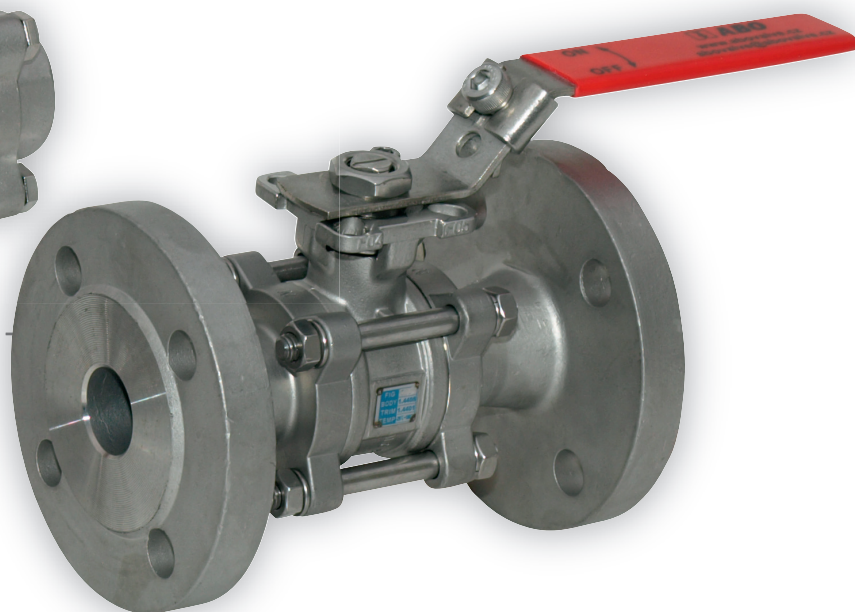
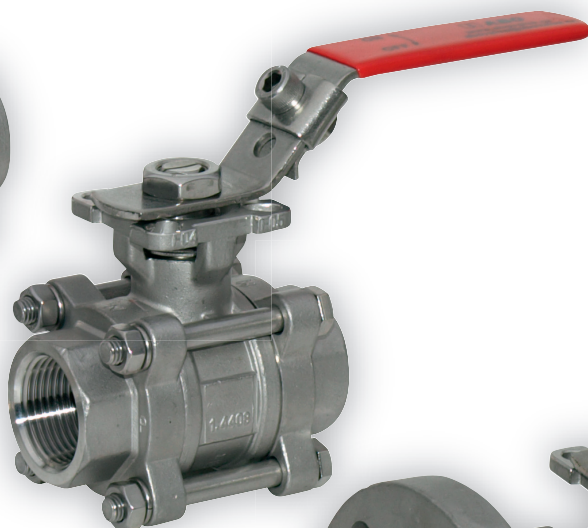
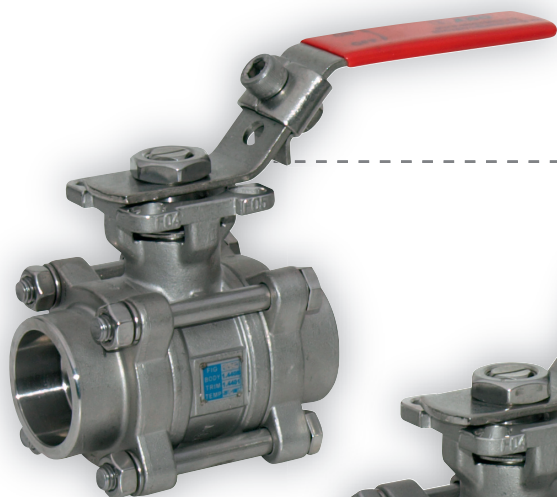




# ABO valve

flow control



## BALL VALVES

DN 8 – 100

PN 63, 40

### Applications:

chemical and petrochemical industries,  
water treatment, power plants,  
paper industry, refineries, oils, gas,  
shipbuilding, pharmacy,  
food & beverages

