

Building connections that last™



# Sharpe® Series FS54

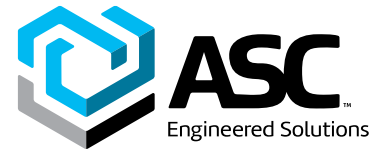
Fire Safe API 607, ASME,  
Standard Port, Flanged Ball  
Valve Datasheet

(Class 150, 300)



Fire Safe API 607, ASME,  
Standard Port, Flanged Ball Valves

## Sharpe® Series FS54



### Design Features

#### Fire Safe API 607 4th Edition

Series FS54 flanged valves have been qualified by testing to API standards 607, 4<sup>th</sup> Edition. The valve design incorporates a secondary metal seat in the body, providing the required shutoff if the primary seats are destroyed by fire.

#### ASME B16.34 Design

Standard port, Uni-body design meets all the requirements of ASME B16.34 for Class 150 and Class 300 ball valves.

#### Blow-Out Proof Stem

The internal entry stem is machined with a heavy shoulder to prevent blowout.

#### Anti-Static Configuration

Anti-static devices are included at two points on the valve stem to provide continuous ball-to-stem and stem-to-body grounding, to prevent build-up of static charge in the valve.

#### Live-Loaded Stem Seals

Stem seals are live-loaded using Belleville washers to provide consistent sealing forces, reducing or eliminating the need for frequent seal adjustment.

#### Fully Encapsulated Body Seals

Provides consistent and controlled loading of the body seal compression through a full metal-to-metal contact joint design, eliminating seal extrusion and potential body joint leakage.

#### Integral Mounting Pad

Ideal for actuation, ISO 5211 mounting dimensions simplify fit and alignment between valve, bracketry, and actuator. Permits easy field conversion from manual operation to actuation.

#### Lockable Handle

Sharpe Series FS54 ball valves are supplied with lever handles designed to permit locking the valve in either the open or closed position. Sizes through 2<sup>1</sup>/<sub>2</sub>" are supplied with a latch engaged at open and closed positions to prevent inadvertent operation. Larger sizes have a lockable pipe handle.

#### Slotted Seat Design

Relief slots on the perimeter of the seats help equalize body pressure and assure leak-tight sealing.

#### Choice of Seats and Seals

Available with TFM or RTFE Seats. Stem packing and body seals are die formed flexible graphite.

#### Floating Ball Design

Precision engineered and machined solid stainless steel ball with relief hole in the stem slot prevents build-up of cavity pressure while the valve is in the open position.

#### Material Traceability

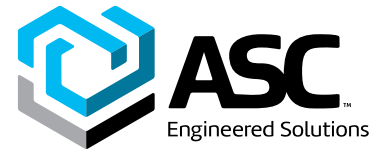
Body and end piece casting are marked with the heat codes providing traceability to the chemical analysis and material test reports performed at the foundry. CMTR's (Certified Material Test Reports) are available upon request.

#### NACE

Class 150 and Class 300 are NACE MR-0175.



