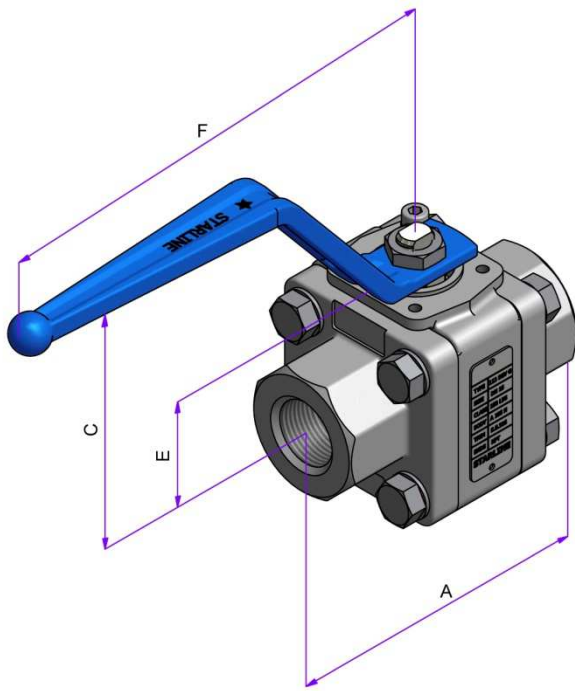


ITEM NO.	Q.TY	PART NAME	MATERIAL (LF2/316)	MATERIAL (316/316)	OPTIONS AVAILABLE
NP	1	Name Plate	316	316	
1	1	Handle	Carbon Steel + Epoxy Coated	Carbon Steel + Epoxy Coated	316
2a	2	Handle nuts	304	304	316
2b					
3	1	Packing ring	Graphite	Graphite	Virgin/Reinforced PTFE
4	2	Spring washers	316 Treated	316 Treated	
5	1	Antistatic stem	316/316L Dual Certified	316/316L Dual Certified	Special materials
6	1 ^{Note1}	Gland packing	316	316	
7	1	Thrust washer	PTFE	PTFE	Reinforced PTFE – PEEK
8	1	“O”ring stem	Viton	Viton	See seats and seals material table
9	1	Ball	316/316L Dual Certified	316/316L Dual Certified	Special materials
10	2	Seats	RPTFE	RPTFE	See seats and seals material table
11	2	I° Body seals	RPTFE	RPTFE	See seats and seals material table
12	1	Body	LF2	316/316L Dual Certified	Special materials
13	2	End connections	LF2	316/316L Dual Certified	Special materials
14	1	Stop-pin	316	316	
16	8	Bolts	A320 L7 + Zinc Plated	A193 B8	Special materials
17	1	Stop washer	304	304	316
18	2	II° Body seals	Graphite	Graphite	Virgin PTFE

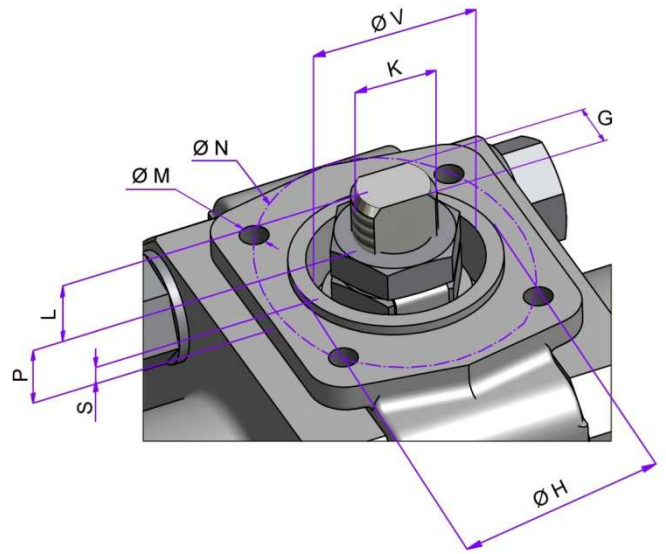
Note 1: Qty 2 for DN 20 - 3/4"

ENCAPSULATED SEAT OPTION					
20	2	Seats	RPTFE	RPTFE	See seats and seals material table
21	2	Seat Seals	Viton	Viton	See seats and seals material table
22	2	Seats Ring	LF2	316/316L Dual Certified	Special materials
23	2	Ring Seals	Viton	Viton	See seats and seals material table

RECOMMENDED SPARE PARTS FOR START – UP OR COMMISSIONING



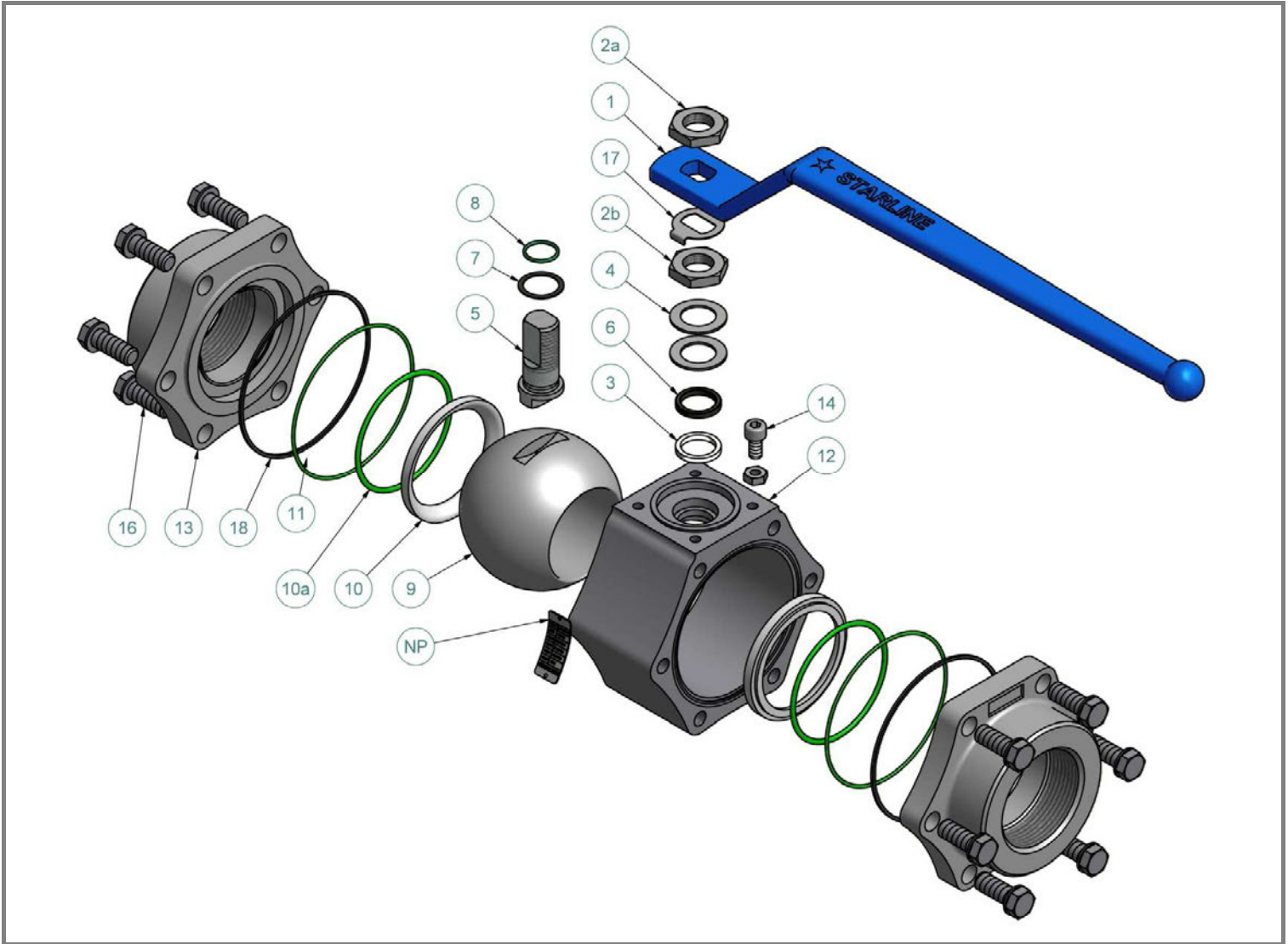
NPT-BSPP-BSPT



TOP VIEW

FULL BORE							
VALVE SIZE		DIMENSIONS [mm]					WEIGHT [Kg]
NPS	DN	A	BORE	C	E	F	NPT - BSPP - BSPT
		NPT - BSPP - BSPT					
1/4" x 1/4"	08 x 08	75	11.1	79	30.5	144	1
3/8" x 3/8"	10 x 10	75	11.1	79	30.5	144	1
1/2" x 1/2"	15 x 15	80	14.2	81	32.5	144	1.2
3/4" x 3/4"	20 x 20	100	20.5	98	39	172.5	2.3
1" x 1"	25 x 25	110	25.4	100	38	172.5	3.2
1.1/4" x 1.1/4"	32 x 32	120	31.7	110	43.5	218	4.5
1.1/2" x 1.1/2"	40 x 40	140	38	112	47.5	218	5.3

