VINCO VALVES

XF Series

Cast Version

Technical Datasheet

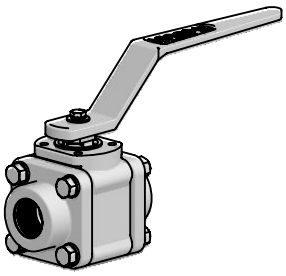


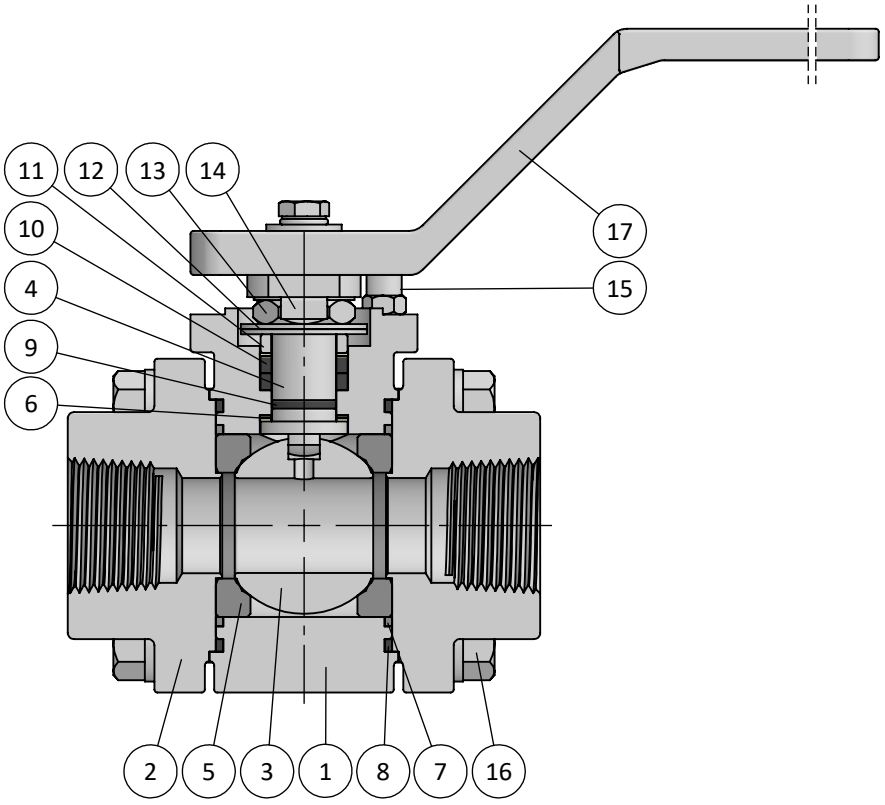
Soft Seated Floating Ball Valves
FB ⅜" (DN10) to 6" (DN150)
RB ½" (DN15) to 4" (DN100)
CL150 to 800
-100 °C to 280 °C

DS.IND.XF.ASME.CAST.R08

XF SERIES

CL800 (2000psi)
FULL BORE - ⅜" (DN10) to 2" (DN50)
REDUCED BORE - ½" (DN15) to 2½" (DN65)
STANDARD
BILL OF MATERIALS





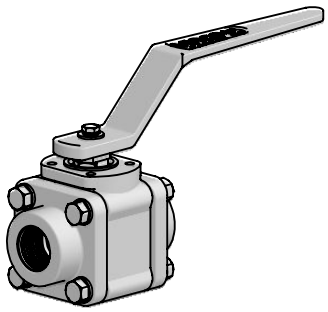
BILL OF MATERIALS

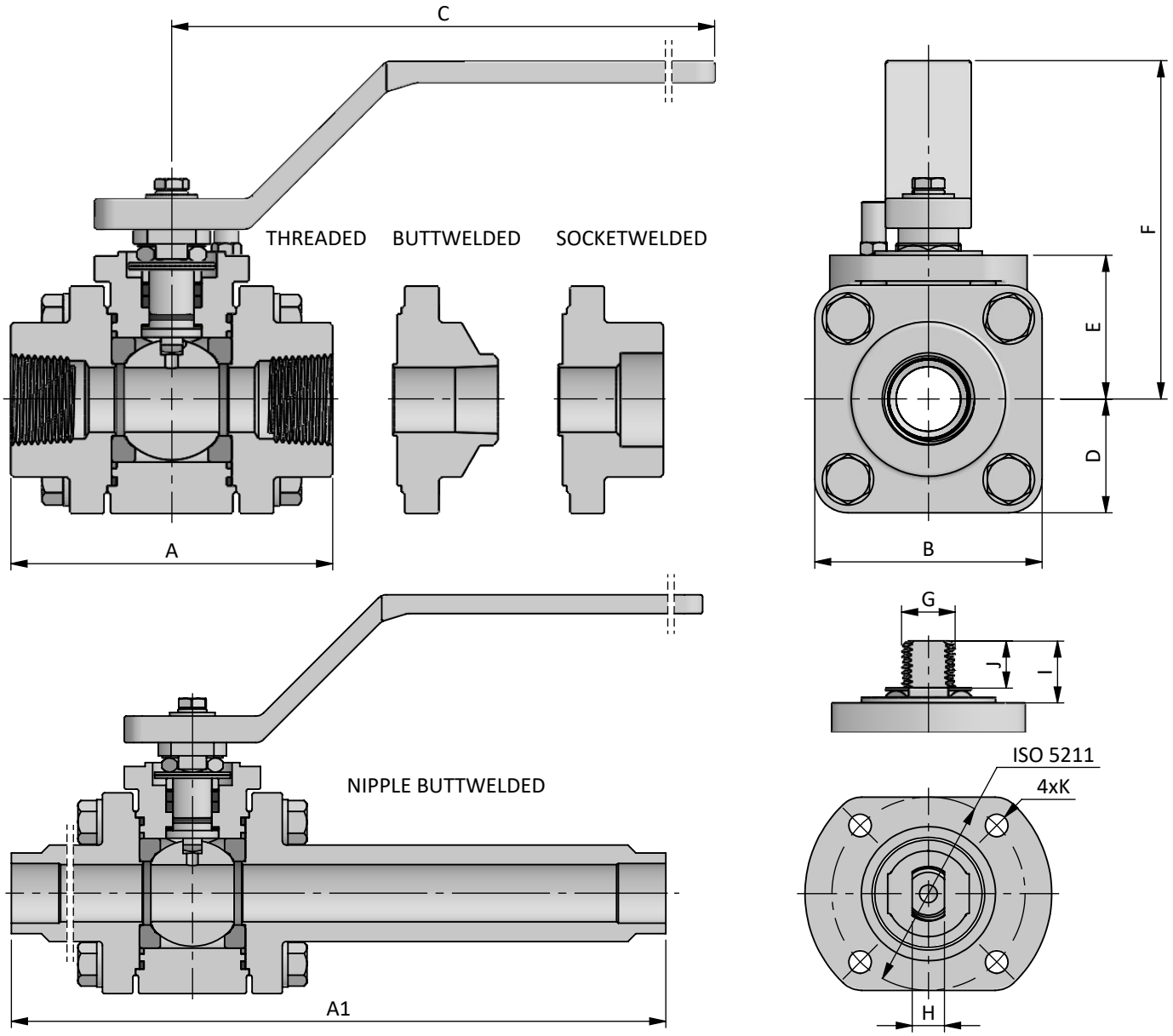
Part	Qt.	Description		CARBON STEEL VERSION	LT CARBON STEEL VERSION	STAINLESS STEEL VERSION
1	1	Body		A216 WCB	A352 LCC	A351 CF3M
2	2	End		A216 WCB	A352 LCC	A351 CF3M
3	1	Ball		A351 CF8M		
4	1	Stem		A479 316/L		
5	2	Seat	↘	C-RPTFE		
6	1	Stem Thrust Seals	↘	C-RPTFE + PEEK		
7	2	1st Body Seal	↘	C-RPTFE		
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	1	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.	A320 Gr. L7M ZINC.	A193 Gr. B8M cl.2
17	1	Handle		A351 CF8		

