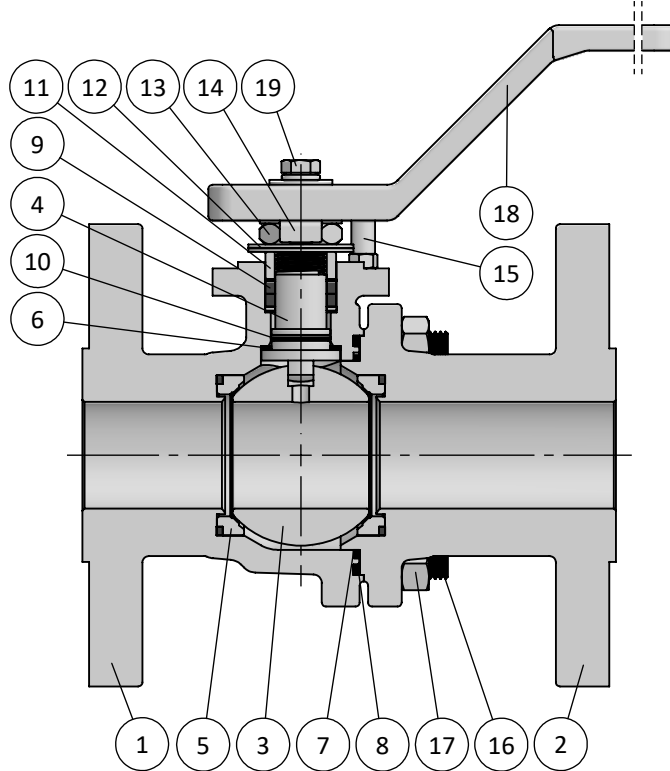
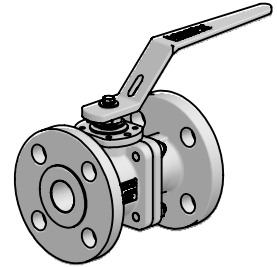


CFM-A SERIES
PN40
FULL BORE - DN15 (½") ÷ DN50 (2")
STANDARD DIN
BILL OF MATERIALS

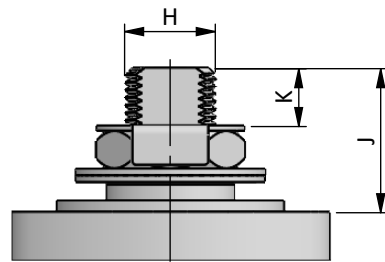
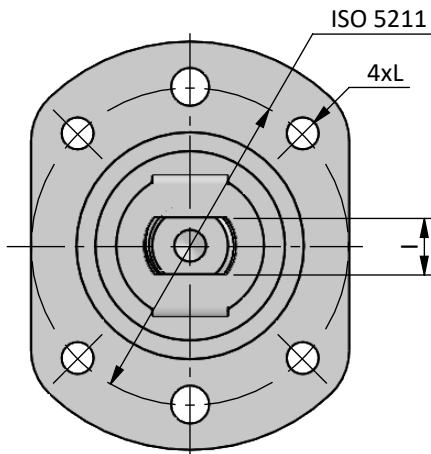
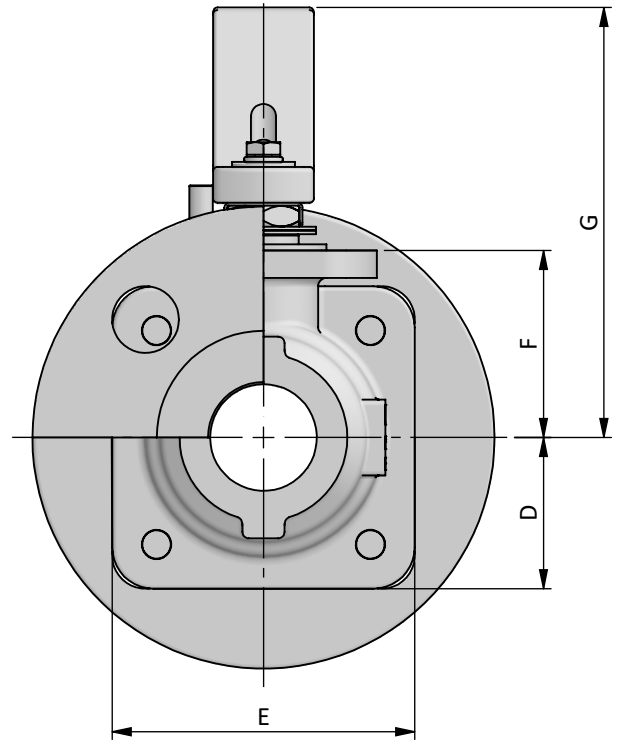
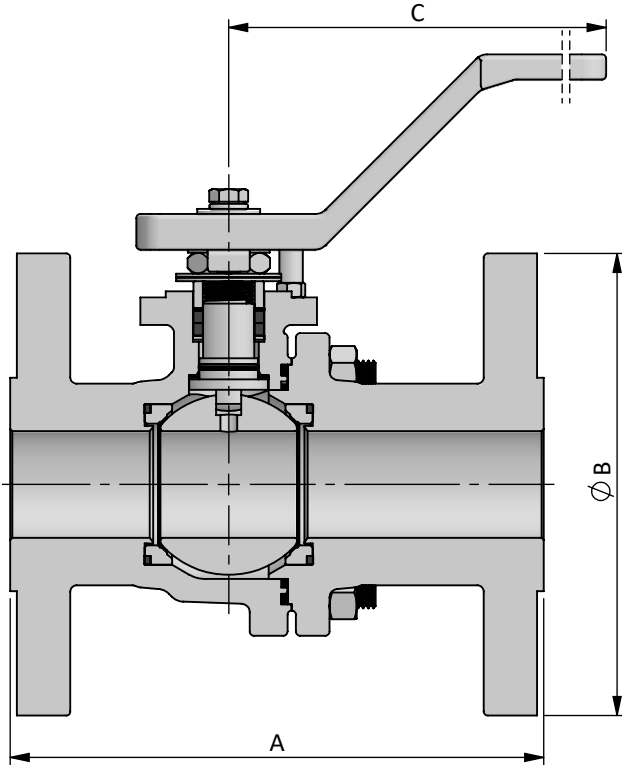
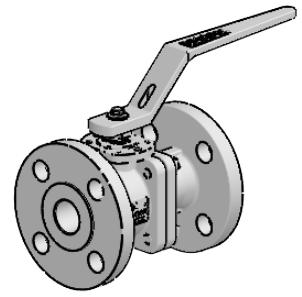


