

**FIRE SAFE 3 PIECES STAINLESS STEEL BALL VALVE PN138 DIRECT MOUNTING ISO 5211
EXCELLENCE RANGE**

3 pieces stainless steel direct mounting ISO 5211 ball valve with full bore for Chemical industries, petrochemical industries, hydraulic installation, heating, water distribution, compressed air.

Ball valve with firesafe certificate API 607 to reduce risks in case of fire.

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

PTFE filled with Graphite packing and gaskets, FKM O ring on stem and PTFE filled with stainless steel seat.

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

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



Size : DN8 to DN50 (NPS 1/4" to 2")

Connection : Female BSP, NPT, Socket or Butt Welding

Min Temperature : -40°C

Max Temperature : +220°C

Max Pressure : 138 Bars

Specifications : Antistatic device, ATEX

ISO 5211 mounting pad, direct mounting

Anti blow-out stem, full bore

Fire safe ISO API 607 4th

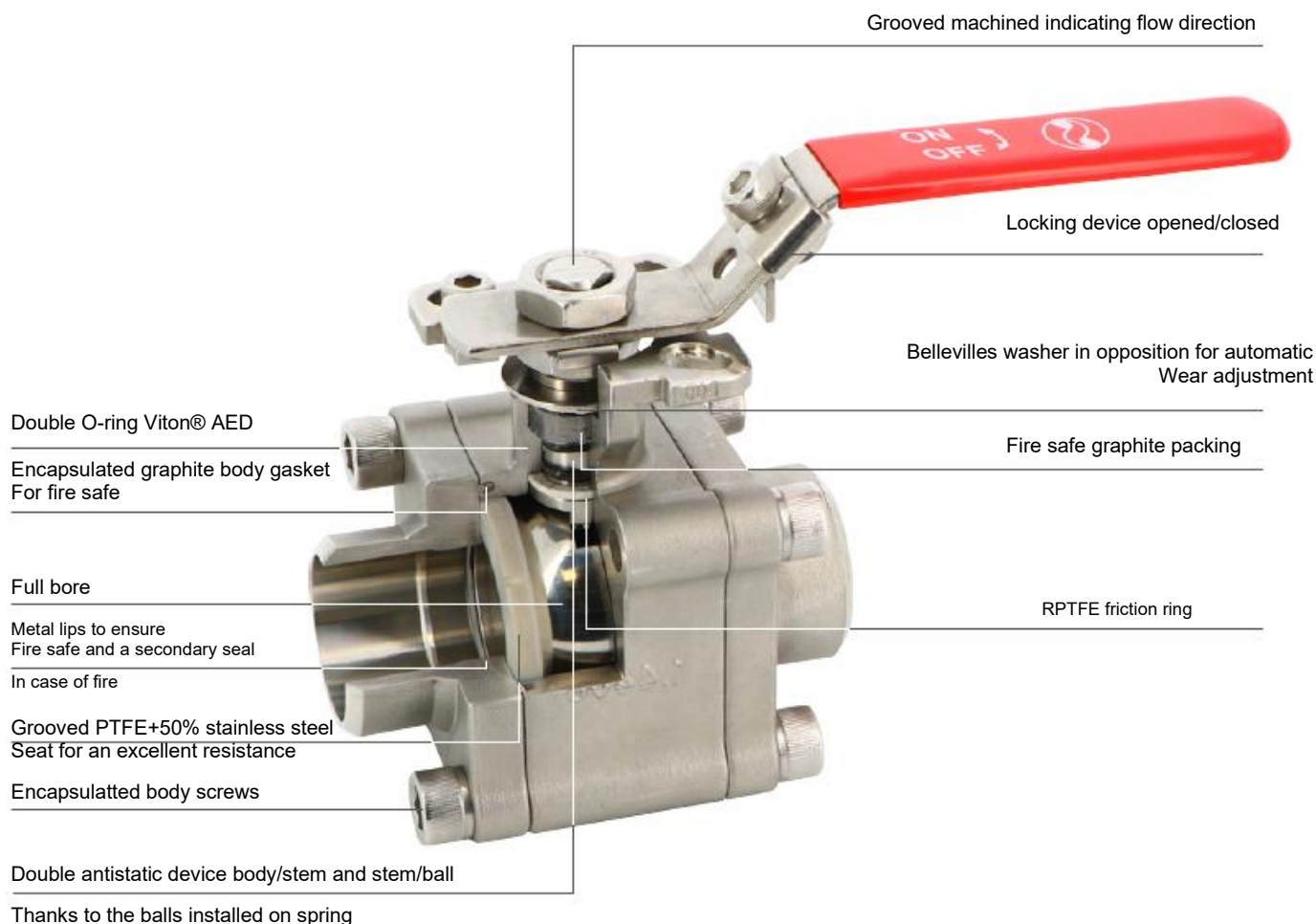
Fully encapsulated bolts

Materials : Stainless steel EN 1.4408

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SPECIFICATIONS :