↘ TYPICAL SPARE PARTS

XF SERIES

CL800 (2000psi)
FULL BORE - ⅜" (DN10) ÷ 2" (DN50)
REDUCED BORE - ½" (DN15) ÷ 2½" (DN65)
THREADED & WELDED ENDS





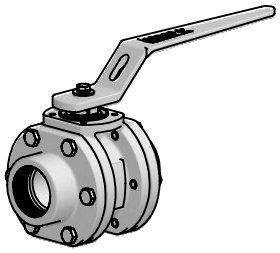
DN / Size				Dimensions									Automation					Weight Approx. [kg]	
FULL BORE		REDUCED BORE		Ball Port	A	A1	B	C	D	E	F	G	H	I	J	K	ISO 5211		
mm	inch	mm	inch															Short	Long
10	⅜''	15	½''	11.9	70	-	50	150	25	30	75	10	6	10	7	M5	F03	1.0	-
15	½''	20	¾''	15.1	75	250	55	150	27.5	35	80	10	6	10	7	M5	F03	1.2	1.6
20	¾''	25	1''	20.6	90	260	65	180	32.5	40	95	12	7.5	14.5	7.5	M5	F04	2.0	2.5
25	1''	32	1¼''	25.4	100	270	75	180	37.5	45	100	12	7.5	14.5	7.5	M5	F04	3.0	3.5
32	1¼''	40	1½''	31.8	115	280	85	210	42.5	55	120	16	11	21.5	9	M6	F05	4.5	6.0
40	1½''	50	2''	38.1	125	290	95	210	47.5	60	125	16	11	21.5	9	M6	F05	6.0	7.0
50*	2"	65	2½"	49.0	165	310	145	300	65	75	140	20	14	21.5	10	M8	F07	10.5	11.5

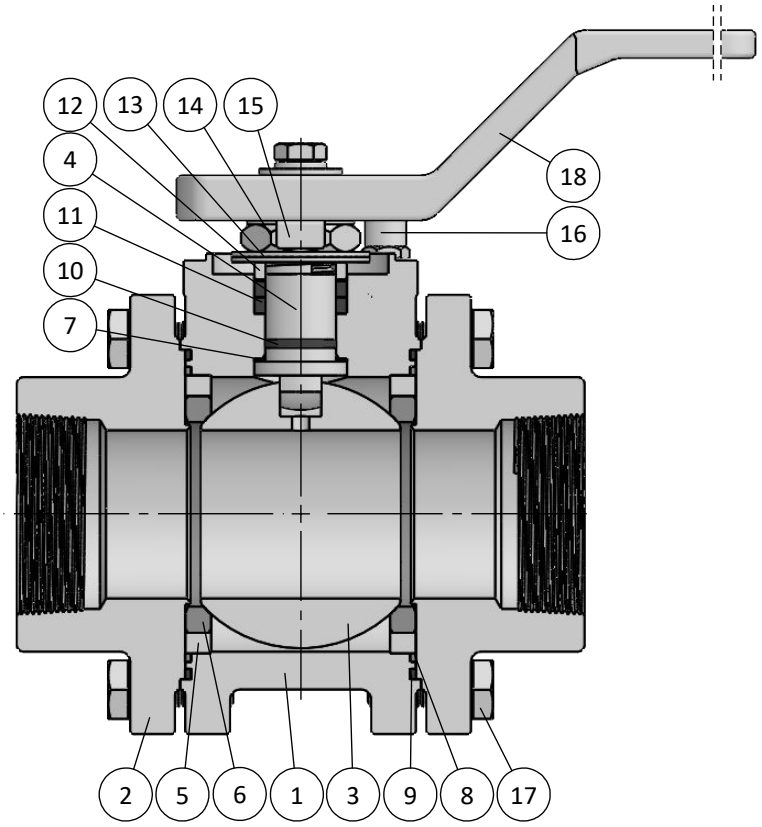
Nipple buttweld only available in full bore version
DN65 Reduced bore only available in Buttweld version

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

XF SERIES

CL400/300 (1000/750 psi)
FULL BORE - 2½" (DN65) ÷ 4" (DN100)
REDUCED BORE - 3" (DN80) ÷ 4" (DN100)
STANDARD
BILL OF MATERIALS





