M.C.A. S.A.S. di Arrigoni Battaia Augusto e C.
STRUMENTAZIONE INDUSTRIALE

VALVOLE A SFERA SANITARIE

Valvole a sfera per uso alimentare e farmaceutico

CATALOGO SERIE XP (2 MODELLI) E SERIE RP (4 MODELLI) (DA PAGINA 2 A PAGINA 13)

Le nostre valvole a sfera sanitarie hanno attacco Clamp o a saldare.

Vari materiali e dimensioni disponibili.

Valvola a sfera sanitaria XP

Valvola a sfera sanitaria XP

Valvola a sfera sanitaria RP

Valvola a sfera sanitaria RP

M.C.A. sas Via Madonna 57 Bollate (MI) Tel: 02-3512774 Mail: mca@mcastrumenti.it

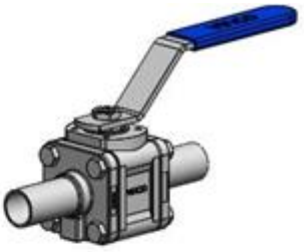
M.C.A. S.A.S. di Arrigoni Battaia Augusto e C.
STRUMENTAZIONE INDUSTRIALE

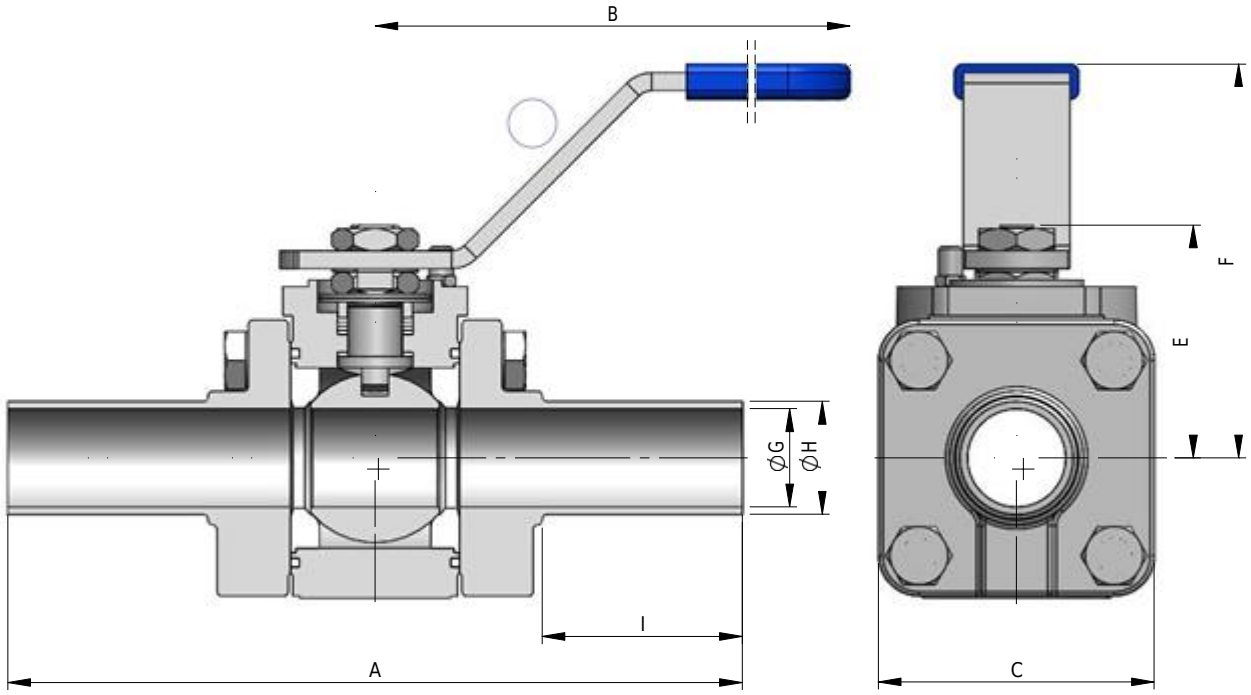
XP SERIES

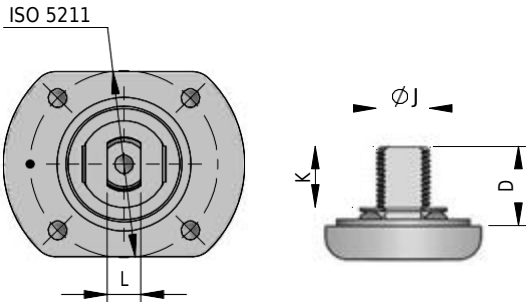
ASME BPE TUBE
TRUE BORE - DN ½" (15) ÷ 2" (50)
EXTENDED BUTTWELD ENDS

DS: XP-B1EC2

STAINLESS STEEL 316L VERSION





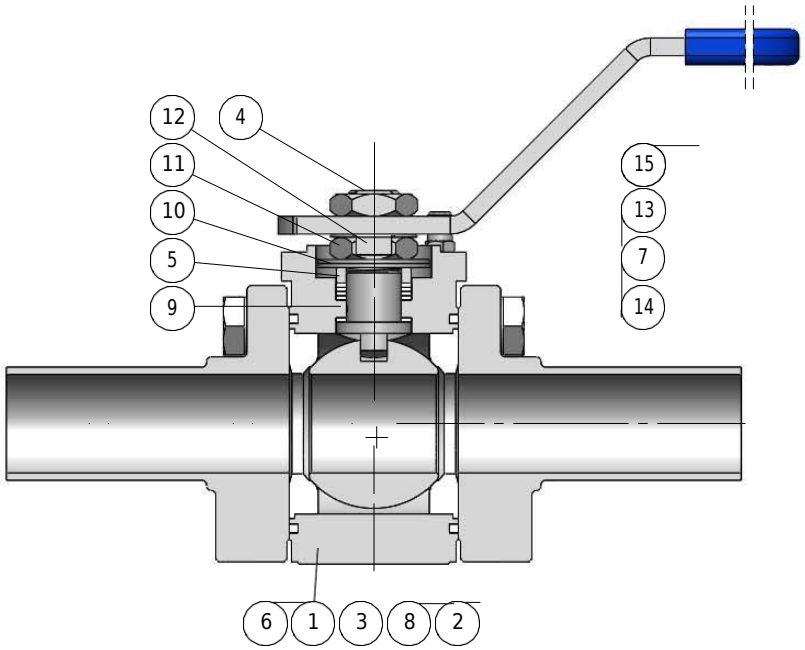


Extended Buttweld Ends
EBW according to ASME BPE

DN / Size		Dimensions										Automation						Cv	Weight Approx. [Kg]
TRUE BORE		Ball Port	A	B	C	D	E	F	G	H	I	J	K	L	ISO 5211	BTO* [Nm]	MAST [Nm]		
inch	mm																		
½"	15	9.4	139.7	140	42.5	11.0	38.0	64	9.4	12.7	44	10	7.0	6.0	F03	3.5	16	5	0.7
¾"	20	15.8	152.4	140	50.0	11.0	42.0	68	15.75	19.05	45	10	7.0	6.0	F03	6.0	16	16	1.0
1"	25	22.1	165.1	170	62.0	18.0	56.0	87	22.1	25.4	45	12	13.5	7.5	F04	10.5	29	30	2.0
1½"	40	34.8	190.5	200	84.0	26.0	71.0	112	34.8	38.1	45	16	14.5	11.0	F05	23.0	84	65	4.0
2"	50	47.5	215.9	230	106.0	26.0	81.5	122	47.5	50.8	48	16	14.5	11.0	F05	32.0	84	180	7.5

