

2-Way Ball Valves

The valve is manufactured with CF8M(316) stainless steel. It is a three piece design with clamp/weld ends and ISO 5211 mounting pad. Seats are available for both encapsulated and non-



2-Way Ball Valves With V Seat / V Ball

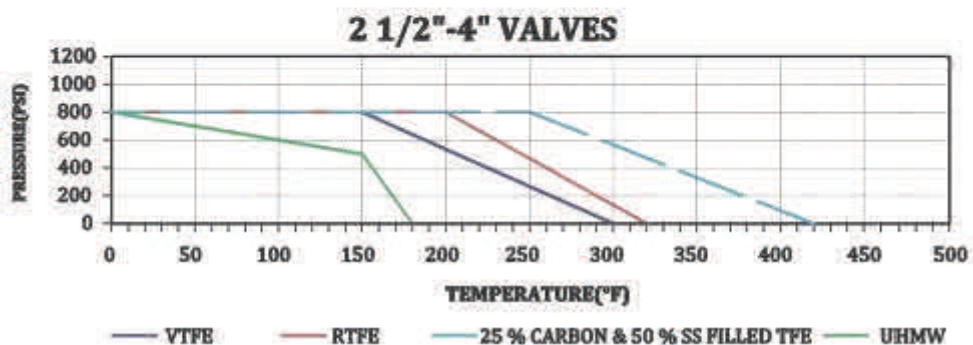
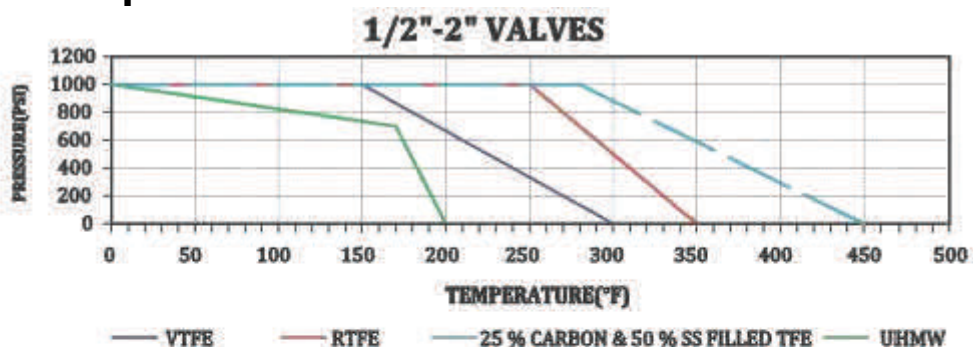
The valves are characterized V seat / V ball 2-way sanitary control valves. It is a CF8M(316) three piece encapsulated design with clamp/weld ends and ISO 5211 high mounting pad.

Sanitary Ball Valves

Seat Materials for Ball Valves

Description	Material	Applications
Virgin PTFE	Virgin Polytetrafluoroethylene (Food Grade Material)	100% PTFE Standard seat material. Ideal for most of the sanitary solutions. Specified for applications that require a low-efficient of friction.
RTFE	15%Glass Reinforced Tetrafluoroethylene	15%Glass Filled+85% PTFE Higher temperature and pressure rating compare to PTFE. Specified for applications that require a higher cycle life than PTFE.
25%Carbon PTFE	25%Carbon Reinforced Tetrafluoroethylene	25%Carbon Filled+75%PTFE Specified for higher temperature and pressure applications. Higher cycle life than RTFE. Ideal for steam and thermal fluid applications.
Stainless Steel PTFE	50%Stainless Steel Filled Tetrafluoroethylene (Food Grade Material)	50%Stainless Steel+50%PTFE Specified for higher temperature and pressure applications in a sanitary process.
UHMW	Ultra-high Molecular Weight Polyethylene (Food Grade Material)	Specified for the low modulus of abrasion and minimal property degradation when exposed to moderate levels of radiation. Ideal for where fluorocarbons are not acceptable.