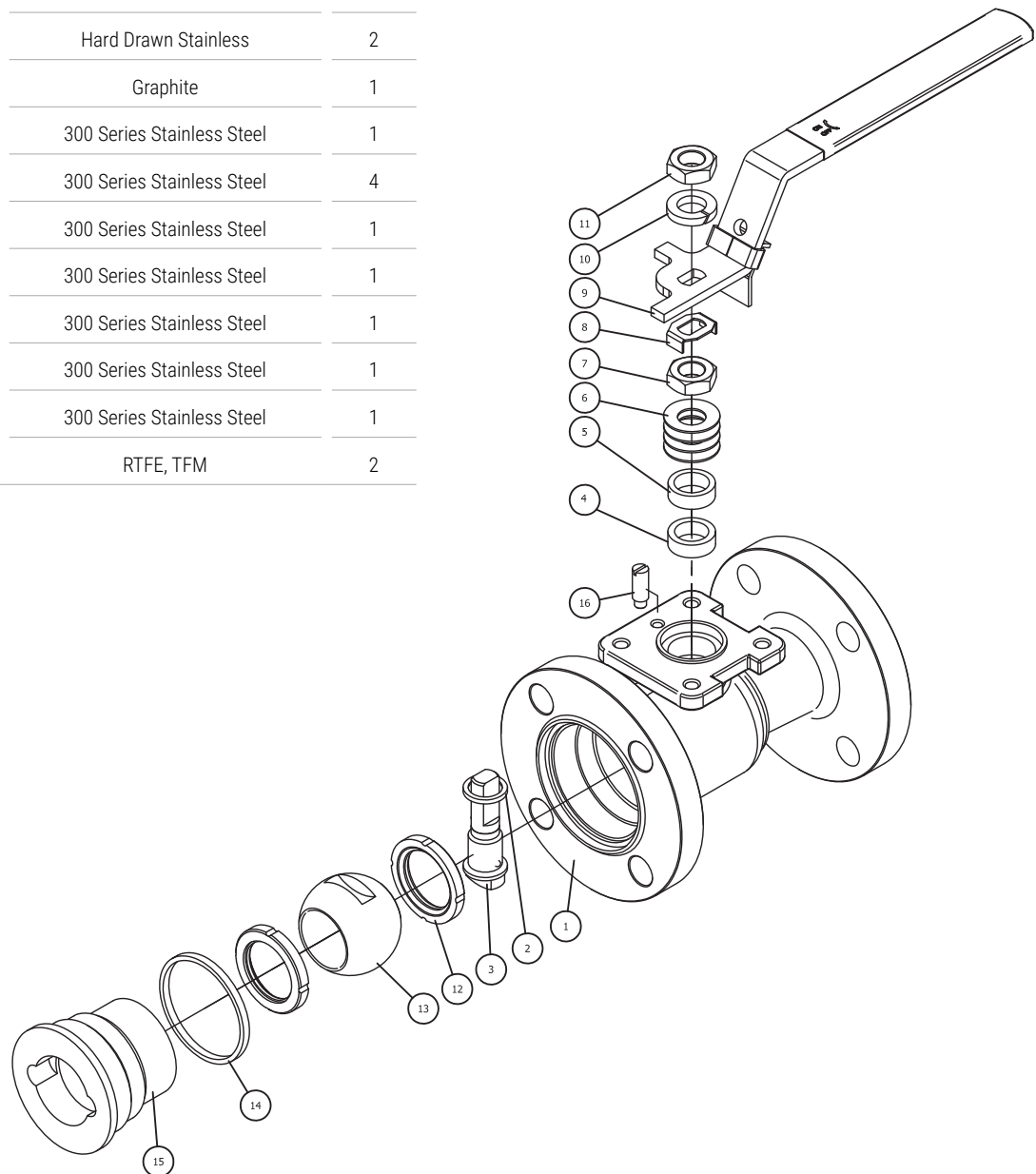
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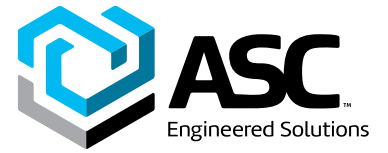
Parts & Materials 1 1/2" - 2 1/2"

No	Part Name	Material	Qty
1	Body	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M	1
2	Thrust Bearing	PTFE	1
3	Stem	316 Stainless Steel	1
3A	Anti-Static Device	Located on Stem, not shown	
	Ball	300 Series Stainless Steel	2
	Spring	Hard Drawn Stainless	2
4	Stem Packing	Graphite	1
5	Packing Gland	300 Series Stainless Steel	1
6	Belleville Washer	300 Series Stainless Steel	4
7	Gland Nut	300 Series Stainless Steel	1
8	Lock Tab	300 Series Stainless Steel	1
9	Handle	300 Series Stainless Steel	1
10	Handle Washer	300 Series Stainless Steel	1
11	Handle, Nut	300 Series Stainless Steel	1
12	Seat	RTFE, TFM	2

No	Part Name	Material	Qty
13	Ball	316 Stainless Steel	1
14	Body Seal	Graphite	1
15	End Cap	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M	1
16	Stop Pin	300 Series Stainless Steel	1



