

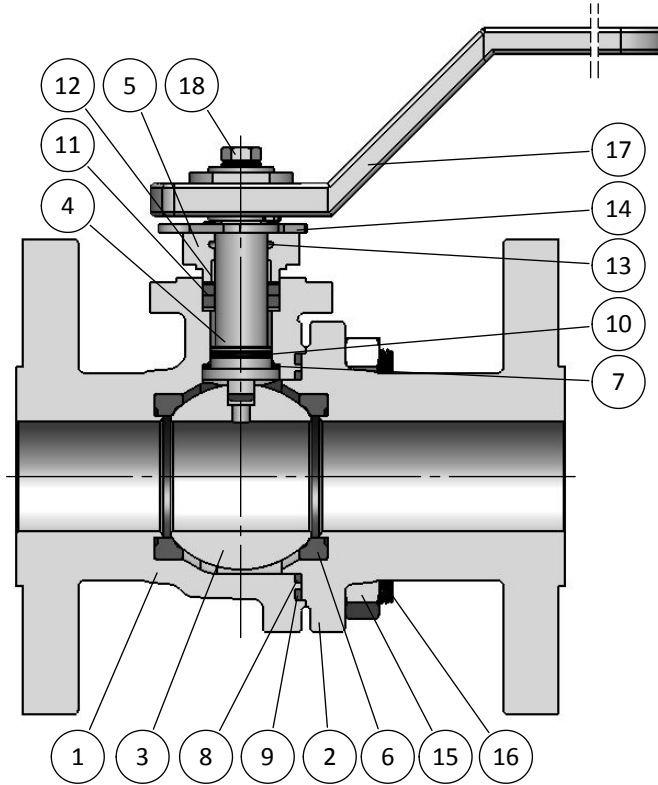
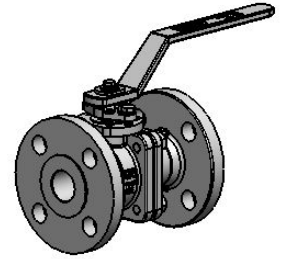
# CF Series

## Cast Version

### Technical Datasheet



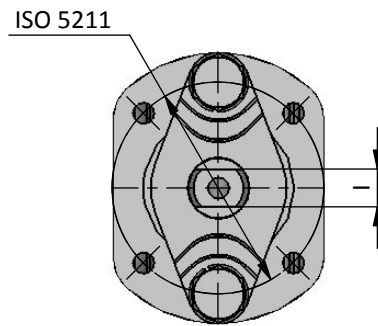
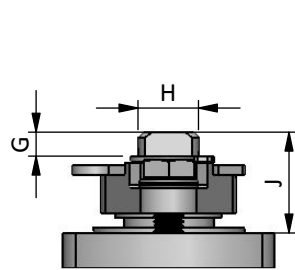
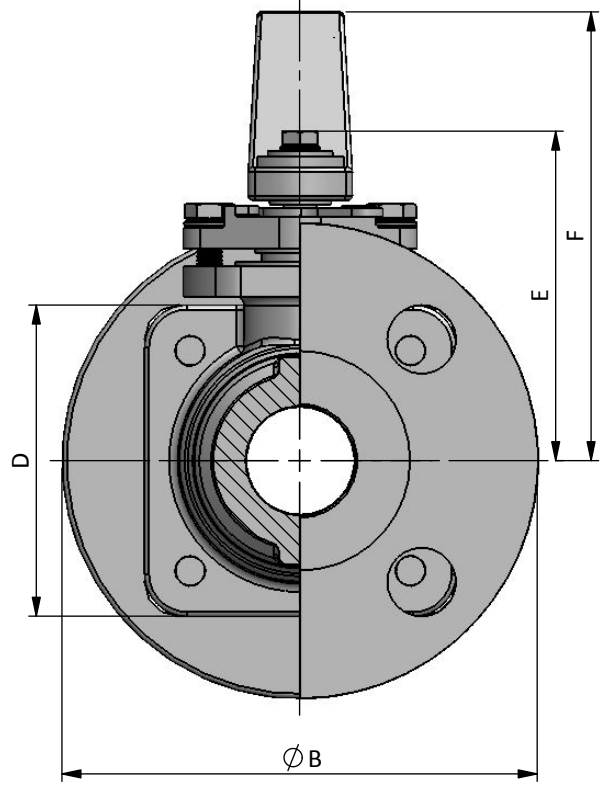
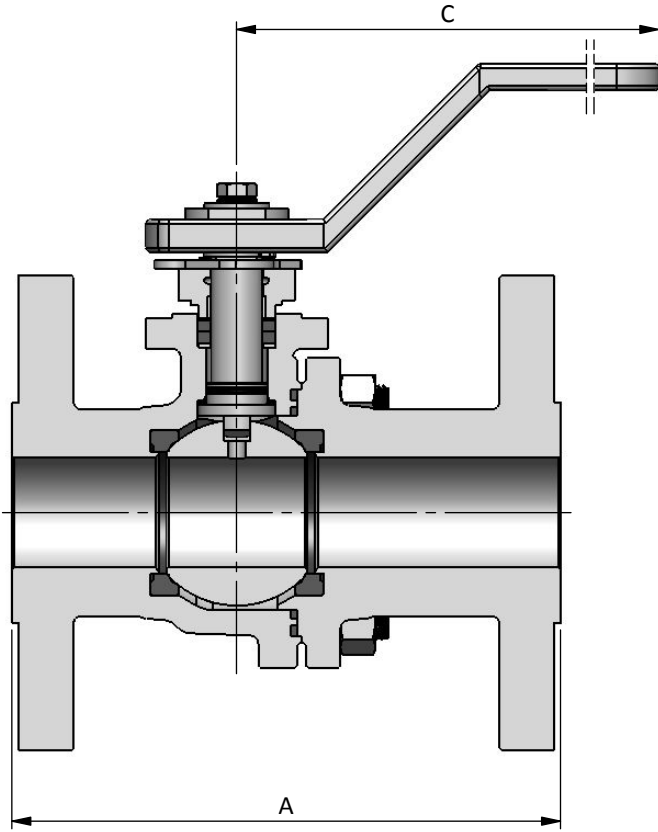
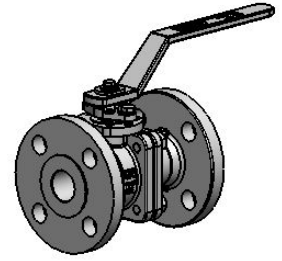
**CF SERIES**  
CL150/300 (300/750 psi)  
FULL BORE - DN 15 (½") ÷ 40 (1½")  
STANDARD LOCKABLE VERSION  
BILL OF MATERIALS



