

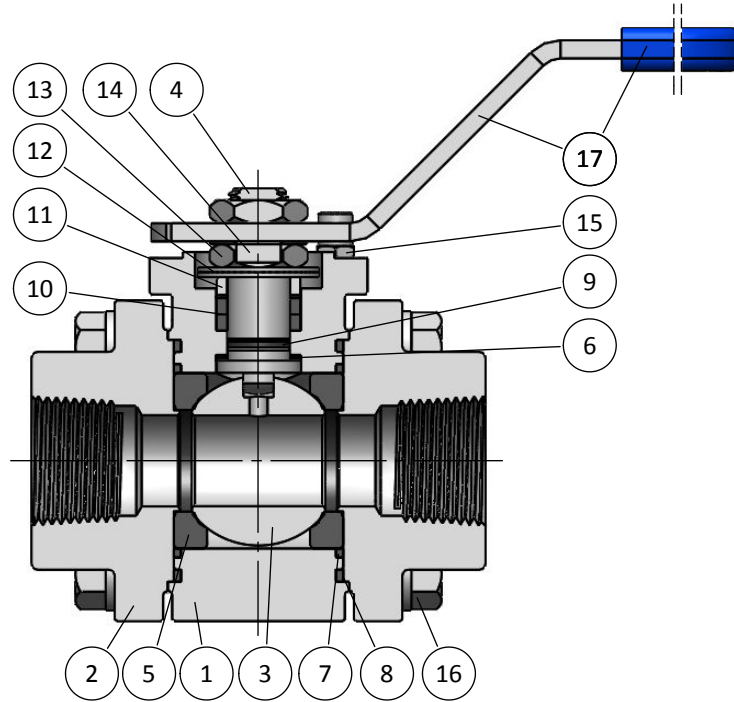
SF Series

Forged Version

Technical Datasheet



SF SERIES
CL800 (2000 psi)
FULL BORE - DN 15 (½") ÷ 40 (1½")
REDUCED BORE - DN 20 (¾") ÷ 50 (2")
STANDARD
BILL OF MATERIALS



