

RHINO VALVES WORLDWIDE



Fire Safe

F44/F44PT F152/F302

These valves are configured to support fire conditions according to the roudest industrial tests.



RHINO VALVES WORLDWIDE

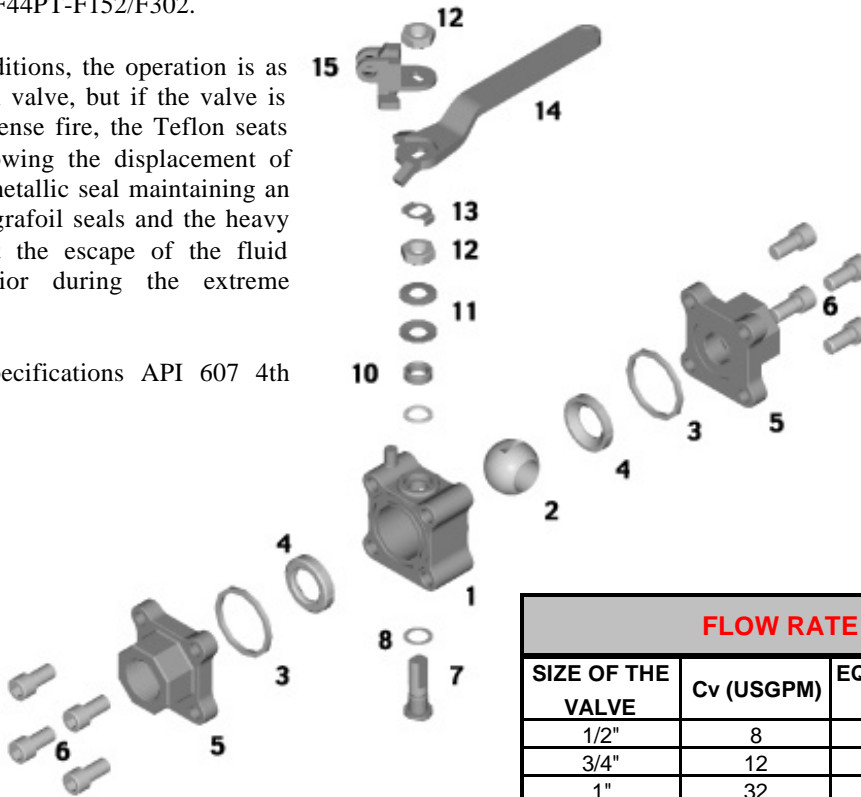


SERIES FIRE SAFE

(FIRE SAFE) F44/F44PT-F152/F302.

Under normal conditions, the operation is as soft as in a normal valve, but if the valve is subjected to an intense fire, the Teflon seats are destroyed, allowing the displacement of the ball toward a metallic seal maintaining an internal seal. The grafoil seals and the heavy duty bolts prevent the escape of the fluid toward the exterior during the extreme conditions of a fire.

They meet the specifications API 607 4th Edition.



