

FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN 140/100 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.



Certificate
3.1



LRQA
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 5211 mounting pad
- Fully encapsulated bolts
- Pressure class 800 lbs up to DN25, 600 lbs from DN32
- 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
- Vacuum : 10^{-2} torr
- Min and max Temperatures Ts : -30°C to + 220°C
- Max Pressure Ps : 140 bars up to DN25, 100 bars beyond (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 (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"
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			

MAXIMUM ALLOWABLE STEM TORQUE MAST (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)	23				41		77	157

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

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RANGE :

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

CONNECTION :

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

OPTIONS :



- AISI 304 oval lockable handwheel Ref. **9830440-9830475**

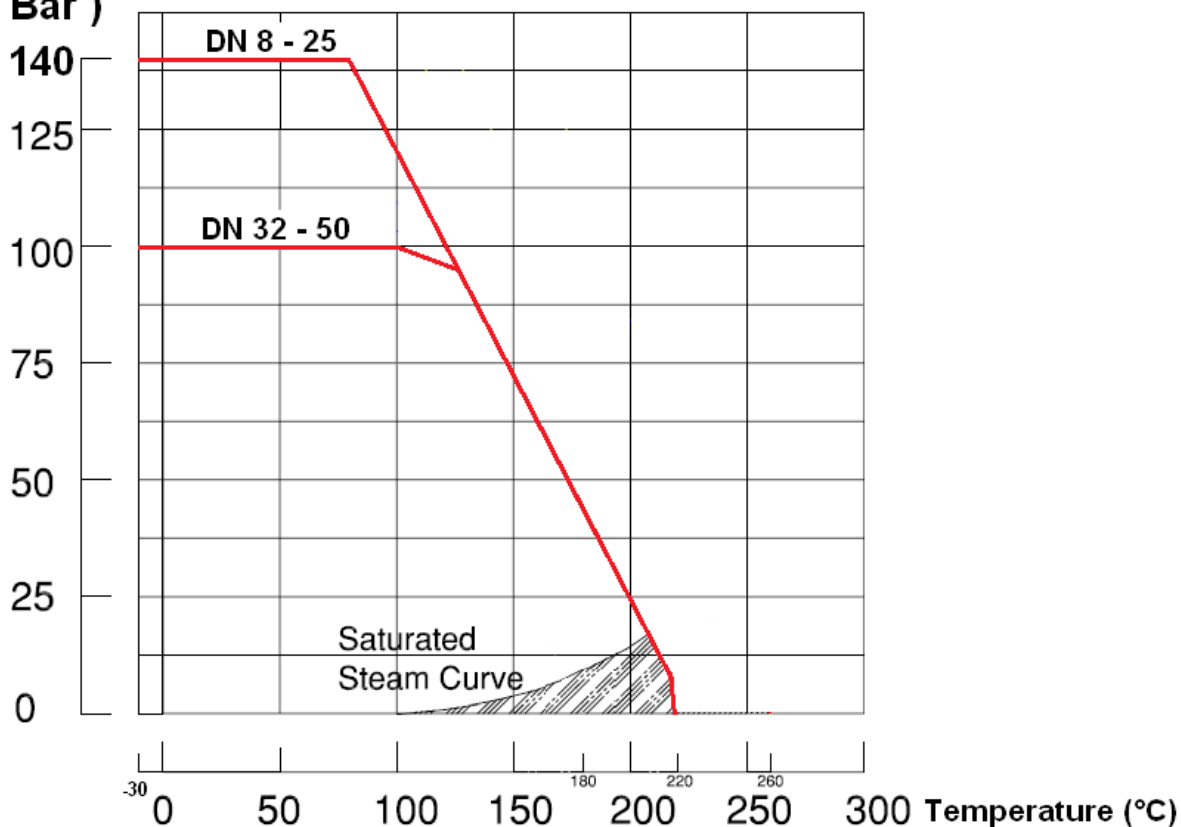


- AISI 304 stem extension Ref. **9830471-9830474**

PRESSURE / TEMPERATURE GRAPH :