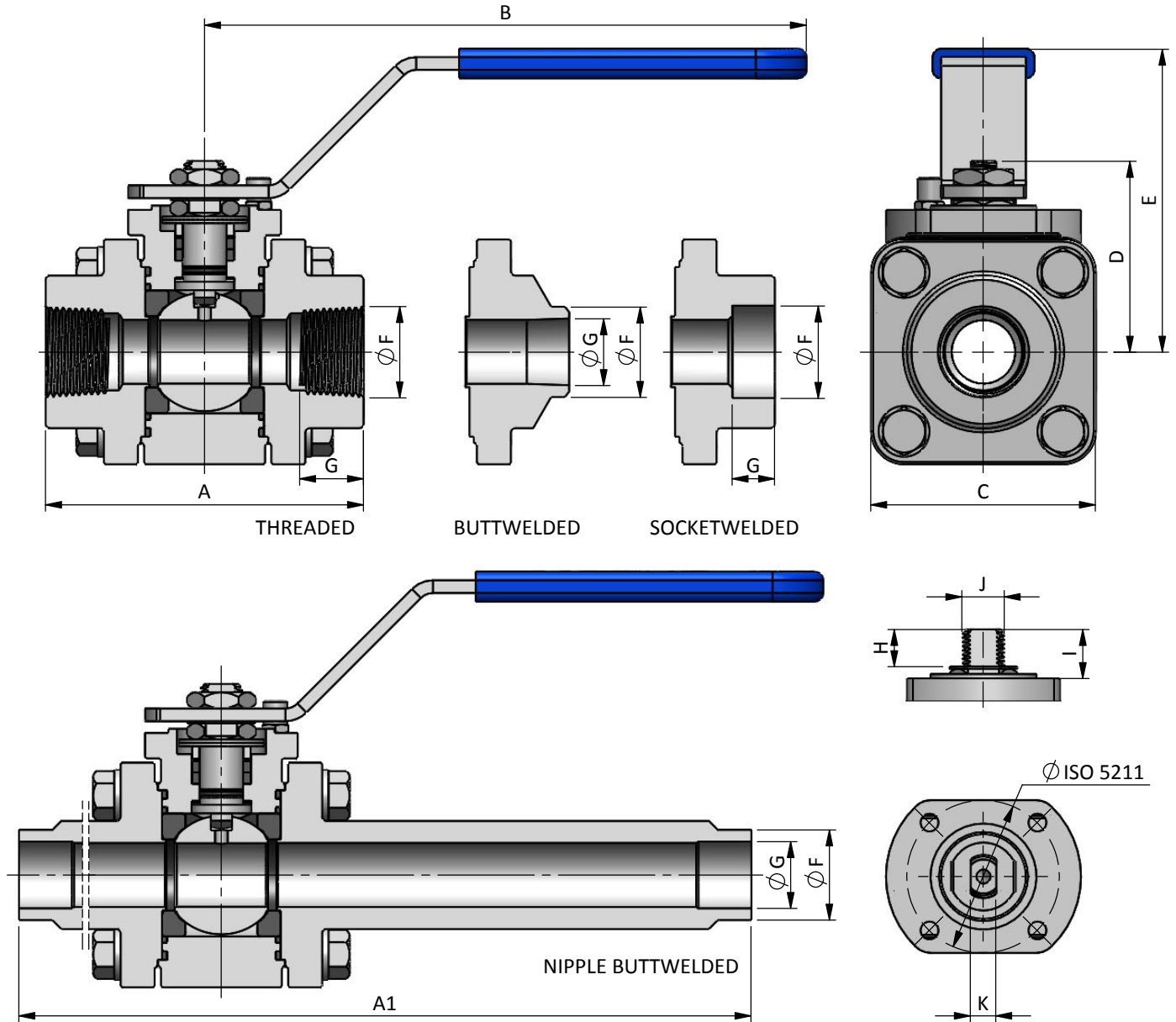
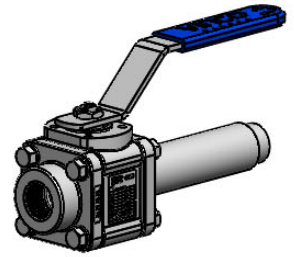
BILL OF MATERIALS

Part	Qt.	Description	CARBON STEEL VERSION	STAINLESS STEEL VERSION
1	1	Body	A105N-A350 LF2 cl.1	A182 F316/L
2	2	End	A105N-A350 LF2 cl.1	A182 F316/L
3	1	Ball	A351 CF8M	
4	1	Stem	A479 316/L	
5	2	Seat	↙	C-RPTFE
6	1	Stem Thrust Seals	↙	C-RPTFE + PEEK
7	2	1st Body Seal	↙	C-RPTFE
8	2	2nd Body Seal	↙	GRAPHITE
9	1	O'Ring	↙	FKM
10	1	Stem Packing Set	↙	GRAPHITE + PEEK
11	1	Gland Packing	STAINLESS ST. 316	
12	2	Disc Spring	STAINLESS ST. 316	
13	2	Stem Nut	STAINLESS ST. 316	
14	1	Locking Clip	STAINLESS ST. 316	
15	1	Stop Pin	STAINLESS ST. 316	
16	8	Bolt	A193 Gr. B7 ZINC.	A193 Gr. B8M cl.2
17	1	Handle	CARBON ST. ZINC.	