BILL OF MATERIALS

Part	Qt.	Description	CARBON STEEL VERSION	LT CARBON STEEL VERSION	STAINLESS STEEL VERSION
1	1	Body	1.0619	1.6220	1.4408
2	1	End	1.0619	1.6220	1.4408
3	1	Ball	A351 CF8M + TCC		
4	1	Stem	A564 S17400		
5	2	Seat	A479 316/L + TCC + GRAPHITE		
6	1	Stem Thrust Seals	↘	C-RPTFE + PEEK	
7	1	1st Body Seal	↘	C-RPTFE	
8	1	2nd Body Seal	↘	GRAPHITE	
9	1	Stem Packing Set	↘	GRAPHITE	
10	1	O'Ring	↘	FKM	
11	1	Gland Packing	STAINLESS ST. 316		
12	2	Disc Spring	STAINLESS ST. 316		
13	1	Stem Nut	STAINLESS ST. 316		
14	1	Locking Clip	STAINLESS ST. 316		
15	1	Stop Indicator	STAINLESS ST. 316		
16	-	Stud	Gr.8.8 Zinc.	A4 CL.70	
17	-	Nut	Gr. 8 Zinc.	A4 CL.70	
18	1	Handle	A351 CF8		
19	1	Handle Fastener	STAINLESS ST. 316		

↘ TYPICAL SPARE PARTS

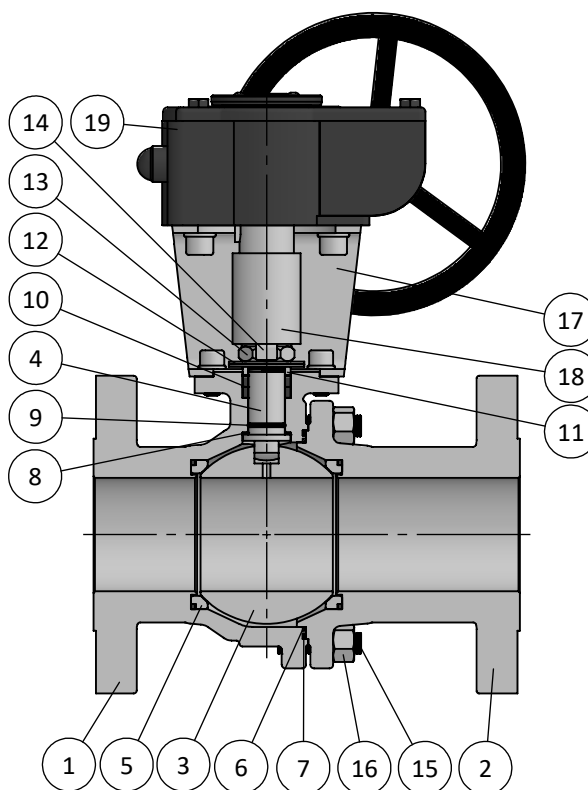
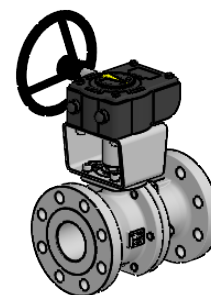
CFM-A SERIES
PN40
FULL BORE - DN15 (½") ÷ DN50 (2")
DIN FLANGED ENDS
OVERALL DIMENSIONS



