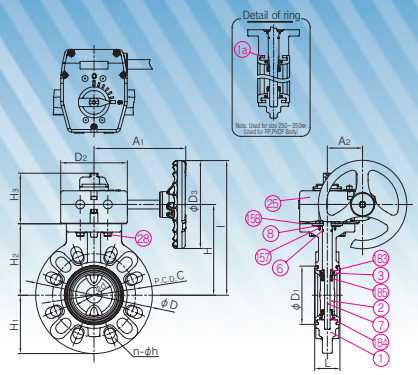




Lever Type ● 40mm(1 1/2inch) – 200mm(8inch)



Gear Type ● 40mm(1 1/2inch) – 350mm(14inch)



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/DISC・SEAT BUSH PVC/PP PP/PP PVDF/PVDF	⑰	HANDLE LEVER	1	PPG
②	DISC	1		⑱	PIN	1	PPG
⑱③	SEAT BUSH(A)	1		⑲	SPRING	1	STAINLESS STEEL(SUS 304)
⑱④	SEAT BUSH(B)	1		㉑	BOLT (B)	1	STAINLESS STEEL(SUS 304)
③	SEAT	1	EPDM FKM Others	㉒	LOCKING PLATE	1	PPG
⑥	O-RING(C)	1		㉓	SCREW (B)	4	STAINLESS STEEL(SUS 304)
⑱⑤	O-RING(I)	4		㉔	CAP(A)	1	PP
⑦	STEM	1	STAINLESS STEEL(SUS 403) STAINLESS STEEL(SUS 316)	⑮⑦	SCREW (F)	4	STAINLESS STEEL(SUS 304)
⑧	STEM HOLER(A)	1	PP	⑱②	O-RING(H)	1	EPDM
⑯	HANDLE(A)	1	PP	⑱⑥	RUBBER+WASHER	1	STAINLESS STEEL304 +EPDM
⑯a	HANDLE INSERTED METAL	1	STAINLESS STEEL(SUS 316L)				

PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/DISC・SEAT BUSH PVC/PP PP/PP PVDF/PVDF	⑧	STEM RETAINER(A)	1	PP
②	DISC	1		㉕	GEAR BOX	1	PLASTIC etc.
⑱③	SEAT BUSH(A)	1		㉘	BOLT (C)	4	STAINLESS STEEL(SUS 304)
⑱④	SEAT BUSH(B)	1		⑮⑦	SCREW (F)	4	STAINLESS STEEL(SUS 304)
③	SEAT	1	EPDM FKM Others	⑮⑧	GASKET (L)	1	EPDM
⑥	O-RING(C)	1		①a	RING	2	STEEL400 (Unichrome coated) PP,PVDF Body used for size 250mm-350mm
⑱⑤	O-RING(I)	4					
⑦	STEM	1	STAINLESS STEEL(SUS 403) STAINLESS STEEL(SUS 316)				

DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		d	DIN PN 10			D	D_1	D_2	D_3	L	H		H_1	H_2		H_3		I	A	A_1	A_2	Number of handle wheel rotation
mm	inch		C	n	h						LEVER	GEAR		LEVER	GEAR	LEVER	GEAR					
40	1 1/2	45	110	4	18	150	71	122	160	39	156	130	75	100	95	56	92	210	220	167	64	
50	2	56	125	4	18	165	81	122	160	42	166	140	83	110	105	56	92	220	220	167	64	
65	2 1/2	69	145	4	18	185	95	122	160	46	176	150	93	120	115	56	92	230	220	167	64	
80	3	77	160	8	18	211	105	122	160	46	191	165	106	135	130	56	92	245	250	167	64	
100	4	102	180	8	18	238	134	122	160	56	206	180	119	150	145	56	92	260	250	167	64	
125	5	129	210	8	18	263	169	122	160	66	237	195	132	168	160	69	92	275	320	167	64	9.5
150	6	150	240	8	22	285	190	122	160	71	252	210	143	183	175	69	92	290	320	167	64	
200	8	195	295	8	22	340	242	122	160	87	283	241	170	214	206	69	92	321	400	167	64	
250	10	250	350	12	22	421	302	122	160	112	–	276	211	–	241	–	92	356	–	167	64	
300	12	303	400	12	22	488	360	188	300	129	–	340	244	–	298	–	108	490	–	272	99	
350	14	351	460	16	22	539	393	188	300	129	–	367	270	–	325	–	108	517	–	272	99	

ANSI

Unit:inch

Nominal Size		d	ANSI CLASS 150			D	D_1	D_2	D_3	L	H		H_1	H_2		H_3		I	A	A_1	A_2	Number of handle wheel rotation
inch	mm		C	n	h						LEVER	GEAR		LEVER	GEAR	LEVER	GEAR					
1 1/2	40	1.77	3.88	4	0.62	5.91	2.80	4.80	6.30	1.54	6.14	5.12	2.95	3.94	3.74	2.20	3.62	8.27	8.66	6.57	2.52	
2	50	2.20	4.75	4	0.75	6.50	3.19	4.80	6.30	1.65	6.54	5.51	3.25	4.33	4.13	2.20	3.62	8.66	8.66	6.57	2.52	
2 1/2	65	2.72	5.50	4	0.75	7.28	3.74	4.80	6.30	1.81	6.93	5.91	3.64	4.72	4.53	2.20	3.62	9.06	8.66	6.57	2.52	
3	80	3.03	6.00	4	0.75	8.31	4.13	4.80	6.30	1.81	7.52	6.50	4.15	5.31	5.12	2.20	3.62	9.65	9.84	6.57	2.52	
4	100	4.02	7.50	8	0.75	9.37	5.28	4.80	6.30	2.20	8.11	7.09	4.69	5.91	5.71	2.20	3.62	10.24	9.84	6.57	2.52	
5	125	5.08	8.50	8	0.88	10.35	6.65	4.80	6.30	2.60	9.33	7.68	5.20	6.61	6.30	2.72	3.62	10.83	12.60	6.57	2.52	9.5
6	150	5.91	9.50	8	0.88	11.22	7.48	4.80	6.30	2.80	9.92	8.27	5.61	7.20	6.89	2.72	3.62	11.42	12.60	6.57	2.52	
8	200	7.68	11.75	8	0.88	13.39	9.53	4.80	6.30	3.43	11.14	9.49	6.69	8.43	8.11	2.72	3.62	12.64	15.75	6.57	2.52	
10	250	9.84	14.25	12	1.00	16.57	11.89	4.80	6.30	4.41	–	10.87	8.31	–	9.49	–	3.62	14.02	–	6.57	2.52	
12	300	11.93	17.00	12	1.00	19.21	14.17	7.40	11.81	5.08	–	13.39	9.61	–	11.73	–	4.25	19.29	–	10.71	3.90	
14	350	13.82	18.75	12	1.12	21.22	15.47	7.40	11.81	5.08	–	14.45	10.63	–	12.80	–	4.25	20.35	–	10.71	3.90	

Note. The shape and appearance of the actual assembly may differ slightly in nominal size as compared with this drowing.

ASAHI AV VALVE

BUTTERFLY VALVE TYPE 56 400mm(16inch)

■ Option

Long stem type and chain drive type are available on special request.

FEATURES

Step Further to All Plastic

TYPE 56 with lever operator butterfly valve which metal parts are reduced as much as possible.

Easy Transformation of Operation Devices

Application of modular design on top flange provides the valve with flexible and easy change of operation types, from lever to gear and from manual to automatic and so on.

Excellent Handling and Safety

Application of newly innovative locking device(patent pend-ing)for lever type gives the valve opening degrees by 19 levels.
And also handle lever with locking hole provides one solution against wrong handle operation.

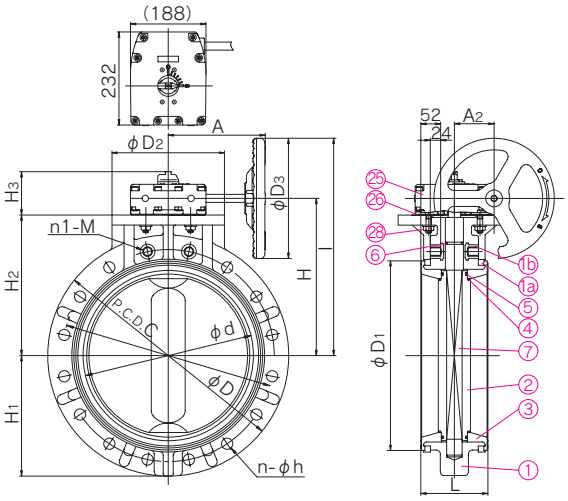
Handle Lever with Flexibility of Mounting Direction

Symmetric design on top flange offers easy change of handle lever mounting direction at working site.

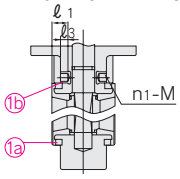
SPECIFICATIONS

Body material	Nominal size mm(inch)	Working Temperature ℃ (°F)	Max.Working Pressure (at R.T.) MPa{kgf/cm2}[PSI]
			400mm(16inch)
PP	400(16)	−20 - 80(−5 - 175)	0.6 {6.1} [87]
PVDF	400(16)	−20 - 120(−5 - 250)	0.6 {6.1} [87]

※R.T.…Room Temperature



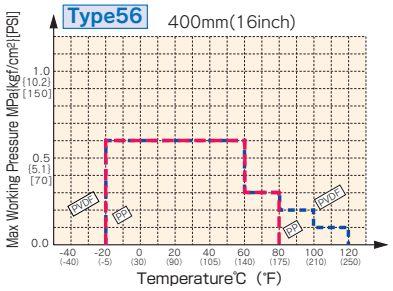
DETAIL OF INSERTED NUTS



NOM. SIZE		M	BOLT HOLES n	Q'TY OF INSERTED NUT		ℓ1	ℓ3
mm	inch			UPPER	TOTAL (2×n1)		
400	16	M24	14	2×2	4	46	24

※JIS 10K 400mm(16inch)only

WORKING PRESSURE VS. TEMPERATURE



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/DISC PP/PP PVDF/PVDF	⑥	O-RING(C)	1	EPDM,FKM,OTHERS
				⑦	STEM	1	STAINLESS STEEL(SUS403)
②	DISC	1		㉕	GEAR BOX	1	PLASTIC etc.
				㉘	BOLT (C)	1	STAINLESS STEEL304
③	STEM SEAT	1	EPDM,FKM,OTHERS	⑯	RING[1]	2	STEEL(SS400)
④	O-RING(A)	2	EPDM,FKM,OTHERS	⑯	INSERTED METAL OF BODY[2]	4	COPPER ALLOY(C3604)
⑤	O-RING(B)	2	EPDM,FKM,OTHERS				

Note：1) Used for PP body: with epoxy powder coat
2) Used for JIS 10K400mm(16inch)

DIMENSIONS TABLE

DIN Unit:mm

Nominal Size		d	DIN PN 10			D	D1	D2	D3	L	H	H1	H2	H3	I	A	A2	Numder of handle rotation
mm	inch		C	n	h													
400	16	406	515	16	26	600	470	235	300	169	390	300	350	108	540	242	99.2	9.5

ANSI Unit:inch

Nominal Size		d	ANSI Class 150			D	D1	D2	D3	L	H	H1	H2	H3	I	A	A2	Numder of handle rotation
inch	mm		C	n	h													
16	400	15.98	21.25	16	1.12	23.62	18.50	9.25	11.81	6.65	15.35	11.81	13.78	4.25	21.26	9.53	3.91	9.5

BUTTERFLY VALVE TYPE 75 450mm - 600mm(18inch - 24inch)

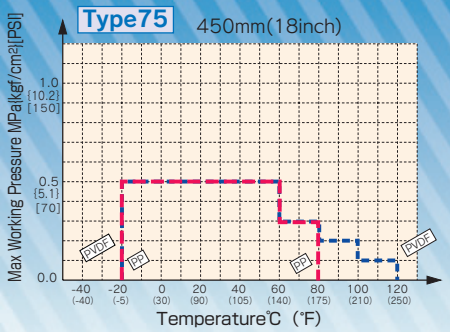
● 450mm(18inch) ─ 600mm(24inch)

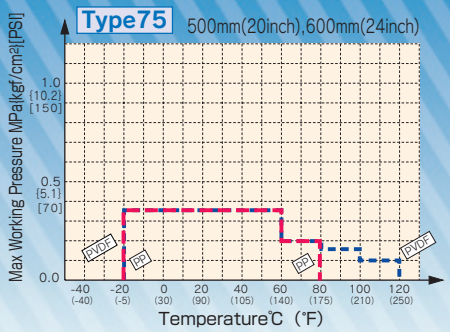
SPECIFICATIONS

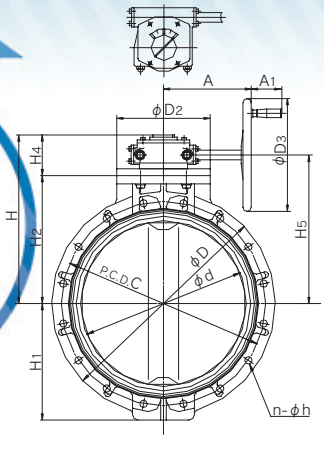
Body material	Nominal size mm(inch)	Working Temperature ℃ (°F)	Max.Working Pressure (at R.T.) MPa{kgf/cm²}[PSI]		
			450mm(18inch)	500mm(20inch)	600mm(24inch)
PP	450 - 600(18 - 24)	−20 - 80(−5 - 175)	0.5 {5.1} [73]	0.5 {5.1} [73]	0.5 {5.1} [73]
PVDF	450 - 600(18 - 24)	−20 - 120(−5 - 250)	0.35 {3.6} [51]	0.35 {3.6} [51]	0.35 {3.6} [51]

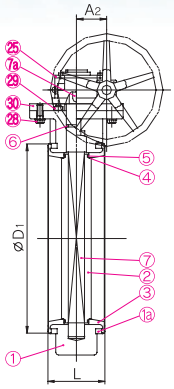
※R.T.…Room Temperature

WORKING PRESSURE VS. TEMPERATURE

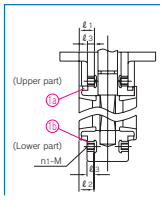








● DETAIL OF THREADED INSERTS



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY / DISC PP / PP PVDF / PVDF	⑦a	KEY(A)	1	CARBON STEEL(S45C)
②	DISC	1		㉕	GEAR BOX	1	CAST ALMINIUM ALLOY (FC250)
③	SEAT	1	EPDM FKM others	㉘	BOLT(A)	4	STAINLESS STEEL(SUS304)
④	O-RING(A)	2		㉙	BOLT(D)	4	STAINLESS STEEL(SUS304)
⑤	O-RING(B)	2		㉚	STAND	1	CHROMIZED STEEL(SS400)
⑥	O-RING(C)	1		①a	RING	2	CHROMIZED STEEL(SS400)
⑦	STEM	2	STAINLESS STEEL(SUS403)				

1) Used only for JIS 10K.

■ Option

Long stem type and chain drive type are available on special request.

DIMENSIONS TABLE

Nominal Size mm	Nominal Size inch	M	BOLT HOLES n	Q'TY OF INSERTED NUT UPPER	Q'TY OF INSERTED NUT LOWER	Q'TY OF INSERTED NUT TOTAL (2×n1)	ℓ1	ℓ2	ℓ3
450	18	M24	16	2×2	2×2	8	43	48	24
500	20	M24	16	2×2	2×2	8	43	53	24
600	24	M30	20	2×2	2×2	8	58	58	30

DIN

Unit:mm

Nominal Size mm	Nominal Size inch	d	DIN 2501 PN10 C	n	h	D PP	D PVDF	D1	D2	D3	L	H	H1	H2	H4	H5	A	A1	A2
450	18	452	565	20	26	633	630	525	340	410	179	509	315	370	139	445	319	85	110
500	20	502	620	20	26	683	680	575	340	410	190	539	350	400	139	475	319	85	110
600	24	603	730	20	30	793	790	686	340	410	209	604	424	465	139	540	319	85	110

ANSI

Nominal Size inch	Nominal Size mm	d	ANSI Class150 C	n	h	D PP	D PVDF	D1	D2	D3	L	H	H1	H2	H4	H5	A	A1	A2
18	450	17.80	22.75	16	1.25	24.92	24.80	20.67	13.39	16.14	7.05	20.04	12.40	14.57	5.47	17.52	12.56	3.35	4.33
20	500	19.76	25.00	20	1.25	26.89	26.77	22.64	13.39	16.14	7.48	21.22	13.78	15.75	5.47	18.70	12.56	3.35	4.33
24	600	23.74	29.50	20	1.38	31.22	31.10	27.01	13.39	16.14	8.23	23.78	16.69	18.31	5.47	21.26	12.56	3.35	4.33

ASAHI AV VALVE

BUTTERFLY VALVE TYPE 57L (Lug Style)

FEATURES

●PDCPD

Easy Piping Maintenance

It is not necessary to remove fluid from the pipe line.