↙ TYPICAL SPARE PARTS

SF SERIES

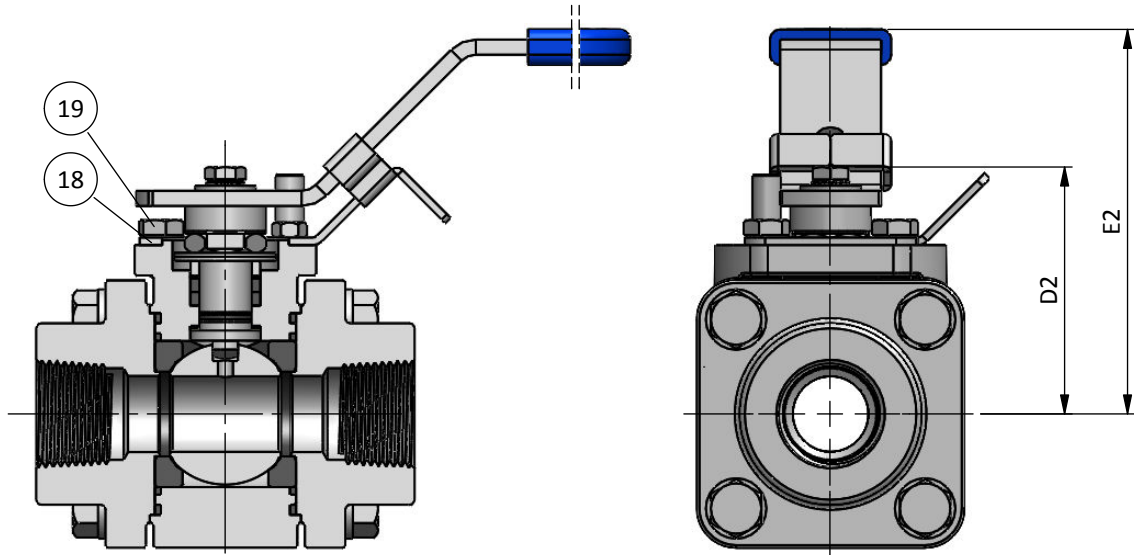
CL800 (2000 psi)
 FULL BORE - DN 15 (½") ÷ 40 (1½")
 REDUCED BORE - DN 20 (¾") ÷ 50 (2")
 THREADED & WELDED ENDS



DN / Size				Dimensions							Automation					Weight Approx. [kg]							
FULL BORE		REDUCED BORE		Ball Port	A	A1	B	C	D	E	F	G	H	I	J	K	ISO 5211	Short Long					
mm	inch	mm	inch															Short	Long				
15	½"	20	¾"	15.1	75	250	140	55	43.5	70	NPT BSPT BSPP BW SW	6.5	9	10	6	F03	1.5	2.5					
20	¾"	25	1"	20.6	90	260	170	66.5	56.5	90							9	15.5	12	7.5	F04	2.5	3.5
25	1"	32	1¼"	25.4	100	270	170	74	60	95							9	15.5	12	7.5	F04	3	5
32	1¼"	40	1½"	31.8	115	-	200	88	75	120							12	21	16	11	F05	5	-
40	1½"	50	2"	38.1	125	290	200	98	80	125							12	21	16	11	F05	7	9

Nipple buttweld only available in full bore version.
 Stainless steel nipple buttweld only available for size 25. Other sizes under request.