DN / Size		Dimensions										Automation						Weight Approx. [kg]	
FULL BORE	Ball Port	PN40				C	D	E	F	G	H	I	J	K	L	ISO 5211	F1	F4	
		F1		F4															
		A	B	A	B														
15	½"	15.1	130	95	115	95	180	27.5	55	35	90	10	6	15	5.5	M5	F04	3	2.5
20	¾"	20.6	150	105	120	105	180	32.5	65	40	100	12	7.5	20	8	M5	F04	4	3.5
25	1"	25.4	160	115	125	115	180	37.5	75	45	105	12	7.5	20	8	M5	F04	4.5	4
32	1¼"	31.8	180	140	130	140	210	42.5	85	55	125	16	11	22	8.5	M6	F05	6.5	6
40	1½"	38.1	200	150	140	150	210	47.5	95	60	130	16	11	22	8.5	M6	F05	8.5	7.5
50*	2"	49	230	165	150	165	300	65	Ø145	80	150	20	14	26	9	M8	F07	14	12

* Valve construction is similar to DN65 ÷ DN100 (page 4-5)

CFM-A SERIES
PN16 / PN40
FULL BORE - DN65 (2½") ÷ DN100 (4")
STANDARD DIN
BILL OF MATERIALS

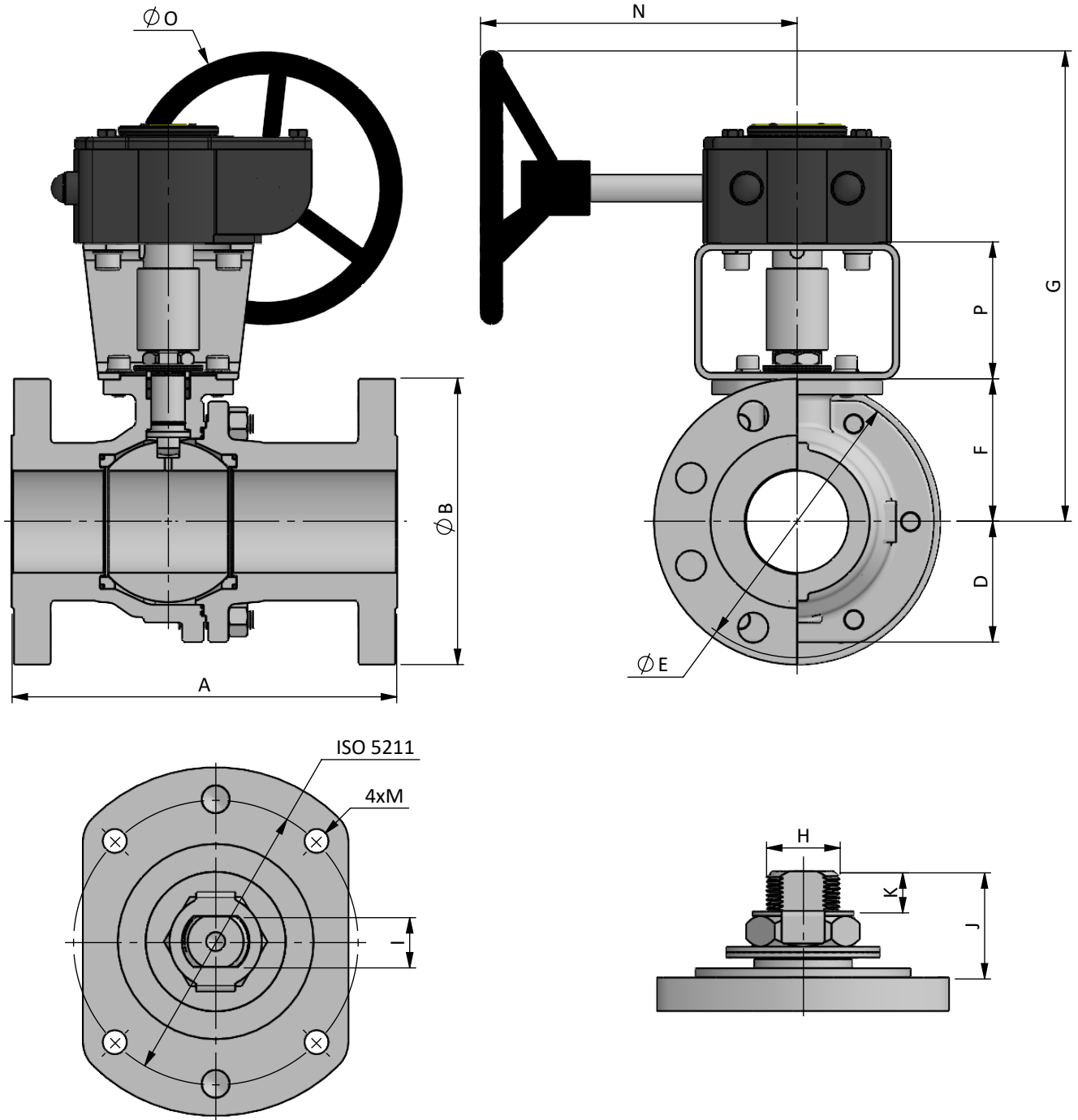
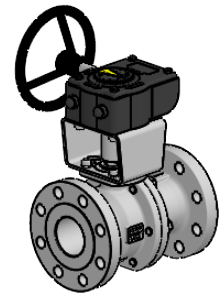