Strong In Pulsating Pressure

3 Times Stronger than a Major Competitor.

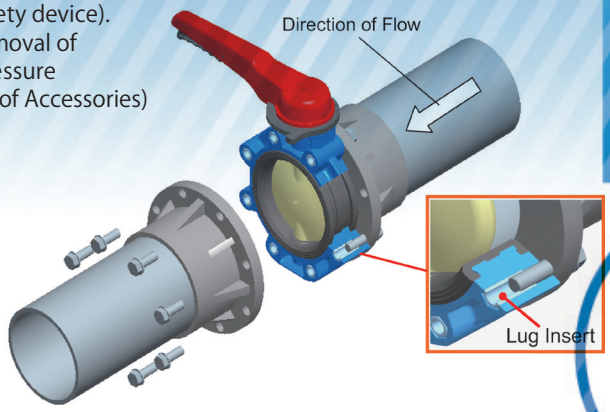
Same Features as Type57

a) Protection for Over-Tightening Constant Stem Torque.
b) New Designed Disc and Seat (Liner).
- Longer Life
- Lower Sealing Torque
- Higher Cv Value

c) Plastic Gear Box.
- Extremely Corrosion Resistant
- Easy Operation

d) Stem Retainer (Safety device).
- Prevention of Removal of Stem under Pressure (Safe Installation of Accessories)

●PVC



SPECIFICATIONS

- DIN Standard

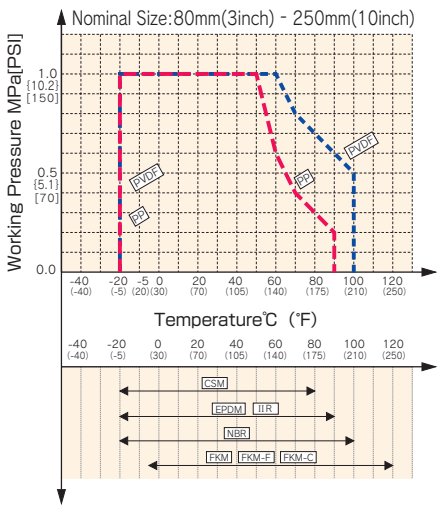
Body material	Standard	Working Temperature ℃ (℉)	Max. Working Pressure MPa{kgf/cm²}[PSI]
			80mm - 250mm (3inch - 10inch)
Poly dieyclo penta diene (PDCPD)	JIS, DIN	−5 - 100 (20 - 210)	1.0MPa{10.2kgf/cm2}[150PSI]

- ANSI Standard

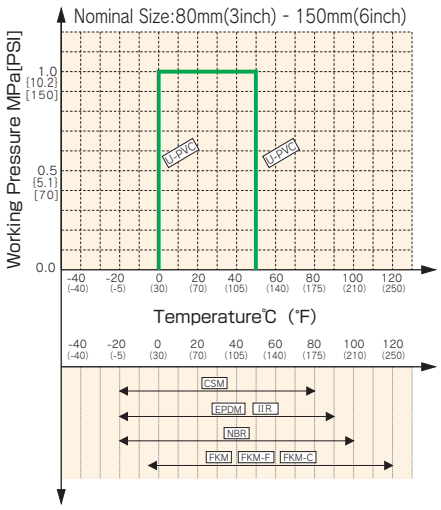
Body material	Standard	Working Temperature ℃ (℉)	Max. Working Pressure MPa{kgf/cm²}[PSI]	
			125mm - 250mm (3inch -10inch)	300mm (12inch)
Polyvinyl Chioride (PVC)	ANSI	0 - 50 (30 - 120)	1.0MPa{10.2kgf/cm2}[150PSI]	0.75MPa{7.7kgf/cm2}[110PSI]

WORKING PRESSURE VS. TEMPERATURE

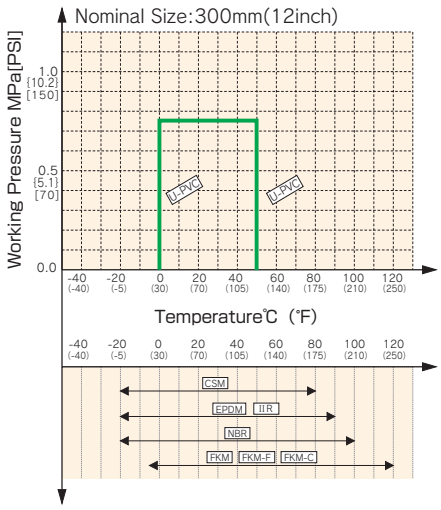
LUG-BUTTERFLY VALVE TYPE57L(WAFER)



LUG-BUTTERFLY VALVE TYPE57L(WAFER)



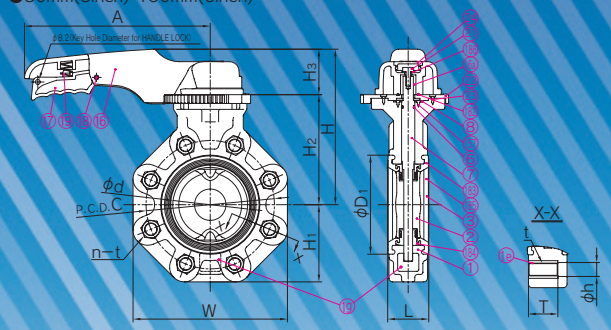
LUG-BUTTERFLY VALVE TYPE57L(WAFER)



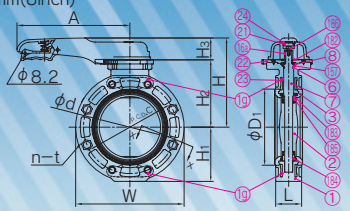
Lever Type

DIMENSION

●80mm(3inch)-150mm(6inch)



●200mm(8inch)



DIMENSIONS TABLE

Unit:mm

Nominal Size mm	inch	d	DIN PN10 C	n	h	D_1	L	H	H_1	H_2	H_3	A	W	T	t
80	3	77	160	8	18	105	46	191	94	135	56	250	193	40	M16×40 width across fat 24
100	4	102	180	8	18	134	56	206	105	150	56	250	217	40	M16×40 width across fat 24
125	5	129	210	8	18	169	66	237	124	168	69	320	247	50	M20×50 width across fat 30
150	6	150	240	8	23	190	71	252	138	183	69	320	285	50	M20×50 width across fat 30
200	8	195	295	8	23	242	87	283	173	214	69	400	345	60	M20×50 width across fat 30

Unit:inch

Nominal Size mm	inch	d	ANSI 150lb C	n	h	D	D_1	L	H	H_1	H_2	H_3	A	W	T	t
150	6	5.91	9.50	8	0.87	10.63	7.48	2.80	9.92	5.55	7.20	2.72	12.60	10.67	1.97	3/4-10 UNC
200	8	7.68	11.75	8	0.87	12.60	9.53	3.43	11.14	6.61	8.43	2.72	15.75	12.76	2.26	3/4-10 UNC

Note : The shape and appearance of assembly differ alittle with nominal size compared to this drawing.

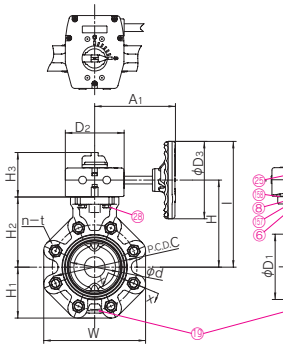
PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	REMARKS	No.	DESCRIPTION	Pcs.	MATERIAL	REMARKS
①	BODY	1	PDCPD		⑰	HANDLE LEVER	1	PPG	
⑯e	LUG-INSERT	8	STAINLESS STEEL(SUS304)	used for 80-150mm	⑱	PIN	1	PPG	
		4	(Antiscoring coat)	used for 200mm	⑲	SPRING	1	STAINLESS STEEL(SUS304)	
⑲	BODY-INSERT	1	STAINLESS STEEL(SUS304)	used for 125,150mm	㉑	BOLT(B)	1	STAINLESS STEEL(SUS304)	
		2	STAINLESS STEEL(SCS13)	used for 200mm	㉒	LOCKING PLATE	1	PPG	
②	DISC	1	PP,PVDF		㉓	SCREW(B)	4	STAINLESS STEEL(SUS304)	
③	SEAT	1			㉔	CAP(A)	1	PP	
⑥	O-RING(C)	1	EPDM,FKM,FKM-F,FKM-C		㊲	SCREW(F)	4	STAINLESS STEEL(SUS304)	
㊺	O-RING(I)				㊷	O-RING(H)	1	EPDM	
⑦	STEM	1	STAINLESS STEEL(SUS403)		㊸	SEAT BUSH(A)	1	PP,PVDF	
⑧	STEM HOLDER(A)	1	PP		㊹	SEAT BUSH(B)	1		
⑯	HANDLE(A)	1	PP		㊻	RUBBER+WASHER	1	STAINLESS STEEL(SUS304) +EPDM	
⑯a	HANDLE INSERTED METAL	1	STAINLESS STEEL(SUS316L)						

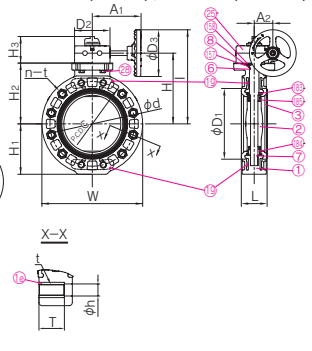
Gear Type

DIMENSION

●80mm(3inch)-150mm(6inch)



●200mm(8inch),250mm(10inch)



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	REMARKS
①	BODY	1	PDCPD,PVC	
⑯e	LUG-INSERT	8	STAINLESS STEEL(SUS304)	used for 80-150,250mm
		4	(Antiscoring coat)	used for 200mm
⑲	BODY-INSERT	1	STAINLESS STEEL(SUS304)	used for 125,150mm
		2	STAINLESS STEEL(SCS13)	used for 200,250mm
②	DISC	1	PP,PVDF	
③	SEAT	1		
⑥	O-RING(C)	1	EPDM,FKM,FKM-F,FKM-C	
㊺	O-RING(I)			
⑦	STEM	1	STAINLESS STEEL(SUS403)	
⑧	STEM HOLDER(A)	1	PP	
㉕	GEAR BOX	1	PLASTIC etc.	
㉘	BOLT(C)	4	STAINLESS STEEL(SUS403)	
㊲	SCREW(F)	4	STAINLESS STEEL(SUS403)	
㊽	GASKET(L)	1	EPDM	
㊸	SEAT BUSH(A)	1	PP,PVDF	
㊹	SEAT BUSH(B)	1		

DIMENSIONS TABLE

DIN

Nominal Size mm	inch	d	DIN PN10 C	n	h	D_1	D_2	D_3	L	H	H_1	H_2	H_3	I	A_1	A_2	W	T	t	Number of handle wheel rotation	GEAR BOX TYPE
80	3	77	160	8	18	105	122	160	46	165	94	130	92	245	167	64	193	40	M16×40 width across fat 24	9.5	TYPE1
100	4	102	180	8	18	134	122	160	56	180	105	145	92	260	167	64	217	40	M16×40 width across fat 24		
125	5	129	210	8	18	169	122	160	66	195	124	160	92	275	167	64	247	50	M16×50 width across fat 24		
150	6	150	240	8	23	190	122	160	71	210	138	175	92	290	167	64	285	50	M20×50 width across fat 30		
200	8	195	295	8	23	242	122	160	87	241	173	206	92	321	167	64	345	60	M20×60 width across fat 30		
250	10	250	350	12	23	302	122	160	112	276	208	241	92	356	167	64	415	70	M20×70 width across fat 30		

ANSI

Nominal Size mm	inch	d	ANSI 150lb C	n	h	D	D_1	D_2	D_3	L	H	H_1	H_2	H_3	I	A_1	A_2	W	T	t	Number of handle wheel rotation	GEAR BOX TYPE
150	6	5.91	9.50	8	0.87	10.63	7.48	4.80	6.30	2.80	8.27	5.55	6.89	3.62	11.42	6.57	2.52	10.67	1.97	3/4-10 UNC	9.5	TYPE1
200	8	7.68	11.75	8	0.87	12.60	9.53	4.80	6.30	3.43	9.49	6.61	8.11	3.62	12.64	6.57	2.52	12.76	2.26	3/4-10 UNC		
250	10	9.84	14.25	12	0.98	15.75	11.89	4.80	6.30	4.41	10.87	7.95	9.49	3.62	14.02	6.57	2.52	15.91	2.52	7/8-9 UNC		
300	12	11.93	17.01	12	0.98	18.31	14.17	7.40	11.81	5.08	13.39	9.29	11.73	4.52	19.29	9.53	3.90	18.54	2.52	7/8-9 UNC		TYPE3

NOTE. The shape and appearance of assembly differ little with nominal size compared to this drawing.

ASAHI AV VALVE

BUTTERFLY VALVE TYPE 55 50mm - 250mm(2inch - 10inch)

FEATURES

Extreme Corrosion Resistance

All of the wetted parts are completely covered with PTFE, which can result in excellent performance against a highly corrosive media.
Therefore BUTTERFLY VALVE TYPE 55 is the most suitable valve for lines of highly corrosive media in factories of Soda electrolysis, Chemicals and Agricultural chemicals.

Improved Cv Value

Thinner disc makes the area of flow passage wider and the Cv value is improved as a result.

Excellent resistibility to high and low temperature.

BUTTERFLY VALVE TYPE 55 can be used continuously at the range from -20℃ to 100℃ (-5°F to 210°F)

Simple Structure for Stem Sealing

Simple structure for stem sealing offers high reliability and also allows for easy maintenance.

APPLICATIONS

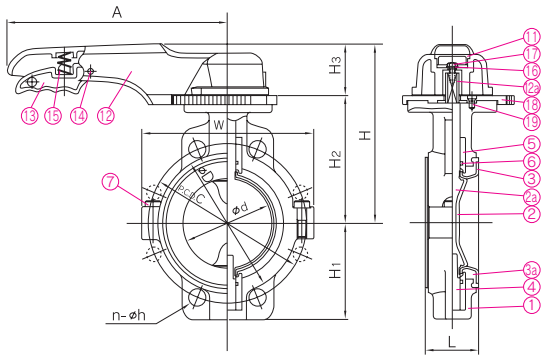
Electrolytic soda, agricultural chemicals, chemicals, steel, aluminum refining exhaust fumes dischargers, desulfurizers, erosive and corrosive solution lines

SPECIFICATIONS

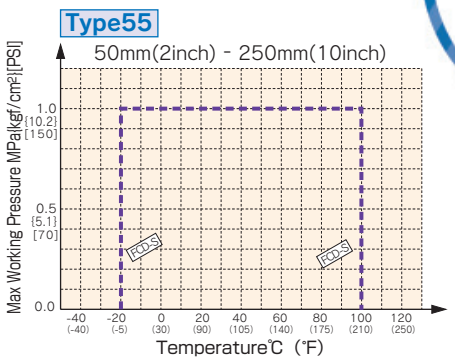
Body material	DUCTILE CAST IRON (FCD-S)[with epoxy powder coat]	Nominal size mm(inch)	50(2), 80(3), 100(4), 125(5) 150(6), 200(8), 250(10)
Disc・Seat material	PTFE	Max. Working Pressure	1.0MPa{10.2kgf/cm²}[150PS1]
		Working Temperature	−20℃ - 100℃(−5° F - 210° F)

DIMENSION

Lever



WORKING PRESSURE VS. TEMPERATURE



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	FCD-S(Epoxy Powder Coat)
②	DISC	1	PTFE
②a	DISC INSERT	1	STAINLESS STEEL304
③	SEAT	1	PTFE
③a	CUSHION RUBBER	1	CR
④	STEM	1	STAINLESS STEEL304
⑤	BUSH	2	STAINLESS STEEL304
⑥	O-RING	2	EPDM
⑦	BOLT(A)	—	STAINLESS STEEL304
⑪	CAP	1	PP
⑫	HANDLE	1	PP
⑫a	INSERTED METAL OF HANDLE	1	STAINLESS STEEL304
⑬	HANDLE LEVER	1	PPG
⑭	PIN	1	PPG
⑮	SPRING	1	STAINLESS STEEL304
⑯	WASHER	1	STAINLESS STEEL304
⑰	BOLT(C)	1	STAINLESS STEEL304
⑱	LOCKING PLATE	1	PPG
⑲	SCREW	4	STAINLESS STEEL304