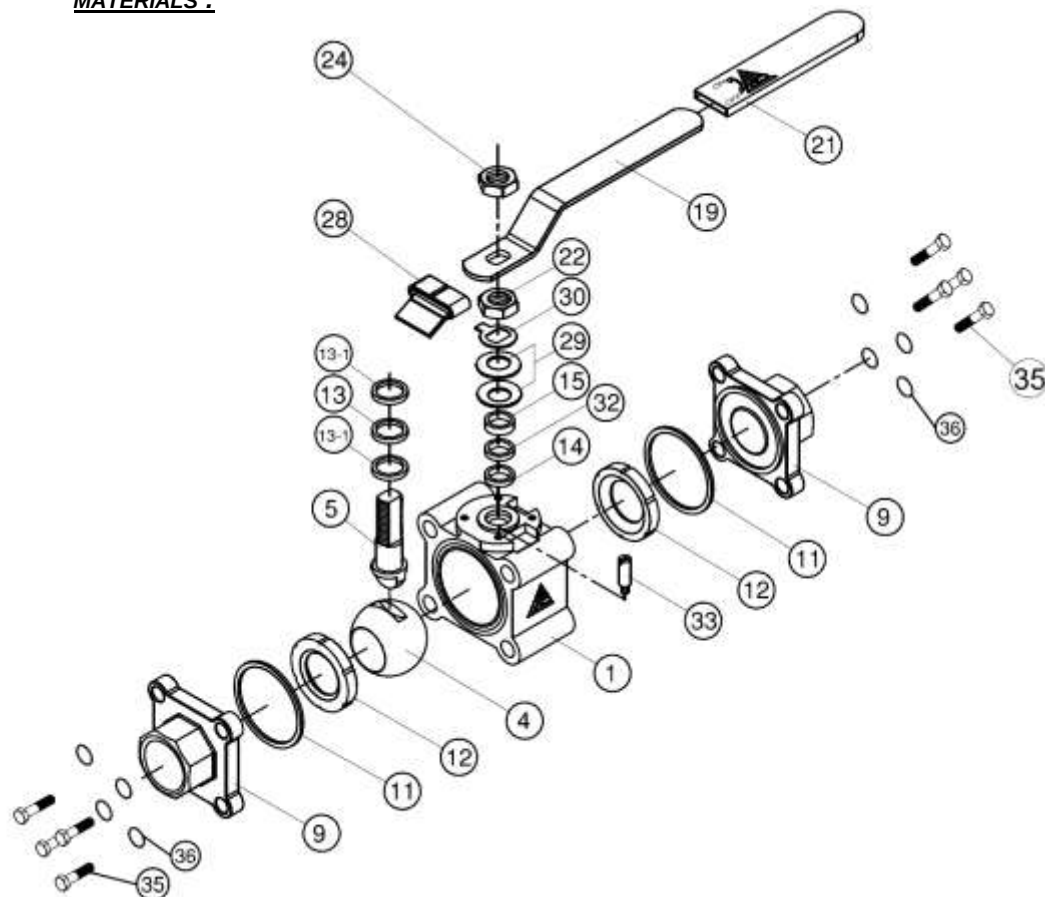
PRESSURE

(Bar)



**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN 140/100
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MATERIALS :



Repairability :



