

3 PIECES STAINLESS STEEL BALL VALVE WITH ROTATING ENDS ELSA BW

3 pieces stainless steel ball valve with rotating ends, full bore for the fields of the tobacco industry, liquid and gas in a radioactive environment, high pneumatic and hydraulic pressure, medical.

Easy installation thanks to the rotating ends.

Packing with 3 chevrons gaskets and one thrust washer on stem, body gasket and seat in UHMWPE.

Compatible with explosive atmosphere, ATEX Zone 1&21 and Zone 2&22 thanks to the double antistatic device.

Handling with lockable handle, locking oval handwheel or stem extension with ISO5211 plate.

Thanks to the ISO 5211 plate, an actuator can be installed on the valve.



Certificate
3.1



Size : DN8 to DN50
Connection : BW ISO
Min Temperature : -50°C
Max Temperature : +80°C
Max Pressure : 63 Bars up to DN40
Specifications : Rotating ends
 ISO 5211 mounting pad
 Anti blow-out stem, Full bore
 Double antistatic device, ATEX
 UHMWPE gaskets and seat

Materials : Stainless Steel EN 1.4409

*the installation defects and wear defects are not covered by the guarantee

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SPECIFICATIONS :

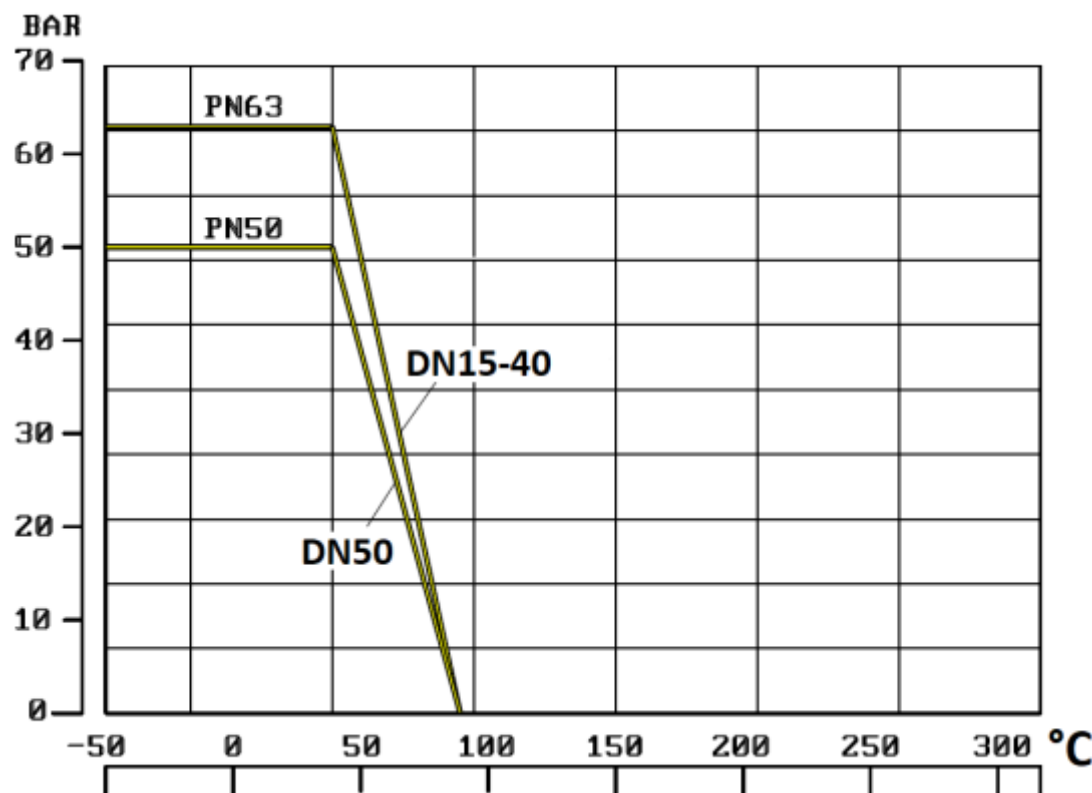
- Full bore
- Anti blow-out stem
- Packing with 3 chevrons gaskets
- Double antistatic device (ball between stem-body and stem-ball)
- Fugitive emissions according to ISO 15848-1 2015
- Lockable handle
- Oval handwheel and stem extension on request
- ISO 5211 mounting pad
- Rotating ends
- Welding possible without removing the central part if the valve is in opened position
- Seat with notches for automatic decompression in the dead area
- With exhaust hole in the ball (located in the top of the ball to avoid overpressure in it in opened position)
- Roughness Ra 0.4 for the ball, Ra 0.8 for the ends

