

1 Piece Flanged Standard Port Ball Valves: 2" - 12" ANSI Class 150



Flow-Tek's Series RF15 ball valves feature a compact, one piece body design with threaded insert. The one piece body supplies maximum structural strength while minimizing the number of potential leak paths. A floating ball design offers low torque and increases valve cycle life. These rugged, economical, end entry flanged ball valves are ideal for industrial applications.

Non-Fire Safe and API 607 4th Edition Fire Safe Valves Series RF15 valves are available as non-fire safe with standard stem seals or fire safe to API 607 4th Edition with graphite stem seals.

Secure Mount Series RF15 valves offer ease of automation due to an integrally cast actuator mounting pad. 2" valves comply with ISO 5211 standards.

Pressure Ratings
Model RF15: ANSI Class 150

Body Materials
Stainless Steel
Carbon Steel
Special Alloys upon request



Stem Seals Series RF15 2" valves feature live-loaded, self-adjusting primary and secondary sealing. Utilizing Belleville washers, the stem seal automatically adjusts to compensate for changes in temperature and normal wear. 3"– 12" valves utilize an independent packing gland which can be easily adjusted without removing mounting hardware or operator. The packing gland is contoured to more uniformly distribute the load across the packing.

The primary seal is a combination of a thrust bearing and a thrust washer. An adjustable stem packing creates a secondary seal between the stem and body. The stem packing is composed of RPTFE V-rings as standard – graphite stem packing is standard on all Fire Safe valves.

Ball Flow-Tek balls are precision machined and mirror finished for bubble-tight shut off and less operating torque. As an added safety feature, a hole in the stem slot of each ball equalizes pressure between the body cavity and the line media flow when the valve is in the open position.

Body 2"– 4" valve bodies are investment cast and solution annealed/normalized for the highest quality and added strength. All body castings are marked with a foundry heat number for full traceability.

Seat Flow-Tek's seat design ensures bi-directional, bubble-tight sealing with low operating torque. All resilient seats feature positive preloading to ensure low pressure/vacuum sealing.

Anti-Static Devices All RF15 valves have Anti-Static Devices as standard. These devices positively ground ball and stem.

Seat Selection

A wide range of seat materials is available to meet most applications. The standard seat is RPTFE. Optional seats include Stainless Steel/PTFE, UHMWPE, Virgin PTFE, PEEK, Tek-Fil® (carbon/graphite filled TFM), TFM 1600, and full metal seats and Cavity Fillers. PEEK seats offer high pressure/temperature capability. Tek-Fil seats offer reduced torque in high temperature, high cycle, and steam service applications.

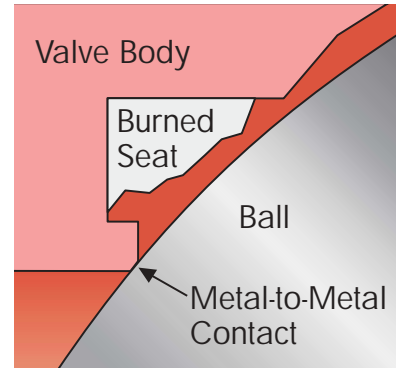
Options

Flow-Tek Series RF15 valves are available as V control valves. For more information please see Flow-Tek VC brochure and Technical Bulletin 1006. A safety exhaust is available for downstream venting. For more information please consult the Flow-Tek factory.

Features

Fire Safe: API 607-4 Certified

Flow-Tek's Series RF15 valves with graphite stem packing meet the highest fire safety standards under extreme conditions. In the event of a fire, after heat destroys the primary resilient seat, the ball makes contact with the secondary metal seat, forming a secure seal.



Flow-Tek offers a **Media Containment Unit** as an option. This unit easily mounts to standard valves through 10" and adds an additional stem packing seal for difficult services.



A **Padlock** can be added to secure the handle in position, preventing unwanted access on all valve sizes.