- Full bore
- Anti blow-out stem
- Grooved PTFE filled with 50% stainless steel seat for an excellent resistance
- Special gland pack with elastic washer
- With exhaust hole in the ball (located in the top of the ball to avoid overpressure in it)
- Double antistatic device (ball between body-stem and ball-stem)
- Fire safe according to API 607 V.4
- Fugitive emission according to ISO 15848-1
- Locking device
- ISO 5211 mounting pad with direct mounting
- Fully encapsulated bolts
- Pressure class 800 lbs



USE :

- Chemical and pharmaceutical industries, petrochemical industries, hydraulic installation, compressed air
- Steam : 18 bars maximum
- Vacuum : 10^{-3} torr
- Min and max Temperatures Ts : -40°C to + 220°C
- Max Pressure Ps : 138 bars (see graph page 4)

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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)	17	17	36	59	90	159	230	418

TORQUE VALUES (in Nm without safety coefficient and at ΔP 0 bar) :

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)	4.4	4.4	4.9	7.8	15.7	21.6	34.3	47.1

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)	10.7				38.2		74.3	

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)	20	20	20	20	40	70	70	70

RANGE :



- 3 pieces fire safe stainless-steel ball valve with direct mounting ISO 5211 Ref. **703DM** from DN 8 to DN 50



- Oval lockable handwheel AISI 304 Ref.**9830485-9830486** from DN8 to DN32



- ISO 5211 stem extension AISI 304 Ref.**9830476-9830478** from DN8 to DN50



- Deadman stainless steel AISI 304 Ref.**9810740-9810742** from DN8 to DN50

CONNECTION :

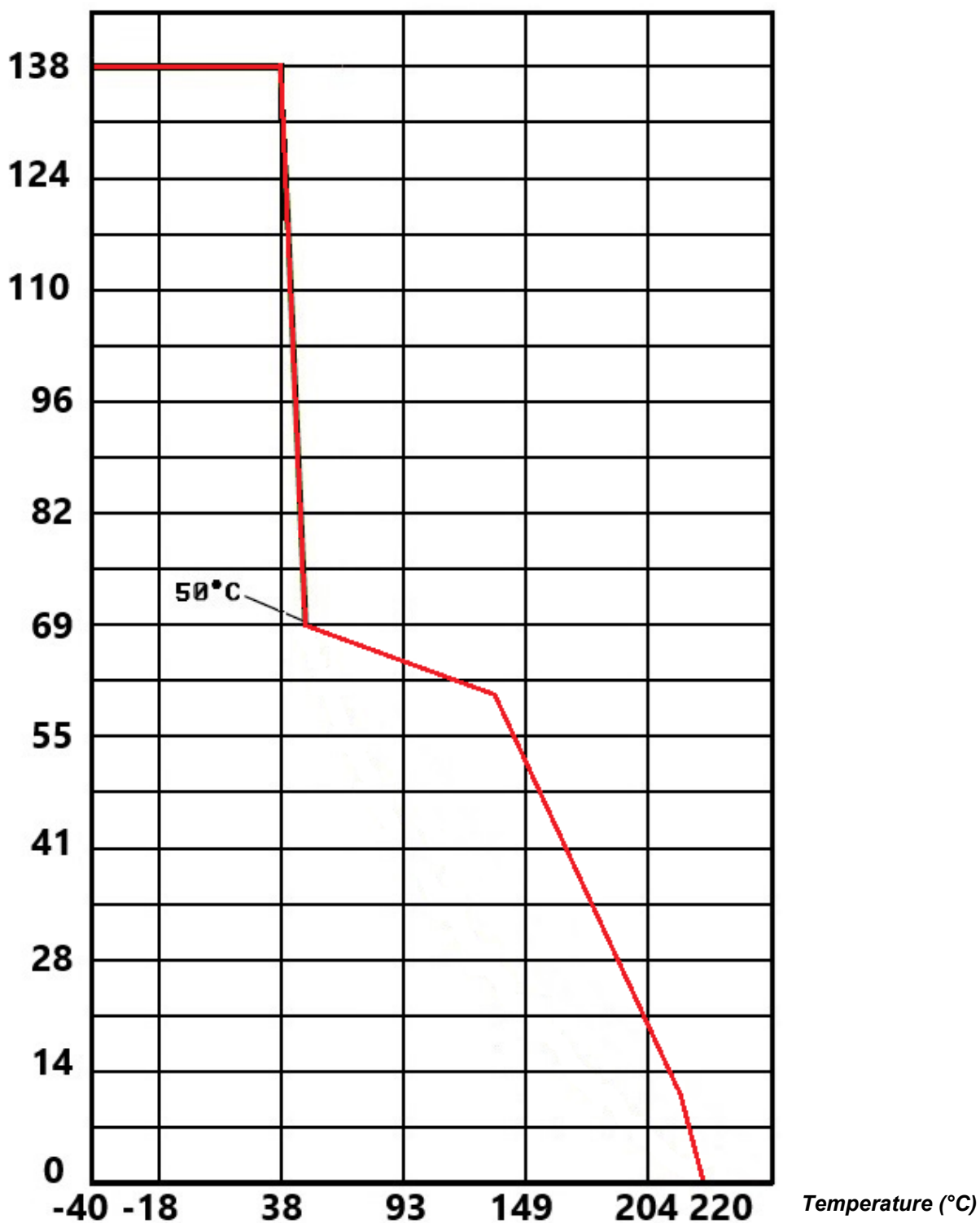
- Threaded female BSP, NPT, Butt or Socket Welding