SF SERIES
CL800 (2000 psi)
FULL BORE - DN 15 (½") ÷ 40 (1½")
REDUCED BORE - DN 20 (¾") ÷ 50 (2")
LOCKING DEVICE VERSION



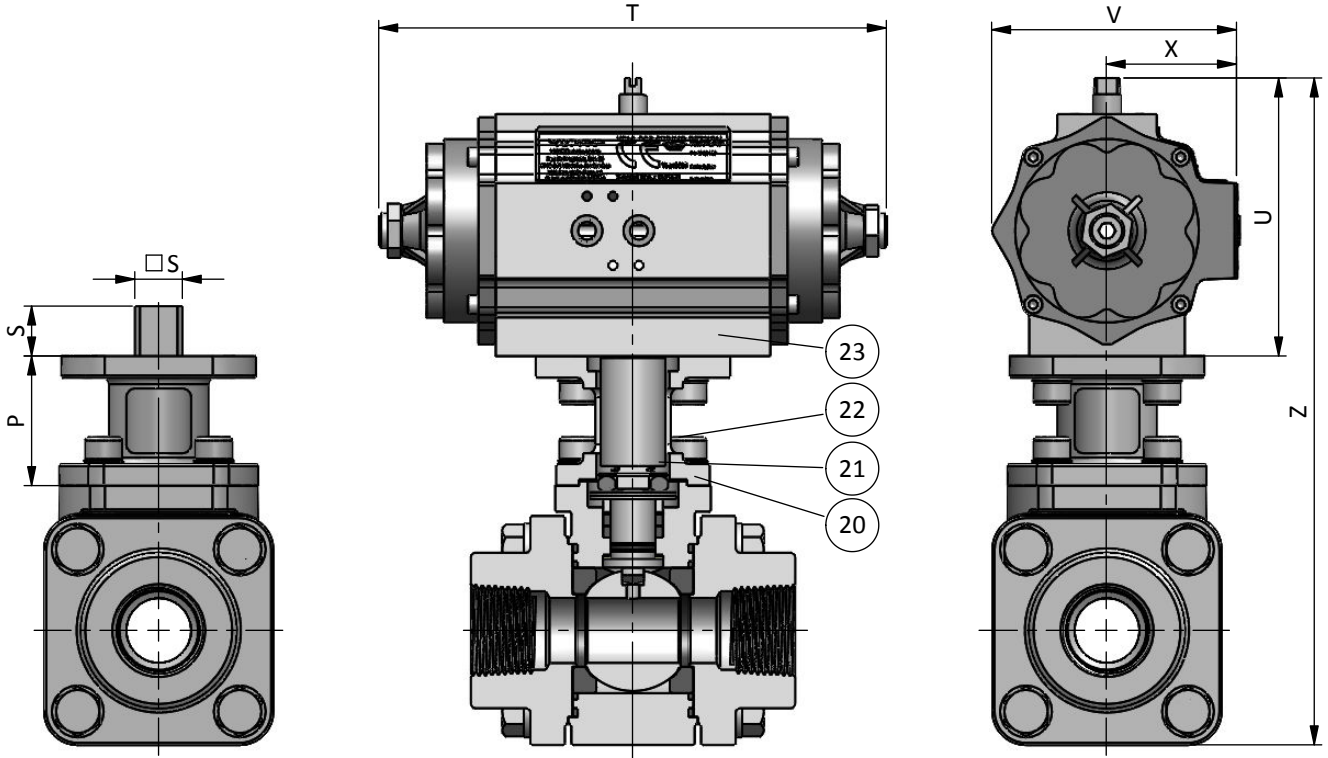
BILL OF MATERIALS

Part	Qt.	Description	Material
18	1	Locking Plate	CARBON ST. ZINC.
19	3	Bolt	STAINLESS ST. 304

DN / Size				D2	E2
FULL BORE		REDUCED BORE			
mm	inch	mm	inch		
15	½"	20	¾"	49.5	75
20	¾"	25	1"	56.5	90
25	1"	32	1¼"	60	95
32	1¼"	40	1½"	75	120
40	1½"	50	2"	80	125

