

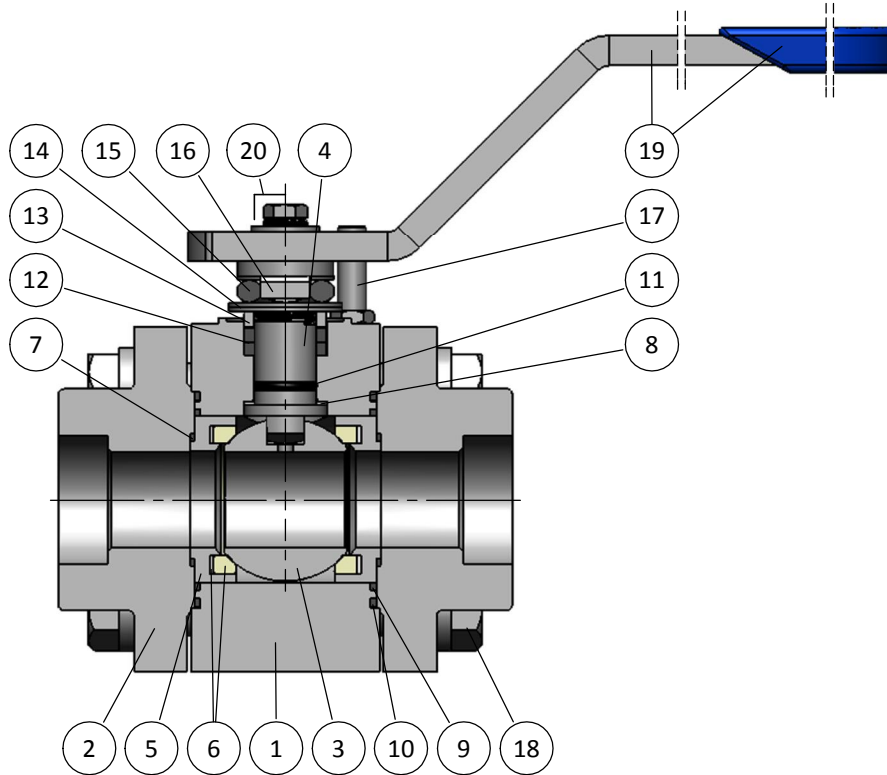
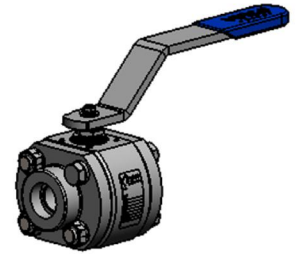
# HF Series

## Barstock Version

### Technical Datasheet



**HF SERIES**  
CL1500 (3600 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	DUPLEX VERSION	
1	1	Body	A350 LF2 cl.1	A479 316/L	A479 S31803	↔
2	2	End	A350 LF2 cl.1	A479 316/L	A479 S31803	↔
3	1	Ball	A351 CF8M	A351 CF8M	A479 S31803	↔
4	1	Stem	A564 S17400		A479 S31803	↔
5	2	Seat Support	A350 LF2 cl.1	A479 316/L	A479 S31803	↔
6	2	Seat		DEVLON + PTFE		
7	2	Seat Support Seal		GRAPHITE		
8	1	Stem Thrust Seal		PEEK		
9	2	1st Body Seal		C-RPTFE		
10	2	2nd Body Seal		GRAPHITE		
11	1	O'Ring		FKM		
12	1	Stem Packing Set		GRAPHITE + PEEK		
13	1	Gland Packing		STAINLESS ST. 316		
14	2	Disc Spring		STAINLESS ST. 316		
15	1	Stem Nut		STAINLESS ST. 316		
16	1	Locking Clip		STAINLESS ST. 316		
17	1	Stop Pin		STAINLESS ST. 316		
18	-	Bolt	A320 Gr. L7M ZINC.	A193 Gr. B8M cl.2		
19	1	Handle	CARBON ST. ZINC. / VINYL		STAINLESS ST. 316 / VINYL	
20	1	Handle Fastener	STAINLESS ST. 316			