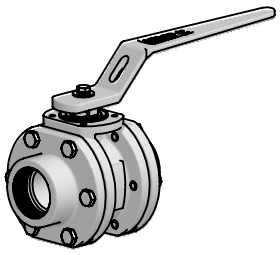
BILL OF MATERIALS

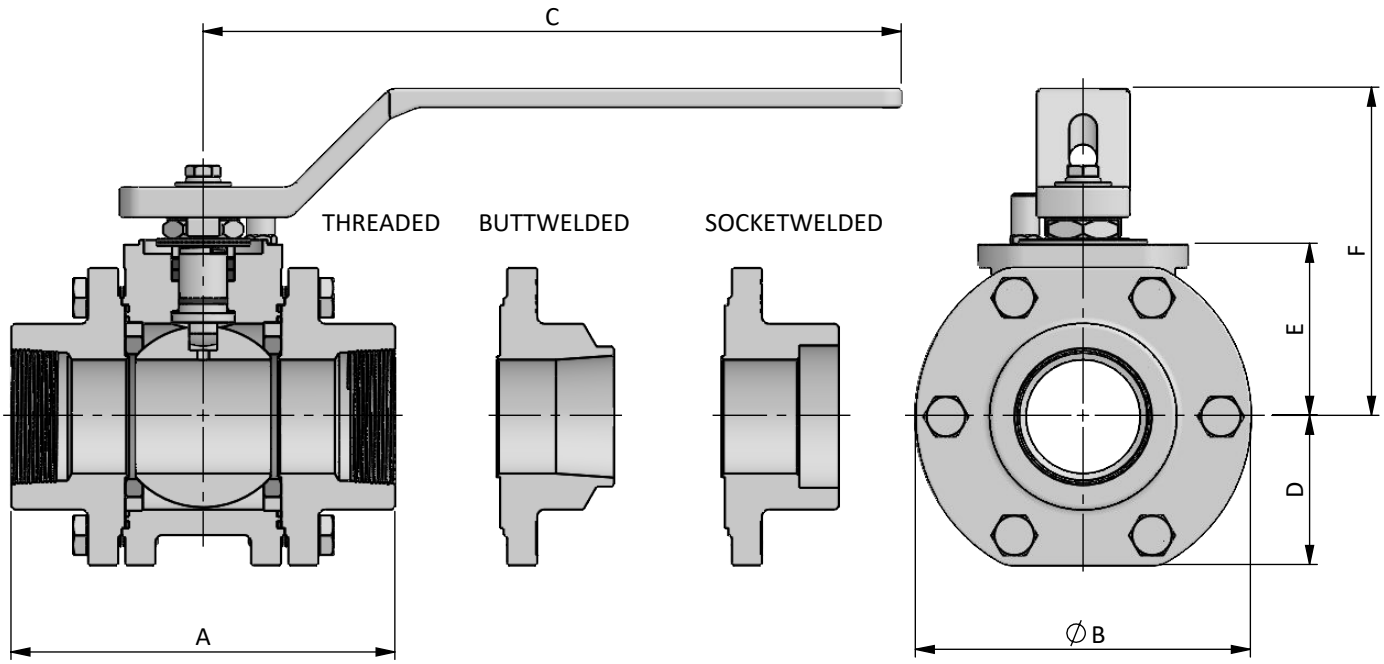
Part	Qt.	Description		CARBON STEEL VERSION	LT CARBON STEEL VERSION	STAINLESS STEEL VERSION
1	1	Body		A216 WCB	A352 LCC	A351 CF3M
2	2	End		A216 WCB	A352 LCC	A351 CF3M
3	1	Ball		A351 CF8M		
4	1	Stem		A479 316/L		
5	2	Seat Ring		A479 316/L		
6	2	Seat	↘	C-RPTFE		
7	1	Stem Thrust Seals	↘	C-RPTFE + PEEK		
8	2	1st Body Seal	↘	C-RPTFE		
9	2	2nd Body Seal	↘	GRAPHITE		
10	1	O'Ring	↘	FKM		
11	1	Stem Packing Set	↘	GRAPHITE + PEEK		
12	1	Gland Packing		STAINLESS ST. 316		
13	2	Disc Spring		STAINLESS ST. 316		
14	1	Stem Nut		STAINLESS ST. 316		
15	1	Locking Clip		STAINLESS ST. 316		
16	1	Stop Pin		STAINLESS ST. 316		
17	-	Bolt		A193 Gr. B7 Zinc.	A320 Gr. L7M ZINC.	A193 Gr. B8M cl.2
18	1	Handle		A351 CF8		

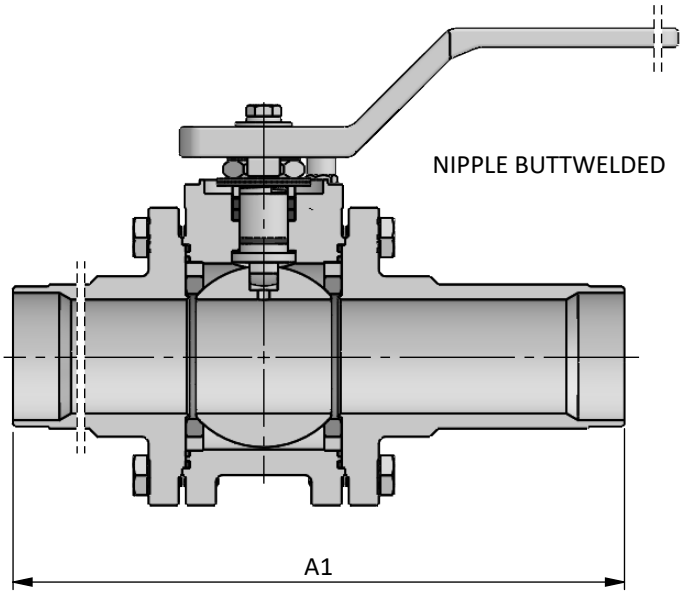
↘ TYPICAL SPARE PARTS

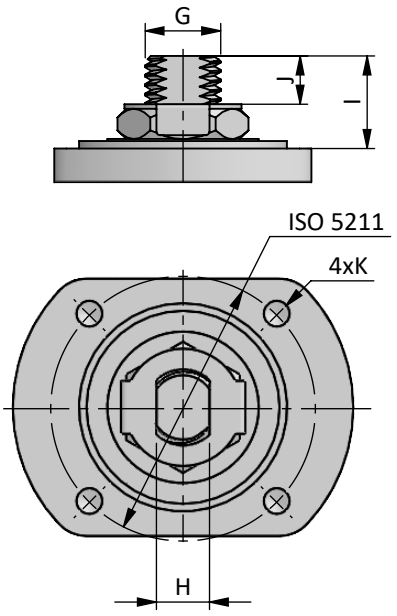
XF SERIES

CL400/300 (1000/750 psi)
FULL BORE - 2½" (DN65) ÷ 4" (DN100)
REDUCED BORE - 3" (DN80) ÷ 4" (DN100)
THREADED & WELDED ENDS