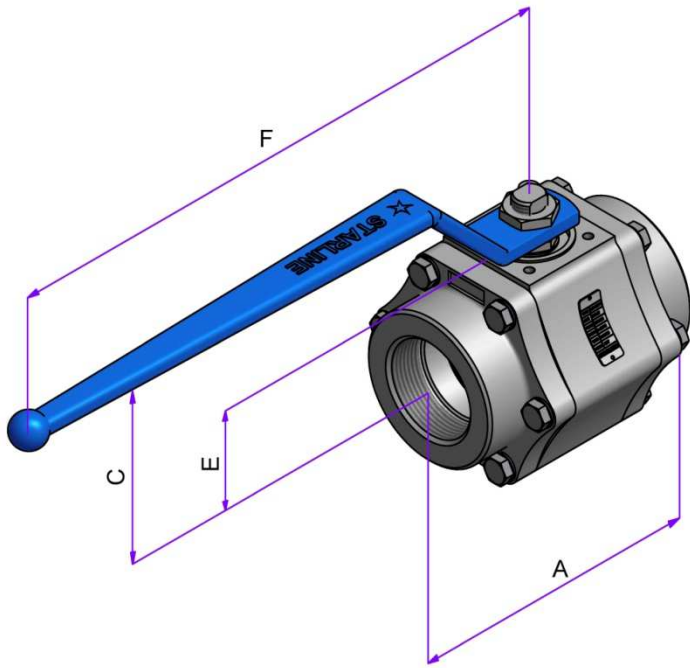
TOP MOUNTING											
VALVE SIZE		DIMENSIONS [mm]									ISO 5211
NPS	DN	L	P	S	V	K	G	H	N	M	
1/4" x 1/4"	08 x 08	3.6	5.4	1.5	21	M10x1	5.5	25	36	M5x8	F03
3/8" x 3/8"	10 x 10	3.6	5.4	1.5	21	M10x1	5.5	25	36	M5x8	F03
1/2" x 1/2"	15 x 15	3.6	5.9	1.5	21	M10x1	5.5	25	36	M5x8	F03
3/4" x 3/4"	20 x 20	9	5	1.5	25	M12x1.25	7.5	30	42	M5x8	F04
1" x 1"	25 x 25	10	10	1.5	25	M12x1.25	7.5	30	42	M5x8	F04
1.1/4" x 1.1/4"	32 x 32	13	14	1.5	30	M15x1.5	8.9	35	50	M6x10	F05
1.1/2" x 1.1/2"	40 x 40	14	14	1.5	30	M15x1.5	8.9	35	50	M6x10	F05



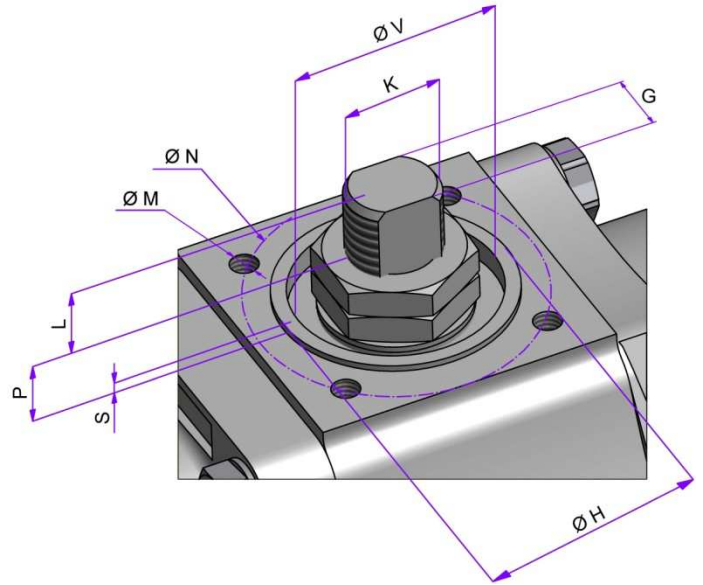
ITEM NO.	Q.TY	PART NAME	MATERIAL (LF2/316)	MATERIAL (316/316)	OPTIONS AVAILABLE
NP	1	Name Plate	316	316	
1	1	Handle	Carbon Steel + Epoxy Coated ^{Note1}	Carbon Steel + Epoxy Coated ^{Note1}	316
2a	2	Handle nuts	304	304	316
2b					
3	2	Packing ring	Graphite	Graphite	Virgin/Reinforced PTFE
4	2	Spring washers	316 Treated	316 Treated	
5	1	Antistatic stem	316/316L Dual Certified	316/316L Dual Certified	Special materials
6	1	Gland packing	316	316	
7	1	Thrust washer	PTFE	PTFE	Reinforced PTFE – PEEK
8	1	“O”ring stem	Viton	Viton	See seats and seals material table
9	1	Ball	316/316L Dual Certified	316/316L Dual Certified	Special materials
10	2	Seats	RPTFE	RPTFE	See seats and seals material table
10a	2	Seats gasket	Viton	Viton	See seats and seals material table
11	2	I° Body seals	RPTFE	RPTFE	See seats and seals material table
12	1	Body	LF2	316/316L Dual Certified	Special materials
13	2	End connections	LF2	316/316L Dual Certified	Special materials
14	1	Stop-pin	316	316	
16	12	Bolts	A320 L7 + Zinc Plated	A193 B8	Special materials
17	1 ^{Note2}	Stop washer	304	304	316
18	2	II° Body seals	Graphite	Graphite	Virgin PTFE

Note 1: Carbon Steel + Plastic for DN65 - 2.1/2"

Note 2: Qty 0 for DN 65 - 2.1/2"



