



PA Ventil AB
EN DEL AV **BE/ERTECH**



PA174 RE

3 PIECES STAINLESS STEEL BALL VALVE WITH ROTATING ENDS ELSA SW

3 pieces stainless steel ball valve with rotating ends, full bore for chemical, fine chemical, pharmaceutical, food, cosmetics and cooling industries networks.

Easy installation thanks to the rotatings ends.

TFM1600 packing with 3 chevrons gaskets and one thrust washer on stem, body gasket and seat in TFM1600.

Fugitive emission according to EN 15848-1 :2015 for an excellent tightness on the stem and to prevent external leakage.

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

Valve in accordance with the regulation (EC) N° **1935/2004, FDA and USP Class VI on request.**

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.



- Size :** DN8 to DN100
- Connection :** SW
- Min Temperature :** -50°C
- Max Temperature :** +210°C
- Max Pressure :** 63 Bars up to DN40 (50 bars from DN50)
- Specifications :** Rotating ends
ISO 5211 mounting pad
Anti blow-out stem, Full bore
Double antistatic device, ATEX
Fugitive Emissions, EC 1935/2004 and FDA

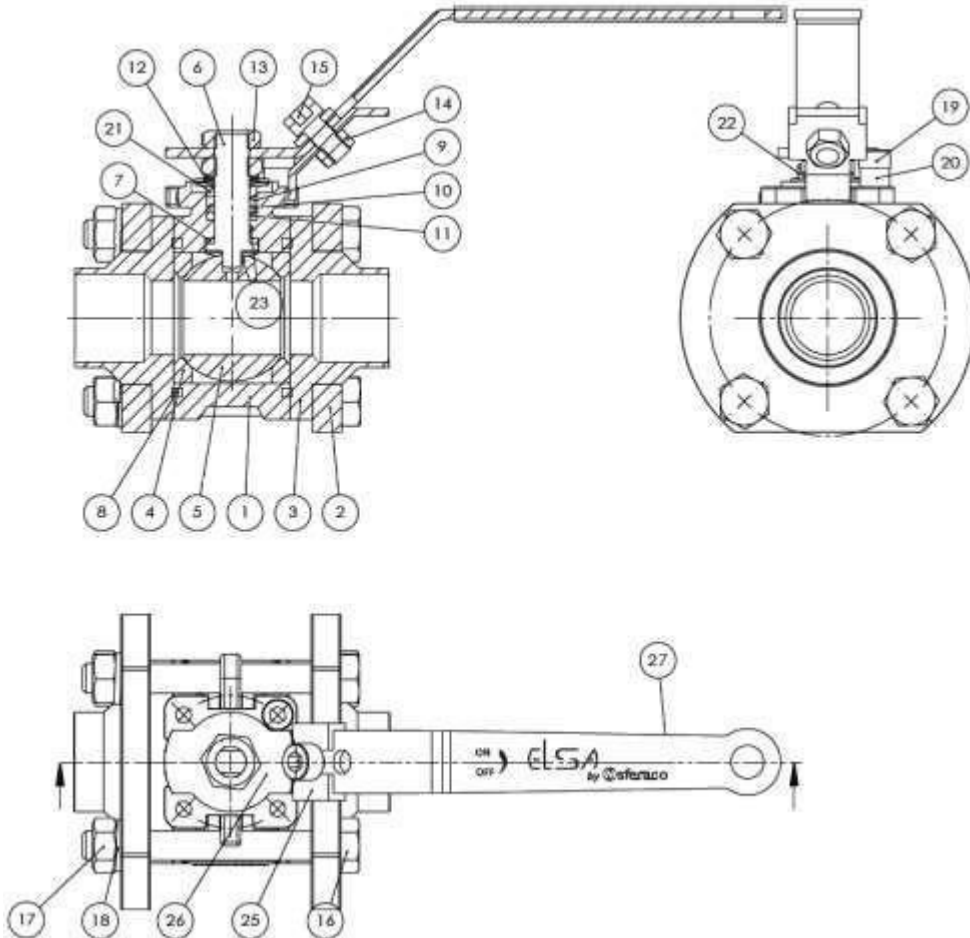
Materials : Stainless Steel EN 1.4409

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



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MATERIALS :



Item	Designation	Materials
1	Body	EN 1.4409
2	Flange	EN 1.4308
3	Ends	EN 1.4409 Ra 0.8
4*	Seat	TFM1600
5	Ball	CF3M Ra 0.4
6	Stem	AISI 316L
7*	Thrust washer	TFM1600
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	

