

Chicago Valves & Controls



SERIES 70/79

FS 70/79

HIGH PERFORMANCE STANDARD/FULL PORT

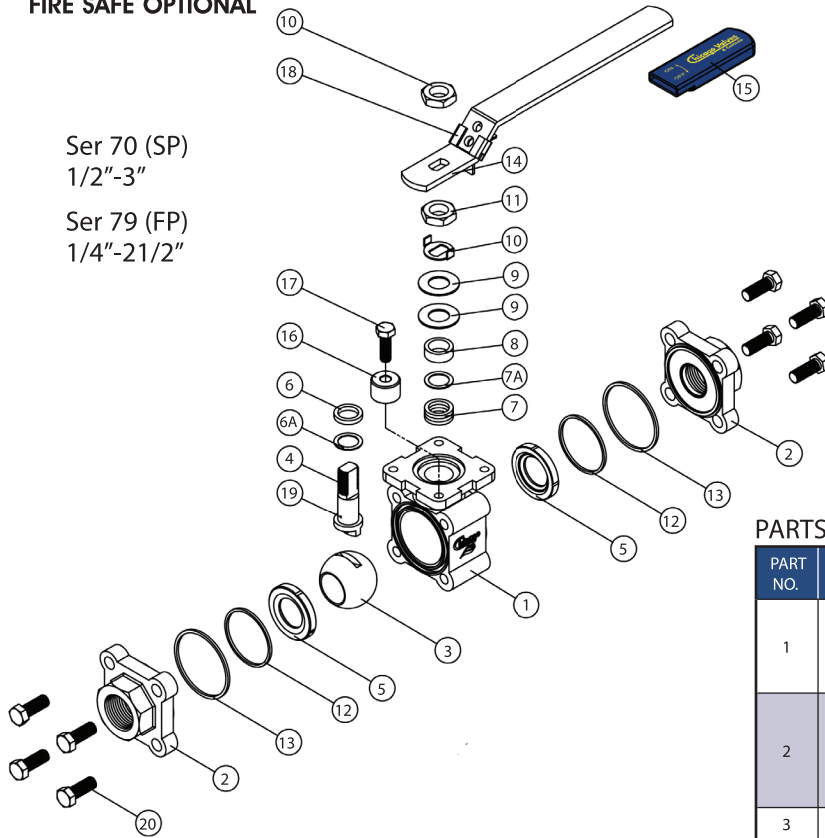
3 PIECE BALL VALVE

Class 800 1/2"-2" SP
 Class 800 1/4"-2" FP
 Class 600 2 1/2"-4" SP
 Class 600 2 1/2"-4" FP
 HIGH CYCLE STEM PACKING
 HEAVY DUTY STEM DESIGN
 FULLY ENCAPSULATED DUEL BODY SEAL
 FACILITATE WELDING WITHOUT DISASSEMBLY
 INTEGRAL MOUNTING PAD
 LOCKABLE HANDLE
 CHOICE OF SEATS AND SEAL S...

API 608

FIRE SAFE OPTIONAL

Series 70/79



Ser 70 (SP)
 1/2"-3"

Ser 79 (FP)
 1/4"-2 1/2"