Pressure Temperature Charts



Sanitary 2-Way Ball Valves

- Sizes:1/2" thru 4"
- Material:CF8M(316) stainless steel
- ID polish is Ra 32 uinch minimum
- Blow-out proof stem
- Full port design offers a lower pressure drop and less turbulent flow
- Compact design for areas with tight space restrictions
- Balanced non-encapsulated construction minimizes cold flow
- ISO high mounting pad for direct mount automation
- Precision stainless steel balls reduce torque and friction losses while extending seat life
- 100% tested and inspected before shipped
- Pressure rating:1/2"-2" 1000PSI WOG
2 1/2"-4" 800PSI WOG



Specifications

information based on water media at 68°F/20°C

Size	Weight (lbs)	Assembly Torque (in.lbs.)	Non-Encapsulated Break Torque (in.lbs.)	Encapsulated Break Torque (in.lbs.)	ISO 5211
1/2"	1.5	160	55	105	F03/F04
3/4"	1.9	160	71	116	F03/F04
1"	2.7	160	101	336	F04/F05
1 1/2"	4.8	200	221	420	F05/F07
2"	8.9	212	345	473	F05/F07
2 1/2"	18.7	221	683	788	F07/F10
3"	29.7	239	830	1155	F10/F12
4"	43.6	266	1323	1660	F10/F12

Vacuum Testing (Virgin PTFE Seats)

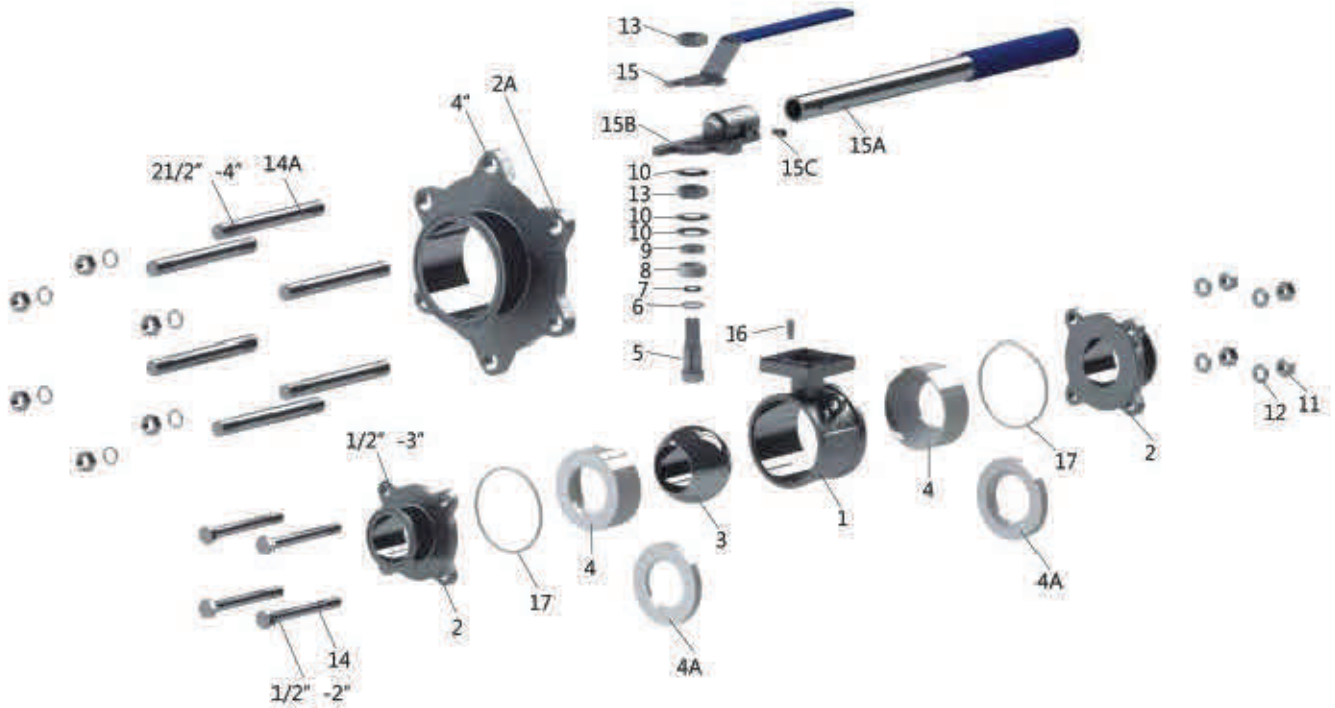
Valve Size	Body Leakage (atm-cc/sec)	Helium Leak Rate Test
1/2"-1 1/2"	1x10 ⁻⁹	10 ⁻⁵ Torr
2"-4"	1x10 ⁻⁷	10 ⁻⁴ Torr