CE

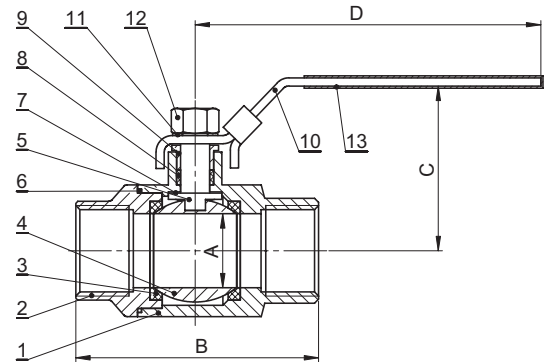
## BALL VALVES

# ART. 940 / ART. 941

## ART. 940

Stainless steel ball valve:

- 2 – pieces
- Full bore
- F.F. thread (BSPP / BSPT)
- DN 8 - 25 PN 63, DN 32- 50 PN 40
- Thread end:  
ANSI B 1.20.1 (NPT)  
ISO 7/1 (Rc/Rp)  
ISO 228/1 (G)



### OPERATING TORQUES

DN	8	10	15	20	25	32	40	50
Nm	1,76	1,76	2,65	8,04	9,51	13,24	17,16	21,27

Note: The torque figures were measured under 0 pressure at room temperature (without safety factor).

DN	A	B ± 2	C	D
8	10	50	41,4	80
10	12,5	50	41,4	80
15	15	60	45	80
20	20	70	54,7	100
25	24,5	80	65,3	125
32	32	93	70,9	125
40	38	103	84	160
50	50	123	93,3	160

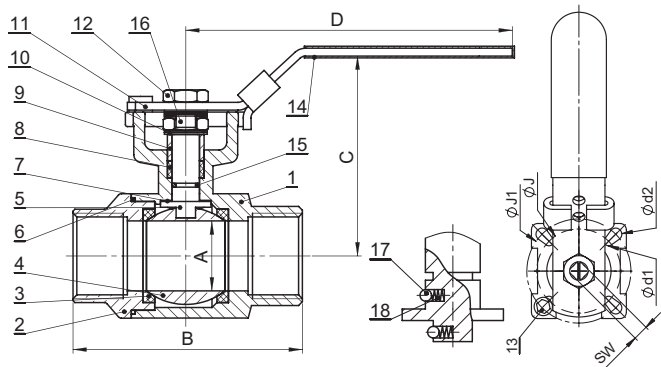
Dimensions in mm. Permissible deviations ± 2 mm.

ITEM	PART NAME	MATERIAL	QUANTITY
		Art. 940	
1	Body	EN10213 1.4408	1
2	End caps	EN10213 1.4408	1
3	Seat	PTFE + 15% G.F.	2
4	Ball	CF8M/316	1
5	Stem	SUS 316	1
6	Gasket	PTFE	1
7	Gasket	PTFE	1
8	Seal	PTFE	1
9	Packing gland	SUS 304	1
10	Handle	SUS 304	1
11	Lever spring washer	SUS 304	1
12	Lever nut	SUS 304	1
13	Plastic coating	PVC	1

## ART. 941

Stainless steel ball valve:

- 2-pieces with ISO flanged connections
- Full bore
- F.F. thread (BSPP / BSPT)
- PN 63
- Thread end:  
ANSI B 1.20.1 (NPT)  
ISO 7/1 (Rc/Rp)  
ISO 228/1 (G)



### OPERATING TORQUES

DN	15	20	25	32	40	50
Nm	4,12	4,61	9,02	9,61	12,55	21,27

Note: The torque figures were measured under 0 pressure at room temperature (without safety factor).

DN	A	B	C	D	H	L	J	J1	d1	d2	SW
8	11,1	57	72,7	110	42,3	8	42	50	6	7	9
10	11,1	57	72,7	110	42,3	8	42	50	6	7	9
15	15	57	70,2	110	42,3	8	42	50	6	7	9
20	20	71	72,7	110	44,8	8	42	50	6	7	9
25	24,5	83	83,5	135	54	10	42	50	6	7	11
32	32	91	100	165	59,2	10	50	70	7	9	11
40	38	104	100,8	165	71,3	10	50	70	7	9	11
50	50	123	118	165	82,9	14,8	50	70	7	9	14

Dimensions in mm. Permissible deviations ± 2 mm.