*BTO - Break to Open Torque at full differential pressure

Revision 0

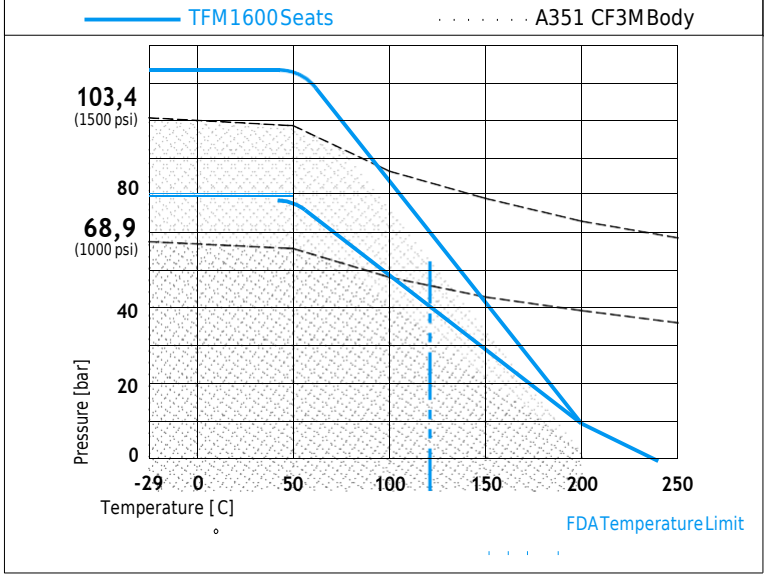


STAINLESS STEEL 316L VERSION

Part	Qt.	Description	Materials	
1	1	Body	A351 CF3M (316L)	
2	2	End	A351 CF3M (316L)	
3	1	Ball	A351 CF3M	
4	1	Stem	A182 F316-316L	
5	1	Gland Packing	A182 F316-316L	
6	2	Seat	TFM 1600	↘
7	1	Stem Thrust Seals	TFM 1600	↘
8	2	Body Seal	PTFE	↘
9	1	Stem Packing Set	TFM 1600	↘
10	2	Disc Spring	STAINLESS ST. 316	
11	2	Stem Nut	STAINLESS ST. 316	
12	1	Locking Clip	STAINLESS ST. 316	
13	1	Stop Pin	STAINLESS ST. 304	
14	8	Bolt	STAINLESS ST. 304	
15	1	Handle	STAINLESS ST. 304/VINYL	

↘ TYPICAL SPARE PARTS

Pressure - Temperature Rating



BODY / END MATERIAL

A cast stainless steel A351 CF3M with a controlled Sulfur content of 0.005 - 0.017% assures the integrity of the orbital welding and a Ferrite level of less than 3% prevents rougings as standards.
A Ferrite level as low as 1% material is available on request.

Seat Options

Material	mOT* [℃]	MOT* [℃]
PTFE	-29	200
TFM 1600	-29	200
PEEK	-29	280

*mOT - minimum Operating Temperature
*MOT - Maximum Operating Temperature at 10 bar

	DN	Rating
1	DN 15 to 25 TB	103,4 bar / 1500 psi
2	DN 40 to 50 TB	68,9 bar / 1000 psi

METALLIC PROCESS CONTACT SURFACES

Mechanically Pol. Ra max.		Surf. Des.	Mechanically Pol. and Electropol. Ra max.		Surf. Des.
µm	µ⊐		µm	µ⊐	
0,51	20	SF1	0,38	15	SF4
			Others available on request		

CERTIFICATION	CONSTRUCTION STANDARDS	TEST STANDARDS
CE Certification acc. to **PED 2014/68/EU** **ATEX II 2GD Certification** acc. to **2014/34/EU** **FDA & USP Class VI Certificate** of compliance for nonmetalic parts under request **ADIF Declaration** of compliance under request (Free from animal derived ingredients) **ROHS Declaration** of compliance under request **Company Quality System Certified** acc. to **ISO 9001**	ASME BPE 2016 MSS-SP-25 ISO 5211	EN 10204 type 3.1 Certificate available for every valve PACKAGING: All end connections are protected with PVC end caps. Additionally, the valves are sealed in double layer transparent bags with silica gel to prevent condensation, humidification and corrosion.

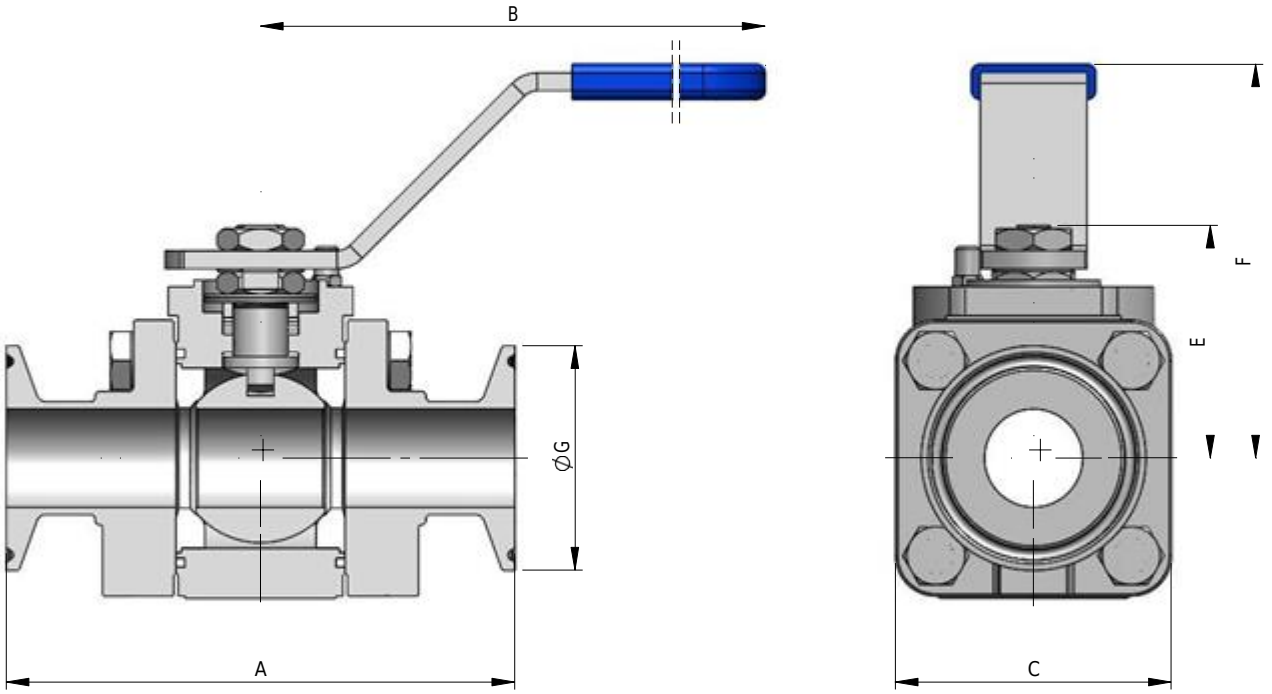
M.C.A. S.A.S. di Arrigoni Battaia Augusto e C.
STRUMENTAZIONE INDUSTRIALE

XP SERIES

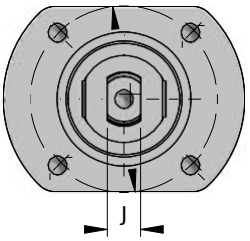
ASME BPE TUBE
TRUE BORE - DN ½" (15) ÷ 2" (50)
HYGIENIC CLAMP ENDS

