

# Series 1F(a) Mounting Pad Flanged

## Reduced Port Ball Valves with Flanged End

½" – 4" (DN15 – DN100)  
ANSI Class 150



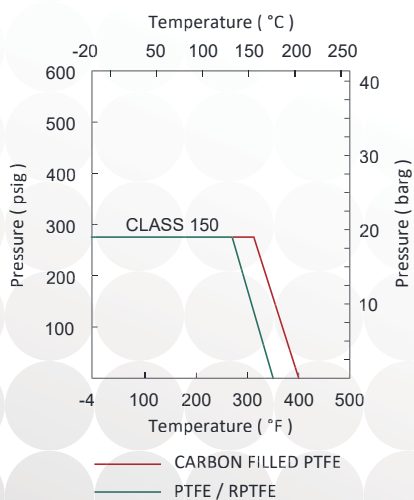
# Ball Valve Feature Mounting Pad

PVS FLOW CONTROL's Series 1F ball valves offer the solution to your flow control applications. Our specially designed valves are manufactured to meet customer's requirement. The Series 1F(a) ball valves are equipped with twin ISO 5211 mounting pad to easy valve automation products installation. 1F series are accompanied with flanged end connection, which meets all major standards. It can also be made according to any customized dimension.

Series 1F(a) valve body has various design features to sustain in tough conditions. The one piece design eliminates leakage by minimizing the number of potential joint faces on the valve body. The fire-safe design is applied on the Series 1F(a) valves upon request. In the case of fire, the primary PTFE/RPTFE ball seat will be destroyed; however, the ball then makes contact with the metal seat. As the result, a new seal is formed to replace the original PTFE seal.

The standard blow-safe stem design offers a safer working environment in the case of excess pressure inside the pipeline. With blow-safe design, the stem will not shoot out of the valve body and cause extra damages. The design itself is inserting the stem from inside the valve body, instead of insert the stem from the top. The live-loaded, self-adjusting stem assembly with packings automatically adjusts with material changes of the valve caused by thermal effects, such as contraction and expansion, and normal wear. The anti-static steam design is also available upon request. The ball seat material has several options to choose from, ranging from common PTFE to superior PEEK and DELRIN, and with low operating torque for the ease of use by both manual and automation.

## Valve Body Rating with Seat Material Plot:



This table express Seat material resistance as declared by the original manufacturers. The values are to be considered with other parameters such as size, seat design and temperature limitations as governed by relevant standards such as ASME B16.34.

## CE marking

The whole series of ball valves are approved according to European Directive 2014/68/EU.

### Blowout-Proof Design

The stem is installed from the bottom-entry direction instead of top-bottom. This prevents stem to shoot out during unexpected accident, such as excess pressure inside the pipeline system. This further provides a safer valve using environment. This design widely used in all PVS FLOW CONTROL's ball valves.

### Pressure Rating

ANSI Class 150

150 PSI for saturated steam

### Temperature Range:

-20°F to 350°F (-28°C to 180°C) with PTFE/RPTFE

### End Connection:

Flanged end connection with different types

### Body Material:

ASTM CF8M, WCB

(DIN 1.4408, 1.0619)

### Size Range:

1/2" ~ 4"