BILL OF MATERIALS

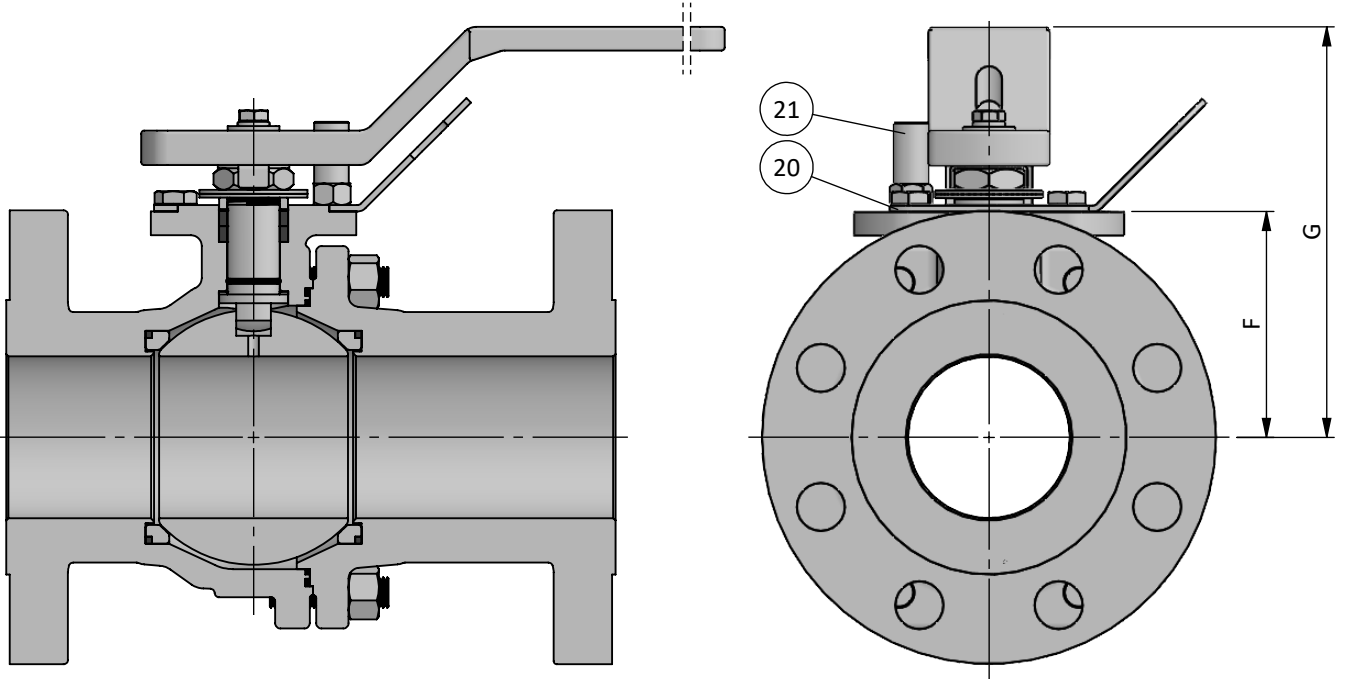
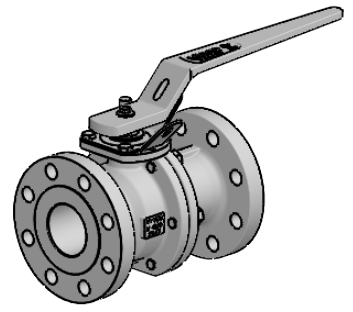
Part	Qt.	Description	CARBON STEEL VERSION	LT CARBON STEEL VERSION	STAINLESS STEEL VERSION
1	1	Body	1.0619	1.6220	1.4408
2	1	End	1.0619	1.6220	1.4408
3	1	Ball	A351 CF8M + TCC		
4	1	Stem	A564 S17400		
5	2	Seat	A479 316/L + TCC + GRAPHITE		
6	1	1st Body Seal	↘	C-RPTFE	
7	1	2nd Body Seal	↘	GRAPHITE	
8	1	Stem Thrust Seals	↘	C-RPTFE + PEEK	
9	1	O'Ring	↘	FKM	
10	1	Stem Packing Set	↘	GRAPHITE	
11	1	Gland Packing	STAINLESS ST. 316		
12	2	Disc Spring	STAINLESS ST. 316		
13	1	Stem Nut	STAINLESS ST. 316		
14	1	Locking Clip	STAINLESS ST. 316		
15	-	Stud	Gr.8.8 Zinc.	A4 cl.70	
16	-	Nut	Gr. 8 Zinc.	A4 cl.70	
17	1	Bracket	STAINLESS ST. 304		
18	1	Bracket Stem	A479 316/L		
19	1	Gearbox	CAST IRON		