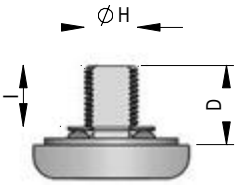
DS: XP-B1CC2

STAINLESS STEEL 316L VERSION



ISO 5211



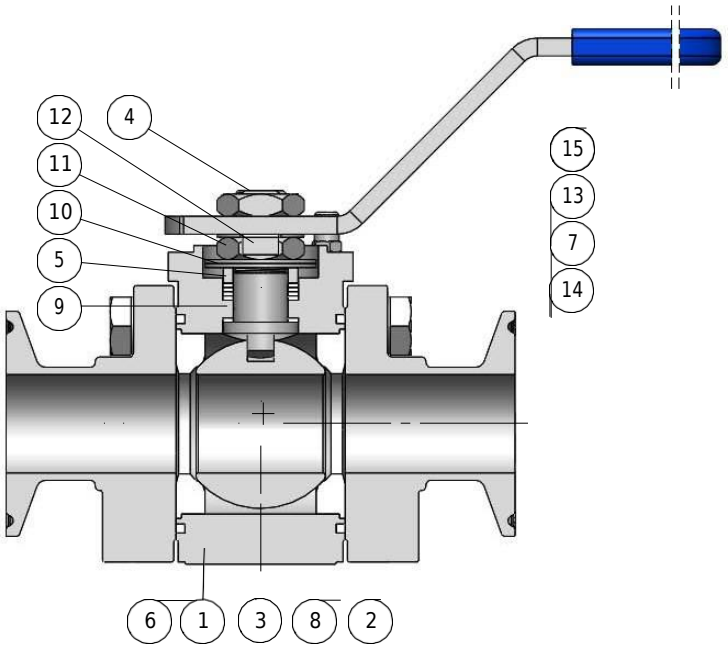


Hygienic Clamp Ends
CLAMP according to ASME BPE

DN / Size		Dimensions								Automation						Cv	Weight Approx. [Kg]
TRUE BORE		Ball Port	A	B	C	D	E	F	G	H	I	J	ISO 5211	BTO* [Nm]	MAST [Nm]		
inch	mm																
½''	15	9.4	88.9	140	42.5	11.0	38.0	64	25.0	10	7.0	6.0	F03	3.5	16	5	0.7
¾''	20	15.8	101.6	140	50.0	11.0	42.0	68	25.0	10	7.0	6.0	F03	6.0	16	16	1.0
1''	25	22.1	114.3	170	62.0	18.0	56.0	87	50.4	12	13.5	7.5	F04	10.5	29	30	2.0
1½''	40	34.8	139.7	200	84.0	26.0	71.0	112	50.4	16	14.5	11.0	F05	23.0	84	65	4.0
2''	50	47.5	165.1	230	106.0	26.0	81.5	122	63.9	16	14.5	11.0	F05	32.0	84	180	7.5

*BTO - Break to Open Torque at full differential pressure

Revision 0



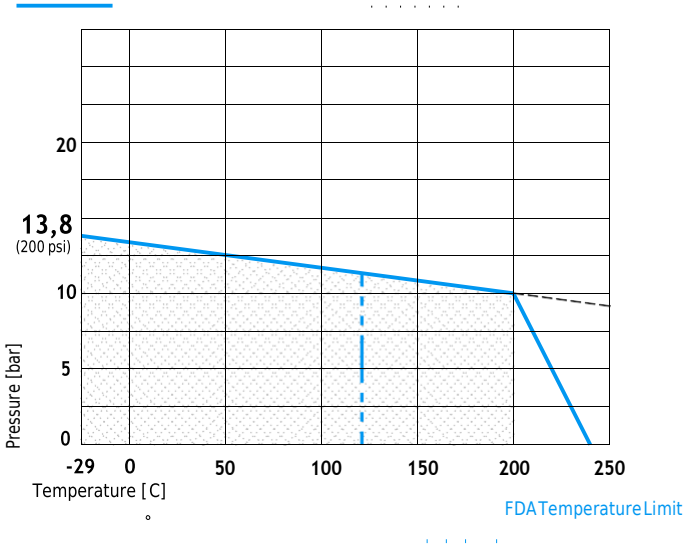
STAINLESS STEEL 316L VERSION

Part	Qt.	Description	Materials	
1	1	Body	A351 CF3M (316L)	
2	2	End	A351 CF3M (316L)	
3	1	Ball	A351 CF3M	
4	1	Stem	A182 F316-316L	
5	1	Gland Packing	A182 F316-316L	
6	2	Seat	TFM 1600	↘
7	1	Stem Thrust Seals	TFM 1600	↘
8	2	Body Seal	PTFE	↘
9	1	Stem Packing Set	TFM 1600	↘
10	2	Disc Spring	STAINLESS ST. 316	
11	2	Stem Nut	STAINLESS ST. 316	
12	1	Locking Clip	STAINLESS ST. 316	
13	1	Stop Pin	STAINLESS ST. 304	
14	8	Bolt	STAINLESS ST. 304	
15	1	Handle	STAINLESS ST. 304/VINYL	

↘ TYPICAL SPARE PARTS

Pressure - Temperature Rating

TFM1600Seats A351 CF3MBody



Seat Options

Material	mOT* [℃]	MOT* [℃]
PTFE	-29	200
TFM 1600	-29	200
PEEK	-29	280

*mOT - minimum Operating Temperature
*MOT - Maximum Operating Temperature at 10 bar

	DN	Rating
1	DN 15 to 50 TB	13,8 bar / 200 psi

METALLIC PROCESS CONTACT SURFACES

Mechanically Pol. Ra max.		Surf. Des.	Mechanically Pol. and Electropol. Ra max.		Surf. Des.
µm	µ"		µm	µ"	
0,51	20	SF1	0,38	15	SF4
			Others available on request		

CERTIFICATION	CONSTRUCTION STANDARDS	TEST STANDARDS
CE Certification acc. to **PED 2014/68/EU** **ATEX II 2GD Certification** acc. to **2014/34/EU** **FDA & USP Class VI Certificate** of compliance for nonmetalic parts under request **ADIF Declaration** of compliance under request (Free from animal derived ingredients) **ROHS Declaration** of compliance under request **Company Quality System Certified** acc. to **ISO 9001**	ASME BPE 2016 MSS-SP-25 ISO 5211	EN 10204 type 3.1 Certificate available for every valve PACKAGING: All end connections are protected with PVC end caps. Additionally, the valves are sealed in double layer transparent bags with silica gel to prevent condensation, humidification and corrosion.

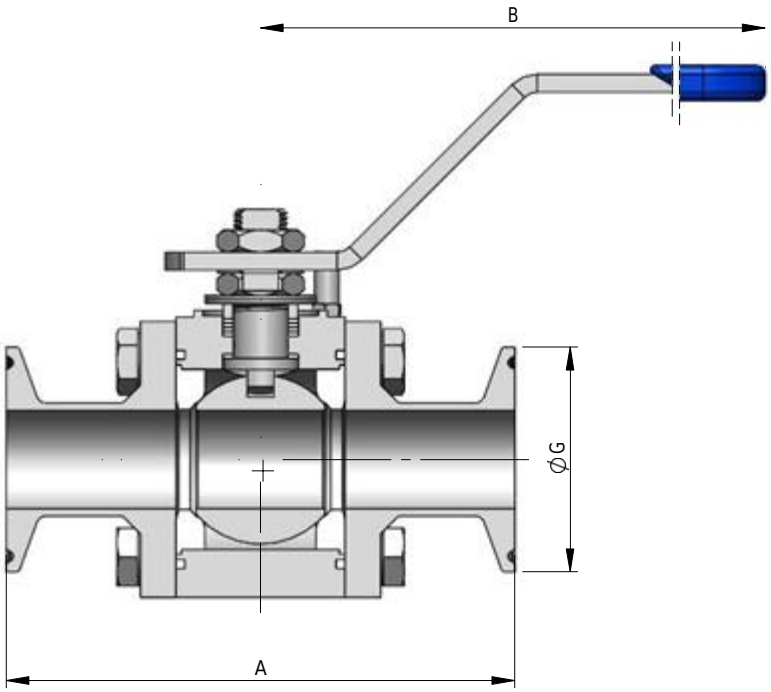
M.C.A. S.A.S. di Arrigoni Battaia Augusto e C.
STRUMENTAZIONE INDUSTRIALE