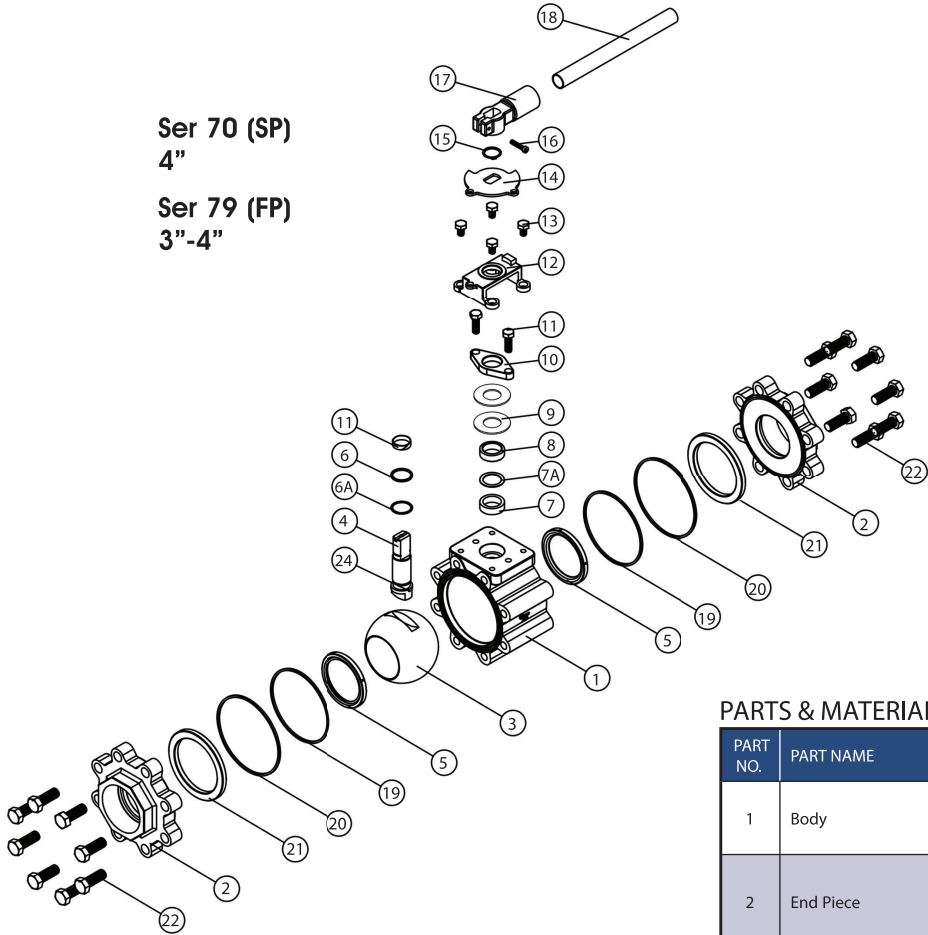
PARTS & MATERIAL

PART NO.	PART NAME	QTY.	MATERIAL
1	Body	1	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M Alloy 20 ASTM A351 CN7M SMO 254 ° ASTM A351 CK3MCuN
2	End Piece	2	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M 316L Stainless Steel ASTM A351 CF3M (SW,BW) Alloy 20 ASTM A351 CN7M SMO 254 ° ASTM A351 CK3MCuN
3	Ball	1	316 Stainless Steel Alloy 20 SMO 254 °
4	Stem	1	316 Stainless Steel Alloy 20 SMO 254 °
5	Seat	2	PTFE, RTFE, TFM, XN, PEEK, DELRIN
6	Thrust Bearing	1	XN
6A		1	PEEK
7	Stem Packing	**	TFM, XN, Graphite
7A	Seal Protector	1	PEEK
8	Gland	1	300 Series Stainless Steel
9	Belleville Washer	2	300 Series Stainless Steel
10	Lock Tab	1	300 Series Stainless Steel
11	Packing Nut	1	300 Series Stainless Steel
12	Body Seal	2	TFM
13	Outer Body Seal	2	TFM Graphite
14	Handle	1	300 Series Stainless Steel
15	Handle Sleeve	1	PVC
16	Stopper	1	300 Series Stainless Steel
17	Stopper Bolt	1	300 Series Stainless Steel
18	Locking Device	1	300 Series Stainless Steel
19	Anti-Static Device	2	300 Series Stainless Steel
20	Body Bolt	8/12	B8M

** TFM XN 1/4"-1/2" 2PC
 1/2"-2 1/2" 3PC
 2 1/2"-3" 4PC
 4" 3PC

Graphite 1PC (All Sizes)

Series 70/79



PARTS & MATERIAL

PART NO.	PART NAME	QTY.	MATERIAL	
1	Body	1	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M Alloy 20 ASTM A351 CN7M	
2	End Piece	2	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M 316L Stainless Steel ASTM A351 CF3M (SW,BW) Alloy 20 ASTM A351 CN7M	
3	Ball	1	316 Stainless Steel	Alloy 20
4	Stem	1	316 Stainless Steel	Alloy 20
5	Seat	2	PTFE, RTFE, TFM, XN, PEEK, DELRIN	
6	Thrust Bearing	1	XN	
6A		1	PEEK	
7	Stem Packing	**	TFM, XN, Graphite	
7A	Seal Protector	1	PEEK	
8	Gland	1	304 Stainless Steel	
9	Belleville Washer	2	300 Series Stainless Steel	
10	Gland Flange	1	300 Series Stainless Steel	
11	Gland Flange Bolt	2	300 Series Stainless Steel	
12	Stopper Bridge	1	304 Stainless Steel	
13	Bridge Bolts	4	300 Series Stainless Steel	
14	Stop Plate	1	300 Series Stainless Steel	
15	C Snap Ring	1	Nickle Plated Carbon Steel	
16	Handle Bolt	1	300 Series Stainless Steel	
17	Handle Head	1	304 Stainless Steel	
18	Handle Pipe	1	304 Stainless Steel	
19	Body Seal	2	TFM	
20	Outer Body Seal	2	Graphite	
21	Seal Ring	2	Carbon Steel ASTM A216 WCB 316 Stainless Steel ASTM A351 CF8M Alloy 20 ASTM A351 CN7M	
22	Bolt	16-24	B8M	
24	Anti-Static Device	2	316 Stainless Steel ASTM A351 CF8M	