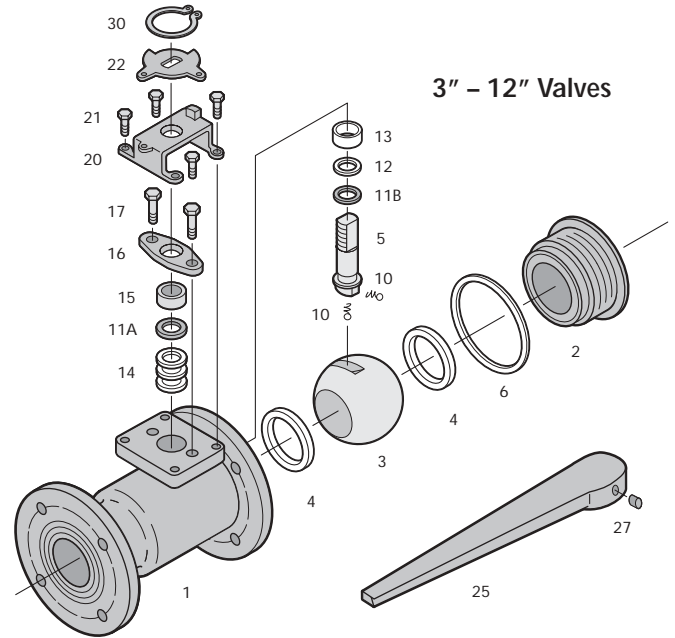
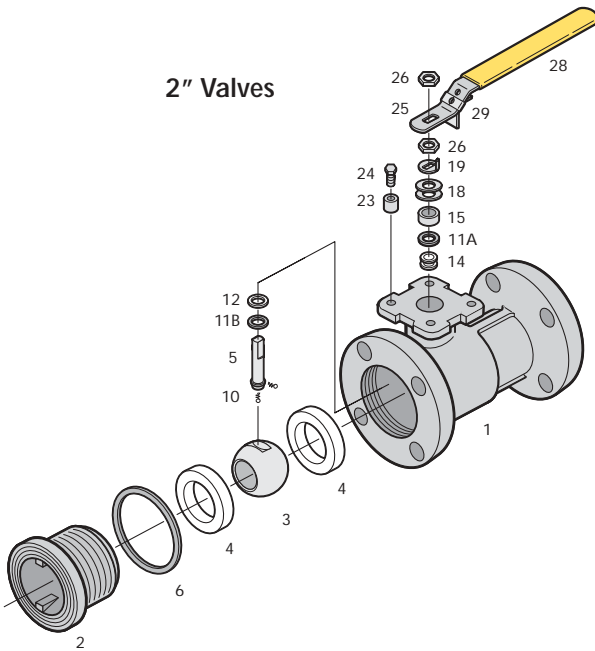
Flow-Tek 2" manually operated valves feature a Safety Trigger to prevent accidental movement of ball position. The trigger locks the handle in the open or closed position. The handle lock can be bypassed, if needed, with a small bolt through the handle in the release position.

3" & 4" valves feature a NAMUR stem slot for ease of limit switch mounting.

Technical Data



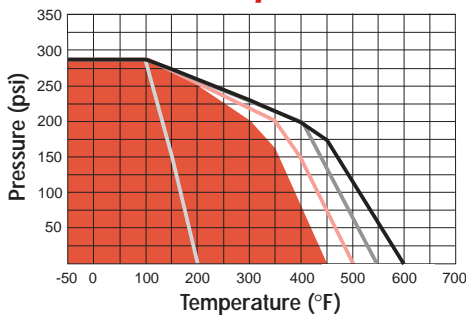
Components & Materials For Valve Sizes 2" through 12"



Specifications

Flanged End Connections meet ASME/ANSI Class 150.
 Flanges meet ASME/ANSI B16.5.
 Face to Face Dimensions meet ASME/ANSI B16.10.
 All valves meet ASME/ANSI B16.34 and MSS-SP-72.
 Fire Safe Valves with graphite Stem Packing are certified to API 607 4th Edition.
 NACE MR0175 - All internal wetted parts.
 All valves are hydrostatically pressure tested and seat tested. Shell: 425 psi, Seat (Air): 80 psi.