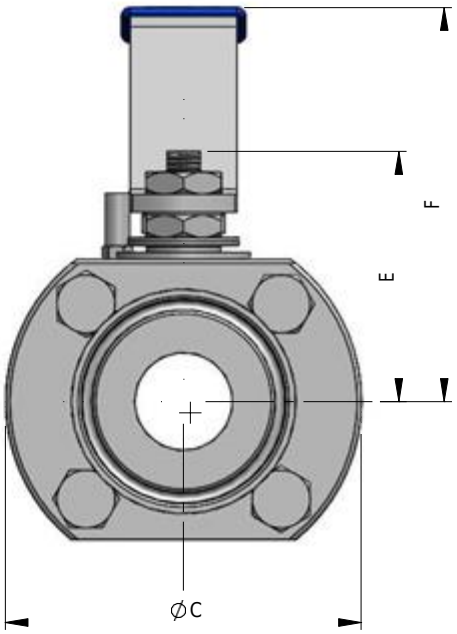
RP SERIES

ASME BPE TUBE
TRUE BORE - DN ½" (15) ÷ 2" (50)
HYGIENIC CLAMP ENDS

DS: RP-B1CF2

STAINLESS STEEL 316L VERSION

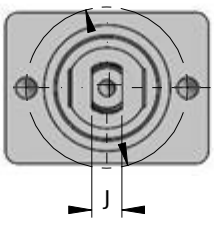




Hygienic Clamp Ends

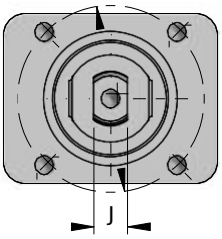
CLAMP according to ASME BPE

ISO 5211

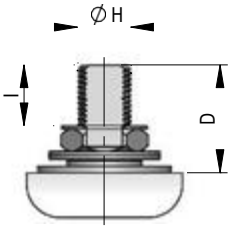


DN ½" (15) ÷ ¾" (20)

ISO 5211



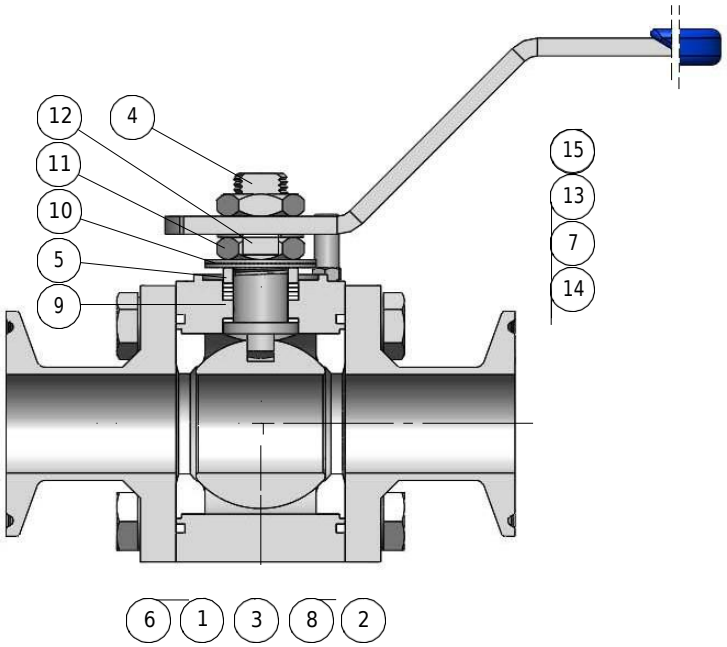
DN 1" (25) ÷ 2" (50)



DN / Size		Dimensions								Automation						Cv	Weight Approx. [Kg]
TRUE BORE		Ball Port	A	B	C	D	E	F	G	H	I	J	ISO 5211	BTO* [Nm]	MAST [Nm]		
inch	mm																
½''	15	9.4	88.9	140	60	15.5	38.0	64	25.0	10	7.0	6.0	F03	3.5	16	5	0.8
¾''	20	15.8	101.6	140	65	16.0	42.0	68	25.0	10	7.0	6.0	F03	6.0	16	16	1.0
1''	25	22.1	114.3	170	80	24.0	56.0	87	50.4	12	13.5	7.5	F04	10.5	29	30	2.0
1½''	40	34.8	139.7	200	110	25.5	71.0	112	50.4	16	14.5	11.0	F05	23.0	84	65	5.0
2''	50	47.5	165.1	230	135	28.0	81.5	122	63.9	16	14.5	11.0	F05	32.0	84	180	8.5

*BTO - Break to Open Torque at full differential pressure

Revision 0



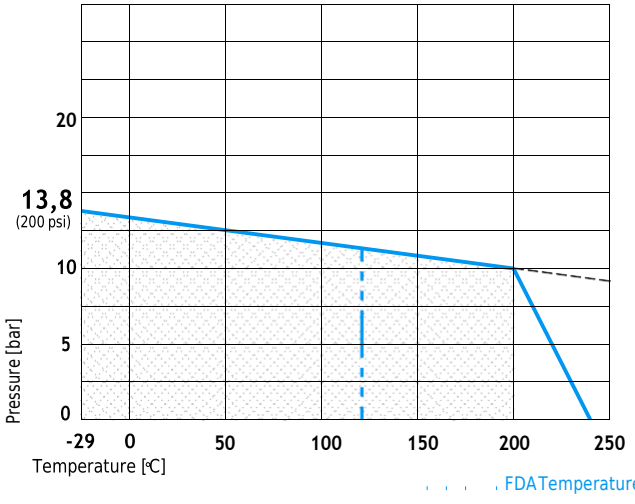
STAINLESS STEEL 316L VERSION

Part	Qt.	Description	Materials	
1	1	Body	A182 F316-316L	↔
2	2	End	A182 F316-316L	↔
3	1	Ball	A182 F316-316L	↔
4	1	Stem	A182 F316-316L	↔
5	1	Gland Packing	A182 F316-316L	↔
6	2	Seat	TFM 1600	↘
7	1	Stem Thrust Seals	TFM 1600	↘
8	2	Body Seal	PTFE	↘
9	1	Stem Packing Set	TFM 1600	↘
10	2	Disc Spring	STAINLESS ST. 316	
11	2	Stem Nut	STAINLESS ST. 316	
12	1	Locking Clip	STAINLESS ST. 316	
13	1	Stop Pin	STAINLESS ST. 304	↔
14	8	Bolt	STAINLESS ST. 304	↔
15	1	Handle	STAINLESS ST. 304/VINYL	↔

↘ TYPICAL SPARE PARTS
↔ OTHERS: (1-5) DUPLEX; TITANIUM; HASTELLOY; ETC
(13-15) STAINLESS ST. 316

Pressure - Temperature Rating

TFM1600Seats ····· A182 F316-316LBody



Seat Options

Material	mOT* [°C]	MOT* [°C]
PTFE	-29	200
TFM 1600	-29	200
PEEK	-29	280

*mOT - minimum Operating Temperature
*MOT - Maximum Operating Temperature at 10 bar

	DN	Rating
1	DN 15 to 50 TB	13,8 bar / 200 psi

METALLIC PROCESS CONTACT SURFACES

Mechanically Pol. Ra max.		Surf. Des.	Mechanically Pol. and Electropol. Ra max.		Surf. Des.
µm	µin		µm	µin	
0,51	20	SF1	0,38	15	SF4

Others available on request

CERTIFICATION	CONSTRUCTION STANDARDS	TEST STANDARDS
CE Certification acc. to **PED 2014/68/EU** **ATEX II 2GD Certification** acc. to **2014/34/EU** **FDA & USP Class VI Certificate** of compliance for nonmetalic parts under request **ADIF Declaration** of compliance under request (Free from animal derived ingredients) **ROHS Declaration** of compliance under request **Company Quality System Certified** acc. to **ISO 9001**	ASME BPE 2016 MSS-SP-25 ISO 5211	EN 10204 type 3.1 Certificate available for every valve PACKAGING: All end connections are protected with PVC end caps. Additionally, the valves are sealed in double layer transparent bags with silica gel to prevent condensation, humidification and corrosion.

