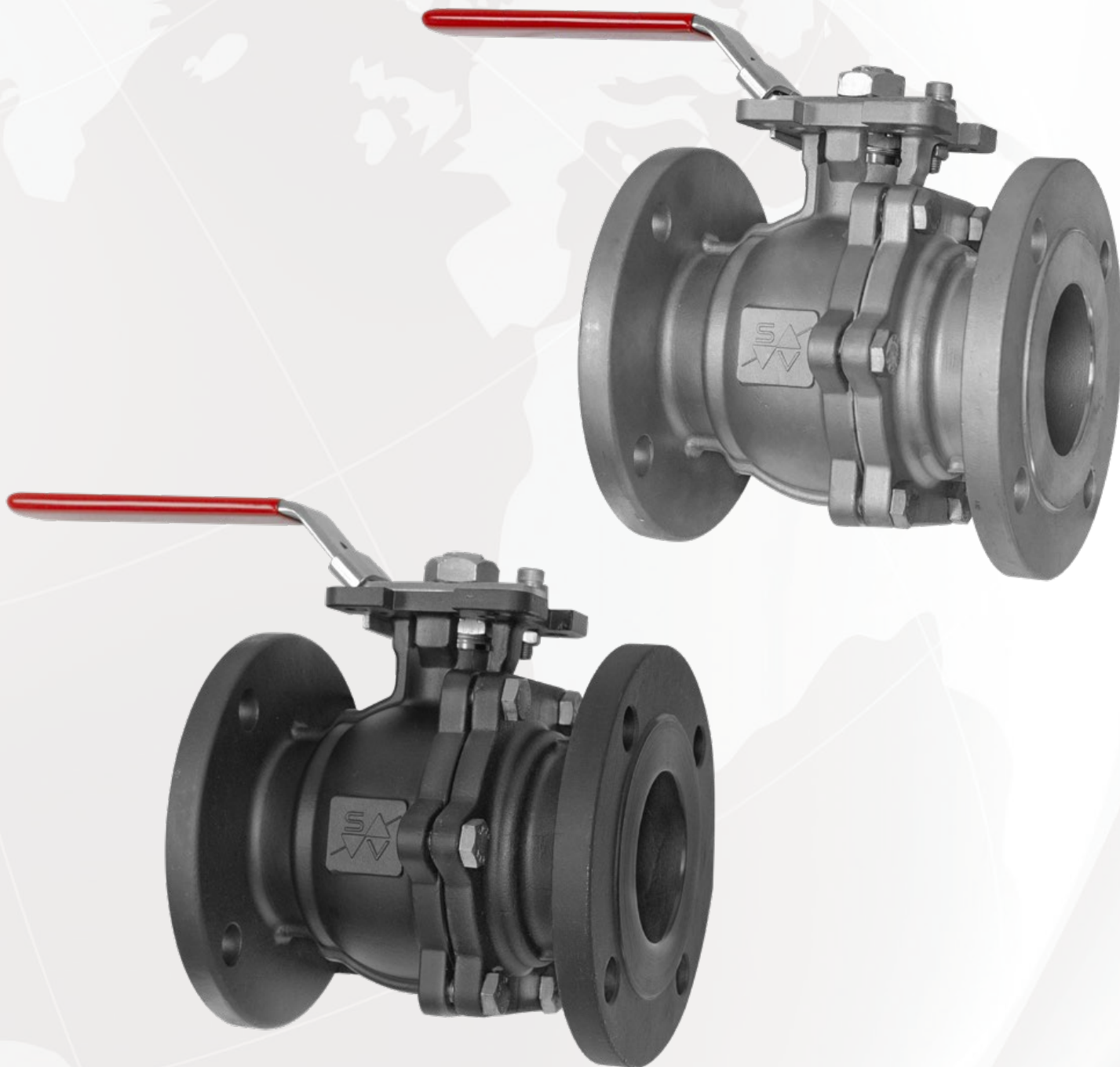


## FIRESAFE 2-PC DIRECT MOUNT

PED   NACE  **SIL2**  
Safety Integrity Level **API 607** **API 608**

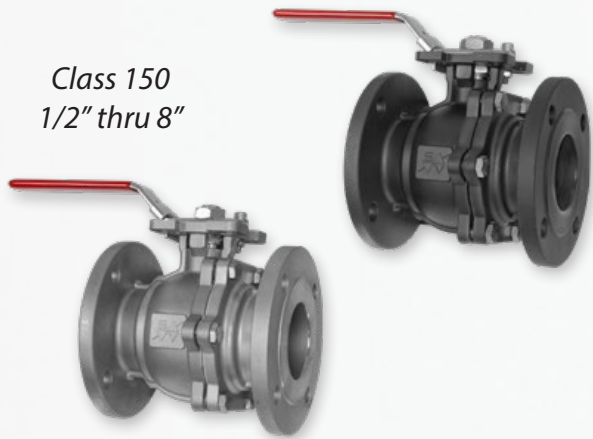


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# Features & Benefits

## M15F Series

Class 150 2-PC Flanged Design



### Certifications and Compliance

Sesto Valves are designed and manufactured to internationally recognized standards including but not limited to the following:

**Fire Testing:** API 607 Certified

**Testing:** API 598, API 6D, ISO 15848, ISO 5208

**Design:** ASME B16.34, ASME B16.5, ASME B16.10,  
NACE MR0175, API 608

**Markings:** MSS-SP-25, PED, NACE

**Certifications:** API 607, SIL, NACE, PED, ISO 15848, API 608

### Features and Benefits

Class 150