DIMENSIONS TABLE

DIN Unit:mm

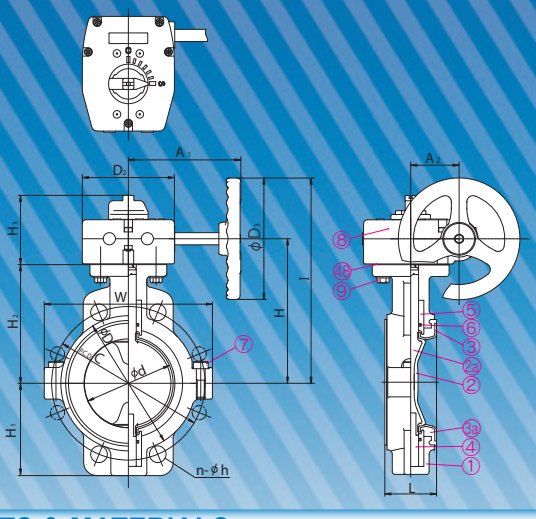
Nominal Size mm	Nominal Size inch	d	DIN PN 10 C	DIN PN 10 n	DIN PN 10 h	D	L	H	H1	H2	H3	W	A
50	2	55	125	2(4)	18	90	44	161	61	105	56	116	220
80	3	80	160	4(8)	18	125	54	180	95	124	56	152	250
100	4	100	180	4(8)	18	154	59	196	99	140	56	174	250
125	5	125	210	4(8)	18	181	64	235	120	166	69	206	320

ANSI Unit:inch

Nominal Size inch	Nominal Size mm	d	ANSI Class 150, ANSI Class 125 C	ANSI Class 150, ANSI Class 125 n	ANSI Class 150, ANSI Class 125 h	D	L	H	H1	H2	H3	W	A
2	50	2.17	4.75	2 (4)	0.75	3.54	1.73	6.43	2.40	4.13	2.20	4.57	8.66
3	80	3.15	6.00	—(4)	0.75	4.92	2.13	7.09	3.74	4.88	2.20	5.98	9.84
4	100	3.94	7.50	4 (8)	0.75	6.06	2.32	7.72	3.90	5.51	2.20	6.85	9.84
5	125	4.92	8.50	4 (8)	0.88	7.13	2.52	9.25	4.72	6.54	2.72	8.11	12.60

DIMENSION

Gear



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	※FCD-S(Epoxy Powder Coat)	⑤	BUSH	2	STAINLESS STEEL304
②	DISC	1	PTFE	⑥	O-RING	2	EPDM
②a	DISC INSERTED METAL	1	STAINLESS STEEL304	⑦	BOLT(A)	—	STAINLESS STEEL304
③	SEAT	1	PTFE	⑧	GEAR BOX	1	PLASTIC etc.
③a	SEAT CUSION	1	CR	⑨	BOLT(B)	4	STAINLESS STEEL304
④	STEM	1	STAINLESS STEEL304				

Note : FCD-S: DUCTILE CAST IRON

DIMENSIONS TABLE

DIN Unit:mm

Nominal Size		d	DIN 2501 PN10			D	D_2	D_3	L	H	H_1	H_2	H_3	I	W	A_1	A_2	Number of handle rotation	GEAR BOX MODEL No.
mm	inch		C	n	h														
50	2"	55	125	2(4)	18	90	122	160	44	135	61	100	92	215	116	167	64		
80	3	80	160	—(4)	18	125	122	160	54	154	95	119	92	234	152	167	64		
100	4	100	180	4(8)	18	154	122	160	59	170	99	135	92	250	174	167	64		
125	5	125	210	4(8)	18	181	122	160	64	193	120	158	92	273	206	167	64	9.5	TYPE1
150	6	150	240	4(8)	22	211	122	160	75	210	137	175	92	290	236	167	64		
200	8	191	295	4(8)	22	265	122	160	85	240	163	205	92	320	282	167	64		
250	10	245	350	4(12)	22	325	122	160	96	275	200	240	92	355	341	167	64		

NOTE. The shape and appearance of assembly differ little with nominal size compared to this drawing.

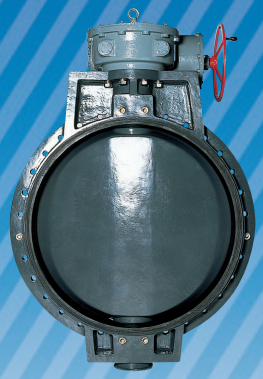
ANSI Unit:mm

Nominal Size		d	ANSI Class 150, ANSI Class 125			D	D_2	D_3	L	H	H_1	H_2	H_3	I	W	A_1	A_2	Number of handle rotation	GEAR BOX MODEL No.
mm	inch		C	n	h														
50	2"	2.17	4.75	2(4)	0.75	3.54	4.80	6.30	1.73	5.31	2.40	3.94	3.62	8.46	4.57	6.57	2.52		
80	3	3.15	6.00	—(4)	0.75	4.92	4.80	6.30	2.13	6.06	3.74	4.69	3.62	9.21	5.98	6.57	2.52		
100	4	3.94	7.50	4(8)	0.75	6.06	4.80	6.30	2.32	6.69	3.90	5.31	3.62	9.84	6.85	6.57	2.52		
125	5	4.92	8.50	4(8)	0.88	7.13	4.80	6.30	2.52	7.60	4.72	6.22	3.62	10.75	8.11	6.57	2.52	9.5	TYPE1
150	6	5.91	9.50	4(8)	0.88	8.31	4.80	6.30	2.95	8.27	5.39	6.89	3.62	11.42	9.29	6.57	2.52		
200	8	7.52	11.75	4(8)	0.88	10.43	4.80	6.30	3.35	9.45	6.42	8.07	3.62	12.60	11.10	6.57	2.52		
250	10	9.65	14.25	4(12)	1.00	12.80	4.80	6.30	3.78	10.83	7.87	9.45	3.62	13.98	13.43	6.57	2.52		

NOTE. The shape and appearance of assembly differ little with nominal size compared to this drawing.

ASAHI AV VALVE

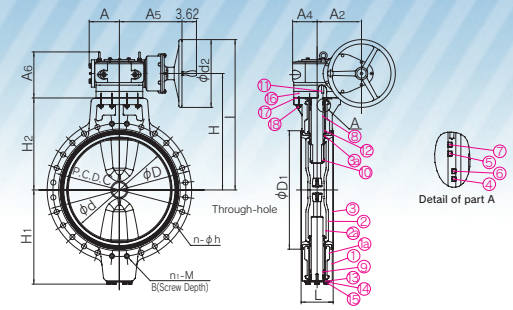
PDCPD BUTTERFLY VALVE 700mm - 1200mm(28inch - 48inch)



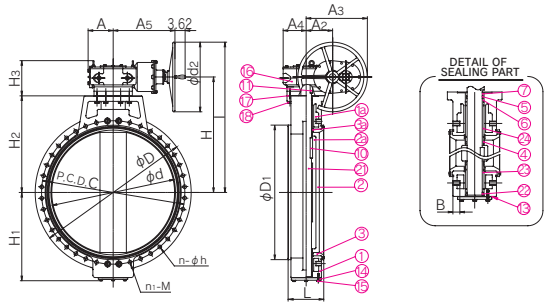
Nominal Size
700mm — 1200mm
(28inch — 48inch)

DIMENSION

● 700mm — 1000mm(28inch — 40inch)



● 1100mm,1200mm(44inch,48inch)



FEATURES

High Corrosion Resistance

The body and disc are made of PDCPD.
And the corrosion-resistant resin, covering the whole contact surface, makes the valve highly resistant against chemical and sea water.

Light Weight

PDCPD having 1/4 or less the specific gravity of iron, the PDCPD BUTTERFLY VALVE is significantly lighter than a metallic butterfly valve.

Tight Seal

A seat made of a synthetic rubber, makes the valve highly water-tight.

Excellent Flow Characteristics

Being concentric and streamlined, the disc gives small resistance to a flow, thus allowing it to be laminar. The seat is kept clean, since it is integrated with the entire internal wall of the body.

Easy to Install

The seat is flanged, so that it needs no gasket. The PDCPD BUTTERFLY VALVE is so light that it is easy install.

Economics

Because of its high corrosion resistance, the PDCPD BUTTERFLY VALVE remains easy to operate after prolonged periods of use and needs little maintenance. Its light weight reduces piping costs.

APPLICATIONS

Irrigation facilities, water supply and sewerage systems, heat accumulators, seawater, air pipelines, etc.

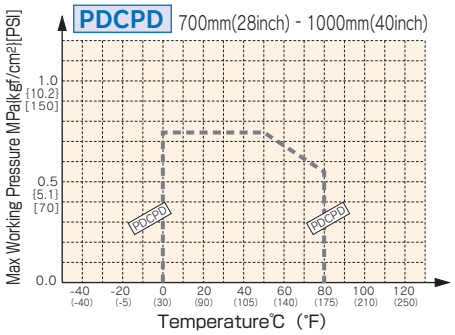
SPECIFICATIONS

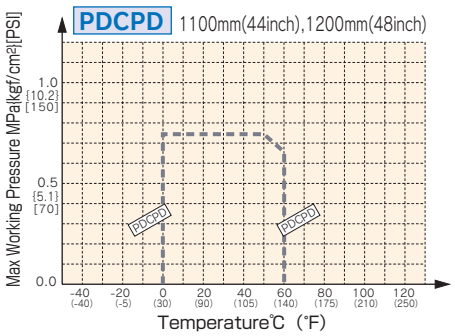
Body material	Body & Disc=PDCPD. Seat=EPDMetc.
Nominal Size	700mm(28inch) - 1200mm(48inch)
Max. Working Pressure	0.75Mpa{7.7kgf/cm²}[110PSI]
Working Temperature	70 - 1000mm(28inch - 40inch) 0 - 80℃ (30˚ F - 176˚ F) 1100, 1200mm(44inch - 48inch) 0 - 60℃ (30˚ F - 140˚ F)

PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PDCPD
②	DISC	1	PDCPD
③	SEAT	1	EPDM
④	O-RING (A)	11	
⑤	O-RING (B)	3	
⑥	O-RING (C)	1	NBR
⑦	O-RING (D)	1	NBR
⑧	STEM (A)	1	STAINLESS STEEL (SUS304)
⑨	STEM (B)	1	STAINLESS STEEL (SUS304)
⑩	KEY (A)	1	CARBON STEEL (S45C)
⑪	KEY (B)	1	CARBON STEEL (S45C)
⑫	BUSH	2	BRONZE CAST (BC6)
⑬	GASKET (A)	1	NONAS SHEET
⑭	STEM HOLDER	1	STAINLESS STEEL (SUS304)
⑮	BOLT (A)	6	STAINLESS STEEL (SUS304)
⑯	GEAR BOX	1	CASTIRON (FC200) etc.
⑰	GASKET (B)	1	NONAS SHEET
⑱	BOLT (B)	8	STAINLESS STEEL (SUS304)
㉑	STEM	1	STAINLESS STEEL (SUS304)
㉒	THRUST	1	BRONZE CAST (BC6)
㉓	BUSH (A)	1	BRONZE CAST (BC6)
㉔	BUSH (B)	1	BRONZE CAST (BC6)
①a	INSERT METAL OF BODY	1	CAST IRON (FCD450)
②a	INSERT METAL OF DISC	1	CAST IRON (FCD450)
③a	INSERT METAL OF RING	2	STAINLESS STEEL (SUS304)

WORKING PRESSURE VS. TEMPERATURE





LIST OF FLANGE STANDARDS

Nominal Size mm(inch)	FLANGE STANDARDS			Max.Working Pressure
	JIS 10K	ANSI Class 150	DIN PN10	MPa {kgf/cm^2} [PSI]
700(28)	○	○	○	0.75 {7.7} [110]
800(32)	○	○	○	0.75 {7.7} [110]
900(36)	○	—	○	0.75 {7.7} [110]
1000(40)	○	○	○	0.75 {7.7} [110]
1100(44)	○	○	—	0.75 {7.7} [110]
1200(48)	○	○	○	0.75 {7.7} [110]

DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		d	DIN PN 10								D	D_1	D_2	L	H	I	H_1	H_2	A	A_2	A_4	A_5	A_6	Gear box Model No.
mm	inch		C	h	N	n	n_1 /side	n_1 /total	M	B														
700	28	670	840	33	24	20	4	8	M27	35	928	760	350	206	685	897	589	590	194	286	158	403	296	BRL-10
800	32	770	950	33	28	20	4	8	M30	35	1034	870	350	240	715	927	619	620	194	286	158	403	296	BRL-10
900	36	870	1050	33	28	24	4	8	M30	35	1168	978	350	240	800	1112	704	705	194	286	158	403	296	BRL-10
1000	40	970	1160	39	28	24	4	8	M33	42	1262	1080	460	300	845	1157	749	750	229	242	210	565	323	BRL-20
1200	48	1170	1380	39	32	28	4	8	M36	42	1488	1300	460	350	992	1310	850	890	229	242	210	565	323	BRL-20

ANSI

Unit:mm

Nominal Size		d	ANSI Class 125								ANSI Class 150								D	D_1	D_2	L	H	I	H_1	H_2	A	A_2	A_4	A_5	A_6	Gear box Model No.
mm	inch		C	h	N	n	n_1 /side	n_1 /total	M	B	C	h	N	n	n_1 /side	n_1 /total	M	B														
700	28	26.38	—	—	—	—	—	—	—	—	34.00	1.38	28	24	4	8	$1^1/_4$	1.38	36.54	29.92	17.13	8.11	29.41	37.99	23.19	23.23	7.64	11.26	6.22	15.87	11.65	BRL-10
800	32	30.31	—	—	—	—	—	—	—	—	38.50	1.62	28	24	4	8	$1^1/_2$	1.38	41.34	34.25	17.13	9.45	30.59	39.17	24.37	24.41	7.64	11.26	6.22	15.87	11.65	BRL-10
900	36	34.25	47.25	1.62	36	32	4	8	$1^1/_2$	1.38	—	—	—	—	—	—	—	—	45.98	38.50	25.00	9.45	33.94	46.46	27.72	27.76	7.64	11.26	6.22	15.87	11.65	BRL-10
1000	40	38.19	—	—	—	—	—	—	—	—	47.25	1.62	36	32	4	8	$1^1/_2$	1.38	50.00	42.52	25.00	11.81	36.30	48.82	29.49	29.53	9.02	9.53	8.27	22.24	12.72	BRL-20
1100	44	42.52	—	—	—	—	—	—	—	—	51.75	1.62	40	36	4	8	$1^1/_2$	1.77	54.33	47.05	25.00	11.81	39.84	52.36	30.71	33.07	9.02	9.53	8.27	22.24	12.72	BRL-20
1200	48	46.06	56.00	1.62	44	40	4	8	$1^1/_2$	1.77	56.00	1.62	44	40	4	8	$1^1/_2$	1.77	58.58	51.18	25.00	13.78	41.81	54.33	33.46	35.04	9.02	9.53	8.27	22.24	12.72	BRL-20

Nominal Size mm(inch)	700(28)	800(32)	900(36)	1000(40)	1100(44)	1200(48)
Stem Torque N·m {kgf·cm}	4,500 {45,900}	5,900 {60,200}	7,500 {76,500}	10,200 {104,000}	13,000 {132,600}	15,000 {153,000}
Hand Wheel operating force N{kgf}	339 {35}	444 {45}	565 {58}	326 {33}	415 {42}	479 {49}
Number of Handle Rotation	60	60	60	137	137	137
Gear Box Model	BRL-10	BRL-10	BRL-10	BRL-20	BRL-20	BRL-20

ASAHI AV VALVE

ROTARY DAMPER (PVC,PP) 40mm - 600mm(1 1/2inch - 24inch)

● PVC

FEATURES

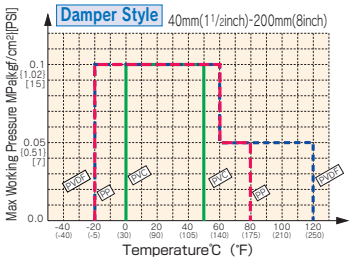
DAMPER STYLE is Designed for Flow Control.