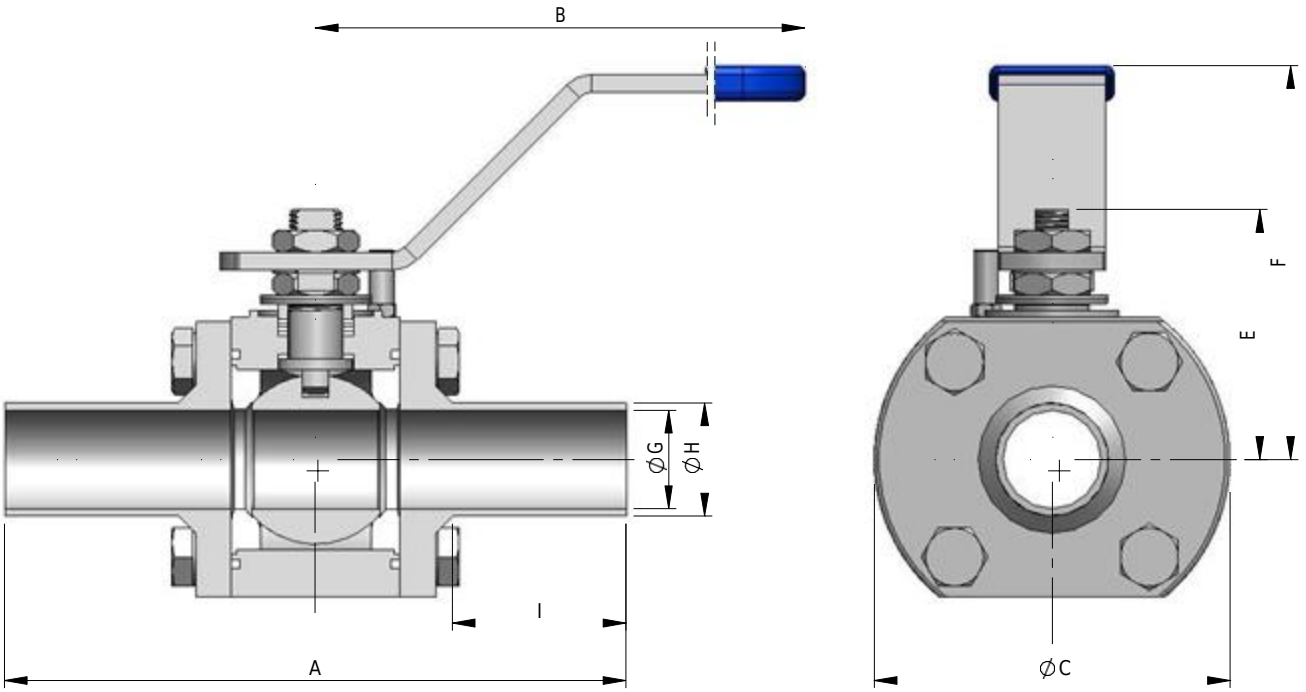
M.C.A. S.A.S. di Arrigoni Battaia Augusto e C.
STRUMENTAZIONE INDUSTRIALE

RP SERIES

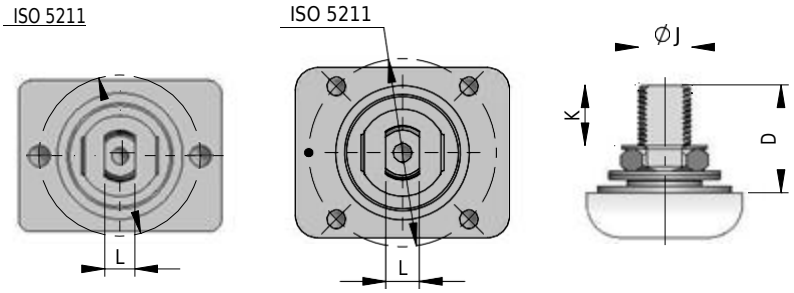
ASME BPE TUBE
TRUE BORE - DN ½" (15) ÷ 2" (50)
ORBITAL BUTTWELD ENDS

DS: RP-B1OF2

STAINLESS STEEL 316L VERSION



Orbital Buttweld Ends
OBW according to ASME BPE



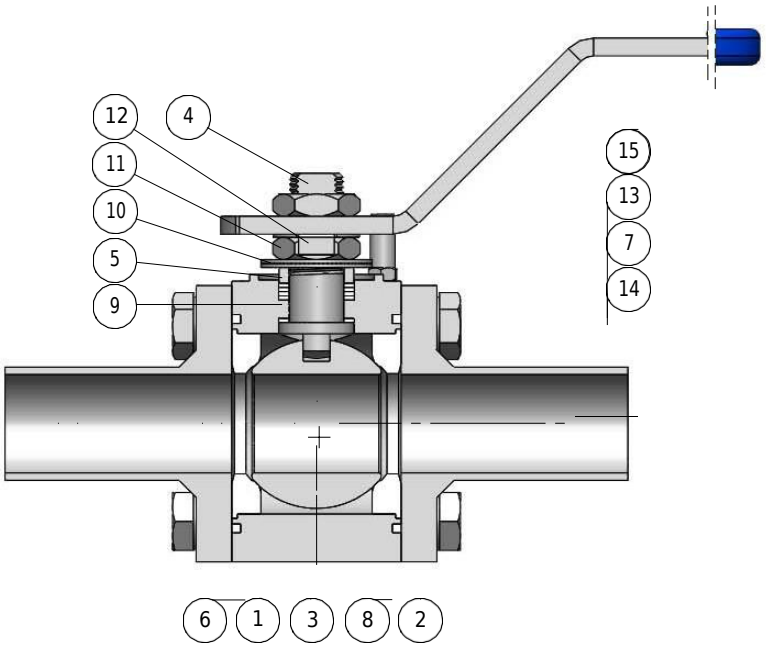
DN ½" (15) ÷ ¾" (20)

DN 1" (25) ÷ 2" (50)

DN / Size		Dimensions										Automation						Cv	Weight Approx. [Kg]
TRUE BORE		Ball Port	A	B	C	D	E	F	G	H	I	J	K	L	ISO 5211	BTO* [Nm]	MAST [Nm]		
inch	mm																		
½"	15	9.4	114.3	140	60	15.5	38.0	64	9.4	12.7	36	10	7.0	6.0	F03	3.5	16	5	0.8
¾"	20	15.8	127.0	140	65	16.0	42.0	68	15.75	19.05	38	10	7.0	6.0	F03	6.0	16	16	1.0
1"	25	22.1	139.7	170	80	24.0	56.0	87	22.1	25.4	39	12	13.5	7.5	F04	10.5	29	30	2.0
1½"	40	34.8	165.1	200	110	25.5	71.0	112	34.8	38.1	41	16	14.5	11.0	F05	23.0	84	65	5.0
2"	50	47.5	190.5	230	135	28.0	81.5	122	47.5	50.8	43	16	14.5	11.0	F05	32.0	84	180	8.5