SF SERIES

CL800 (2000 psi)
 FULL BORE - DN 15 (½") ÷ 40 (1½")
 REDUCED BORE - DN 20 (¾") ÷ 50 (2")
 BRACKET FOR AUTOMATION VERSION



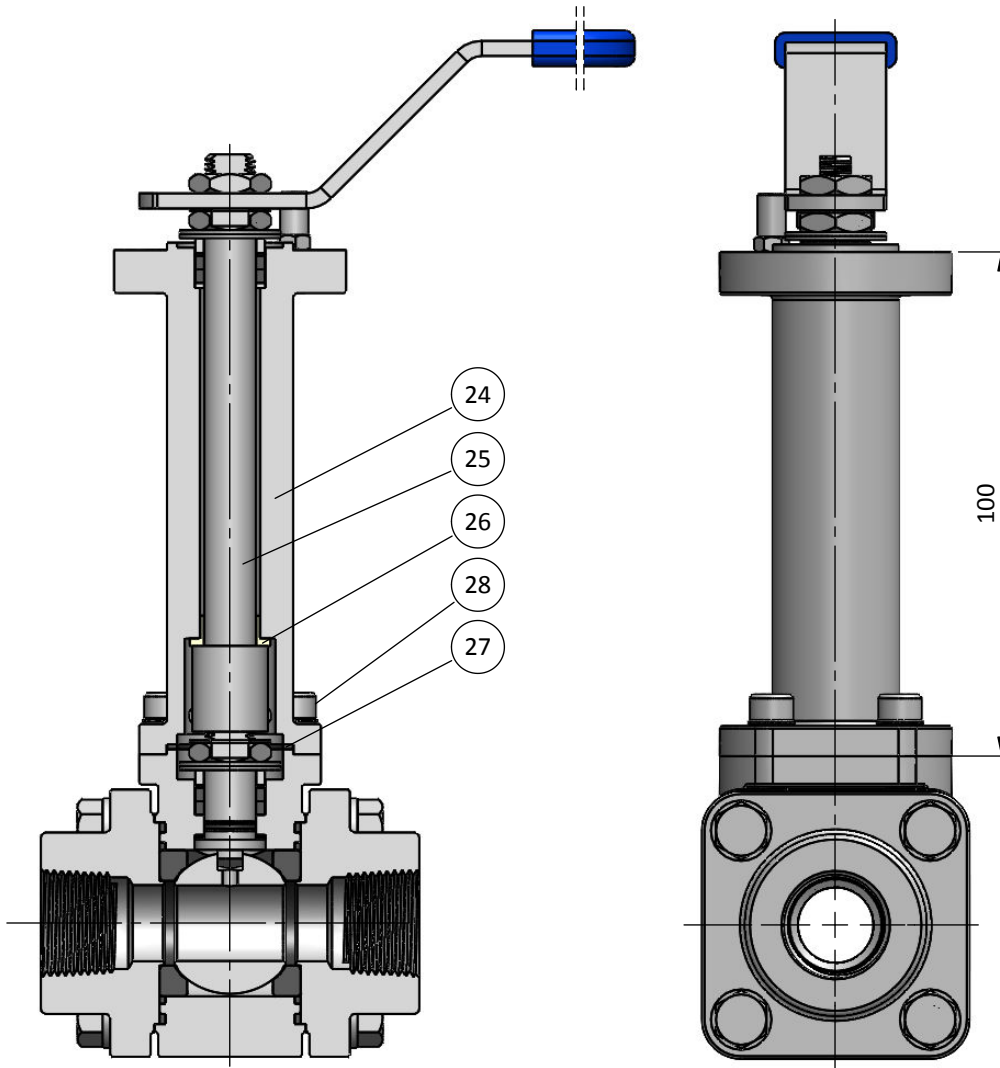
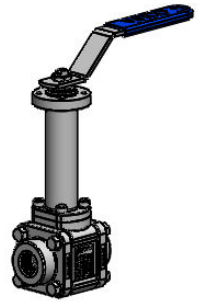
BILL OF MATERIALS

Part	Qt.	Description	Material
20	1	Bracket	A351 CF8M
21	1	Stem Extension	A479 316/L
22	8	Bolt	STAINLESS ST. 304
23	1	Pneumatic Actuator	ALUMINIUM

DN / Size				Automation				Actuator #				
FULL BORE		REDUCED BORE		P	S*	ISO 5211	REF.	T	U	V	X	Z
mm	inch	mm	inch									
15	½"	20	¾"	30	9/11	F03/F04	005	180	111	89	49	205
20	¾"	25	1"	35	11/14	F04/F05	005	180	111	89	49	220
25	1"	32	1¼"	35	11/14	F04/F05	008	233	131	112	57	250
32	1¼"	40	1½"	45	14/17	F05/F07	008	233	131	112	57	275
40	1½"	50	2"	45	14/17	F05/F07	012	280	131	112	57	285