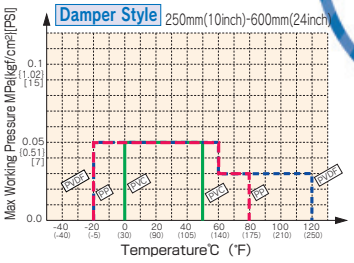
Note : DAMPER STYLE is not a tight shut off valve.
Consult factory for Leakage rates.

SPECIFICATIONS

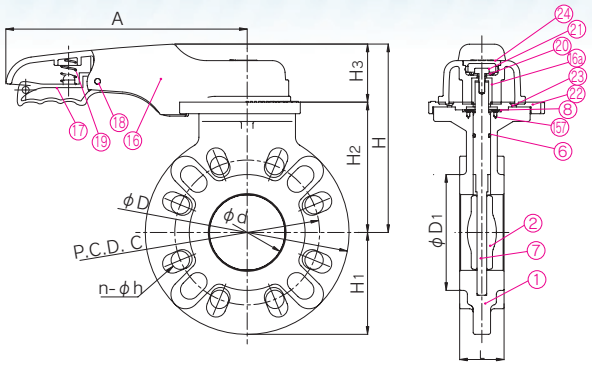
Body material	Nominal size mm(inch)	Working Temperature ℃(℉)	Max. Working Pressure (at R.T.) MPa{kgf/cm²}[PSI]		
			40(1 1/2inch)～200(8inch)	250(10inch)～350(14inch)	400(16inch)～600(24inch)
PVC	40 - 350 (1 1/2 - 14)	0 - 50 (30 - 120)	0.1 {1.0} [15]	0.05 {0.5} [7]	—
PP	40 - 600 (1 1/2 - 24)	−20 - 80 (−5 - 175)	0.1 {1.0} [15]	0.05 {0.5} [7]	0.05 {0.5} [7]
PVDF	40 - 600 (1 1/2 - 24)	−20 - 120 (−5 - 250)	0.1 {1.0} [15]	0.05 {0.5} [7]	0.05 {0.5} [7]

WORKING PRESSURE VS. TEMPERATURE

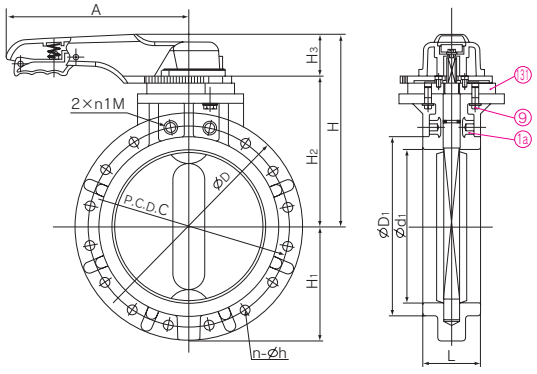




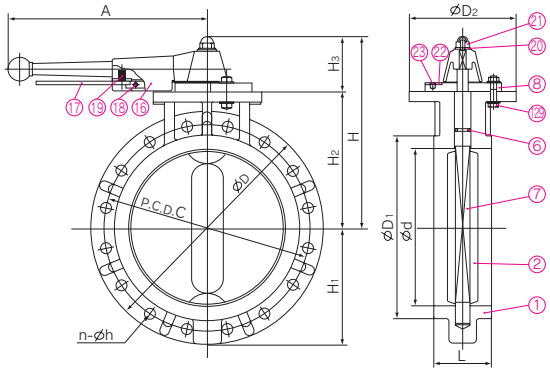
● PVC、PP
40mm — 200mm (1 1/2inch — 8inch)



250mm — 400mm (10inch — 16inch)



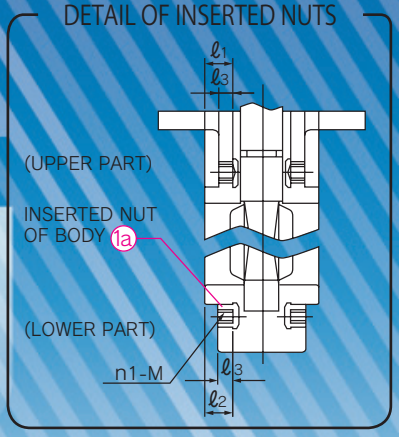
450mm — 600mm (16inch — 24inch)



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	REMARKS
①	BODY	1	BODY/DISC/STEM	
②	DISC	1	PVC/PP/PVC	
⑦	STEM	1	PP/PP/PP	
⑥	O-RING(C)	1	EPDM, FKM, OTHERS	
⑧	STEM HOLDER(A)	1	STAINLESS STEEL304	40mm - 200mm
			PP	450mm - 600mm
⑨	BOLT(A)	3	STAINLESS STEEL304	250mm - 400mm
⑯	HANDLE(A)	1	PP	
⑯a	INSERTED METAL OF HANDLE	1	STAINLESS STEEL316	40mm - 400mm
⑰	HANDLE LEVER	1	PPG	40mm - 400mm
			STAINLESS STEEL304	450mm - 600mm
⑱	PIN	1	PPG	40mm - 400mm
			STAINLESS STEEL304	450mm - 600mm
⑲	SPRING	1	STAINLESS STEEL304	
⑳	WASHER(A)	1	STAINLESS STEEL304	
㉑	BOLT(B)	1	STAINLESS STEEL304	40mm - 400mm
	NUT(B)	1	STAINLESS STEEL304	450mm - 600mm
㉒	LOCKING PLATE	1	PPG	40mm - 400mm
			STAINLESS STEEL304	450mm - 600mm
㉓	SCREW(B)	4	STAINLESS STEEL304	40mm - 400mm
		3	STAINLESS STEEL304	450mm - 600mm
㉔	CAP(A)	1	PP	40mm - 400mm
⑫	BOLT・NUT(N)	3	STAINLESS STEEL304	450mm - 600mm
⑬	STEM	1	PPG	250mm - 400mm
①a	INSERTED METAL OF BODY	4	COPPER ALLOY(C3604)	10k400mm - 600mm

DIMENSIONS TABLE



DIN

Unit:mm

Nominal Size		d	DIN PN 10			D_1	D	L	H	H_1	H_2	H_3	A
mm	inch		C	n	h	PVC,PP							
40	$1^1/_2$	47	110	4	18	86	150	32	156	75	100	56	220
50	2	58	125	4	18	96	165	35	166	83	110	56	220
65	$2^1/_2$	71	145	4	18	116	185	37	176	93	120	56	220
80	3	79	160	8	18	120	211	37	191	106	135	56	250
100	4	104	180	8	18	152	238	47	206	119	150	56	250
125	5	131	210	8	18	190	264	57	237	132	168	69	320
150	6	152	240	8	22	208	285	62	252	143	183	69	320
200	8	197	295	8	22	264	340	76	283	170	214	69	400
250	10	247	350	12	23	321	406	96	342	203	273	69	400
300	12	298	400	12	23	370	483	116	399	242	330	69	400
350	14	347	460	16	23	420	520	116	426	260	338	69	400
400	16	394	515	16	27	470	600	157	451	300	382	69	400
450	18	441	565	20	27	525	630	167	496	315	370	126	323
500	20	488	620	20	27	575	699	177	526	350	400	126	323
600	24	600	725	20	30	686	813	197	591	424	465	126	323

ANSI

Unit:inch

Nominal Size		d	ANSI Class 150			D_1	D	L	H	H_1	H_2	H_3	A
inch	mm		C	n	h	PVC,PP							
$1^1/_2$	40	1.83	3.68	4	0.63	3.39	5.91	1.26	6.14	2.95	3.94	2.20	8.66
2	50	2.26	4.74	4	0.75	3.78	6.50	1.38	6.54	3.25	4.33	2.20	8.66
$2^1/_2$	65	2.78	5.49	4	0.75	4.57	7.28	1.46	6.93	3.64	4.72	2.20	8.66
3	80	3.09	6.00	4	0.75	4.72	8.31	1.46	7.52	4.15	5.31	2.20	9.84
4	100	4.07	7.50	8	0.75	5.98	9.37	1.85	8.11	4.69	5.91	2.20	9.84
5	125	5.14	8.50	8	0.87	7.48	10.39	2.24	9.33	5.20	6.61	2.72	12.60
6	150	5.96	9.51	8	0.87	8.19	11.22	2.44	9.92	5.61	7.20	2.72	12.60
8	200	7.76	11.75	8	0.87	10.39	13.39	2.99	11.14	6.69	8.43	2.72	15.75
10	250	9.72	14.25	12	0.98	12.64	15.98	3.78	13.46	7.99	10.75	2.72	15.75
12	300	11.73	17.01	12	0.98	14.57	19.02	4.57	15.71	9.53	12.99	2.72	15.75
14	350	13.66	18.74	12	1.14	16.54	20.47	4.57	16.77	10.24	13.31	2.72	15.75
16	400	15.51	21.24	16	1.14	18.50	23.62	6.18	17.76	11.81	15.04	2.72	15.75
18	450	17.36	22.76	16	1.26	20.67	24.80	6.57	19.53	12.40	14.57	4.69	12.72
20	500	19.21	25.00	20	1.26	22.64	27.52	6.97	20.71	13.78	15.75	4.96	12.72
24	600	23.62	29.51	20	1.38	27.01	32.01	7.76	23.27	16.69	18.31	4.96	12.72

Note : The shape and appearance of the valve differ a little with nominal size compared to the drawing.

ASAHI AV VALVE

ROTARY DAMPER (PVDF) 40mm - 600mm(1 1/2inch - 24inch)

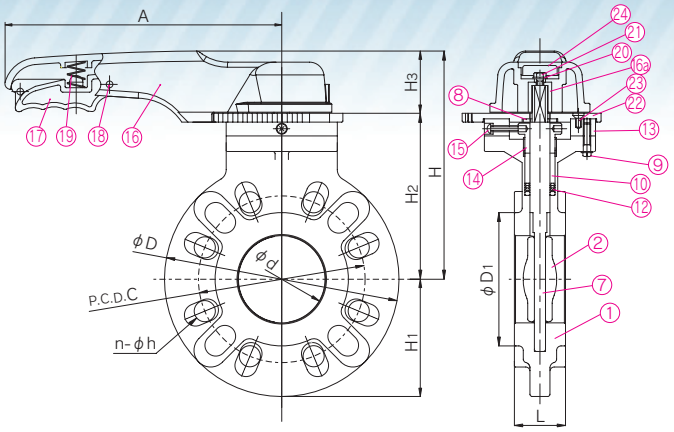
● PVDF

FEATURES

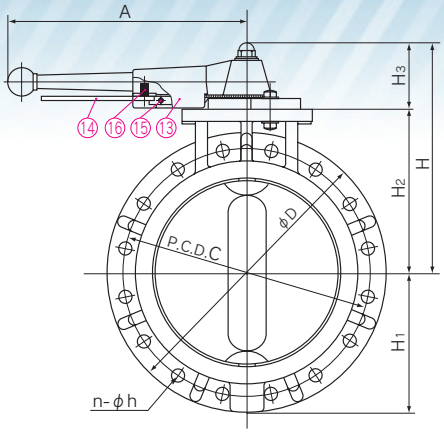
DAMPER STYLE is Designed for Flow Control.

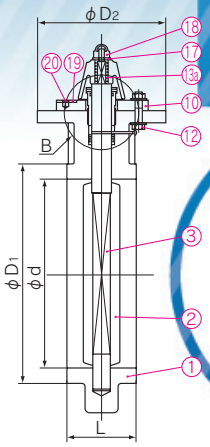
Note : DAMPER STYLE is not a tight shut off valve.
Consult us for Leakage rates.

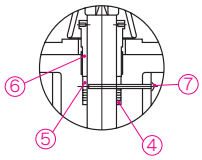
● PVDF
40mm — 200mm (1 1/2inch — 8inch)



250mm — 600mm (10inch — 24inch)
Consalt us more details





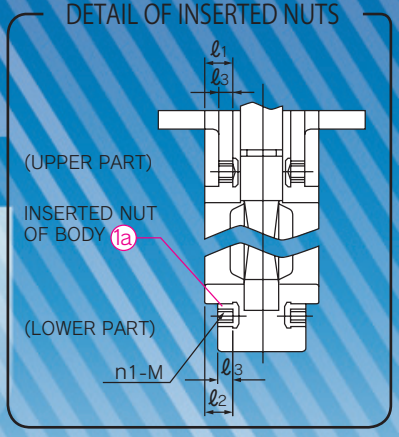


Part"B"

PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	REMARKS
①	BODY	1	PVDF	
②	DISC	1	PVDF	
⑦	STEM	1	PVDF	
⑧	STEM HOLDER(A)	1	STAINLESS STEEL304	40mm - 300mm(1 1/2"-14")
⑨	BOLT(A)	4	STAINLESS STEEL304	
⑩	BUSH(A)	1	PTFE	40mm - 350mm(1 1/2"-14")
		1	PVDF	400mm - 600mm(16"-24")
⑫	V-PACKING	1	PTFE	
⑬	SPECER(A)	1set	C-PVC	
⑭	GLAND	1set	PVDF	
⑮	SCREW(A)	1	STAINLESS STEEL304	
⑯	HANDLE(A)	1	PP	
⑯a	HANDLE INSERTED METAL	1	STAINLESS STEEL304	
⑰	HANDLE LEVER	1	PPG	
⑱	PIN	1	PPG	
⑲	SPRING	1	STAINLESS STEEL304	
⑳	WASHER(A)	1	STAINLESS STEEL304	
㉑	BOLT(B)	1	STAINLESS STEEL304	
㉒	LOCKING PLATE	1	PPG	
㉓	SCREW(B)	2	STAINLESS STEEL304	
㉔	CAP(A)	1	PP	
⑧1	STEM HOLDER(C)	1	PP	300mm - 400mm(12"-16")
⑯b	BODY INSERTED METAL	4	COPPER ALLOY	

DIMENSIONS TABLE



DIN

Unit:mm

Nominal Size		d	DIN PN 10			D_1	D	L	H	H_1	H_2	H_3	A
mm	inch		C	n	h	PVDF							
40	1 1/2	46	110	4	18	86	150	32	179	75	123	56	220
50	2	57	125	4	18	96	165	35	189	83	133	56	220
65	2 1/2	70	145	4	18	116	185	37	199	93	143	56	220
80	3	78	160	8	18	120	211	37	214	106	157	56	250
100	4	103	180	8	18	152	238	47	229	119	173	56	250
125	5	130	210	8	18	190	264	57	257	132	188	69	320
150	6	150	240	8	22	208	285	62	272	143	203	69	320
200	8	197	295	8	22	264	340	76	303	170	234	69	400
250	10	247	350	12	23	321	406	96	358	203	240	118	323
300	12	298	400	12	23	370	483	116	419	242	297	122	323
350	14	347	460	16	23	420	520	116	422	260	300	122	323
400	16	394	515	16	27	470	600	157	472	300	350	122	323
450	18	441	565	20	27	525	630	167	516	315	370	126	323
500	20	488	620	20	27	575	699	177	546	350	400	126	323
600	24	600	725	20	30	686	813	197	611	424	465	126	323

ANSI

Unit:inch

Nominal Size		d	ANSI Class 150			D_1	D	L	H	H_1	H_2	H_3	A
inch	mm		C	n	h	PVDF							
1 1/2	40	1.81	3.88	4	0.62	3.39	5.91	1.26	7.05	2.95	4.84	2.20	8.66
2	50	2.24	4.75	4	0.75	3.78	6.50	1.38	7.44	3.27	5.24	2.20	8.66
2 1/2	65	2.76	5.50	4	0.75	4.57	7.28	1.46	7.83	3.66	5.63	2.20	8.66
3	80	3.07	6.00	4	0.75	4.72	8.31	1.46	8.43	4.17	6.22	2.20	9.84
4	100	4.06	7.50	8	0.75	5.98	9.37	1.85	9.02	4.69	6.81	2.20	9.84
5	125	5.12	8.50	8	0.88	7.48	10.39	2.24	10.12	5.20	7.40	2.72	12.60
6	150	5.91	9.50	8	0.88	8.19	11.22	2.44	10.71	5.63	7.99	2.72	12.60
8	200	7.76	11.75	8	0.88	10.39	13.39	3.23	11.93	6.69	9.21	2.72	15.75
10	250	9.72	14.25	12	0.98	12.20	15.98	3.78	14.09	7.99	9.45	4.65	12.72
12	300	11.73	17.01	12	0.98	14.57	19.02	4.57	16.50	9.53	11.69	4.80	12.72
14	350	13.66	18.74	12	1.14	16.54	20.47	4.57	16.61	10.24	11.81	4.80	12.72
16	400	15.51	21.24	16	1.14	18.50	23.62	6.18	18.58	11.81	13.78	4.80	12.72
18	450	17.36	22.76	16	1.26	20.67	24.80	6.57	20.31	12.40	14.57	4.96	12.72
20	500	19.21	25.00	20	1.26	22.64	27.52	6.97	21.50	13.78	15.75	4.96	12.72
24	600	23.62	29.51	20	1.38	27.01	32.01	7.76	24.06	16.69	18.31	4.96	12.72

ASAHI AV VALVE

SWING CHECK VALVE 15mm - 200mm(1/2inch - 8inch)

15mm(1/2inch),20mm(3/4inch)

25mm(1inch) – 200mm(8inch)

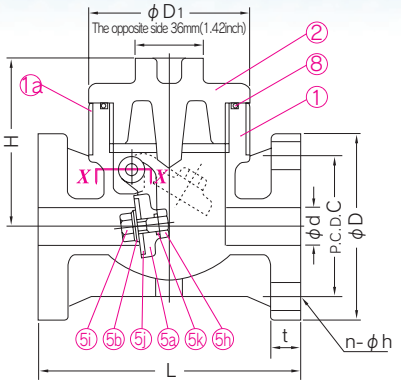
FEATURES

- The SWING CHECK VALVE prevents backflow, thus protecting equipment, such as a pump.
- Being of a swing arm type, the valve gives little resistance to flow.
- The SWING CHECK VALVE is highly resistant to corrosive chemicals, acid and alkaline, because of its plastic construction.
- To maintain the SWING CHECK VALVE, only the bonnet lid has to be removed, without taking the body out of pipeline.