**BILL OF MATERIALS**

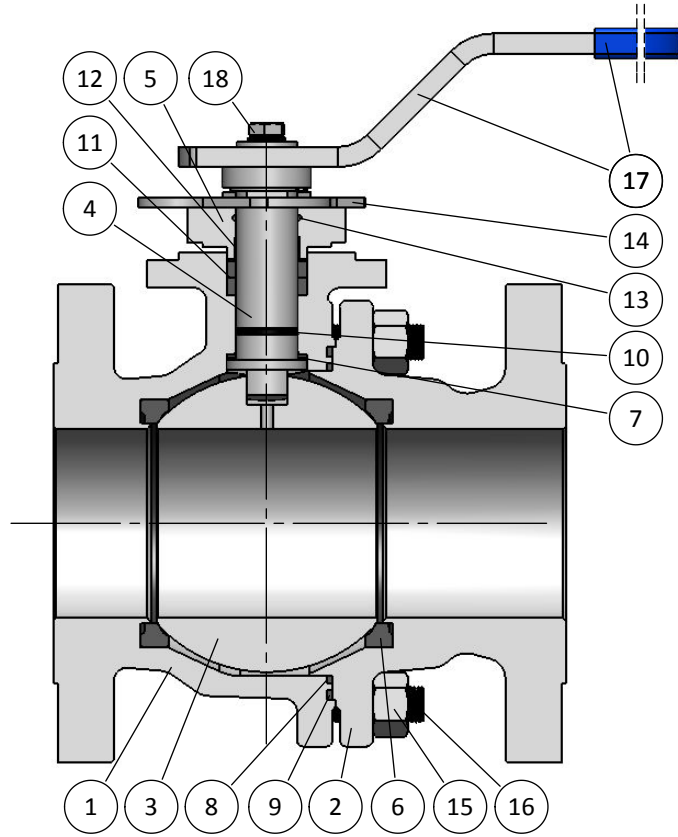
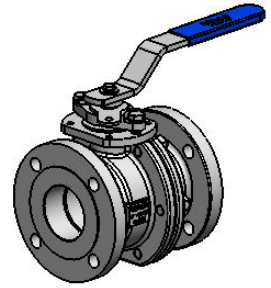
Part	Qt.	Description	CARBON STEEL VERSION	STAINLESS STEEL VERSION
1	1	Body	A216 WCB	A351 CF8M
2	1	End	A216 WCB	A351 CF8M
3	1	Ball	A351 CF8M	
4	1	Stem	A479 316-316L	
5	1	Gland Packing	A351 CF8M	
6	2	Seat	CG-RPTFE	
7	1	Stem Thrust Seals	CG-RPTFE + PEEK	
8	1	1st Body Seal	CG-RPTFE	
9	1	2nd Body Seal	GRAPHITE	
10	1	O'Ring	FKM	
11	1	Stem Packing Set	GRAPHITE + PEEK	
12	1	Bearing	PTFE	
13	2	Anti static device	STAINLESS ST.	
14	1	Stop Indicator	CARBON ST. ZINC	
15	4	Stud	A193 B7	A193 B8M cl.2
16	4	Nut	A194 7	A194 8M
17	1	Handle	A351 CF8M	
18	1	Handle Fastener	STAINLESS ST. 304	