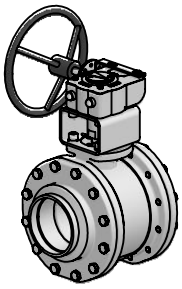


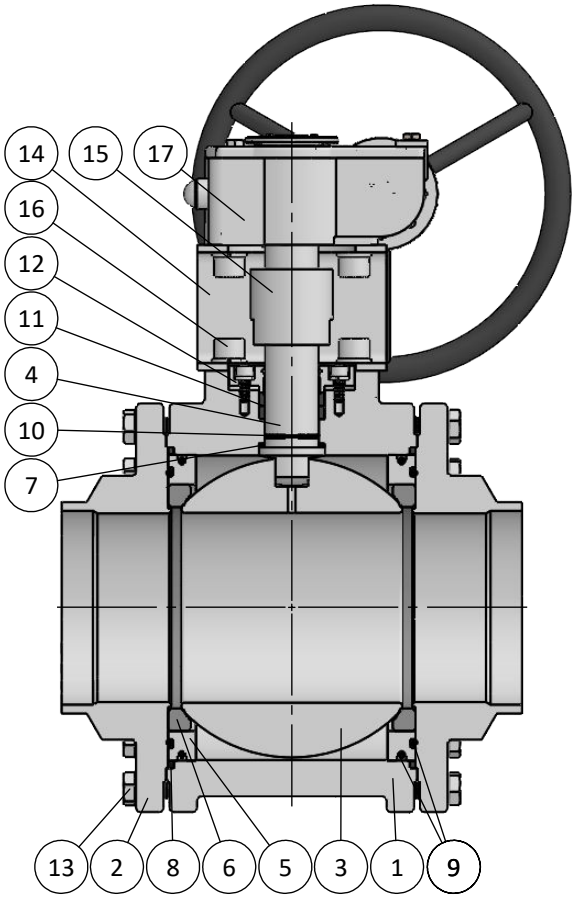
DN / Size				Dimensions								Automation						Weight Approx. [kg]	
FULL BORE		REDUCED BORE		Ball Port	A	A1	B	C	D	E	F	G	H	I	J	K	ISO 5211		
mm	inch	mm	inch															Short	Long
65	2½''	80	3''	62.0	190	330	175	360	80	90	170	24	18	29.5	13.5	M8	F07	17.5	19.0
80	3''	100	4''	75.0	215	350	195	420	95	105	185	24	18	24	12.5	M10	F10	25.5	26.5
100	4''	N/A		100.0	265	390	295	480	115	135	225	30	22	41.5	17	M10	F10	45.0	47.0

Reduced bore only available in Buttweld version

XF SERIES

CL150 (300psi)
FULL BORE - 6" (DN150)
STANDARD
BILL OF MATERIALS





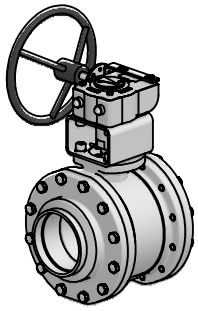
BILL OF MATERIALS

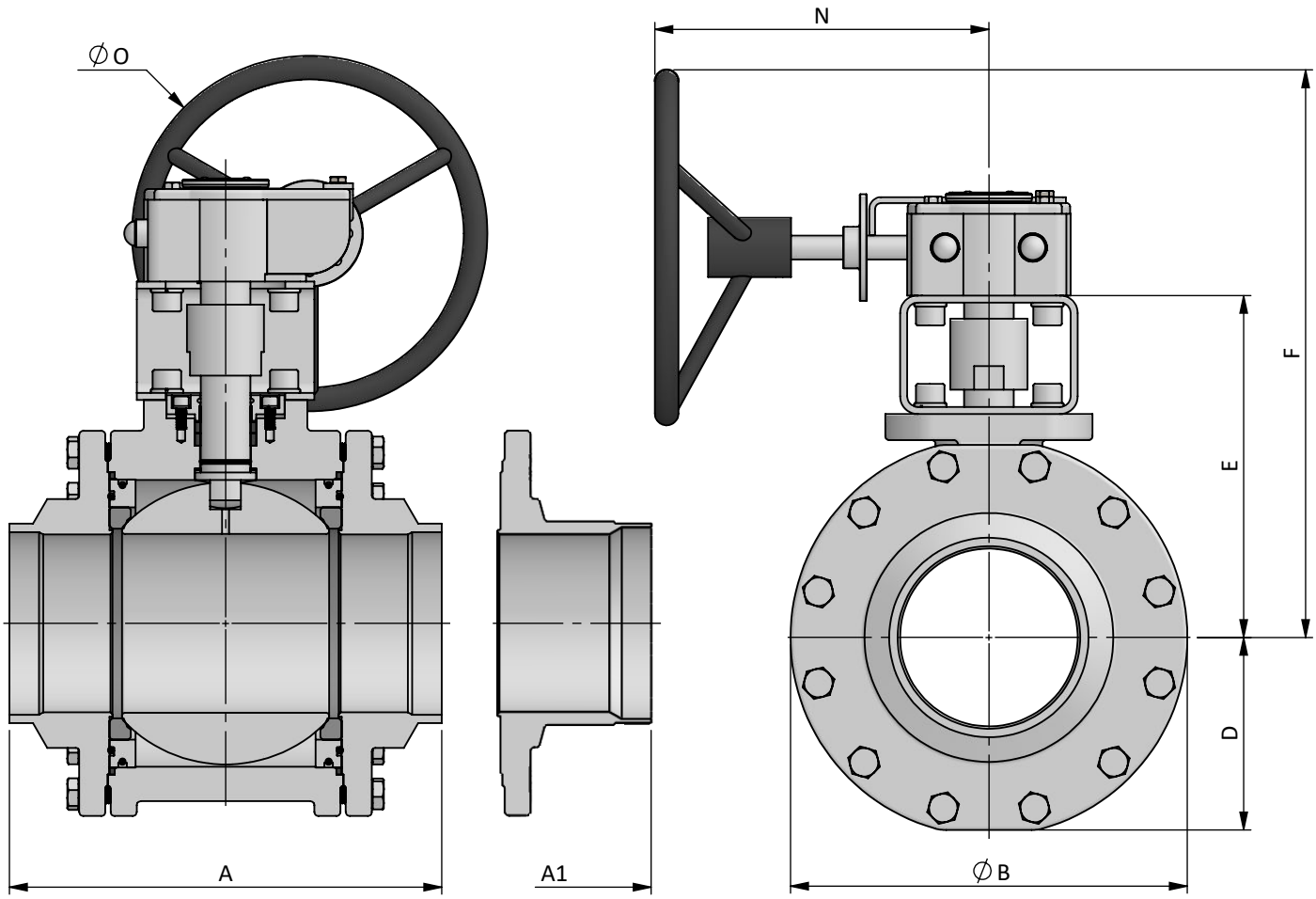
Part	Qt.	Description		CARBON STEEL VERSION	LT CARBON STEEL VERSION	STAINLESS STEEL VERSION
1	1	Body		A216 WCB	A352 LCC	A351 CF3M
2	2	End		A216 WCB	A352 LCC	A351 CF3M
3	1	Ball		A351 CF8M		
4	1	Stem		A479 316/L		
5	2	Seat Ring		A479 316/L		
6	2	Seat	↘	C-RPTFE		
7	1	Stem Thrust Seals	↘	C-RPTFE + PEEK		
8	2	Body Seal	↘	GRAPHITE		
9	4	Body O'Ring	↘	FKM		
10	1	O'Ring	↘	FKM		
11	1	Stem Packing Set	↘	GRAPHITE + PEEK		
12	1	Gland Packing		A479 316/L		
13	-	Bolt		A193 Gr. B7 Zinc.	A320 Gr. L7M ZINC.	A193 Gr. B8M cl.2
14	1	Bracket		STAINLESS ST. 304		
15	1	Bracket Stem		A479 316/L		
16	8	Bracket Bolt		STAINLESS ST. 304		
17	1	Gear Box		CAST IRON		

