FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN 100 EXCELLENCE RANGE

3 pieces stainless steel ball valve fully encapsulated bolts with full bore for Chemical industries, petrochemical industries, hydraulic installation, heating, water distribution, compressed air.
Ball valve with firesafe certificate ISO 10497 and API 607 to reduce risks in case of fire.
Graphite packing and PTFE filled with glass seat gasket on stem, PTFE filled with carbon seat.
Compatible with explosive atmosphere, ATEX Zone 1&21 and Zone 2&22 thanks to the antistatic device.
Handling with locking device, on request possible with handwheel or stem extension.
Thanks to the ISO 5211 plate, an actuator can be installed on the valve.

FIRE SAFE ISO 10497 FIRE SAFE API 607 Certificate 3.1 Lloyd's Register PED/2014/68/UE

Size:	DN8 to DN50 (NPS 1/4" to 2")
Connection :	Female BSP or NPT, SW or BW
Min Temperature :	-30°C
Max Temperature :	+220°C
Max Pressure :	100 to 140 Bars
Specifications :	Antistatic device, ATEX ISO 5211 mounting pad Anti blow-out stem, full bore Fully encapsulated bolts Fire safe ISO 10497 : 2010 and API 607 V.6
Materials :	Stainless steel EN 1.4408

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SPECIFICATIONS :

- Full bore
- Anti blow-out stem
- Special gland pack with elastic washer
- Antistatic device from DN8 to 10, double antistatic device (ball between body-stem and ball-stem) from DN15 to 50
- Fire safe according to ISO 10497:2010 and API 607 V.6
- Locking device
- Handwheel and stem extension (optional)
- ISO 5211mounting pad
- Fully encapsulated bolts
- Pressure class 600 lbs
- On request PEEK seat(optional) for high temperature
- Roughness Ra 2.8 for the ball and Ra 1.5 for SW the ends

USE :

- Chemical and pharmaceutical industries, petrochemical industries, hydraulic installation, compressed air
- Steam : 18 bars maximum with PTFE filled with 25% carbon seat
- Steam : 30 bars maximum with PEEK seat
- Vacuum : 10^{-2} torr
- Min and max Temperatures Ts : -30°C to + 220°C with PTFE filled with 25% carbon seat type **Ref. 703**
- Min and max Temperatures Ts : -10°C to + 260°C for valve with PEEK seat (optional)
- Max Pressure Ps : 100 to 140 bars (see graph)

FLOW COEFFICIENT Kvs (M3 / h) :

DN (mm)	8	10	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)	13	13.4	31.3	57.86	94.25	157.9	227.9	414.8

TORQUE VALUES WITH PTFE FILLED WITH CARBON SEAT (in Nm without safety coefficient) :

DN (mm)	8	10	15	20	25	32	40	50
NPS (") / Pressure (bar)	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Breaking torque	5	5.5	10	12	19.2	25	28.7	50
17	5	5.5	9.5	10	16	17	18	36
34	5	5.5	10	10	17	18	18	36
69	6	5.5	10	10.5	17.5	21	22	41
103	6	6	10	10.5	18	26	27.5	42
138	6	6.5	10	11.5	19			

TORQUE VALUES WITH PEK SEAT (in Nm without safety coefficient) :

DN (mm)	8	10	15	20	25	32	40	50
NPS (")	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Breaking torque	9	9	17	20	33	43	49	85

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BOLT TIGHTENING TABLE (in Nm) :

DN (mm)	8	10	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)	9.8	9.8	9.8	22.07	22.07	39.2	39.2	58.8

RANGE :

- 3 pieces fire safe stainless steel ball valve Ref. **703** DN 8 to DN 50

ENDS :

- Female / female threaded BSP
- Female / female threaded NPT
- Welding S.W.
- Welding B.W.

