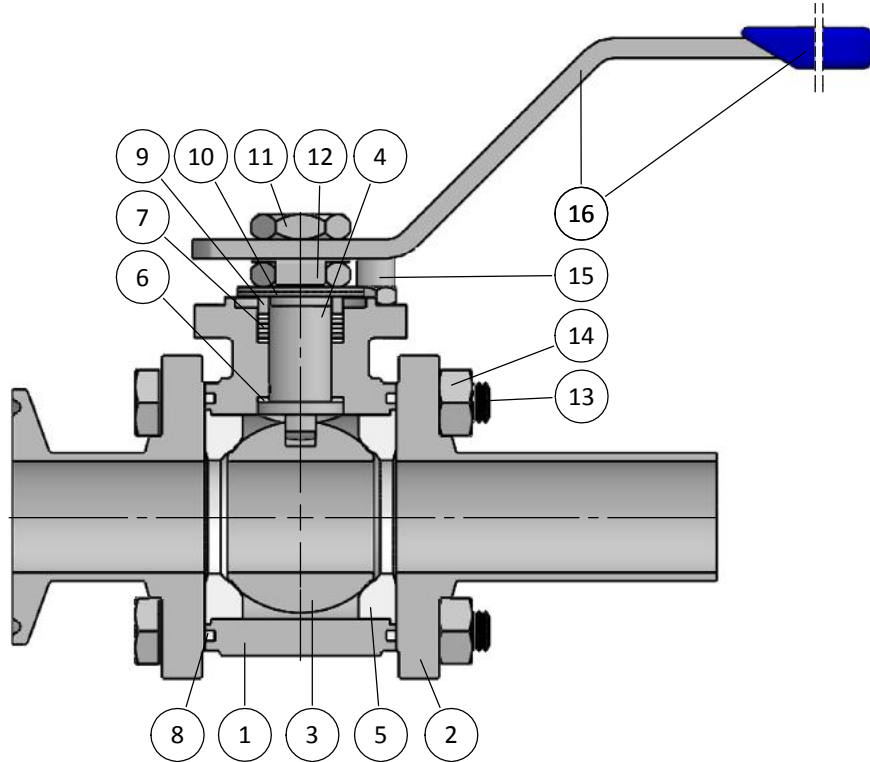
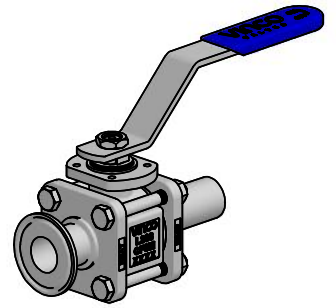