↘ TYPICAL SPARE PARTS

CFM-A SERIES
PN16 / PN40
FULL BORE - DN65 (2½") ÷ DN100 (4")
DIN FLANGED ENDS
OVERALL DIMENSIONS



DN / Size		Dimensions										Automation										Weight Approx. [kg]					
FULL BORE		Ball Port	PN16				PN40				D	E	F	G	H	I	J	K	M	N	O	P	ISO 5211	PN16		PN40	
mm	inch		F1		F4		F1		F4															F1	F4	F1	F4
65	2½"	62	290	185	170	185	290	185	170	185	80	175	95	175	24	18	35	14.5	M8	220	200	60	F07	24	21	25	23
80	3"	75	310	200	180	200	310	200	180	200	90	200	105	190	24	18	35	12	M10	220	200	100	F10	33	29	35	31
100	4"	100	350	220	190	220	350	235	190	235	115	250	135	225	30	22	42.5	16.5	M10	285	300	100	F10	51	45	56	48



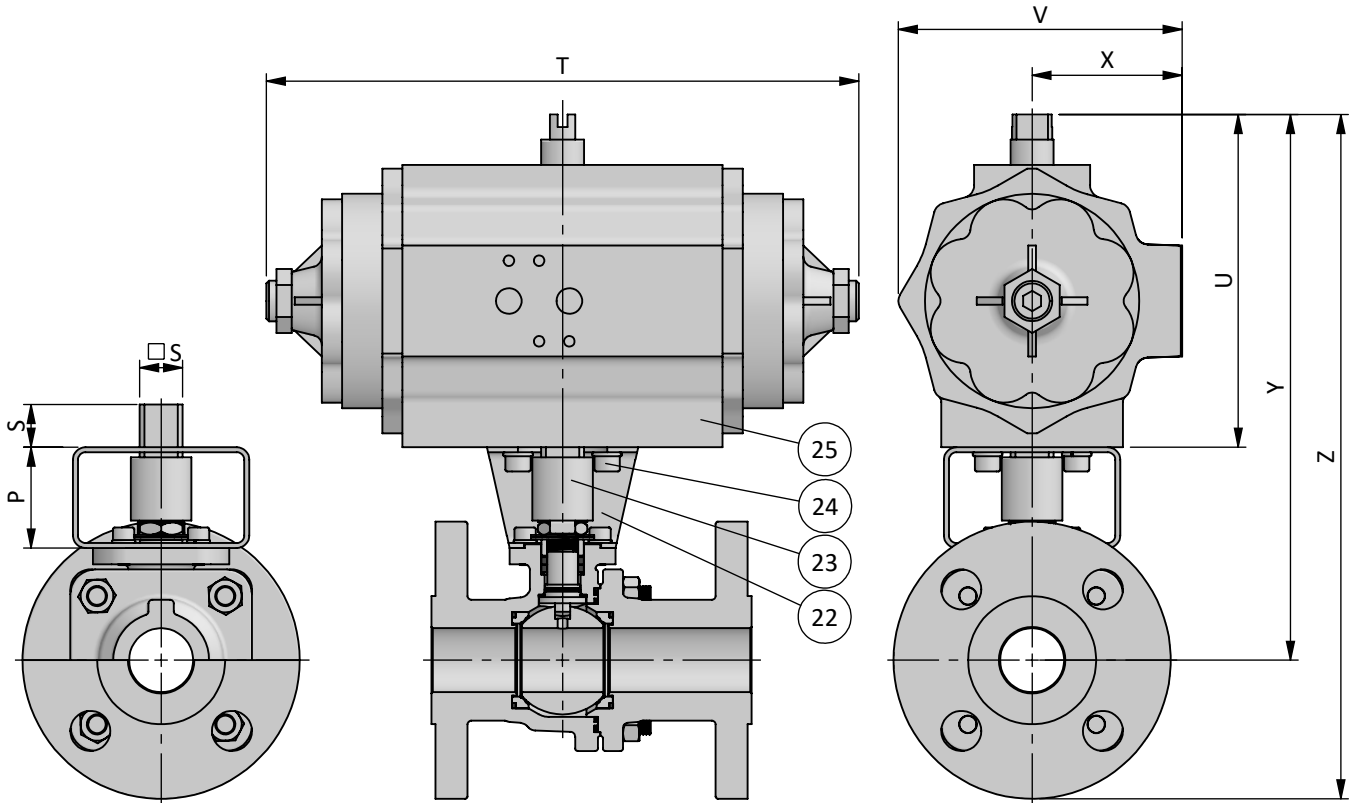
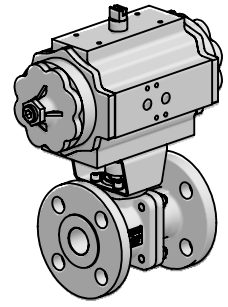
BILL OF MATERIALS

