



EXPERT IN PROCESS VALVE



VSP Series
Wafer Type Flange Ball Valve

GENERAL FEATURES

- Investment casting body and cap(1/2"~4")
- Solid ball for high performance working conditions;
- Pressure relief hole in ball slot;
- Blow-out proof stem;
- Anti-static devices for ball -stem-body;
- Pre-load 2 belleville washers to self-adjust packing;
- ISO5211 direct mounting pad for easy automation;
- Fire safe design and construction;
- Viton O-ring in the stem as option
- High performance machined seat
- Spherical surface stem as option for better sealing and keeping the stem in the center.



◆ How to Order

V	SP		1	2	25	F	6	P	16	AT50
Series	Valve Model	Valve Body Form	Port Code		Sealing Material	Connecting Type	Body Material	Pressure	Actuator	
SP	Blank Ball Valve H Handle Ball Valve	1 1-Piece body	015 1/2"	065 2-1/2"	F PTFE (-20°C~180°C) R RTFE (-20°C~200°C) T Ceramic (-40°C~350°C) N NBR (-20°C~90°C) D EPDM (-20°C~120°C) K PEEK (-29°C~285°C) W Metal (500°C)	6 Wafer type Flange	P 304/CF8 PL 304L/CF3 C WCB R 316/CF8M RL 316L/CF3M Q Ductile iron	16 PN1.6MPa 25 PN2.5MPa 40 PN4.0MPa 64 PN6.4MPa 150 ANSI 150LB 300 ANSI 300LB 600 ANSI 600LB 900 ANSI 900LB 10 JIS 10K 20 JIS 20K 1000 PSI 7.0MPa 2000 PSI 14.0MPa	see diagram as below	
		Valve Type	020 3/4"	080 3"						
		2 2-way	025 1"	100 4"						
			032 1-1/4"	125 6"						
			040 1-1/2"	150 7"						
			050 2"	200 8"						