↘ TYPICAL SPARE PARTS



DN / Size		Dimensions										Automation				Weight Approx. [kg]	
FULL BORE		Ball Port	CL150		CL300		C	D	E	F	G	H	I	J	ISO 5211	CL150	CL300
mm	inch		A	B	A	B											
15	½"	15.1	108	90	140	95	150	53	63.5	86.5	4.5	10	6	20	F04	1.8	2.3
20	¾"	20.6	117	100	152	115	180	64.5	72.5	100	4.5	12	7.5	20	F04	2.7	3.7
25	1"	25.4	127	110	165	125	180	72	76.5	105	4.5	12	7.5	20	F04	3.5	5
40	1½"	38.1	165	125	190	155	230	96	97.5	130	10.5	16	11	30	F05	6.5	9.5

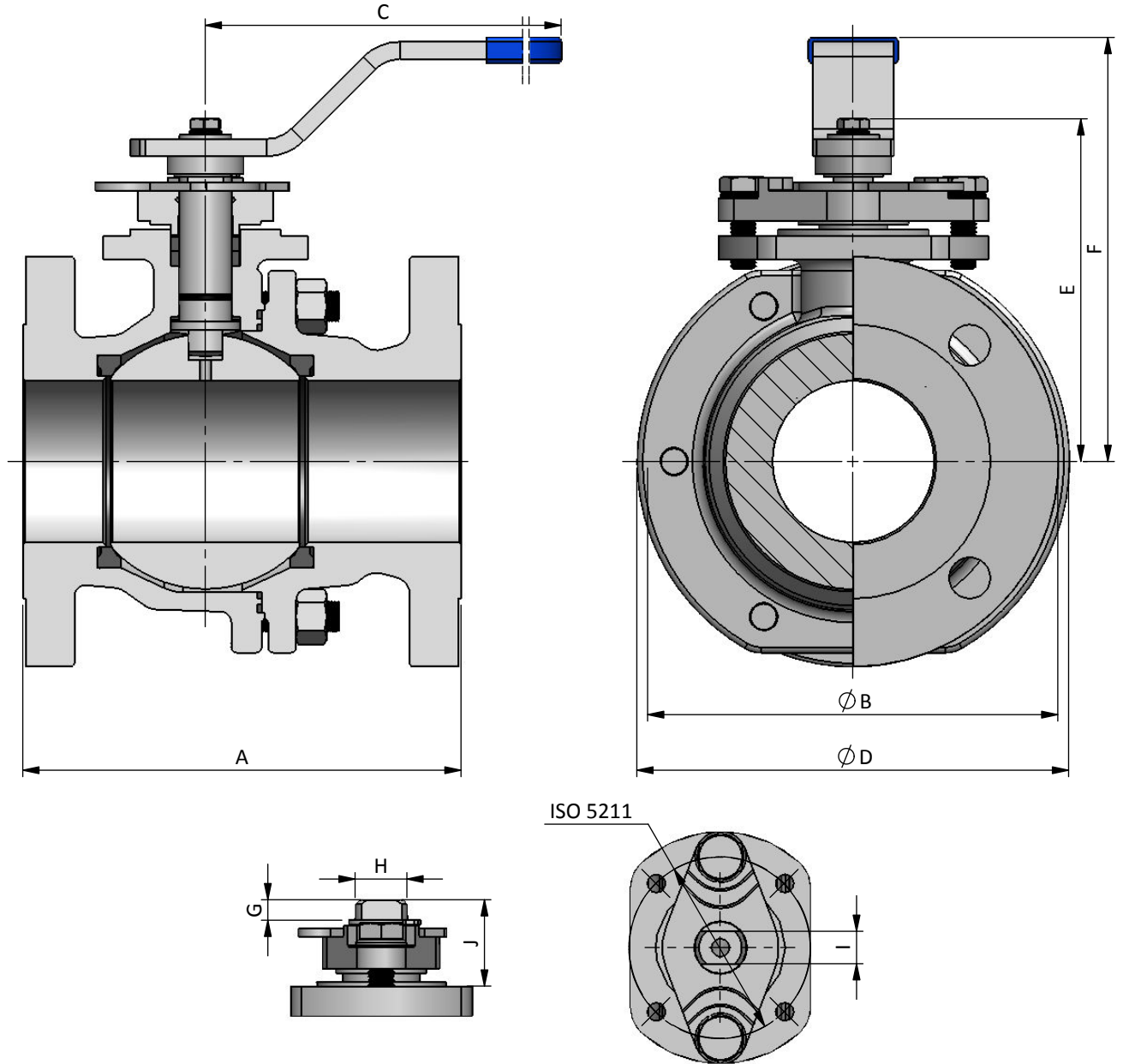
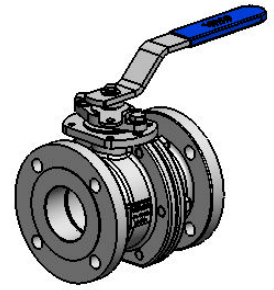
**CF SERIES**  
CL150/300 (300/750 psi)  
FULL BORE - DN 50 (2") ÷ 100 (4")  
STANDARD LOCKABLE VERSION  
BILL OF MATERIALS