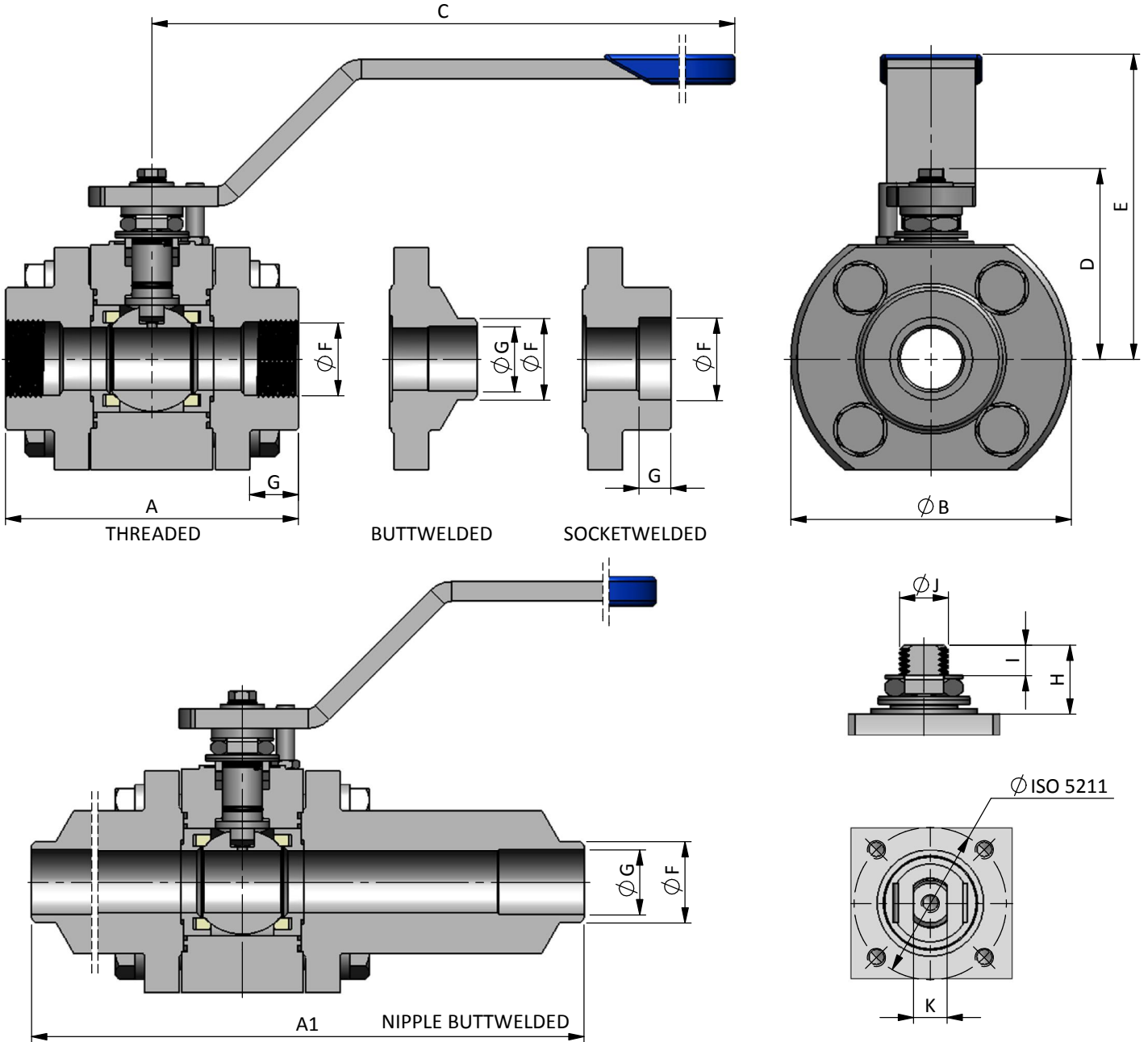
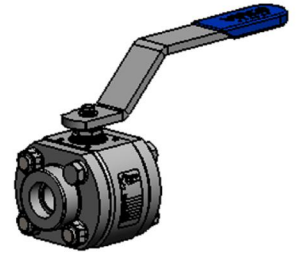
↘ TYPICAL SPARE PARTS