** Ser 70

TFM, XN 1/2"-3" 3PC

4" 4PC

Graphite 1PC (All Sizes)

** Ser 79

TFM, XN 1/4"-3/8" 2PC

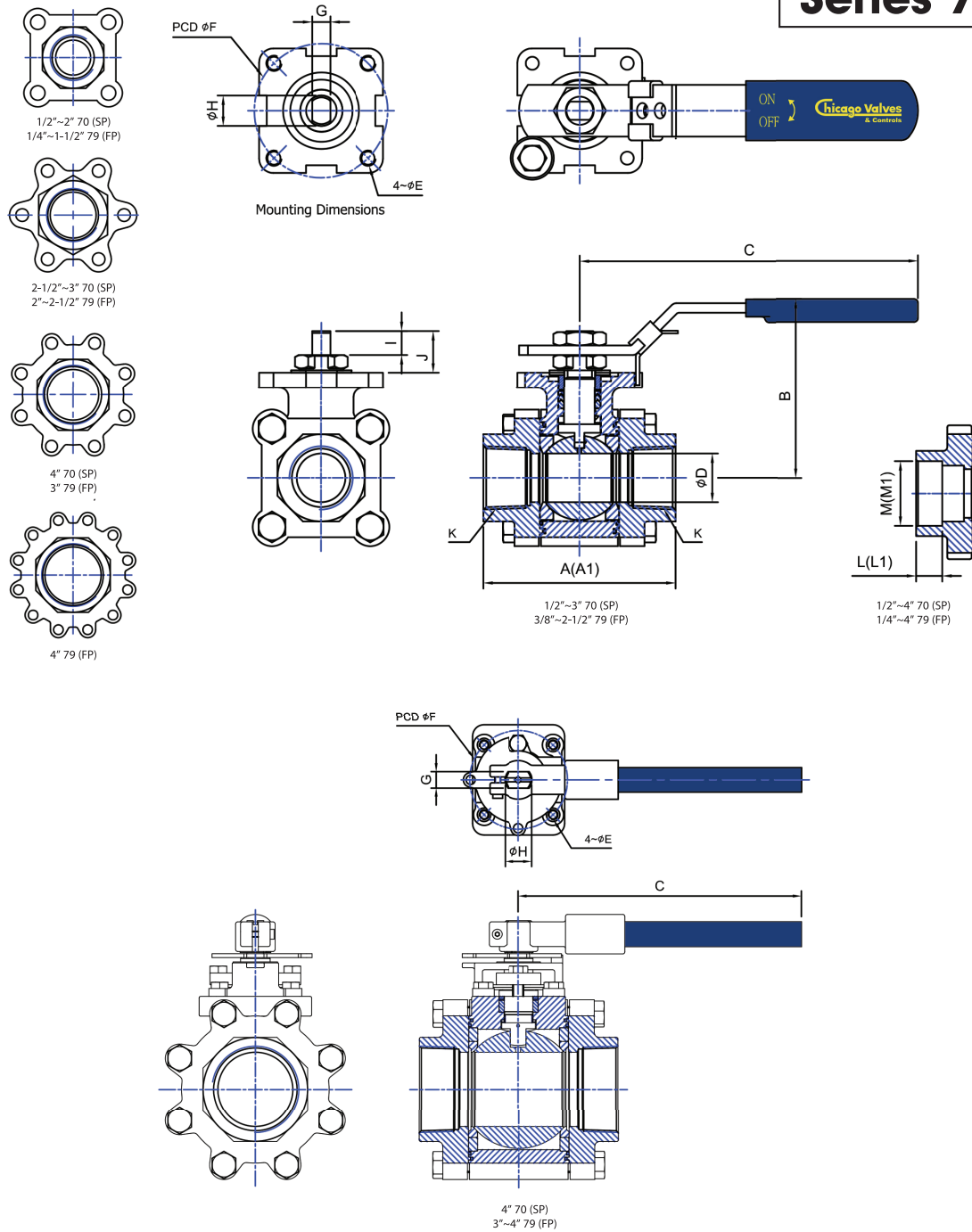
1/2"-21/2" 3PC

3" 4PC

4"-3PC

Graphite 1PC (All Sizes)