*Other options available

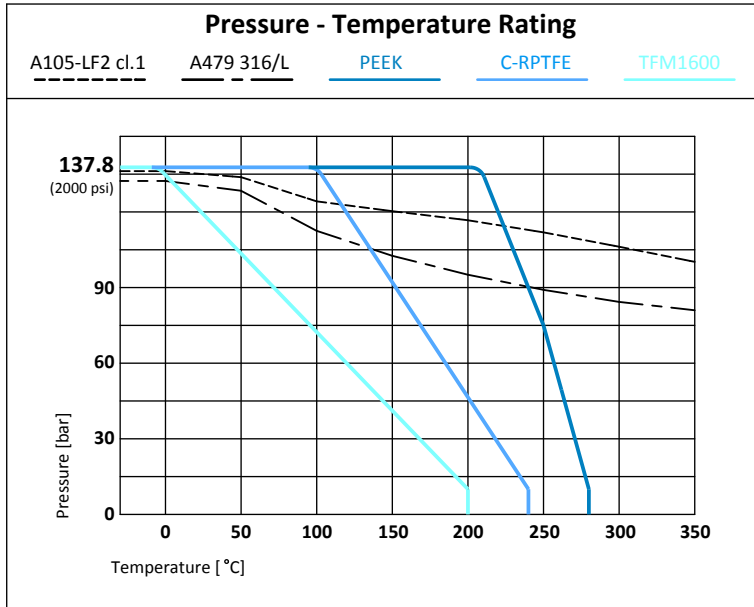
#Dimensions applicable for PTFE and filled PTFE seats



BILL OF MATERIALS

Part	Qt.	Description	CARBON STEEL VERSION	STAINLESS STEEL VERSION
24	1	Extension	A350 LF2 cl.1	A479 316/L
25	1	Stem Extension	A479 316/L	
26	1	Bearing	↘	PEEK
27	1	Extension Seal	↘	GRAPHITE
28	4	Bolt	STAINLESS ST. 304	

SF SERIES
CL800 (2000 psi)
FULL BORE - DN 15 (½") ÷ 40 (1½")
REDUCED BORE - DN 20 (¾") ÷ 50 (2")
TECHNICAL SPECIFICATIONS



Seat Options		
Material	mOT* [°C]	MOT* [°C]
TFM 1600	-101	200
C-RPTFE	-101	240
PEEK	-40	280

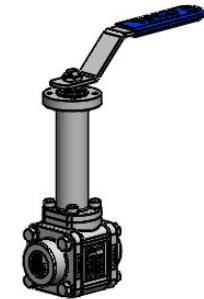
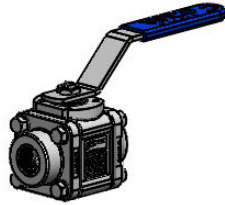
*mOT - minimum Operating Temperature.
Standard version recommended up to -46°C
Extended version recommended up to -101°C
*MOT - Maximum Operating Temperature at 10 bar

DN	Rating
FB 15 (½") to 40 (1½") RB 20 (¾") to 50 (2")	137.8 bar / 2000 psi

DN / Size				Torque Valve Figure [Nm]						Maximum Allowable Stem Torque [Nm]					Flow Coefficient Cv
FULL BORE		REDUCED BORE		C-RPTFE						316	F51	F55	17.4	718	
mm	inch	mm	inch	BTO	RTO	ETO	BTC	RTC	ETC	MAST					
15	½"	20	¾"	8	5	6	6	5	6	16	25	30	40	53.5	20
20	¾"	25	1"	14	8	10	10	8	11	29.5	45	55	71.5	98.5	45
25	1"	32	1¼"	18	10	12	12	10	14	29.5	45	55	71.5	98.5	75
32	1¼"	40	1½"	32	18	21	21	18	24	82.5	125	150	200	275	105
40	1½"	50	2"	46	26	30	30	26	35	82.5	125	150	200	275	175

CERTIFICATION	CONSTRUCTION STANDARDS	TEST STANDARDS
CE Certification acc. to PED 2014/68/EU Fire Safe Design acc. to API 607Ed.6/ISO 10497 ATEX II 2GD Design acc. to 2014/34/EU Fugitive Emissions Class B acc. to ISO 15848 CO1 (-46°C to RT) Quality System Certified acc. to ISO 9001	ASME B16.34 ISO 17292 ASME B1.20.1 ISO 7-1 ISO 228-1 ASME B16.25 ASME B36.10M ASME B16.11 MSS-SP-25 ISO 5211	Pressure tests according to: EN12266-1 / API 598 / ISO 5208 Rate A Tests applied: Hydrostatic Shell Test Hydrostatic Seat Test Pneumatic Tightness Test Pneumatic Seat Test EN 10204 type 3.1 Certificate