↞ FLANGED VALVES ARE FITTED WITH STUDS AND NUTS

↔ OTHERS AVAILABLE

**HF SERIES**

CL1500 (3600 psi)  
FULL BORE - DN 15 (½") ÷ 40 (1½")  
REDUCED BORE - DN 20 (¾") ÷ 50 (2")  
THREADED & WELDED ENDS

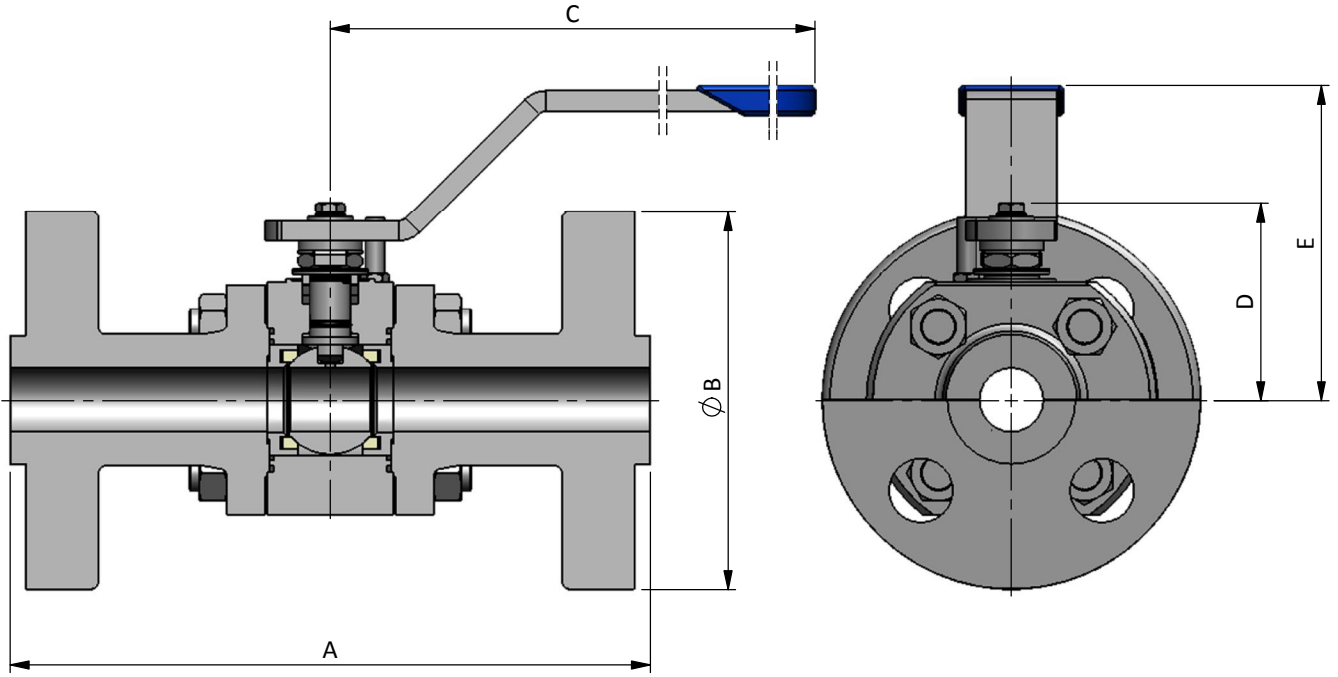
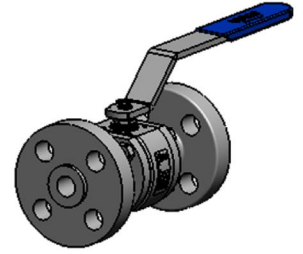


DN / Size				Dimensions							Automation					Weight Approx. [kg]								
FULL BORE		REDUCED BORE		Ball Port	A	A1	B	C	D	E	F	G	H	I	J	K	ISO 5211	Short Long						
mm	inch	mm	inch															Short	Long					
15	½"	20	¾"	15.1	90	260	85	230	58.5	97.5	NPT BSPT BSP BW SW		17	8	12	7.5	F04	3	4					
20	¾"	25	1"	20.6	105	270	100	230	62.5	101.5								17.5	8	12	7.5	F04	4	6
25	1"	32	1¼"	25.4	120	280	115	350	78.5	123.5								22.5	10	16	11	F05	7	9
32	1¼"	40	1½"	31.8	140	290	130	350	83.5	128.5								17.5	10	16	11	F05	10	13
40	1½"	50	2"	38.1	160	305	145	420	104.5	147.5								27	14.5	20	14	F07	15.5	19.5

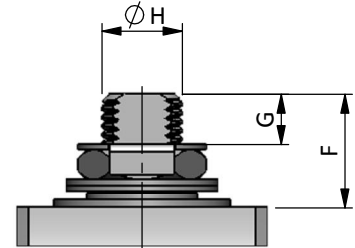
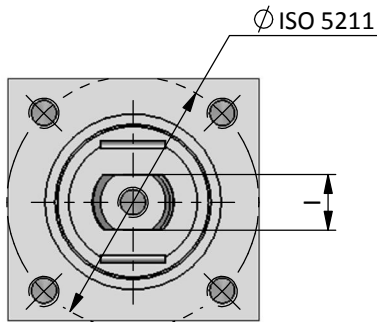
Nipple buttweld only available in full bore version