LP SERIES
ASME BPE TUBE
TUBE BORE - DN ½" ÷ 2"
TRI CLAMP & ORBITAL BUTTWELDED ENDS
STANDARD
BILL OF MATERIALS

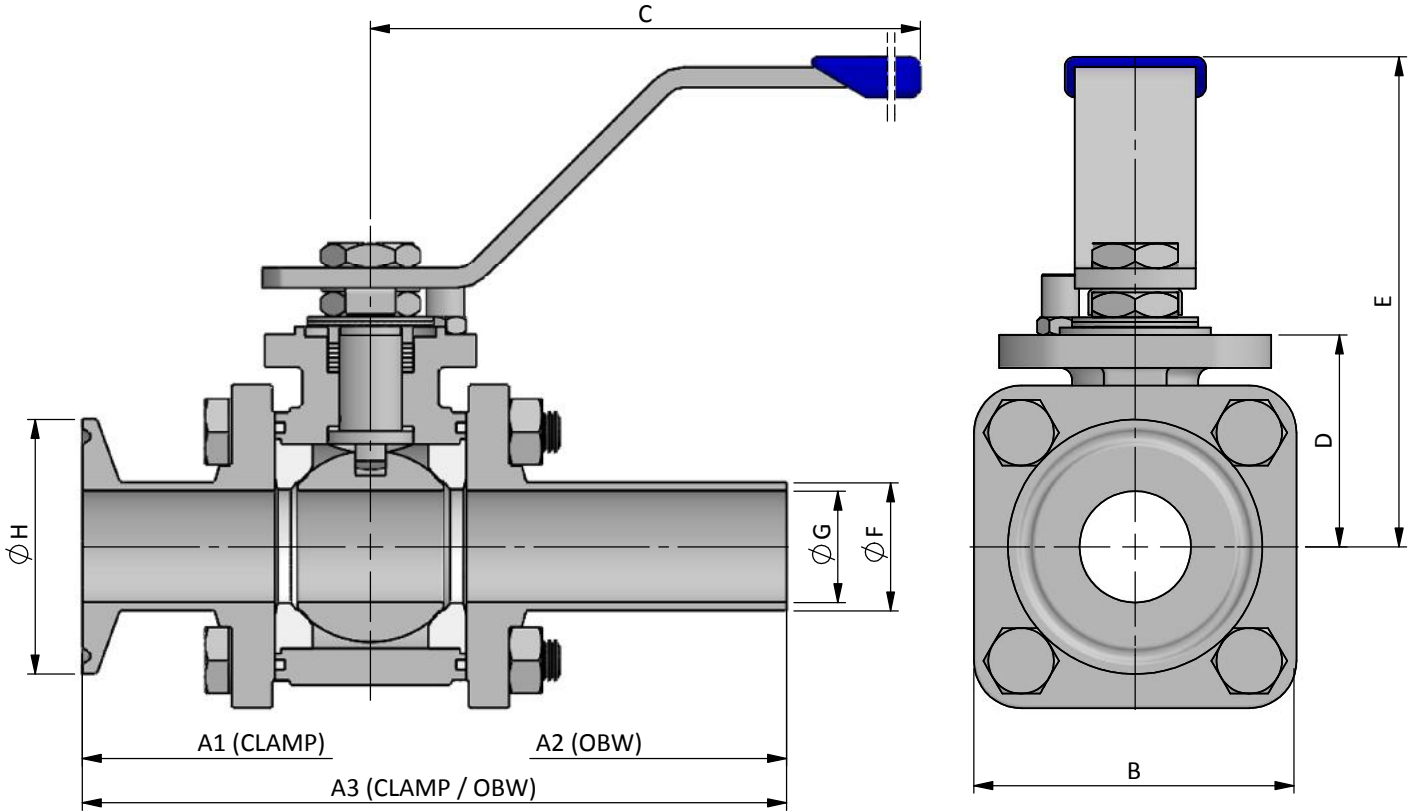
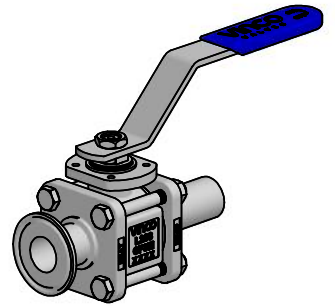


BILL OF MATERIALS

Part	Qt.	Description	STAINLESS STEEL VERSION
1	1	Body	A351 CF3M
2	2	End	A351 CF3M ↗
3	1	Ball	A351 CF3M
4	1	Stem	A479 316/L
5	2	Seat	PTFE ↘
6	1	Stem Thrust Seal	TFM 1600 ↘
7	1	Stem Packing Set	TFM 1600 ↘
8	2	Body Seal	PTFE ↘
9	1	Gland Packing	STAINLESS ST. 316
10	2	Disc Spring	STAINLESS ST. 316
11	2	Stem Nut	STAINLESS ST. 316
12	1	Locking Clip	STAINLESS ST. 316
13	4	Bolt	A2 CL.70
14	4	Nut	A2 CL.70
15	1	Stop Pin	STAINLESS ST. 316
16	1	Handle	STAINLESS ST. 304 / VINYL