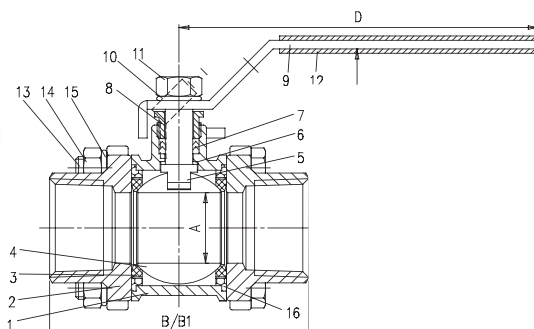
ITEM	PART NAME	MATERIAL	QUANTITY
		Art. 941	
1	Body	EN10213 1.4408	1
2	End caps	EN10213 1.4408	1
3	Seats	PTFE + 15% G.F.	2
4	Ball	CF8M/316	1
5	Stem	SUS 316	1
6	Gasket	PTFE	1
7	Gasket	PTFE + 15% G.F.	1
8	Seal	PTFE	1
9	Gland ring	SUS 304	2
10	Belleville spring washer	SUS 301	2
11	Handle	SUS 304	1
12	Lever nut	SUS 304	2
13	Stop screw	SUS 304	1
14	Plastic coating	PVC	1
15	O-ring	VITON	1 - 2
16	Locking tab	SUS 304	1
17	Static device	SUS 316	2
18	Spring	SUS 316	2

# ART. 942 / ART. 943

## ART. 942

Stainless steel ball valve:

- 3-pieces
- Full bore
- F.F. thread (BSPP / BSPT)
- DN 8 - 25 PN 63, DN 32- 50 PN 40
- Thread end:  
ANSI B 1.20.1 (NPT)  
ISO 7/1 (Rc/Rp)  
ISO 228/1 (G)



### OPERATING TORQUES

DN	8	10	15	20	25	32	40	50
Nm	1,76	1,76	3,92	5,39	7,65	14,22	19,41	22,06

Note: The torque figures were measured under 0 pressure at room temperature (without safety factor).

DN	A	B ± 2	C	D	E	F	G	B1 ± 2
8	10	50	41,4	80	10	13	14	70
10	12,5	60	41,4	80	12,5	13	18	70
15	15	75	45	80	16	17	22	75
20	20	80	54,7	100	20	22	27,5	90
25	24,5	90	65,3	125	24,5	28	34,5	100
32	32	110	70,9	125	32	37	43	110
40	38	120	84	160	38	43	49	125
50	50	140	93,3	160	50	54	61,5	150

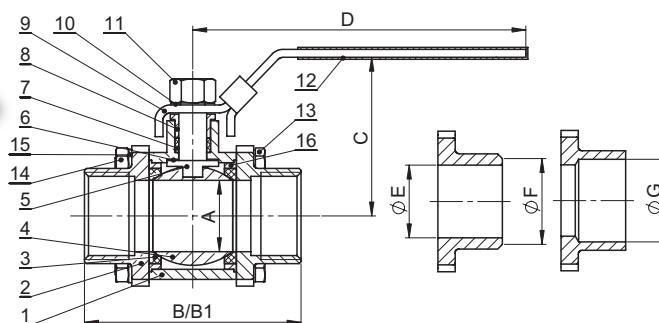
Dimensions in mm. Permissible deviations ± 2 mm.

ITEM	PART NAME	MATERIAL	QUANTITY
		Art. 942	
1	Body	EN10213 1.4408	1
2	End caps	EN10213 1.4408	2
3	Seat	PTFE + 15% G.F.	2
4	Ball	CF8M/316	1
5	Stem	SUS 316	1
6	Gasket	PTFE	1
7	Seal	PTFE	1
8	Packing gland	SUS 304	1
9	Handle	SUS 304	1
10	Lever spring washer	SUS 304	1
11	Lever nut	SUS 304	1
12	Plastic coating	VINYL	1
13	Bolts	SUS 304	4
14	Bolts nut	SUS 304	4
15	Spring washer	SUS 304	4
16	Body seal	PTFE + 15% G.F.	2

## ART. 943

Stainless steel ball valve:

- 3-pieces
- Full bore
- Welding pipe connection
- DN 8 - 25 PN 63, DN 32- 50 PN 40
- Welding end:  
EN 12627



### OPERATING TORQUES

DN	8	10	15	20	25	32	40	50
Nm	1,76	1,76	3,92	5,39	7,65	14,22	19,41	22,06

Note: The torque figures were measured under 0 pressure at room temperature (without safety factor).