**HF SERIES**

CL1500 (3600 psi)  
 FULL BORE - DN 15 (½") ÷ 40 (1½")  
 REDUCED BORE - DN 20 (¾") ÷ 50 (2")  
 FLANGED RF ENDS



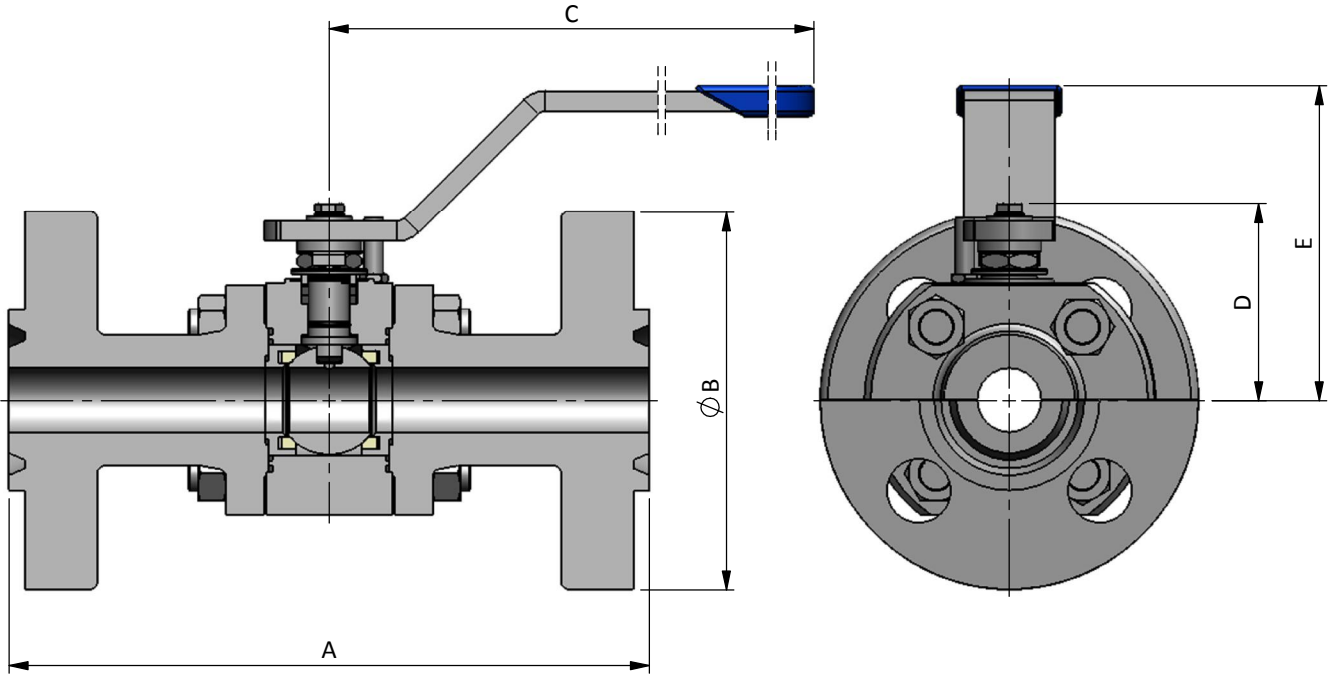
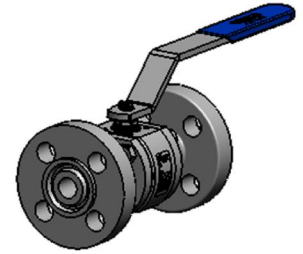
**Flanged Ends**  
 RF according to ASME B16.5



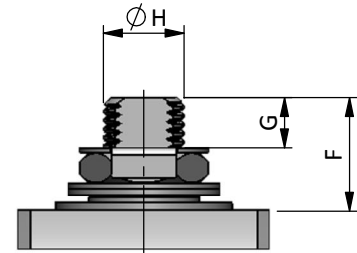
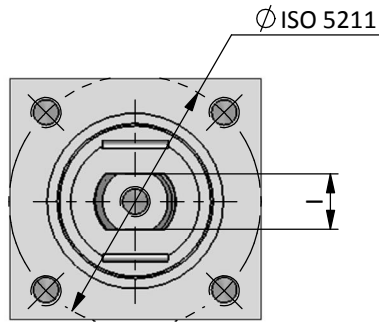
DN / Size				Dimensions								Automation					Weight Approx. [kg]	
FULL BORE		REDUCED BORE		Ball Port	FULL BORE		REDUCED BORE		C	D	E	F	G	H	I	ISO 5211	FULL BORE	REDUCED BORE
mm	inch	mm	inch		A	B	A	B										
15	½"	20	¾"	15.1	216	120	229	130	230	58.5	97.5	17	8	12	7.5	F04	7	8.5
20	¾"	25	1"	20.6	229	130	254	150	230	62.5	101.5	17.5	8	12	7.5	F04	10	12
25	1"	32	1¼"	25.4	254	150	279	160	350	78.5	123.5	22.5	10	16	11	F05	15	16
32	1¼"	40	1½"	31.8	279	160	305	180	350	83.5	128.5	17.5	10	16	11	F05	20	23
40	1½"	50	2"	38.1	305	180	368	215	420	104.5	147.5	27	14.5	20	14	F07	28	37