Size Range 1/2" thru 8" Full Bore

ISO 5211 Direct Mount Pad

Body Wall Thickness ASME B16.34

End Connections: RF Flanged

Fugitive Emissions ISO 15848

Firesafe Tested API 607

Anti-Static Device and Live-Loaded Packing

Bubble Tight Shut Off

Blowout Proof, Low Torque Guided Stem Design

Wide Range of Soft and Metal Seated Options

Manual, Electric, Pneumatic Operators

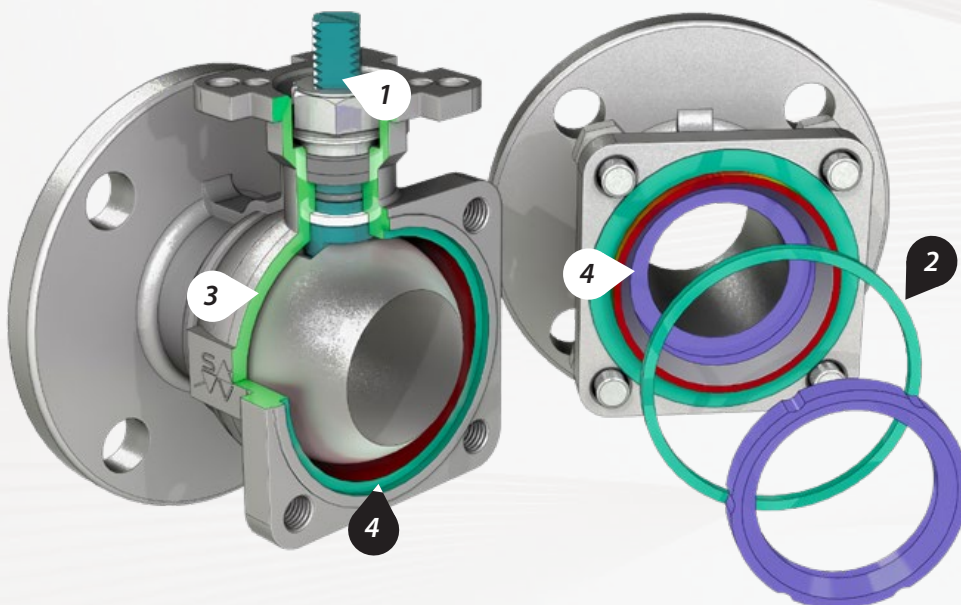
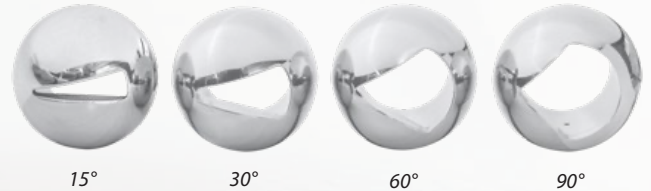
Globally Certified and Approved

### End Connections



Flanged  
(RF)

### Flow Control & V-Ball Solutions



### Fine-Tuned Design Details

(Four Improvements to the Industry Standard)

#### 1. Larger Stem

Higher margin of safety, more resistant to side loading and fatigue stress.

