



Two Piece Reduced Bore Flanged End Ball Valve



## EZ Series

# Easy Maintenance Design

## Features a Two Piece Bolted Body

### EZ Series

STANDARD PRODUCT NUMBER

- RF15-SS-FFG-L (150# SS Standard FFG)
- RF15-SS-FGG-L (150# SS Fire-Safe FGG)
- RF15-CS-FFG-L (150# CS Standard FFG)
- RF15-CS-FGG-L (150# CS Fire-Safe FGG)
- RF30-SS-FFG-L (300# SS Standard FFG)
- RF30-SS-FGG-L (300# SS Fire-Safe FGG)
- RF30-CS-FFG-L (300# CS Standard FFG)
- RF30-CS-FGG-L (300# CS Fire-Safe FGG)

**Models:**

RF15 - Short Pattern  
 RF150 - Long Pattern  
 V-RF15 & V-RF150  
 - Control Ball Valve  
 Size Range 3" - 14"  
 ANSI Class 150

**Models:**

RF30 - Short Pattern  
 V-RF30  
 - Control Ball Valve  
 Size Range 3" - 6"  
 ANSI Class 300

ANSI Reduced Bore  
Short Take-out



10" Model RF15 - Short

ANSI Full Bore Take-out



10" Model RF150 - Long

### Versatile Design Offers:

- Ease of Seat Replacement or Seat Change-Outs
- Ease of Maintenance
- Custom V-Port Control Options
- Improved Flow Control
- Lighter Weight than Full Port
- Lower Cost than Full Port
- Lower Operating Torques
- Fire Safe Design
- Comply with API & ANSI Standards

**Simplicity & Performance, an ideal choice for applications that require easy to repair, reduced port flanged-end ball valves.**

# DESIGN FEATURES AND STANDARDS

# RF15/RF30

## Standards and Specifications

Valves mentioned in this bulletin are available to conform to the following industry standards and specifications:

**All valves are manufactured to ISO 9001 quality standards**

WW-V-35C	Federal specification: valve, ball
ANSI/ASME B16.10	Face-to-face / end-to-end dimensions of ferrous valves
ANSI/ASME B16.5	Steel pipe flanges and flange fittings
ANSI/ASME B16.34	Steel valves - flanged and butt welded end
ANSI/ASME B31.1	Power piping
ANSI/ASME B31.3	Chemical plant & petroleum refinery piping
ANSI/FCI70-2-1976	For control valve leakage
BS 6755, Part 2	Testing of valves-specification for fire type testing
ISA 5752:1982	Metal valves for use in flange piping systems
ISA 75.02	Valve sizing coefficient Cv, piping geometry factor Fp & pressure drop limitation XT
ISA S75.19	Hydrostatic testing of control valves
ISO 5211	Dimensions for attachment of actuators/ gear boxes to valves (ISO mounting)
MSS-SP-25	Standard marking systems for valves
MSS-SP-55	Quality standards for steel casting

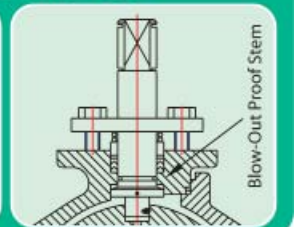
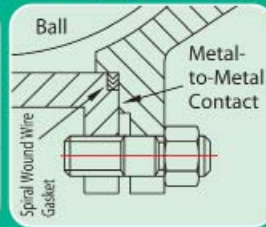
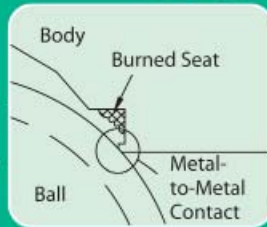
MSS-SP-6	Standard finishes for contact faces of pipe flanges and connecting-end flanges of valve and fittings
MSS-SP-44	Steel pipe line flanges
MSS-SP-61	Pressure testing of steel valves
MSS-SP-72	Ball valves with flanged or butt welded ends for general service
MSS-SP-96	Terminology for valves and fittings
NACE MR0175	Sulfide stress cracking resistant materials for oilfield equipment