**HF SERIES**

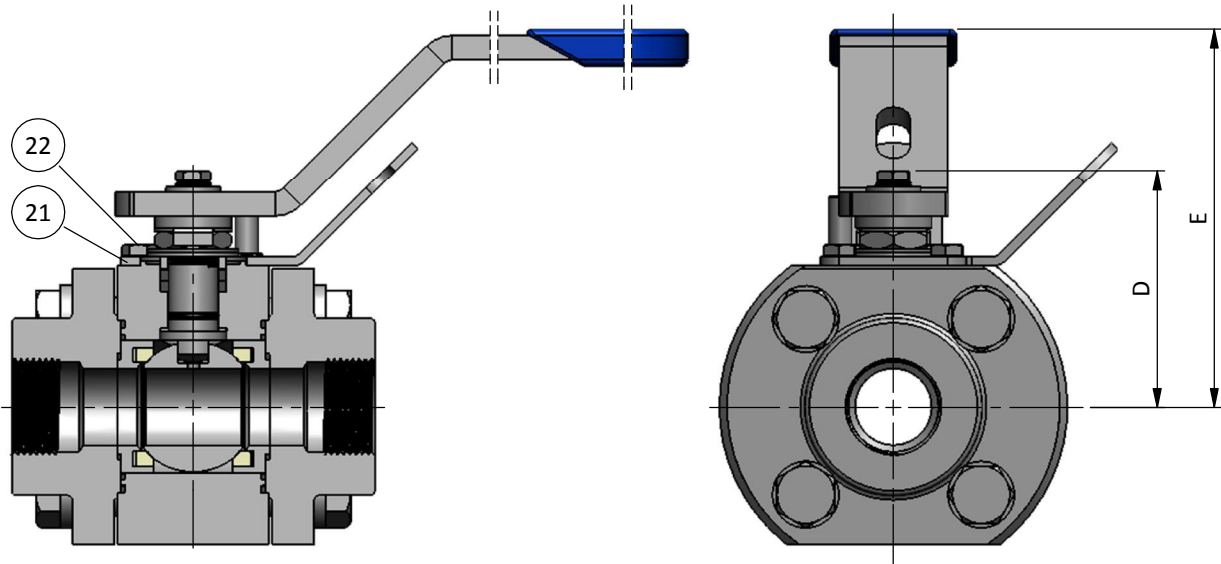
CL1500 (3600 psi)  
FULL BORE - DN 15 (½") ÷ 40 (1½")  
REDUCED BORE - DN 20 (¾") ÷ 50 (2")  
FLANGED RTJ ENDS



Flanged Ends  
RTJ according to ASME B16.5



DN / Size				Dimensions								Automation					Weight Approx. [kg]	
FULL BORE		REDUCED BORE		Ball Port	FULL BORE		REDUCED BORE		C	D	E	F	G	H	I	ISO 5211	FULL BORE	REDUCED BORE
mm	inch	mm	inch		A	B	A	B										
15	½"	20	¾"	15.1	216	120	229	130	230	58.5	97.5	17	8	12	7.5	F04	7	8.5
20	¾"	25	1"	20.6	229	130	254	150	230	62.5	101.5	17.5	8	12	7.5	F04	10	12
25	1"	32	1¼"	25.4	254	150	279	160	350	78.5	123.5	22.5	10	16	11	F05	15	16
32	1¼"	40	1½"	31.8	279	160	305	180	350	83.5	128.5	17.5	10	16	11	F05	20	23
40	1½"	50	2"	38.1	305	180	371	215	420	104.5	147.5	27	14.5	20	14	F07	28	37