#### 2. Gaskets to Fill the Gaps

50% thicker than industry standard, graphite firesafe.

#### 3. Thicker Body Walls

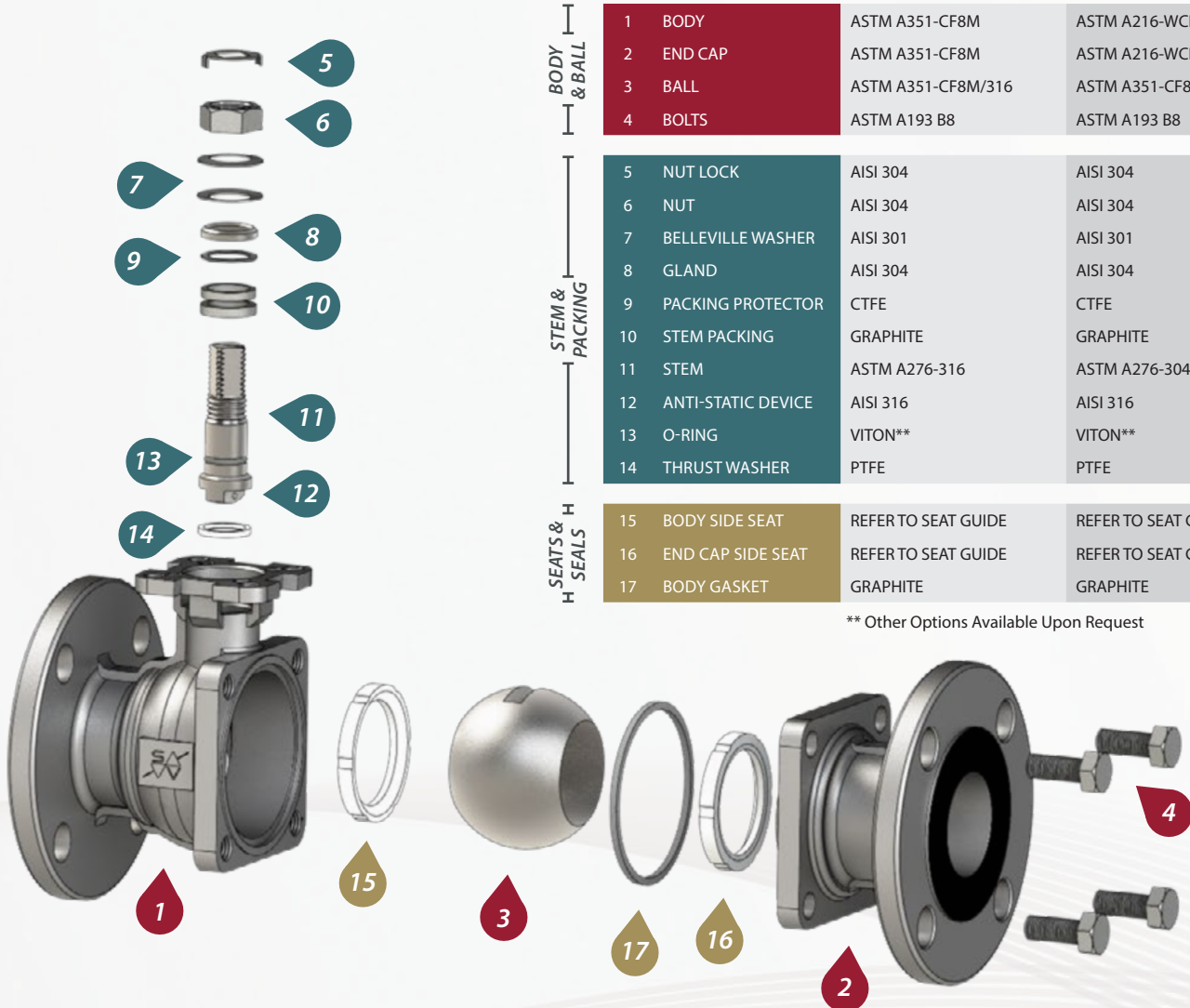
ASME B16.34 body wall thickness provides extra safety factor should the valve be overpressurized

#### 4. Precision Machined Sealing Areas

Less dimensional variation allows for less seat compression, resulting in lower and more consistent torques.