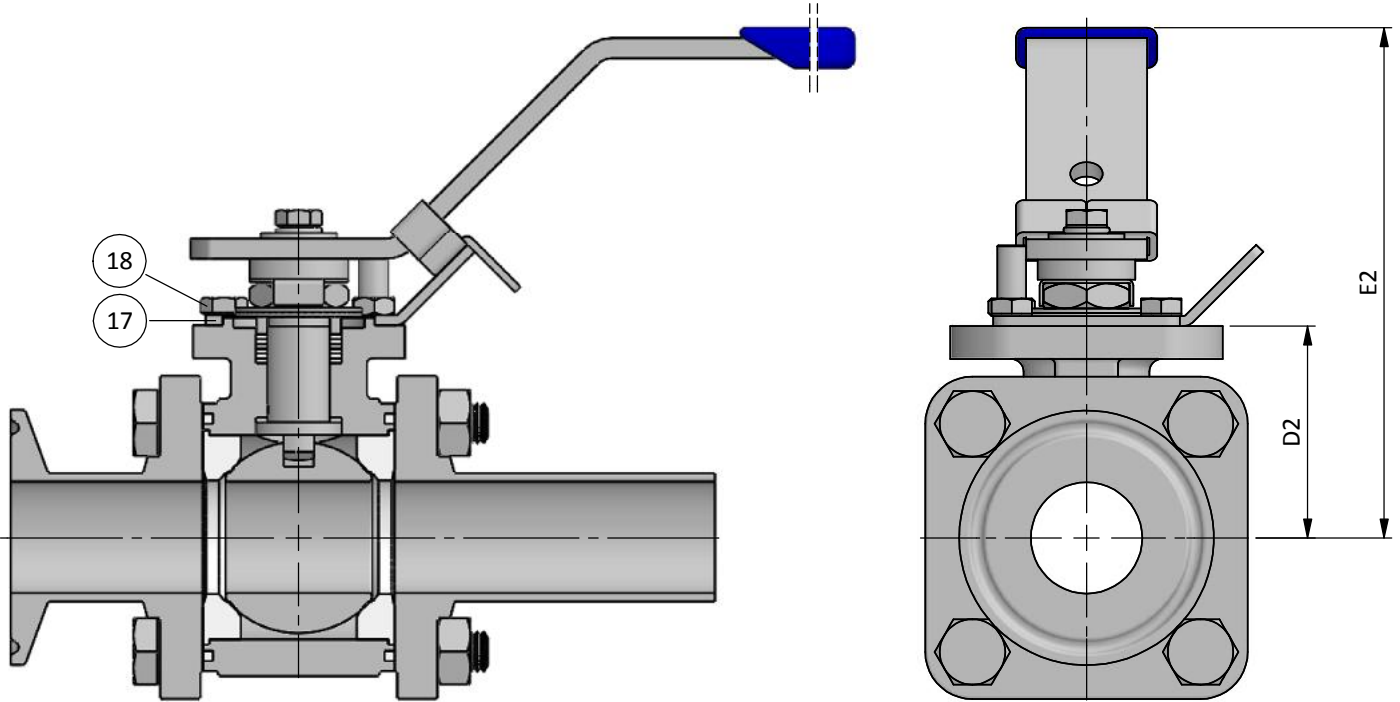
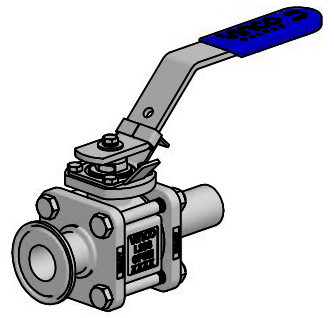
↗ Buttweld End Material controlled with sulfur content (0.005-0.017%) and ferrite content below 3%
 ↘ TYPICAL SPARE PARTS

SURFACE FINISH	STANDARD	OPTIONAL
Internal	0.76 µm / 30 µin (SF3)	0.51 µm / 20 µin (SF5)
External	Mill Finish (SF0)	



DN / Size	Dimensions											Automation						Weight Approx. [kg]
TUBE BORE inch	Ball Port	A1	A2	A3	B	C	D	E	F	G	H	I	J	K	L	M	ISO 5211	
½"	9.4	88.9	114.3	101.6	42.5	140	27.5	65	12.7	9.4	25	10.5	6.5	M10	6	M5	F03	0.6
¾"	15.8	101.6	127	114.3	50	140	31.5	68.5	19.1	15.8	25	10.5	6.5	M10	6	M5	F03	0.8
1"	22.1	114.3	139.7	127	62	170	39.5	87.5	25.4	22.1	50.4	18	12.5	M12	7.5	M5	F04	1.5
1½"	34.8	139.7	165.1	152.4	84	200	49.5	112.5	38.1	34.8	50.4	21.5	14	M16	11	M6	F05	3.5
2"	47.5	165.1	190.5	177.8	106	230	62	122.5	50.8	47.5	64	21.5	14	M16	11	M8	F05	6.5