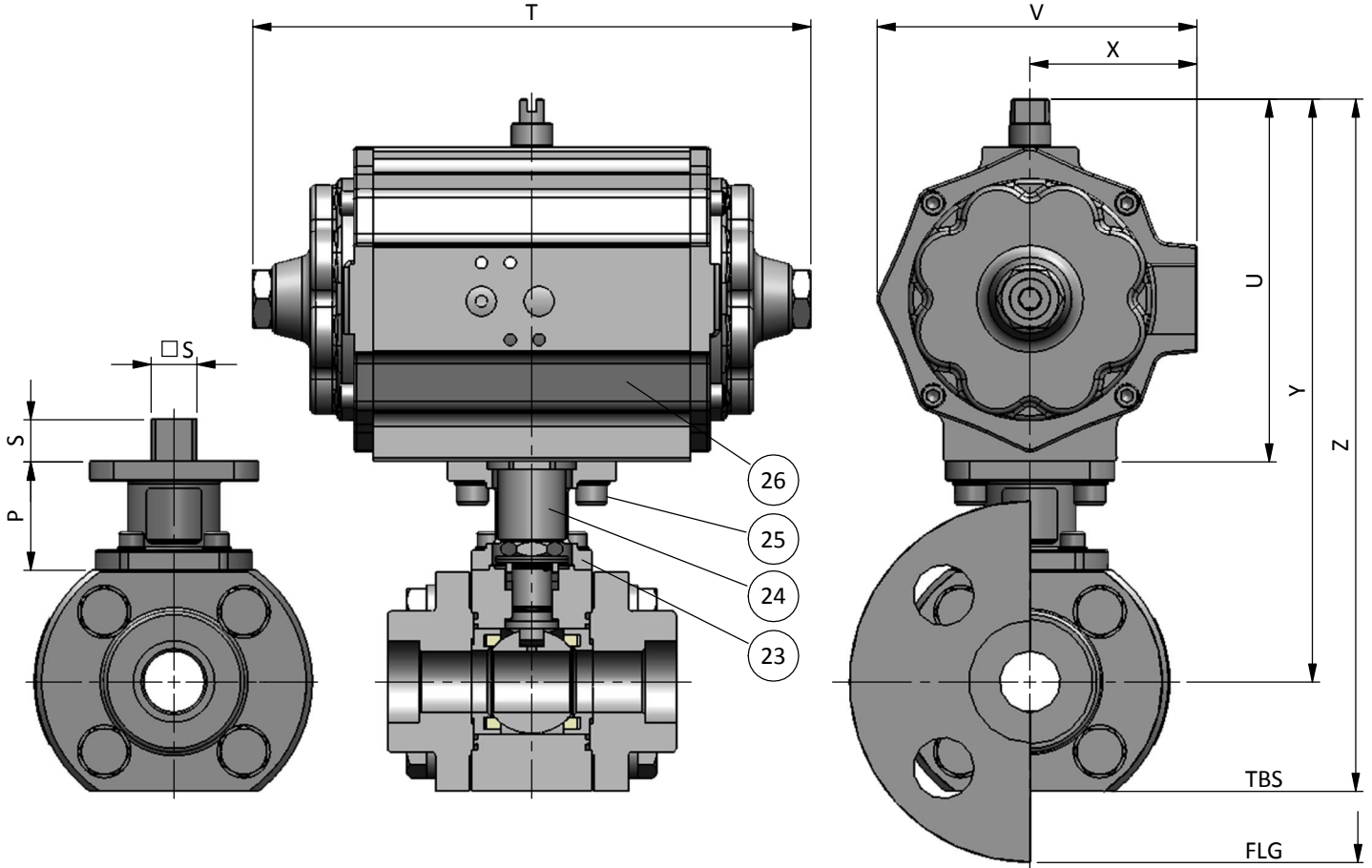
**BILL OF MATERIALS**

Part	Qt.	Description	Material		
			CARBON STEEL VERSION	STAINLESS STEEL VERSION	DUPLEX VERSION
21	1	Locking Plate	CARBON ST. ZINC.		STAINLESS ST. 316
22	3	Bolt	STAINLESS ST. 304		STAINLESS ST. 316

DN / Size				Dimensions	
FULL BORE		REDUCED BORE		D	E
mm	inch	mm	inch		
15	½"	20	¾"	58.5	97.5
20	¾"	25	1"	62.5	101.5
25	1"	32	1¼"	78.5	123.5
32	1¼"	40	1½"	83.5	128.5
40	1½"	50	2"	104.5	147.5

**HF SERIES**

CL1500 (3600 psi)  
FULL BORE - DN 15 (½") ÷ 40 (1½")  
REDUCED BORE - DN 20 (¾") ÷ 50 (2")  
BRACKET FOR AUTOMATION VERSION



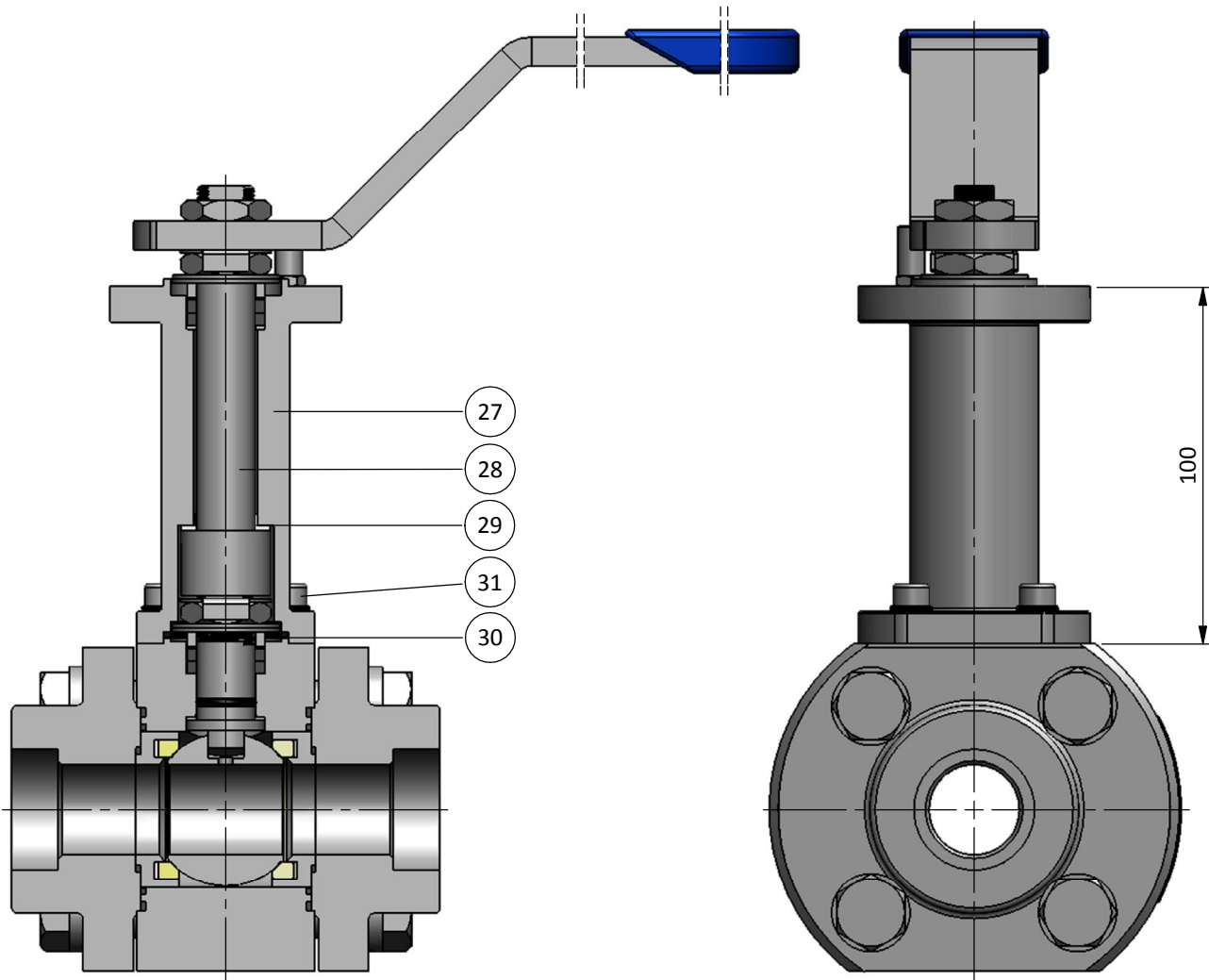
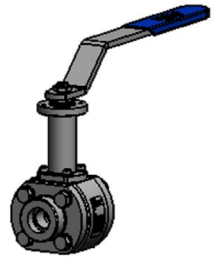
**BILL OF MATERIALS**