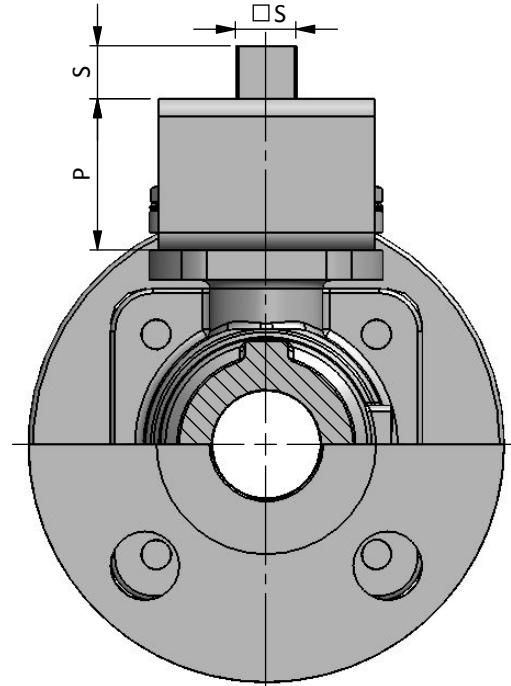
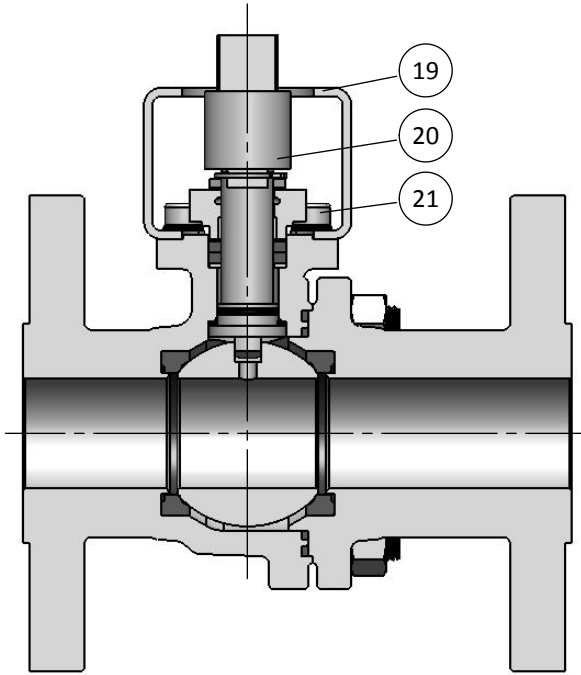
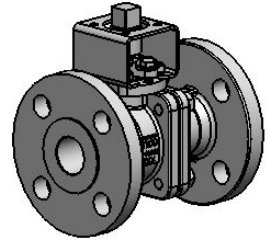
**BILL OF MATERIALS**