Part	Qt.	Description	Material
20	1	Locking Plate	STAINLESS ST. 304
21	1	Stop Pin	STAINLESS ST. 316

DN / Size		Dimensions	
FULL BORE		F	G
mm	inch		
15	½"	35	90
20	¾"	40	100
25	1"	45	105
32	1¼"	55	125
40	1½"	60	130
50	2"	80	150
65	2½"	GEARBOX	
80	3"		
100	4"		

Larger size valves available with lockable gearboxes

CFM-A SERIES
PN16 / PN40
FULL BORE - DN15 (½") ÷ DN100 (4")
BRACKET FOR AUTOMATION

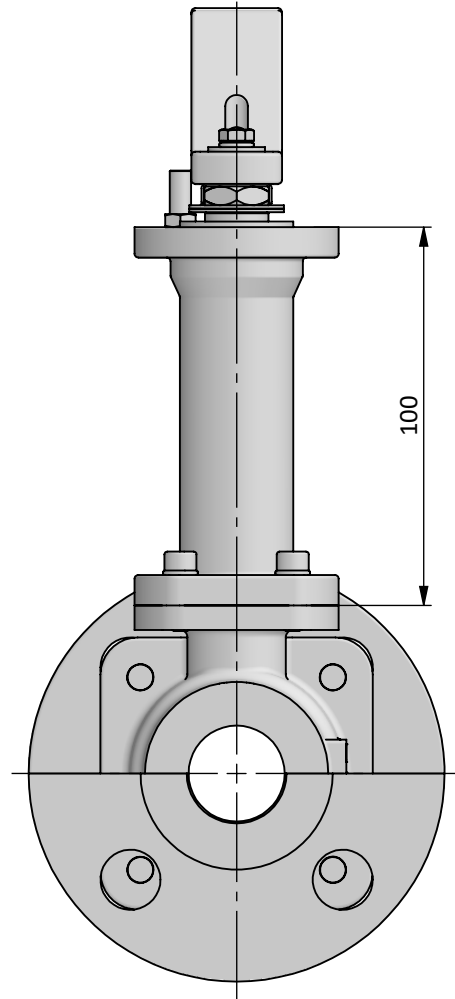
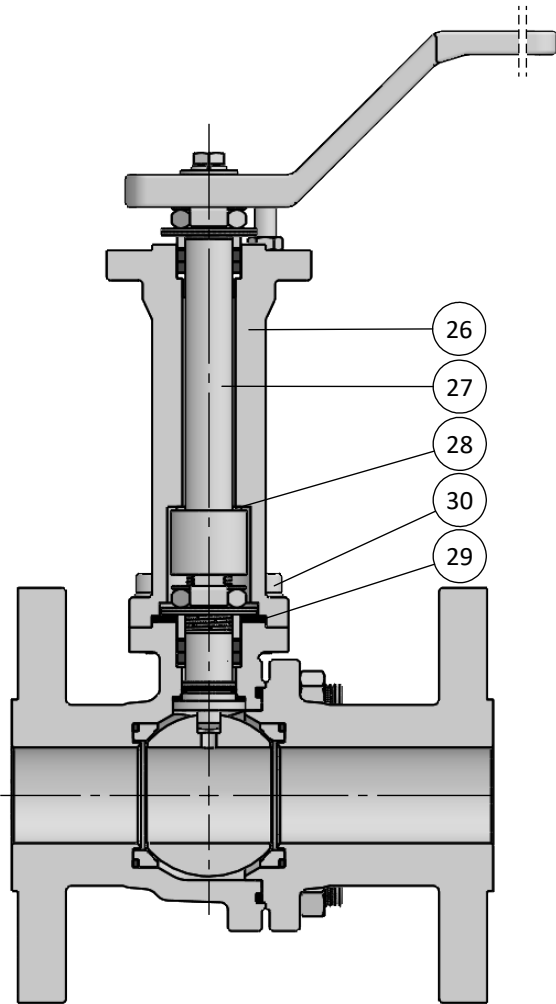
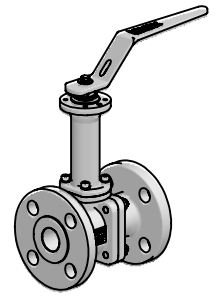