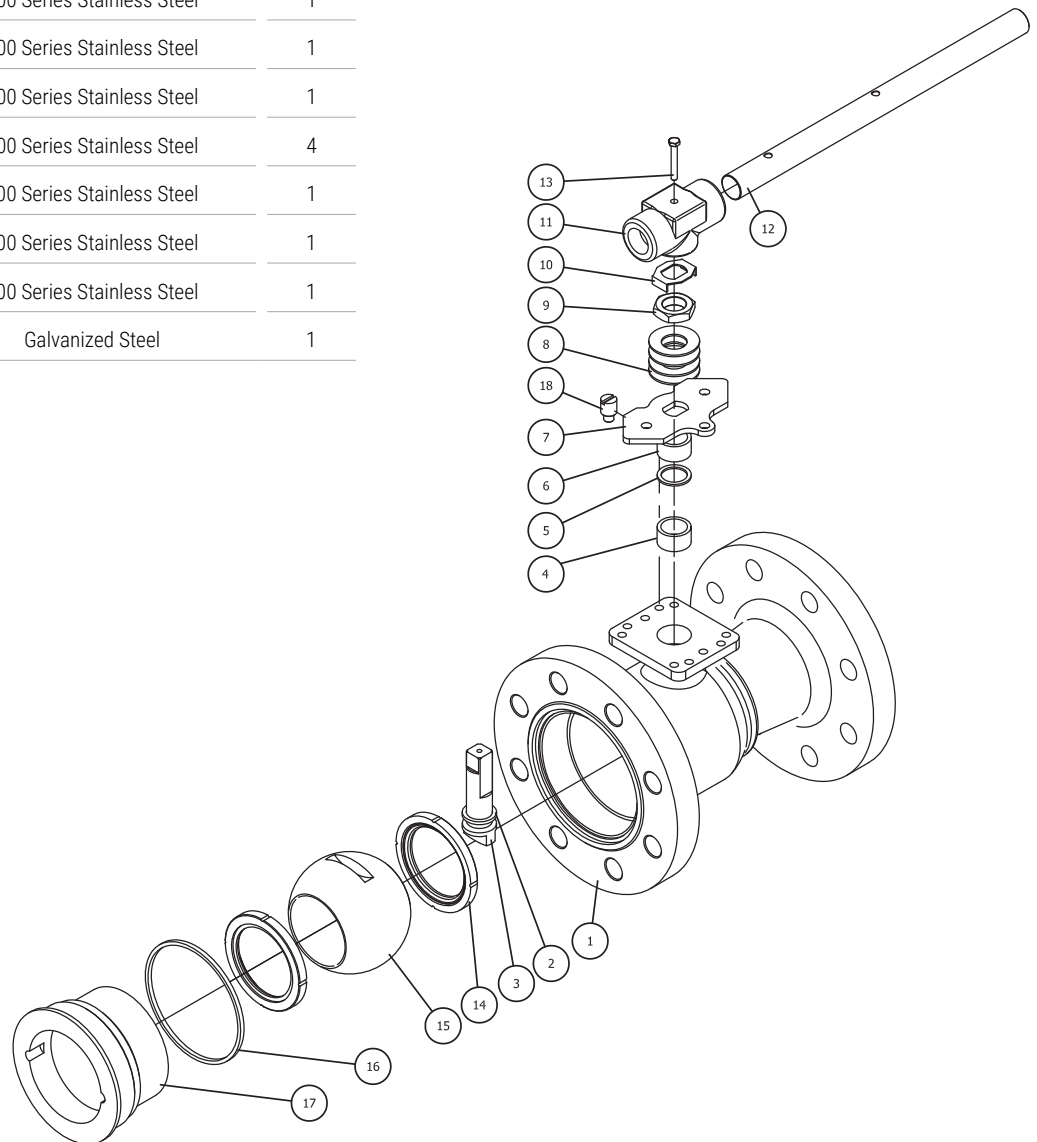
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