OPTIONS :

- AISI 304 handwheel **Ref. 9830440-9830475**
- AISI 304 stem extension **Ref. 9830471-9830474**
- **PEEK** gasket kits (including Grafoil body gasket and packing, PTFE filled 15% glass fiber stem gasket + Grafoil and PEEK seat) **Ref. 9804380-9804386**

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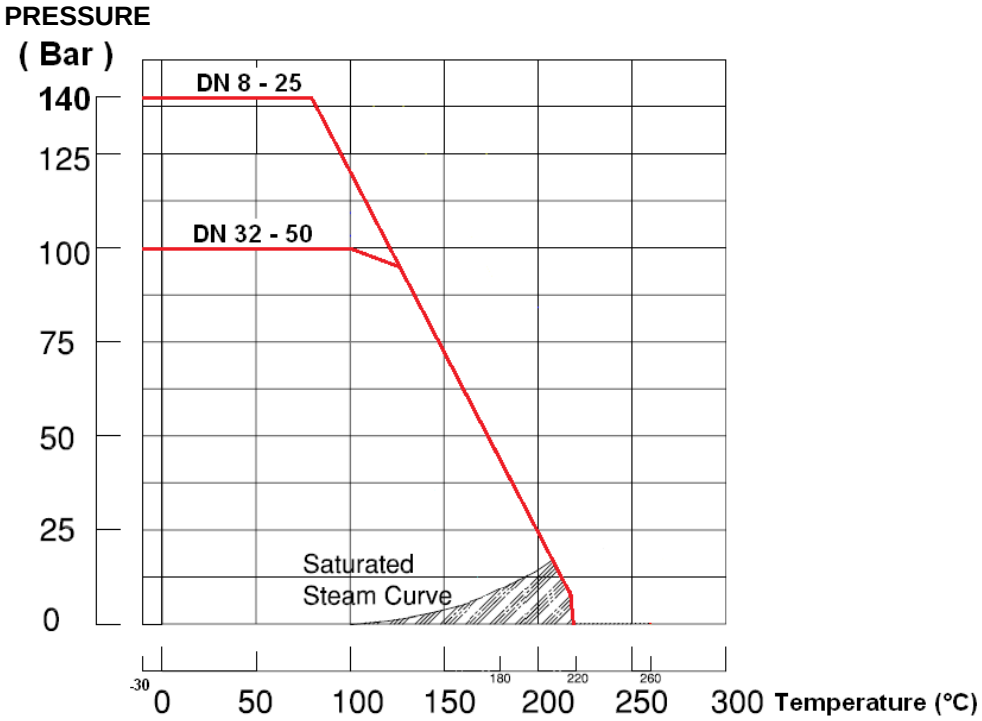
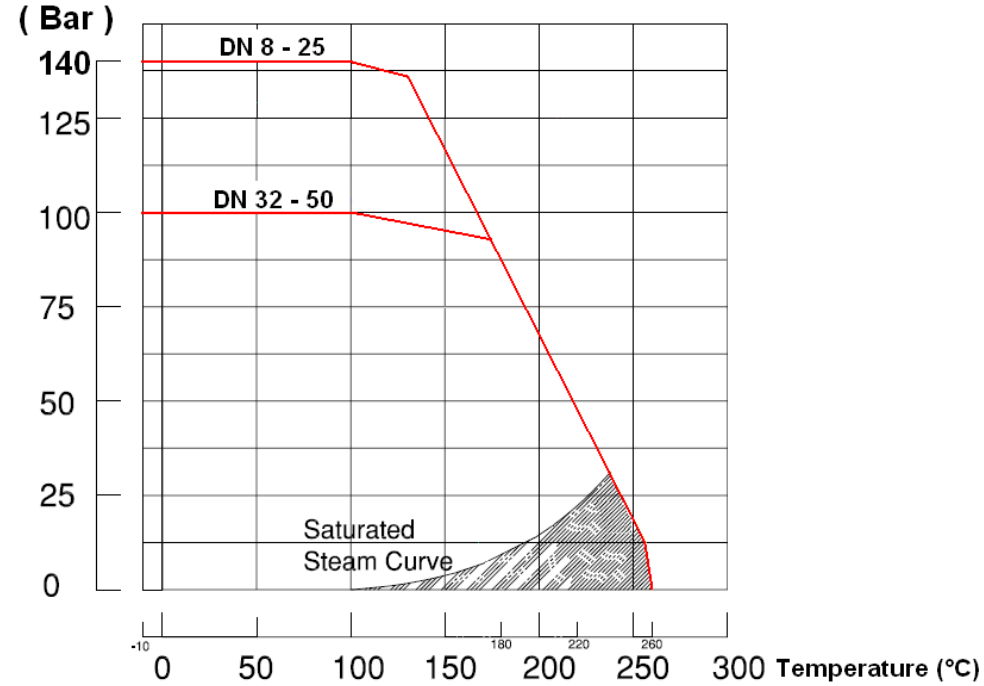
PRESSURE / TEMPERATURE GRAPH FOR VALVES WITH PTFE FILLED WITH CARBON SEAT :