BILL OF MATERIALS

Part	Qt.	Description	Material
22	1	Bracket	STAINLESS ST. 304
23	1	Coupling	A564 S17400
24	8	Bolt	STAINLESS ST. 316
25	1	Pneumatic Actuator	ALUMINIUM

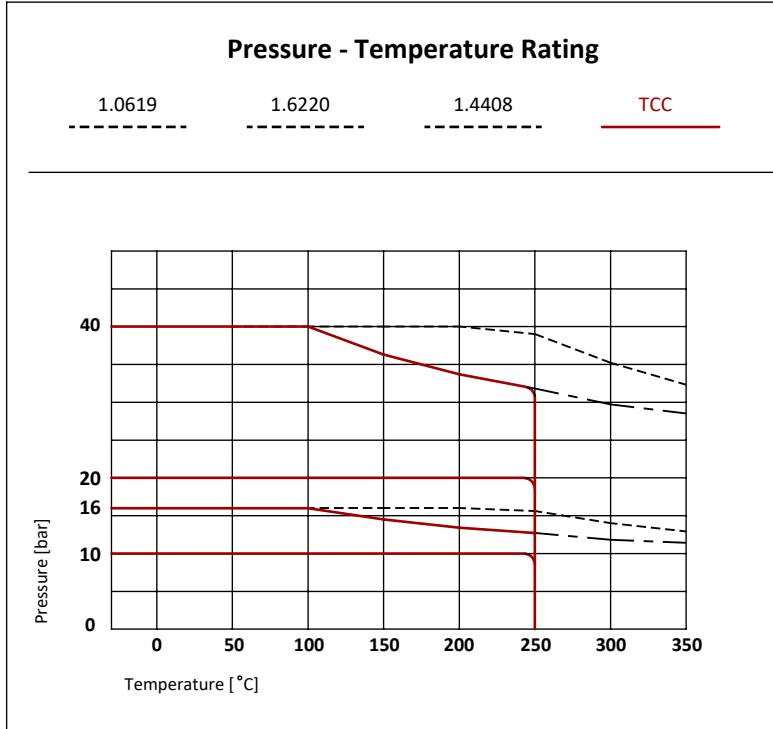
DN / Size	Automation	Actuator*									Automation		Actuator*								
		P	S	PN16						P	S	PN40									
				REF.	T	U	V	X	Y			Z	REF.	T	U	V	X	Y	Z		
15	½"	-	-	-	-	-	-	-	-	-	30	17	008-10	233	131	112	57	210	255		
20	¾"	-	-	-	-	-	-	-	-	-	40	19	012-08	280	131	112	57	215	265		
25	1"	-	-	-	-	-	-	-	-	-	40	22	020-14	294	151	133	70	235	295		
32	1½"	-	-	-	-	-	-	-	-	-	50	22	030-18	286	189	169	85	295	365		
40	1½"	-	-	-	-	-	-	-	-	-	50	27	040-18	344	199	169	85	310	385		
50	2"	-	-	-	-	-	-	-	-	-	60	27	060-20	377	230	195	100	370	450		
65	2½"	60	27	060-20	377	230	195	100	385	475	60	27	060-20	377	230	195	100	385	475		
80	3"	100	36	140-24	445	272	232	120	480	580	100	36	140-24	445	272	232	120	480	580		
100	4"	100	46	200-20	537	272	232	120	505	615	100	46	200-20	537	272	232	120	505	615		

*Spring Return Pneumatic Actuators selected for CCC seats considering input air pressure of 5.5bar and minimum 25% safety margin



BILL OF MATERIALS

Part	Qt.	Description	Material
26	1	Extension	A351 CF8M
27	1	Stem Extension	A564 S17400
28	1	Stem Thrust Seal	TFM 1600
29	1	Extension Seal	GRAPHITE
30	4	Bolt	STAINLESS ST. 316



Working Conditions				
Material	mOT* [°C]			MOT* [°C]
	1.0619	1.6220	1.4408	ALL
TCC	-29	-46	-50	-100*
TCC	-29	-46	-50	250

*mOT - minimum Operating Temperature.
 *MOT - Maximum Operating Temperature at 10 bar
 Standard version recommended down to -50 °C
 *Extended version recommended down to -100 °C

TCC - Tungsten Carbide Coating

Tungsten Carbide Coating applied in the contact surfaces of the ball and seats, with a minimum specified thickness of 200 µm, increases the hardness (up to 70 HRC) and the resistance to wearing conditions (abrasion, friction, others). This technology combined with a lapping process improves the sealing effect and the operation lifetime expectancy without maintenance under severe working conditions.