Series 70/79



DIMENSIONS (INCHES)

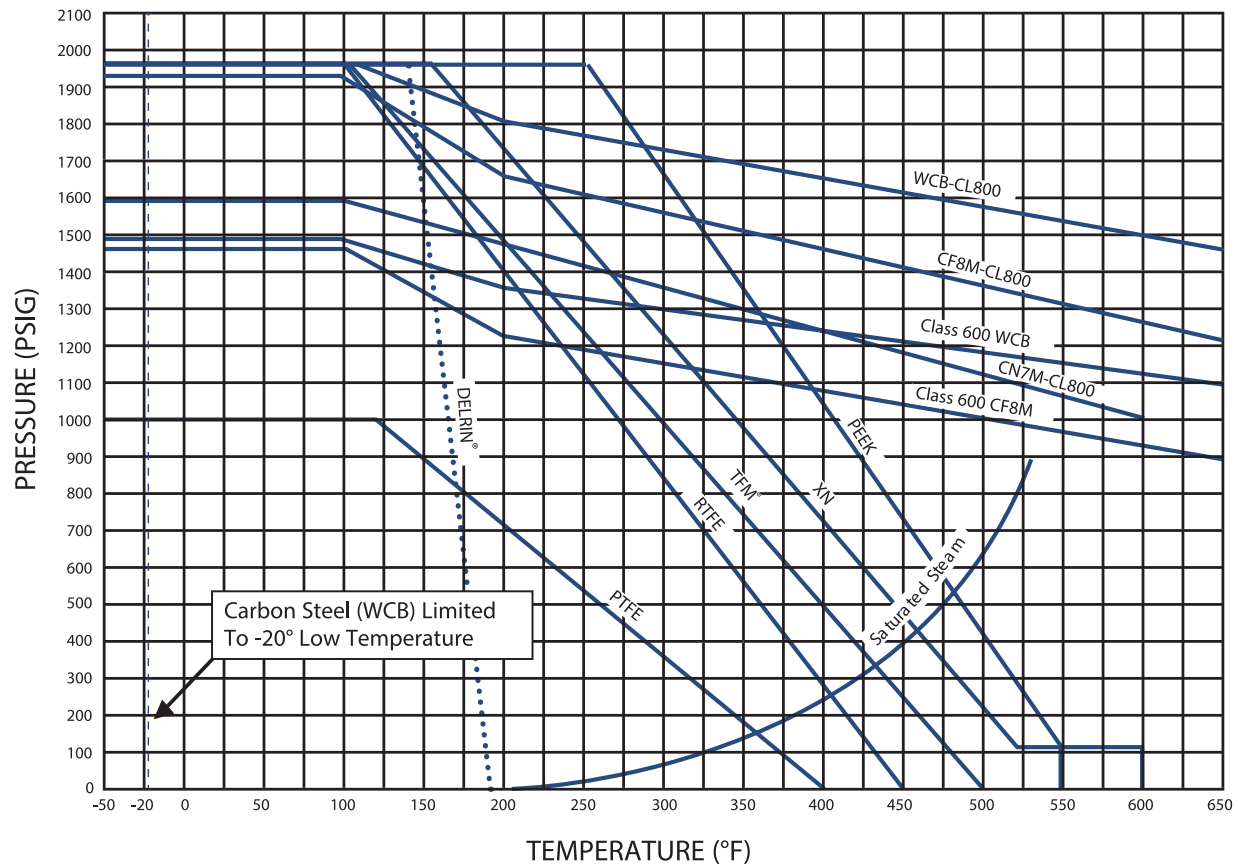
SIZE	SIZE	70	79											70	79	70	79	ISO5211
70	79	A1	A	B	C	D	E	F	G	H	I	J	K	L1	L	M1	M	
1/2"	1/4"-3/8"	2.54	2.54	2.58	5.25	0.39	M5X0.8	1.42	0.20	3/8-24UNF	0.24	0.31	NPT	0.50	0.50	0.85	0.69	F03
3/4"	1/2"	2.99	2.99	2.83	6.30	0.56	M5X0.8	1.65	0.25	3/8-24UNF	0.31	0.55	NPT	0.56	0.50	1.07	0.85	F04
1"	3/4"	3.31	3.31	3.03	6.30	0.81	M5X0.8	1.65	0.25	3/8-24UNF	0.31	0.55	NPT	0.63	0.56	1.33	1.07	F04
1 1/4"	1"	3.94	3.94	3.82	9.65	1.00	M8X1.25	2.76	0.37	5/8-18UNF	0.51	0.91	NPT	0.69	0.63	1.68	1.33	F07
1 1/2"	1 1/4"	4.33	4.33	4.02	9.65	1.26	M8X1.25	2.76	0.37	5/8-18UNF	0.55	0.93	NPT	0.75	0.69	1.91	1.68	F07
2"	1-1/2"	5.04	5.04	4.29	10.24	1.50	M8X1.25	2.76	0.47	3/4-16UNF	0.67	1.04	NPT	0.87	0.75	2.41	1.91	F07
2 1/2"	2"	6.06	5.71	4.65	10.24	2.00	M8X1.25	2.76	0.47	3/4-16UNF	0.73	1.10	NPT	0.98	0.87	2.91	2.41	F07
3"	2 1/2"	7.26	7.26	5.30	10.24	2.56	M8X1.25	2.76	0.47	3/4-16UNF	0.73	1.10	NPT	0.98	0.98	3.54	2.91	F07
4"	3"	8.27	7.95	6.78	23.23	2.99	M10x1.5	4.02	0.67	1.10	1.47	3.02	NPT	1.18	0.98	4.54	3.54	F10
-	4"	-	9.06	7.73	23.23	4.02	M10x1.5	4.02	0.67	1.10	1.47	3.02	NPT	-	1.18	-	4.54	F10