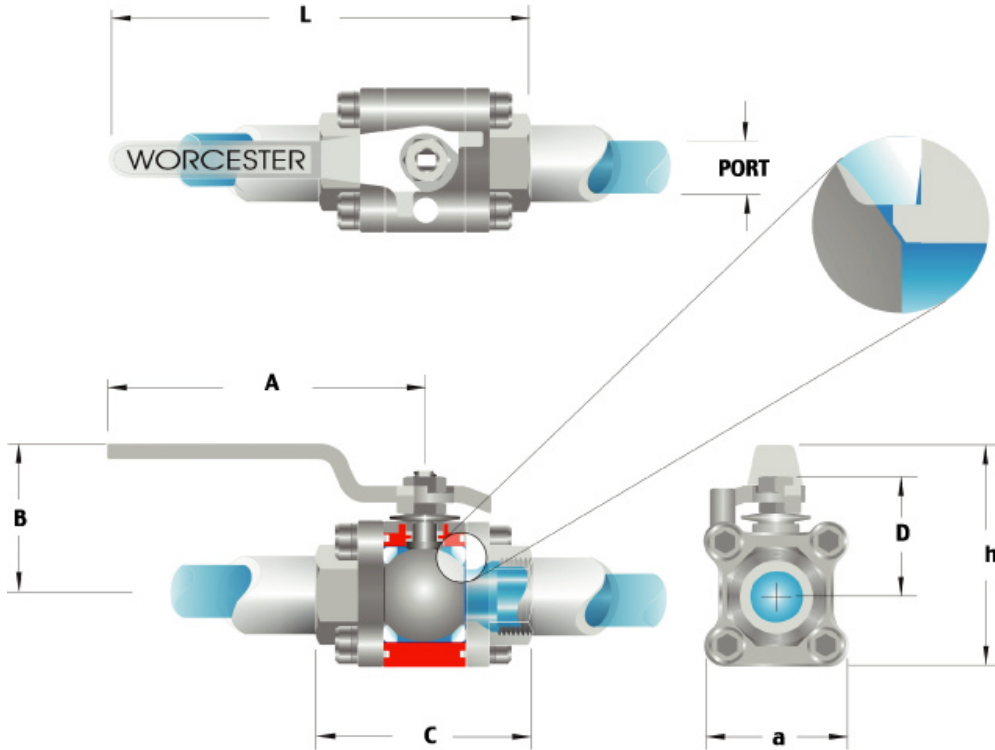
FLOW RATE		SERIES F44
SIZE OF THE VALVE	Cv (USGPM)	EQUIVALENT LONGITUDE OF THE TUBE IDENTIFICATION 40 IN FEET
1/2"	8	3.1
3/4"	12	6.3
1"	32	3.1
1 1/4"	46	6.3
1 1/2"	82	4.3
2"	120	7.5

PARTS LISTING OF SERIES F44

ITEM	QUANTITY	DESCRIPTION	CARBON STEEL	STAINLESS STEEL
1	1	BODY	ASTM A216 WCB/A 105	ASTM A351 CF8M
2	1	BALL	ASTM A351 CF8M	ASTM A351 CF8M
3	2	SEAL	GRAFOIL	GRAFOIL
4	2	SEAT	PTFE	PTFE
5	2	PIPE END	ASTM A216 WCB	ASTM A351 CF8M
6	8	ALLEN BOLT	SAE J429 Gr. 5	ASTM F593 TYPE A304
7	1	STEM	AISI 1018-12L 14	AISI 316
8	1	THIN WASHER	R-PTFE 25%	R-PTFE 25%
9	1	THICK WASHER	GRAFOIL	GRAFOIL
10	1	FOLLOWER	AISI 416	AISI 416
11	2	BELLEVILLE WASHER	AISI 1075	AISI 302
12	2	STEM NUT	ASTM A 194 2HM	ASTM F594 TYPE A304
13	1	LOCK NUT	AISI 304	AISI 304
14	1	HANDLE	ASTM A743 CF8/CA15	ASTM A743 CF8/CA15
15	1	HANDLE LOCK (OPTIONAL)	ASTM A743 CF8/CA15	ASTM A743 CF8/CA15

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SERIES FIRE SAFE



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Dimension in inches.

SERIES F44

SIZE	A	B	C	D	PORT	Weight in Lbs.	L	h	a
1/2"	4.25	1.58	2.61	1.51	0.438	1.30	5.56	2.45	1.75
3/4"	4.25	1.67	2.83	1.61	0.563	1.66	5.67	2.67	2.00
1"	5.75	2.21	3.72	2.17	0.813	3.22	7.66	3.40	2.38
1 1/4"	5.75	2.40	4.22	2.35	1.000	4.44	7.86	3.71	2.63
1 1/2"	7.00	3.02	4.56	2.89	1.250	7.35	9.28	4.62	3.19
2"	7.00	3.21	5.01	3.07	1.500	9.47	9.51	5.00	3.57

