

ASAHI AV



NEW MODEL

3-WAY BALL VALVES

TYPE23



FEATURES

■ Newly Equipped ISO Mounting Flange

This new feature provides for easier mounting of actuators on valves.

■ Interchangeable with ASAHI AV 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 (1/2") up to 50mm (2").
- Built-in spanner wrench on the handle for valve disassembly and assembly.



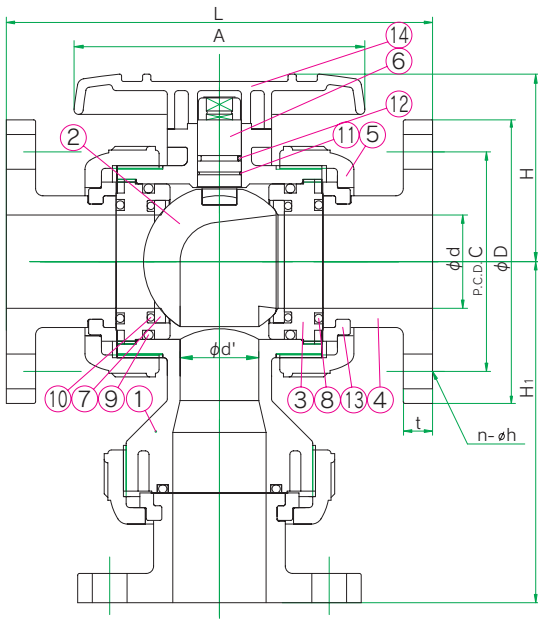
ASAHI ORGANIC CHEMICALS INDUSTRY CO.,LTD.



ASAHI AV 3-WAY BALL VALVE

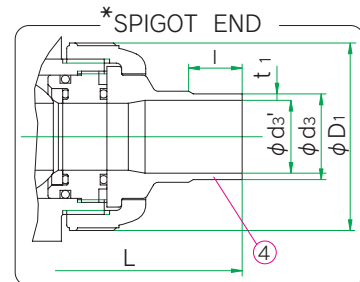
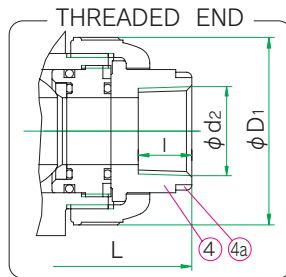
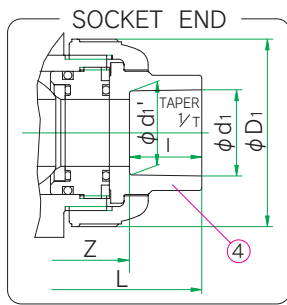
DIMENSIONS

FLANGED END

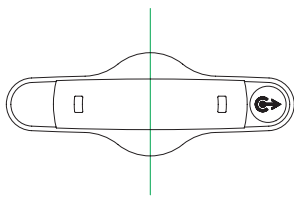


PARTS TABLE

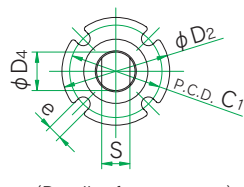
No.	DESCRIPTION	No.REQ'D	MATERIAL	REMARKS
1	BODY	1	□ PVC	
2	BALL	1		
3	CARRIER	2	□ C-PVC	
4	END CONNECTOR	3	□ PP	
5	UNION NUT	3		
6	STEM	1	□ PVDF	
7	SEAT	2	PTFE	
8	O-RING (A)	3		
9	O-RING (B)	2	□ EPDM	
10	O-RING (C)	2	□ FKM	used for size 15~25mm
	CUSHION	2	□ others	used for size 80,100mm
11	O-RING (D)	1	()	
12	O-RING (E)	1		
13	STOP RING	3	PVDF	used for flanged end
14	HANDLE	1	ABS	
15	TAPPING SCREW	1	STAINLESS STEEL(SUS304)	used for size 80,100mm
4a	RING	3	STAINLESS STEEL(SUS304)	used for C-PVC end connector. threaded end : 15~25mm



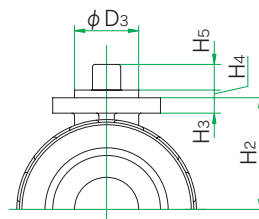
* For JIS standard and DIN standard only.