◆ Ball Valve actuator selection

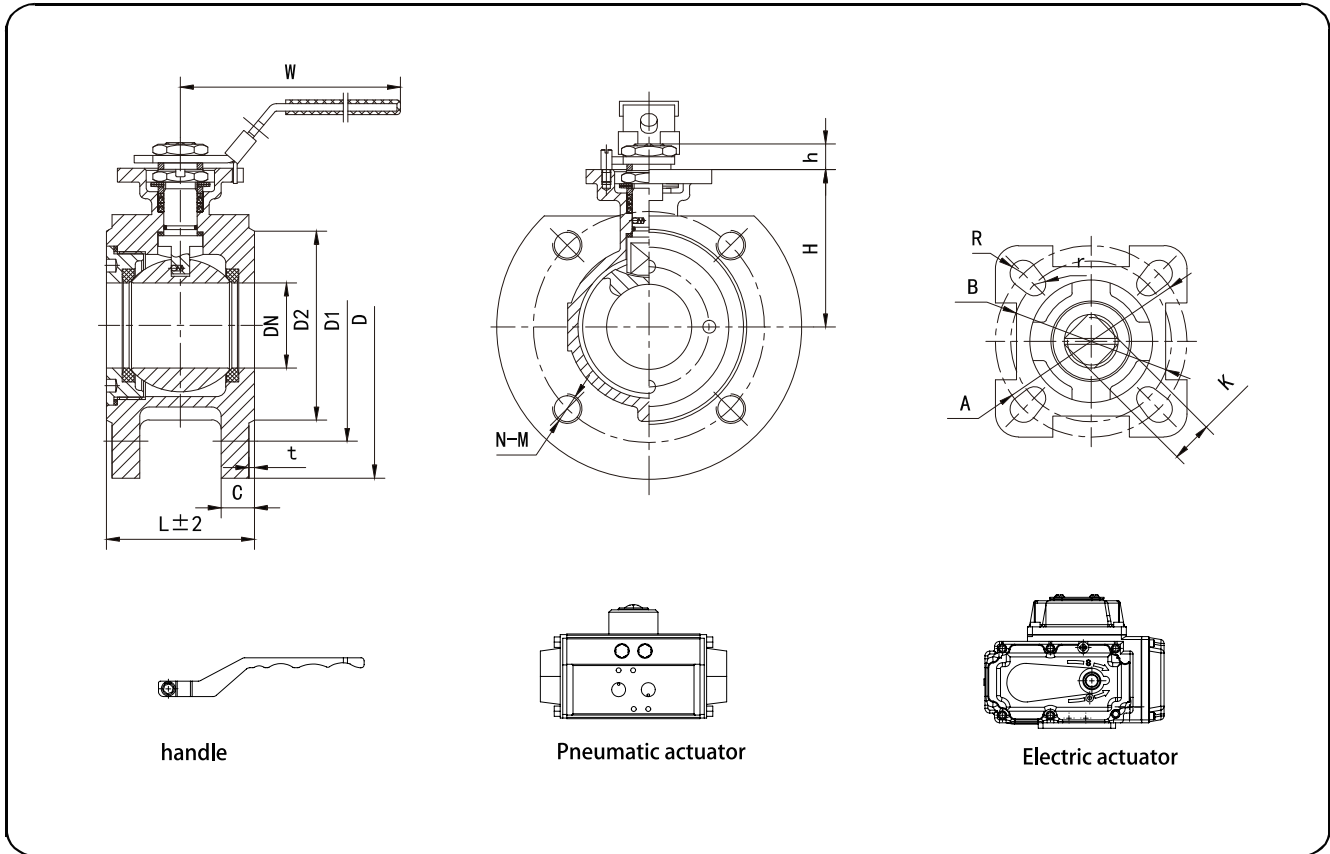
Name	Code	Size		Square Size	height of the central Stem	Flange	Torque Rating Nm	Actuator selection			
		inch	mm					Pneumatic Double Acting	Pneumatic Single Acting	Electric	Modulating on/off type
2-Pcs Female thread (1/4"-2")	221	1/4"	DN8	9	7	F03/F04	4	AT52D	AT52S	A-030(C)	E-075(C)
		3/8"	DN10	9	7	F03/F04	4	AT52D	AT52S	A-030(C)	E-075(C)
3-Pcs Female Thread (1/4"-4")	321	1/2"	DN15	9	9	F03/F05	4.8	AT52D	AT52S	A-030(C)	E-075(C)
		3/4"	DN20	9	9	F03/F05	7.6	AT52D	AT52S	A-030(C)	E-075(C)
		1"	DN25	9/11	11	F04/F05	9.5	AT52D	AT52S	A-030(C)	E-075(C)
		1-1/4"	DN32	11	10	F04/F05	17	AT63D	AT63S	A-030(C)	E-075(C)
3-Pcs Flange ends (1/2"- 12")	324	1-1/2"	DN40	11/14	14	F05/F07	23	AT75D	AT75S	A-030(C)	E-075(C)
		2"	DN50	14	14	F05/F07	34	AT83D	AT83S	A-075(C)	E-075(C)
		2-1/2"	DN65	17	14	F07/F10	47	AT92D	AT92S	A-075(C)	E-075(C)
2-Pcs Flange ends (1/2"- 12")	224	3"	DN80	17	14	F07/F10	80	AT105D	AT105S	A-150(C)	E-150(C)
		4"	DN100	17/19	17	F07/F10	129	AT125D	AT125S	A-150(C)	E-150(C)
		5"	DN125	22/25	22	F10/F12	230	AT140D	AT140S	A-300(C)	E-300(C)
		6"	DN150	25/27	35	F10/F12	335	AT160D	AT160S	A-400(C)	E-1000(C)
Wafer Type Flange (1/2"- 8")	126	8"	DN200	36	36	F10/F12	476	AT190D	AT190S	PMK-060SS	E-1000(C)
		10"	DN250	36	42	F12/F14	850	AT210D	AT210S	PMK-100	E-1000(C)
		12"	DN300	36	42	F12/F14	1050	AT240D	AT240S	A-1500SWT	E-1000(C)