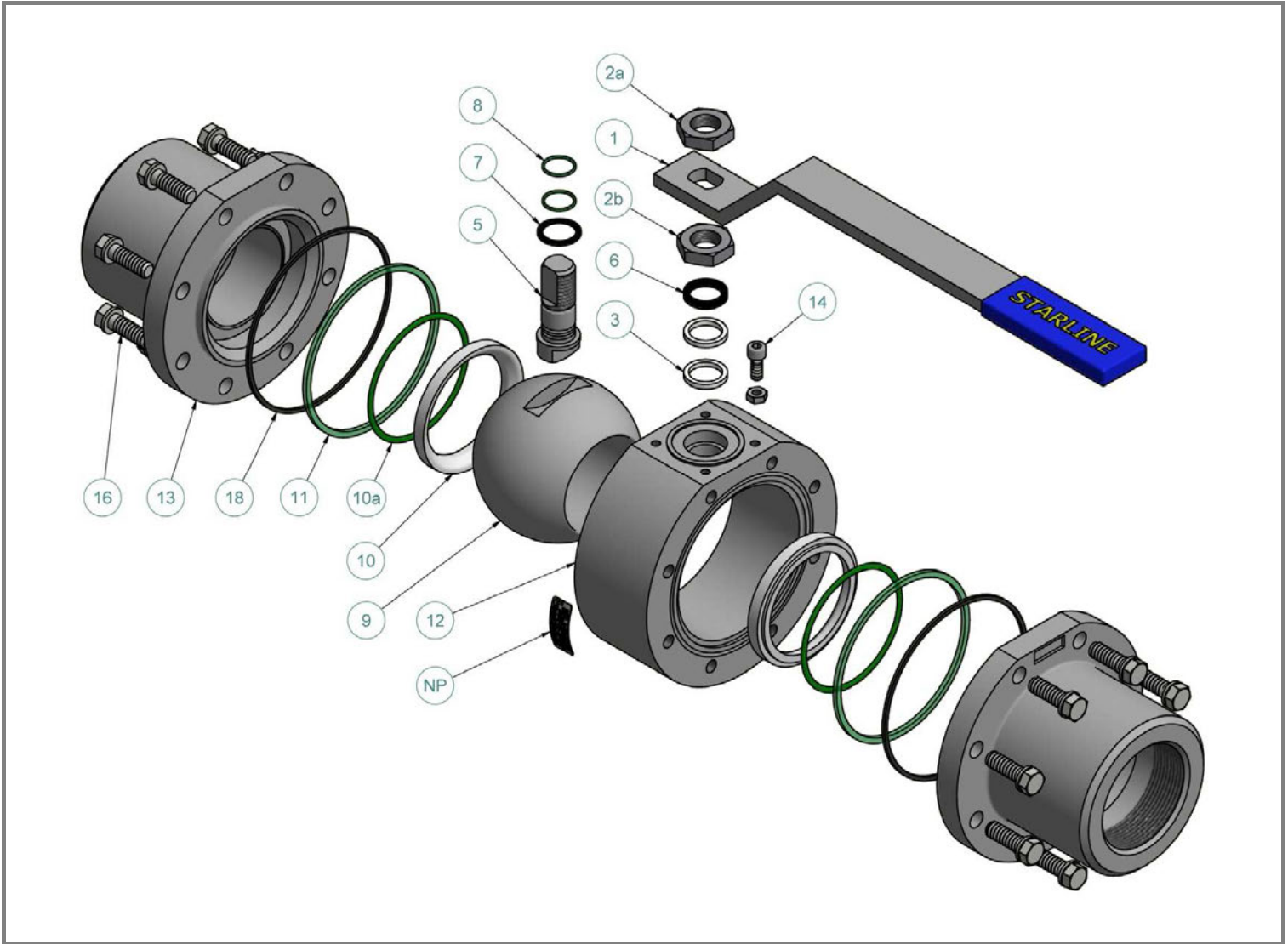
NPT-BSPP-BSPT



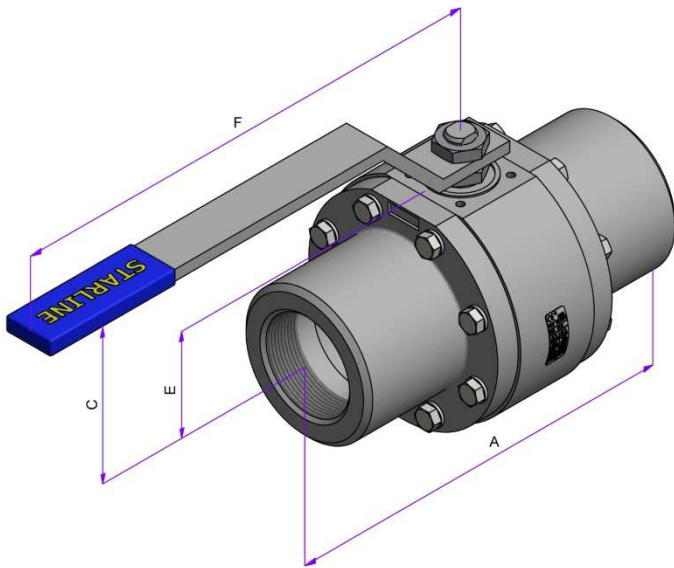
TOP VIEW

FULL BORE							
VALVE SIZE		DIMENSIONS [mm]					WEIGHT [Kg]
NPS	DN	A	BORE	C	E	F	NPT-BSPP-BSPT
		NPT-BSPP-BSPT					
2''x 2''	50 x 50	141	49	122	58.7	218	7
2.1/2''x 2.1/2''	65 x 65	170	62	136	70	420	14

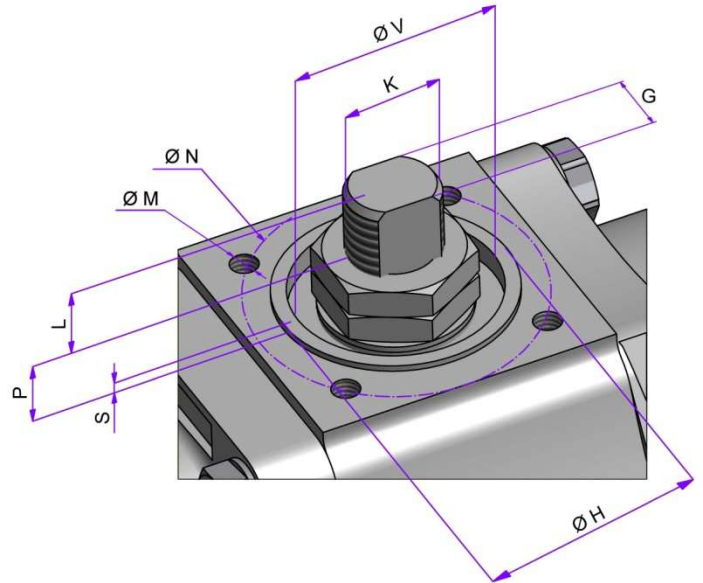
TOP MOUNTING											
VALVE SIZE		DIMENSIONS [mm]									ISO 5211
NPS	DN	L	P	S	V	K	G	H	N	M	
2''x 2''	50 x 50	12.5	12.5	1.5	30	M15x1.5	8.9	35	50	M6x10	F05
2.1/2''x 2.1/2''	65 x 65	17	18	1.5	48	M22x1.5	16	55	70	M8x12	F07



ITEM NO.	Q.TY	PART NAME	MATERIAL (LF2/316)	MATERIAL (316/316)	OPTIONS AVAILABLE
NP	1	Name Plate	316	316	
1	1	Handle	Carbon Steel + Plastic	Carbon Steel + Plastic	316
2a	2	Handle nuts	304	304	316
2b					
3	2	Packing ring	Graphite	Graphite	Virgin/Reinforced PTFE
5	1	Antistatic stem	316/316L Dual Certified	316/316L Dual Certified	Special materials
6	1	Gland packing	316	316	
7	1	Thrust washer	PTFE	PTFE	Reinforced PTFE – PEEK
8	2	“O”ring stem	Viton	Viton	See seats and seals material table
9	1	Ball	316/316L Dual Certified	316/316L Dual Certified	Special materials
10	2	Seats	RPTFE	RPTFE	See seats and seals material table
10a	2	Seats gasket	Viton	Viton	See seats and seals material table
11	2	I° Body seals	RPTFE	RPTFE	See seats and seals material table
12	1	Body	LF2	316/316L Dual Certified	Special materials
13	2	End connections	LF2	316/316L Dual Certified	Special materials
14	1	Stop-pin	316	316	
16	16	Bolts	A320 L7 + Zinc Plated	A193 B8	Special materials
18	2	II° Body seals	Graphite	Graphite	Virgin PTFE