APPLICABLE STANDARDS

BASIC DESIGN	ASME B16.34
THREADED & SOCKET WELD	ASME B16.11
PRESSURE TEST	API 598
MOUNTING PADS	ISO 5211
NACE	MR 0175
FIRE SAFE	FS API 607 7TH EDITION

70	CV (GPM)	WEIGHT (LBS)	79	CV (GPM)	WEIGHT (LBS)
1/2"	18	1.90	1/4"-3/8"	18	1.90
3/4"	33	2.50	1/2"	38	2.40
1"	44	3.70	3/4"	70	3.50
1 1/4"	70	7.00	1"	110	6.40
1 1/2"	125	9.25	1 1/4"	125	8.90
2"	240	13.00	1 1/2"	250	12.80
2 1/2"	400	19.30	2"	430	18.75
3"	700	31.80	2 1/2"	700	31.40
4"	980	52.00	3"	1300	50.30
-	-	-	4"	2400	90.00

PRESSURE-TEMPERATURE RATINGS SERIES 70/79



Standard Port

Class 800 1/2"-2"
Class 600 21/2"-4"

Full Port

Class 800 1/4"-2"
Class 600 21/2"-4"

Chicago Valves & Controls[®] Seat Materials

T-Virgin PTFE

Polytetrafluoroethylene is a Fluorocarbon-based polymer. This seating material has excellent chemical resistance and low coefficient of friction. Its temperature range is -100°F to 400°F (-73°C to 204°C). Color - white.

M-TFM[®] PTFE

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.

R-Reinforced Polytetrafluoroethylene (RTFE).

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.

XN - is a free-flowing compound based on TFME[®] containing electro-graphitized carbon. It features: increased thermal dimensional stability and surface hardness, improved deformation under load, reduced friction and wear, and good chemical stability. It has a high limiting oxygen index (LOI), low coefficient of friction, very good mechanical properties and exceptional temperature resistance. It is used as a seat material in chemical processing and automotive industries. It is ideal to with steam and thermal fluid applications up to 550°F (228°C) and as low as -40°F (-40°C). Color-black.

D-DELRIN

Provide excellent high pressure resistance with low torque, it can withstand pressure up to 6000 PSI (depending on valves size and class rating) Temperature limit to -70f - 180f

P-PEEK (Unfilled) Polyetheretherketone

PEEK Polymer offers a unique combination of chemical, mechanical and thermal properties. Excellent for water and steam application at elevated temperatures up to 600°F (315°C). Color - beige.

Other seat materials

Other seat materials are available according to the application, such as very high temperature or cryogenic conditions.

HOW TO ORDER SERIES 70/79

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