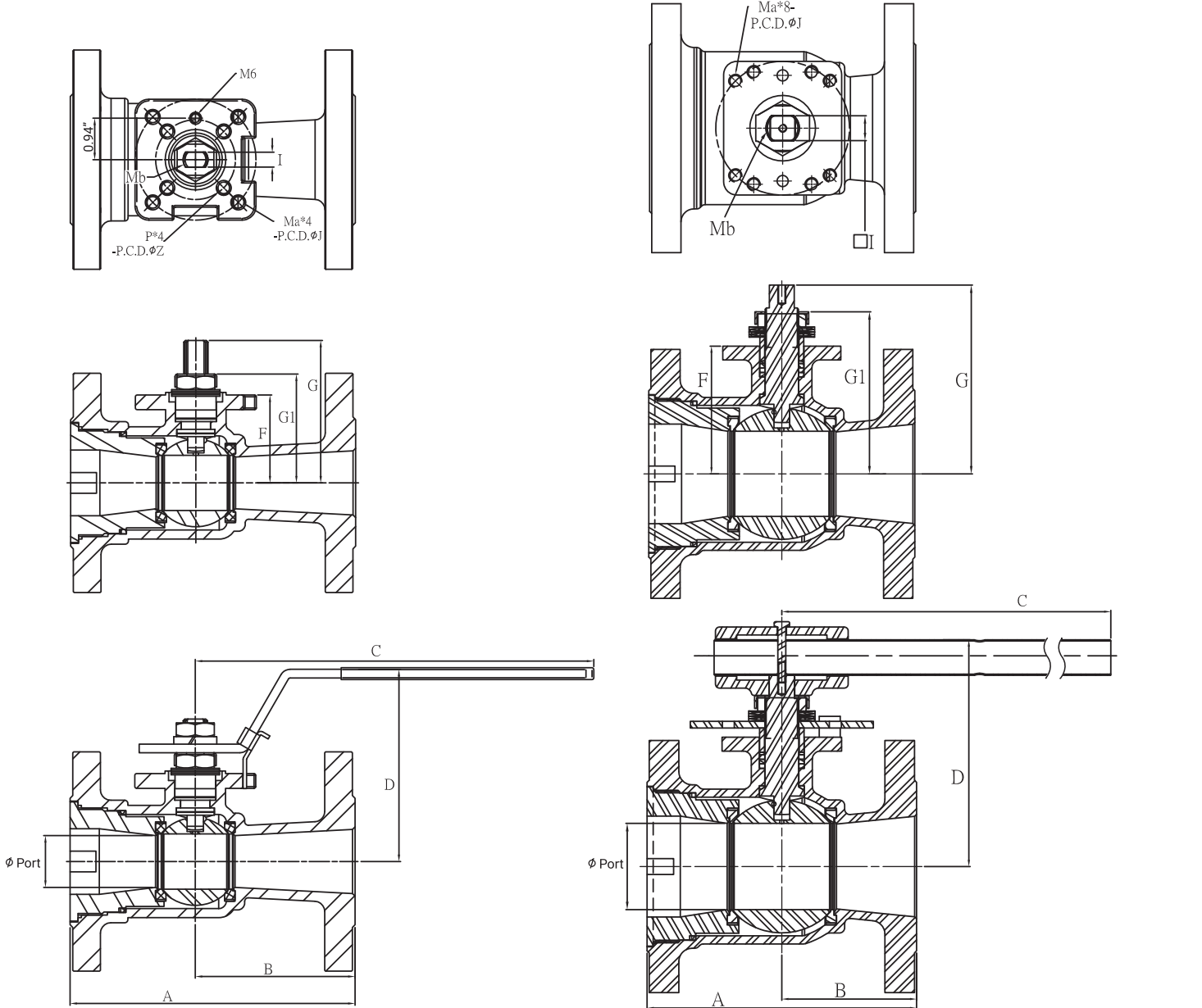
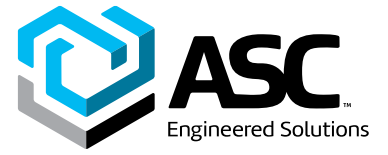
Parts & Materials 3" - 4"