LP SERIES
ASME BPE TUBE
TUBE BORE - DN ½" ÷ 2"
TRI CLAMP & ORBITAL BUTTWELDED ENDS
LOCKING DEVICE

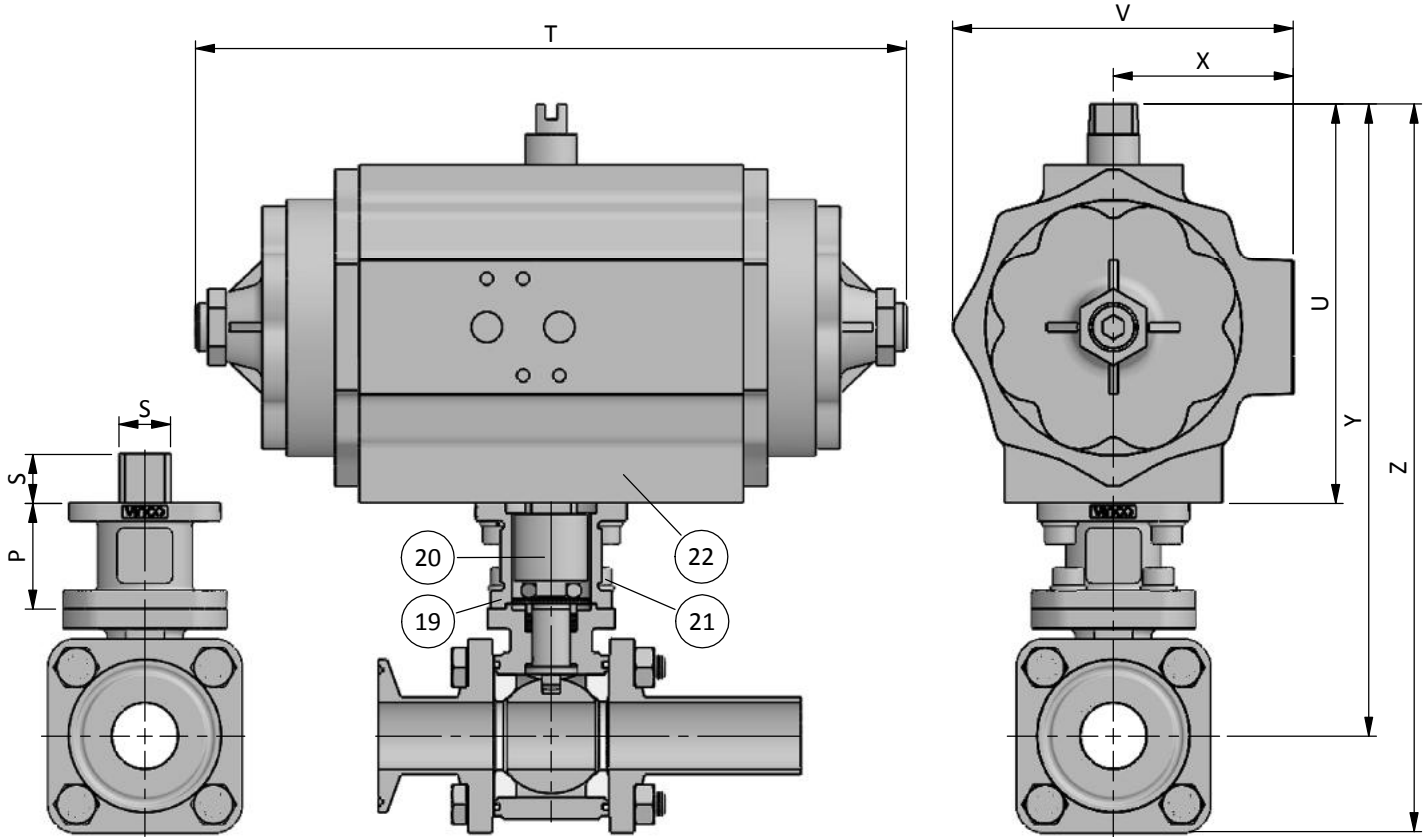
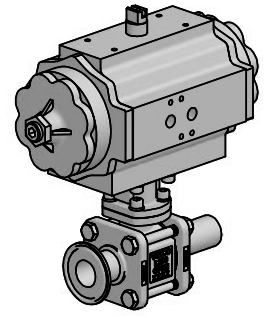