USE :

- Fields of the tobacco industry, liquid and gas in a radioactive environment, high pneumatic and hydraulic pressure, medical
- Min and max Temperature Ts : -50°C to + 80°C
- Max Pressure Ps : 63 bars up to DN40, 50 bars for DN50 (see graph under)

PRESSURE / TEMPERATURE GRAPH (STEAM EXCLUDED) :

Pressure



Temperature (°C)

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FLOW COEFFICIENT Kvs (M3 / h) :

DN (mm)	8-12	15	20	25	32	40	50
NPS (")	1/4"-3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Kvs (m3/h)	17	31	59	98	159	230	418

TORQUES VALUES (in Nm without safety coefficient) :

DN (mm)	8-12	15	20	25	32	40	50
NPS (")	1/4"-3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Torque (Nm)	4.5	4.9	5.9	11.8	19.6	29.4	39.2

BOLT TIGHTENING TABLE (in Nm) :

DN (mm)	8/12	15	20	25	32	40	50
NPS (")	1/4"-3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Torque (Nm)	12	20	20	20	40	40	50

RANGE :

- 3 Pieces ball valve with rotating ends EN 1.4409 full bore BW **Ref. ELIUBW** from DN8 to DN50
- Body alone (without flanges and ends) EN 1.4409 full bore with UHMWPE seat **Ref. ELIU** from DN8 to DN50

OPTIONS :

- AISI 304 Oval Handwheel **Ref. ELVO0812-25** (see page 8)



DN (mm)	8	12	15	20	25
NPS (")	1/4"	3/8"	1/2"	3/4"	1"
Ref.	ELVO0812		ELVO15	ELVO20	ELVO25

- AISI 304 stem extension with ISO 5211 plate and bolting **Ref. ELRISO0812-ELRISO50** (Height 63.5mm)



DN (mm)	8	12	15	20	25	32	40	50
NPS (")	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Ref.	ELRISO0812		ELRISO15	ELRISO20	ELRISO25	ELRISO32	ELRISO40	ELRISO50

- AISI 304 stem extension with ISO 5211 plate and bolting **Ref. ELRISO0812FR-ELRISO50FR** (Height 81.5mm)



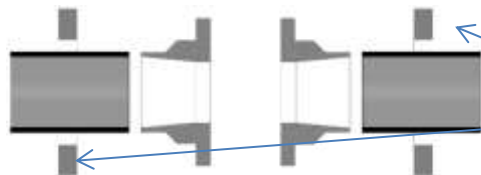
DN (mm)	8	12	15	25	32	40	50
NPS (")	1/4"	3/8"	1/2"	1"	1"1/4	1"1/2	2"
Ref.	ELRISO0812FR		ELRISO1520FR	ELRISO25FR	ELRISO32FR	ELRISO40FR	ELRISO50FR

CONNECTION :