Part	Qt.	Description	Material		
			CARBON STEEL VERSION	STAINLESS STEEL VERSION	DUPLEX VERSION
23	1	Bracket	A351 CF8M / CARBON ST. ZINC.		A351 CF8M / STAINLESS ST. 316
24	1	Stem Extension	A564 S17400		
25	8	Bolt	STAINLESS ST. 304		STAINLESS ST. 316
26	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									TBS	FLG
15	½"	20	¾"	35	11/14	008-10	233	131	112	57	205	235	265
20	¾"	25	1"	35	11/14	012-08	280	131	112	57	205	245	270
25	1"	32	1¼"	45	14/17	020-14	294	151	133	70	245	290	320
32	1¼"	40	1½"	45	14/17	030-18	286	189	169	85	295	350	375
40	1½"	50	2"	60	17/22	040-18	344	199	169	85	330	395	420

\*Pneumatic Actuators selected for DEVLON seats considering input air pressure of 5.5bar and minimum 25% safety margin

**HF SERIES**  
CL1500 (3600 psi)  
FULL BORE - DN 15 (½") ÷ 40 (1½")  
REDUCED BORE - DN 20 (¾") ÷ 50 (2")  
EXTENDED STEM VERSION

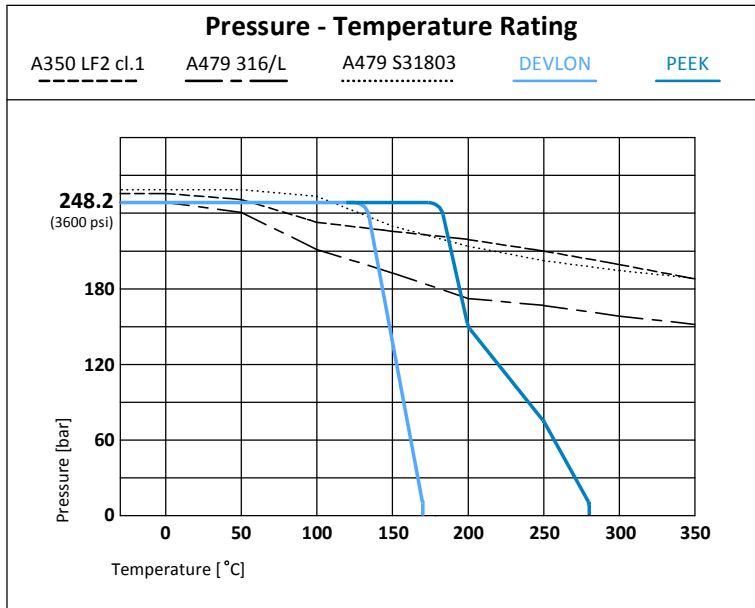


**BILL OF MATERIALS**

Part	Qt.	Description	CARBON STEEL VERSION	STAINLESS STEEL VERSION	DUPLEX VERSION
27	1	Extension	A350 LF2 cl.1	A479 316/L	
28	1	Stem Extension	A564 S17400		
29	1	Bearing	↘	PEEK	
30	1	Extension Seal	↘	GRAPHITE	
31	4	Bolt	STAINLESS ST. 304		STAINLESS ST. 316

## HF SERIES

CL1500 (3600 psi)  
 FULL BORE - DN 15 (½") ÷ 40 (1½")  
 REDUCED BORE - DN 20 (¾") ÷ 50 (2")  
 TECHNICAL SPECIFICATIONS



Seat Options		
Material	mOT* [ °C]	MOT* [ °C]
DEVLON	-50	170
PEEK	-40	280

\*mOT - minimum Operating Temperature.