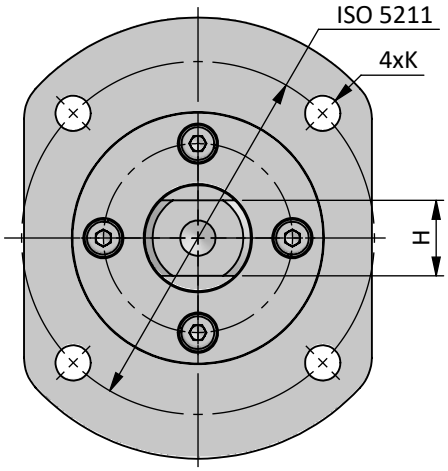
↘ TYPICAL SPARE PARTS

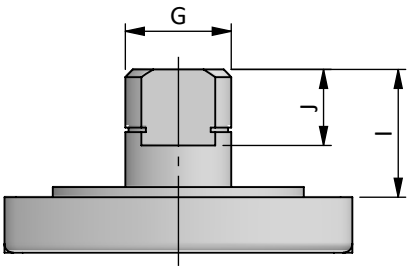
XF SERIES

CL150 (300psi)
FULL BORE - 6" (DN150)
STANDARD
DIMENSIONS





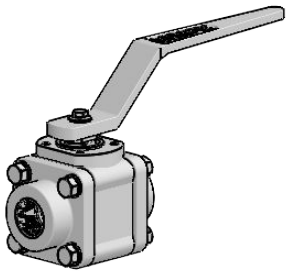


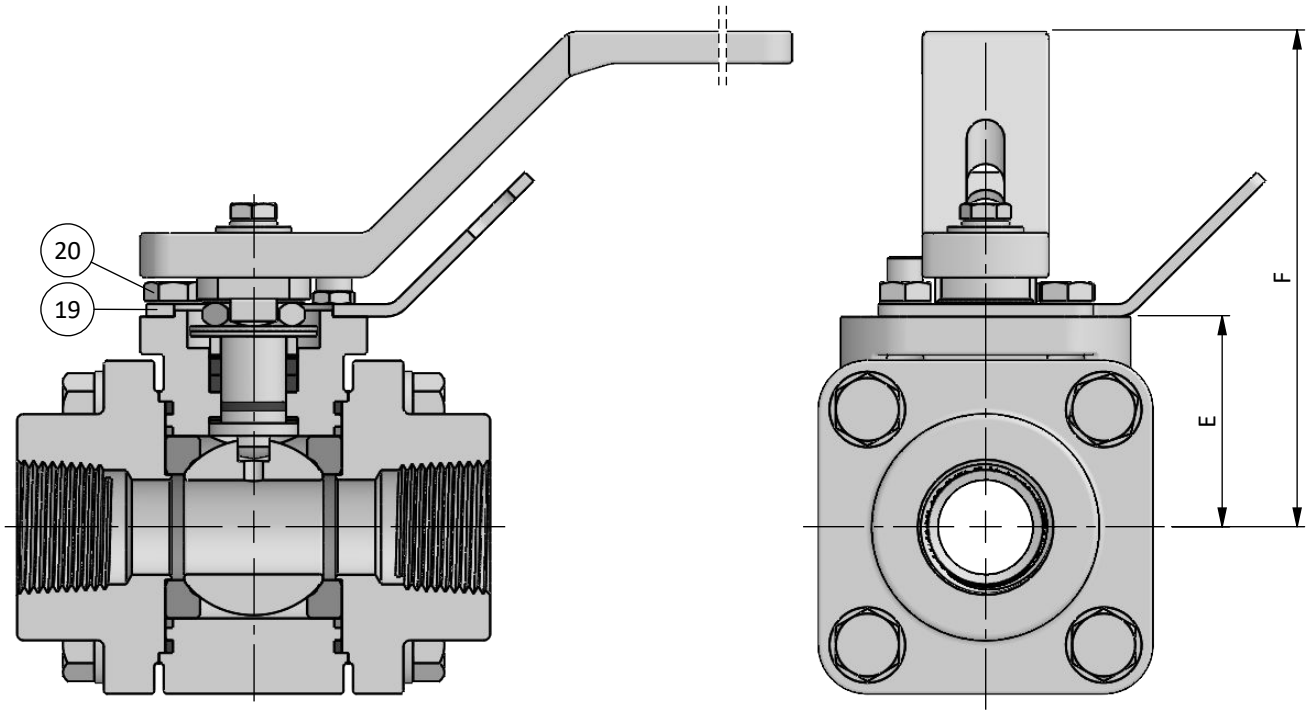


DN / Size		Dimensions								Automation								Weight Approx. [kg]	
FULL BORE		Ball Port	A	A1	B	C	D	E	F	G	H	I	J	K	N	O	ISO 5211		
mm	inch																	Short	Long
150	6"	150.0	365	450	335	-	165	190	480	42	30	51	30	M16	285	300	F14	123.5	125.0