DN	A	B ± 2	C	D	E	F	G	B1 ± 2
8	10	50	41,4	80	10	13	14	70
10	12,5	70	41,4	80	12,5	13	18	70
15	15	75	45	80	16	17	22	75
20	20	90	54,7	100	20	22	27,5	90
25	24,5	100	65,3	125	24,5	28	34,5	100
32	32	110	70,9	125	32	37	43	110
40	38	125	84	160	38	43	49	125
50	50	150	93,3	160	50	54	61,5	150

Dimensions in mm. Permissible deviations ± 2 mm.

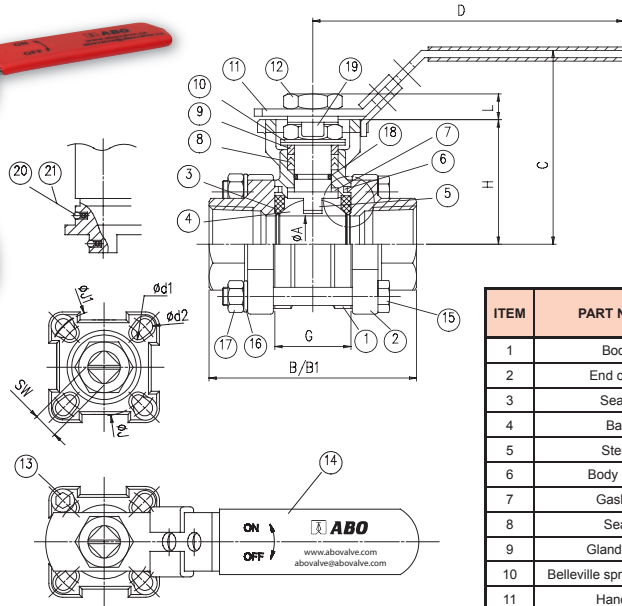
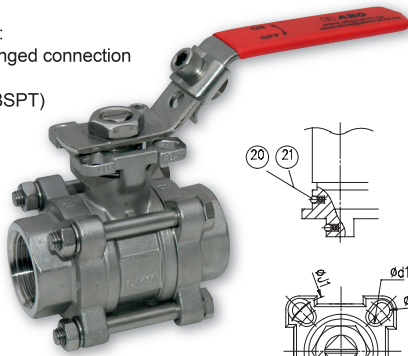
ITEM	PART NAME	MATERIAL	QUANTITY
		Art. 943	
1	Body	EN10213 1.4408	1
2	End caps	EN10213 1.4408	2
3	Seat	PTFE + 15% G.F.	2
4	Ball	CF8M/316	1
5	Stem	SUS 316	1
6	Gasket	PTFE	1
7	Seal	PTFE	1
8	Packing gland	SUS 304	1
9	Handle	SUS 304	1
10	Lever spring washer	SUS 304	1
11	Lever nut	SUS 304	1
12	Plastic coating	VINYL	1
13	Bolts	SUS 304	4
14	Bolts nut	SUS 304	4
15	Spring washer	SUS 304	4
16	Body seal	PTFE + 15% G.F.	2

# ART. 944 / ART. 945

## ART. 944

Stainless steel ball valve:

- 3-pieces with ISO flanged connection
- Full bore
- F.F. thread (BSPP / BSPT)
- PN 63
- Thread end:  
ANSI B 1.20.1 (NPT)  
ISO 7/1 (Rc/Rp)  
ISO 228/1



### OPERATING TORQUES

DN	15	20	25	32	40	50
Nm	3,73	5,10	6,57	9,61	16,47	32,16

Note: The torque figures were measured under 0 pressure at room temperature (without safety factor).