### Standards and Specifications

Flanged end connection face to face dimension according to

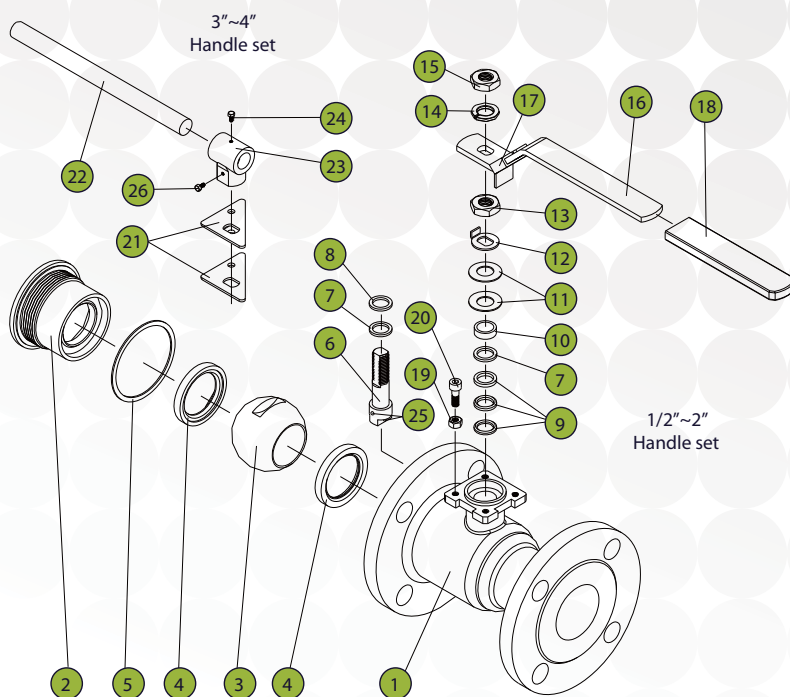
B16.10

Flanged end face dimension according to

B16.5

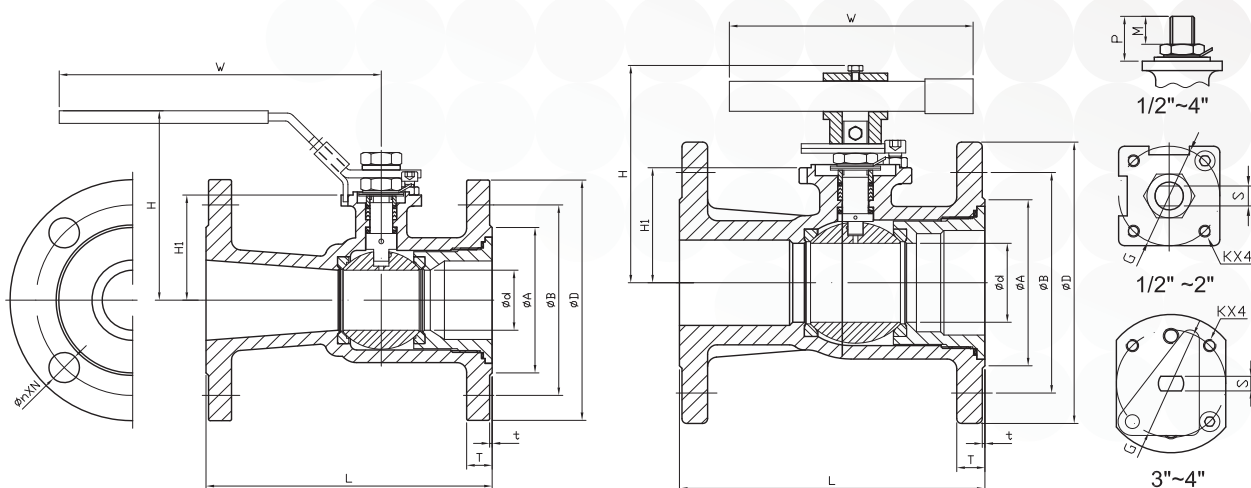
Valve body and flange connections are high quality investment cast with one body construction design. Stainless steel can be special processed with anneal, and carbon steel can be normalized, both are upon request. Other valve components, such as valve body, end cap, and stem, are produced to follow the ASME and other international regulations. All the valves are factory tested to meet API and MSS standards to ensure the quality of the valves.

## Series 1F(a) 1pc Flanged Reduced Port Ball Valve



NO	PART NAME	MATERIAL
1	BODY	CF8M/ WCB
2	CAP	CF8M/ WCB
3	BALL	CF8M
4	BALL SEAT	PTFE
5	BODY SEAL	PTFE
6	STEM	SS316
7	THRUST WASHER	PTFE+50%SS
8	STEM SEAL	PTFE
9	STEM PACKING	PTFE
10	GLAND	SS304
11	BELLEVILLE WASHER	SS301
12	LOCK SADDLE	SS304
13	STEM NUT	SS304

NO	PART NAME	MATERIAL
14	HANDLE WASHER	SS304
15	HANDLE NUT	SS304
16	HANDLE	SS304
17	LOCKING DEVICE	SS304
18	HANDLE SLEEVE	VINYL
19	STOP NUT	SS304
20	STOP BOLT	SS304
21	TRIANGLE STOPPER	SS304
22	HANDLE	SS304
23	ADAPTER	CF8
24	ADAPTER BOLT	SS304
25	ANTI-STATIC DEVICE	SS316
26	STEM BOLT	SS304



Dimensions inch/mm

SIZE Inch DN	d	L	H	H1	W	D	B	A	T	t	S	P	M	G	K	N	n
1/2" 15	0.5 12.6	4.25 108	2.87 73	1.04 26.5	5.9 150	3.5 89	2.38 60.5	1.38 35	0.44 11.2	0.06 1.6	0.2 5	0.63 16	0.29 7.3	F03	M5	4	16
3/4" 20	0.59 15	4.61 117	3.23 82	1.54 39	5.71 145	3.88 98.6	2.76 70	1.69 43	0.44 11.2	0.06 1.6	0.25 6.3	0.59 15	0.39 10	F04	M5	4	16
1" 25	0.79 20	5 127	3.39 86	1.67 42.5	5.71 145	4.25 108	3.13 79.5	2.01 51	0.44 11.2	0.06 1.6	0.25 6.3	0.59 15	0.43 10.8	F04	M5	4	16
1 1/2" 40	1.26 32	6.5 165	4.17 106	2.22 56.5	7.28 185	5 127	3.88 98.5	2.87 73	0.56 14.2	0.06 1.6	0.31 8	0.94 24	0.62 15.8	F05	M6	4	16
2" 50	1.5 38	7.01 178	4.72 120	2.62 66.5	8.07 205	6 152.5	4.74 120.5	3.62 92	0.63 15.9	0.06 1.6	0.39 10	1.02 26	0.59 15	F05	M6	4	19
3" 80	2.5 63.5	7.99 203	6.69 170	3.66 93	15.94 405	7.5 190.5	6 152.5	5 127	0.75 19.1	0.06 1.6	0.67 17	1.83 46.5	0.91 23	F07	M8	4	19
4" 100	3.15 80	9.06 230	7.01 178	4.24 107.8	15.94 405	9.02 229	7.5 190.5	6.18 157	0.94 24	0.06 1.6	0.67 17	1.75 44.5	0.87 22	F07	M8	8	19

## Optional Accessories

### Flange Options

PVS FLOW CONTROL offers various flange type to accompany different uses. The flange structures provided are slip-on, lap-join, welding neck, blind, screwed-end, and socket-welding flanges. Pressure rating and sizes are generally based on the valve body itself. For any special requirements, please consult with PVS FLOW CONTROL representatives for further information.

### Actuators

With the mounting pad design, Series 1F(a) ball valves can combine with every PVS FLOW CONTROL automatic control products with brackets. Currently, PVS FLOW CONTROL offers VT series pneumatic actuator and Jexme electric actuator to accompany Series 1F ball valves.



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Due to continuous development of the products, PVS FLOW CONTROL reserves the right to alter the dimension and information contained in the document as required. For specific performance data and proper material selection, please consult with your PVS FLOW CONTROL representatives