XF SERIES

CL800/400/300/150 (2000/1000/750/300 psi)
FULL BORE - ⅜'' (DN10) ÷ 6" (DN150)
REDUCED BORE - ½'' (DN15) ÷ 4" (DN100)
LOCKING DEVICE





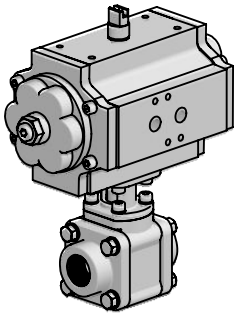
BILL OF MATERIALS			
Part	**Qt.**	**Description**	**Material**
19	1	Locking Plate	STAINLESS ST. 304
20	3	Bolt	STAINLESS ST. 316

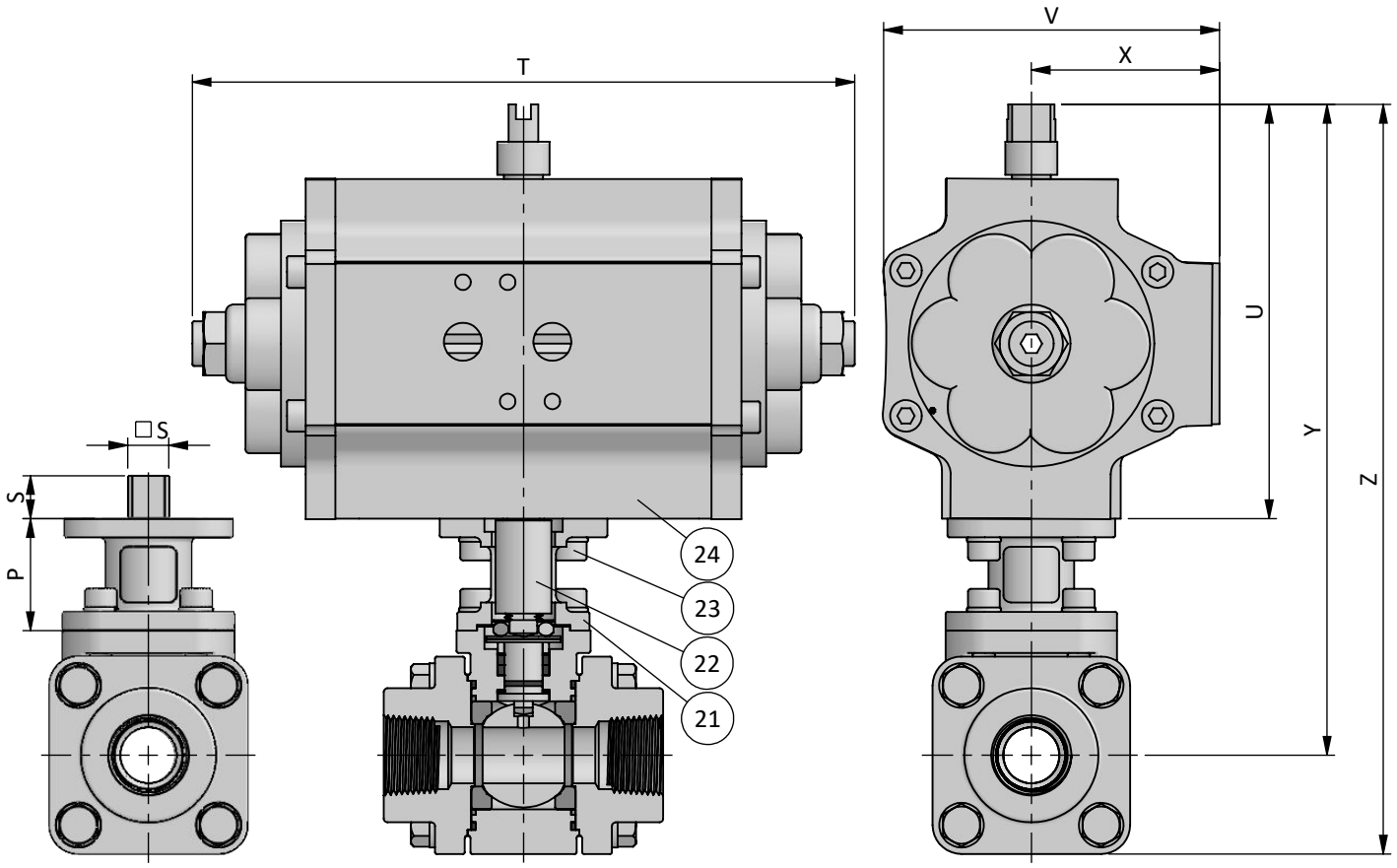
DN / Size				**E**	**F**
FULL BORE		**REDUCED BORE**			
mm	**inch**	**mm**	**inch**		
10	⅜''	15	½''	30	75
15	½''	20	¾''	35	80
20	¾''	25	1''	40	95
25	1''	32	1¼''	45	100
32	1¼''	40	1½''	55	120
40	1½''	50	2''	60	125
50	2"	65	2½''	75	140
65	2½''	80	3"	90	170
80	3"	100	4"	105	185
100	4"	N/A		135	225
150	6"			190	-

Larger size valves available with lockable gearboxes

XF SERIES

CL800/400/300/150 (2000/1000/750/300 psi)
FULL BORE - ⅜'' (DN10) ÷ 6" (DN150)
REDUCED BORE - ½'' (DN15) ÷ 4" (DN100)
BRACKET FOR AUTOMATION VERSION





BILL OF MATERIALS

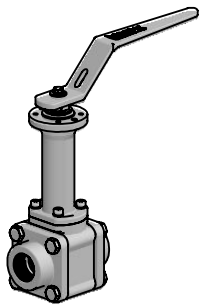
Part	Qt.	Description	Material
21	1	Bracket	STAINLESS ST. 304
22	1	Coupling	A479 316/L
23	8	Bolt	STAINLESS ST. 304
24	1	Pneumatic Actuator	ALUMINIUM