## Firesafe 2-PC Direct Mount Flanged

ASME B16.34, API 608, API 607, ISO 15848, NACE MR-0175, Sil 2  
 Certified Torques and Tolerances Verified for Consistency

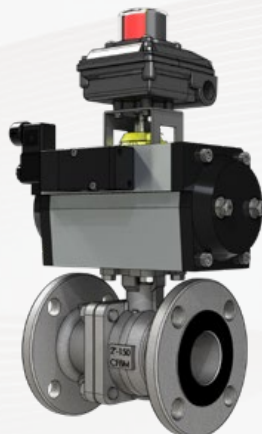


#	PARTS	CF8M STAINLESS STEEL (BODY CODE "S")	WCB CARBON STEEL (BODY CODE "C")
1	BODY	ASTM A351-CF8M	ASTM A216-WCB
2	END CAP	ASTM A351-CF8M	ASTM A216-WCB
3	BALL	ASTM A351-CF8M/316	ASTM A351-CF8M/316
4	BOLTS	ASTM A193 B8	ASTM A193 B8
5	NUT LOCK	AISI 304	AISI 304
6	NUT	AISI 304	AISI 304
7	BELLEVILLE WASHER	AISI 301	AISI 301
8	GLAND	AISI 304	AISI 304
9	PACKING PROTECTOR	CTFE	CTFE
10	STEM PACKING	GRAPHITE	GRAPHITE
11	STEM	ASTM A276-316	ASTM A276-304
12	ANTI-STATIC DEVICE	AISI 316	AISI 316
13	O-RING	VITON**	VITON**
14	THRUST WASHER	PTFE	PTFE
15	BODY SIDE SEAT	REFER TO SEAT GUIDE	REFER TO SEAT GUIDE
16	END CAP SIDE SEAT	REFER TO SEAT GUIDE	REFER TO SEAT GUIDE
17	BODY GASKET	GRAPHITE	GRAPHITE

\*\* Other Options Available Upon Request

### Direct Mount Low Torque Design

Larger stem and seats with much less compression and precision machined sealing areas give us a consistent and reliable lower torque than our competitors.




### Versatility & Reliability

The Sesto Valves M15F Series direct mount flanged floating ball valve design starts with a high quality investment cast body, designed and tested in compliance with ASME B16.34 standards. Precision machined surfaces and tighter manufacturing tolerances allow for precise assembly and fitting of body components and seals. Because of reduced dimensional variations, seats can be designed for minimal compression. This results in lower, more consistent torques and longer seat life. Every valve is factory tested and serialized for quality control and traceability.