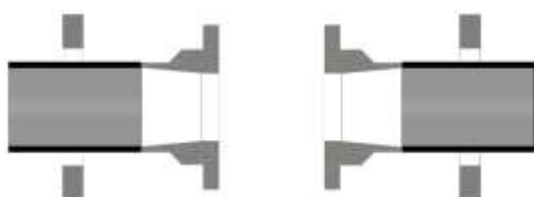
- B.W. ISO ends

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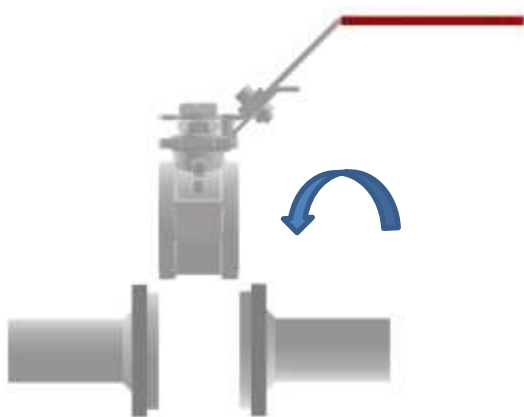
INSTALLATION :



- Insert flanges on the pipe then place the ends



- Weld the ends on the pipe and check the length between them is correct



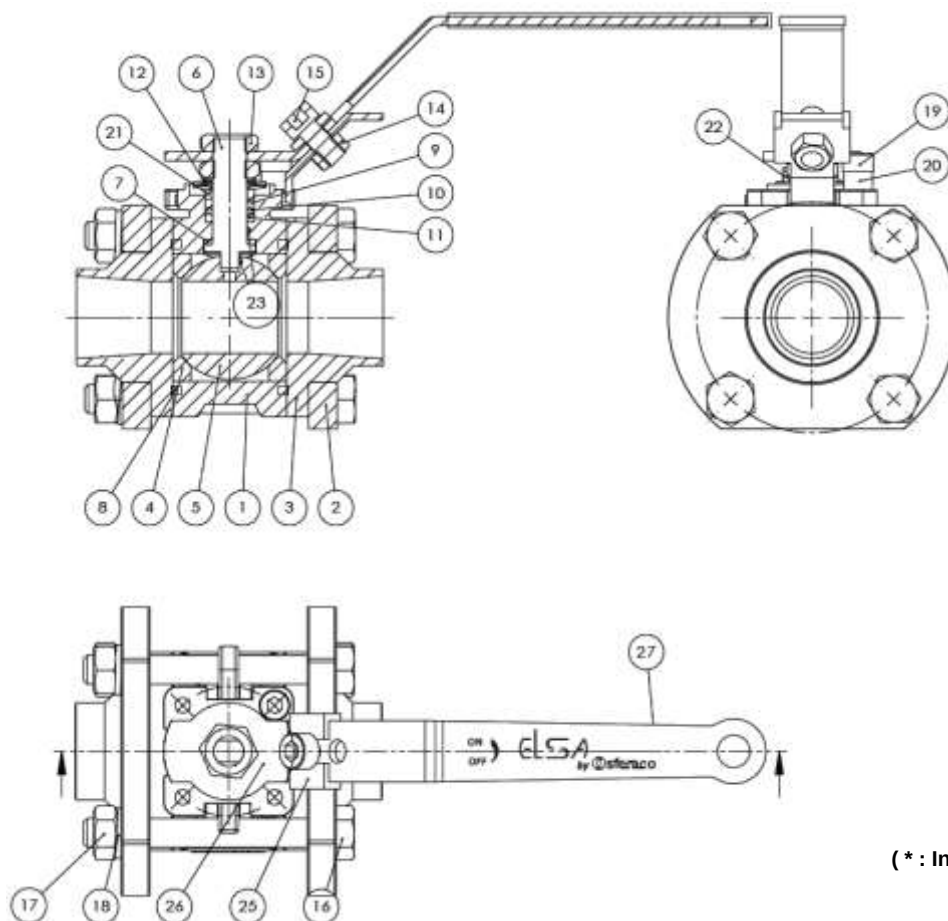
- Insert the body between the ends, thanks to the rotating ends, it's easy to place and adjust the desired angle



- Insert the studs and tightnen them at the torque indicated page 3

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MATERIALS :