No	Part Name	Material	Qty
1	Body	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M	1
2	Thrust Bearing	PTFE	1
3	Stem	316 Stainless Steel	1
3A	Anti-Static Device	Located on Stem, not shown	
	Ball	300 Series Stainless Steel	2
	Spring	Hard Drawn Stainless	2
4	Stem Packing	Graphite	1
5	Plain Washer	300 Series Stainless Steel	1
6	Packing Gland	300 Series Stainless Steel	1
7	Stop Plate	300 Series Stainless Steel	1
8	Belleville Washer	300 Series Stainless Steel	4
9	Gland Nut	300 Series Stainless Steel	1
10	Lock Tab	300 Series Stainless Steel	1
11	Wrench Block	300 Series Stainless Steel	1
12	Handle, Pipe	Galvanized Steel	1

No	Part Name	Material	Qty
13	Handle, Bolt	300 Series Stainless Steel	1
14	Seat	RTFE, TFM	2
15	Ball	316 Stainless Steel	1
16	Body Seal	Graphite	1
17	End Cap	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M	1
18	Stop Pin	300 Series Stainless Steel	1



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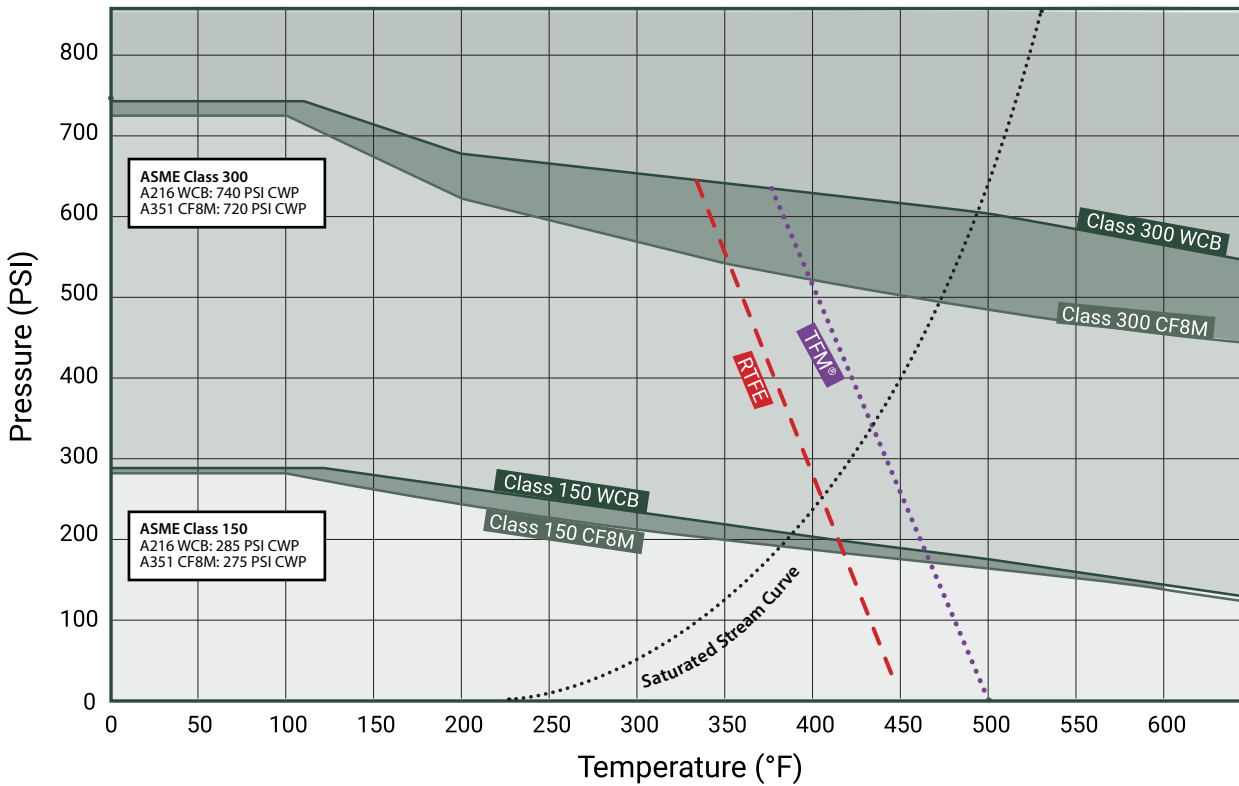
**Dimensions**

Size	Port	A Class 150	A Class 300	B Class 150	B Class 300	C	D	F	G Class 150	G Class 300	G1 Class 150	G1 Class 300	I	J	Ma	P Class 150	P Class 300	Z	Mb
1½	1.22	6.50	7.48	3.64	4.23	8.98	4.21	2.00	3.25	3.27	2.50	2.52	0.343	F07 (2.76)	M8	M6	M6	F05 (1.97)	⅜"-18
2	1.50	7.01	8.50	4.41	4.93	8.98	4.59	2.38	3.48	3.58	2.87	2.87	0.343	F07 (2.76)	M8	M6	M6	F05 (1.97)	⅜"-18
2½	1.97	7.48	9.49	3.94	5.56	8.98	4.84	2.64	3.74	3.84	3.13	3.17	0.343	F07 (2.76)	M8	M6	M6	F05 (1.97)	⅜"-18
3	2.56	7.99	11.10	4.00	6.78	13.74	6.81	3.84	5.67	5.64	5.12	5.12	0.748	F10 (4.02)	M10	-	M10	-	1"-14
4	2.99	8.98	12.01	4.49	7.13	13.74	7.28	4.28	6.10	6.15	5.51	5.61	0.748	F10 (4.02)	M10	-	M10	-	1"-14

**Note:**

The dimensions above are for informational purposes only. Please contact Sharpe Valves if you need dimensions for construction.