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PRESSURE / TEMPERATURE GRAPH :

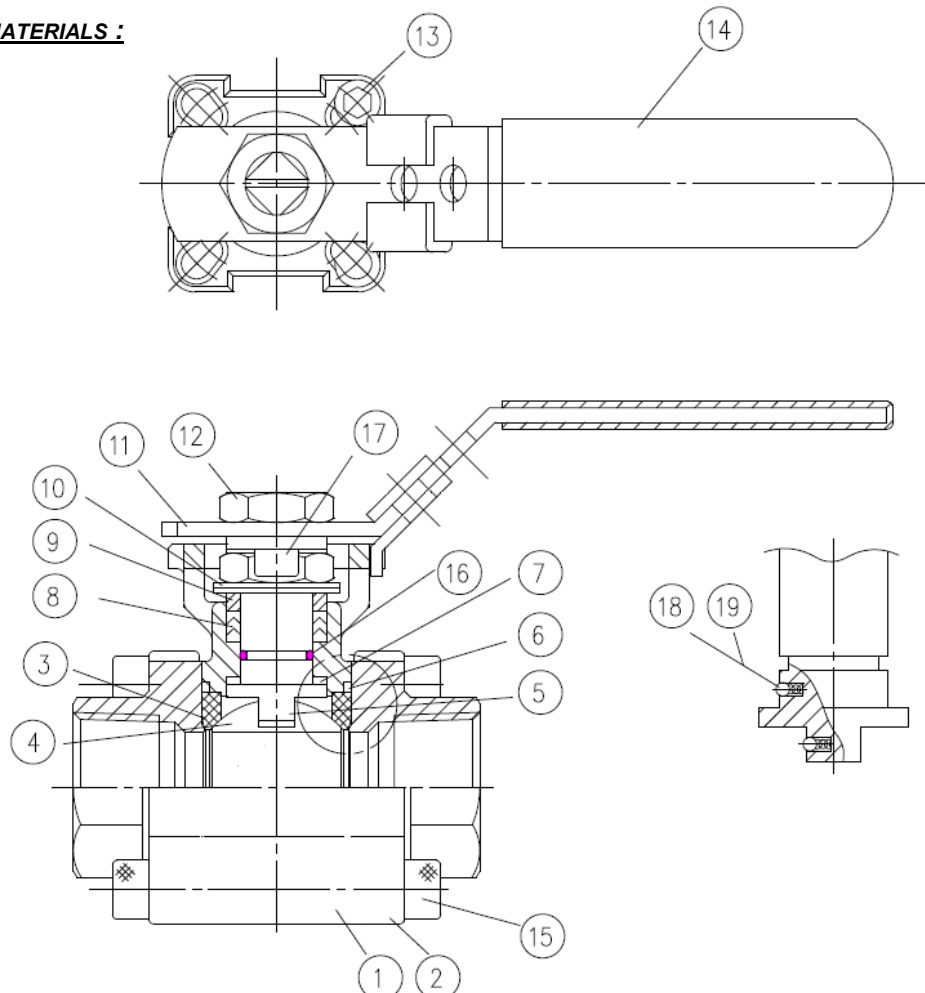
PRESSURE

(Bar)