3-Way Female thread reducer bore (1/4"- 2")	33T1 33L1	1/4"	DN8	9	7.4/9.3	F03/F04	7	AT52D	AT63S	A-030(C)	E-075(C)
		3/8"	DN10	9	7.4/9.3	F03/F04	7	AT52D	AT63S	A-030(C)	E-075(C)
		1/2"	DN15	9	7.4/9.6	F03/F04	7.5	AT52D	AT63S	A-030(C)	E-075(C)
		3/4"	DN20	11	12.5	F04/F05	10.5	AT52D	AT75S	A-030(C)	E-075(C)
		1"	DN25	11	12.6	F04/F05	14.5	AT63D	AT83S	A-030(C)	E-075(C)
3-Way Female thread full bore (1/4"- 3")	33T1 33L1	1-1/4"	DN32	11/14	13.1	F04/F05	24	AT75D	AT92S	A-030(C)	E-075(C)
		1-1/2"	DN40	11/14	14.8	F05/F07	34	AT75D	AT105S	A-075(C)	E-075(C)
		2"	DN50	14/17	18	F07/F10	45	AT83D	AT125S	A-075(C)	E-075(C)
		2-1/2"	DN65	17	18	F07/F10	75	AT105D	AT140S	A-150(C)	E-150(C)
		3"	DN80	17	18	F07/F10	120	AT125D	AT160S	A-150(C)	E-150(C)

3-Way Flange ends (1/2"- 8")	33T4 33L4	1/2"	DN15	9	9.6	F03/F04	5	AT52D	AT63S	A-030(C)	E-075(C)
		3/4"	DN20	9	12.5	F04/F05	5	AT52D	AT63S	A-030(C)	E-075(C)
		1"	DN25	11	12.6	F04/F05	18	AT63D	AT83S	A-030(C)	E-075(C)
		1-1/4"	DN32	14	13.1	F05/F07	23	AT63D	AT92S	A-030(C)	E-075(C)
		1-1/2"	DN40	14	14.8	F05/F07	27	AT75D	AT105S	A-075(C)	E-075(C)
		2"	DN50	17	18	F07/F10	58	AT92D	AT125S	A-075(C)	E-075(C)
		2-1/2"	DN65	17	18	F07/F10	65	AT92D	AT140S	A-150(C)	E-150(C)
		3"	DN80	17	18	F07/F10	112	AT105D	AT160S	A-150(C)	E-150(C)
		4"	DN100	17	24	F10	132	AT125D	AT190S	A-300(C)	E-300(C)
		5"	DN125	22	24	F10	235	AT140D	AT210S	A-300(C)	E-300(C)
		6"	DN150	22	38	F14	420	AT160D	AT240S	PMK-060SS	E-1000(C)
		8"	DN200	36	38	F14	619	AT190D	AT270S	PMK-100	E-1000(C)

- Remarks: 1. The air source pressure for the pneumatic control series is set to 4 kg to activate, with an option for electrical control using 220V or 380V;
 2. The matched actuators have already accounted for a 1.3 safety factor of the valve;
 3. The valve uses PN16 level PTFE sealing for operating pressure. If the pipeline pressure is increased or high-temperature sealing is required, the torque estimate should be increased by approximately 1.2 times when selecting a compatible actuator;
 4. For the overall dimensions of the automated valves, please refer to the component dimension calculations.

◆Dimensions [mm]



Port size	DN	L	D	D1	D2	t	C	N-M	H	W	A	B	R	r	K	h
DN15	15	35	95	65	45	2	10.	4-M12	81	150	42	36	3	3	9	9
DN20	20	38	105	75	55	2	10.5	4-M12	86	150	42	36	3	3	9	9
DN25	25	42	115	85	65	2	12	4-M12	93	180	50	42	3.5	3	11	11
DN32	32	53	135	100	78	2	15	4-M16	103	180	50	42	3.5	3	11	11
DN40	38	63	145	110	85	3	16	4-M16	120	210	70	50	4.5	3.5	14	14
DN50	50	72	160	125	100	3	16.5	4-M16	127	210	70	50	4.5	3.5	14	14
DN65	65	95	180	145	120	3	18	4-M16	144	260	70	50	4.5	3.5	14	14
DN80	76	118	195	160	135	3	20	8-M16	154	260	102	70	5.5	4.5	17	17
DN100	96	140	215	180	155	3	20	8-M16	172	330	102	70	5.5	4.5	17	17
DN125	125	180	250	210	185	3	22	8-M16	220	650	125	102	6.5	5.5	22	22
DN150	150	230	285	240	210	3	22	8-M20	245	800	125	102	6.5	5.5	27	27
DN200	200	275	340	295	265	3	24	8-M20	340	1000	125	102	6.5	5.5	27	27