## Optional Standard & Specifications

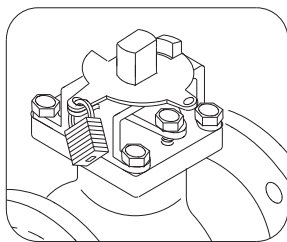
API 608	Metal ball valves - Flanged, Threaded, and Welding End
API 6D	Specifications for pipeline valves
API 598	Valve inspection and testing
MSS-SP-53	Quality standard for steel casting and forging for valves, flanges and fittings and other piping component - magnetic particle examination method
MSS-SP-93	Quality standard for steel casting and forging for valves, flanges, fittings or other piping components - liquid penetrant examination method
ISO 15848-1	Industrial valves - measurements, test & qualification procedures for fugitive emissions

Flo-Tite's Flanged series 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. The body seal, composed of stainless steel and graphite wound into a spiral, prevents external leakage. The graphite stem rings prevent stem leakage.

## Fire Safe: API607-4 & 5 Certified



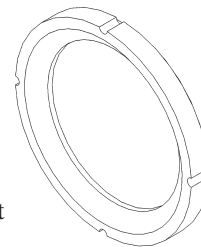
### Tamper-Proof Locking Device Standard



Valve topworks incorporate a tamper-proof locking device, which locks in open or closed positions. When the valve stop housing is removed, four bolts remain to mount actuator bracket. Size: 6" - 14"

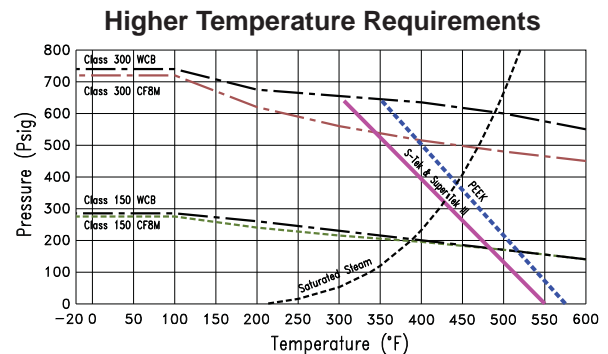
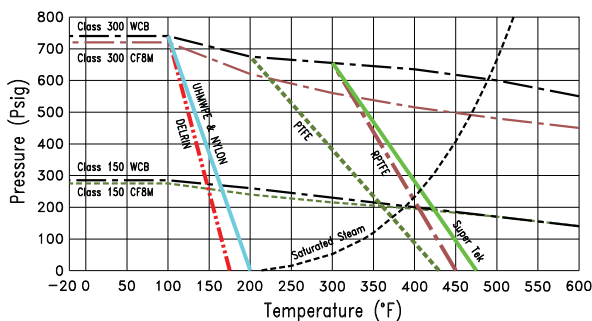
### Pressure Relieving & Equalizing Seat Design

Specially Designed Seats allow equalization of pressure in the ball cavity which reduces operating torque and increases seat life.



### Ball Design Added Safety Feature

All balls are provided with a 1/8" hole drilled into the stem slot of each ball to prevent excessive pressure build up in the cavity from trapped liquid when the valve is in the open position.