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MATERIALS :



Repairability :



***Gaskets kit
(Items 3, 6, 7, 8 and 16)**

DN	Ref.
DN8-15	9830533
DN20	9830534
DN25	9830535
DN32	9830536
DN40	9830537
DN50	9830538

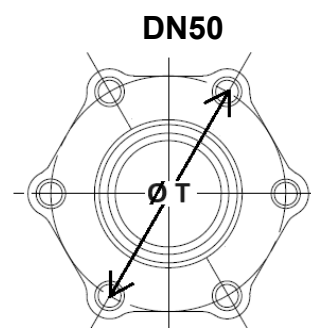
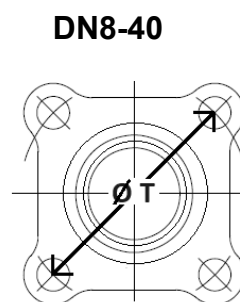
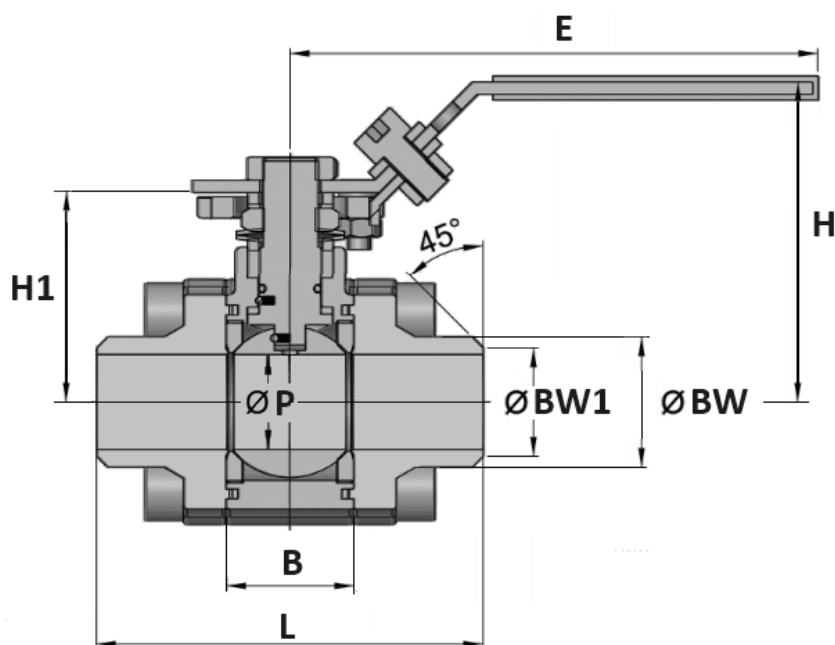
(* : Gaskets kit)

** : double O-ring
For DN40 and 50

Item	Designation	Materials
1	Body	Stainless steel EN 1.4408
2	Nipple	
3*	Seat	PTFE filled with 50% stainless steel
4	Ball	Stainless steel ASTM A351 CF8M
5	Stem	Stainless steel AISI 316
6*	Body gasket	Graphite
7*	Thrust washer	PTFE filled with 50% stainless steel
8*	Packing	Graphite
9	Gland	Stainless steel AISI 304
10	Elastic washer	Stainless steel AISI 301
11	Handle	Stainless steel AISI 304
12	Handle nut	
13	Stop screw	
14	Handle cover	Vinyl
15	Bolting	Stainless steel A2-70
16*	O-ring**	FKM
17	Stop washer	Stainless steel AISI 304
18-19	Antistatic device	Stainless steel AISI 316