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SERIES FIRE SAFE



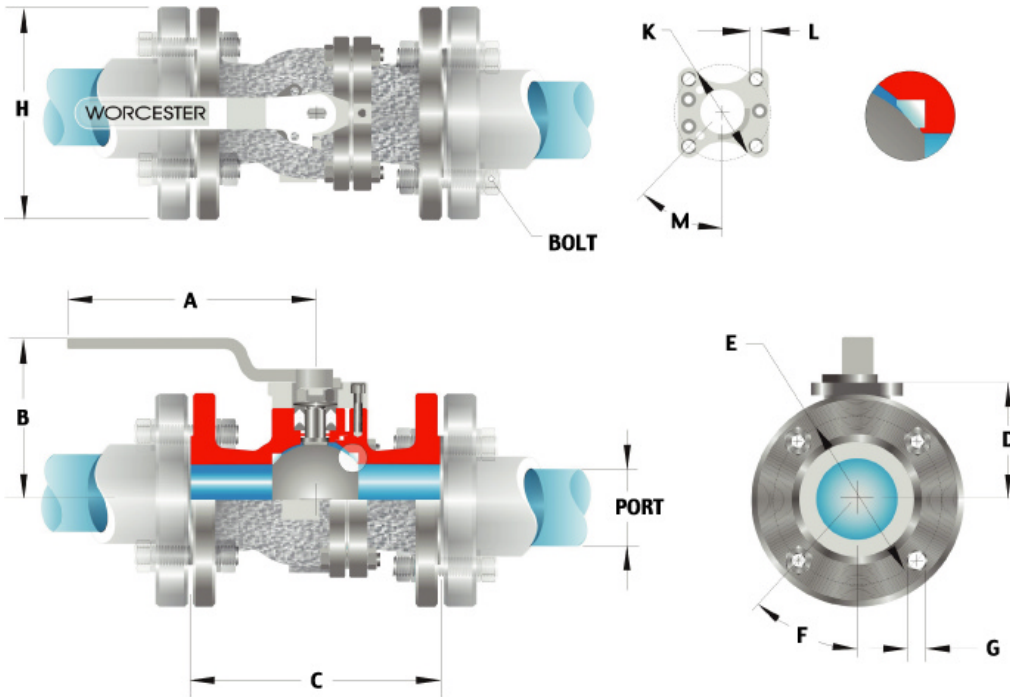
SERIES F44 FP

SIZE	A	B	C	D	PORT	Weight in Lbs.	L	h	a
1/4"	4.25	1.58	2.61	1.51	0.438	1.41	5.56	2.45	1.75
3/8"	4.25	1.58	2.61	1.51	0.438	1.37	5.56	2.45	1.75
1/2"	4.25	1.67	2.83	1.61	0.563	1.66	5.67	2.67	2.00
3/4"	5.75	2.21	3.72	2.17	0.813	3.22	7.66	3.40	2.38
1"	5.75	2.40	4.22	2.35	1.000	4.44	7.86	3.71	2.63
1 1/4"	7.00	3.02	4.56	2.89	1.250	7.35	9.28	4.62	3.19
1 1/2"	7.00	3.21	5.01	3.07	1.500	9.47	9.51	5.00	3.57