PRESSURE / TEMPERATURE GRAPH FOR VALVES WITH OPTIONAL PEEK SEAT :



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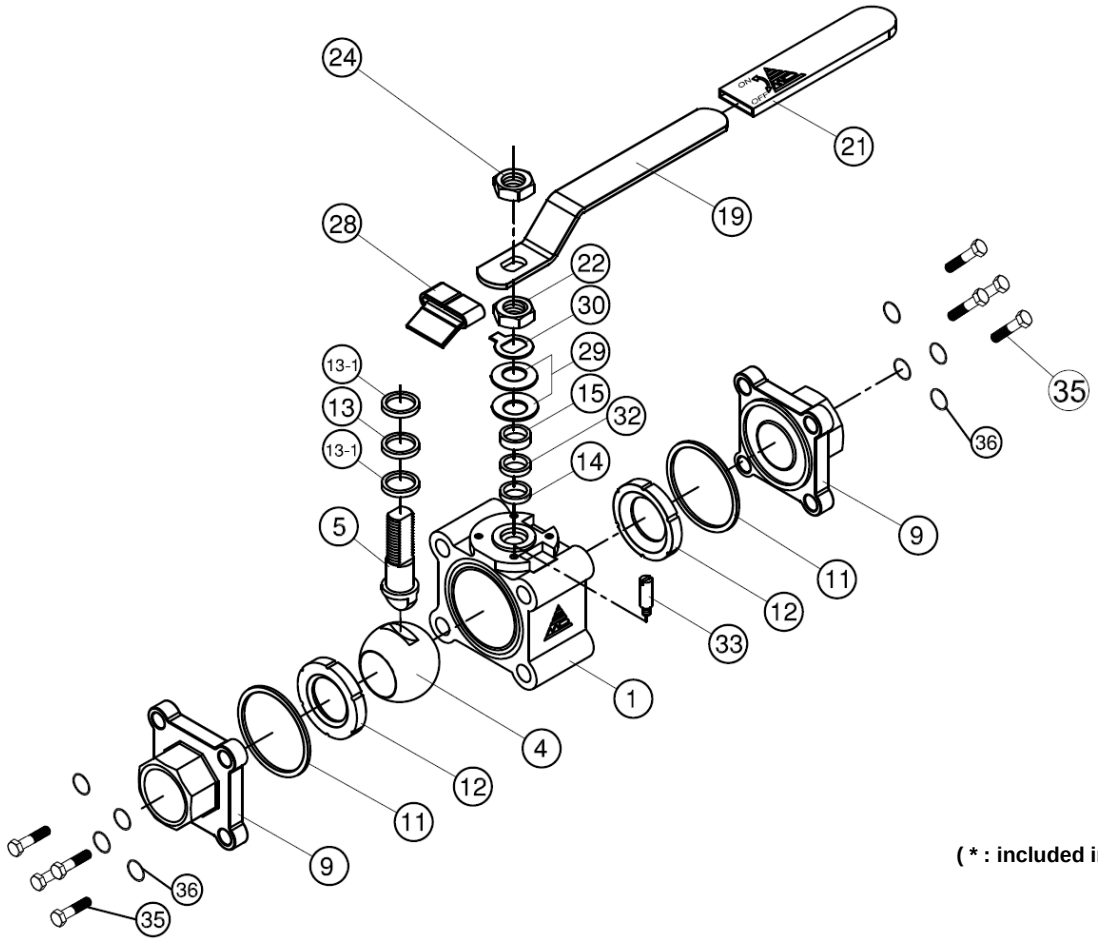
MATERIALS :



(* : included in gaskets kit)

Item	Designation	Materials
1	Body	EN 1.4408
4	Ball	ASTM A351 CF8M
5	Stem	AISI 316
9	Ends	EN 1.4408
11*	Body gasket	Graphite
12*	Seat	PTFE filled with 25% carbon
13*	Thrust washer	Graphite
13-1*	Thrust washer	PTFE filled with 15% Glass fiber
14	Packing	Graphite
15	Gland bush	AISI 304
19	Handle	AISI 304
21	Handle cover	Plastic
22	Packing nut	AISI 304
24	Handle nut	AISI 304
28	Locking device	AISI 304
29	Elastic washer	AISI 301
30	Tab washer	AISI 304
32*	Packing follower	PTFE filled with 15% Glass fiber
33	Stop pin	AISI 304
35	Screw	AISI 304
36	Washer	AISI 304