Pressure / Temperature



- RPTFE
- PEEK
- Tek-Fil®
- UHMWPE
- Stainless Filled PTFE (50/50)

Steam Service

RPTFE Seats 150 psi at 360°F
 Tek-Fil or PEEK Seats ... 200 psi at 388°F

Item	Name	Stainless Steel	Carbon Steel	Qty.
1	Body	ASTM A351 Gr CF8M	ASTM A216 Gr WCB	1
2	End Cap	ASTM A351 Gr CF8M	ASTM A216 Gr WCB	1
3	Ball	ASTM A351 Gr CF8M	ASTM A351 Gr CF8M	1
4	Seat*	15% RPTFE	15% RPTFE	2
5	Stem	ASTM A479 Gr 316	ASTM A479 Gr 316	1
6	Body Seal*	RPTFE	RPTFE	1
10	Anti-Static Device	SS316	SS316	2
11A/B	Thrust Bearing*	50% SS316 + 50% PTFE ¹	50% SS316 + 50% PTFE ¹	2
12	Thrust Washer*	RTFE ²	RTFE	1
13	Stem Bearing*	RTFE	RTFE	1
14	Stem Packing*	RTFE	RTFE	3
15	Packing Gland Sleeve	SS304	Carbon Steel ³	1
16	Packing Gland Plate	ASTM A351 Gr CF8	ASTM A216 Gr WCB	1
17	Gland Bolt	SS304	Carbon Steel	2
18	Belleville Washer	SS301	SS301	2
19	Tab Washer	SS304	SS304	1
20	Travel Stop Housing	ASTM A351 Gr CF8	ASTM A216 Gr WCB	1
21	Housing Bolt	SS304	Carbon Steel	4
22	Travel Stop	SS304	Zinc Plated Carbon Steel	1
23	Travel Stop Set Sleeve	SS304	SS304	1
24	Travel Stop Bolt	SS304	SS304	1
25	Handle	Ductile Iron ⁴	Ductile Iron ⁴	1
26	Lock Nut	SS304	SS304	2
27	Handle Bolt	Carbon Steel	Carbon Steel	1
28	Handle Sleeve	Vinyl	Vinyl	1
29	Locking Device	SS304	SS304	1
30	Snap Ring	Nickel Plated Carbon Steel	Nickel Plated Carbon Steel	2

*Parts included in the repair kits.

¹ For 2" RF15, this material is PEEK.

² For 2" RF15, this material is 50% SS316 + 50% PTFE.

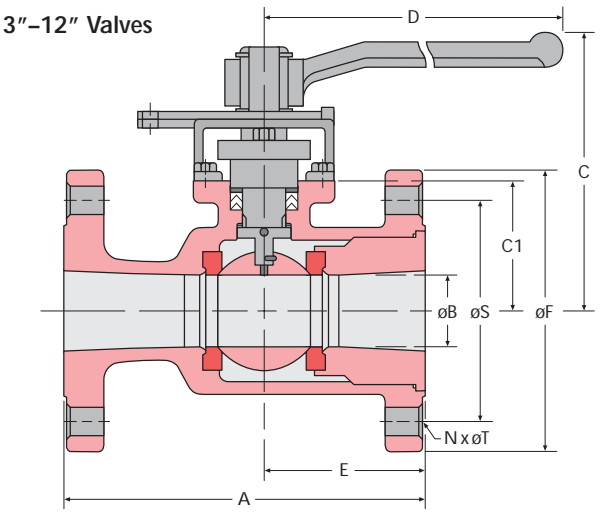
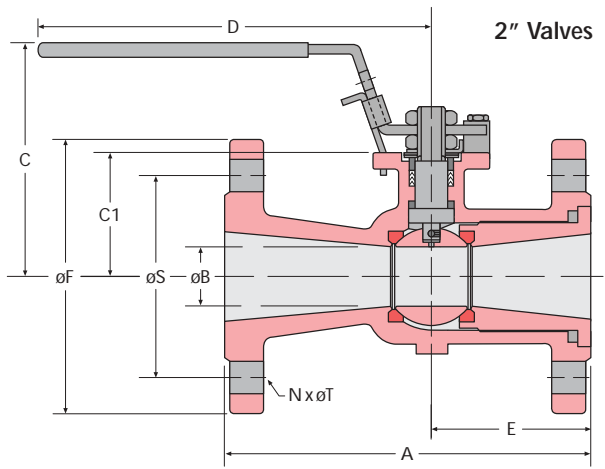
³ For 2" RF15, this material is SS304.