DN	Rating (bar)	
	PN16	PN40
FB DN15 (½") to DN50 (2")	-	40
FB DN65 (2½") to DN80 (3")	16	20
FB 100 (4")	10	

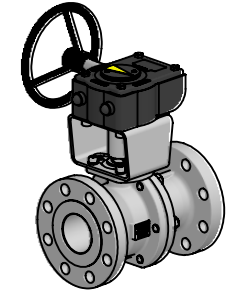
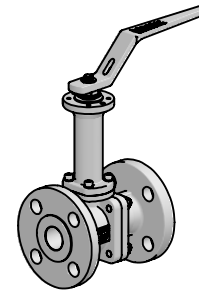
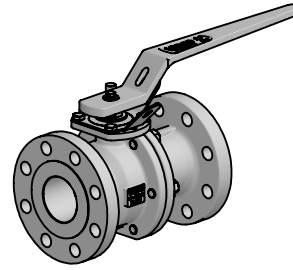
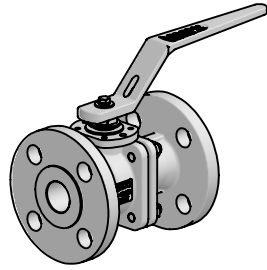
DN / Size		Torque Valve Figure [Nm] *				Maximum Allowable Stem Torque [Nm]				Flow Coefficient Cv
		PN16		PN40						
FULL BORE		Rating [bar]	BTO	Rating [bar]	BTO	MAST				
mm	inch					TCC				S31803
15	½"	-	-	40	20	25	30	40	53.5	15
20	¾"	-	-	40	27	45	55	71.5	98.5	35
25	1"	-	-	40	45	45	55	71.5	98.5	50
32	1¼"	-	-	40	60	125	150	200	275	80
40	1½"	-	-	40	90	125	150	200	275	115
50	2"	-	-	40	130	240	290	385	535	200
65	2½"	16	150	20	150	445	540	715	1000	325
80	3"	16	250	20	250	445	540	715	1000	490
100	4"	10	350	10	350	880	1075	1420	1950	900

*Values without safety margin

Reference BTO 100% - RTO 55% | ETO 75% | BTC 75% | RTC 55% | ETC 80%

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	ISO 17292 DIN EN 1092-1 EN 558-1 ISO 5211	Pressure tests according to: EN12266-1 / API 598 / ISO 5208 Rate D Tests applied: Hydrostatic Shell Test Hydrostatic Seat Test Pneumatic Tightness Test Pneumatic Seat Test 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° SEAL	PACKING 2° SEAL O'RING	OPTIONS
CFM-A 1 - PN16	6 - DIN	F - FB	015	FLANGED RF	A - 1.0619	E - A351 CF8M +TCC A564 S17400	A - Gr. 8.8	1 - A479 316/L +TCC Graphite	1 - Graphite Graphite FKM	C - Spring Return	
2 - PN40			020	F2 - DIN F4 / F5	B - 1.6220	Z - Others	F - A4 CL.70	9 - Others		E - Extension 100 mm	
			025	F3 - DIN F1	F - 1.4408					F - Bracket Automation	
			032		Z - Others					G - Gear Box	
			040							H - Actuators	
			050							I - Switch Box / Limit Swiches	
			065							L - Locking Lever/Handle	
			080							O - Oval Lever/Handle	
			100							R - Bare Shaft / Bare Stem	
										S - Solenoid Valve	
										Y - Full Execution SS.316	
										Z - Others	

Example:

CFM-A26F015F2F2AEA11

CFM-A16F080F3F3FEF11H

METALLIC SEATS RANGE

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



INDUSTRIAL RANGE

XF Series
3 pieces bolted - Floating
CI 150 to 800
3/8" (DN10) to 6" (DN150)



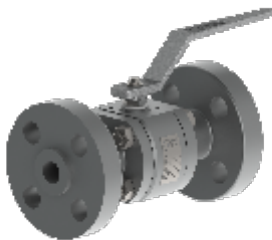
SF Series
3 pieces bolted - Floating
CI 300 to 800
3/8" (DN10) to 4" (DN100)



BF Series
2 split body - Floating
CI 150 to 600
1/2" (DN15) to 4" (DN100)



HF Series
3 pieces bolted - Floating
CI 1500/2500
3/8" (DN10) to 2" (DN50)



QF Series
Multi-ways - Floating
CI 150 to 600
1/2" (DN15) to 2" (DN50)



VTR Series
3 pieces bolted - Trunnion
CI 150 to 2500
1/2" (DN15) to 12" (DN300)



OTHER RANGE

SANITARY RANGE
XP / RP / LP / MP / QP



CRYOGENIC RANGE
CCF / CXF / CBF / CSF / CVT