Part	Qt.	Description	CARBON STEEL VERSION	STAINLESS STEEL VERSION
1	1	Body	A216 WCB	A351 CF8M
2	1	End	A216 WCB	A351 CF8M
3	1	Ball	A351 CF8M	
4	1	Stem	A479 316-316L	
5	1	Gland Packing	A351 CF8M	
6	2	Seat	↙	CG-RPTFE
7	1	Stem Thrust Seals	↙	CG-RPTFE + PEEK
8	1	1st Body Seal	↙	CG-RPTFE
9	1	2nd Body Seal	↙	GRAPHITE
10	1	O'Ring	↙	FKM
11	1	Stem Packing Set	↙	GRAPHITE + PEEK
12	1	Bearing	↙	PTFE
13	2	Anti static device	STAINLESS ST.	
14	1	Stop Indicator	CARBON ST. ZINC	
15	4	Stud	A193 B7	A193 B8M cl.2
16	4	Nut	A194 7	A194 8M
17	1	Handle	CARBON ST. ZINC / VINYL	
18	1	Handle Fastener	STAINLESS ST. 304	

↙ TYPICAL SPARE PARTS



DN / Size		Dimensions										Automation				Weight Approx. [kg]	
FULL BORE		Ball Port	CL150		CL300		C	D	E	F	G	H	I	J	ISO 5211	CL150	CL300
mm	inch		A	B	A	B											
50	2"	49	178	150	216	165	350	146	130	180	10.5	20	14	36	F07	12	14
65	2½"	62	190	180	241	190	350	174	145	200	13.5	24	18	40	F07	18	21
80	3"	75	203	190	282	210	350	200	160	215	14.5	24	18	43.5	F10	24.5	31
100	4"	100	229	230	305	255	450	245	195	250	20.5	30	22	49	F10	40	53

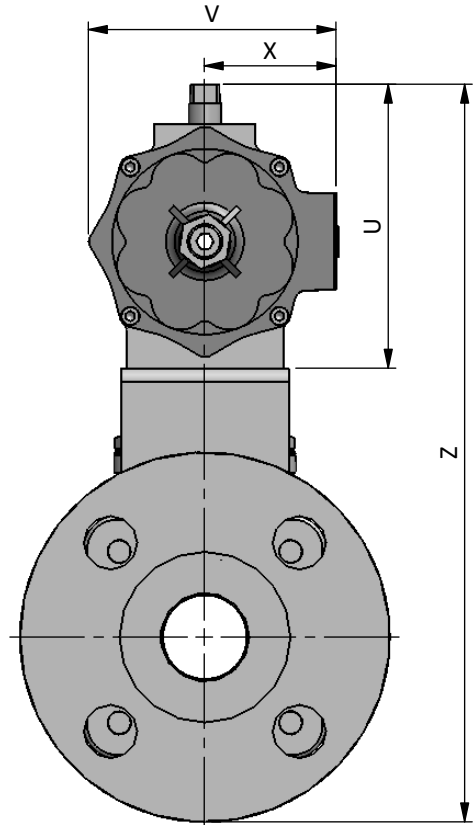
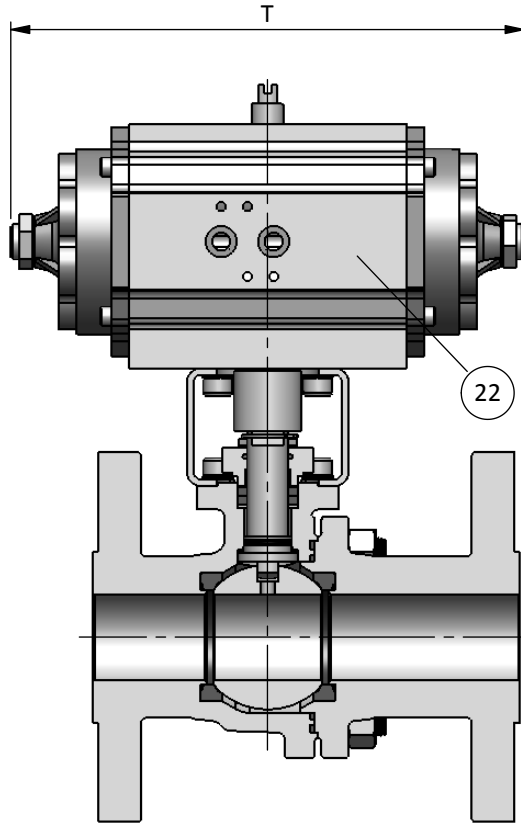
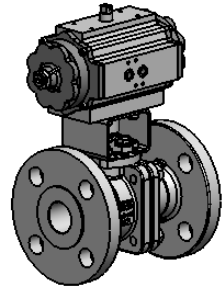


**BILL OF MATERIALS**

Part	Qt.	Description	Material
19	1	Bracket	CARBON ST. ZINC
20	1	Stem Extension	A479 316-316L
21	4	Bolt	STAINLESS ST. 304