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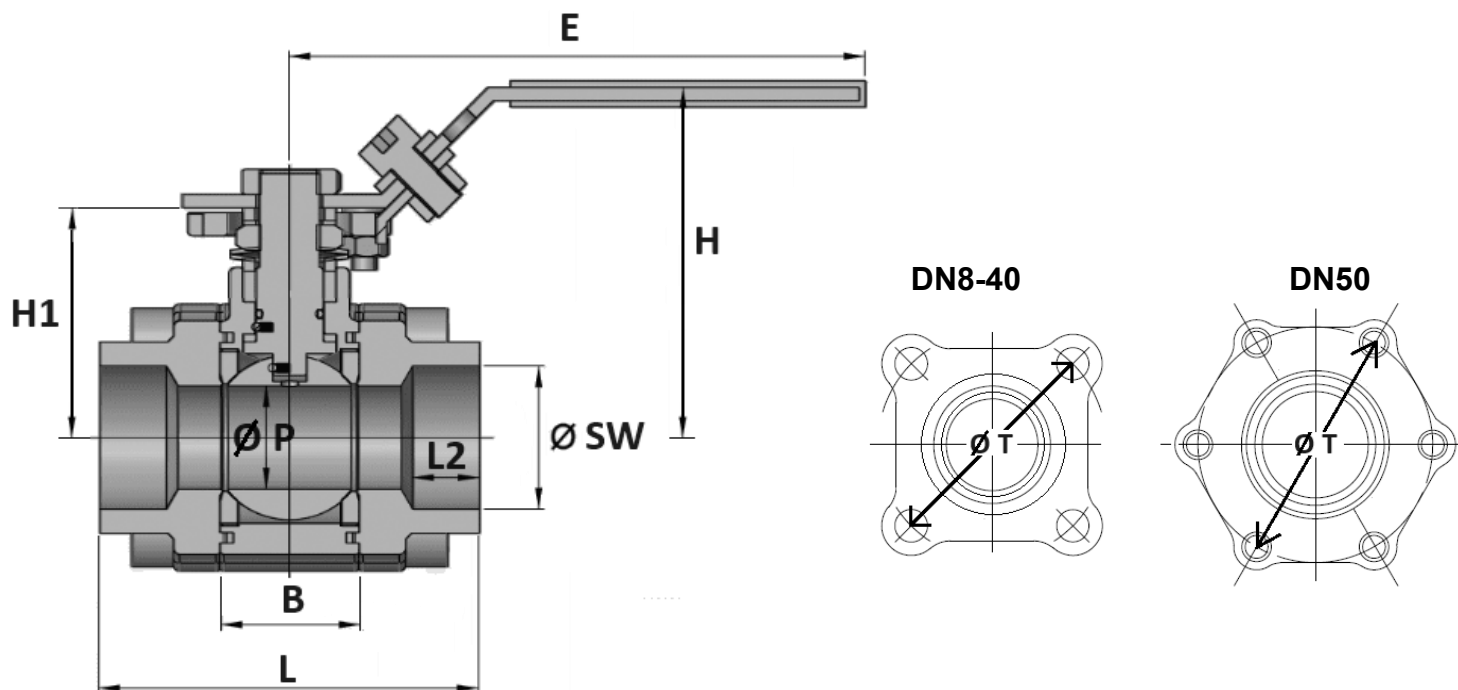
SIZE BW TYPES (in mm) :



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"
Ø P	11.1	11.1	16	20	24.5	32	38	50
L	75			90	100	110	125	150
B	25.2			27.7	33	41.2	49.3	63.6
Ø BW	17.2	17.2	21.3	26.9	33.7	42.4	48.3	60.3
Ø BW1	13	13	17	22	28	37	43	54
E	110				135		165	
H	70.9			73.4	84.1	89.3	109.5	118.9
H1	42.3			44.8	54	59.2	73.5	82.9
Ø T	47.8			55.2	64.1	77.6	88	108
Weight (kg)	0.78	0.8	0.76	0.98	1.7	2.52	3.56	6.62
Ref.	703DM108	703DM110	703DM115	703DM120	703DM125	703DM132	703DM140	703DM150