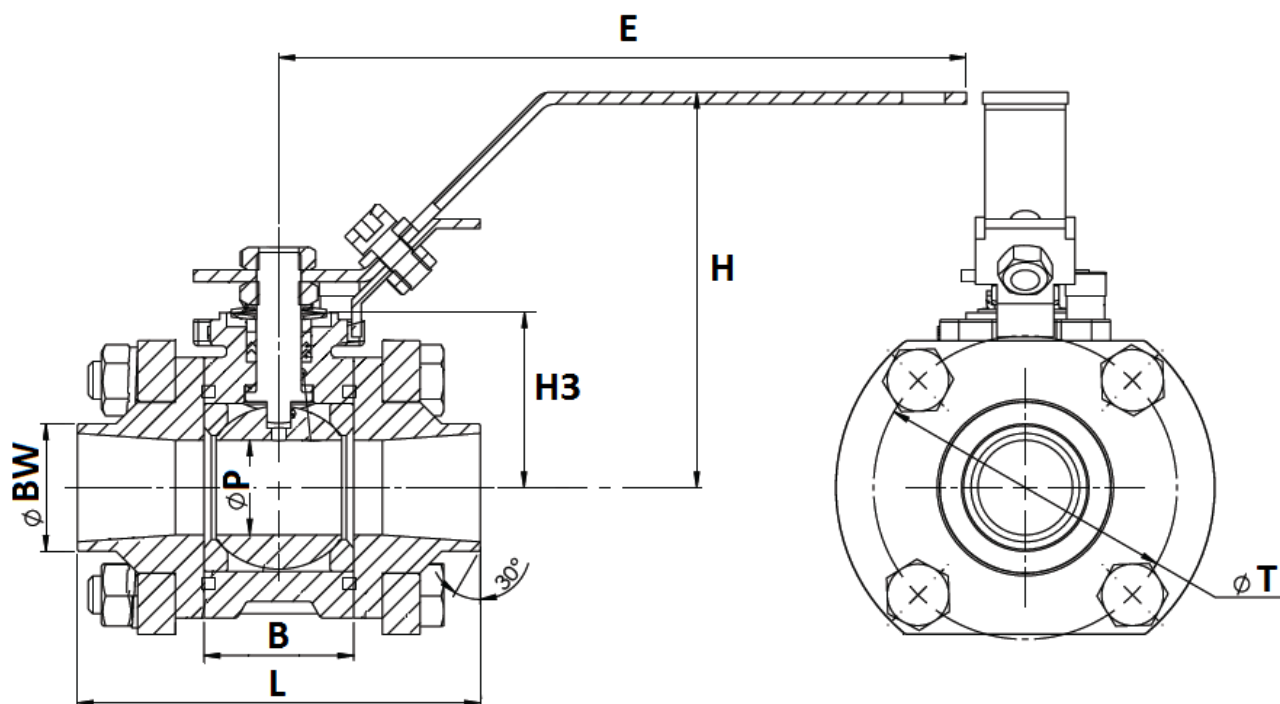


(* : Included in gaskets kit)

Item	Designation	Materials
1	Body DN8-DN12	EN 1.4435
	Body DN15-DN50	EN 1.4409
2	Flange	EN 1.4308
3	Ends	EN 1.4409 Ra 0.8
4*	Seat	UHMWPE
5	Ball DN8-12	EN 1.4435 Ra 0.4 electropolished
	Ball DN15-50	CF3M Ra 0.4
6	Stem	AISI 316L
7*	Thrust washer	UHMWPE
8*	Body gasket	
9*, 10*, 11*	Packing (chevrons)	
12	Elastic rings	AISI 301
13	Handle nut	AISI 304
14,15	Screw and nut	
16, 17	Studs and nut	A2-70
18	Washer	AISI 304
19, 20	Screw and stop	
21	Gland	
23	Antistatic device	AISI 316
25	Locking device	AISI 304
26	Handle	
27	Handle cover	PVC