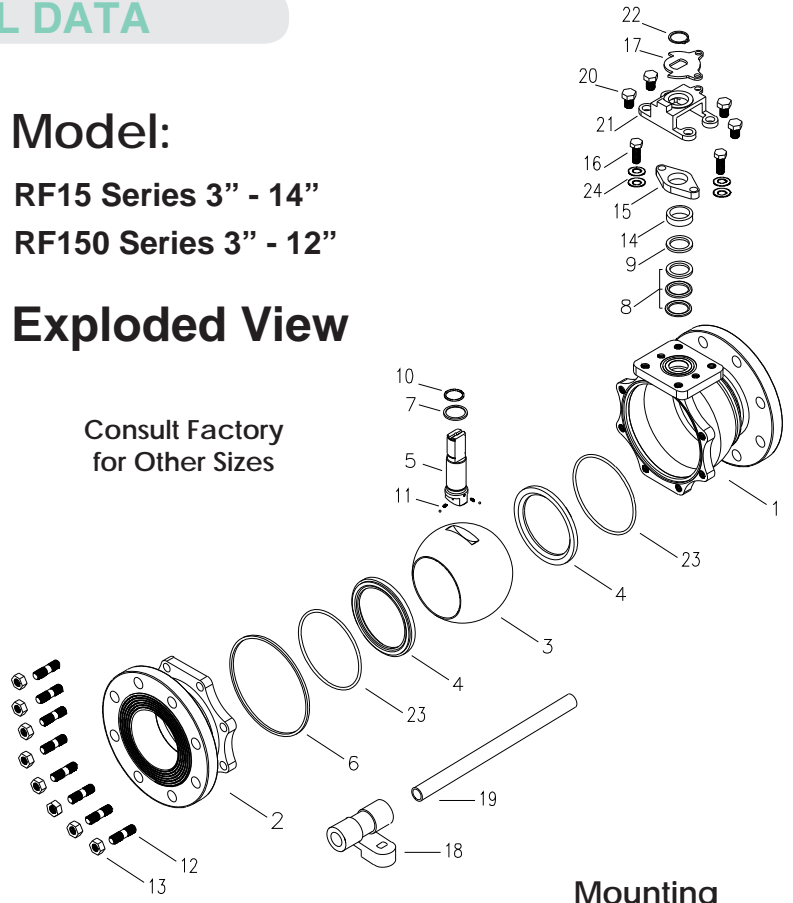
## Pressure Temperature Rating

## DIMENSIONS AND TECHNICAL DATA

No.	Name	Stainless Steel	Carbon Steel	Qty
1	Body	ASTM A351 CF8M	ASTM A216 WCB	1
2	Cap	ASTM A351 CF8M	ASTM A216 WCB	1
3	Ball	SS316	SS316 / SS304	1
4	Seats	# TFM	TFM	2
5	Stem	SS316 / 17-4PH	SS316 / 17-4PH	1
6	Gasket	# RPTFE / Graphite	RPTFE / Graphite	1
7	Thrust Washer	# 25% Carbon + TFM	25% Carbon + TFM	1
8	Stem Packing	# TFM / Graphite	TFM / Graphite	1
9	Packing Protector	# 50% PTFE + SS316	50% PTFE + SS316	1
10	O-Ring	# Viton	Viton	1
11	Anti-Static Devices	SS304	SS304	2
12	Body Studs	ASTM A193 B8	ASTM A193 B7	set
13	Body Nuts	ASTM A194 Gr. 8	ASTM A194 2H	set
14	Packing Follower	SS304	SS304	1
15	Packing Gland	SS304 / 17-4PH	SS304 / 17-4PH	1
16	Gland Bolts	SS304	Steel	2
17	Travel Stop	SS304	Steel	1
18	Junction Head	Ductile Iron	Ductile Iron	1
19	Pipe Grip	Carbon Steel	Carbon Steel	1
20	Housing Bolts	SS304	SS304	4
21	Stop Housing	SS304	SS304	1
22	Snap Ring	Plated Steel	Plated Steel	1
23	Seat O-Rings	# Viton	Viton	2
24	Belleville Washers	SS301	SS301	2

**Model:**  
**RF15 Series 3" - 14"**  
**RF150 Series 3" - 12"**  
**Exploded View**

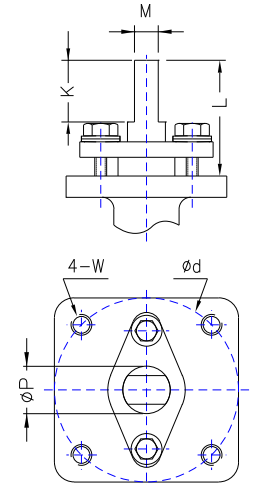
Consult Factory  
for Other Sizes



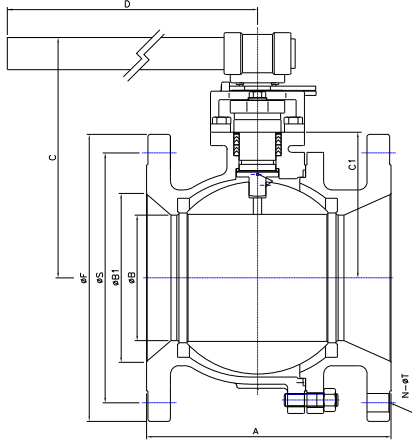
# Parts included in repair kits

For 6" size, packing gland is live-loaded, and handle is one piece design;  
For size 12" & 14", packing gland serves as stop housing.  
Sizes 1 1/2" through 4" are available in our standard one piece body design  
SF150 Series, consult factory.