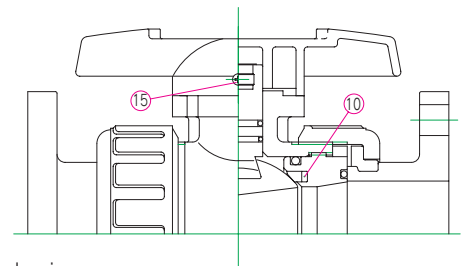
(Top view of the handle.)



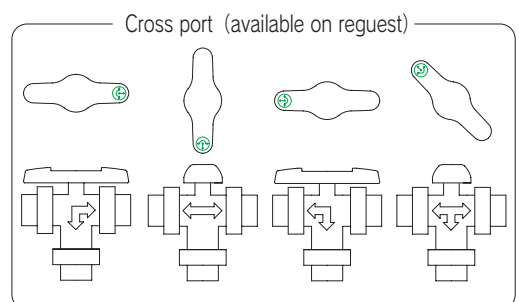
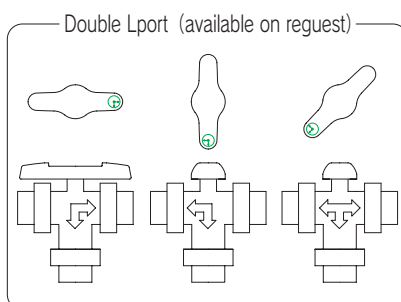
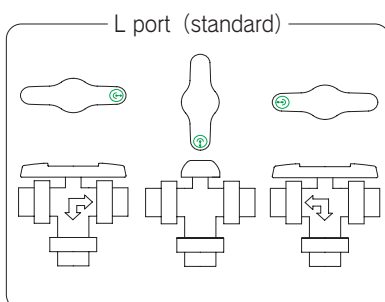
(Detail of stem part.)



80,100mm



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



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



DIMENSIONS TABLE

▼ JIS: FLANGED END (JIS 5K, JIS 10K), SOCKET END, THREADED END, SPIGOT END, 15^{mm} (1/2")~100^{mm} (4")

UNIT:mm

NOMINAL SIZE	FLANGED END											SOCKET END														
	JIS 5K				JIS 10K				L	t	H1	PVC, C-PVC					PP				PVDF					
	D	C	n	h	D	C	n	h				d ₁	l	1/2T	L	H1	d ₁	d ₁ '	l	L	H1	d ₁	d ₁ '	l	L	H1
15 ^{mm} 1/2"	80	60	4	12	95	70	4	15	143	12	94	22.11	20	1/34	108	77	21.20	20.20	20	108	77	21.50	21.30	20	108	78
20 3/4	85	65	4	12	100	75	4	15	172	14	115	26.13	24	1/34	128	93	26.20	25.20	23	126	92	25.50	25.30	22	124	90
25 1	95	75	4	12	125	90	4	19	187	14	133	32.16	27	1/34	145	112	33.00	32.00	25	141	110	31.50	31.30	24	139	108
40 1 1/2	120	95	4	15	140	105	4	19	212	16	165	48.21	37	1/37	189	154	47.00	46.00	28	171	145	47.45	47.20	28	171	142
50 2	130	105	4	15	155	120	4	19	234	16	187	60.25	42	1/37	220	180	59.00	58.00	28	192	166	59.45	59.10	30	196	166
80 3	180	145	4	19	185	150	8	19	304	18	256	89.60	64	1/49	316	261	88.00	86.00	35	258	232	88.00	87.65	36	260	233
100 4	200	165	8	19	210	175	8	19	372	18	305	114.70	84	1/56	418	328	113.00	111.00	45	340	289	113.05	112.65	41	332	285