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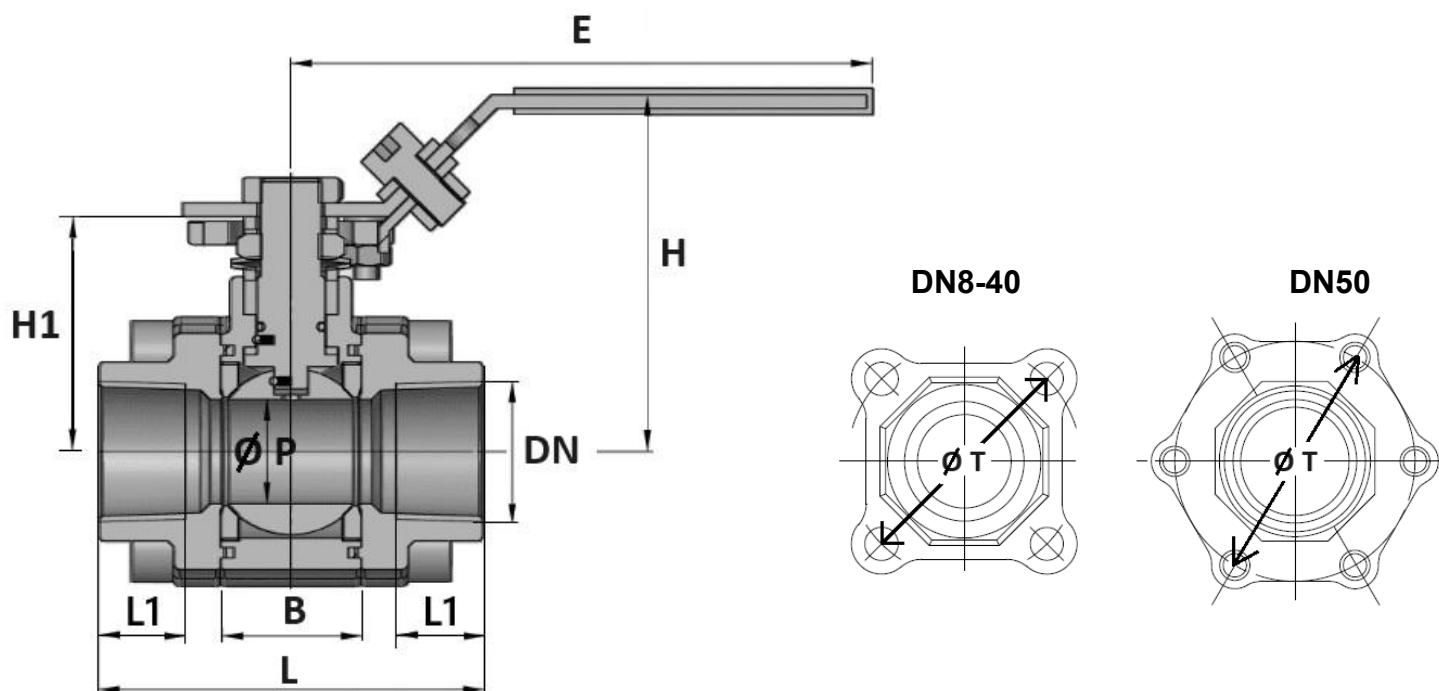
SIZE SW TYPES (in mm) :



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"
Ø P	11.1	11.1	16	20	24.5	32	38	50
L	75			80	90	110	120	140
B	25.2			27.7	33	41.2	49.3	63.6
Ø SW	14.2	17.7	21.8	27.2	33.9	42.7	48.8	61.2
L2	10	10	11.2	14.3	15.8	17.5	19.1	21.3
E	110				135		165	
H	70.9			73.4	84.1	89.3	109.5	118.9
H1	42.3			44.8	54	59.2	73.5	82.9
Ø T	47.8			55.2	64.1	77.6	88	108
Weight (kg)	0.82	0.84	0.85	1.04	1.82	2.66	3.9	6.8
Ref.	703DM208	703DM210	703DM215	703DM220	703DM225	703DM232	703DM240	703DM250