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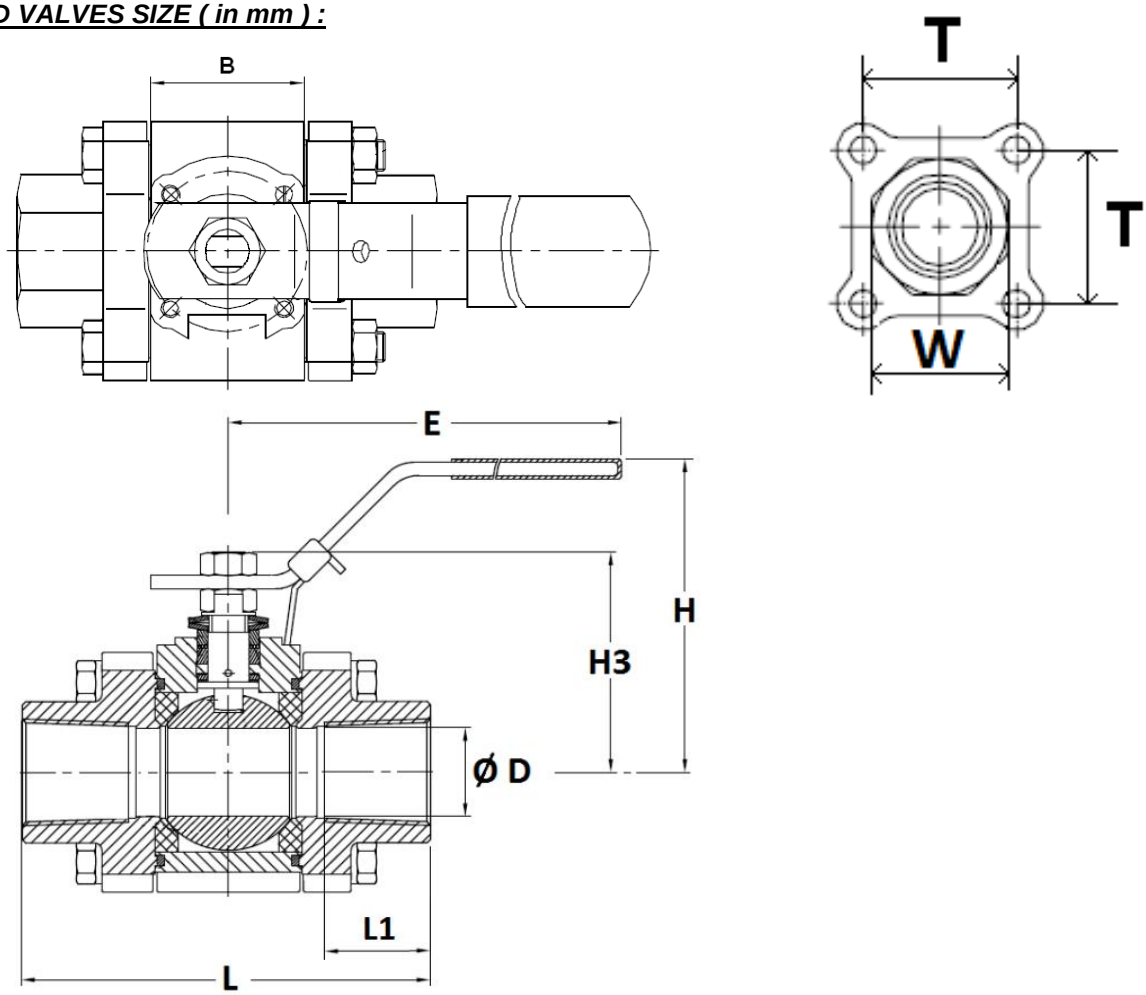
THREADED VALVES SIZE (in mm) :



DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Ø D	10	10	15	20	25	32	38	50
L	64,8	64,8	72,5	84.2	105,3	111	127,3	153.4
L1	16	16	16	18	22	23	25	28
B	20.5	20.5	24.5	31.4	41.3	48.4	56.3	72
E	132.8	132.8	132.8	132.8	171.8	171.8	204.2	211
H	63.7	63.7	65.1	73.2	83.1	87.6	98.4	130
H3	37.1	37.1	46.1	50.9	61.4	66.8	80	99,4
T	32	32	35	41.3	48	56.2	63.6	79.2
W (on flat)	29.4	29.4	30.3	36.5	44.5	54.1	60	76
Weight (in Kg)	0.6	0.7	0.8	1.3	2	2.9	4.1	7.7
Ref. BSP	703002	703003	703004	703005	703006	703007	703008	703009
Ref. NPT	703302	703303	703304	703305	703306	703307	703308	703309

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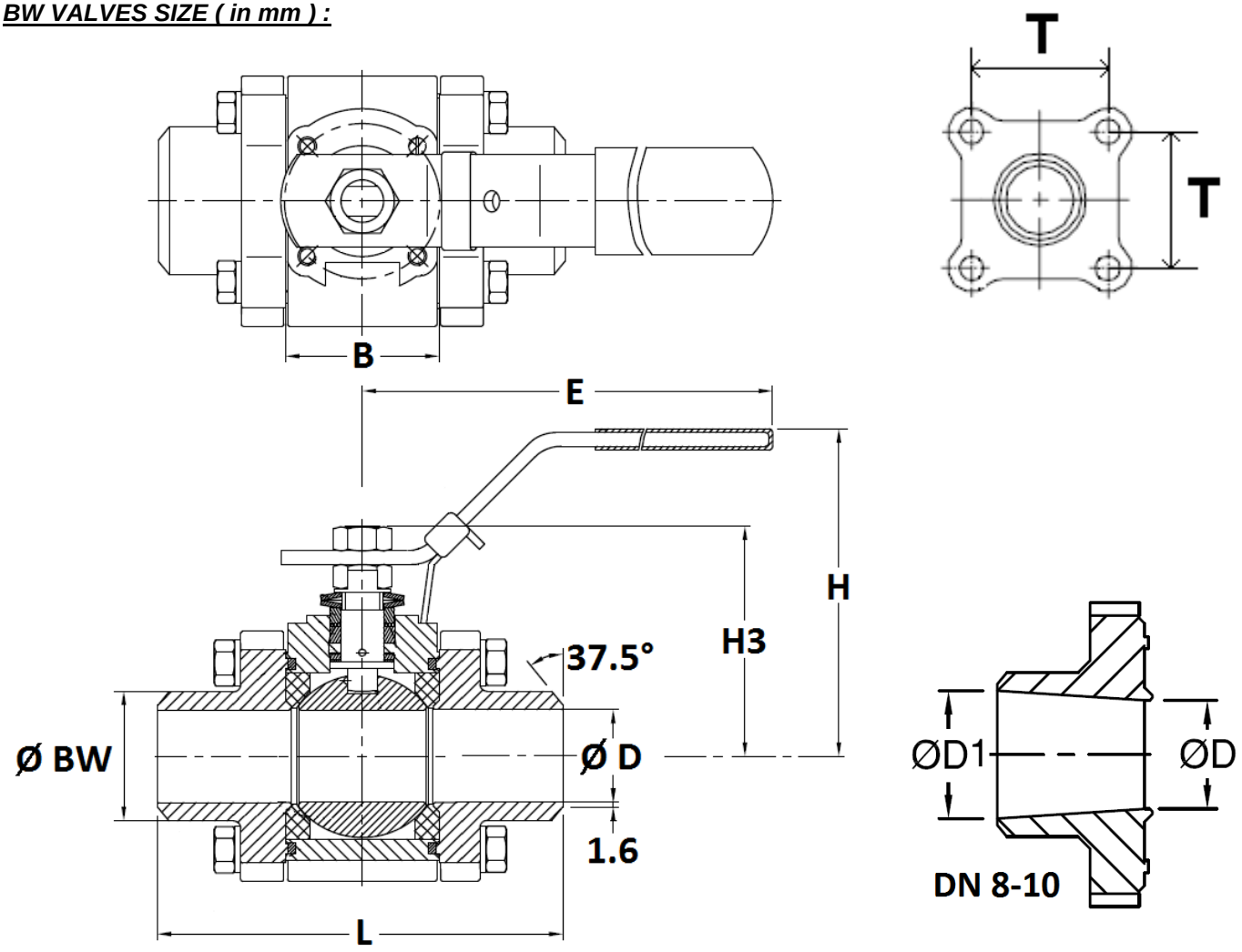
BW VALVES SIZE (in mm) :