NOMINAL SIZE	THREADED END				SPIGOT END				d	d'	D ₁	D ₂	D ₃	D ₄	C ₁	H	H ₂	H ₃	H ₄	H ₅	A	S	e	
	d ₂	l	L	H ₁	PVDF																			
					d ₃	t ₁	l	L																H ₁
15 ^{mm} 1/2"	Rc 1/2	15	102	74	22	1.9	20	147	96	15	15	48	42	25	13.5	36	51.5	30	6	3	8	92	10.5	5.5
20 3/4	Rc 3/4	17	120	89	26	1.9	20	165	111	20	20	60	42	25	15	36	59.5	36.5	6	3	10	100	11	5.5
25 1	Rc 1	20	131	105	32	2.4	20	177	128	25	25	70	42	25	15	36	68	43.5	6	3	10	110	11	5.5
40 1 1/2	Rc 1 1/2	25	163	141	48	3	20	202	161	38	32	100	57	35	23	50	89	61	10	3	12	131	18	6.5
50 2	Rc 2	28	197	168	60	3	20	226	184	51	43	126	57	35	23	50	102.5	72.5	10	3	12	159	18	6.5
80 3	Rc 3	35	264	235	89	4.5	38	329	251	78	68.5	152	81	55	30	70	140	94	13	3	19	240	24	9
100 4	Rc 4	45	360	299	114	5.7	45	397	307	100	90	210	116	70	40	102	178	126	16	3	23	300	34	11

▼ ANSI: FLANGED END, SOCKET END, THREADED END, 15^{mm} (1/2")~100^{mm} (4")

UNIT:inch

NOMINAL SIZE	FLANGED END							SOCKET END (IPS)											THREADED END						
	ANSI Class 150							PVC, C-PVC					PP,PVDF						d ₂	l	L	H ₁			
	D	C	n	h	L	t	H ₁	ANSI SCH40				ANSI SCH80		d ₁	l	L	H ₁	d ₁					l	L	H ₁
								d ₁	d ₁ '	l	L	d ₁	d ₁ '												
15 ^{mm} 1/2"	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	
20 3/4	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	
25 1	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	
40 1 1/2	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 - 1 1/2 NPT	0.98	6.42	5.53	
50 2	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 - 1 1/2 NPT	1.10	7.76	6.61	
80 3	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	
100 4	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	H ₂	H ₃	H ₄	H ₅	A	S	e
15 ^{mm} 1/2"	0.59	0.59	1.89	1.65	0.98	0.53	1.42	2.03	1.18	0.24	0.12	0.31	3.62	0.41	0.22
20 3/4	0.79	0.79	2.36	1.65	0.98	0.59	1.42	2.34	1.44	0.24	0.12	0.39	3.94	0.43	0.22
25 1	0.98	0.98	2.76	1.65	0.98	0.59	1.42	2.68	1.71	0.24	0.12	0.39	4.33	0.43	0.22
40 1 1/2	1.57	1.26	3.94	2.24	1.38	0.91	1.97	3.50	2.40	0.39	0.12	0.47	5.16	0.71	0.26
50 2	2.01	1.69	4.96	2.24	1.38	0.91	1.97	4.04	2.85	0.39	0.12	0.47	6.26	0.71	0.26
80 3	3.07	2.70	5.98	3.19	2.17	1.18	2.76	5.51	3.70	0.51	0.12	0.75	9.45	0.94	0.35
100 4	3.94	3.54	8.27	4.57	2.76	1.57	4.02	7.01	4.96	0.63	0.12	0.91	11.81	1.34	0.43

▼ DIN: FLANGED END, SOCKET END, THREADED END, SPIGOT END, 15^{mm} (1/2")~100^{mm} (4")

UNIT:mm

NOMINAL SIZE	FLANGED END							SOCKET END											THREADED END			
	DIN PN10							PVC, C-PVC					PP,PVDF						d ₂	l	L	H ₁
	D	C	n	h	L	t	H ₁	d ₁	l	Z	L	H ₁	d ₁	d ₁ '	l	Z	L	H ₁				
15 ^{mm} 1/2"																						
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	62.00	27.5	-	176	154	Rp 2	28	197	168
80 3	200	160	8	18	310	21	259	90	51	180	282	245	89.20	88.85	35.5	180	251	224	Rp 3	35	264	235
100 4	220	180	8	18	350	18	305	110	61	227	349	305	109.05	108.65	41.5	227	310	279	Rp 4	45	338	299