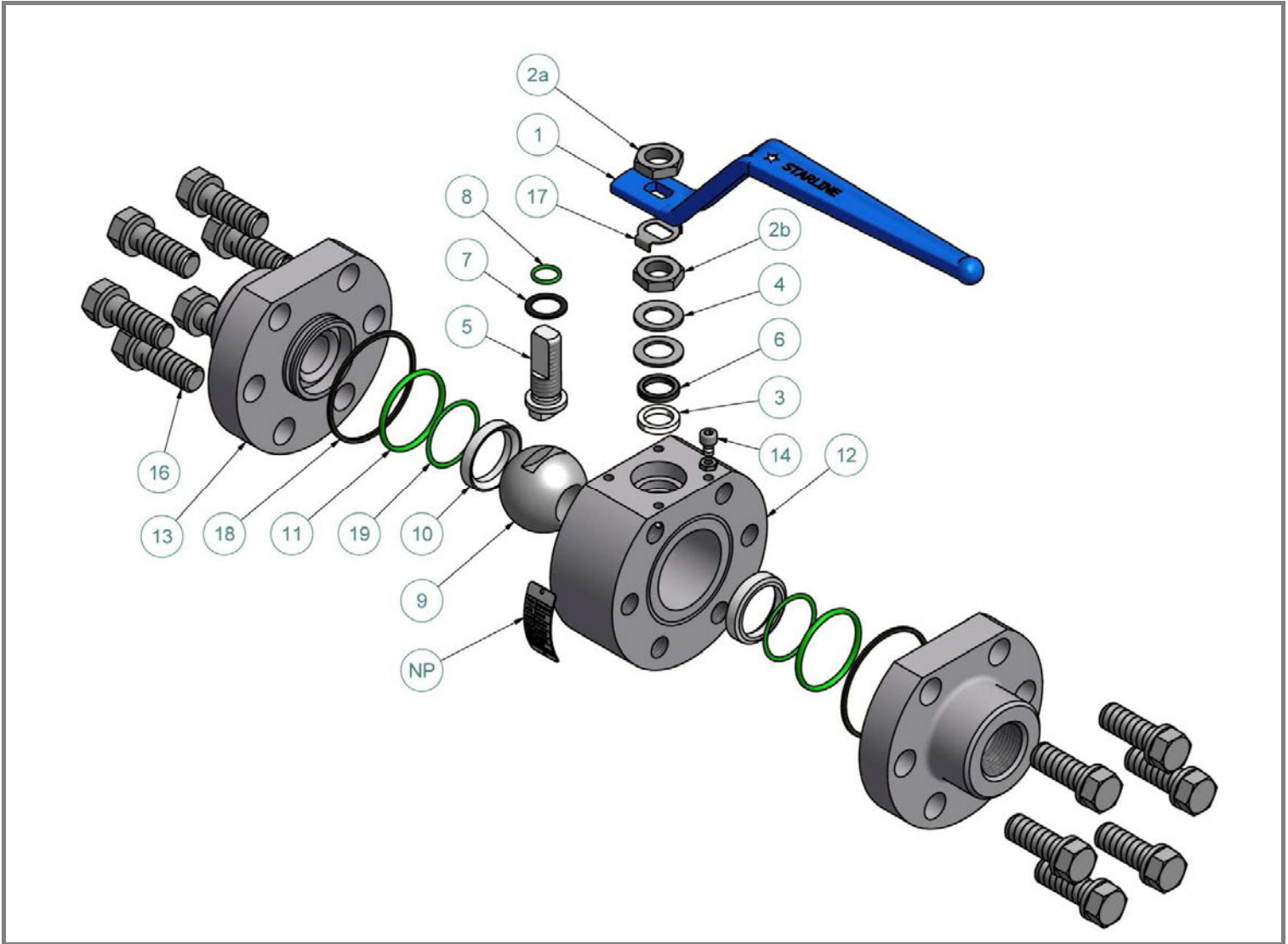
NPT-BSPP-BSPT



TOP VIEW

FULL BORE							
VALVE SIZE		DIMENSIONS [mm]					WEIGHT [Kg]
NPS	DN	A	BORE	C	E	F	NPT-BSPP-BSPT
		NPT-BSPP-BSPT					
3''x 3''	80 x 80	305	76	150	87	420	26.5

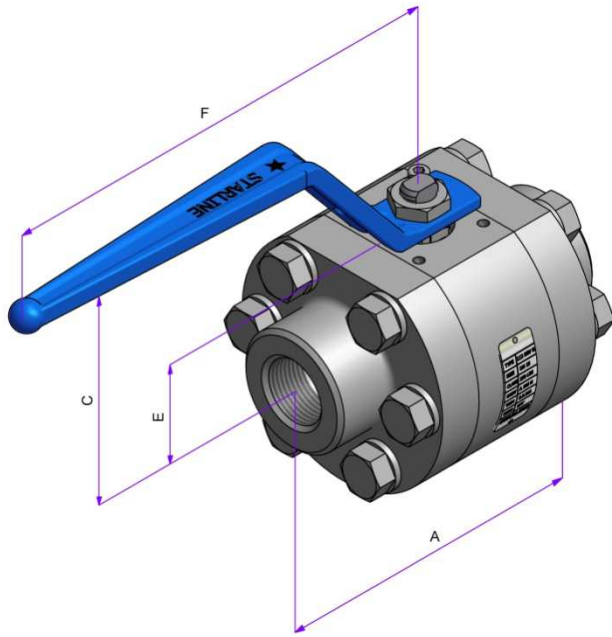
TOP MOUNTING											
VALVE SIZE		DIMENSIONS [mm]									ISO 5211
NPS	DN	L	P	S	V	K	G	H	N	M	
3''x 3''	80 x 80	15	22.5	1.5	48	M24x2	18	55	70	M8x12	F07



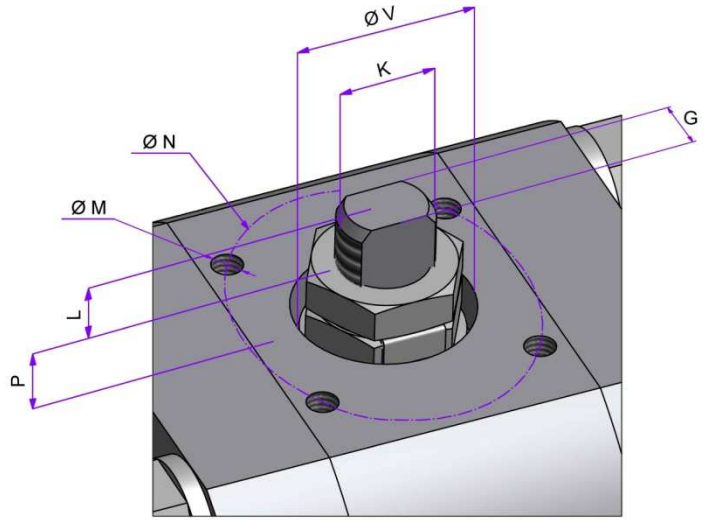
ITEM NO.	Q.TY	PART NAME	MATERIAL (LF2/316)	MATERIAL (316/316)	OPTIONS AVAILABLE
NP	1	Name Plate	316	316	
1	1	Handle	Carbon Steel + Epoxy Coated	Carbon Steel + Epoxy Coated	316
2a	2	Handle nuts	304	304	316
2b					
3	1	Packing ring	Graphite	Graphite	Virgin/Reinforced PTFE
4	2 ^{Note1}	Spring washers	316 Treated	316 Treated	
5	1	Antistatic stem	316/316L Dual Certified	316/316L Dual Certified	Special materials
6	1 ^{Note2}	Gland packing	316	316	
7	1	Thrust washer	PTFE	PTFE	Reinforced PTFE – PEEK
8	1	“O”ring stem	Viton	Viton	See seats and seals material table
9	1	Ball	316/316L Dual Certified	316/316L Dual Certified	Special materials
10	2	Seats	Nylon Devlon V	Nylon Devlon V	See seats and seals material table
11	2	I° Body seals	Viton	Viton	See seats and seals material table
12	1	Body	LF2	316/316L Dual Certified	Special materials
13	2	End connections	LF2	316/316L Dual Certified	Special materials
14	1	Stop-pin	316	316	
16	12	Bolts	A320 L7 + Zinc Plated	A193 B8	Special materials
17	1	Stop Washer	304	304	316
18	2	II° Body seals	Graphite	Graphite	See seats and seals material table
19	2	Seats gasket	Viton	Viton	See seats and seals material table

Note 1: Qty 3 for DN25 - 1”

Note 2: Qty 2 for DN20 - 3/4”