BILL OF MATERIALS

Part	Qt.	Description	Material
17	1	Locking Plate	STAINLESS ST. 304
18	3	Bolt	STAINLESS ST. 316

DN / Size	Dimensions	
TUBE BORE	D2	E2
inch		
½"	27.5	70
¾"	31.5	75
1"	39.5	95
1½"	49.5	112.5
2"	62	122.5

LP SERIES
ASME BPE TUBE
TUBE BORE - DN ½" ÷ 2"
TRI CLAMP & ORBITAL BUTTWELDED ENDS
BRACKET FOR AUTOMATION

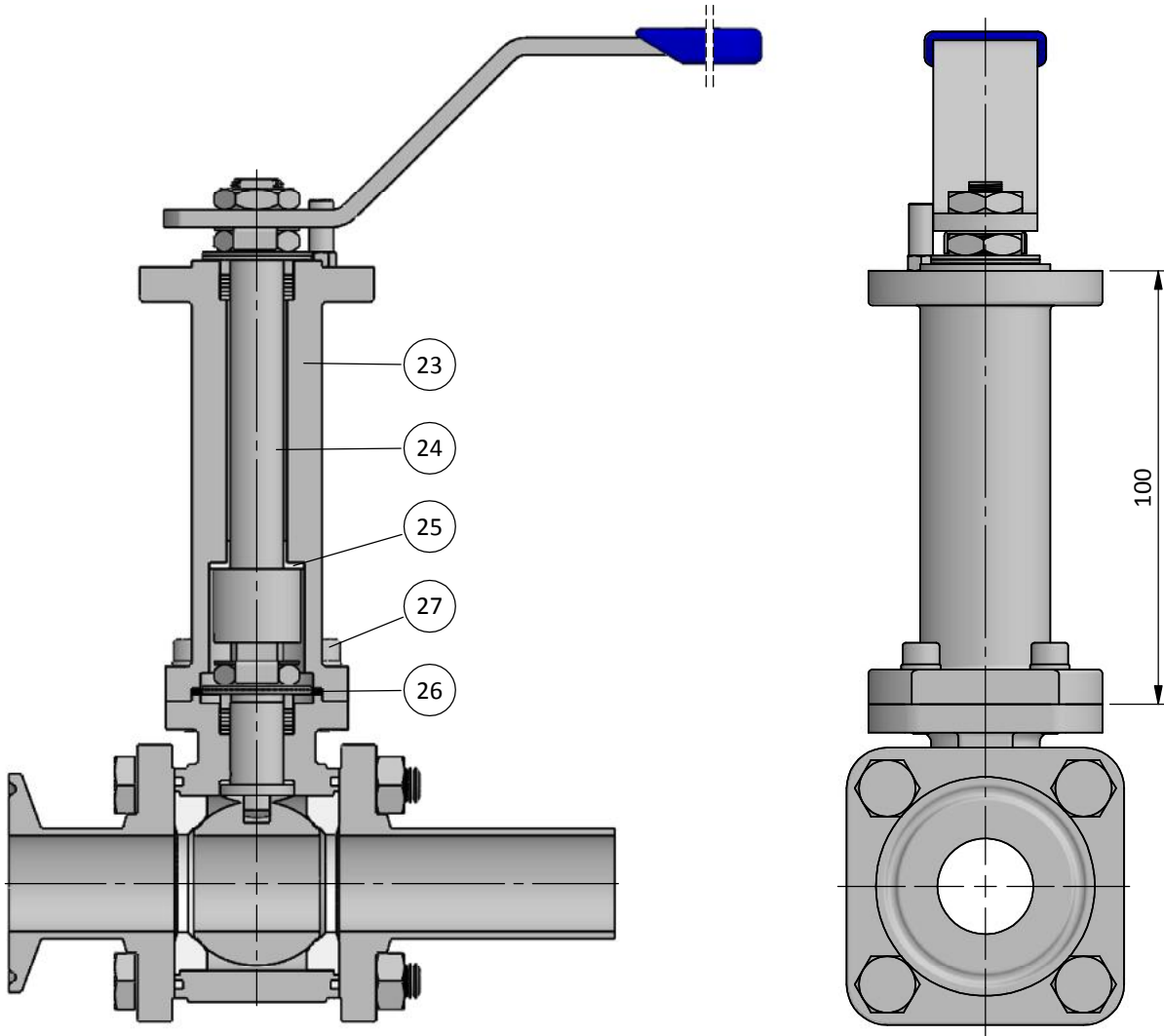
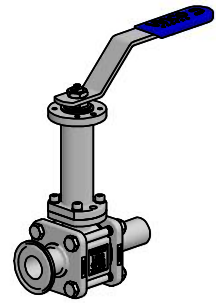