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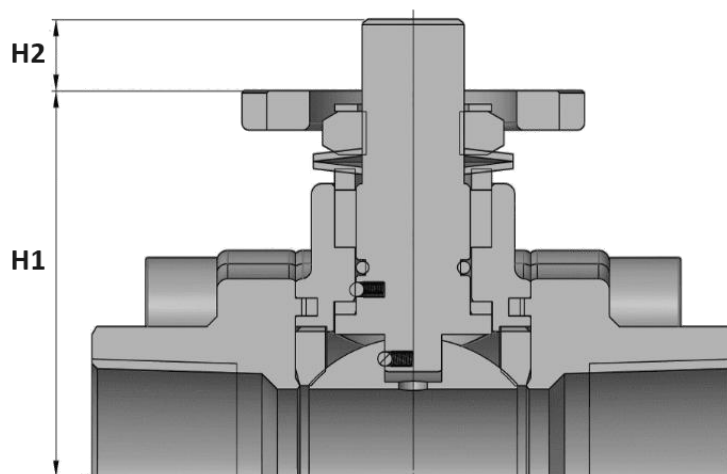
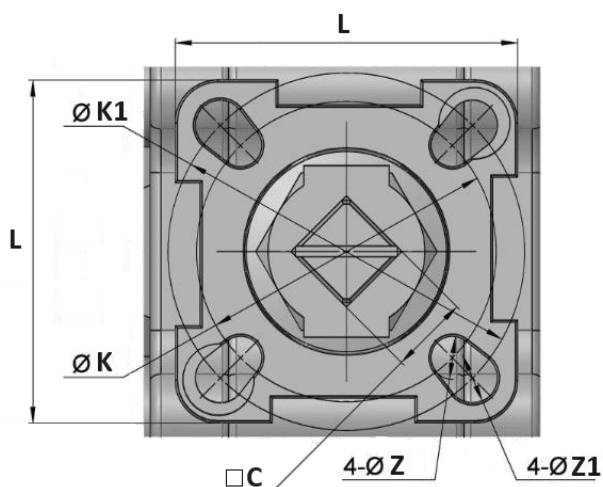
SIZE BSP AND NPT TYPES (in mm) :



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"
Ø P	11.1	11.1	16	20	24.5	32	38	50
L	75			80	90	110	120	140
L1	12.5	13.5	15.3	19.2	20.3	24.4	25.1	27.7
B	25.2			27.7	33	41.2	49.3	63.6
E	110				135		165	
H	70.9			73.4	84.1	89.3	109.5	118.9
H1	42.3			44.8	54	59.2	73.5	82.9
Ø T	47.8			55.2	64.1	77.6	88	108
Weight (kg)	0.88	0.89	0.83	1	1.69	2.56	3.7	6.6
Ref. BSP	703DM002	703DM003	703DM004	703DM005	703DM006	703DM007	703DM008	703DM009
Ref. NPT	703DM302	703DM303	703DM304	703DM305	703DM306	703DM307	703DM308	703DM309

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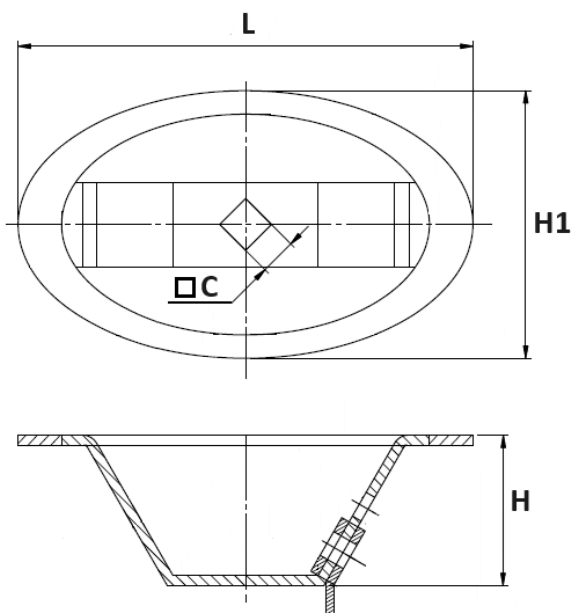
ISO PLATE AND STEM SIZE (in mm) :



DN	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"
H1	42.3			44.8	54	59.2	73.5	82.9
H2	8				10		14.8	
L	42				48		68	
C	9				11		14	
Ø K	36				42		50	
ISO	F03				F04		F05	
4 x Ø Z	4 x 6				4 x 6		4 x 7	
Ø K1	42				50		70	
ISO1	F04				F05		F07	
4 x Ø Z1	4 x 6				4 x 7		4 x 9	