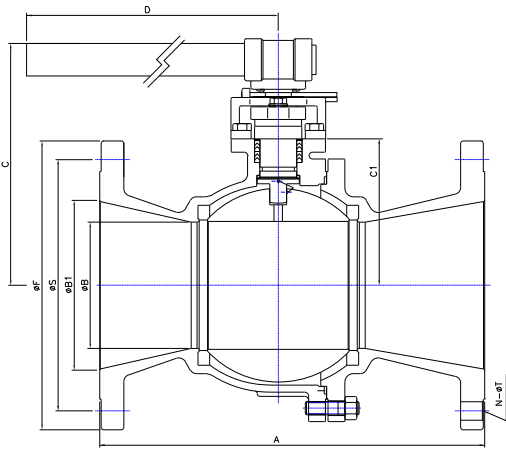
### Mounting Dimensions



**Note:**  
**Verify Mounting Dimensions**  
**prior to making hardware.**



**RF15 / Short**



**RF150 / Long**  
(Reduced Port Valve with Full Port Face to Face)

## Dimensions and Weights

Size	RF15		RF150		B1	C	C1	D	d	F	K	L	M	N	P	S	T	W	Cv	Torque in-lb	Weight Lbs	
	A	B	A	B																	RF15	RF150
3"	8.0	2.56	8.0	2.56	3.00	6.63	3.35	15.4	4.02	7.5	1.75	3.07	0.669	4	1.10	6.00	0.75	1/2-13unc	340	620	C/F	C/F
4"	9.0	2.99	9.0	2.56	3.94	6.92	3.62	15.4	4.02	9.0	1.75	3.07	0.669	8	1.10	7.50	0.75	1/2-13unc	800	800	C/F	C/F
6"	10.5	4.02	15.5	4.02	5.98	7.68	4.47	15.4	4.02	11.0	1.75	3.07	0.669	8	1.10	9.50	0.88	1/2-13unc	1090	1700	82.5	C/F
8"	11.5	5.98	18.0	5.98	7.87	11.31	7.17	25.4	4.92	13.5	1.65	3.58	1.024	12	1.71	11.75	0.88	1/2-13unc	2300	4600	186	C/F
10"	13.0	7.87	21.0	7.87	9.84	12.10	7.60	25.4	4.92	16.0	1.65	3.58	1.024	12	1.71	14.25	1.00	1/2-13unc	4000	9900	279.5	310
12"	14.0	9.53	24.0	9.84	11.81	13.22	9.88	43.1	5.51	19.0	2.13	3.86	1.378	12	1.97	17.00	1.00	5/8-11unc	7700	17000	426.5	C/F
14"	15.0	9.84	-	-	14.00	13.22	9.88	43.1	5.51	21.0	2.13	3.86	1.378	12	1.97	18.75	1.12	5/8-11unc	11550	23000	C/F	C/F