DN	8	10	15	20	25	32	40	50
Ø D	10	10	15	20	25	32	38	50
Ø D1	10	12.7	-	-	-	-	-	-
L	64,8	64,8	72.5	84.2	105.3	111	127.3	153.4
B	20.5	20.5	24.5	31.4	41.3	48.4	56.3	72
E	132.8	132.8	132.8	132.8	171.8	171.8	204.2	211
H	63.7	63.7	65.1	73.2	83.1	87.6	98.4	130
H3	37.1	37.1	46.1	50.9	61.4	66.8	80	99.4
T	32	32	35	41.3	48	56.2	63.6	79.2
Ø BW	13.7	17.5	22.7	27.5	34	42.7	48.6	60.5
Weight (in kg)	0.6	0.58	0.74	1.21	1.85	2.67	3.9	7.33
Ref.	703108	703110	703115	703120	703125	703132	703140	703150

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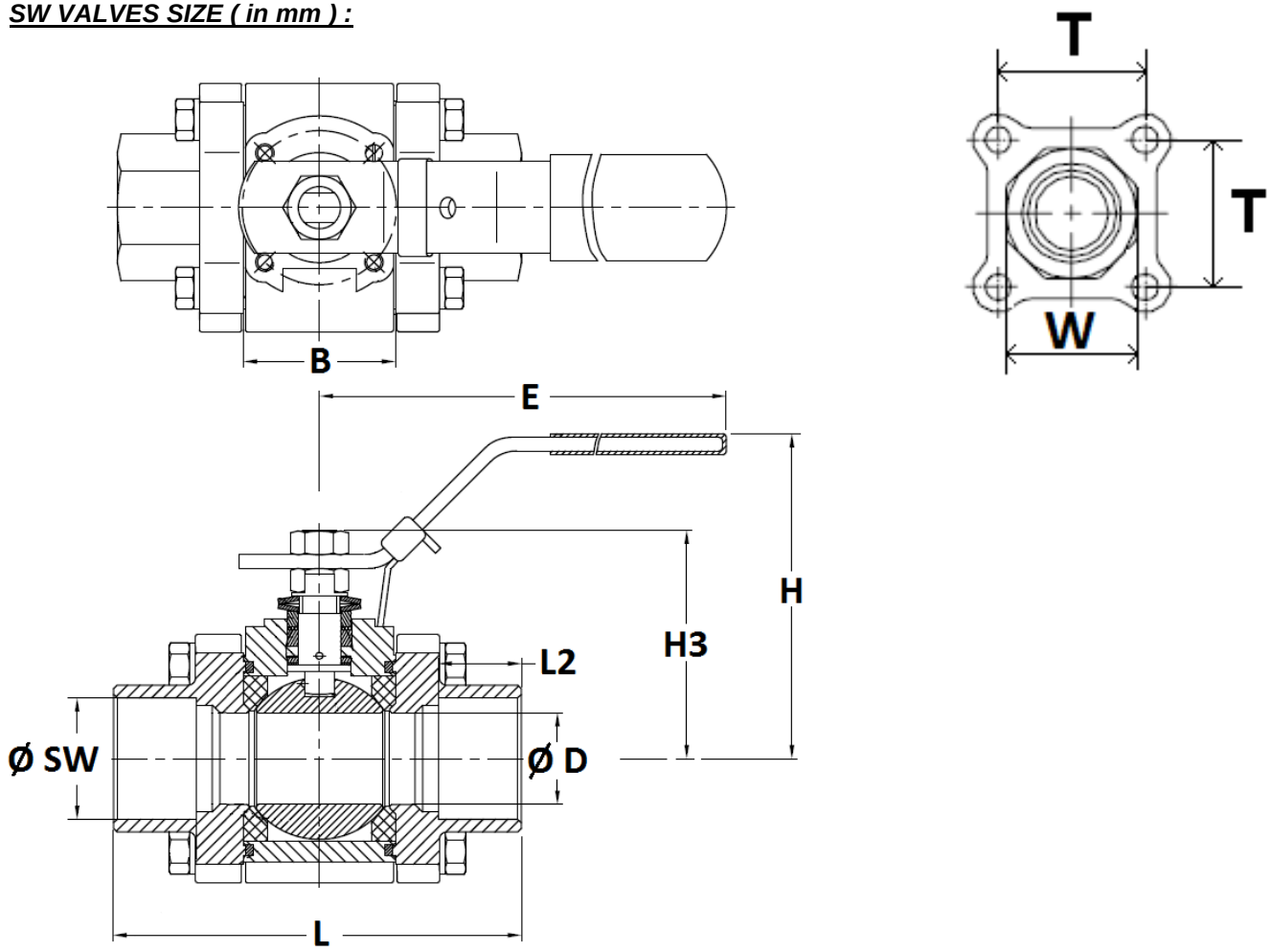
SW VALVES SIZE (in mm) :