BILL OF MATERIALS

Part	Qt.	Description	Material
19	1	Bracket	A351 CF8M
20	1	Coupling	A479 316/L
21	8	Bolt	STAINLESS ST. 316
22	1	Pneumatic Actuator	ALUMINIUM

DN / Size	Dimensions									
TUBE BORE	Automation				Actuator					
inch	P	S	ISO 5211	REF.	T	U	V	X	Y	Z
½"	30	11	F03-F04	003-05	124	111	89	49	170	190
¾"	30	11	F03-F04	005-10	180	111	89	49	175	200
1"	35	17	F04-F05	008-10	233	131	112	57	205	235
1½"	45	19	F05-F07	012-08	280	131	112	57	225	265
2"	45	19	F05-F07	012-08	280	131	112	57	240	290

*Spring Return Pneumatic Actuators selected for TFM 1600 seats considering input air pressure of 5.5bar and minimum 25% safety margin

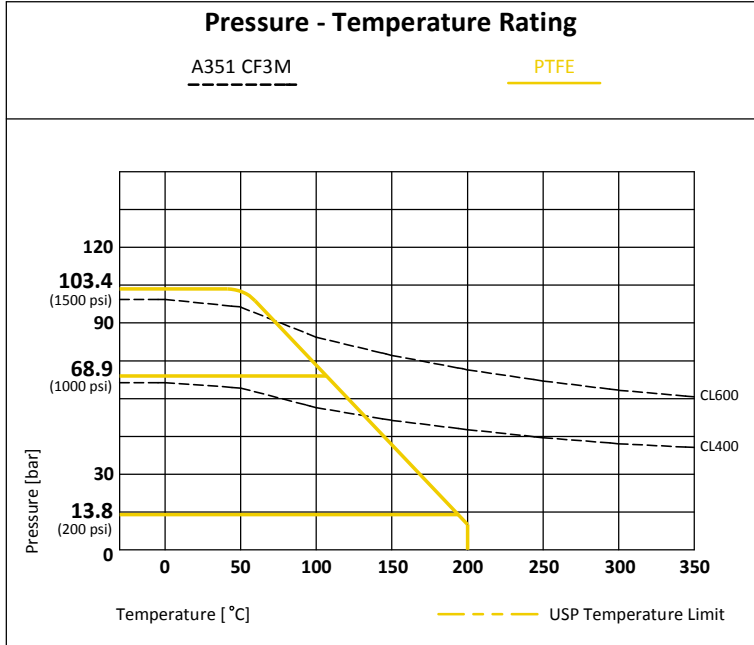


BILL OF MATERIALS

Part	Qt.	Description	Material
23	1	Extension	A351 CF8M
24	1	Stem Extension	A479 316/L
25	1	Bearing	TFM 1600
26	1	Extension Seal	TFM 1600
27	4	Bolt	STAINLESS ST. 316



LP SERIES
 ASME BPE TUBE
 TUBE BORE - DN ½" ÷ 2"
 TRI CLAMP & ORBITAL BUTTWELDED ENDS
TECHNICAL SPECIFICATIONS



Working Conditions				
Material		mOT* [°C]		MOT* [°C]
A351 CF3M	PTFE	-50	-100*	200