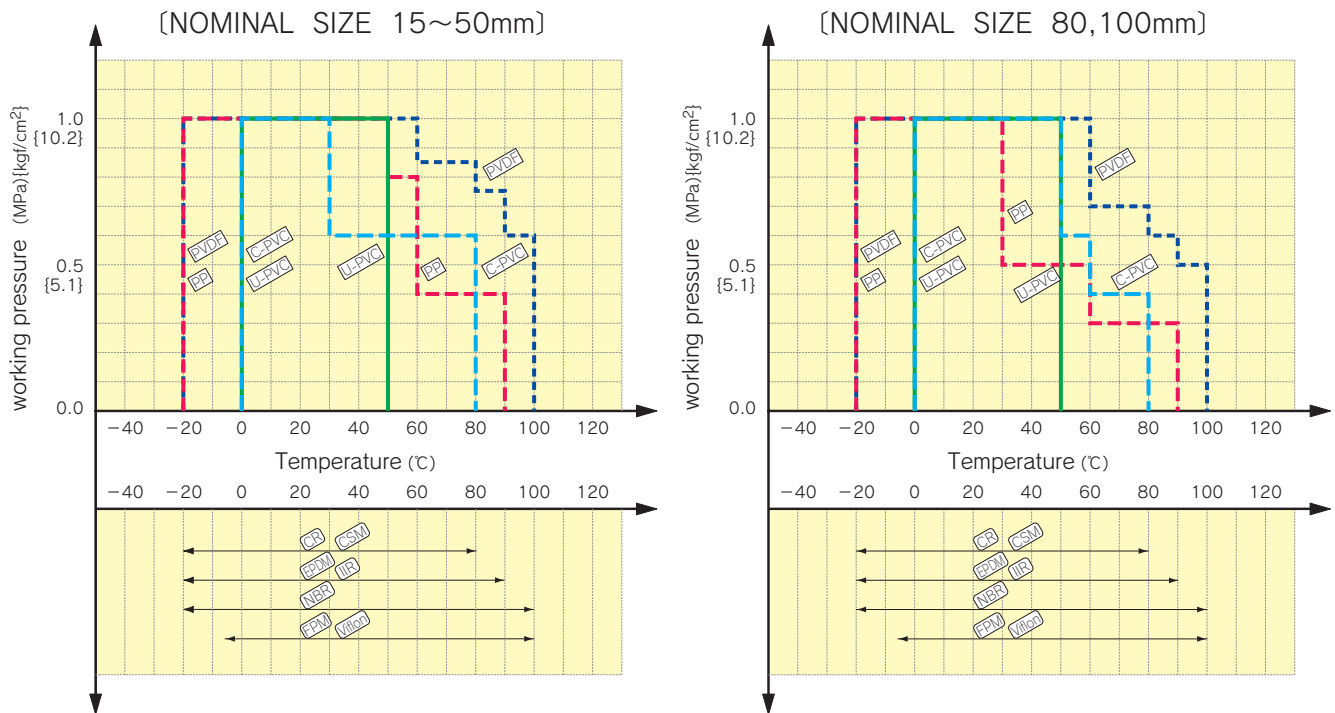
NOMINAL SIZE	SPIGOT END										
	PVC					PP,PVDF					
	d ₃	d ₃ '	l	L	H ₁	d ₃	l	PP	PVDF	L	H ₁
15 ^{mm} 1/2"	20	15	18.5	124	83	20	18.5	2.5	1.9	124	83
20 3/4	25	20	24	144	99	25	22	2.7	1.9	144	99
25 1	32	25	24.5	154	115	32	22.5	3.0	2.4	154	115
40 1 1/2	50	40	34	194	153	50	32	4.6	3.0	194	153
50 2	63	51	38	224	178	63	36	5.8	3.0	224	178
80 3	90	80	51	300	252	90	38	8.2	4.3	295	246
100 4	110	93.6	61	384	308	110	44.5	10.0	5.3	353	301

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
15 ^{mm} 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 3-WAY BALL VALVE

WORKING PRESSURE VS. TEMPERATURE



Note: There is dead space in the valve body. Volatile medium, such as Hydrogen peroxide (H₂O₂) and Sodium hypochlorite (NaClO), may vaporize in the dead space and cause the abnormal pressure increase in the valve.

(Important: Gas is compressible. Thus if the internal pressure of the valve rises abnormally, the valve can be burst.)



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