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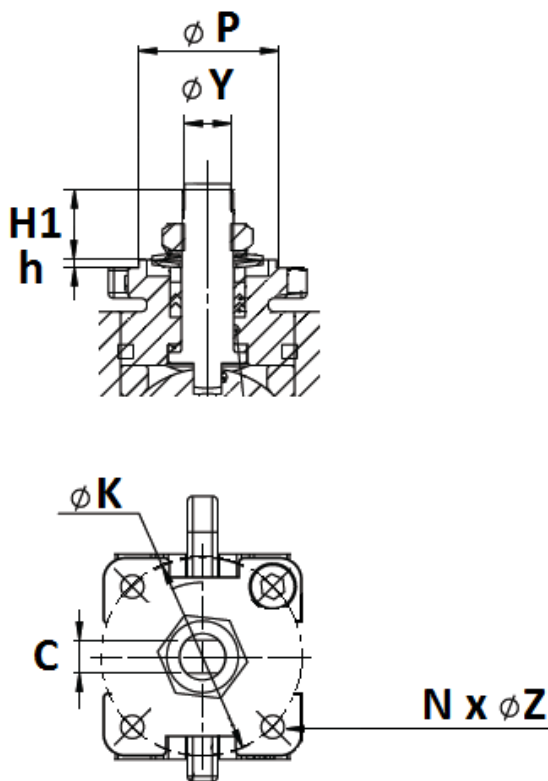
SIZE (in mm) :



DN (mm)	8	12	15	20	25	32	40	50
Ø P	11.3		15	20	25.4	32	38.2	50
Ø BW	13.5	17	21.3	26.9	33.8	42.4	48.3	60.3
Ø BW1	9.5	13	17.3	22.9	29.8	37.2	43.1	54.5
EP	2					2.6		2.9
L	65.2		70	85	100	110	125	150
B	20.4		24.4	31.6	41.4	48.2	56.2	71
E	130		149	149	170.5	192.5	212.5	216
H	70.3		79	83.4	106.6	110.4	108.7	139.6
H3	28		32.85	36.9	44.7	48.1	53.1	72.5
Ø T	43		53.1	64	71.4	80.9	94.2	114
Weight (in Kg)	0.6	0.6	0.88	1.42	1.95	3.1	4	7.7
Ref.	ELIUBW08	ELIUBW12	ELIUBW15	ELIUBW20	ELIUBW25	ELIUBW32	ELIUBW40	ELIUBW50

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ISO MOUTING PAD AND STEM SIZE (in mm) :



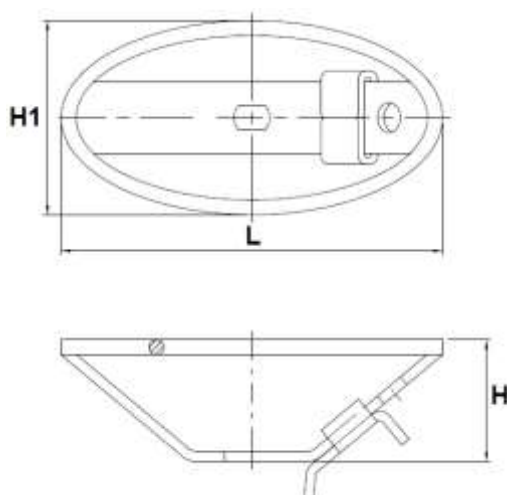
DN (mm)	8	12	15	20	25	32	40	50
NPS (")	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
H1	4.5		12.7		17.4	18.7	23.4	31.6
h	1		1.5					
C	6				8	8	10	14
Ø Y	5/16"-24UNF		3/8"-24UNF		1/2"-20UNF	1/2"-20UNF	5/8"-18UNF	3/4"-16UNF
Ø P	25			30	30	35	35	55
Ø K	36			42	42	50	50	70
ISO	F03			F04	F04	F05	F05	F07
N x Ø Z	4 x M5x0.8					4 x M6x1		4x M8x1.25

TORQUES VALUES (in Nm without safety coefficient) :

DN (mm)	15	20	25	32	40	50
NPS (")	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Torque (Nm)	4.9	5.9	11.8	19.6	29.4	39.2