*BTO - Break to Open Torque at full differential pressure

Revision 0



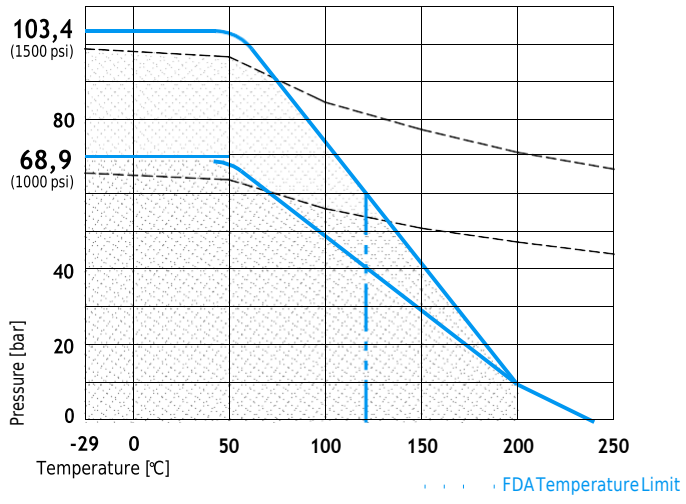
STAINLESS STEEL 316L VERSION

Part	Qt.	Description	Materials	
1	1	Body	A182 F316-316L	↔
2	2	End	A182 F316-316L	↔
3	1	Ball	A182 F316-316L	↔
4	1	Stem	A182 F316-316L	↔
5	1	Gland Packing	A182 F316-316L	↔
6	2	Seat	TFM 1600	↘
7	1	Stem Thrust Seals	TFM 1600	↘
8	2	Body Seal	PTFE	↘
9	1	Stem Packing Set	TFM 1600	↘
10	2	Disc Spring	STAINLESS ST. 316	
11	2	Stem Nut	STAINLESS ST. 316	
12	1	Locking Clip	STAINLESS ST. 316	
13	1	Stop Pin	STAINLESS ST. 304	↔
14	8	Bolt	STAINLESS ST. 304	↔
15	1	Handle	STAINLESS ST. 304/VINYL	↔

↘ TYPICAL SPARE PARTS
↔ OTHERS: (1·5) DUPLEX; TITANIUM; HASTELLOY; ETC
(13·15) STAINLESS ST. 316

Pressure - Temperature Rating

TFM1600Seats · · · · · · · · A182F316-316LBody



BODY / END MATERIAL

Body Material: Machined entirely from A182 F316L barstock with a low Carbon content.

End Material: A182 F316L (1.4435) barstock with controlled Sulfur (0.005-0.017%) and Ferrite content max 0.5%.

Seat Options

Material	mOT* [℃]	MOT* [℃]
PTFE	-29	200
TFM 1600	-29	200
PEEK	-29	280

*mOT - minimum Operating Temperature
*MOT - Maximum Operating Temperature at 10 bar

	DN	Rating
1	DN 15 to 25 TB	103,4 bar / 1500 psi
2	DN 40 to 50 TB	68,9 bar / 1000 psi

METALLIC PROCESS CONTACT SURFACES

Mechanically Pol. Ra max.		Surf. Des.	Mechanically Pol. and Electropol. Ra max.		Surf. Des.
µm	µ"		µm	µ"	
0,51	20	SF1	0,38	15	SF4

Others available on request

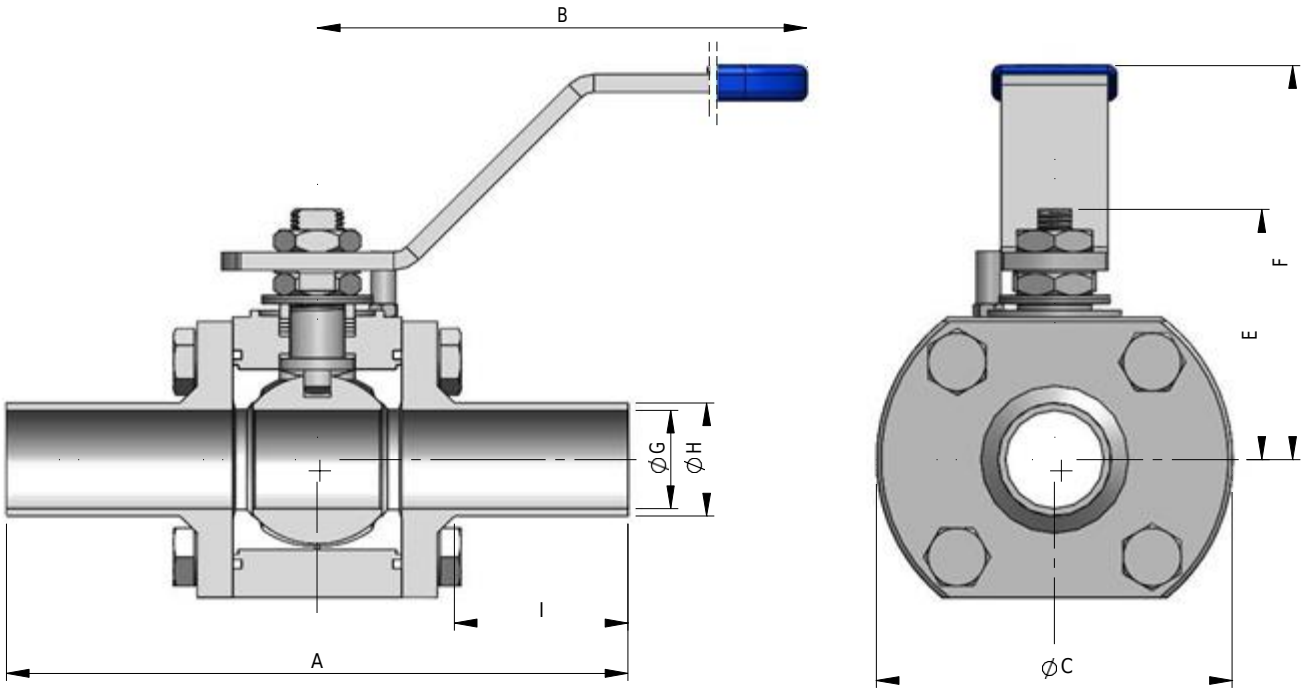
CERTIFICATION	CONSTRUCTION STANDARDS	TEST STANDARDS
CE Certification acc. to **PED 2014/68/EU** **ATEX II 2GD Certification** acc. to **2014/34/EU** **FDA & USP Class VI Certificate** of compliance for nonmetalic parts under request **ADIF Declaration** of compliance under request (Free from animal derived ingredients) **ROHS Declaration** of compliance under request **Company Quality System Certified** acc. to **ISO 9001**	ASME BPE 2016 MSS-SP-25 ISO 5211	EN 10204 type 3.1 Certificate available for every valve PACKAGING: All end connections are protected with PVC end caps. Additionally, the valves are sealed in double layer transparent bags with silica gel to prevent condensation, humidification and corrosion.