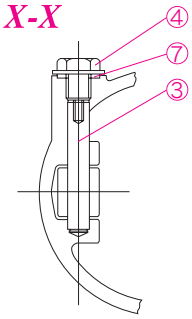
MATERIAL AND WORKING TEMPERATURE RANGES

Body material	Working Temperature ℃(°F)	Max. Working Pressure (at R.T.)MPa{kgf/cm²}[PSI]		
		15(1/2inch) - 80(3inch)	100(4inch) - 150(6inch)	200(8inch)
HI-PVC	0 - 50(30 - 120)	1.0{10.2}[150]	0.7{7.1}[100]	0.5{5.1}[70]
PP	−20 - 80(−5 - 175)	1.0{10.2}[150]	0.7{7.1}[100]	0.5{5.1}[70]
PVDF	−20 - 100(−5 - 210)	1.0{10.2}[150]	0.7{7.1}[100]	0.5{5.1}[70]

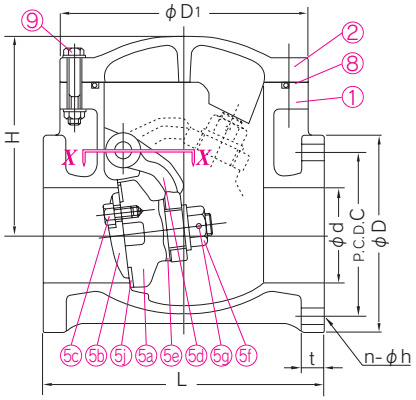
● 15mm(1/2inch)・20mm(3/4inch)



X-X



● 25mm(1inch) – 200mm(8inch)



PARTS & MATERIALS O-ring Type

● PP

No.	DESCRIPTION	Pcs.	MATERIAL	REMARKS
①	BODY	1	PP	
②	BONNET	1	PP	
③	SHAFT	1	PP	
④	PLUG	1	PP	
⑤	⑤a DISC	1	PVDF	
	⑤b SEAT HOLDER	1	PP	
	⑤c BOLT(A)	—	PP	Used for Size 25~200mm
	⑤d ARM	1	PP	Used for Size 25~200mm
	⑤e WASHER	1	PP	Used for Size 25~200mm
	⑤f NUT(A)	1	PVDF	Used for Size 25~200mm
	⑤g PIN	1	PVDF	In Case Material is PVDF, Used for Size 65~200mm
	⑤h BOLT(B)	1	PP	Used for Size 15,20mm
	⑤i NUT(B)	1	PP	Used for Size 15,20mm
	⑤j SEAT	1	GASKET,SEAT, O-RING(A)/O-RING(B) EPDM/EPDM Others/Others PTFE/FKM-F PTFE/FKM-C	
	⑤k O-RING(A)	1		Used for Size 15,20mm
⑦	GASKET(B)	1		
⑧	O-RING(B)	1		
⑨	BOLT・NUT	—	STAINLESS STEEL(SUS304)	Used for Size 25~200mm
⑩a	BODY RING	—	STAINLESS STEEL(SUS304)	Used for Size 15,20mm

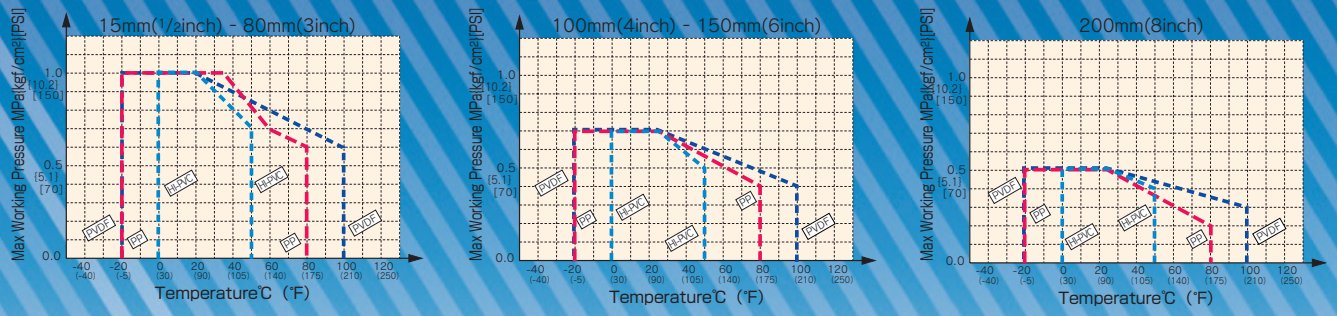
Note : 1) ⑩a Body-ring is available for PP Body 15mm(1/2inch)・20mm(3/4inch).

● HI-PVC,PVDF

No.	DESCRIPTION	Pcs.	MATERIAL	REMARKS
①	BODY	1	HI-PVC,PVDF	
②	BONNET	1	HI-PVC,PVDF	
③	SHAFT	1	HI-PVC,PVDF	
④	PLUG	1	HI-PVC,PVDF	
⑤	⑤a DISC	1	HI-PVC,PVDF	
	⑤b SEAT HOLDER	1	HI-PVC,PVDF	
	⑤c BOLT(A)	—	HI-PVC,PVDF	Used for Size 25~200mm
	⑤d ARM	1	HI-PVC,PVDF	Used for Size 25~200mm
	⑤e WASHER	1	HI-PVC,PVDF	Used for Size 25~200mm
	⑤f NUT(A)	1	HI-PVC,PVDF	Used for Size 25~200mm
	⑤g PIN	1	HI-PVC,PVDF	In Case Material is PVDF, Used for Size 65~200mm
	⑤h BOLT(B)	1	HI-PVC,PVDF	Used for Size 15,20mm
	⑤i NUT(B)	1	HI-PVC,PVDF	Used for Size 15,20mm
	⑤j SEAT	1	GASKET,SEAT, O-RING(A)/O-RING(B) EPDM/EPDM Others/Others PTFE/PFA※ PTFE/FKM-F PTFE/FKM-C	
	⑤k O-RING(A)	1		Used for Size 15,20mm
⑦	GASKET(B)	1		※FKM Covered at PFA
⑧	O-RING(B)	1		
⑨	BOLT・NUT	—	STAINLESS STEEL(SUS304)	Used for Size 25~200mm

WORKING PRESSURE VS. TEMPERATURE

SWING CHECK VALVE O-ring Type



DIMENSIONS TABLE

DIN Unit:mm

Nominal Size		d	DIN PN10				D_1	L	t			H
mm	inch		D	C	n	h			HI-PVC	PP	PVDF	
15	1/2	20	95	65	4	14	86	140	15	15	15	87
20	3/4	20	105	75	4	14	86	140	15	15	15	87
25	1	25	115	85	4	14	130	160	16	16	16	117
32	1 1/4	40	140	100	4	18	145	180	18	17	18	135
40	1 1/2	40	150	110	4	18	145	180	18	17	18	135
50	2	50	165	125	4	18	180	200	20	20	21	161
65	2 1/2	65	185	145	4	18	200	240	22	22	23	165
80	3	80	200	160	8	18	205	260	22	22	23	168
100	4	100	220	180	8	18	265	300	24	24	26	210
125	5	125	250	210	8	18	330	350	24	25	26	245
150	6	150	285	240	8	22	370	400	25	26	27	280
200	8	200	340	295	8	22	425	500	30	31	33	333

ANSI Unit:inch

Nominal Size		d	ANSI CLASS 150				D_1	L	t			H
inch	mm		D	C	n	h			HI-PVC	PP	PVDF	
1/2	15	0.79	3.50	2.38	4	0.62	3.39	5.51	0.59	0.59	0.59	3.43
3/4	20	0.79	3.88	2.75	4	0.62	3.39	5.51	0.59	0.59	0.59	3.43
1	25	0.98	4.25	3.12	4	0.62	5.12	6.30	0.63	0.63	0.63	4.61
1 1/4	32	—	—	—	—	—	—	—	—	—	—	—
1 1/2	40	1.57	5.00	3.88	4	0.62	5.71	7.09	0.71	0.67	0.71	5.32
2	50	1.97	6.00	4.75	4	0.75	7.09	7.87	0.79	0.79	0.83	6.34
2 1/2	65	2.56	7.00	5.50	4	0.75	7.87	9.45	0.87	0.87	0.91	6.50
3	80	3.15	7.50	6.00	4	0.75	8.07	10.24	0.87	0.87	0.91	6.62
4	100	3.94	9.00	7.50	8	0.75	10.43	11.81	0.94	0.94	1.02	8.27
5	125	4.92	10.00	8.50	8	0.88	12.99	13.78	0.94	0.98	1.02	9.65
6	150	5.91	11.00	9.50	8	0.88	14.57	15.75	0.98	1.02	1.06	11.03
8	200	7.87	13.50	11.75	8	0.88	16.73	19.69	1.18	1.22	1.30	13.11

* Important: The swing check valve can be used in both vertical and horizontal pipelines. However, when installing the valve, be sure to make the direction of the arrow embossed on the valve agree with that of flow.
* Swing check valves 15mm(1/2inch) and 30mm(1 1/4inch) mm in nominal size are made out of those in 20mm(3/4inch) and 40mm(1 1/2inch) in nominal size, respectively.

Note : For pressure limits by fluid temperature ranges and materials, see "WORKING PRESSURE VS. TEMPERATURE" in this catalog.

ASAHI AV VALVE

BALL CHECK AND BALL FOOT VALVE 15mm - 100mm(1/2inch - 4inch)

● SINGLE UNION BALL CHECK VALVE

FEATURES

Backflow Prevention

The valves prevent backflow in horizontal or vertical lines. They require minimal back pressure to seat completely.

Compact and Light

The BALL CHECK and BALL FOOT VALVES are so compact and light that they can be installed in a limited space. They are also easy to maintain, because of minimal internal parts.

NSF Product

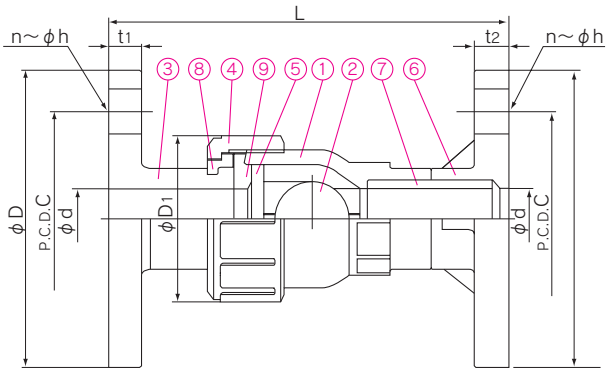
NSF("NSF/ANSI STANDARD 61" Drinking Water System Components-Health Effects)Product.
:Ball CHECK VALVE (Material:PVC+EPDM,FKM)
*Certified products bear an NSF Certification Mark.

SPECIFICATIONS

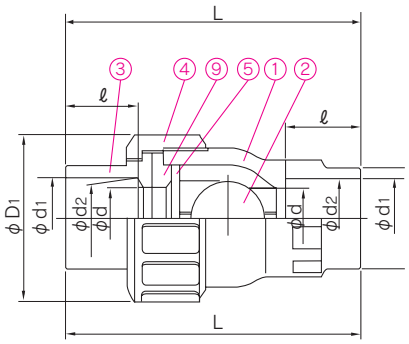
Body material	Unplasticized Polyvinyl Chloride(PVC), Chlorinated Polyvinyl Chloride(C-PVC) Polyvinylidene Fluoride(PVDF), Polypropylene(PP)
End Connectors	Socket End, Threaded End, Flanged End
Nominal Size	15mm(1/2inch) - 100mm(4inch)
Working Temperature	PVC:0℃ - 50℃(30°F - 120°F) C-PVC:0℃ - 90℃(30°F - 195°F) PVDF :−20℃ - 100℃(−5°F - 210°F) PP:−20℃ - 80℃(−5°F - 175°F)
Max. Working Pressure	1.0MPa{10.2kgf/cm²}[150PSI](at R.T)……15mm(1/2inch) - 50mm(2inch) 0.7MPa{7.1kgf/cm²}[100PSI](at R.T)……80mm(3inch) - 100mm(4inch)

DIMENSIONS

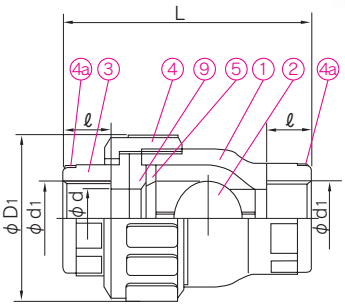
● FLANGED END



● SOCKET END

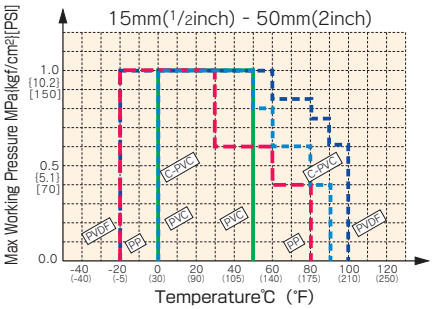


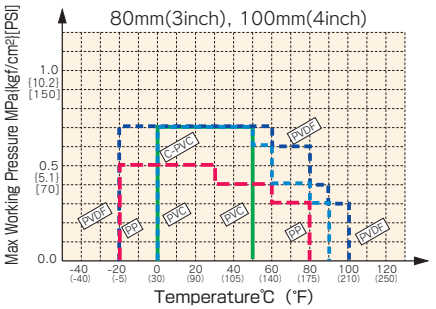
● THREADED END



WORKING PRESSURE VS. TEMPERATURE

BALL CHECK VALVE





PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC, C-PVC, PP, PVDF
②	BALL	1	PVC, C-PVC, PP, PVDF
③	END CONNECTOR	1	PVC, C-PVC, PP, PVDF
④	UNION NUT	1	PVC, C-PVC, PP, PVDF
⑤	STOP RING(A)	1	PVC, C-PVC, PP, PVDF
⑥	TS FLANGE2)	1	PVC, C-PVC
⑦	PIPE2)	1	PVC, C-PVC
⑧	STOP RING(B)2)	1	PVDF
⑨	SEAT	1	EPDM,FKM,Others
④a	RING1)	1	STAINLESS STEEL304

Note :
1):used for C-PVC Body, threaded end 15mm(1/2inch) - 25mm(1inch)
2):used for Flanged End
3):DIN Flanged End is not available.

* By replacing some of its parts, the ball check valve can be switched to the ball foot valve, with a slight change in dimensions.