# Seat Guide & PT Chart

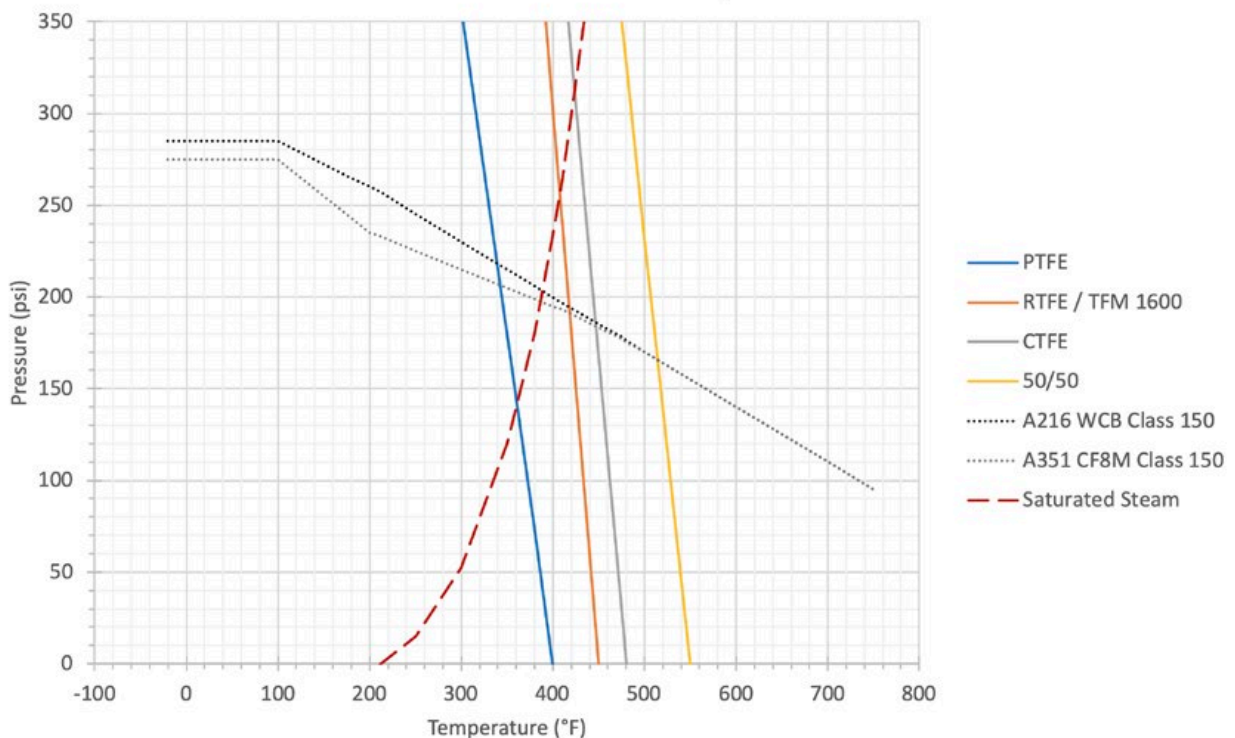
## Seat Guide\*

TFM 1600 (MODIFIED PTFE)	PTFE (VIRGIN PTFE)	50/50 (PTFE + 316SS)	RTFE (PTFE, GLASS FIBER REINFORCED)	CTFE (CARBON FILLED PTFE)
<b>RECOMMENDED</b>	<b>RECOMMENDED</b>	<b>RECOMMENDED</b>	<b>RECOMMENDED</b>	<b>RECOMMENDED</b>
Chemical Environments, Steam, Moderate Pressures	Most Chemicals, Low to Moderate Cycling	Saturated Steam, High Temperatures, Abrasives	Chemical Environments, Low Pressure Saturated Steam	Steam, Low to Moderate Pressures
<b>NOT RECOMMENDED</b>	<b>NOT RECOMMENDED</b>	<b>NOT RECOMMENDED</b>	<b>NOT RECOMMENDED</b>	<b>NOT RECOMMENDED</b>
Fluorinated Chemicals	High Cycle Applications, Fluorinated Chemicals	Chlorine Solutions	Caustic Chemicals	Caustic Chemicals
<b>TEMPERATURE</b>	<b>TEMPERATURE</b>	<b>TEMPERATURE</b>	<b>TEMPERATURE</b>	<b>TEMPERATURE</b>
-45°C to +232°C (-50°F to +450°F)	-45°C to +204°C (-50°F to +400°F)	-45°C to +288°C (-50°F to +550°F)	-45°C to +232°C (-50°F to +450°F)	-45°C to +249°C (-50°F to +480°F)
<b>COLOR</b>	<b>COLOR</b>	<b>COLOR</b>	<b>COLOR</b>	<b>COLOR</b>
 Translucent White	 White	 Dark Grey	 Off White	 Black

\*Seat material selection involves a large number of process variables and can be somewhat complex. If you do not have any experiential knowledge of what materials work well in your process, it is recommended that you contact Sesto Valves for guidance in selecting the appropriate materials. Selection of a non-optimal material can significantly shorten the valve's service life. This information is only provided as a general guideline of applications in which these seat materials are known to work well or are not recommended.