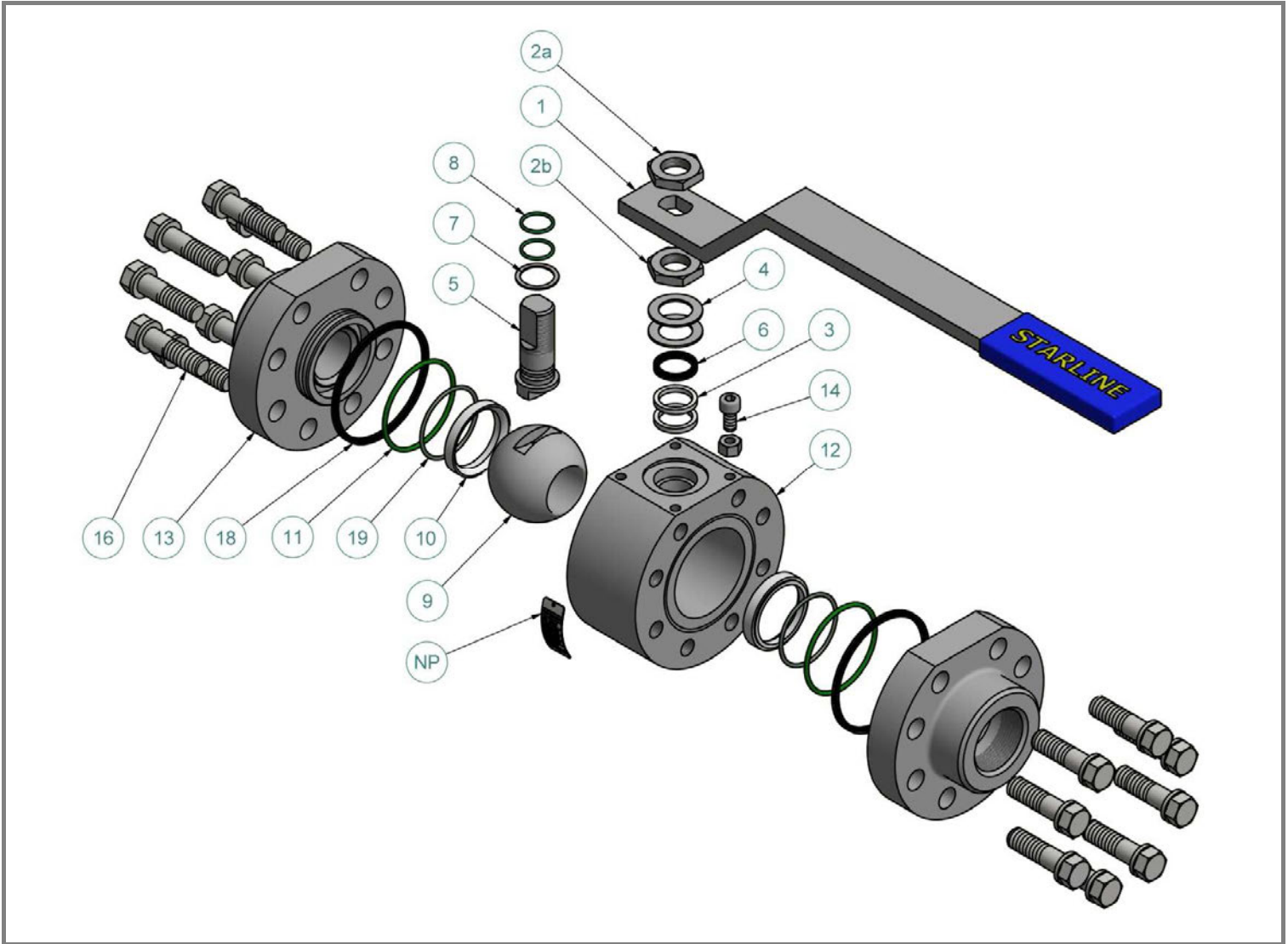
NPT-BSPP-BSPT



TOP VIEW

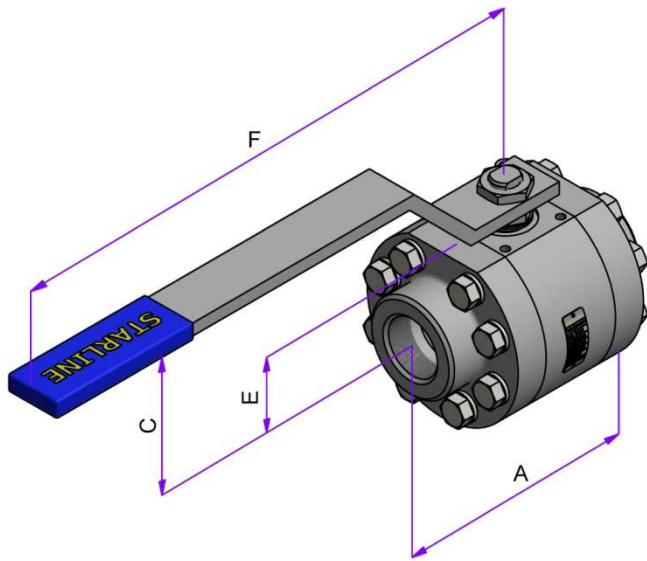
FULL BORE							
VALVE SIZE		DIMENSIONS [mm]					WEIGHT [Kg]
NPS	DN	A	BORE	C	E	F	NPT – BSPP – BSPT
		NPT – BSPP – BSPT					
1/4" x 1/4"	08 x 08	100	11.1	98	30.5	172.5	2.5
3/8" x 3/8"	10 x 10	100	11.1	98	30.5	172.5	2.5
1/2" x 1/2"	15 x 15	100	11.1	98	30.5	172.5	2.5
3/4" x 3/4"	20 x 20	127	15.5	106	41	172.5	4.8
1" x 1"	25 x 25	140	21	113	46	218	6.6

TOP MOUNTING									
VALVE SIZE		DIMENSIONS [mm]							ISO 5211
NPS	DN	L	P	V	K	G	N	M	
1/4" x 1/4"	08 x 08	5.9	6.7	23	M12x1.25	7.5	36	M5x8	F03
3/8" x 3/8"	10 x 10	5.9	6.7	23	M12x1.25	7.5	36	M5x8	F03
1/2" x 1/2"	15 x 15	5.9	6.7	23	M12x1.25	7.5	36	M5x8	F03
3/4" x 3/4"	20 x 20	5.6	6.4	23	M12x1.25	7.5	42	M5x8	F04
1" x 1"	25 x 25	11.2	8.2	28	M15x1.5	8.9	50	M6x10	F05

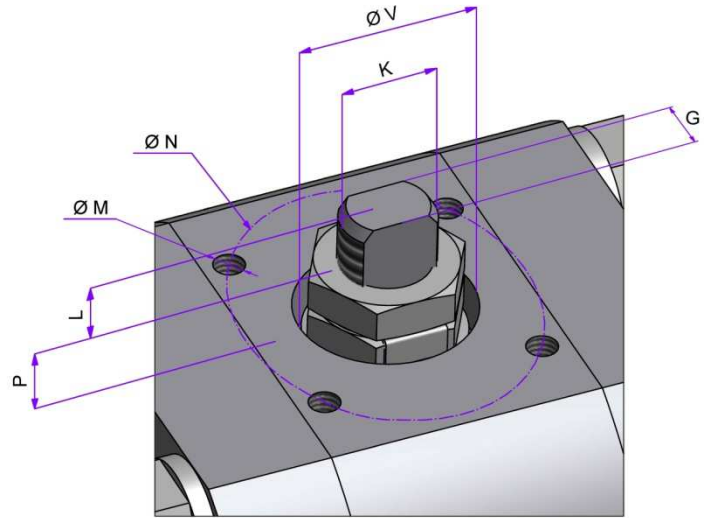


ITEM NO.	Q.TY	PART NAME	MATERIAL (LF2/316)	MATERIAL (316/316)	OPTIONS AVAILABLE
NP	1	Name Plate	316	316	
1	1	Handle	Carbon Steel + Plastic	Carbon Steel + Plastic	316
2a	2	Handle nuts	304	304	316
2b					
3	2	Packing ring	Graphite	Graphite	Virgin/Reinforced PTFE
4	2	Spring washers	316 Treated	316 Treated	
5	1	Antistatic stem	316/316L Dual Certified	316/316L Dual Certified	Special materials
6	1	Gland packing	316	316	
7	1	Thrust washer	PTFE	PTFE	Reinforced PTFE – PEEK
8	2	“O”ring stem	Viton	Viton	See seats and seals material table
9	1	Ball	316/316L Dual Certified	316/316L Dual Certified	Special materials
10	2	Seats	Nylon Devlon V	Nylon Devlon V	See seats and seals material table
11	2	I° Body seals	Viton	Viton	See seats and seals material table
12	1	Body	LF2	316/316L Dual Certified	Special materials
13	2	End connections	LF2	316/316L Dual Certified	Special materials
14	1	Stop-pin	316	316	
16	16 ^{Note1}	Bolts	A320 L7 + Zinc Plated	A193 B8	Special materials
18	2	II° Body seals	Graphite	Graphite	See seats and seals material table
19	2	Seats gasket	Viton	Viton	See seats and seals material table

Note 1: Qty 20 for DN50 - 2"