***Gaskets kit
(Items 11, 12, 13, 13-1, 14 and 32)**

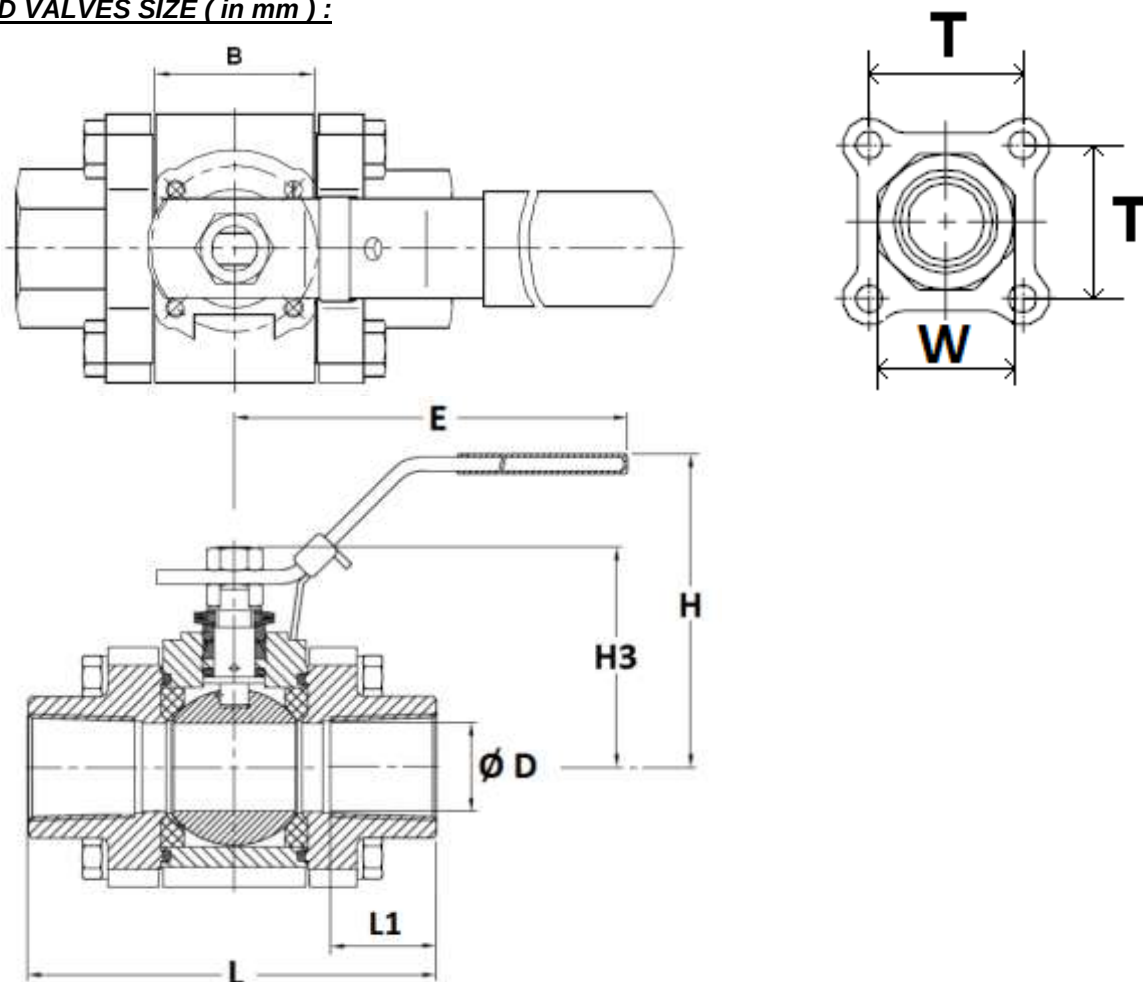
DN	Ref.
DN8	9804171
DN10	9804172
DN15	9804173
DN20	9804174
DN25	9804175
DN32	9804176
DN40	9804177
DN50	9804178

(* : 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	
21	Handle cover	
22	Packing nut	AISI 304
24	Handle nut	
28	Locking device	
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	
36	Washer	