DIMENSIONS TABLE

JIS

Unit:mm

Nominal Size		d	D_1	Flanged End										t_1	t_2
				JIS 5K				JIS 10K				L			
mm	inch			D	C	n	h	D	C	n	h	PVC,C-PVC	PVDF		
15	1/2	15	48	80	60	4	12	95	70	4	15	131	135	12	14
20	3/4	20	60	85	65	4	12	100	75	4	15	156	156	14	15
25	1	25	70	95	75	4	12	125	90	4	19	169	167	14	15
40	1 1/2	40	96	120	95	4	15	140	105	4	19	214	200	16	16
50	2	51	106	130	105	4	15	155	120	4	19	244	224	16	20
80	3	78	152	180	145	4	19	185	150	8	19	310	291	18	22
100	4	100	210	200	165	8	19	210	175	8	19	397	363	18	22

Nominal Size		Socket End								Threaded End			
		PVC,C-PVC				PP				JIS B 0203		L	
mm	inch	d_1	ℓ	1/T	L	d_1	d_2	ℓ	L	d_1	ℓ	U-PVC,C-PVC	PP,PVDF
15	1/2	22.11	20	1/34	89	21.2	20.2	22	93	Rc 1/2	15	80	78
20	3/4	26.13	24	1/34	106	26.2	25.2	23	104	Rc 3/4	17	95	92
25	1	32.16	27	1/34	117	33.0	32.0	25	113	Rc 1	20	105	102
40	1 1/2	48.21	37	1/37	162	47.0	46.0	28	144	Rc1 1/2	25	141	137
50	2	60.25	42	1/37	189	59.0	58.0	28	162	Rc 2	28	164	160
80	3	89.60	64	1/49	277	88.0	86.0	35	219	Rc 3	35	222	216
100	4	114.70	84	1/56	376	113.0	111.0	45	298	Rc 4	45	308	301

DIN

Unit:mm

Nominal Size		d	D_1	Socket End							Threaded End			
				PVC, C-PVC			PP,PVDF				DIN 2999			
				DIN 8063		L	DIN 16962			L	d_1	ℓ	L	
mm	inch			d_1	ℓ		d_1	d_2	ℓ				U-PVC,C-PVC	PP,PVDF
15	1/2	15	48	20	16	81	19.50	19.30	14	78	Rc 1/2	15	80	78
20	3/4	20	60	25	19	96	24.50	24.30	16	90	Rc 3/4	17	95	92
25	1	25	70	32	22	107	31.50	31.30	18	99	Rc 1	20	105	102
40	1 1/2	40	96	50	31	150	49.45	49.20	23	135	Rc1 1/2	25	141	137
50	2	51	106	63	38	181	62.50	62.10	27	160	Rc 2	28	164	160
80	3	78	152	90	51	248	89.20	88.85	35	217	Rc 3	35	222	216
100	4	100	210	110	61	330	109.05	108.65	41	291	Rc 4	45	308	301

ANSI

Unit:inch

Nominal Size		d	D_1	Flanged End						t_1	t_2	Socket End								Threaded End			
				ANSI Class 150				L				PVC, C-PVC				PVDF, PP				ANSI/ASME B 1.20.1		L	
												ASTM SCH40			L								
inch	mm			D	C	n	h	PVC	PVDF			d_1	d_2	ℓ		d_1	d_2	ℓ	L	d_1	ℓ	PVC	PP,PVDF
1/2	15	0.59	1.89	3.50	2.38	4	0.63	5.16	5.31	0.47	0.55	0.848	0.836	0.688	3.35	0.825	—	0.874	3.82	1/2-14 NPT	0.59	3.15	3.07
3/4	20	0.79	2.36	3.86	2.75	4	0.63	6.14	6.14	0.55	0.59	1.058	1.046	0.719	3.74	1.030	—	1.000	4.41	3/4-14 NPT	0.67	3.74	3.62
1	25	0.98	2.76	4.25	3.12	4	0.63	6.65	6.57	0.55	0.59	1.325	1.310	0.875	4.33	1.300	—	1.126	4.88	1-11 1/2 NPT	0.79	4.13	4.02
1 1/2	40	1.57	3.78	5.00	3.88	4	0.63	8.43	7.87	0.63	0.63	1.912	1.894	1.094	5.71	1.890	—	1.374	5.79	1 1/2-11 1/2 NPT	0.98	5.55	5.39
2	50	2.01	4.17	5.98	4.75	4	0.75	9.61	8.82	0.63	0.79	2.387	2.369	1.156	6.50	2.360	—	1.500	6.89	2-11 1/2 NPT	1.10	6.46	6.30
3	80	3.07	5.98	7.52	6.00	4	0.75	12.20	11.46	0.71	0.87	3.516	3.492	1.875	9.57	3.480	—	1.874	9.57	3-8 NPT	1.38	8.74	8.50
4	100	3.94	8.27	9.02	7.50	8	0.75	15.63	14.29	0.71	0.87	4.518	4.491	2.000	12.20	4.480	—	2.252	12.68	4-8 NPT	1.77	12.13	11.85

Note : The shape and appearance of the valve differ a little with nominal size compared to the drawing.

The measurement of the minimum pressure for opening & closing the valve with air or gas on Asahi Ball Check Valve.

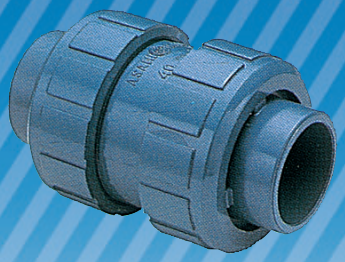
UNIT:MPa{kgf/cm²}

Test Items		Vertical Piping		Horizontal Piping	
Nominal Size		Min. Air Pressure to	Min. Air Pressure to	Min. Air Pressure to	Min. Air Pressure to
mm	inch	open the valve	shut the Disc perfectly	open the valve	shut the Disc perfectly
15	1/2	0.005{0.05}	0.02 {0.2}	0.001{0.01}	0.02 {0.2}
20	3/4	0.005{0.05}	0.03 {0.3}	0.001{0.01}	0.03 {0.3}
25	1	0.005{0.05}	0.03 {0.3}	0.001{0.01}	0.03 {0.3}
40	1 1/2	0.01 {0.1 }	0.03 {0.3}	0.002{0.02}	0.03 {0.3}
50	2	0.01 {0.1 }	0.03 {0.3}	0.002{0.02}	0.03 {0.3}
80	3	0.01 {0.1 }	0.02 {0.2}	0.002{0.02}	0.02 {0.2}
100	4	0.01 {0.1 }	0.02 {0.2}	0.002{0.02}	0.02 {0.2}

ASAHI AV VALVE

● TRUE UNION BALL CHECK VALVE

15mm(1/2inch) — 50mm(2inch)



FEATURES

The valve body can be removed from the pipe line by loosening the union nuts at its both ends.

NSF Product

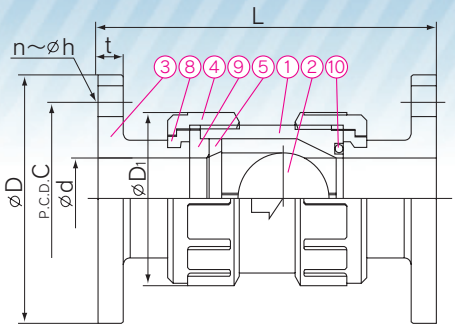
NSF("NSF/ANSI STANDARD 61" Drinking Water System Components-Health Effects)Product.
:TRUE UNION BALL CHECK VALVE (Material:PVC+EPDM,FKM)
*Certified products bear an NSF Certification Mark.

SPECIFICATIONS

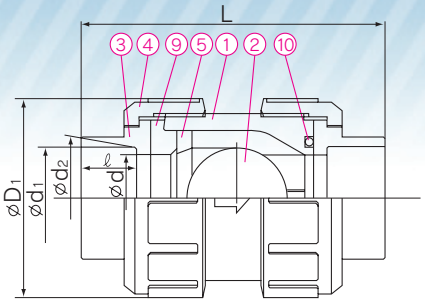
Body material	Unplasticized Polyvinyl Chloride(PVC), Chlorinated Polyvinyl Chloride(C-PVC) Polyvinylidene Fluoride(PVDF)
End Connectors	Socket End, Threaded End, Flanged End
Nominal Size	15mm(1/2inch) - 50mm(2inch)

DIMENSIONS

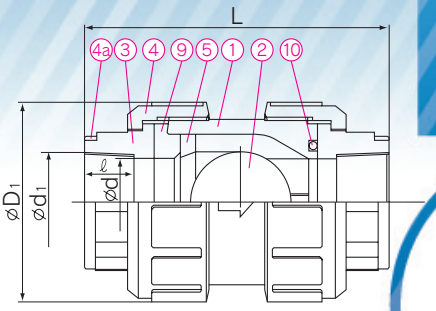
● FLANGED END



● SOCKET END



● THREADED END



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC,C-PVC,PP,PVDF
②	BALL	1	PVC,C-PVC,PP,PVDF
③	END CONNECTOR	2	PVC,C-PVC,PP,PVDF
④	UNION NUT	2	PVC,C-PVC,PP,PVDF
⑤	STOP RING(A)	1	PVC,C-PVC,PP,PVDF
⑧	STOP RING(B) 2)	2	PVDF
⑨	SEAT	1	EPDM,FKM,Others
⑩	O-RING	1	EPDM,FKM,Others
④a	RING 1)	2	STAINLESS STEEL304

Note :
1):used for C-PVC body. threaded end
15mm(1/2inch) - 25mm(1inch)
2):used for flanged end

DIMENSIONS TABLE

DIN

Nominal Size		d	D1	Flanged End						t	Socket End							Threaded End			
				DIN PN10				L			PVC, C-PVC			PVDF,PP				DIN 2999		L	
				D	C	n	h	PVC C-PVC	PP PVDF		DIN 8063		L	DIN 16962			L	d1	ℓ	PVC C-PVC	PP PVDF
mm	inch										d1	ℓ		d1	d2	ℓ					
15	1/2	15	48	95	65	4	14	130	128	12	20	16	84	19.50	19.30	14	79	R 1/2	15	86	83
20	3/4	20	60	105	75	4	14	155	154	14	25	19	100	24.50	24.30	16	93	R 3/4	17	103	98
25	1	25	70	115	85	4	14	165	163	14	32	22	113	31.50	31.30	18	103	R 1	20	113	109
40	1 1/2	40	96	150	110	4	18	192	190	16	50	31	158	49.45	49.20	23	141	R 1/2	25	151	147
50	2	51	106	165	125	4	18	214	211	16	63	38	190	62.50	62.10	27	167	R 2	28	177	171

ANSI

Unit:inch

Nominal Size		d	D1	Flanged End						t1	Socket End(IPS)								Threaded End			
				ANSI Class 150				L			PVC, C-PVC				PVDF, PP				ANSI/ASME B1.20.1		L	
								PVC C-PVC	PP PVDF		ASTM SCH40			L	d1	d1'	ℓ	L	d1	ℓ	PVC C-PVC	PP PVDF
inch	mm			D	C	n	h				d1	d2	ℓ									
1/2	15	0.59	1.89	3.50	2.38	4	0.62	5.12	5.04	0.47	0.848	0.836	0.688	3.43	0.831	—	0.630	3.23	1/2- 14 NPT	0.59	3.39	3.27
3/4	20	0.79	2.36	3.88	2.75	4	0.62	6.10	6.06	0.55	1.058	1.046	0.719	3.86	1.041	—	1.000	4.37	3/4- 14 NPT	0.67	4.06	3.86
1	25	0.98	2.76	4.25	3.12	4	0.62	6.50	6.42	0.55	1.325	1.310	0.875	4.37	1.305	—	0.827	4.29	1- 11 1/2 NPT	0.79	4.45	4.29
1 1/2	40	1.57	3.78	5.00	3.88	4	0.62	7.56	7.48	0.63	1.912	1.894	1.094	5.94	1.889	—	1.260	6.22	1 1/2- 11 1/2 NPT	0.98	5.94	5.79
2	50	2.01	4.17	6.00	4.75	4	0.75	8.43	8.31	0.63	2.387	2.369	1.156	6.77	2.364	—	1.260	6.93	2- 11 1/2 NPT	1.10	6.97	6.73

● BALL FOOT VALVE

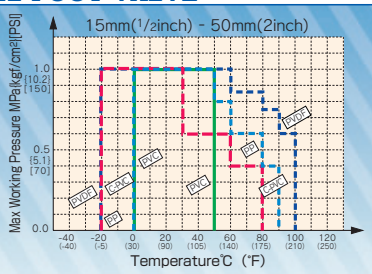
SPECIFICATIONS

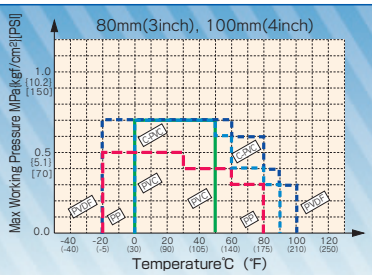
Body material	Unplasticized Polyvinyl Chloride(PVC), Chlorinated Polyvinyl Chloride(C-PVC) Polyvinylidene Fluoride(PVDF),Polypropylene(PP)
End Connectors	Socket End, Threaded End, Flanged End
Nominal Size	15 mm(1/2inch) - 100 mm(4inch)
Working Temperature	PVC:0℃ - 50℃(30℉ - 120℉) C-PVC:0℃ - 90℃(30℉ - 195℉) PVDF:−20℃ - 100℃(−5℉ - 210℉) PP:−20℃ - 80℃(−5℉ - 175℉)
Max. Working Pressure	1.0MPa{10.2kgf/cm²}[150PSI](at R.T)·····15mm(1/2inch) - 50mm(2inch) 0.7MPa{7.1kgf/cm²}[100PSI](at R.T)·····80mm(3 inch) - 100mm(4inch)

R.T.;Room Temperature

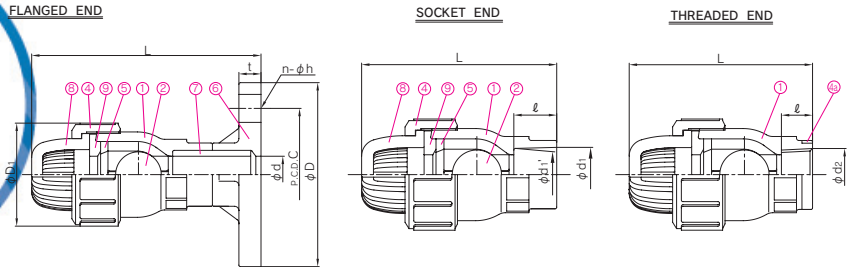
WORKING PRESSURE VS. TEMPERATURE

BALL FOOT VALVE





DIMENSIONS



PARTS & MATERIALS

No.	DESCRIPTION	QTY.	MATERIAL
①	BODY	1	PVC,C-PVC,PP,PVDF
②	BALL	1	PVC,C-PVC,PP,PVDF
④	UNION NUT	1	PVC,C-PVC,PP,PVDF
⑤	STOP RING(A)	1	PVC,C-PVC,PP,PVDF
⑥	FLANGE 2)	1	PVC,C-PVC
⑦	PIPE 2)	1	PVC,C-PVC
⑧	SCREEN	1	PVC,C-PVC,PP,PVDF
⑨	SEAT	1	EPDM,FKM,Others
④a	RING 1)	1	STAINLESS STEEL (SUS304)

Note :
1):Used for C-PVC body, threaded end 15mm(1/2inch) - 25mm(1inch)
2):Used for Flanged End

DIMENSIONS TABLE

DIN

Unit:mm

Nominal Size		D1	Socket End							Threaded End			
			PVC, C-PVC			PP, PVDF				d2	ℓ	L	
mm	inch		d1	ℓ	L	d1	d1'	ℓ	L			PVC C-PVC	PVDF PP
15	1/2	48	20	16	91	19.50	19.30	14.5	89	Rp 1/2	15	90	88
20	3/4	60	25	19	105	24.50	24.30	16	101	Rp 3/4	17	103	101
25	1	70	32	22	116	31.50	31.30	18	111	Rp 1	20	114	111
40	1 1/2	96	50	31	178	49.45	49.20	23.5	169	Rp1 1/2	25	172	169
50	2	106	63	38	199	62.50	62.10	27.5	187	Rp 2	28	189	184
80	3	152	90	51	310	89.20	38.85	35.5	293	Rp 3	35	294	288
100	4	210	110	61	390	109.05	108.65	41.5	368	Rp 4	45	374	366

ANSI

Unit:mm

Nominal Size		d	D1	Flanged End							Socket End				Threaded End			
				D	C	n	h	L		t	d1	d1'	ℓ	L	d2	ℓ	L	
								PVC C-PVC	PVDF								PVC C-PVC	PVDF PP
inch	mm																	
1/2	15	0.71	1.89	3.50	2.38	4	0.62	5.55	4.65	0.47	0.848	0.836	0.69	3.74	1/2- 14 NPT	0.59	3.54	3.46
3/4	20	0.87	2.36	3.86	2.76	4	0.62	6.42	5.24	0.51	1.058	1.046	0.72	4.17	3/4- 14 NPT	0.67	4.06	3.98
1	25	0.98	2.76	4.25	3.13	4	0.62	6.73	5.75	0.59	1.325	1.310	0.87	4.76	1- 11 1/2 NPT	0.79	4.49	4.37
1 1/2	40	1.61	3.78	5.00	3.88	4	0.62	9.80	8.15	0.63	1.912	1.894	1.09	6.97	1 1/2- 11 1/2 NPT	0.98	6.77	6.65
2	50	2.05	4.17	5.98	4.74	4	0.75	10.91	8.86	0.79	2.387	2.369	1.16	7.60	2- 11 1/2 NPT	1.10	7.44	7.24
3	80	3.07	5.98	7.52	6.00	4	0.75	16.10	13.23	0.87	3.516	3.492	1.87	12.09	3- 8 NPT	1.38	11.57	11.34
4	100	3.94	8.27	9.02	7.50	8	0.75	20.41	16.34	0.87	4.518	4.491	2.00	14.96	4- 8 NPT	1.77	14.72	14.41

ASAHI AV VALVE

Y-SEDIMENT STRAINER 15mm - 100mm(1/2inch - 4inch)

FEATURES

- Because of its plastic body, the sediment STRAINER (Y) is higly corrosion chemical and wear resistant.
- The body is transparent, so that flow through the STRAINER can easily be checked.
- The sediment STRAINER is easy to disassemble and reassemble to clean or replace its screen.