M.C.A. S.A.S. di Arrigoni Battaia Augusto e C.
STRUMENTAZIONE INDUSTRIALE

RP SERIES

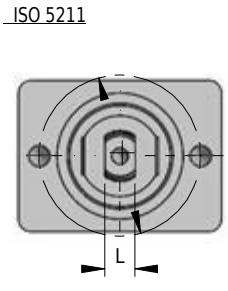
ASME BPE TUBE
TRUE BORE - DN ½" (15) ÷ 2" (50)
ORBITAL BUTTWELD ENDS
CAVITY FILLED
STAINLESS STEEL 316L VERSION

DS: RP-B1OF6

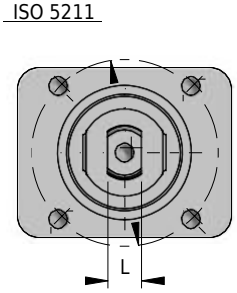


Orbital Buttweld Ends

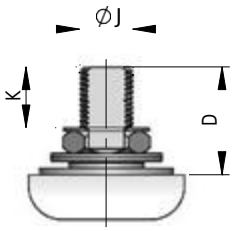
OBW according to ASME BPE



DN ½" (15) ÷ ¾" (20)



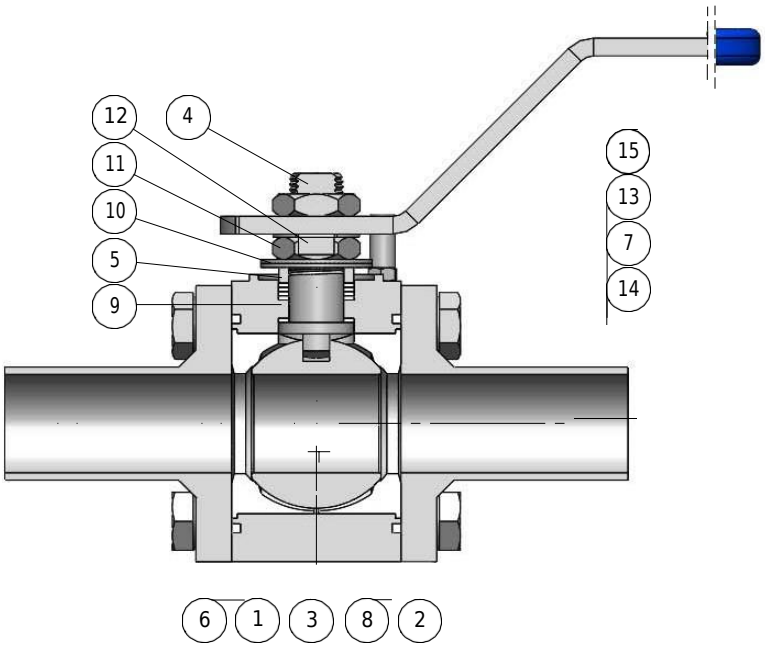
DN 1" (25) ÷ 2" (50)



DN / Size		Dimensions										Automation						Cv	Weight Approx. [Kg]
TRUE BORE		Ball Port	A	B	C	D	E	F	G	H	I	J	K	L	ISO 5211	BTO* [Nm]	MAST [Nm]		
inch	mm																		
½"	15	9.4	114.3	140	60	15.5	38.0	64	9.4	12.7	36	10	7.0	6.0	F03	3.5	16	5	0.8
¾"	20	15.8	127.0	140	65	16.0	42.0	68	15.75	19.05	38	10	7.0	6.0	F03	6.0	16	16	1.0
1"	25	22.1	139.7	170	80	24.0	56.0	87	22.1	25.4	39	12	13.5	7.5	F04	10.5	29	30	2.0
1½"	40	34.8	165.1	200	110	25.5	71.0	112	34.8	38.1	41	16	14.5	11.0	F05	23.0	84	65	5.0
2"	50	47.5	190.5	230	135	28.0	81.5	122	47.5	50.8	43	16	14.5	11.0	F05	32.0	84	180	8.5

*BTO - Break to Open Torque at full differential pressure

Revision 0



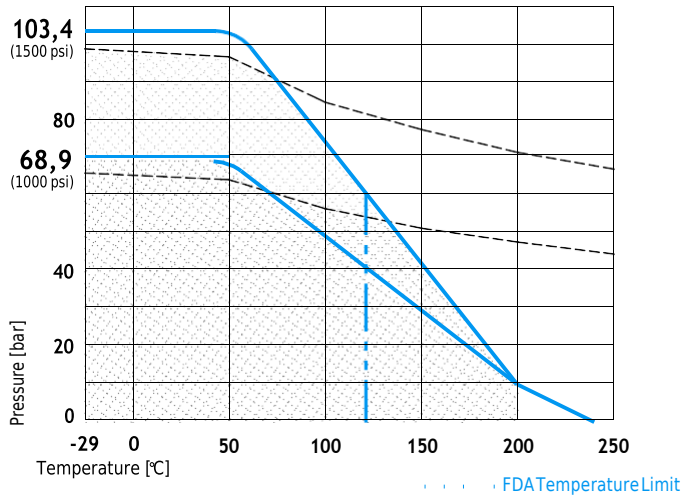
STAINLESS STEEL 316L VERSION

Part	Qt.	Description	Materials	
1	1	Body	A182 F316-316L	↔
2	2	End	A182 F316-316L	↔
3	1	Ball	A182 F316-316L	↔
4	1	Stem	A182 F316-316L	↔
5	1	Gland Packing	A182 F316-316L	↔
6	2	Cavity Filler	TFM 1600	↘
7	1	Stem Thrust Seals	TFM 1600	↘
8	2	Body Seal	PTFE	↘
9	1	Stem Packing Set	TFM 1600	↘
10	2	Disc Spring	STAINLESS ST. 316	
11	2	Stem Nut	STAINLESS ST. 316	
12	1	Locking Clip	STAINLESS ST. 316	
13	1	Stop Pin	STAINLESS ST. 304	↔
14	8	Bolt	STAINLESS ST. 304	↔
15	1	Handle	STAINLESS ST. 304/VINYL	↔

↘ TYPICAL SPARE PARTS
↔ OTHERS: (1·5) DUPLEX; TITANIUM; HASTELLOY; ETC
(13·15) STAINLESS ST. 316

Pressure - Temperature Rating

TFM1600Seats · · · · · · · · A182F316-316LBody



BODY / END MATERIAL

Body Material: Machined entirely from A182 F316L barstock with a low Carbon content.

End Material: A182 F316L (1.4435) barstock with controlled Sulfur (0.005-0.017%) and Ferrite content max 0.5%.

Cavity Filler Options

Material	mOT* [℃]	MOT* [℃]
PTFE	-29	200
TFM 1600	-29	200
PEEK	-29	280

*mOT - minimum Operating Temperature
*MOT - Maximum Operating Temperature at 10 bar

	DN	Rating
1	DN 15 to 25 TB	103,4 bar / 1500 psi
2	DN 40 to 50 TB	68,9 bar / 1000 psi

METALLIC PROCESS CONTACT SURFACES

Mechanically Pol. Ra max.		Surf. Des.	Mechanically Pol. and Electropol. Ra max.		Surf. Des.
µm	µ⊐		µm	µ⊐	
0,51	20	SF1	0,38	15	SF4