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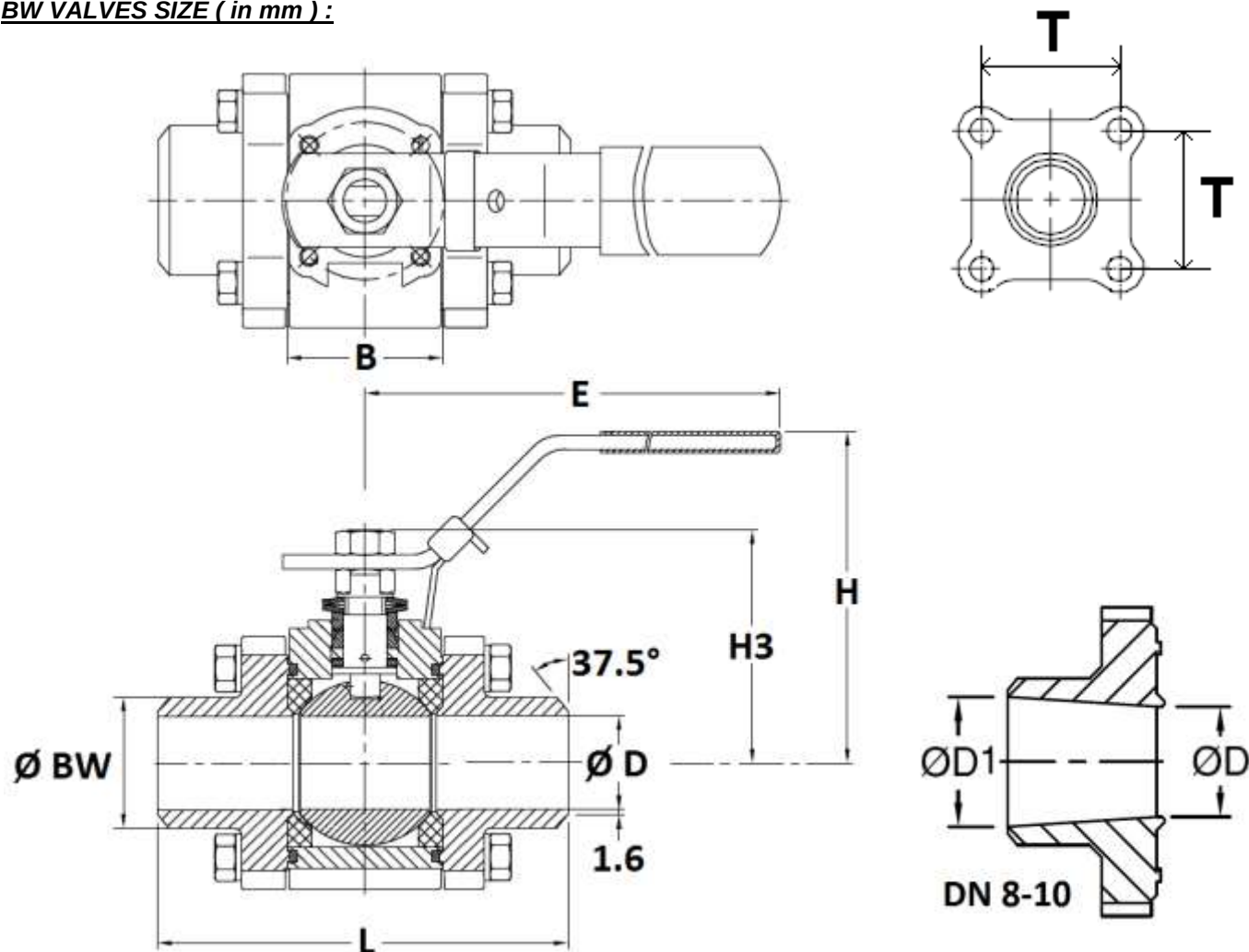
THREADED VALVES SIZE (in mm) :