NSF Product

NSF("NSF/ANSI STANDARD 61" Drinking Water System Components-Health Effects)Product.
:Y-SEDIMENT STRAINER TYPE-Y (Material:PVC+EPDM,FKM)
*Certified products bear an NSF Certification Mark.

Note : Volatile liquids such as a hydrogen peroxide (H_2O_2) and sodium hypochlorite (NaClO) medium, may vaporize, thus causing an abnormal pressure increase in the valve. (Important: Gas is compressible. Thus if its pressure rises abnormally, gas may break a valve into pieces, which in turn violently scatter in all

- Store the Sediment Strainer in an indoor place free of direct sunlight.
- Do not store the Sediment Strainer in a hot place.
- Install the Sediment Strainer in a place free of direct sunlight.

SPECIFICATIONS

Body material	Unplasticized Polyvinyl Chloride (PVC) (The body is only made of transparent PVC.)
Nominal Size	15mm(1/2inch),20mm(3/4inch),25mm(1inch),40mm(1 1/inch), 50mm(2inch),80mm(3inch),100mm(4inch)
End Connectors	Socket End, Threaded End, Flanged End
Working Temperature	0 - 50℃ (30° F - 120° F)
Mesh	20 mesh (30,40 & 60 Mesh Available)
Max. Working Pressure	1.0MPa{10.2kgf/cm²}[150PSI]···15 - 50mm(1/2inch - 2inch) 0.6MPa{6.1kgf/cm²}[85PSI] ···80、100mm(3inch - 4inch)

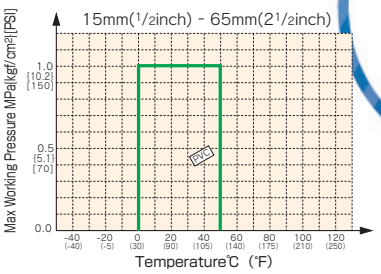
PARTS & MATERIALS

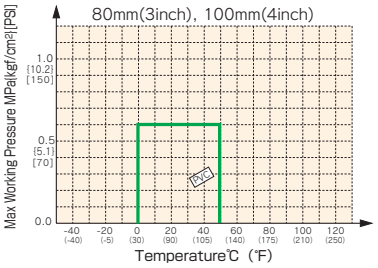
No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	PVC
②	FILTER SCREEN	1	PVC,PVDC
③	SCREEN SUPPORT	1	PVC
④	END CONNECTOR	2	PVC
⑤	UNION NUT	3	PVC
⑥	RETAINING RING	1	PVC
⑦	SPLIT RING	1	PVC
⑧	O-RING(A)	2	EPDM,FKM,Others
⑨	O-RING(B)	1	EPDM,FKM,Others
⑩	STOP RING[1)]	2	PVDF

1) Used for Flanged End

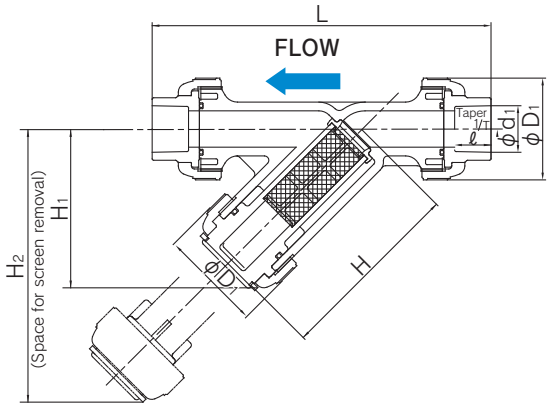
WORKING PRESSURE VS. TEMPERATURE

STRAINER(Y)





DIMENSIONS (Socket End)



DIMENSIONS TABLE (Socket End)

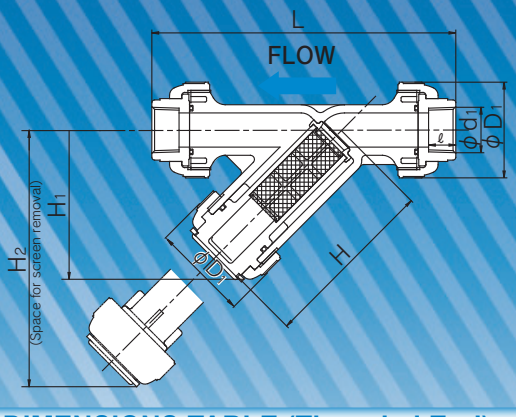
DIN 8063 Unit:mm

Nominal Size mm	Nominal Size inch	d	d1	ℓ	D1	L	H	H1
15	1/2	15	20	16	48	165	97	78
20	3/4	20	25	19	60	201	120	98
25	1	25	32	22	70	224	133	111
40	1 1/2	40	50	31	96	228	177	149
50	2	51	63	38	106	337	190	160
80	3	78	90	51	152	457	271	234
100	4	100	110	61	210	607	361	316

ANSI ASTM SCH80 Unit:inch

Nominal Size inch	Nominal Size mm	d	d1	ℓ	D1	L	H	H1	H2
1/2	15	0.59	0.848	0.87	1.89	6.93	3.82	3.07	5.23
3/4	20	0.79	1.058	1.00	2.36	8.30	4.72	3.86	6.55
1	25	0.98	1.325	1.12	2.76	9.37	5.24	4.37	7.37
1 1/2	40	1.57	1.912	1.38	3.93	12.13	6.97	5.87	9.98
2	50	2.01	2.387	1.50	4.17	13.31	7.48	6.29	10.80
3	80	3.07	3.516	1.87	5.98	17.83	10.67	9.21	15.59
4	100	3.94	4.518	2.25	8.27	23.54	14.21	12.44	20.94

DIMENSIONS (Threaded End)



DIMENSIONS TABLE (Threaded End)

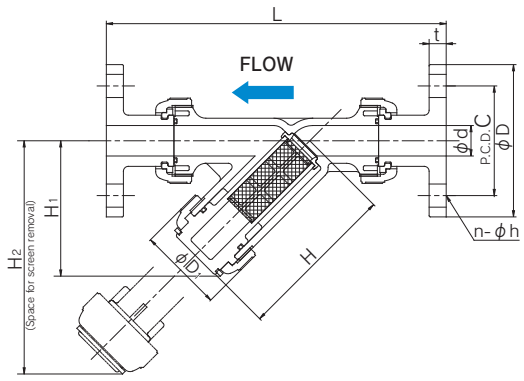
DIN 2999 Unit:mm

Nominal Size		d	d_1	ℓ	D_1	L	H	H_1	H_2
mm	inch								
15	1/2	15	Rc 1/2	15	48	165	97	78	134
20	3/4	20	Rc 3/4	17	60	202	120	98	168
25	1	25	Rc 1	20	70	224	133	111	189
40	1 1/2	40	Rc 1 1/2	25	96	287	177	149	256
50	2	51	Rc 2	28	106	324	190	160	277
80	3	78	Rc 3	35	152	436	271	234	399
100	4	100	Rc 4	45	210	596	361	316	537

ANSI/ASME BI.20.1 Unit:inch

Nominal Size		d	d_1	ℓ	D_1	L	H	H_1	H_2
inch	mm								
1/2	15	0.59	NPT 1/2	0.59	1.89	6.50	3.82	3.07	5.23
3/4	20	0.79	NPT 3/4	0.67	2.36	7.95	4.72	3.86	6.55
1	25	0.98	NPT 1	0.79	2.76	8.82	5.24	4.37	7.37
1 1/2	40	1.57	NPT 1 1/2	0.98	3.94	11.30	6.97	5.87	9.98
2	50	2.01	NPT 2	1.10	4.17	12.76	7.48	6.30	10.80
3	80	3.07	NPT 3	1.38	5.98	17.17	10.67	9.21	15.59
4	100	3.94	NPT 4	1.77	8.27	23.47	14.21	12.44	20.94

DIMENSIONS (Flanged End)



DIMENSIONS TABLE (Flanged End)

DIN 2501 Unit:mm

Nominal Size		d	C	D	n	h	D_1	L	H	H_1	H_2
mm	inch										
15	1/2	15	65	95	4	14	48	193	97	78	134
20	3/4	20	75	105	4	14	60	232	120	98	168
25	1	25	85	115	4	14	70	253	133	111	189
40	1 1/2	40	110	150	4	18	96	324	177	149	256
50	2	51	125	165	4	18	106	361	190	160	277
80	3	78	160	200	8	18	152	483	271	234	399
100	4	100	180	220	8	18	210	608	361	316	537

ANSI 150 lbs. Unit:inch

Nominal Size		d	C	D	n	h	D_1	L	H	H_1	H_2
inch	mm										
1/2	15	0.59	2.38	3.50	4	0.63	1.89	8.11	3.82	3.07	5.23
3/4	20	0.79	2.76	3.86	4	0.63	2.36	10.00	4.72	3.86	6.55
1	25	0.98	3.13	4.25	4	0.63	2.76	11.02	5.24	4.37	7.37
1 1/2	40	1.57	3.88	5.00	4	0.63	3.94	13.23	6.97	5.87	9.98
2	50	2.01	4.47	5.98	4	0.75	4.17	14.21	7.48	6.30	10.80
3	80	3.07	6.00	7.52	4	0.75	5.98	18.78	10.67	9.21	15.59
4	100	3.94	7.50	9.02	8	0.75	8.27	23.94	14.21	12.44	20.94

Recommendations for use

- Observe flow direction before installation. (Direction arrow mark is embossed on body.)
- Screen should be cleaned periodically.
- Avoid direct sunlight.
- Caution : the following, chemicals such as Hydrogen Peroxide (H_2O_2). Sodium Hypochlorite(NaClO) are capable of generating will cause the abnormal pressure due to their vaporization nature.

ASAHI AV VALVE

Diaphragm Valve Type 14 (Pneumatic Actuated Type AN)15mm-50mm(1/2inch-2inch)

Body Material
PVC
C-PVC
PP
PVDF

Diaphragm Material
PTFE
EPDM
FKM
Viflon C (FKM-C)
Viflon F (FKM-F)

Connection Standard
JIS 10K
ANSI CLASS150
DIN PN10

Action
Double Acting
Air to Open
Air to Close

Equipment
Indicator

Option
- Filter Regulator
- Solenoid Valve
- Limit Switch
- Speed Controller
- Manual Override

※for air to open
- Positioner

FEATURES

- The Actuator made of resin is Light and Compact.
- NAMUR Standard is applied for Air Piping.
- All optional Equipment (except positioner) can easily be added or removed in the field.
- A Closing Travel Stop Mechanism is Standard.

OPTIONAL EQUIPMENT

Combination No.	1	2	3	4	5	6	7	8	9
Solenoid Valve※	○	—	—	○	○	—	○	—	—
Filter Regulator	—	—	—	○	—	—	○	—	○
Speed Controller	◎	○	—	◎	◎	○	◎	—	—
Limit Switch	—	—	○	—	○	○	○	—	—
Positioner (electric-air, ait-air)	—	—	—	—	—	—	—	○	○

◎Indicates specialized for Solenoid Valve.
※With built-in speed controller and bypass valve.

ACTUATOR SPECIFICATION [Double Acting]

Nominal Size mm(inch)	15(1/2inch)	20(3/4inch)	25(1inch)	32(1 1/4inch)	40(1 1/2inch)	50(2inch)
Actuator Type	AN-1DA		AN-2DA		AN-3DA	AN-4DA
Operating Pressure Mpa{kgf/cm²}	0.4{4.1} - 0.6{6.1}					
Air Consumption Nl /open & close (at operating pressure 0.4NPa)	2.6	2.6	2.7	2.7	9.6	9.8
Air Supply Bore	Rc 1/4					

ACTUATOR SPECIFICATION [Air to Open]

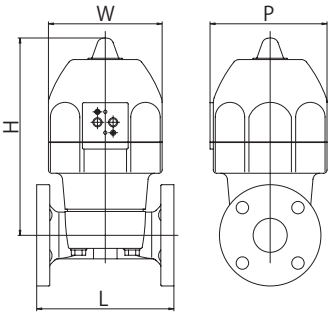
Nominal Size mm(inch)	15(1/2inch)	20(3/4inch)	25(1inch)	32(1 1/4inch)	40(1 1/2inch)	50(2inch)
Actuator Type	AN-1AO		AN-2AO		AN-3AO	AN-4AO
Operating Pressure Mpa{kgf/cm²}	0.4{4.1} - 0.6{6.1}					
Air Consumption Nl /open & close (at operating pressure 0.4NPa)	0.8	0.8	0.8	0.8	3.4	3.4
Air Supply Bore	Rc 1/4					

ACTUATOR SPECIFICATION [Air to Close]

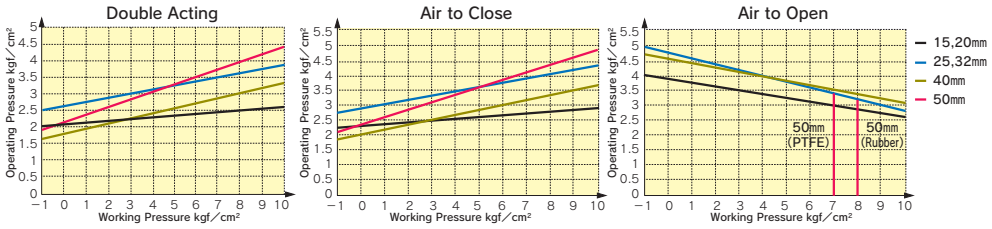
Nominal Size mm(inch)	15(1/2inch)	20(3/4inch)	25(1inch)	32(1 1/4inch)	40(1 1/2inch)	50(2inch)
Actuator Type	AN-1AS		AN-2AS		AN-3AS	AN-4AS
Operating Pressure Mpa{kgf/cm²}	0.4{4.1} - 0.6{6.1}					
Air Consumption Nl /open & close (at operating pressure 0.4NPa)	1.8	1.8	1.9	1.9	6.1	6.3
Air Supply Bore	Rc 1/4					

* for the actuator with lubricant free valves consult near Asahi dealer.