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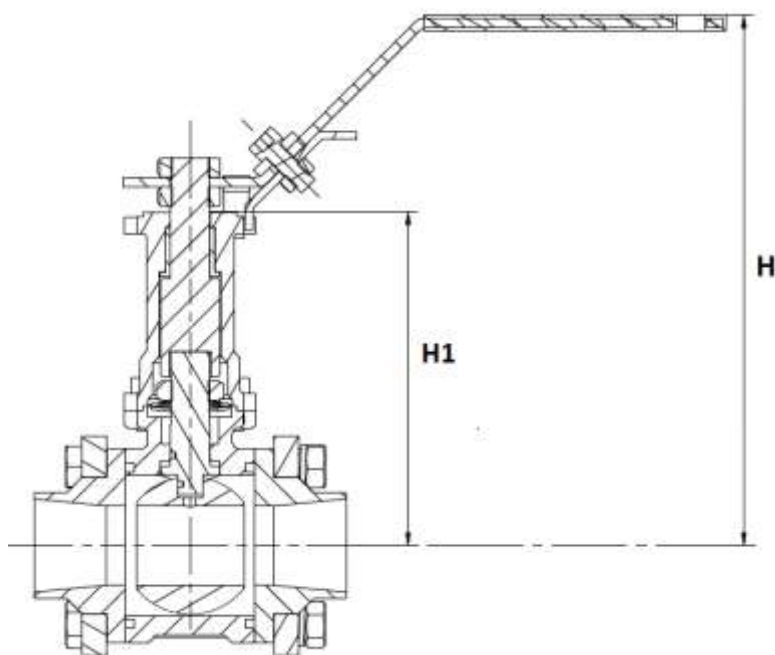
AISI 304 OVAL HANDWHEEL SIZE Ref. ELVO (in mm) :



DN (mm)	8-12	15	20	25
NPS (")	1/4"-3/8"	1/2"	3/4"	1"
L	96	96	136	136
H	37	45	46	46
H1	60	60	80	80
ISO Plate	F03		F04	F04
Ref.	ELVO0812	ELVO15	ELVO20	ELVO25

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ELSA VALVES WITH STEM EXTENSION ELRISO SIZE (in mm) :



STEM EXTENSION HEIGHT 63.5 mm								
DN (mm)	8	12	15	20	25	32	40	50
NPS (")	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
H	133.8		142.5	146.9	170.1	173.9	172.2	203.1
H1	91.5		96.35	100.4	108.2	111.6	116.6	136
Ref. Stem extension alone (without valve and handle)	ELRISO0812		ELRISO15	ELRISO20	ELRISO25	ELRISO32	ELRISO40	ELRISO50

STEM EXTENSION HEIGHT 81.5 mm							
DN (mm)	8	12	15	25	32	40	50
NPS (")	1/4"	3/8"	1/2"	1"	1"1/4	1"1/2	2"
H	151.8		160.5	188.1	191.9	190.2	221.1
H1	109.5		114.35	126.2	129.6	134.6	154
Ref. Stem extension alone (without valve and handle)	ELRISO0812FR		ELRISO1520FR	ELRISO25FR	ELRISO32FR	ELRISO40FR	ELRISO50FR

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- Manufacturer certified ISO 9001:2015 and ISO 14001 : 2015
- DIRECTIVE 2014/68/EU: For liquids or Gas of Group 1
 - DN8-25 : Article 4, §3 (SEP), no CE marking
 - DN32-50 : Risk Category II, CE0035 marking
- Certificate 3.1 on request
- Design according to EN 12516-2&3
- Pressure tests according to EN 12266-1, Rate A
- B.W. ends according to ISO 1127/4200 and ASME Sch.10
- ISO 5211 mounting pad
- ATEX Group II Category 2 G/2Dc Zone 1 & 21 Zone 2 & 22 (optional marking) according to directive 2014/34/EU
- SIL2 according to IEC/EN 61508, SIL 3 possible according to the type of installation

ADVICE : Our opinion and our advice are not guaranteed and SFERACO shall not be liable for the consequences of damages.
The customer must check the right choice of the products with the real service conditions.