### Valve Pressure - Temperature Rating



**Note:**

In the chart, the pressure-temperature capability of a specific valve is the region BELOW the body material line, and LEFT of the seat material line. The valve body ratings are based on ASME B16.34 rating for materials. The graphs are based on laboratory testing and our experience in the field. The seat ratings depend on the material, design, application and function.

#### Sharpe® Seat Material

<b>TFM</b>	<p><b>M</b> - TFM® PTFE</p> <p>Dyneon® TFM PTFE is a second generation PTFE with improved chemical and heat resistant properties and stress recovery. Its temperature range is -100°F to 500°F (-73°C to 260°C) Color - white.</p>
<b>RTFE</b>	<p><b>R</b> - Reinforced Polytetrafluoroethylene (RTFE).</p> <p>PTFE's mechanical properties are enhanced by adding 15% filler material to provide improved strength, stability, and wear resistance. Its temperature range is from -320°F to 450°F (-196°C to 232°C). Color-off-white.</p>

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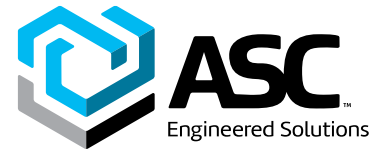
### Technical Information

Size	C <sub>v</sub>	Weight (Lbs.)
1-½	82	16
2	120	17
2-½	240	26
3	350	34
4	720	56

### Applicable Standards

Wall Thickness	ASME B16.34
Face to Face Dimensions	ASME B16.10
Flange Dimensions	ASME B16.5
NACE	MR-0175
Fire Safe	API 607 4 <sup>th</sup> Ed.
Pressure Test	ASME B16.34, API 598 (optional)
Basic Design	ASME B16.34

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How to order  
**Sharpe® Series FS54**

**Example:** 4" FS54-33-4R

4" Fire Safe Series 54 Standard Port, Uni-Body Flanged, Raised Face, Class 300 Ball Valve,  
Cast Carbon Steel Body with 316 Stainless Ball and Stem, RTFE Seats, Graphite Body Seal and Stem Packing.

4"	FS54	-	33	-	4	-	R	-	4" FS54-33-4R
Size	Series		Class		Body Material		Seat Material		Suffixes & Options
Size	Series		Class		Body Material		Seat Material		Suffixes & Options
1-½	FS54		11 150		4 Carbon Steel (cast WCB)		M TFM™		OH Oval Handle, Non-locking up to 2"
2			33 300				R RTFE		
2-½					6 Stainless Steel (cast CF8M)				L Lockable Stem Extension, 316SS
3									
4									

**Note:**

Responsibility for proper selection, use and maintenance of any product remains solely with the purchaser and end user. We reserve the right to modify or improve the designs or specifications of any product at any time without notice.



### **About ASC Engineered Solutions**

ASC Engineered Solutions is defined by quality—in its products, services and support. With nearly 2,000 employees, the company's portfolio of precision-engineered piping support, valves and connections provides products to more than 4,000 customers across industries, such as mechanical, industrial, fire protection, oil and gas, and commercial and residential construction. Its portfolio of leading brands includes ABZ Valve®, AFCON®, Anvil®, Anvil EPS, Anvil Services, Basic-PSA, Beck®, Catawissa, Cooplet®, FlexHead®, FPPI®, Gruvlok®, J.B. Smith, Merit®, North Alabama Pipe, Quadrant®, SCI®, Sharpe®, SlideLOK®, SPF®, SprinkFLEX®, Trenton Pipe and VEP. With headquarters in Oak Brook, IL, ASC also has ISO 9001:2015 certified production facilities in PA, TN, IL, TX, AL, LA, KS, and RI.



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