RHINO VALVES WORLDWIDE



SERIES FIRE SAFE

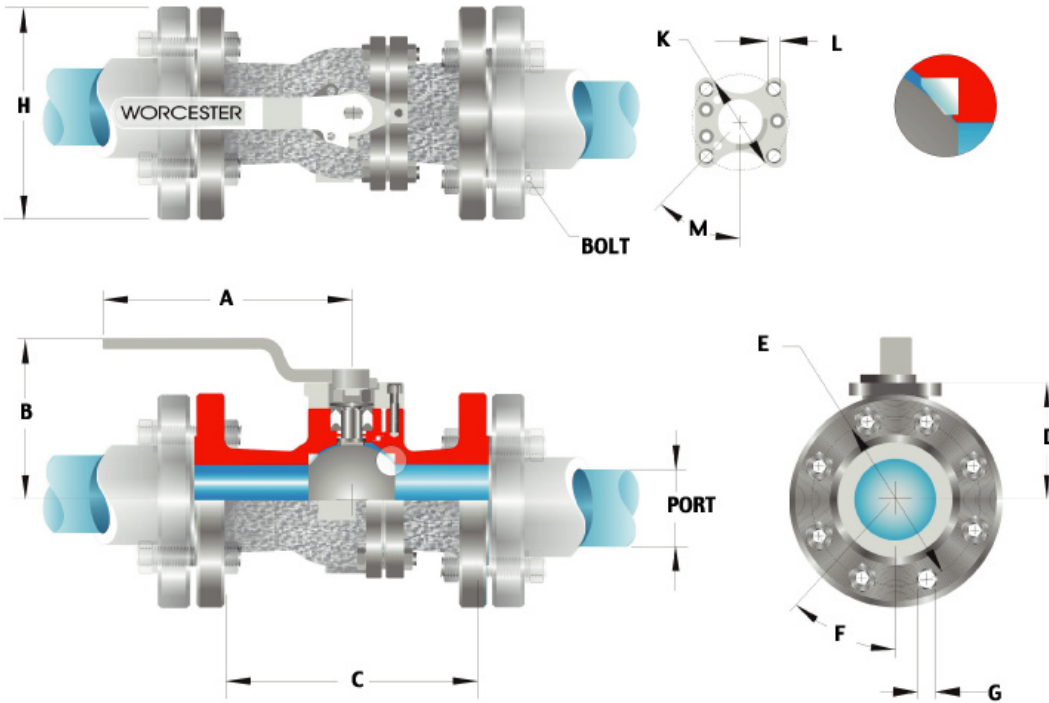


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Dimension in inches.

SIZE	A	B	C	D	PORT	SERIES F152					
SIZE	FLANGED ANSI B16.5 CLASS 150	No. BORES	SCREW FLANGE	ISO PLATE 5211	Weight in Lbs.						
	E	F	G	H				K	L	M	
1/2"	4.25	2.80	4.25	1.80	0.50						
3/4"	4.25	3.08	4.62	2.00	0.75						
1"	5.75	3.25	5.00	2.25	1.00						
1 1/2"	7.00	4.50	6.50	3.04	1.50						
2"	7.00	4.75	7.00	3.30	2.00						
3"	3.00	5.38	8.00	4.47	3.00						
4"	3.00	6.02	9.00	5.10	4.00						
6"	4.50	8.66	15.50	7.40	6.00						
8"	4.50	10.00	18.00	8.85	8.00						
1/2"	2.38	45°	5/8"	3.50	4	1/2"	F03/F05	1.417/1.97	1/4"- 5/16"	45°	3.97
3/4"	2.75	45°	5/8"	3.88	4	1/2"	F03/F05	1.417/1.97	1/4"- 5/16"	45°	4.86
1"	3.12	45°	5/8"	4.25	4	1/2"	F05	1.970	9/32"	45°	6.62
1 1/2"	3.88	45°	5/8"	5.00	4	1/2"	F07	2.750	23/64"	45°	11.04
2"	4.75	45°	3/4"	6.00	4	5/8"	F07	2.750	23/64"	45°	19.43
3"	6.00	45°	3/4"	7.50	4	5/8"	F10	4.016	7/16"	45°	41.94
4"	7.50	45°	3/4"	9.00	4	5/8"	F10	4.016	7/16"	45°	65.78
6"	9.50	22.5°	7/8"	11.00	8	3/4"	F12/F14	4.92/5.51	1/2"- 11/16"	45°	142.60
8"	11.75	22.5°	7/8"	13.50	8	3/4"	F12/F14	4.92/5.51	1/2"- 11/16"	45°	207.51

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SERIES FIRE SAFE



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Dimension in inches.

SIZE	A	B	C	D	PORT	SERIES F302						
SIZE	FLANGED ANSI B16.5 CLASS 300	No. BORES	SCREW FLANGE	ISO PLATE 5211	Weight in Lbs.							
	E	F	G	H			K	L	M			
2"	7.00	4.75	8.50	3.30	2.00	8	5/8"	F07	2.75	23/64	45°	24.28
3"	3.00	5.38	11.12	4.47	3.00	8	3/4"	F10	4.02	7/16	45°	63.58
4"	3.00	6.02	12.00	5.10	4.00	8	3/4"	F10	4.02	7/16	45°	89.62
6"	4.50	8.66	15.88	7.40	6.00	8	3/4"	F12/F14	4.92/5.51	1/2- 11/16	45°	190.40