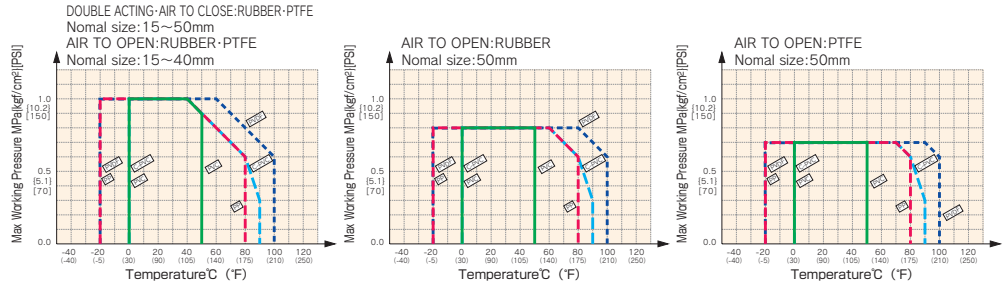
DIMENSIONS FIGURE



OPERATION PRESSURE vs WORKING PRESSURE



WORKING PRESSURE VS.TEMPERATURE



DIMENSIONS TABLE

ANSI, DIN Unit:mm(inch)

Nominal Size			15(1/2)	20(3/4)	25(1)	32(1 1/4)	40(1 1/2)	50(2)
L	DIN		130 (5.12)	150 (5.91)	160 (6.30)	180 (7.09)	200 (7.87)	230 (9.06)
	ANSI	A Standard	110 (4.33)	120 (4.72)	130 (5.12)	— —	180 (7.09)	210 (8.27)
		G Standard	108 (4.25)	149 (5.88)	149 (5.88)	213 (8.38)	176 (6.94)	202 (7.94)
H			186 (7.32)	188 (7.4)	193 (7.6)	197 (7.76)	293 (11.54)	302 (11.89)
W			130 (5.12)	130 (5.12)	130 (5.12)	130 (5.12)	174 (6.85)	174 (6.85)
P			133 (5.24)	133 (5.24)	133 (5.24)	133 (5.24)	179 (7.05)	179 (7.05)

True Union Diaphragm Valve Type14 (Pneumatic Actuated Type AN) 15mm-50mm(1/2inch-2inch)

Body Material
PVC
C-PVC
PP
PVDF

Diaphragm Material
PTFE
EPDM
FKM
Viflon C (FKM-C)
Viflon F (FKM-F)

Connection Standard
Socket End JIS
Socket End ASTM SCH80
Socket End DIN
Threaded End Rc
Threaded End NPT
Threaded End Rp

Action
Double Acting
Air to Open
Air to Close

Equipment
Indicator

Option
- Filter Regulator
- Solenoid Valve
- Limit Switch
- Speed Controller
- Manual Override

※for air to open
- Positioner

FEATURES

- The Actuator made of Resin is Light and Compact.
- NAMUR Standard is applied for air piping.
- All Optional Equipment(except positioner) can easily be added or removed in the Field.
- A Closing Travel Stop mechanism is standard.

OPTIONAL EQUIPMENT

Combination No.	1	2	3	4	5	6	7	8	9
Solenoid Valve※	○	—	—	○	○	—	○	—	—
Filter Regulator	—	—	—	○	—	—	○	—	○
Speed Controller	◎	○	—	◎	◎	○	◎	—	—
Limit Switch	—	—	○	—	○	○	○	—	—
Positioner (Electric-Air, Air-Air)	—	—	—	—	—	—	—	○	○

◎Indicates specialized for Solenoid Valve.
※With built-in speed controller and bypass valve.

ACTUATOR SPECIFICATION [Double Acting]

Nominal Size mm(inch)	15(1/2inch)	20(3/4inch)	25(1inch)	32(1 1/4inch)	40(1 1/2inch)	50(2inch)
Actuator Type	AN-1DA		AN-2DA		AN-3DA	AN-4DA
Operating Pressure Mpa{kgf/cm²}	0.4{4.1} - 0.6{6.1}					
Air Consumption Nl /Open & Close (at operating pressure 0.4NPa)	2.6	2.6	2.7	2.7	9.6	9.8
Air Supply Bore	Rc 1/4					

ACTUATOR SPECIFICATION [Air to Open]

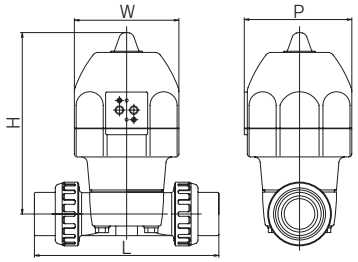
Nominal Size mm(inch)	15(1/2inch)	20(3/4inch)	25(1inch)	32(1 1/4inch)	40(1 1/2inch)	50(2inch)
Actuator Type	AN-1AO		AN-2AO		AN-3AO	AN-4AO
Operating Pressure Mpa{kgf/cm²}	0.4{4.1} - 0.6{6.1}					
Air Consumption Nl /Open & Close (at operating pressure 0.4NPa)	0.8	0.8	0.8	0.8	3.4	3.4
Air Supply Bore	Rc 1/4					

ACTUATOR SPECIFICATION [Air to Close]

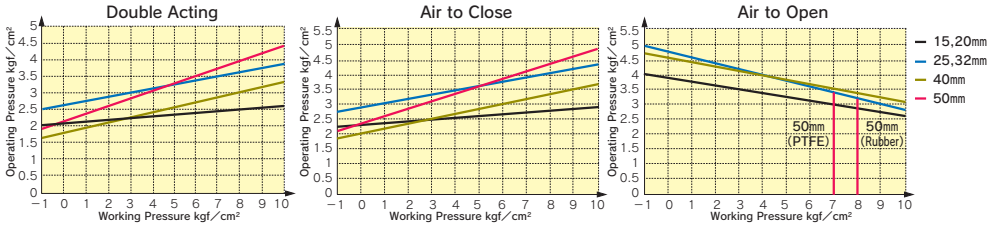
Nominal Size mm(inch)	15(1/2inch)	20(3/4inch)	25(1inch)	32(1 1/4inch)	40(1 1/2inch)	50(2inch)
Actuator Type	AN-1AS		AN-2AS		AN-3AS	AN-4AS
Operating Pressure Mpa{kgf/cm²}	0.4{4.1} - 0.6{6.1}					
Air Consumption Nl /Open & Close (at operating pressure 0.4NPa)	1.8	1.8	1.9	1.9	6.1	6.3
Air Supply Bore	Rc 1/4					

* for the actuator with lubricant free valves consult near Asahi dealer.

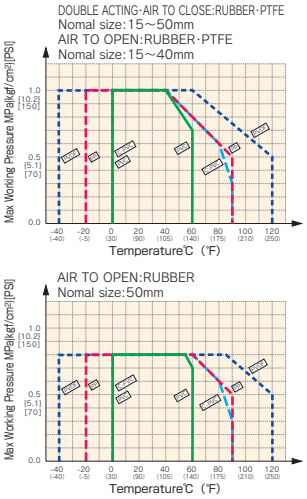
DIMENSIONS FIGURE



OPERATION PRESSURE vs WORKING PRESSURE



WORKING PRESSURE VS.TEMPERATURE



DIMENSIONS TABLE

ANSI, DIN Unit:mm(inch)

Nominal Size				15(1/2)	20(3/4)	25(1)	32(1 1/4)	40(1 1/2)	50(2)
Threaded End	L	PVC, C-PVC	DIN	128 (5.04)	148 (5.83)	172 (6.77)	188 (7.4)	245 (9.65)	281 (11.06)
			ANSI	128 (5.04)	148 (5.83)	172 (6.77)	188 (7.4)	245 (9.65)	281 (11.06)
		PP, PVDF	DIN	128 (5.04)	148 (5.83)	172 (6.77)	188 (7.4)	245 (9.65)	278 (10.95)
			ANSI	128 (5.04)	148 (5.83)	172 (6.77)	188 (7.4)	245 (9.65)	278 (10.95)
Socket End		PVC, C-PVC	DIN	128 (5.04)	147 (5.79)	172 (6.77)	188 (7.4)	246 (9.69)	294 (11.57)
			ANSI	139 (5.47)	157 (6.18)	186 (7.32)	202 (7.95)	266 (10.47)	293 (11.54)

Nominal Size				15(1/2)	20(3/4)	25(1)	32(1 1/4)	40(1 1/2)	50(2)
Socket End	L	PP	DIN	125 (4.92)	141 (5.55)	164 (6.46)	177 (6.97)	231 (9.09)	274 (10.79)
			ANSI	138 (5.43)	155 (6.09)	184 (7.24)	198 (7.80)	261 (10.28)	293 (11.54)
		PVDF	ANSI	138 (5.43)	155 (6.09)	184 (7.24)	198 (7.80)	261 (10.28)	293 (11.54)
Common		H		186 (7.32)	188 (7.4)	193 (7.6)	197 (7.76)	293 (11.54)	302 (11.89)
		W		130 (5.12)	130 (5.12)	130 (5.12)	130 (5.12)	174 (6.85)	174 (6.85)
		P		133 (5.24)	133 (5.24)	133 (5.24)	133 (5.24)	179 (7.05)	179 (7.05)

ASAHI AV VALVE

AV GASKET


Full face Type Rubber Gasket


Ring Type Gasket (JIS ouly)


PTFE coated


PVDF coated

● MATERIAL : EPDM, PTFE, PVDF, CSM, FKM, IIR, Viflon F, C

FEATURES

- AV GASKETS offer Similar sealing performance with $^{1}/_{3}$ bolt tightening torque, compared to flat or envelope style gaskets.
- Uniform dimension, fine surface, suitable hardness.
- Long service life.
- Unique Convex Design.

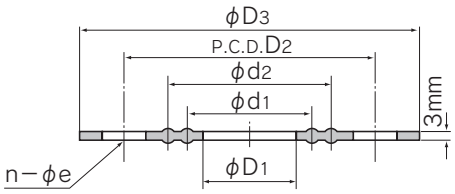
SPECIFICATIONS

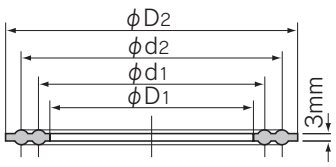
Material	Working Temperature	SIZE AVAILABILITY BY STANDARD		
		JIS	ANSI	DIN
EPDM	−40℃ - 90℃ (−40°F - 195°F)	15mm - 350mm	$^{1}/_{2}$inch - 16inch *1	15mm - 350mm
PTFE	−40℃ - 120℃ (−40°F - 250°F)	15mm - 300mm	$^{1}/_{2}$inch - 12inch	15mm - 300mm
PVDF	−40℃ - 120℃ (−40°F - 250°F)	15mm - 300mm	$^{1}/_{2}$inch - 10inch *2	15mm - 300mm
VIFLON	−5℃ - 150℃ (−5°F - 280°F)	15mm - 200mm	—	—

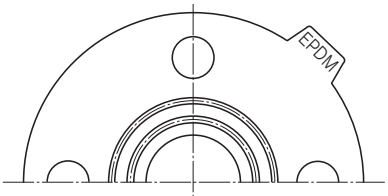
Working temperature is different depending on type of fluid.
Voflon-F has superior resistance to inorganic acids such as HNO_3, HF and HCl.
Voflon-C has superior resistance to chlorine containing media such as Chlorine Water, NaCl and ClO_2.

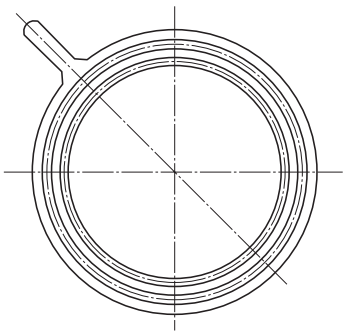
*1 14inch, 16inch:FLAT FULL FACE
*2 Except for $1^{1}/_{4}$inch and

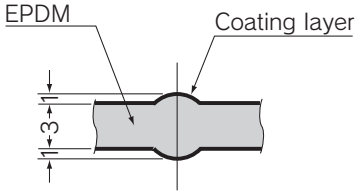
DIMENSIONS











Type	Nominal Size	Thickness
PTFE	15mm($^{1}/_{2}$inch) to 300mm(12inch)	0.3-0.4mm(0.012-0.016inch)
PVDF	15mm($^{1}/_{2}$inch) to 65mm($2^{1}/_{2}$inch) 80mm(3inch) to 300mm(12inch)	0.4-0.5mm(0.016-0.020inch)

DIMENSIONS TABLE

Full-Face Type (DIN 2501)

Unit:mm

Nominal Size		D_1	D_2	D_3	n	e	d_1	d_2
mm	inch							
15	1/2	18	65	93	4	14	26	41
20	3/4	22	75	103	4	14	32	47
25	1	30	85	113	4	14	38	53
32	1 1/4	37	100	138	8	18	50	65
40	1 1/2	43	110	148	4	18	54	69
50	2	54	125	163	4	18	68	83
65	2 1/2	69	145	183	4	18	86	101
80	3	80	160	198	8	18	98	112
100	4	102	180	218	8	18	120	138
125	5	127	210	248	8	18	145	166
150	6	150	240	283	8	23	168	190
200	8	198	295	338	8	23	216	247
250	10	249	350	393	12	23	270	306
300	12	300	400	443	12	23	324	352
350	14	350	460	503	16	25	370	390

Full-Face Type (ANSI CLASS150)

Unit:inch

Nominal Size		D_1	D_2	D_3	n	e	d_1	d_2
inch	mm							
1/2	15	0.7	2.4	3.4	4	0.6	1.0	1.6
3/4	20	0.9	2.8	3.8	4	0.6	1.3	1.9
1	25	1.2	3.1	4.2	4	0.6	1.5	2.1
1 1/4	32	1.5	3.5	4.5	4	0.6	2.0	2.6
1 1/2	40	1.7	3.9	4.9	4	0.6	2.1	2.7
2	50	2.1	4.7	5.9	4	0.8	2.7	3.3
2 1/2	65	2.7	5.5	6.9	4	0.8	3.4	4.0
3	80	3.2	6.0	7.4	4	0.8	3.9	4.4
4	100	4.0	7.5	8.9	8	0.8	4.7	5.4
5	125	5.0	8.5	9.9	8	0.9	5.7	6.5
6	150	5.9	9.5	10.9	8	0.9	6.6	7.5
8	200	7.8	11.8	13.4	8	0.9	8.5	9.7
10	250	9.8	14.3	15.9	12	1.0	10.6	12.1
12	300	11.8	17.0	18.9	12	1.0	12.8	13.9
14	350	13.9	18.7	20.9	12	1.14	14.6	15.4
16	400	15.6	21.2	23.4	16	1.14	17.3	18.5

＊1 14inch, 16inch:FLAT FULL FACE

RECOMMENDED TIGHTENING TORQUE 〈ALL MATERIALS / FULL FACE TYPE〉

mm(inch)	N・m	FT-LB	mm(inch)	N・m	FT-LB	mm(inch)	N・m	FT-LB
15 (1/2)	17.5	13	65 (2 1/2)	22.5	16	200 (8)	55	40
20 (3/4)	17.5	13	80 (3)	30	22	250(10)	55	40
25 (1)	20	14	100(4)	30	22	300(12)	60	43
40 (1 1/2)	20	14	125(5)	40	29	350(14)	60	43
50 (2)	22.5	16	150(6)	45	32	400(16)	80	58

Abbreviations for Major Materials Used For Asahi AV Products

Symbol	Description
PVC	"PVC" is an abbreviation for "polyvinyl chloride."
C-PVC	The first letter "C" stands for "chlorinated." "C-PVC" refers to "chlorinated polyvinyl chloride," or heat-resistant polyvinyl chloride.
HI-PVC	The first lettering "HI" means "high impact." "HI-PVC" refers to "high impact resist polyvinyl chloride."
PP	"PP" is an abbreviation for "polypropylene."
PVDF	"PVDF" is an abbreviation for "polyvinylidene fluoride."
FRP	"FRP" is an abbreviation for "fiber reinforced plastics."
ABS	"ABS" is an abbreviation for "acrylonitrile butadiene styrene."
PPS	"PPS" is an abbreviation for "polyphenylenesulfide."
PEEK	"PEEK" is an abbreviation for "polyether ether ketone."
PTFE	"PTFE" is an abbreviation for "poly tetra fluoro ethylene."
PDCPD	"PDCPD" is an abbreviation for "polydicyclo pentadiene."
UHMWPE	"UHMWPE" is an abbreviation for "ultra high molecular weight polyethylene."
EPDM	"EPDM" is an abbreviation for "ethylene propylene diene rubber."
FKM	"FKM" is an abbreviation for "fluorocarbon rubber."
Viflon F,C (FKM-F, FKM-C)	"Viflon" is Trade Mark of ASAHI ORGANIC CHEMICALS INDUSTRY CO., LTD. of the Terpolymerization Fluorocarbon Elastomers.
SBR	"SBR" is an abbreviation for "styrene butadiene rubber."
NBR	"NBR" is an abbreviation for "acrylonitorile butadiene rubber."
IIR	"IIR" is an abbreviation for "isobtylen isopren rubber."
CSM	"CSM" is an abbreviation for "chlorosulphonated polyethlene."
PPG	"PPG" is an abbreviation for "Glass Fiber Reinforced Polypropylene."
PC	"PC" is an abbreviation for "Polypropylene."
HP-PVC	The first letter "HP" means "High Purity" "HP-PVC" reters to "high purity polyvinyl chloride."

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