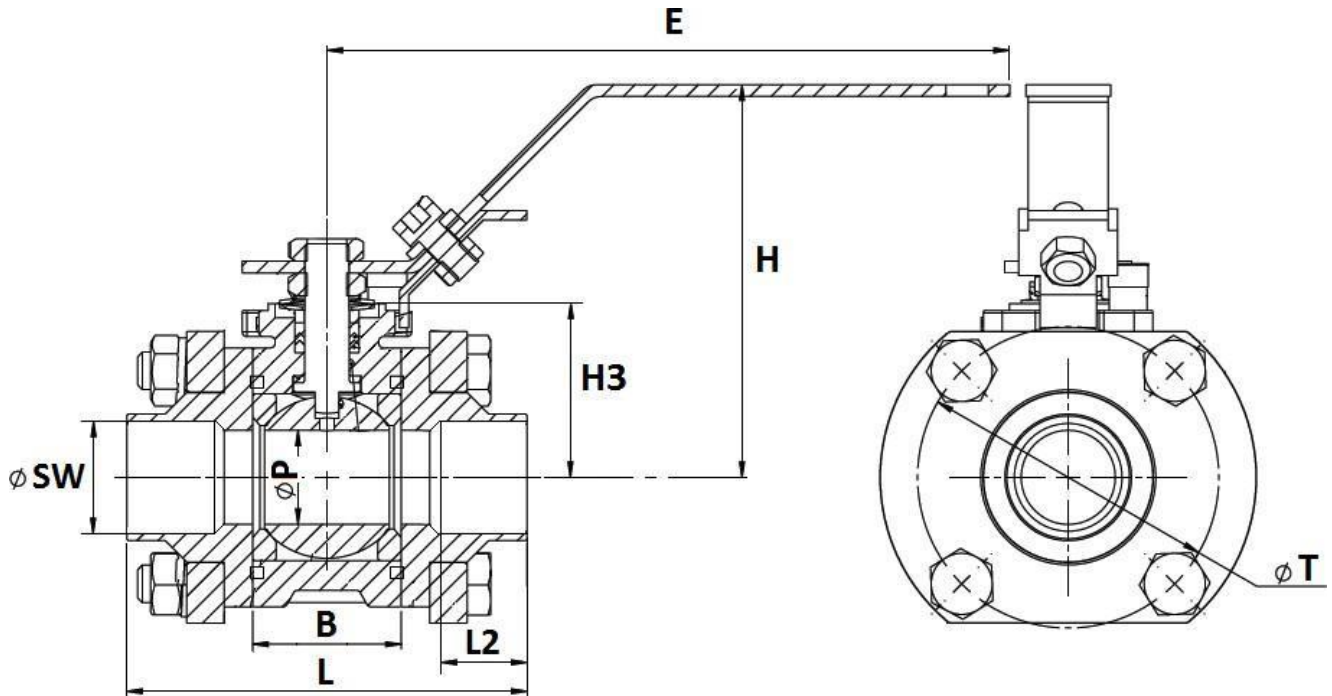


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SIZE SW TYPES (mm):