Last revision available



SERIE	CLASS	VERSION	PORT	DN	ENDS	BODY	BALL STEM	BOLTING	SEATS 1ª SEAL	PACKING 2ª SEAL O'RING	OPTIONS
SF	4 - CL800	2	F - FB	010	BUTTWELD	A - A105-LF2 cl.1	A - A479 410 A479 410	A - B7	1 - PTFE PTFE	1 - Grafite Grafite FKM	A - 2 Opposite sides Flattened Ends
			R - RB	015	B1 - BW SCH 10	C - A182 F316/L	E - A351 CF8M A564 S17400	F - B8M cl.2	2 - TFM 1600 PTFE	2 - V TFM 1600 PTFE	C - Spring Return
				020	B2 - BW SCH 40	Z - Others	F - A351 CF8M A479 316	G - B8 cl.2	3 - C-RPTFE C-RPTFE	3 - V C-RPTFE C-RPTFE	D - Simple Extension 60 mm
				025	B3 - BW SCH 80		G - A351 CF8 A479 304	D - L7M	4 - PEEK NATURE C-RPTFE		E - Extension 100 mm
				032	B4 - BW SCH 160*		Z - Others		5 - PEEK MOD C-RPTFE		F - Bracket Automation
				040	B6 - BW ISO 1127 S1				6 - DEVLON C-RPTFE		G - Gear Box
					B9 - OTHERS				7 - UHMWPE UHMWPE		H - Actuators
					SOCKETWELD						I - Switch Box / Limit Swiches
					C1 - SW ASME B16.11						L - Locking Lever/Handle
					C9 - OTHERS						O - Oval Lever/Handle
					THREADED						R - Bare Shaft / Bare Stem
					D1 - BSP - ISO 228/1						S - Solenoid Valve
					D2 - BSPT - ISO 7/1						T - Upstream Relief Hole
					D3 - NPT - B1.20.1						W - "V" Ball Port
					D9 - OTHERS						Y - Full Execution SS.316
					INTEGRAL NIPPLE						Z - Others
					N1 - BW SCH 10						
					N2 - BW SCH 40						
					N3 - BW SCH 80						
					N4 - BW SCH 160						
					N6 - BW ISO 1127 S1						
					N9 - OTHERS						
					WELDED BLOCK						
					W100 - BLOCK 100						
					W500 - BLOCK 500						

Example:

SF42F015B1D3AFA31E

SF42F040N1N1CFF12

INDUSTRIAL RANGE

CF Series
2 split body - Floating
CI 150/300
DN ½" (15) to 4" (100)



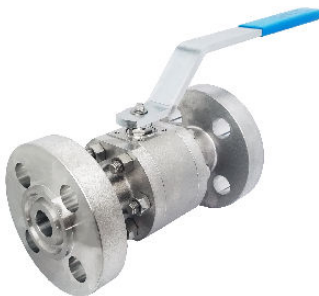
BF Series
2 split body - Floating
CI 150 to 600
DN ½" (15) to 6" (150)



XF Series
3 pieces bolted - Floating
CI 300 to 600
DN ¾" (10) to 4" (100)



HF Series
3 pieces bolted - Floating
CI 1500/2500
DN ¾" (10) to 2" (50)



ST Series
Multi-ways - Floating
CI 150 to 600
DN ¾" (10) to 2" (50)



VTR Series
3 pieces bolted - Trunnion
CI 150 to 2500
DN ½" (15) to 12" (300)



OTHER RANGE

SANITARY RANGE
XP / RP / LP / MP



CRYOGENIC RANGE
CCF / CBF / CXF / CSF / CVTR



METALLIC SEATS RANGE
CFM / BFM / XFM / SFM / VTM