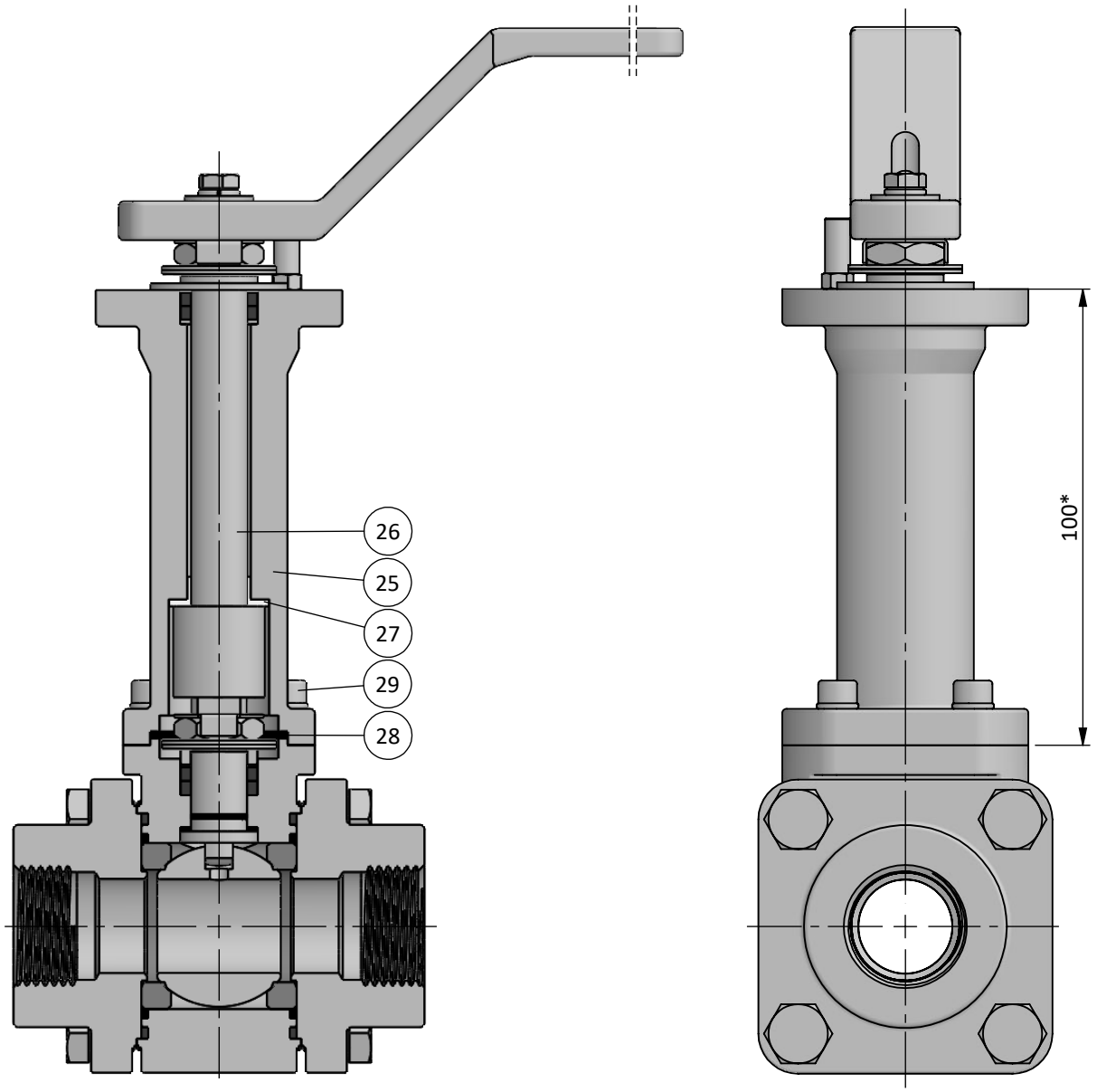
DN / Size				Automation		Actuator *						
FULL BORE		REDUCED BORE		P	S	REF.	T	U	V	X	Y	Z
mm	inch	mm	inch									
10	⅜''	15	½''	30	11	005-10	180	111	89	49	170	195
15	½''	20	¾''	30	11	005-10	180	111	89	49	175	200
20	¾''	25	1''	40	17	008-10	233	131	112	57	210	245
25	1''	32	1¼''	40	17	008-10	233	131	112	57	215	250
32	1¼''	40	1½''	50	19	012-08	280	131	112	57	235	280
40	1½''	50	2''	50	22	020-14	294	151	133	70	260	310
50	2"	65	2½''	60	22	030-18	286	189	169	85	325	390
65	2½''	80	3"	60	22	030-18	286	189	169	85	340	420
80	3"	100	4"	100	27	040-18	344	199	169	85	405	500
100	4"	N/A		100	36	100-18	440	246	210	108	480	595
150	6"	N/A		100	46	200-20	537	272	232	120	560	725

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

XF SERIES

CL800/400/300/150 (2000/1000/750/300 psi)
FULL BORE - ⅜'' (DN10) ÷ 6" (DN150)
REDUCED BORE - ½'' (DN15) ÷ 4" (DN100)
EXTENDED STEM





BILL OF MATERIALS

Part	Qt.	Description		Material
25	1	Extension		A351 CF8M
26	1	Stem Extension		A479 316/L
27	1	Bearing	↘	TFM 1600
28	1	Extension Seal	↘	GRAPHITE
29	4	Bolt		STAINLESS ST. 304

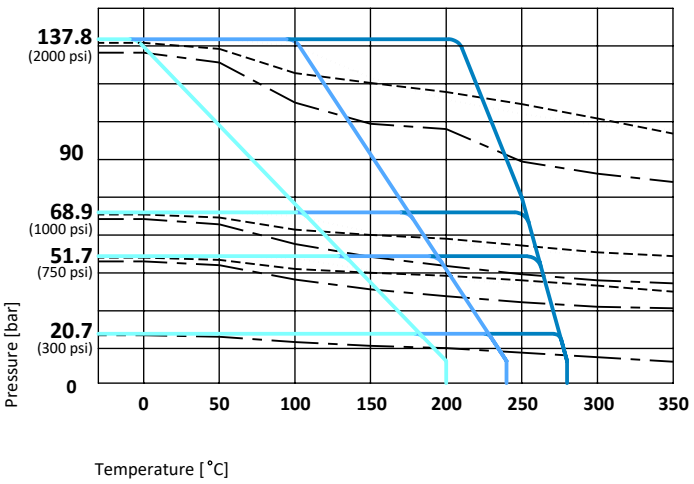
*Size 6" valve extension height is 150mm