Others available on request

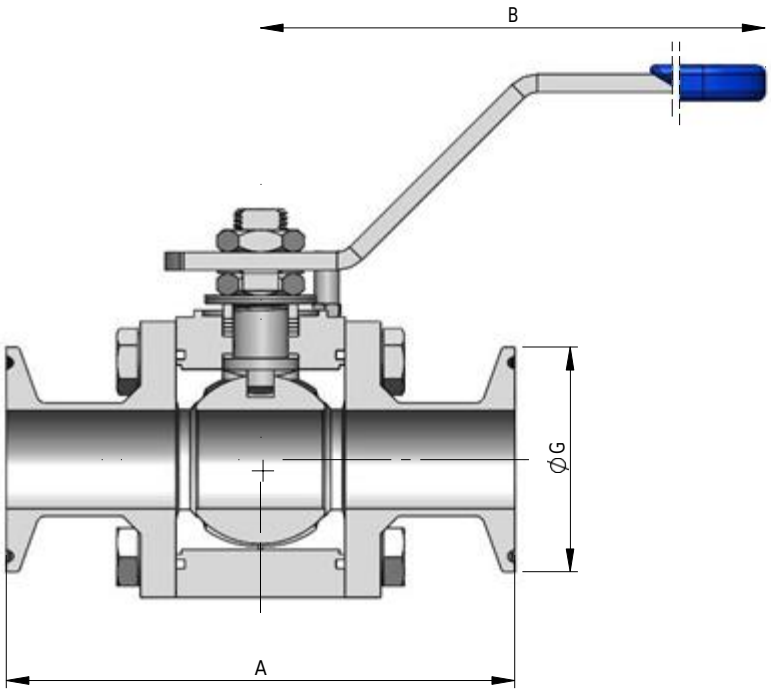
CERTIFICATION	CONSTRUCTION STANDARDS	TEST STANDARDS
CE Certification acc. to **PED 2014/68/EU** **ATEX II 2GD Certification** acc. to **2014/34/EU** **FDA & USP Class VI Certificate** of compliance for nonmetalic parts under request **ADIF Declaration** of compliance under request (Free from animal derived ingredients) **ROHS Declaration** of compliance under request **Company Quality System Certified** acc. to **ISO 9001**	ASME BPE 2016 MSS-SP-25 ISO 5211	EN 10204 type 3.1 Certificate available for every valve PACKAGING: All end connections are protected with PVC end caps. Additionally, the valves are sealed in double layer transparent bags with silica gel to prevent condensation, humidification and corrosion.

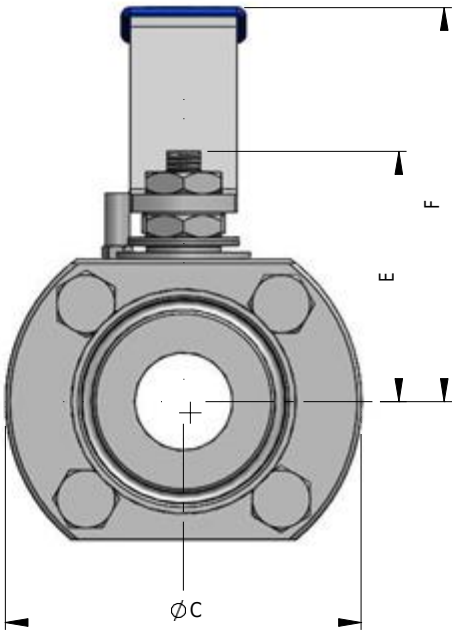
M.C.A. S.A.S. di Arrigoni Battaia Augusto e C.
STRUMENTAZIONE INDUSTRIALE

RP SERIES

ASME BPE TUBE
TRUE BORE - DN ½" (15) ÷ 2" (50)
HYGIENIC CLAMP ENDS
CAVITY FILLED
STAINLESS STEEL 316L VERSION

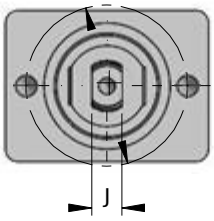
DS: RP-B1CF6





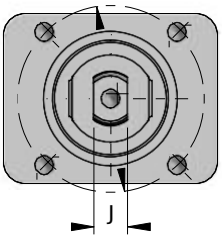
Hygienic Clamp Ends
CLAMP according to ASME BPE

ISO 5211



DN ½" (15) ÷ ¾" (20)

ISO 5211



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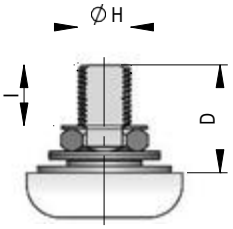

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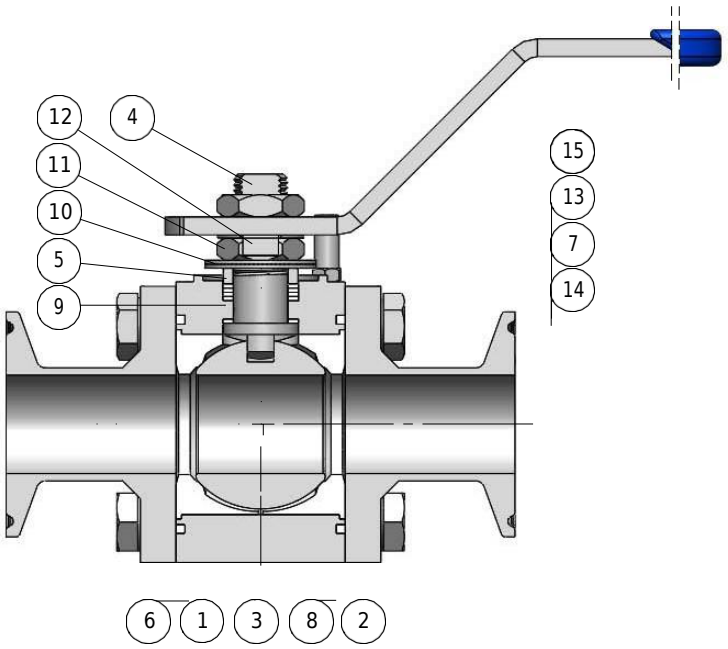
*BTO - Break to Open Torque at full differential pressure

Revision 0



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11	2	Stem Nut	STAINLESS ST. 316	
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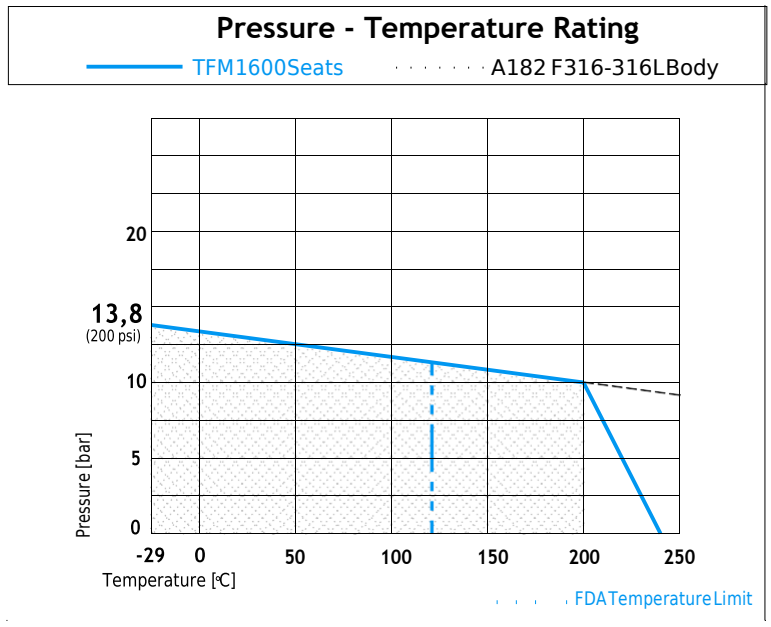
13	1	Stop Pin	STAINLESS ST. 304	↔
14	8	Bolt	STAINLESS ST. 304	↔
15	1	Handle	STAINLESS ST. 304/VINYL	↔

↘ TYPICAL SPARE PARTS
↔ OTHERS: (1-5) DUPLEX; TITANIUM; HASTELLOY; ETC
(13-15) STAINLESS ST. 316

Pressure - Temperature Rating



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*mOT - minimum Operating Temperature
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