DN	A	B	B1	C	D	E	F	F1	G	J	J1	SW	d1	d2	H	L
8	11,1	75	75	70,9	110	14,2	13	17,2	25,2	36	42	9	6	6	42,3	8
10	11,1	75	75	70,9	110	17,7	13	17,2	25,2	36	42	9	6	6	42,3	8
15	16	75	75	70,9	110	21,9	17	22,4	25,2	36	42	9	6	6	42,3	8
20	20	80	90	73,4	110	27,2	22	28,2	27,7	36	42	9	6	6	44,8	8
25	24,5	90	100	84,1	135	34	28	33,7	33	42	50	11	6	7	54	10
32	32	110	110	89,3	135	42,7	37	44	41,2	42	50	11	6	7	59,2	10
40	38	120	125	109,5	165	48,8	43	50,8	49,3	50	70	14	7	9	73,5	14,8
50	50	140	150	118,9	165	61,3	54	62,6	63,6	50	70	14	7	9	82,9	14,8

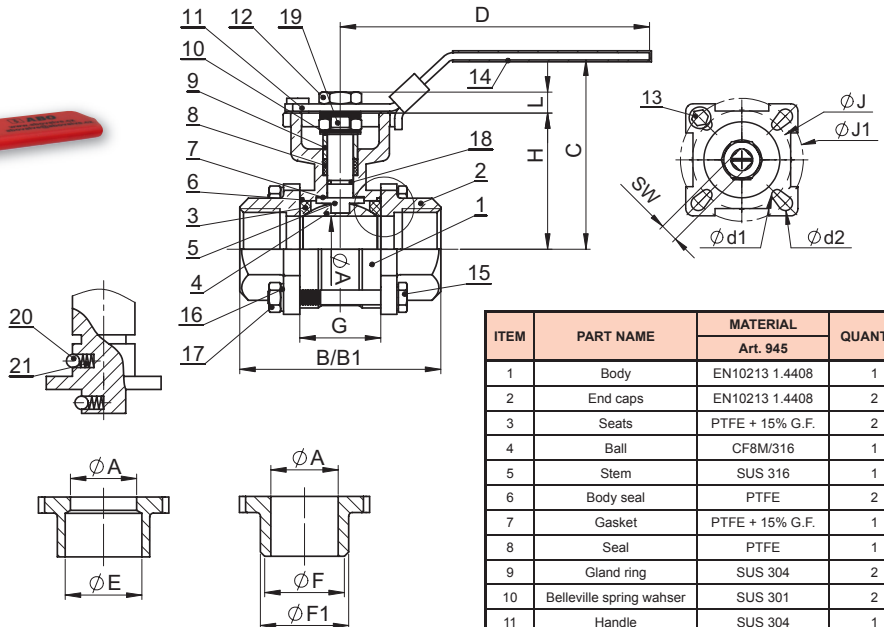
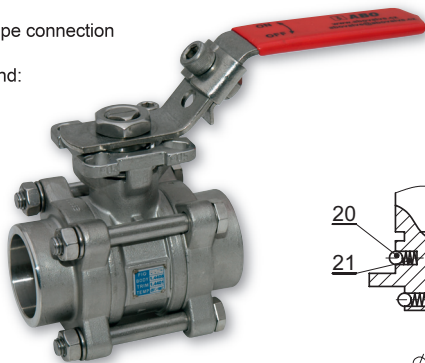
Dimensions in mm. Permissible deviations ± 2 mm.

ITEM	PART NAME	MATERIAL	QUANTITY
		Art. 944	
1	Body	EN10213 1.4408	1
2	End caps	EN10213 1.4408	2
3	Seats	PTFE + 15% G.F.	2
4	Ball	CF8M/316	1
5	Stem	SUS 316	1
6	Body seal	PTFE	2
7	Gasket	PTFE + 15% G.F.	1
8	Seal	PTFE	1
9	Gland ring	SUS 304	2
10	Belleville spring washer	SUS 301	2
11	Handle	SUS 304	1
12	Lever nut	SUS 304	1
13	Stop screw	SUS 304	1
14	Plastic coating	PVC	1
15	Bolts	SUS 304	4
16	Spring washer	SUS 304	4
17	Bolts nut	SUS 304	4
18	O - ring	VITON	1 - 2
19	Locking tab	SUS 304	1
20	Static device	SUS 316	2
21	Spring	SUS 316	2

## ART. 945

Stainless steel ball valve:

- 3-pieces with ISO flanged connection
- Full bore
- Welding pipe connection
- PN 63
- Welding end:  
EN 12627



### OPERATING TORQUES

DN	15	20	25	32	40	50
Nm	3,73	5,10	6,57	9,61	16,47	32,16

Note: The torque figures were measured under 0 pressure at room temperature (without safety factor).