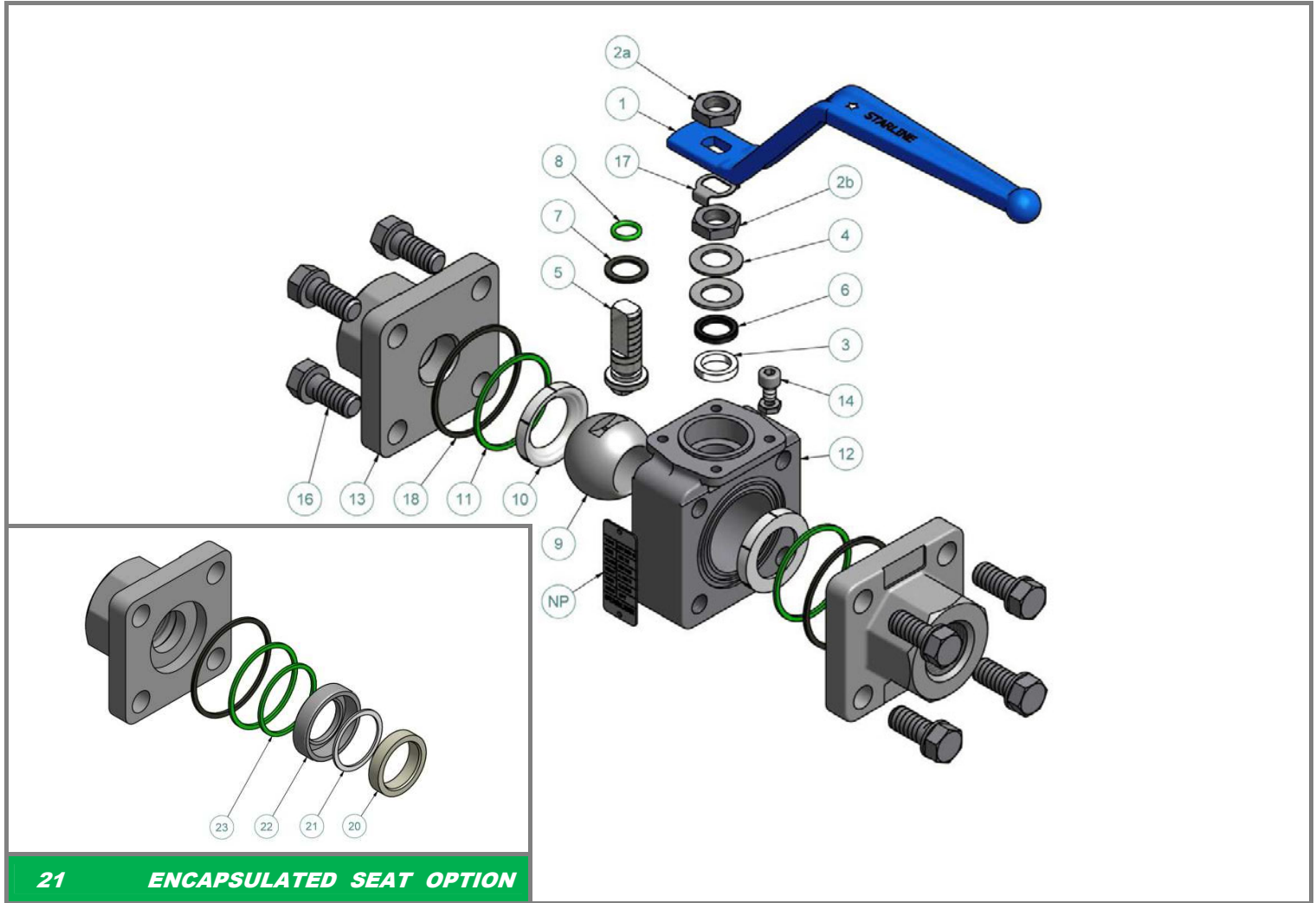
NPT-BSPP-BSPT



TOP VIEW

FULL BORE							
VALVE SIZE		DIMENSIONS [mm]					WEIGHT [Kg]
NPS	DN	A	BORE	C	E	F	NPT – BSPP – BSPT
		NPT – BSPP – BSPT					
1.1/4" x 1.1/4"	32 x 32	170	34	140	60	420	14.5
1.1/2" x 1.1/2"	40 x 40	170	34	140	60	420	14.5
2" x 2"	50 x 50	200	43	150	70	420	19

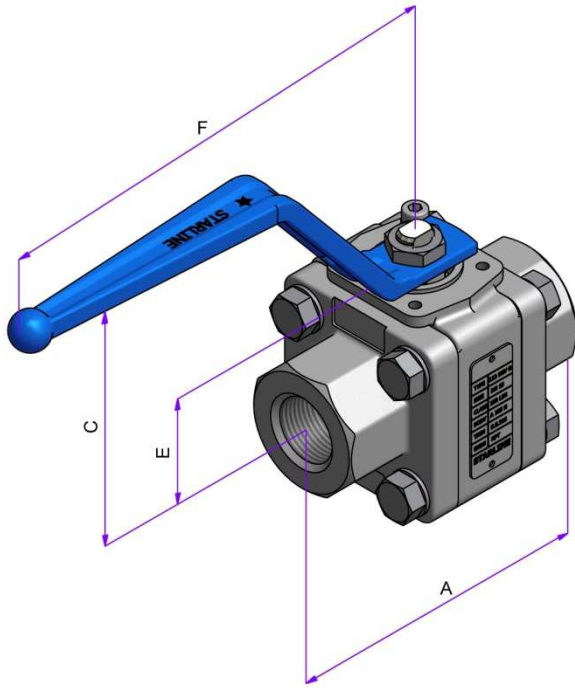
TOP MOUNTING									
VALVE SIZE		DIMENSIONS [mm]							ISO 5211
NPS	DN	L	P	V	K	G	N	M	
1.1/4" x 1.1/4"	32 x 32	15.2	17.8	42	M22x1.5	16	70	M8x10	F07
1.1/2" x 1.1/2"	40 x 40	15.2	17.8	42	M22x1.5	16	70	M8x10	F07
2" x 2"	50 x 50	12.3	18.2	40	M22x1.5	16	70	M8x10	F07



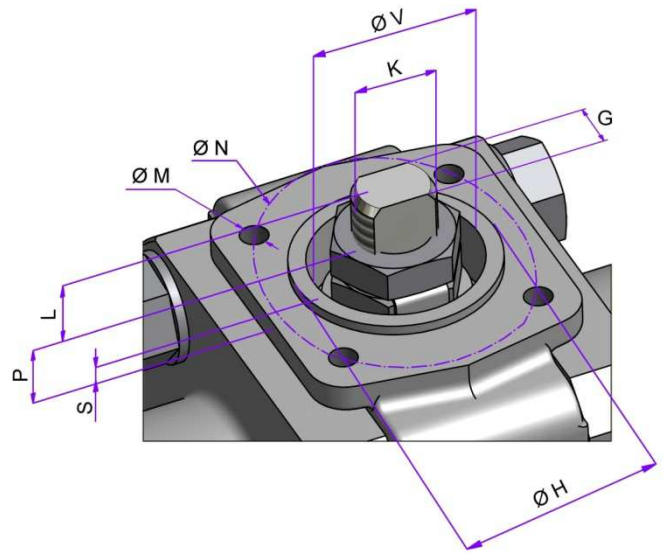
ITEM NO.	Q.TY	PART NAME	MATERIAL (LF2/316)	MATERIAL (316/316)	OPTIONS AVAILABLE
NP	1	Name Plate	316	316	
1	1	Handle	Carbon Steel + Epoxy Coated	Carbon Steel + Epoxy Coated	316
2a	2	Handle nuts	304	304	316
2b					
3	1	Packing ring	Graphite	Graphite	Virgin/Reinforced PTFE
4	2	Spring washers	316 Treated	316 Treated	
5	1	Antistatic stem	316/316L Dual Certified	316/316L Dual Certified	Special materials
6	1 ^{Note1}	Gland packing	316	316	
7	1	Thrust washer	PTFE	PTFE	Reinforced PTFE – PEEK
8	1	“O”ring stem	Viton	Viton	See seats and seals material table
9	1	Ball	316/316L Dual Certified	316/316L Dual Certified	Special materials
10	2	Seats	RPTFE	RPTFE	See seats and seals material table
11	2	I° Body seals	RPTFE	RPTFE	See seats and seals material table
12	1	Body	LF2	316/316L Dual Certified	Special materials
13	2	End connections	LF2	316/316L Dual Certified	Special materials
14	1	Stop-pin	316	316	
16	8	Bolts	A320 L7 + Zinc Plated	A193 B8	Special materials
17	1	Stop washer	304	304	316
18	2	II° Body seals	Graphite	Graphite	Virgin PTFE

Note 1: Qty 2 for DN 25 - 1"

ENCAPSULATED SEAT OPTION					
20	2	Seats	RPTFE	RPTFE	See seats and seals material table
21	2	Seat Seals	Viton	Viton	See seats and seals material table
22	2	Seats Ring	LF2	316/316L Dual Certified	Special materials
23	2	Ring Seals	Viton	Viton	See seats and seals material table