DN / Size		Automation		
FULL BORE		P	S	ISO 5211*
mm	inch			
15	½"	35	11/14	F04
20	¾"	35	11/14	F04
25	1"	35	11/14	F04
40	1½"	45	14/17	F05
50	2"	60	17/22	F07
65	2½"	60	17/22	F07
80	3"	100	22/27	F10
100	4"	100	22/27	F10

\*Other options available



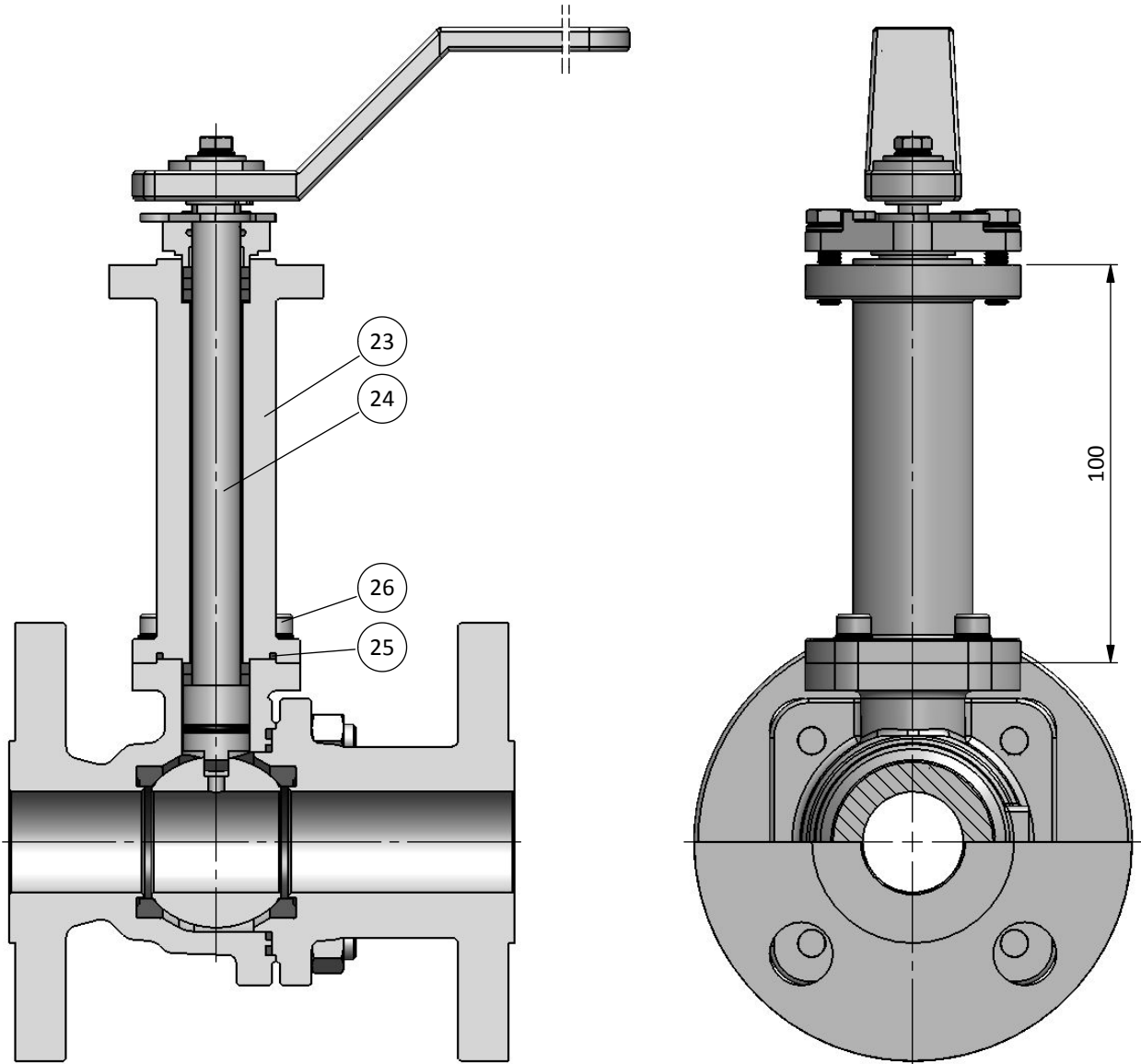
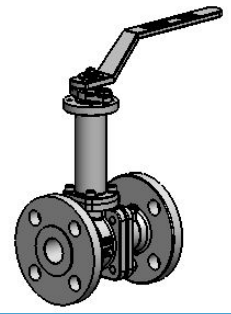
**BILL OF MATERIALS**