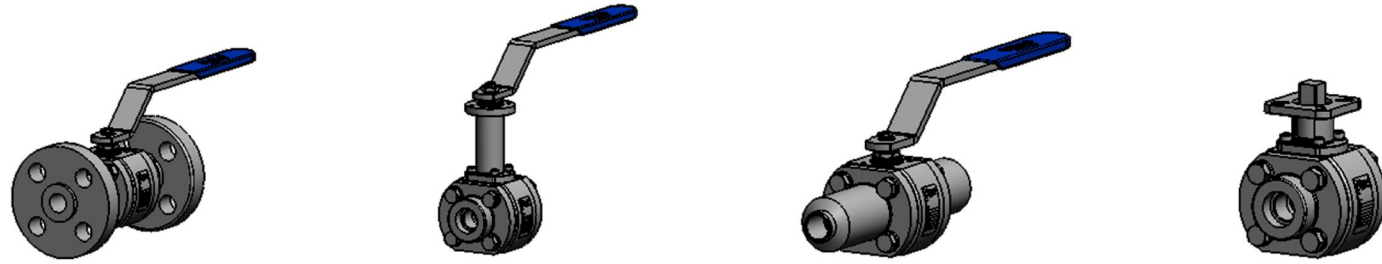
\*MOT - Maximum Operating Temperature at 10 bar

DN	Rating
FB 15 (½") to 40 (1½") RB 20 (¾") to 50 (2")	248.2 bar / 3600 psi

DN / Size				Torque Valve Figure [Nm]						Maximum Allowable Stem Torque [Nm]				Flow Coefficient Cv
FULL BORE		REDUCED BORE		DEVLON						S31803	S32760	S17400	718	
mm	inch	mm	inch	BTO	RTO	ETO	BTC	RTC	ETC	MAST				
15	½"	20	¾"	14	8	11	11	8	12	45	55	71.5	98.5	20
20	¾"	25	1"	28	16	21	21	16	23	45	55	71.5	98.5	45
25	1"	32	1¼"	35	20	27	27	20	28	125	150	200	275	75
32	1¼"	40	1½"	70	39	53	53	39	56	125	150	200	275	105
40	1½"	50	2"	95	53	72	72	53	76	240	290	385	535	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 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 ASME B16.5   ASME B16.10 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   1 <sup>st</sup> SEAL	PACKING   2 <sup>nd</sup> SEAL O'RING	OPTIONS
HF	5	- CL1500	4	F - FB 015	<b>BUTTWELD</b>	<b>B - A350 LF2 cl.1</b>	C - A479 316/L   A564 S17400	A - B7 / 7	4 - PEEK NATURE   C-RPTFE	<b>1 - Grafite   Grafite   FKM</b>	D - Simple Extension 60 mm
			R - RB 020	B3 - BW SCH 80	<b>F - A479 316/L</b>	<b>E - A351 CF8M   A564 S17400</b>	C - B7M / 7M	6 - DEVLON   C-RPTFE			E - Extension 100 mm
				025 B4 - BW SCH 160	T - A479 S31803	Z - Others	<b>D - L7M/7ML</b>				F - Bracket Automation
				032 B5 - BW SCH XXS	Z - Others		<b>F - B8M cl.2 / 8M</b>				G - Gear Box
				040 B9 - OTHERS			G - B8 cl.2 / 8				H - Actuators
					<b>SOCKETWELD</b>						I - Switch Box / Limit Swiches
				C1 - SW ASME B16.11							L - Locking Lever/Handle
				C9 - OTHERS							O - Oval Lever/Handle
					<b>THREADED</b>						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
					<b>INTEGRAL NIPPLE</b>						Z - Others
				N3 - BW SCH 80							
				N4 - BW SCH 160							
				N5 - BW SCH XXS							
				N9 - OTHERS							
					<b>FLANGED RF</b>						
				F1 - ASME RF							
					<b>FLANGED RTJ</b>						
				J1 - ASME RTJ							

**Example:**

**HF51F015B4D3BFD61E**

**HF51R050N4N4FEF41**

**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 4" (100)



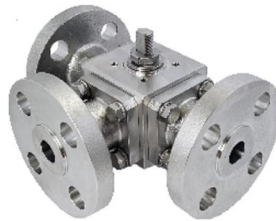
**SF Series**  
3 pieces bolted - Floating  
CI 300 to 800  
DN ½" (15) to 4" (100)



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



**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 / CXF / CBF / CSF / CVTR



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