NPT-BSPP-BSPT



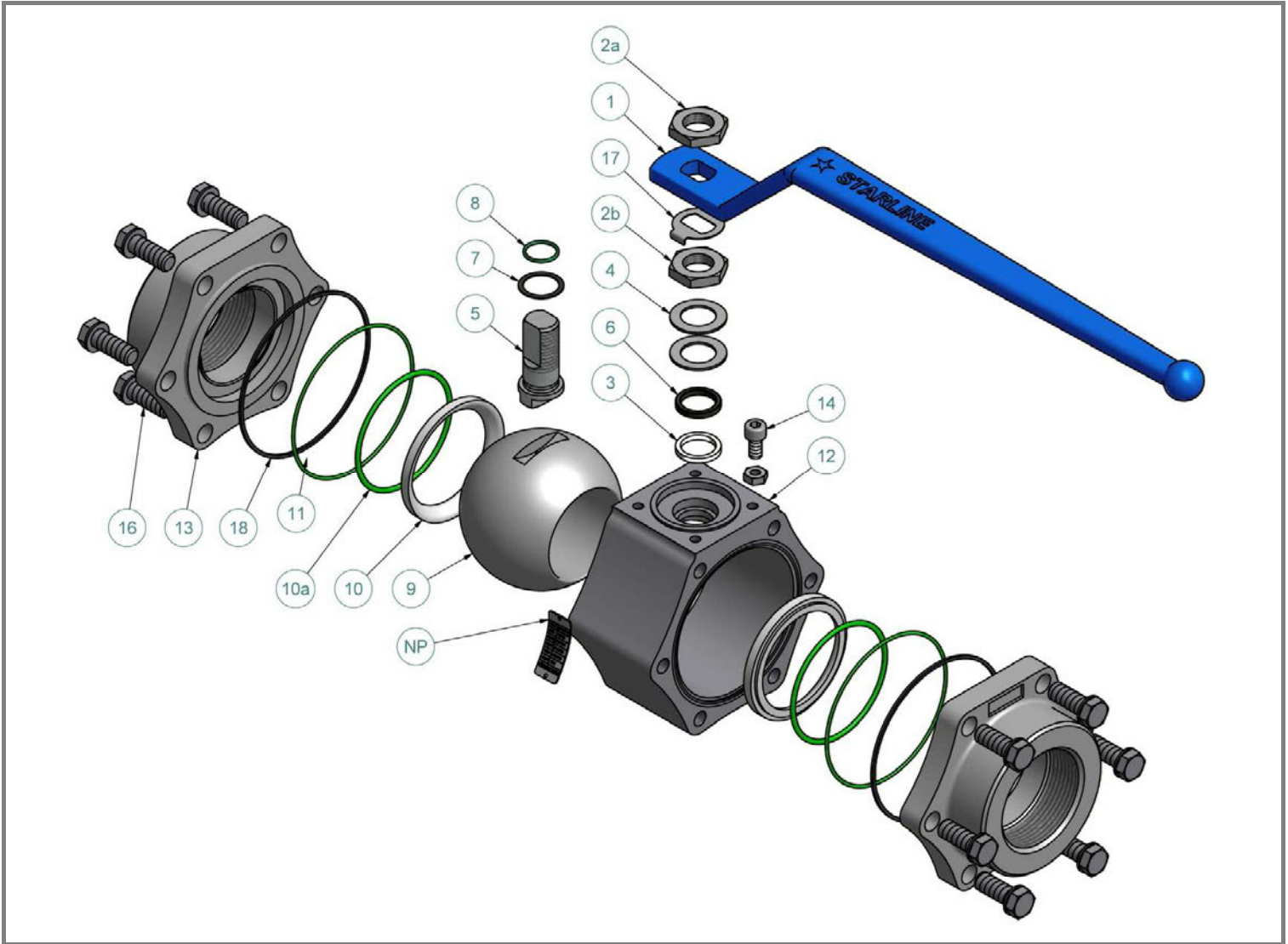
TOP VIEW

REDUCED BORE

VALVE SIZE		DIMENSIONS [mm]					WEIGHT [Kg]
NPS	DN	A	BORE	C	E	F	NPT - BSPP - BSPT
		NPT - BSPP - BSPT					
1/2"x 3/8"	15 x 10	75	11.1	79	30.5	144	1
3/4"x 1/2"	20 x 15	80	14.2	81	32.5	144	1.1
1"x 3/4"	25 x 20	100	20.5	98	39	172.5	2.2
1.1/4"x 1"	32 x 25	110	25.4	100	38	172.5	2.9
1.1/2"x 1.1/4"	40 x 32	120	31.7	110	43.5	218	4.3
2"x 1.1/2"	50 x 40	140	38	112	47.5	218	5.5

TOP MOUNTING

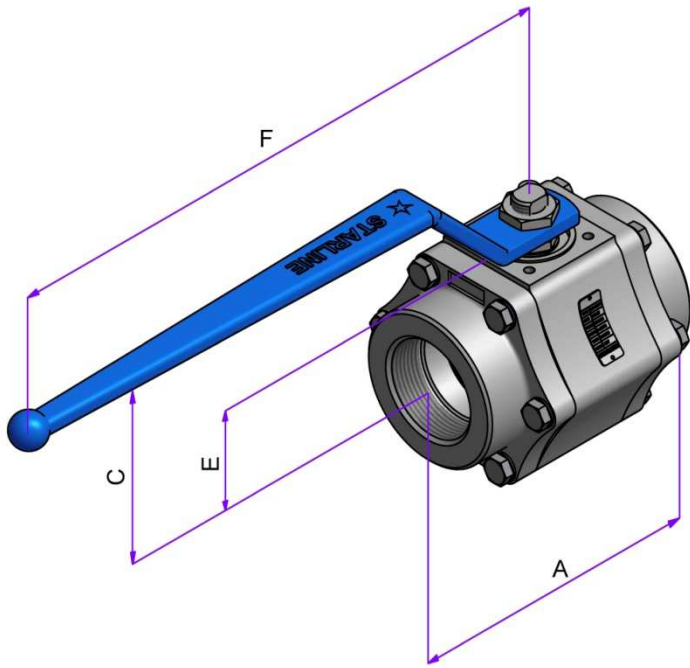
VALVE SIZE		DIMENSIONS [mm]									ISO 5211
NPS	DN	L	P	S	V	K	G	H	N	M	
1/2"x 3/8"	15 x 10	3.6	5.4	1.5	21	M10x1	5.5	25	36	M5x8	F03
3/4"x 1/2"	20 x 15	3.6	5.9	1.5	21	M10x1	5.5	25	36	M5x8	F03
1"x 3/4"	25 x 20	9	5	1.5	25	M12x1.25	7.5	30	42	M5x8	F04
1.1/4"x 1"	32 x 25	10	10	1.5	25	M12x1.25	7.5	30	42	M5x8	F04
1.1/2"x 1.1/4"	40 x 32	13	14	1.5	30	M15x1.5	8.9	35	50	M6x10	F05
2"x 1.1/2"	50 x 40	14	14	1.5	30	M15X1.5	8.9	35	50	M6x10	F05



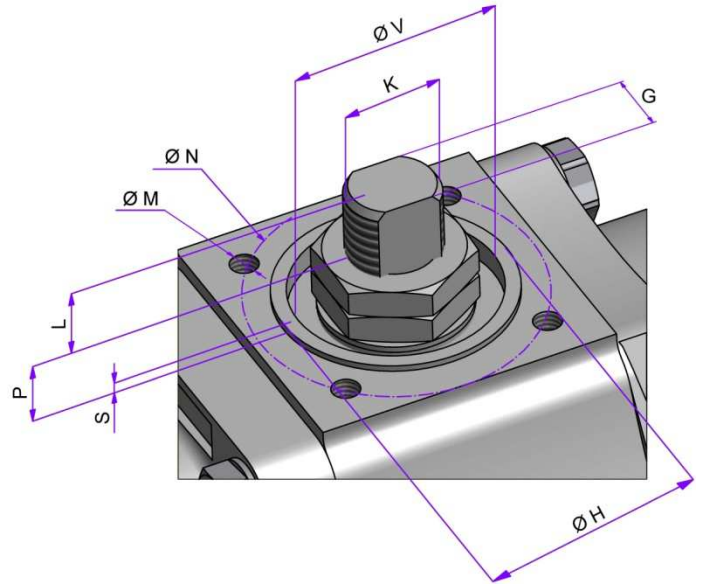
ITEM NO.	Q.TY	PART NAME	MATERIAL (LF2/316)	MATERIAL (316/316)	OPTIONS AVAILABLE
NP	1	Name Plate	316	316	
1	1	Handle	Carbon Steel + Epoxy Coated ^{Note1}	Carbon Steel + Epoxy Coated ^{Note1}	316
2a	2	Handle nuts	304	304	316
2b					
3	2	Packing ring	Graphite	Graphite	Virgin/Reinforced PTFE
4	2	Spring washers	316 Treated	316 Treated	
5	1	Antistatic stem	316/316L Dual Certified	316/316L Dual Certified	Special materials
6	1	Gland packing	316	316	
7	1	Thrust washer	PTFE	PTFE	Reinforced PTFE – PEEK
8	1	“O”ring stem	Viton	Viton	See seats and seals material table
9	1	Ball	316/316L Dual Certified	316/316L Dual Certified	Special materials
10	2	Seats	RPTFE	RPTFE	See seats and seals material table
10a	2	Seats gasket	Viton	Viton	See seats and seals material table
11	2	I° Body seals	RPTFE	RPTFE	See seats and seals material table
12	1	Body	LF2	316/316L Dual Certified	Special materials
13	2	End connections	LF2	316/316L Dual Certified	Special materials
14	1	Stop-pin	316	316	
16	12	Bolts	A320 L7 + Zinc Plated	A193 B8	Special materials
17	1 ^{Note2}	Stop washer	304	304	316
18	2	II° Body seals	Graphite	Graphite	Virgin PTFE

Note 1: Carbon Steel + Plastic for DN80 - 3"

Note 2: Qty 0 for DN 80 - 3"