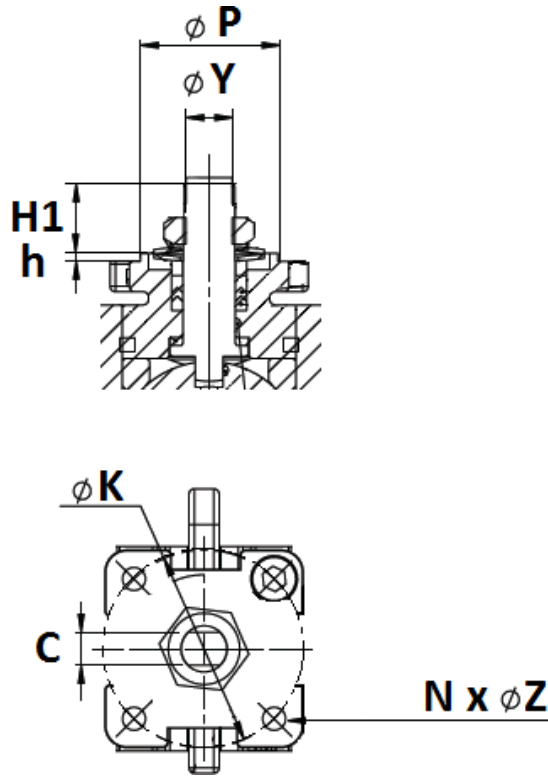


DN (mm)	8	10	15	20	25	32	40	50	65	80	100
Ø P	11.3	15	20	25.4	32	38.2	50	65	80	100	
Ø SW	14.2	17.7	21.8	27.2	33.9	42.7	48.8	61.2	76,1	88,9	114,3
L	65.2	70	85	100	110	125	150	190	220	270	
L2	11.2	11.2	14.3	15.8	17.5	19.1	21.3	23,5	25,7	28,2	
B	20.4	24.4	31.6	41.4	48.2	56.2	71	82,1	95,8	117,8	
E	130	149	149	170.5	192.5	212.5	216	300	335	335	
H	70.3	79	83.4	106.6	110.4	108.7	139.6	155	165	100	
H3	28	32.85	36.9	44.7	48.1	53.1	72.5	107	117,3	13203	
Ø T	43	53.1	64	71.4	80.9	94.2	114	141	174	224	
Weight in Kg	0.6	0.6	0.88	1.42	1.95	3.1	4	7.7	14,9	25	45



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ISO MOUNTING PAD AND STEM SIZE (in mm):



DN (mm)	8	12	15	20	25	32	40	50	65	80	100
NPS (")	1/4"	3/8"	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"	2"1/2"	3"	4"
H1	4.5		12.7		17.4	18.7	23.4	31.6	41	50	62
h	1		1.5						2	2	2
C	6			8		8	10	14	17	17	17
ϕP	25		30		30	35	35	55	70	70	70
ϕK	36		42		42	50	50	70	70	70	70
ISO	F03		F04		F04	F05	F05	F07	F10	F10	F10
N x ϕZ	4 x M5x0.8					4 x M6x1		4x M8x1.25	6xM14	8XM14	8XM16

TORQUES VALUES (in Nm without safety coefficient):

DN (mm)	8-12	15	20	25	32	40	50	DN65	DN80	DN100
NPS (")	1/4"-3/8"	1/2"	3/4"	1"	1"1/4"	1"1/2"	2"	2"1/2"	3"	4"
Torque (Nm)	4.5	4.9	7,8	15,7	21,6	34,3	47,1	66,7	82,4	112,7



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SPECIFICATIONS :

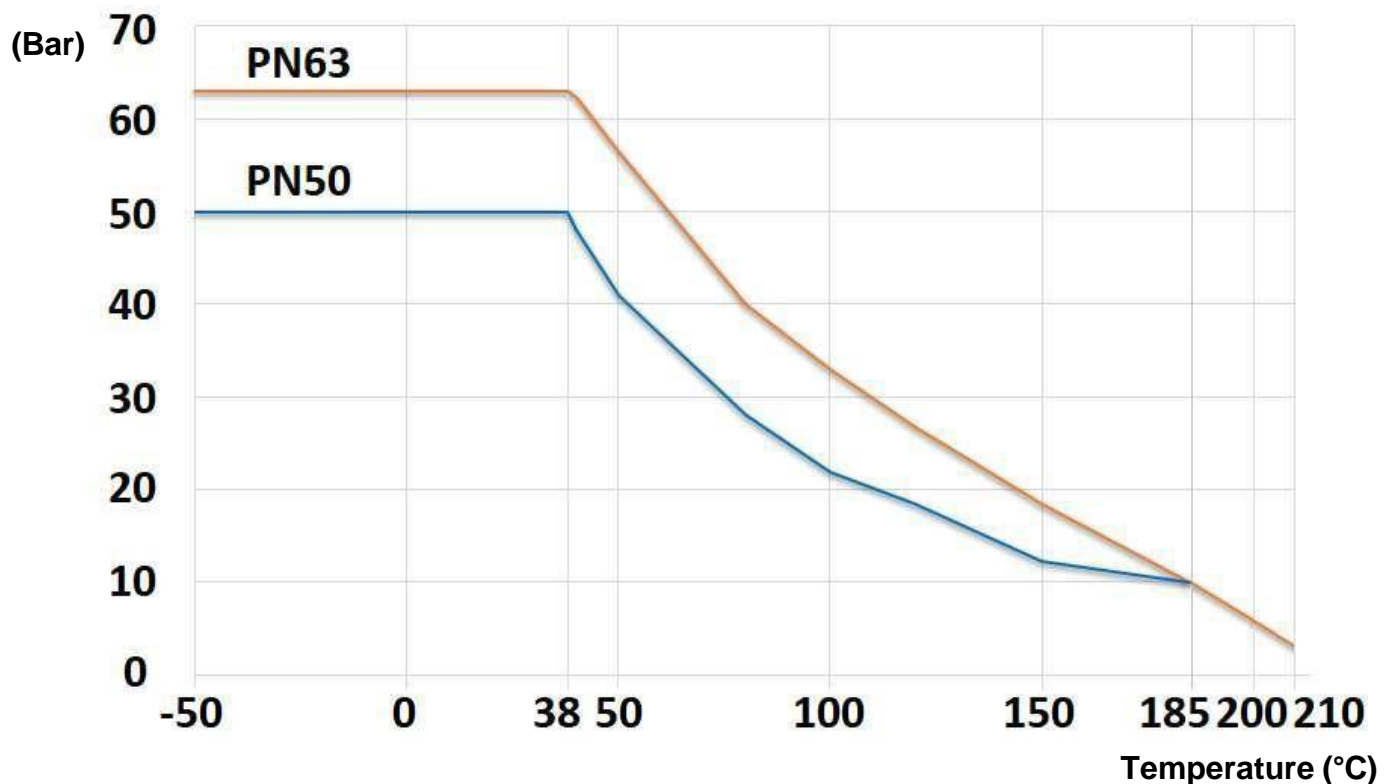
- Full bore
- Anti blow-out stem
- Packing with 3 chevrons gaskets
- Double antistatic device (ball between stem-body and stem-ball)
- Fugitive emissions according to ISO 15848-1 2015
- Lockable handle
- Oval handwheel and stem extension on request
- ISO 5211 mounting pad
- Rotating ends
- Welding possible without removing the central part if the valve is in opened position
- **EC 1935/2004** for food industries
- 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 :