## Pressure Temperature Chart

M15F Series - Pressure vs. Temperature



## Example Part Number

FIGURE	-	SIZE	-	BODY	TRIM	TYPE	SEATS	-	OPERATOR	-	SPECIAL
M15F	-	03	-	C	6	0	F	-	N	-	

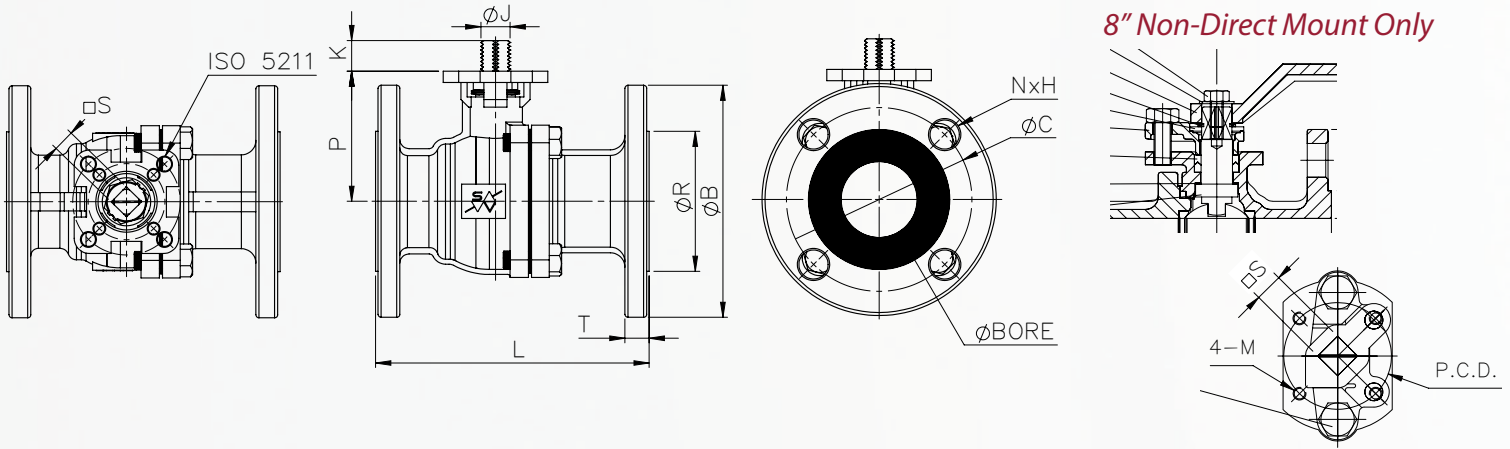
### EXAMPLE PART NUMBER: M15F-03-C60F-N

**EXAMPLE DESCRIPTION:** 3" FLOATING 2-PC CLASS 150 FULL PORT BALL VALVE, SESTO M15F SERIES, RF FLANGED ENDS, ASTM A216 GR WCB BODY, ASTM A351 CF8M BALL, ASTM A276-316 STEM, STANDARD BALL TYPE, TFM 1600 SEATS, VITON O-RING, GRAPHITE FIRE SAFE PACKING, AISI 304 SS BOLTS, API 607, NACE, BARE STEM

FIGURE	-	SIZE	-	BODY
M15F - FLOATING 2-PC 150# FLANGED BALL VALVE, FULL BORE	-	0M - 1/2" 0T - 3/4" 01 - 1" 1Q - 1 1/4"	1M - 1 1/2" 02 - 2" 2M - 2 1/2" 03 - 3"	04 - 4" 06 - 6" 08 - 8"
				C - ASTM A216 - WCB S - ASTM A351 CF8M 9 - SPECIAL

TRIM	TYPE	SEATS	-	OPERATOR	-	SPECIAL
6 - 316 SS BALL / 316 SS STEM 7 - 316 SS BALL / 17-4PH STEM 8 - 304 SS BALL / 304 SS STEM 9 - SPECIAL	0 - STANDARD V - V-PORT BALL P - OPEN PORT BALL S - SLOTTED BALL R - RELIEF VENTED BALL T - TEFLON IMPREGNATED BALL 9 - SPECIAL	F - TFM 1600 C - CTFE R - RTFE S - 50/50 T - PTFE 9 - SPECIAL	-	N - BARE STEM L - LOCKING LEVER E - OVAL HANDLE (2" & UNDER) 9 - SPECIAL	-	CONSULT FACTORY