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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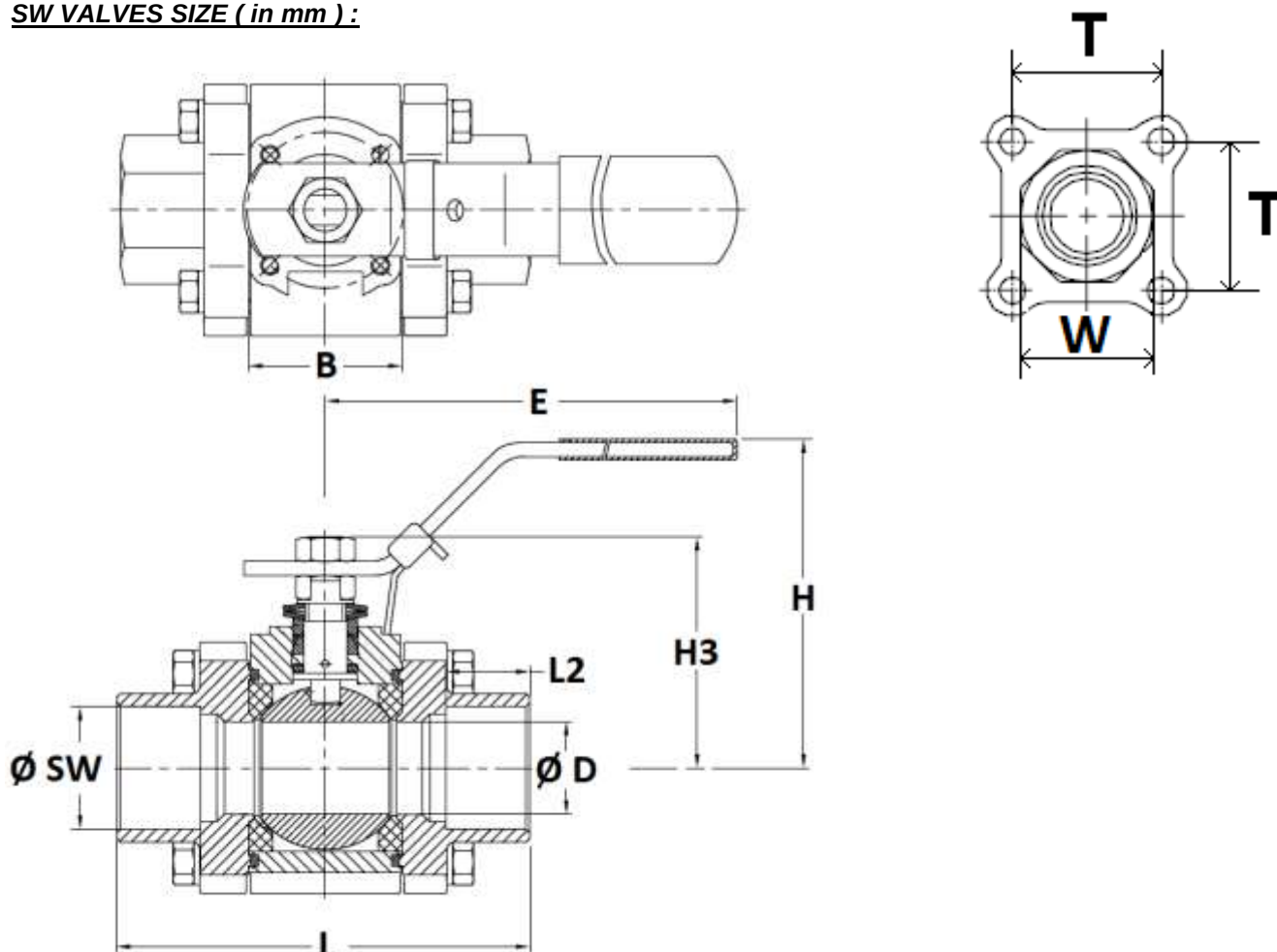
BW VALVES SIZE (in mm) :



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) :