DN	A	B	B1	C	D	E	F	F1	G	J	J1	SW	d1	d2	H	L
8	11,1	75	75	70,9	110	14,2	13	17,2	25,2	36	42	9	6	6	42	8
10	11,1	75	75	70,9	110	17,7	13	17,2	25,2	36	42	9	6	6	42	8
15	16	75	75	70,9	110	21,9	17	22,4	25,2	36	42	9	6	6	42	8
20	20	80	90	73,4	110	27,2	22	28,2	27,7	36	42	9	6	6	45	8
25	24,5	90	100	84,1	135	34	28	33,7	33	42	50	11	6	7	54	10
32	32	110	110	89,3	135	42,7	37	44	41,2	42	50	11	6	7	59	10
40	38	120	125	110	165	48,8	43	50,8	49,3	50	70	14	7	9	74	15
50	50	140	150	119	165	61,3	54	62,6	63,6	50	70	14	7	9	83	15

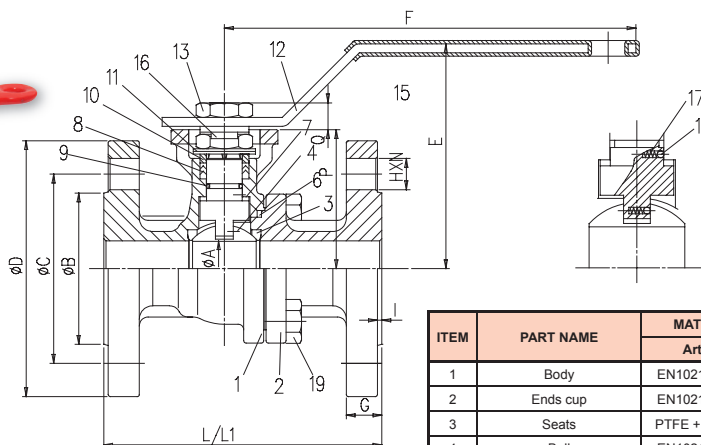
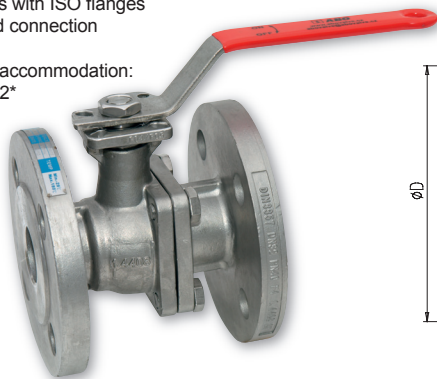
Dimensions in mm. Permissible deviations ± 2 mm.

ITEM	PART NAME	MATERIAL	QUANTITY
		Art. 945	
1	Body	EN10213 1.4408	1
2	End caps	EN10213 1.4408	2
3	Seats	PTFE + 15% G.F.	2
4	Ball	CF8M/316	1
5	Stem	SUS 316	1
6	Body seal	PTFE	2
7	Gasket	PTFE + 15% G.F.	1
8	Seal	PTFE	1
9	Gland ring	SUS 304	2
10	Belleville spring washer	SUS 301	2
11	Handle	SUS 304	1
12	Lever nut	SUS 304	1
13	Stop screw	SUS 304	1
14	Plastic coating	PVC	1
15	Bolts	SUS 304	4
16	Spring washer	SUS 304	4
17	Bolts nut	SUS 304	4
18	O - ring	VITON	1 - 2
19	Locking tab	SUS 304	1
20	Static device	SUS 316	2
21	Spring	SUS 316	2

# ART. 946 / ART. 947

## ART. 946

- Stainless steel ball valve:
- 2-pieces with ISO flanges
  - Flanged connection
  - PN 40
  - Flange accommodation: EN 1092\*

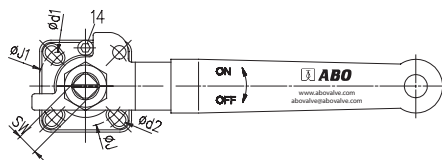


\*(ANSI / ASME B16.5 upon request)

### OPERATING TORQUES

DN	15	20	25	32	40	50
Nm	4,12	4,22	6,37	12,55	16,37	21,76

Note: The torque figures were measured under 0 pressure at room temperature (without safety factor).