DN	8	10	15	20	25	32	40	50
Ø D	10	10	15	20	25	32	38	50
L	64,8	64,8	72,5	84.2	105,3	111	127,3	153.4
B	20.5	20.5	24.5	31.4	41.3	48.4	56.3	72
L2	10	10	10	13	13	13	13	16
E	132.8	132.8	132.8	132.8	171.8	171.8	204.2	211
H	63.7	63.7	65.1	73.2	83.1	87.6	98.4	130
H3	37.1	37.1	46.1	50.9	61.4	66.8	80	99.4
T	32	32	35	41.3	48	56.2	63.6	79.2
W (on flat)	29.4	29.4	30.3	36.5	44.5	54.1	60	76
Ø SW	14.1	17,6	21.7	27,3	33,9	42,8	48.7	61.3
Weight (in Kg)	0.6	0.7	0.8	1.3	2	2.85	4.1	7.68
Ref.	703208	703210	703215	703220	703225	703232	703240	703250

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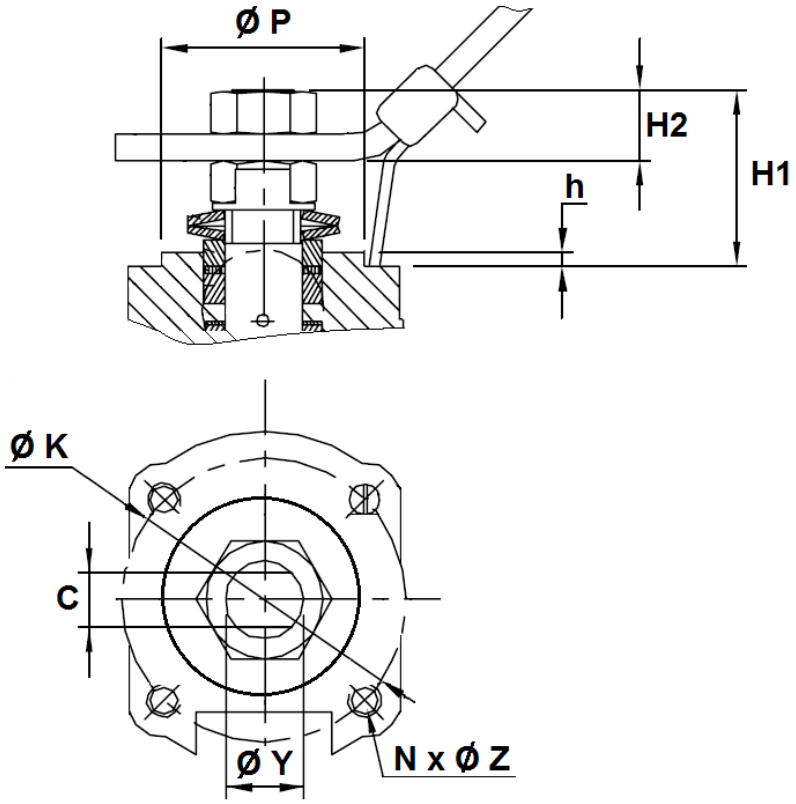
ISO 5211 MOUNTING PAD AND STEM SIZE (in mm) :



DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
H1	7.5	7.5	17.1	18.1	25.4	26.2	32.4	28.5
H2	6.6	6.6	11.1	9.1	13.1	12.6	14.9	15.5
h	0,5	0,5	2	2	2	2	2,2	1,5
C	6,5				8		9,7	12
Ø Y	9,5 (3/8"-24UNF)				11,1 (7/16"-20UNF)		14.2 (9/16"-18UNF)	19 (3/4"-16UNF)
Ø P	25	25	25	25	30	30	35	55
Ø K	36	36	36	36	42	42	50	70
ISO	F03	F03	F03	F03	F04	F04	F05	F07
N x Ø Z	4x M5	4x M5	4x M5	4x M5	4x M5	4x M5	4 x M6	4 x M8

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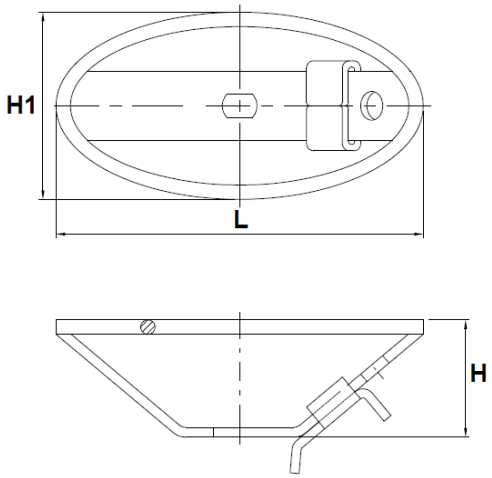
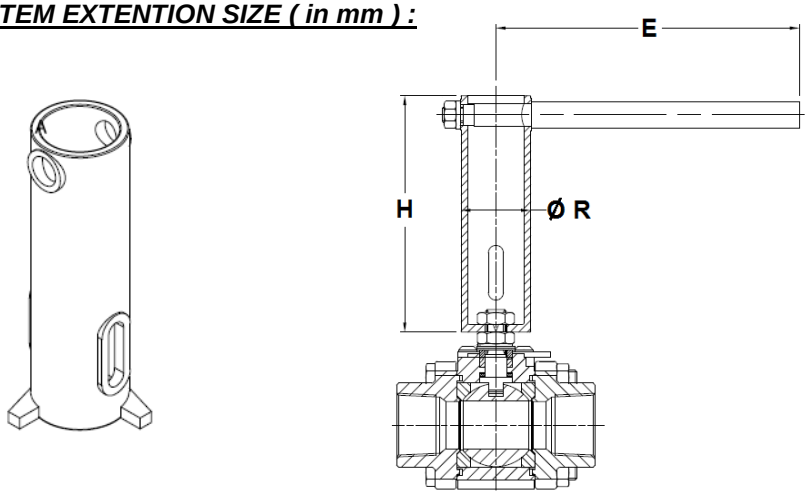
AISI 304 HANDWHEEL SIZE (in mm) :



DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
L	102	102	116	116	130	130	147	194
H	32.5	32.5	35	35	40	40	43	51
H1	52	52	62	62	82	82	87	98
Weight (Kg)	0.106	0.106	0.119	0.119	0.176	0.176	0.22	0.34
Ref.	9830440	9830440	9830441	9830441	9830442	9830442	9830443	9830475

AISI 304 STEM EXTENTION SIZE (in mm) :



DN	1/2"	3/4"	1"	1"1/4	1"1/2	2"
H	125.5	125.5	125.5	125.5	127.5	127.5
E	126.5	126.5	161	161	194	198.5
Ø R	31	31	37	37	43	52
Ref.	9830471	9830471	9830472	9830472	9830473	9830474

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FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN 100 EXCELLENCE RANGE

STANDARDS :

- Manufacturer certified ISO 9001 : 2015
- DIRECTIVE 2014/68/EU : CE N° 0038
  Risk category III module H
- Certificate 3.1 on request
- Construction according to EN 12516-1 Class 600
- Designing according to ASME B16.34
- Pressure tests according to EN12266-1, rate A
- Fire safe according to ISO 10497:2010 and API 607 6th (only with PTFE filled with 25% carbon seats)
- ABS type Approval Marine certificate
- Threaded cylindrical BSPP ends according to ISO 228-1
- Threaded NPT ends according to ANSI B1.20.1
- S.W. ends according to ASME B16.11 Schedule 40
- B.W. ends according to ASME B36.10 Schedule 40
- ISO 5211 mounting pad
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 &22 (optional marking) according directive 2014/34/EU

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.

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