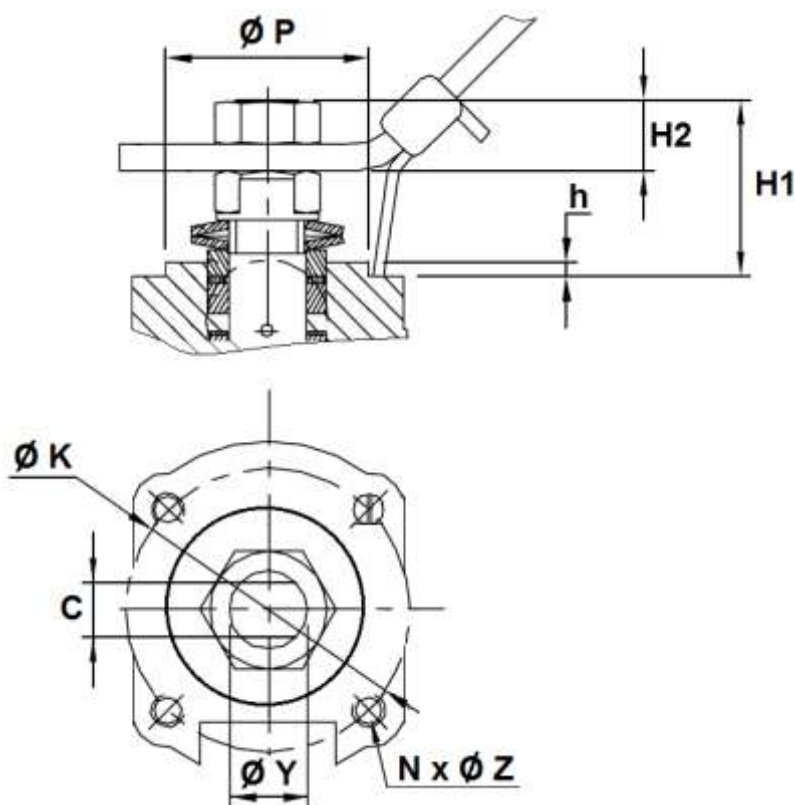


DN	8	10	15	20	25	32	40	50
Ø D	10	10	15	20	25	32	38	50
L	64,8	64,8	72,5	84,2	105,3	111	127,3	153,4
B	20,5	20,5	24,5	31,4	41,3	48,4	56,3	72
L2	10	10	10	13	13	13	13	16
E	132,8	132,8	132,8	132,8	171,8	171,8	204,2	211
H	63,7	63,7	65,1	73,2	83,1	87,6	98,4	130
H3	37,1	37,1	46,1	50,9	61,4	66,8	80	99,4
T	32	32	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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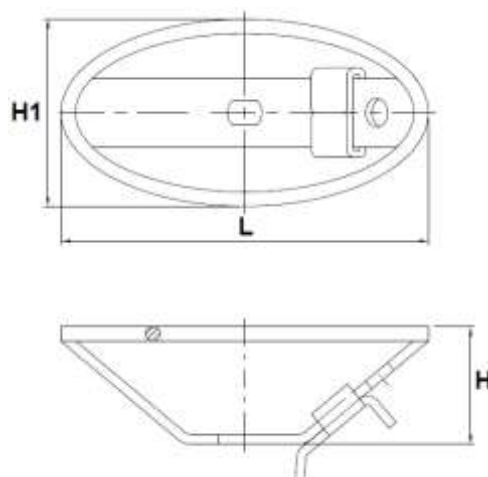
ISO 5211 MOUNTING PAD AND STEM SIZE (in mm) :



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				30		35	55
Ø K	36				42		50	70
ISO	F03				F04		F05	F07
N x Ø Z	4x M5						4 x M6	4 x M8

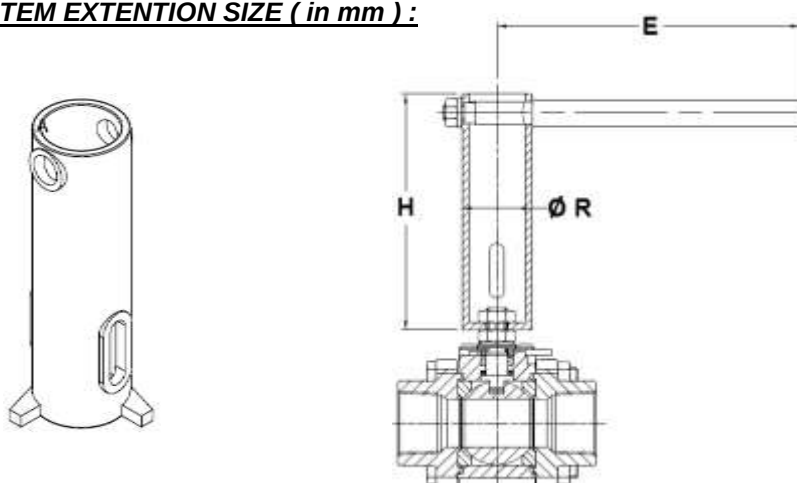
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AISI 304 OVAL LOCKABLE HANDWHEEL SIZE (in mm) :



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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STANDARDS :

- Manufacturer certified ISO 9001 : 2015 and ISO 14001 : 2015
- DIRECTIVE 2014/68/EU : For liquids and gas of Group 1
 - DN1/4"-1" : Article 4, §3 (SEP), no CE marking
 - DN1"1/4-2" : Risk Category II, CE 0038 or CE 0343 marking
- Certificate 3.1 on request
- Construction according to EN 12516-1 Class 800 or Class 600 (depending on DN)
- 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
- 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