⁴ For 2" RF15, this material is SS304.

DIMENSIONS, TORQUES & WEIGHTS

SIZE in mm	A	Bore øB	C	C1	D	E	øF	N	øS	øT	Cv	Torque*		Weight	
												lbs-in	Nm	lbs	kg
2 50	7.0 177.8	1.50 38.1	4.528 115	2.61 66.3	10.43 264.9	2.56 65	6.0 152.4	4	4.75 120.7	0.75 19.1	120	275 31.1	18 8.2		
3 80	8.0 203.2	2.56 65	5.984 152	3.09 78.5	15.35 389.9	3.27 83.1	7.5 190.5	4	6.00 152.4	0.75 19.1	360	560 63.3	39 17.7		
4 100	9.0 228.6	2.99 75.9	6.535 166	3.66 93	15.35 389.9	3.86 98	9.0 228.6	8	7.50 190.5	0.75 19.1	690	720 81.3	54 24.5		
6 160	10.5 266.7	4.02 102.1	7.205 183	4.33 110	15.35 389.9	4.61 117.1	11.0 279.4	8	9.50 241.3	0.88 22.4	990	1800 203.4	90 40.8		
8 200	11.5 292.1	5.98 151.9	10.83 275.1	6.85 174	38.98 990.1	5.85 148.6	13.5 342.9	8	11.75 298.5	0.88 22.4	2300	3700 418.0	170 77.1		
10 250	13.0 330.2	7.87 199.9	11.61 294.9	7.62 194	38.98 990.1	6.85 174	16.0 406.4	12	14.25 362	1.00 25.4	4000	5800 610.2	350 158.8		
12 320	14.0 355.6	9.53 242.1	12.76 324.1	8.92 226.6	38.98 990.1	7.0 177.8	19.0 482.6	12	17.00 431.8	1.00 25.4	7700	13500 1525.5	550 249.5		

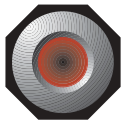
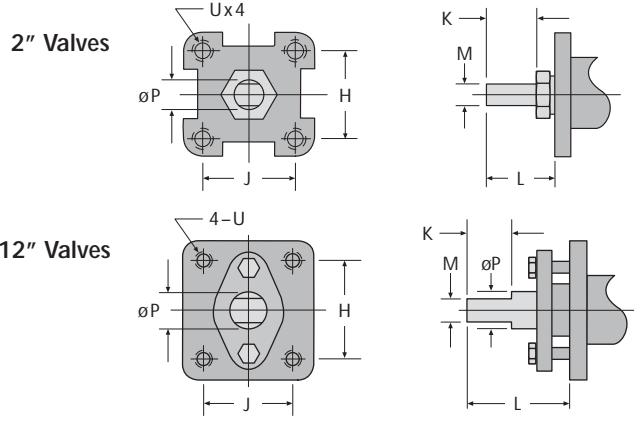
*Torque at maximum rated pressure, clean water, RPTFE seating material. Other seat materials exhibit different torques. Please refer to Technical Bulletin 1005 for detailed torque information.



SECURE MOUNT

SIZE in mm	H	J	K	L	M	øP	U UNC
2 50	1.949 49.5	1.949 49.5	0.551 14	0.906 23	0.374 9.5	0.618 15.7	5/16" -18
3 80	3.543 90	1.874 47.6	1.752 44.5	2.972 75.5	0.669 17	1.102 28	1/2" -13
4 100	3.543 90	1.874 47.6	1.752 44.5	3.071 78	0.669 17	1.102 28	1/2" -13
6 160	3.543 90	1.874 47.6	1.752 44.5	3.071 78	0.669 17	1.102 28	1/2" -13
8 200	3.375 85.7	3.375 85.7	1.614 41	3.425 87	1.02 25.9	1.713 43.5	1/2" -13
10 250	3.375 85.7	3.375 85.7	2.126 54	3.858 98	1.02 25.9	1.713 43.5	1/2" -13
12 320	4.528 115	4.528 115	2.165 54	3.74 95	1.378 35	1.969 50	5/8" -11

Note: Gear Operators are required on size 10" and 12."



Flow-Tek

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