- Chemical, fine chemical, pharmaceutical, food industries, cosmetics and cooling
- Vacuum 10^{-3} mbar (without back pressure)
- Min and max Temperature Ts : -50°C to + 210°C
- Max Pressure Ps : 63 bars up to DN40, 50 bars for DN50 (see graph under)
- Steam : 10 bars max

PRESSURE / TEMPERATURE graph for full bore types (STEAM EXCLUDED) :

Pressure



PA VENTILER Sagbäckvägen 3b 437 36 Lindome www.paventiler.se



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OPTIONS :

- 3 Pieces ball valve with rotating ends EN 1.4409 full bore SW Ref. **PA174RE** from DN8 to DN 100



- AISI 304 Oval Handwheel Ref. **ELVO0812-25**



- AISI 304 stem extension with ISO 5211 plate and bolting



- AISI 304 stem extension with ISO 5211 plate and bolting



- Pocketless seats TFM1600 (kit of 2 semi-seats)



- Ball V-PORT 60°

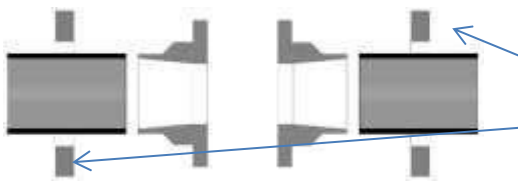


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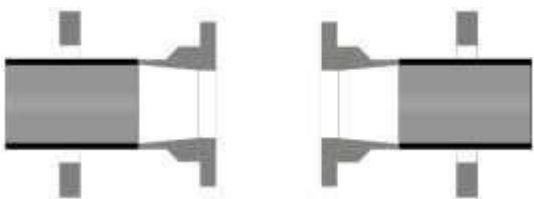
CONNECTION :

- S.W.

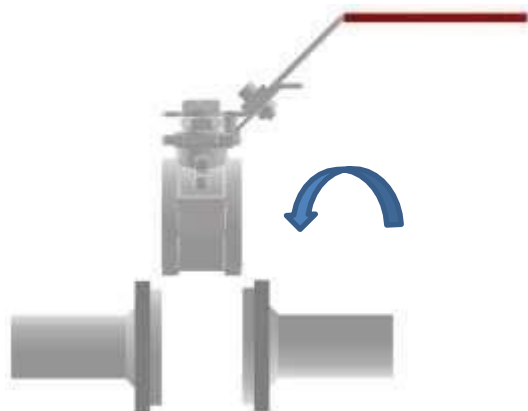
INSTALLATION :



- 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



**3 PIECES STAINLESS STEEL BALL VALVE WITH ROTATING ENDS ELSA SW****STANDARDS :**

- Manufacturer certified ISO 9001:2015
- DIRECTIVE 2014/68/EU : For liquids and gas of Group 1
 - DN8-25 : Article 4, §3 (SEP), no CE marking
 - DN32-100 : Risk Category II, CE 0035 marking
- Certificat 3.1 on request
- Design according to EN 12516-2&3
- Pressure tests according to EN 12266-1, Rate A
- S.W. ends according to ASME B16.11
- 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
- Fugitive Emissions according to ISO 15848-1: 2015
- Valve in accordance with the regulation **(EC) N° 1935-2004, FDA and USP Class VI** on request
- SIL2 according to IEC/EN 61508, SIL 3 possible according to the type of installation