Flow Data

Valve Size	Encapsulated and Non-encapsulated C _v
1/2"	8
3/4"	29
1"	66
1 1/2"	192
2"	434
2 1/2"	723
3"	1124
4"	2100

Sanitary 2-Way Ball Valves

Material List



Item	Description	Material	Quantity			
			1/2"-2"	2 1/2"	3"	4"
1	body	CF8M	1	1	1	1
2	end(4-bolt)	CF8M	2	2	2	n/a
2A	end(6-bolt)	CF8M	n/a	n/a	n/a	2
3	ball	CF8M	1	1	1	1
4	seat (encapsulated)	V,G,C,S,U	2	2	2	2
4A	seat (non-encapsulated)	V,G,C,S,U	2	2	2	2
5	stem	316	1	1	1	1
6	thrust washer	V,G,C,S,U	1	1	1	1
7	O-ring	FKM	1	1	1	1
8	stem packing	V,G,C,S,U	3	3	3	3
9	gland ring	316	1	1	1	1
10	bevel washer	304	3	3	3	3
11	hex nut	304	4	4	8	12
12	bolt washer	304	4	4	8	12
13	nut	304	2	2	2	2
14	bolt washer	304	4	4	n/a	n/a
14A	bolt (double thread)	304	n/a	n/a	4	6
15	handle	304/Vinyl	1	n/a	n/a	n/a
15A	handle (rod)	304/Vinyl	n/a	1	1	1
15B	handle head	304	n/a	1	1	1
15C	handle nut	304	n/a	1	1	1
16	stop pin	316	1	1	1	1
17	body seal	V,G,C,S,U	2	2	2	2

Sanitary 2-Way Control Valve with V seat & V ball

- Sizes:1/2" thru 4"
- Material:CF8M(316) stainless steel
- ID polish is Ra 32 uinch minimum
- V options:30° V and 60° V
- Blow-out proof stem
- Precision control
- Full port design offers a lower pressure drop and high flow capacity
- Compact design for tight space restrictions
- Interchangeable V port seats and balls
- Balanced encapsulated construction minimizes cold flow
- ISO high mounting pad for direct mount automation
- Precision stainless steel balls reduce torque and friction losses while extending seat life
- 100% tested and inspected before shipped
- Pressure rating:1/2"-2" 1000PSI WOG
2 1/2"-4" 800PSI WOG



Specifications

information based on water media at 68°F/20°C

Size	Weight (lbs)		Assembly Torque	Break Torque	ISO 5211
	V seat	V ball	(in.lbs.)	(in.lbs.)	
1/2"	1.5	1.5	160	105	F03/F04
3/4"	1.9	1.9	160	116	F03/F04
1"	2.7	2.7	160	336	F04/F05
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2"	8.9	8.7	212	473	F05/F07
2 1/2"	18.7	18.4	221	788	F07/F10
3"	29.7	29.3	239	1155	F10/F12
4"	43.6	43.0	266	1680	F10/F12

Seat Options

Description	Material	Food Grade Material
Virgin PTFE	Virgin Polytetrafluoroethylene	Yes
RTFE	15%Glass Reinforced Tetrafluoroethylene	Yes
25%Carbon PTFE	25%Carbon Reinforced Tetrafluoroethylene	No
Stainless Reinforced PTFE	50%Stainless Steel Filled Tetrafluoroethylene	Yes
UHMW	Ultra-high Molecular Weight Polyethylene	Yes