# Dimensions



## Dimensions (in)

SIZE (in)	BORED (in)	□S (in)	ØJ (in)	K (in)	L (in)	P (in)	T (in)	ØR (in)	ØC (in)	ØB (in)	H (in)	N	ISO 5211	CV	WEIGHT (lbs)
1/2"	0.59	0.35	0.47	0.35	4.25	1.95	0.38	1.38	2.38	3.50	0.62	4	F03-F04	15	3.6
3/4"	0.79	0.35	0.47	0.35	4.61	2.13	0.41	1.69	2.75	3.88	0.62	4	F03-F04	35	4.3
1"	0.98	0.43	0.55	0.57	5.00	2.34	0.44	2.00	3.12	4.25	0.62	4	F04-F05	68	5.8
1 1/4"	1.26	0.43	0.55	0.57	5.51	2.83	0.50	2.50	3.50	4.63	0.63	4	F04-F05	110	8.0
1 1/2"	1.57	0.55	0.75	0.73	6.50	2.68	0.56	2.88	3.88	5.00	0.62	4	F05-F07	155	11.8
2"	1.97	0.55	0.75	0.73	7.00	3.35	0.62	3.62	4.75	6.00	0.75	4	F05-F07	300	18.2
2 1/2"	2.56	0.67	0.87	0.83	7.50	4.09	0.69	4.12	5.50	7.00	0.75	4	F07-F10	500	27.8
3"	2.99	0.67	0.87	0.82	8.00	4.42	0.75	5.00	6.00	7.50	0.75	4	F07-F10	600	33.8
4"	3.94	0.87	1.10	1.20	9.00	5.33	0.94	6.19	7.50	9.00	0.75	8	F10-F12	1015	62.4
6"	5.90	1.06	1.42	1.38	15.51	5.33	1.01	8.50	9.50	11.00	0.88	8	F12-F14	4000	138.0
8"	7.87	1.06	1.50	n/a	18.00	n/a	1.12	10.62	11.75	13.5	n/a	8	F12	9000	251.3

Sesto Valves may change dimensions without any notice.

## Torques (in-lbs)

TFM 1600	PTFE	RTFE	CTFE	50/50
60	60	60	90	96
79	79	79	119	126
123	123	123	184	197
170	170	170	255	272
277	277	277	416	443
350	350	350	525	560
611	611	611	917	978
785	785	785	1178	1256
938	938	938	1407	1501
2318	2318	2318	3477	3709
3906	3005	3005	4506	4808

\*\*Raw torques shown in inch-pounds. Minimum 30% safety factor should be added for actuator sizing.\*\*

## Dimensions (mm)

SIZE (mm)	BORED (mm)	□S (mm)	ØJ (mm)	K (mm)	L (mm)	P (mm)	T (mm)	ØR (mm)	ØC (mm)	ØB (mm)	H (mm)	N	ISO 5211	CV	WEIGHT (kg)
15	15	9	12	9.00	108.00	49.50	9.65	35.10	60.50	88.90	15.75	4	F03-F04	15	1.64
20	20	9	12	9.00	117.00	54.00	10.41	42.90	69.90	98.60	15.75	4	F03-F04	35	1.95
25	25	11	14	14.50	127.00	59.50	11.18	50.80	79.20	108.00	15.75	4	F04-F05	68	2.64
32	32	11	14	14.50	140.00	72.00	12.70	63.50	89.00	117.50	16.00	4	F04-F05	110	3.64
40	40	14	19	19.50	165.00	68.00	14.22	73.20	98.60	127.00	15.75	4	F05-F07	155	5.36
50	50	14	19	21.00	178.00	85.00	15.75	91.90	120.70	152.40	19.05	4	F05-F07	300	8.27
65	65	17	22	23.00	190.50	104.00	17.53	104.60	139.70	177.80	19.05	4	F07-F10	500	12.64
80	76	17	22	23.00	203.00	112.20	19.05	127.00	152.40	190.50	19.05	4	F07-F10	600	15.36
100	100	22	28	30.50	228.50	135.50	23.88	157.20	190.50	228.60	19.05	8	F10-F12	1015	28.36
150	150	27	36	35.00	394.00	194.00	25.60	215.90	241.30	279.40	22.35	8	F12-F14	4000	62.73
200	200	27	38.1	n/a	457.20	n/a	28.45	269.75	298.45	342.90	n/a	8	F12	9000	114.23

Sesto Valves may change dimensions without any notice.

## Torques (Nm)

TFM 1600	PTFE	RTFE	CTFE	50/50
7	7	7	10	11
9	9	9	13.5	14
14	14	14	21	22
19	19	19	29	30.5
31	31	31	47	50
39.5	39.5	39.5	59	63
69	69	69	103.5	110
88.5	88.5	88.5	133	141.5
105.8	105.8	105.8	158.5	169
261.5	261.5	261.5	392	418
440.5	440.5	440.5	508	542

\*\*Raw torques shown in inch-pounds. Minimum 30% safety factor should be added for actuator sizing.\*\*



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