Part	Qt.	Description	Material
22	1	Pneumatic Actuator	ALUMINIUM

DN / Size		Actuator*									
FULL BORE		CL150					CL300				
mm	inch	T	U	V	X	Z	T	U	V	X	Z
15	½"	180	111	89	49	225	180	111	89	49	225
20	¾"	180	111	89	49	235	233	131	112	49	265
25	1"	233	131	112	57	270	233	131	112	57	275
40	1½"	233	131	112	57	290	280	131	112	57	315
50	2"	280	131	112	57	330	294	151	133	57	375
65	2½"	286	189	169	85	415	286	189	169	85	440
80	3"	286	189	169	85	450	344	199	169	85	510
100	4"	344	199	169	85	510	344	199	169	85	560

\*Dimensions applicable for PTFE and filled PTFE seats

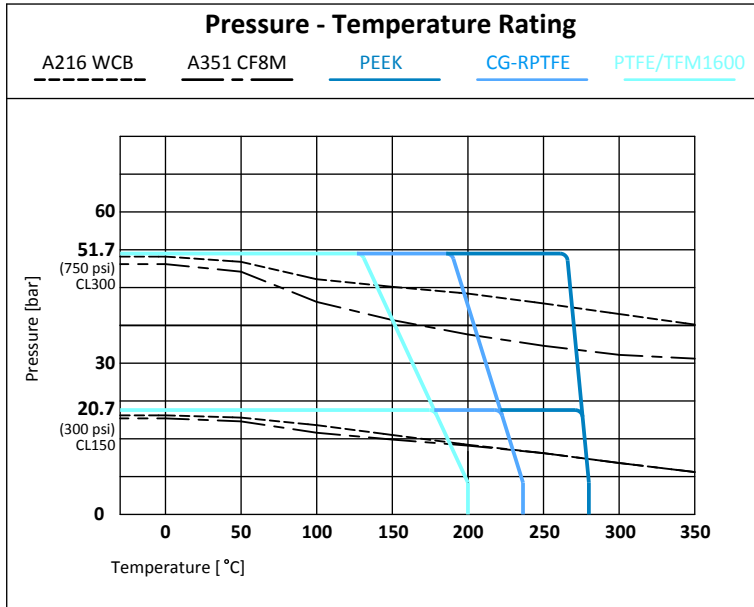
A minimum 25% safety margin was included



**BILL OF MATERIALS**

Part	Qt.	Description	CARBON STEEL VERSION	STAINLESS STEEL VERSION
23	1	Extension	A350 LF2 cl.1	A479 316-316L
24	1	Stem	A479 316-316L	
25	4	Extension Seal	GRAPHITE	
26	4	Bolt	STAINLESS ST. 304	





Seat Options		
Material	mOT* [°C]	MOT* [°C]
PTFE / TFM 1600	-196	200
CG-RPTFE	-196	240
PEEK	-40	280

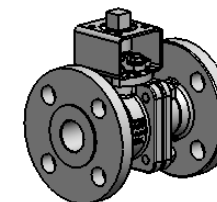
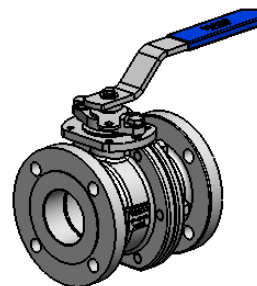
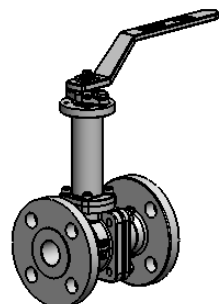
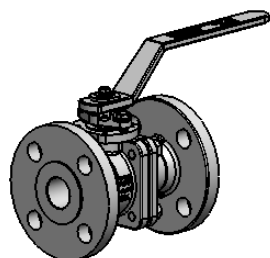
\*mOT - minimum Operating Temperature.  
Standard version recommended up to -46°C  
Extended version recommended up to -101°C  
\*MOT - Maximum Operating Temperature at 10 bar

DN	Rating
FB 15 (½") to 100 (4")	CL300 51.7 bar / 750 psi
FB 15 (½") to 100 (4")	CL150 20.7 bar / 300 psi