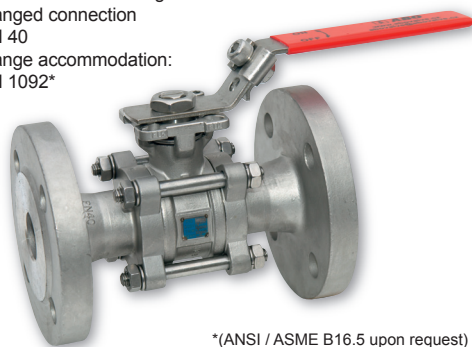
ITEM	PART NAME	MATERIAL	QUANTITY
		Art. 946	
1	Body	EN10213 1.4408	1
2	Ends cup	EN10213 1.4408	1
3	Seats	PTFE + 15% G.F.	2
4	Ball	EN10213 1.4408	1
5	Stem	EN10213 1.4408	1
6	Body seal	PTFE / GRAPHITE	1
7	Gasket	PTFE + 15% G.F.	1
8	Seal	PTFE / GRAPHITE	1
9	O - ring	VITON	1 - 2
10	Gland ring	SUS 304	2
11	Elleville spring washer	SUS 301	2
12	Handle	SUS 304	1
13	Lever nut	SUS 304	2
14	Stop screw	SUS 304	1
15	Plastic coating	VINYL	1
16	Locking tab	SUS 304	1
17	Spring	SUS 316	1
18	Static device	SUS 316	1
19	Bolts	A2-70	4 - 6

DN	A	B	C	D	E	F	G	H x N	L	L1	I	P	Q	J	J1	d1	d2	SW
15	16	45	65	95	89	114	16	14 x 4	115	130	2	54	8	36	42	6	6	9
20	20	58	75	105	89	114	18	14 x 4	120	150	2	56	8	36	42	6	6	9
25	25	68	85	115	101	187	18	14 x 4	125	160	2	62,5	12	42	50	6	7	11
32	32	78	100	140	112	187	18	18 x 4	130	180	2	72	12	42	50	6	7	11
40	40	88	110	150	116	222	18	18 x 4	140	200	3	78	14,8	50	70	7	9	14
50	50	102	125	165	125	222	20	18 x 4	150	230	3	87,2	14,8	50	70	7	9	14

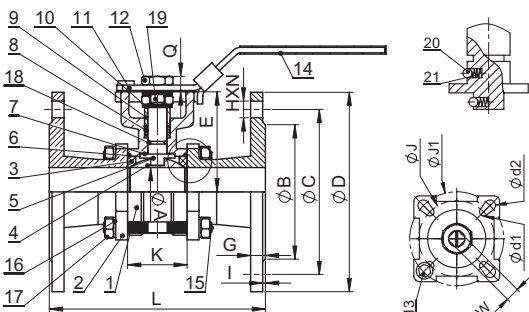
Dimensions in mm. Permissible deviations ± 2 mm.  
Bigger DN upon request.

## ART. 947

- Stainless steel ball valve:
- 3-pieces with ISO flanges
  - Flanged connection
  - PN 40
  - Flange accommodation: EN 1092\*



\*(ANSI / ASME B16.5 upon request)



### OPERATING TORQUES

DN	15	20	25	32	40	50	65	80	100
Nm	3,73	5,10	6,57	9,61	16,47	32,16	61,76	78,43	132,35

Note: The torque figures were measured under 0 pressure at room temperature (without safety factor).

ITEM	PART NAME	MATERIAL	QUANTITY
		Art. 947	
1	Body	EN10213 1.4408	1
2	End caps	EN10213 1.4408	2
3	Seats	PTFE + 15% G.F.	2
4	Ball	CF8M/316	1
5	Stem	SUS 316	1
6	Body seal	PTFE	2
7	Gasket	PTFE + 15% G.F.	1
8	Seal	PTFE	1
9	Gland ring	SUS 304	2
10	Belleville spring washer	SUS 301	2

ITEM	PART NAME	MATERIAL	QUANTITY
11	Handle	SUS 304	1
12	Lever nut	SUS 304	1
13	Stop screw	SUS 304	1
14	Plastic coating	PVC	1
15	Bolts	SUS 304	4 / 6
16	Spring washer	SUS 304	8 / 12
17	Bolts nut	SUS 304	8 / 12
18	O - ring	VITON	1 / 2
19	Locking tab	SUS 304	1
20	Static device	SUS 316	2
21	Spring	SUS 316	2