XF SERIES

CL800/400/300/150 (2000/1000/750/300 psi)
FULL BORE - ⅜'' (DN10) ÷ 6" (DN150)
REDUCED BORE - ½'' (DN15) ÷ 4" (DN100)
TECHNICAL SPECIFICATIONS

Pressure - Temperature Rating

A352 LCC | A216 WCB | A351 CF3M | PEEK | C-RPTFE | PTFE/TFM1600



Working Conditions

Material	mOT* [°C]				MOT* [°C]
	A216 WCB	A352 LCC	A351 CF3M		ALL
PTFE / TFM 1600	-29	-46	-50	-100*	200
C-RPTFE	-29	-46	-50	-100*	240
PEEK	-29	-46	-50		280

*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

DN	Rating
FB ⅜"(DN10) to 2" (DN50) RB ½" (DN15) to 2½" (DN65)	137.8 bar / 2000 psi
FB 2½" (DN65) to 3" (DN80) RB 3" (DN80) to 4" (DN100)	68.9 bar / 1000 psi
FB 4" (DN100)	51.7 bar / 750 psi
FB 6" (DN150)	20.7 bar / 300 psi

DN / Size				Torque Valve Figure [Nm] *						Maximum Allowable Stem Torque [Nm]					Flow Coefficient Cv
FULL BORE		REDUCED BORE		C-RPTFE						316	S31803	S32760	S17400	718	
mm	inch	mm	inch	BTO	RTO	ETO	BTC	RTC	ETC	MAST					
10	⅜''	15	½''	6	4	4	4	4	5	21.5	25	30	40	53.5	12
15	½''	20	¾''	8	5	5	5	5	6	21.5	25	30	40	53.5	15
20	¾''	25	1''	14	8	11	111	8	12	40	45	55	71.5	98.5	35
25	1''	32	1¼''	18	10	14	14	10	15	40	45	55	71.5	98.5	50
32	1¼''	40	1½''	32	18	24	24	18	26	110	125	150	200	275	80
40	1½''	50	2''	46	26	35	35	26	37	110	125	150	200	275	115
50	2"	65	2½''	55	31	42	42	31	44	110	240	290	385	535	200
65	2½''	80	3"	70	39	46	46	39	53	205	445	540	715	1000	325
80	3"	100	4"	100	55	65	65	55	45	205	445	540	715	1000	490
100	4"	N/A		200	110	130	130	110	150	405	880	1075	1420	1950	900
150	6"	N/A		350	193	263	263	193	280	1150	2525	3085	4075	5600	2000

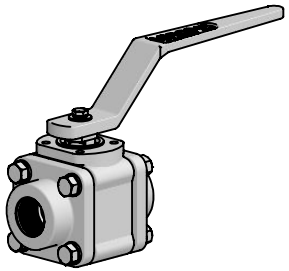
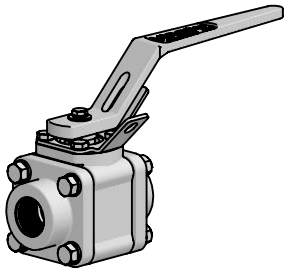
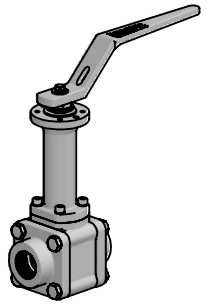
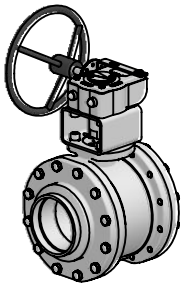
*Values without safety margin

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 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

Standards acc. to the latest available revision

VINCO VALVES

SERIE	CLASS	VERSION	PORT	DN	ENDS	BODY	BALL | STEM	BOLTING	SEATS | 1ª SEAL	PACKING | 2ªSEAL O'RING	OPTIONS
XF		2	F - FB	010	**BUTTWELD**	A - A216 WCB	E - A351 CF8M | A564 S17400	A - B7	1 - PTFE | PTFE	**1 - Grafite | Grafite | FKM**	A - 2 Opposite sides Flattened Ends
			R - RB	015	B1 - BW SCH 10	B - A352 LCC	**F - A351 CF8M | A479 316**	F - B8M cl.2	2 - TFM 1600 | PTFE	2 - VTFM 1600 | PTFE	C - Spring Return
	4 - CL800			020	B2 - BW SCH 40	C - A351 CF3M	G - A351 CF8 | A479 304	D - L7M	**3 - C-RPTFE | C-RPTFE**	3 - VC-RPTFE | C-RPTFE	D - Simple Extension 60 mm
				025	B3 - BW SCH 80	Z - Others	Z - Others		4 - PEEK NATURE | C-RPTFE		E - Extension 100 mm
				032	B4 - BW SCH 160*				6 - DEVLON | C-RPTFE		F - Bracket Automation
				040	B6 - BW ISO 1127 S1				7 - UHMWPE | UHMWPE		G - Gear Box
				050	B9 - OTHERS						H - Actuators
	3 - CL400			065	**SOCKETWELD**						I - Switch Box / Limit Swiches
				080	C1 - SW ASME B16.11						L - Locking Lever/Handle
	2 - CL300			100	C9 - OTHERS						O - Oval Lever/Handle
	1 - CL150			150	**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						

*** Sch 160 up to DN 50**

****Except DN 10**

Example:

XF32F015B1D3AFA31E

XF22F080N1N1CFF12

INDUSTRIAL RANGE

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



BF Series
2 split body - Floating
Cl 150 to 600
DN ½" (15) to 4" (100)



SF Series
3 pieces bolted - Floating
Cl 300 to 800
DN ⅜" (10) to 6" (150)



HF Series
3 pieces bolted - Floating
Cl 1500/2500
DN ⅜" (10) to 2" (50)



QF Series
Multi-ways - Floating
Cl 150 to 600
DN ½" (15) to 2" (50)



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



OTHER RANGE

CRYOGENIC RANGE
CCF / CXF / CBF / CSF / CVT



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