DN / Size		Torque Valve Figure [Nm]												Maximum Allowable Stem Torque [Nm]					Flow Coefficient Cv
FULL BORE		CG-RPTFE												316	F51	F55	17.4	718	
mm	inch	CL150						CL300						MAST					
		BTO	RTO	ETO	BTC	RTC	ETC	BTO	RTO	ETO	BTC	RTC	ETC						
15	½"	5	3	4	4	3	4	7	5	5	5	4	6	16	25	30	40	53.5	13
20	¾"	8	5	6	6	4	7	10	7	7	7	6	9	29.5	45	55	71.5	98.5	27
25	1"	12	8	8	8	7	10	15	10	11	11	8	13	29.5	45	55	71.5	98.5	41
40	1½"	22	14	15	15	12	19	33	21	23	23	18	28	82.5	125	150	200	275	96
50	2"	28	18	20	20	15	24	44	29	31	31	24	37	110	240	290	385	535	162
65	2½"	58	38	41	41	32	49	68	44	48	48	37	58	205	445	540	715	1000	267
80	3"	70	46	49	49	39	60	80	52	56	56	44	68	205	445	540	715	1000	390
100	4"	90	59	63	63	50	77	93	60	65	65	51	79	405	880	1075	1420	1950	700

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 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 ASME B16.5 ASME B16.10 ISO 5211	Valves are tested according to: EN 12266-1 Rate A and API 598 TESTS APPLIED: Hydrostatic and Pneumatic EN 10204 type 3.1 Certificate

Standards acc. to the latest available revision



SERIE	CLASS	VERSION	PORT	DN	ENDS	BODY	BALL   STEM	BOLTING	SEATS   1 <sup>st</sup> SEAL	PACKING   2 <sup>nd</sup> SEAL   O'RING	OPTIONS
CF	1 - CL150	1 - ASME	F - FB	015	<b>FLANGED RF</b>	A - A216 WCB	A - A479 410   A479 410	<b>A - B7</b>	1 - PTFE   PTFE	<b>1 - Grafite   Grafite   FKM</b>	C - Spring Return
	2 - CL300			020	F1 - ASME RF	F - A351 CF8M	E - A351 CF8M   A564 S17400	<b>F - B8M cl.2</b>	2 - TFM 1600   PTFE	2 - V TFM 1600   PTFE	D - Simple Extension 60 mm
				025		Z - Others	<b>F - A351 CF8M   A479 316</b>	G - B8 cl.2	<b>3 - CG-RPTFE   CG-RPTFE</b>	3 - V CG-RPTFE   CG-RPTFE	E - Extension 100 mm
				040			G - A351 CF8   A479 304	C - B7M	4 - PEEK NATURE   CG-RPTFE		F - Bracket Automation
				050			Z - Others		5 - PEEK MOD   CG-RPTFE		G - Gear Box
				065					6 - DEVLON   CG-RPTFE		H - Actuators
				080					7 - UHMWPE   UHMWPE		I - Switch Box / Limit Swiches
				100							O - Oval Lever/Handle
											R - Bare Shaft / Bare Stem
											S - Solenoid Valve
											T - Upstream Relief Hole
											W - "V" Ball Port
											Y - Full Execution SS.316
											Z - Others

**Example:**

**CF11F015F1F1AFA31**

**CF21F050F1F1FFF22**

**INDUSTRIAL RANGE**

**XF Series**  
3 pieces bolted - Floating  
CI 300 to 600  
DN 3/8" (10) to 4" (100)



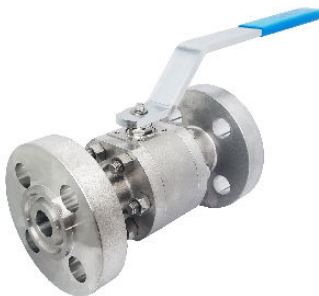
**SF Series**  
3 pieces bolted - Floating  
CI 150 to 800  
DN 3/8" (10) to 6" (150)



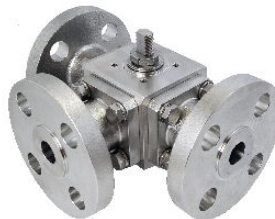
**BF Series**  
2 split body - Floating  
CI 150 to 600  
DN 1/2" (15) to 6" (150)



**HF Series**  
3 pieces bolted - Floating  
CI 1500/2500  
DN 3/8" (10) to 2" (50)



**ST Series**  
Multi-ways - Floating  
CI 150 to 600  
DN 3/8" (10) to 2" (50)



**VTR Series**  
3 pieces bolted - Trunnion  
CI 150 to 2500  
DN 1/2" (15) to 12" (300)

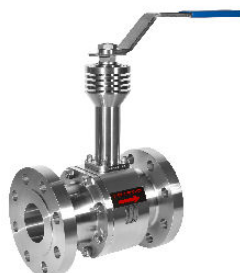


**OTHER RANGE**

**SANITARY RANGE**  
XP / RP / LP / MP



**CRYOGENIC RANGE**  
CCF / CBF / CSF / CVTR



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