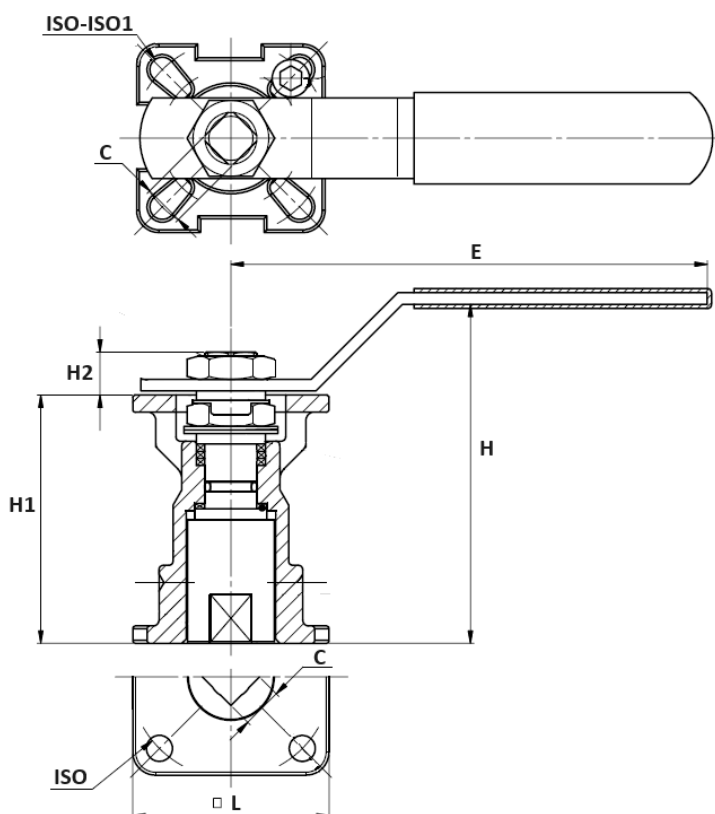
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OVAL LOCKABLE HANDWHEEL AISI 304 SIZE (in mm) :



DN (mm)	8-20	25-32
NPS (")	1/4"-3/4"	1"-1 1/4"
L	110	136
H	43	45
H1	66	80
C	9	11
Ref.	9830485	9830486

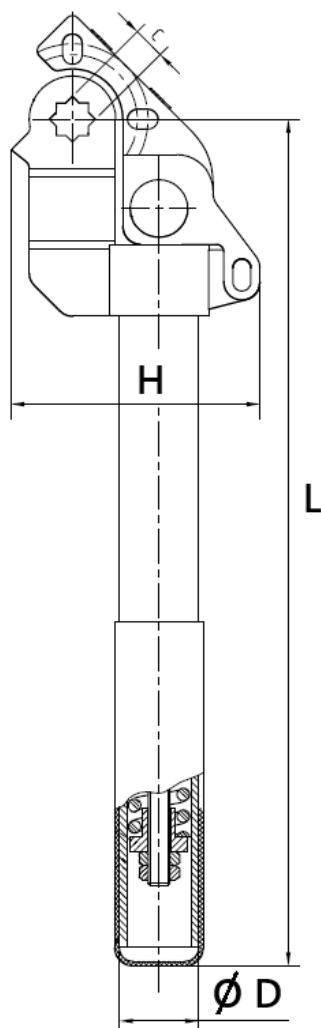
STEM EXTENSION AISI 304 SIZE (in mm) :



DN (mm)	8-20	25-32	40-50
NPS (")	1/4"-3/4"	1"-1 1/4"	1 1/2"-2"
H	87.4	93.8	117.5
H1	60.7	67	86
H2	8	10	14.8
C	9	11	14
E	110	135	165
L	42	48	68
ISO	F04	F05	F07
ISO-ISO1	F03-F04	F04-F05	F05-F07
Ref.	9830476	9830477	9830478

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DEADMAN STAINLESS STEEL AISI 304 (in mm) :



DN (mm)	8-20	25-32	40-50
NPS (")	1/4"-3/4"	1"-1 1/4"	1 1/2"-2"
ISO	F03/F04	F04/F05	F05/F07
C	9	11	14
H	70		100
L	235		350
Ø D	22		36
Weight (in Kg)	0.55	0.55	1.85
Ref.	9810740	9810741	9810742



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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
 - DN8-25 : Article 4, §3 (SEP), no CE marking
 - DN32-50 : Risk Category II, CE0035 marking
- Certificate 3.1 on request
- Construction according to EN 12516-1
- Length according to EN 16722 Series M3 (DIN 3202 M3) for types BSP, NPT and SW from DN15 to DN50
- Pressure tests according to API 598
- Fire safe according to API 607 4th
- Fugitive emission according to ISO 15848-1 : 2015, Class BH
- S.W. ends according to ASME B16.11
- B.W. ends according to DIN 3239
- BSP threaded cylindrical ends according to ISO 228-1
- NPT threaded ends according to ASME B1.20.1
- ISO 5211 direct mounting pad
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 & 22 (optional marking) according directive 2014/34/EU
- SIL2 according to IEC/EN 61508, SIL 3 possible according to installation

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The customer must check the right choice of the products with the real service conditions.