*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
TB ½" (15) to 1" (25)	103.4 bar / 1500 psi
TB 1½" (40) to 2" (50)	68.9 bar / 1000 psi

Clamp Ends are Limited up to 13.8 / 200 psi

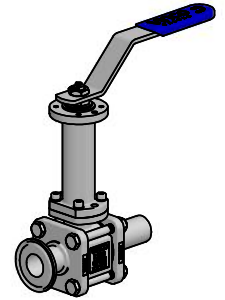
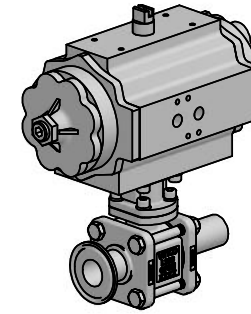
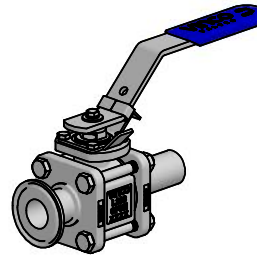
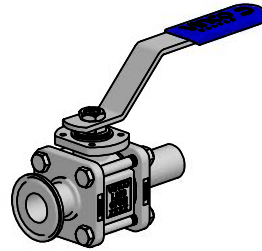
DN / Size	Torque Valve Figure [Nm] *						Maximum Allowable Stem Torque [Nm]	Flow Coefficient Cv
	TUBE BORE	BTO	RTO	ETO	BTC	RTC		
inch	PTFE						A479 316/L	
½"	3.5	2	3	3	2	3	16	20
¾"	6	4	5	5	4	5	16	45
1"	11	7	9	9	7	9	29.5	75
1½"	23	13	18	18	13	19	82.5	175
2"	32	18	24	24	18	26	82.5	300

*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 CE Certification acc. to ATEX II 2GD 2014/34/EU FDA & USP Class VI Certificate of compliance for nonmetallic parts under request ADIF Declaration of compliance under request (Free from animal derived ingredients) ROHS Declaration of compliance under request Quality System Certified acc. to ISO 9001	ASME BPE 2016 MSS-SP-25 ISO 5211	EN 10204 type 3.1 Certificate PACKAGING: All valves are degreased, pickled, passivated and cleaned to achieve high levels of cleanliness. Afterwards, the valves are packed and sealed in individual protective plastic bags with silica to prevent contamination and humidity problems. Optional degreased for applications as oxygen service available upon request.

Standards acc. to the latest available revision



SERIE	CLASS	VERSION	PORT	DN	ENDS	ENCLOSURE	BALL STEM	BOLTING	SEATS	PACKING SEAL	OPTIONS
LP		2	T - TB	015	ORBITAL BUTTWELDED	C - A351 CF3M	F - A351 CF3M A479 316/L	G - A2 cl.70	1 - PTFE	4 - TFM 1600 PTFE	C - Spring Return D - Simple Extension 60 mm E - Extension 100 mm F - Bracket Automation G - Gear Box H - Actuators I - Switch Box / Limit Switches L - Locking Lever/Handle N - Electropolishing O - Oval Lever/Handle R - Bare Shaft / Bare Stem S - Solenoid Valve W - "V" Ball Port X - Oxygen Service Z - Others
	3 - CL600			020	O1 - BPE (O.D)	Z - Others	Z - Others				
				025	O9 - OTHERS						
				040	TRI CLAMP						
	3 - CL400			050	C1 - BPE (O.D)						
					C9 - OTHERS						

Example:

LP32T015O1O1CFG14

LP32T050C1O1CFG14H

SANITARY RANGE

RP Series
3 split body - Floating
CL150 to 600
DN ½" to 6"



XP Series
3 split body - Floating
CL150 to 600
DN ½" to 6"



MP Series
Multi-ways - Floating
CL400 to 600
DN ½" to 2"



QP Series
Multi-ways - Floating
CL400 to 600
DN ½" to 2"



OTHER RANGE

INDUSTRIAL RANGE
XF / CF / BF / QF / SF / HF / VTR



CRYOGENIC RANGE
CCF / CBF / CQF / CXF / CSF / CVT



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