DN	A	B			C			D			SW	d1	d2	Q
		ANSI	PN16	PN40	ANSI	PN16	PN40	ANSI	PN16	PN40				
15	16	35	45	45	66,5	65	65	95	95	95	9	6	6	8
20	20	43	58	58	82,5	75	75	117	105	105	9	6	6	8
25	24,5	51	68	68	89	85	85	124	115	115	11	6	7	12
32	32	64	78	78	98,5	100	100	133	140	140	11	6	7	12
40	38	73	88	88	114,3	110	110	155	150	150	14	7	9	14,3
50	50	92	102	102	127	125	125	165	165	165	14	7	9	14,3
65	65	105	122	122	149,3	145	145	190	185	185	17	9	11	17,1
80	80	127	138	138	168	160	160	209	200	200	17	9	11	17,1
100	100	157	158	160	200	180	190	254	220	235	17	9	11	17,1

DN	E	G			I	H x N			K	L		J	J1	
		ANSI	PN16	PN40		ANSI	DIN	ANSI		PN16	PN40			ANSI
15	42,3	14,2	14	16	1,6	2	16 x 4	14 x 4	14 x 4	25,2	139,7	130	36	42
20	44,8	15,7	16	18	1,6	2	19 x 4	14 x 4	14 x 4	27,2	152,4	150	36	42
25	54	17,5	16	18	1,6	2	19 x 4	14 x 4	14 x 4	33	165,1	160	42	50
32	59,2	19	16	18	1,6	2	19 x 4	18 x 4	18 x 4	41,2	177,8	180	42	50
40	73,5	20,5	16	18	1,6	3	22 x 4	18 x 4	18 x 4	49,3	190,5	200	50	70
50	82,9	22,5	18	20	1,6	3	19 x 8	18 x 4	18 x 4	63,6	215,9	230	50	70
65	107	25,4	18	22	1,6	3	22 x 8	18 x 4	18 x 8	82,1	241,3	290	70	102
80	117	28,4	20	24	1,6	3	22 x 8	18 x 8	18 x 8	95,8	282,4	310	70	102
100	132	31,8	20	24	1,6	3	22 x 8	18 x 8	18 x 8	117,8	304,8	350	70	102

Dimensions in mm. Permissible deviations ± 2 mm.

# ACTUATORS

## ELECTRIC ACTUATOR ART. SM500

2" ½ - 3" - 4"

- Voltage: 24VAC – 230 VAC
- Operating time: 0 – 90°: 60 sec – 150 sec
- Operating torque: 38 Nm – 100 Nm
- Protection enclosure: IP 65
- Working temperature: -10°C + 55°C



## ELECTRIC PART-TURN ACTUATOR SP 0.1

- Max. load torque: 50 Nm
- Operating time: 10 - 160 (s/90°)
- Operating angle: 60° - 360°
- Working temperature: -25°C + 55°C
- Protection enclosure: IP 65 / IP 67
- Operating position: any position
- Weight: 3,2 kg - 5,2 kg



## ELECTRIC PART-TURN ACTUATOR SP 1

- Max. load torque: 80 Nm
- Switching-off torque: 90 Nm
- Operating time: 10 - 80 (s/90°)
- Operating angle: 60° - 360°
- Working temperature: -25°C + 55°C
- Protection enclosure: IP 65 / IP 67
- Operating position: any position
- Weight: 6,5 kg – 8,3 kg



## PNEUMATIC ACTUATORS ABO SERIES 95

### Design:

- Single acting
- Double acting

### Standard angles:

- Rotation 90°, 120°, 180° and 240°.
- Customized angles available as well as three position versions.

### Stroke adjustment:

- GTW type: 0°-Position from -25° to +5°, 90°-Position from -5° to +5°
- GTK, GTX type: 90°-Position from -5° to +5°

### Torques:

- 5 - 8000 Nm

### Temperature range:

- Standard: From -50°C to +70°C (NBR)
- Special version: From -15°C to + 160°C (Viton) or -30° to +200° (Silicone)



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**Notice:** The information in this brochure is indicative only. Binding specification will be provided in the offer. ABO valve accepts no liability for damages caused by bad interpretation or use of the information included in this brochure.

Data subject to change.



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