RHINO VALVES WORLDWIDE

APPLICABLE INTERNATIONAL STANDARDS



APPLICABLE INTERNATIONAL STANDARDS

Norm	Description	Applicable in	Size	Content
NACE MR-01-75	Valves that require special resistance to fractures and hydrosulfuric attack	All the models except Brass	1/4" - 8"	For sour environment, stainless ferrous and not ferrous metals
ANSI/FCI 70-2	for seat leaks of control valves. Class VI	All the models	1/4" - 8"	(pneumatic) trapped air test
MSS-SP-26	System of Marking Standard	All the models except series 42, 43, 1000	1/4" - 8"	Size-thread-temperature. Pressure-material-Nom. Casting Heat. No.
MSS-SP-55	Visual inspection Method acceptance of cast steel valves	All the models except Brass	1/2" - 8"	12 types of frequent surface irregularities identifiable by comparative visual inspection
API 6D	Specification for piping and valves	All the models	2" - 8"	Quality system according to American Petroleum Institute
API 607	"Fire Safe" testing	All the models except series 42, 43 and 1000	1/4" - 8"	Available certificate in some valves
API 598	Inspection and test of valves	All the models	1/4" - 2"	Hydrostatic and pneumatic inspection
ANSI B 16.5	Flanges for steel pipe lines	All the flanged models	1/2" - 8"	Dimension-material-range. Pressure temperature-facing. Different types of flanges
ANSI B 16.10	End to end dimensions of valves with flanges and/or to weld ends	All the flanged models and weld end models	1/2" - 8"	Face to face Dimensions
ANSI B 16.11	End Dimensions: S.W. (Socket Weld) S.E. (Threaded)	All the models except flanged	1/4" - 6"	Face to face Dimensions
ANSI B 16.34	Steel valves	All the models	1/4" - 14"	Wall Thickness designs. Material-specifications. Range-Pressure-Temperature. Hydrostatic Test
ANSI B 16.25	Buttweld ends	All the models except flanged	1/2" - 6"	Angle of machine beveling and O.D. And I.D.

RHINO VALVES WORLDWIDE



HOW TO ORDER

HOW TO ORDER TO RHINO VALVES

Valve Size	Type	Series	Body, pipe ends	M a t e r i a l			Ends
				Ball Steam	Seat	Body Seals	
1 1/2"	D	4	4	6	T	T	SW
1/4"	- Normal	4 - 400 (44)	1 - Brass	1 - Brass	B - Buna	B - Buna	SE - Screw End
3/8"	FS - Fire Safe	6 - 600	4 - Carbon Steel	4 - Carbon Steel	T - Ptfе	T - Ptfе	SW - Socket Weld
1/2"	D - Diverter	H6 - H600	6 - Stainless Steel	6 - Stainless Steel	R - Tfe	R - Tfe	BW - Butt Weld
3/4"	T - 3 Ways	42 - Mite	6L - Stainless Steel CF-3M		Y - Lubetal (Delrin)	Y - Lubetal (Delrin)	150# - Ansi 150
1"	C - Cryogenic	43 - Mass			MT - Multifil	MT - Multifil	300# - Ansi 300
1 1/4"	PT - Full Port	60 - 6000			U - Uhmwpe	U - Uhmwpe	
1 1/2"		45			D - Devlon	D - Devlon	
2"		150				G - Graphoil	
3"		151				V - Viton	
4"		152					
6"		300					
8"		302					
		10 - 1000					
		20 - 2000					
					Note : Use only one letter if body seal is to be same material as seat		

NOT ALL THE COMBINATIONS ARE AVAILABLE. SEE THE FOLLOWING TABLE AND CONSULT TO THE COMPANY OR AUTHORIZED DISTRIBUTOR FOR AVAILABILITY.

THERE ARE SOME OTHER MATERIALS, OPTIONS AND ENDS AVAILABLE

COMMON COMBINATION FOR SEALS AND SEATS MATERIALS

SERIES	SEATS	BODY SEALS	STEAM SEAL
ALL	BUNA	BUNA	RTFE
ALL	PTFE	PTFE	RTFE
ALL	RTFE	PFTE	RTFE
ALL	LUBETAL	VITON	RTFE
ALL	MULTIFIL	MULTIFIL	MULTIFIL
ALL	UHMWPE	VITON	RTFE
FS ONLY	PTFE	GRAPHOIL	GRAPHOIL
H600 ONLY	DELTRIN	VITON	DELTRIN/MULTIFIL
6000 ONLY	DELTRIN/VITON	VITON	DELTRIN/MULTIFIL