## DIMENSIONS AND TECHNICAL DATA

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16	Gland Bolts	SS304	Steel	2
17	Travel Stop	SS304	Steel	1
18	Set Screw	Steel	Steel	1
19	Handle	Ductile Iron	Ductile Iron	1
20	Housing Bolts	SS304	SS304	4
21	Stop Housing	SS304	SS304	1
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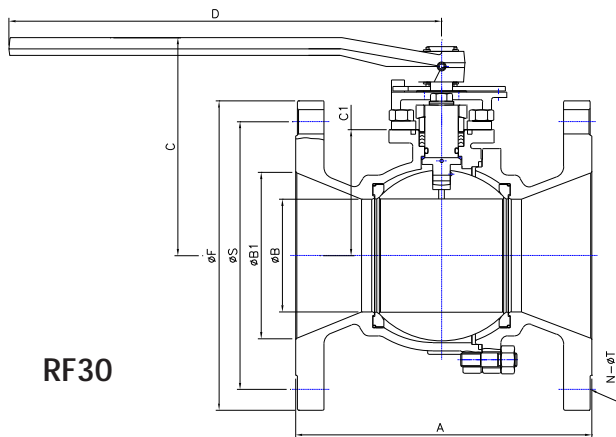
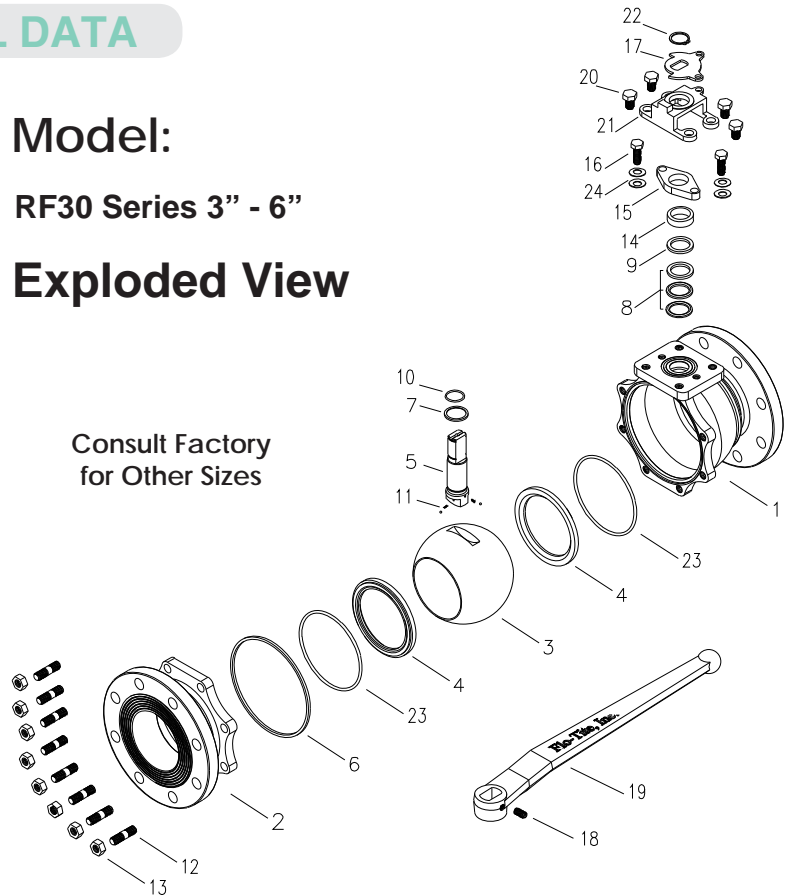
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## Model: RF30 Series 3" - 6"

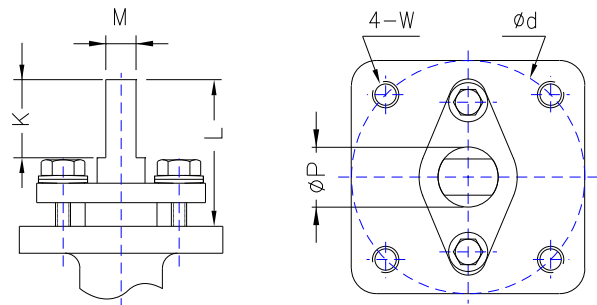
### Exploded View

Consult Factory  
for Other Sizes



RF30

### Mounting Dimensions



**Note:**  
Verify Mounting Dimensions prior to making hardware.

## Dimensions and Weights

Size	A	B	B1	C	C1	D	d	F	K	L	M	N	P	S	T	W	Cv	Torque in-lb	Weight Lbs
3"	11.14	2.24	3.00	6.65	3.39	15.4	4.02	8.28	1.75	3.07	0.669	8	1.10	6.62	0.87	1/2-13unc	340	700	C/F
4"	12.0	3.15	4.00	6.93	3.62	15.4	4.02	10.0	1.75	3.07	0.669	8	1.10	7.87	0.87	1/2-13unc	800	900	C/F
6"	15.87	3.94	5.98	7.68	4.47	15.4	4.02	12.5	1.75	3.07	0.669	12	1.10	10.63	0.87	1/2-13unc	1090	1874	C/F



Flo-Tite, Inc.  
4815 West 5th St.  
Lumberton, NC 28358

P. O. Box 1293  
Lumberton, NC 28359  
Website: [www.flotite.com](http://www.flotite.com)

Tel: (910) 738-8904  
Fax: (910) 738-9112  
E-mail: [flotite@flotite.com](mailto:flotite@flotite.com)

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