NPT-BSPP-BSPT



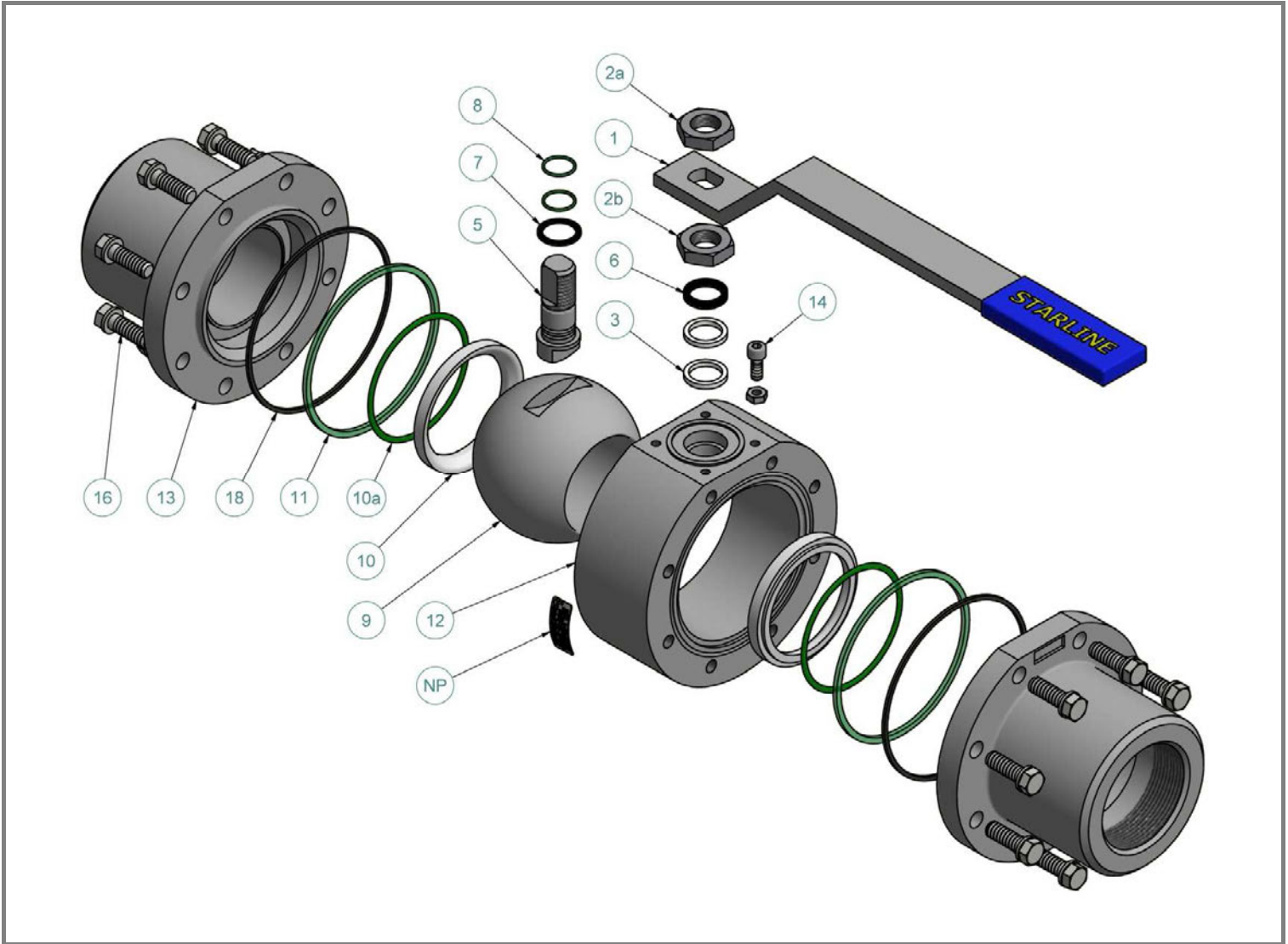
TOP VIEW

REDUCED BORE

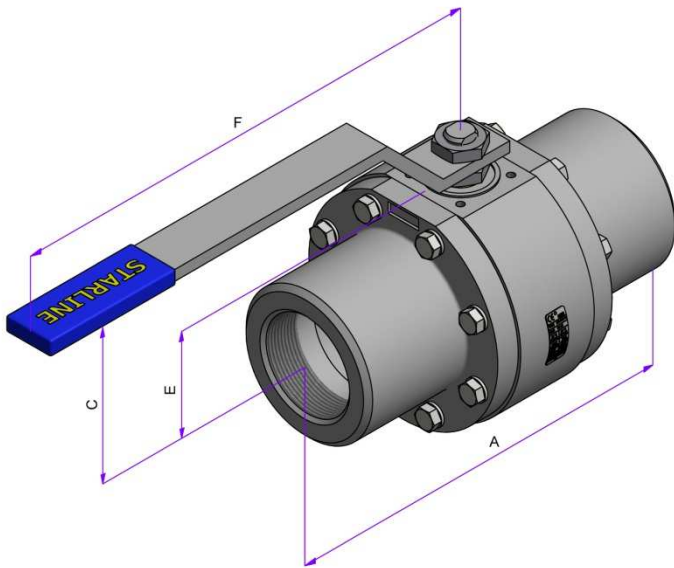
VALVE SIZE		DIMENSIONS [mm]					WEIGHT [Kg]
NPS	DN	A	BORE	C	E	F	NPT-BSPP-BSPT
		NPT-BSPP-BSPT					
2.1/2''x 2''	65 x 50	141	49	122	58.7	218	7.5
3''x 2.1/2''	80 x 65	170	62	136	70	420	13

TOP MOUNTING

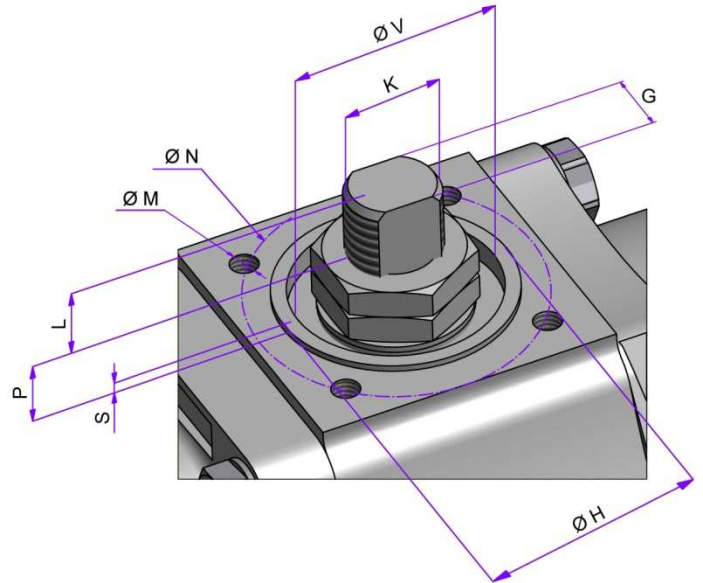
VALVE SIZE		DIMENSIONS [mm]									ISO 5211
NPS	DN	L	P	S	V	K	G	H	N	M	
2.1/2''x 2''	65 x 50	12.5	12.5	1.5	30	M15x1.5	8.9	35	50	M6x10	F05
3''x 2.1/2''	80 x 65	17	18	1.5	48	M22x1.5	16	55	70	M8x12	F07



ITEM NO.	Q.TY	PART NAME	MATERIAL (LF2/316)	MATERIAL (316/316)	OPTIONS AVAILABLE
NP	1	Name Plate	316	316	
1	1	Handle	Carbon Steel + Plastic	Carbon Steel + Plastic	316
2a	2	Handle nuts	304	304	316
2b					
3	2	Packing ring	Graphite	Graphite	Virgin/Reinforced PTFE
5	1	Antistatic stem	316/316L Dual Certified	316/316L Dual Certified	Special materials
6	1	Gland packing	316	316	
7	1	Thrust washer	PTFE	PTFE	Reinforced PTFE – PEEK
8	2	“O”ring stem	Viton	Viton	See seats and seals material table
9	1	Ball	316/316L Dual Certified	316/316L Dual Certified	Special materials
10	2	Seats	RPTFE	RPTFE	See seats and seals material table
10a	2	Seats gasket	Viton	Viton	See seats and seals material table
11	2	I° Body seals	RPTFE	RPTFE	See seats and seals material table
12	1	Body	LF2	316/316L Dual Certified	Special materials
13	2	End connections	LF2	316/316L Dual Certified	Special materials
14	1	Stop-pin	316	316	
16	16	Bolts	A320 L7 + Zinc Plated	A193 B8	Special materials
18	2	II° Body seals	Graphite	Graphite	Virgin PTFE



NPT-BSPP-BSPT



TOP VIEW

REDUCED BORE							
VALVE SIZE		DIMENSIONS [mm]					WEIGHT [Kg]
NPS	DN	A	BORE	C	E	F	NPT-BSPP-BSPT
		NPT-BSPP-BSPT					
4''x 3''	100 x 80	229	76	150	87	420	25.5

TOP MOUNTING											
VALVE SIZE		DIMENSIONS [mm]									ISO 5211
NPS	DN	L	P	S	V	K	G	H	N	M	
4''x 3''	100 x 80	15	22.5	1.5	48	M24x2	18	55	70	M8x12	F07