3 PIECES STAINLESS STEEL BALL VALVE PN63 INITIAL RANGE

Lloyd's Register
ISO 9001 : 2015

Lloyd's Register
PED/2014/68/EU

CE

Certificate 3.1

Size :	DN 8 to 100 mm
Ends :	Threaded BSP or NPT, Socket or Butt Welding
Min Temperature :	-20°C
Max Temperature :	+ 180°C
Max Pressure :	63 Bars up to DN20
Specifications :	Anti blow-out stem Locking device Full bore

Materials : Stainless steel ASTM A351 CF8M

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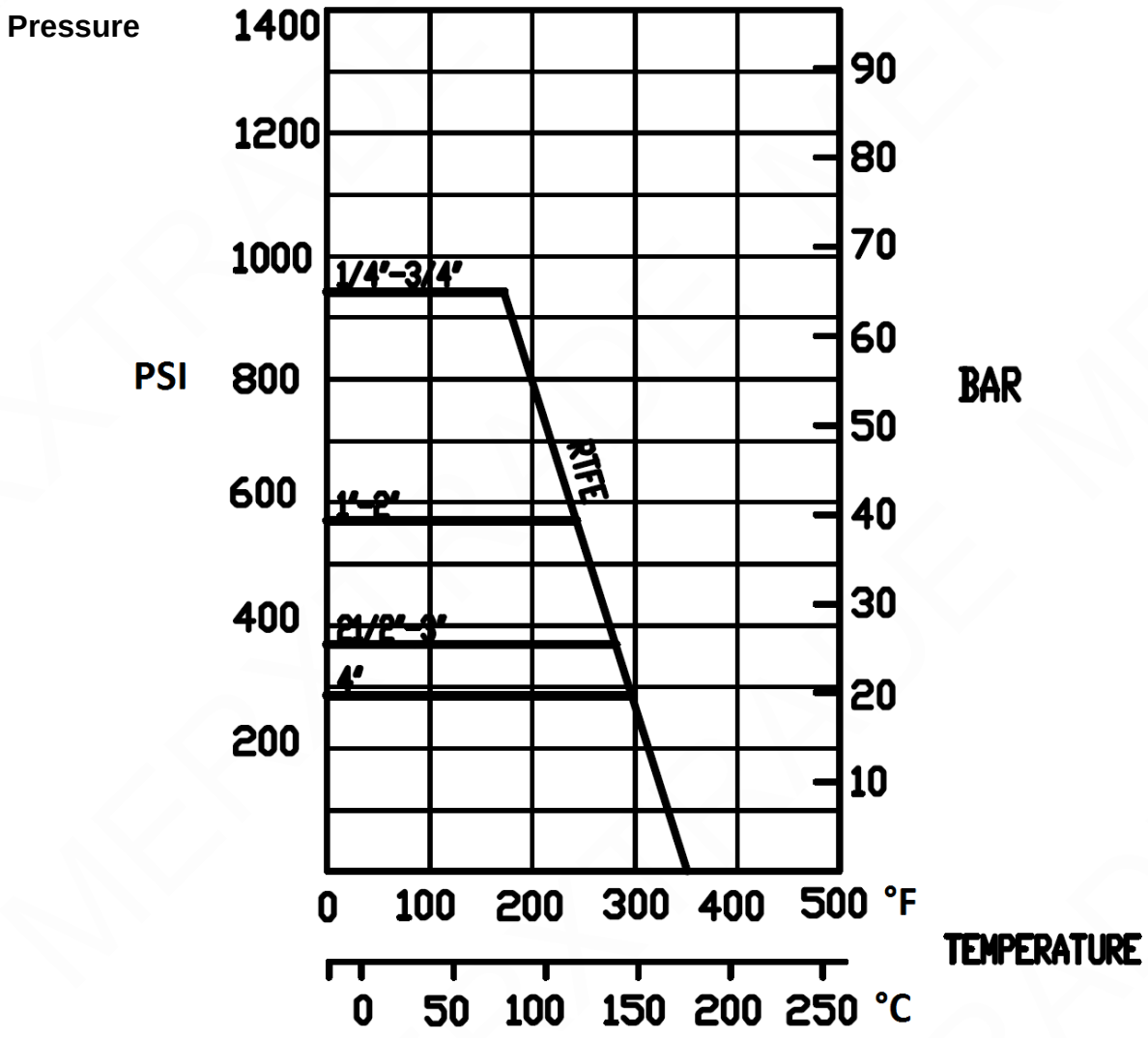
SPECIFICATIONS :

- Full bore
- Anti blow-out stem
- PTFE packing
- Locking device
- Stem extension in AISI 304 (option)

USE :

- Compatible with common fluids of 2nd group
- Min and max Temperature Ts : -20°C to + 180°C
- Max Pressure Ps : 63 bars up to DN20, 40 bars from DN25 to 50, 25 bars from DN65 to 80 and 20 bars for DN100 (see graph under)
- Compressed air : 10 bars max
- Do not use with steam

PRESSURE / TEMPERATURE GRAPH (STEAM AND COMPRESSED AIR EXCLUDED) :



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RANGE :

- Stainless steel 3 pieces ball valve Initial Range **Ref. 744/790/791/792** from DN 8 to DN 100

- AISI 304 stem extension **Ref.9810611-9810614** from DN8 to DN50

- Blue handle cover **Ref. 9830584-9830588** from DN 1/2“ to DN 4“

ENDS :

- Female / female threaded BSP Ref. **790**
- Female / female threaded NPT Ref. **744**
- Socket Welding Ref.**792**
- Butt welding Ref. **791**

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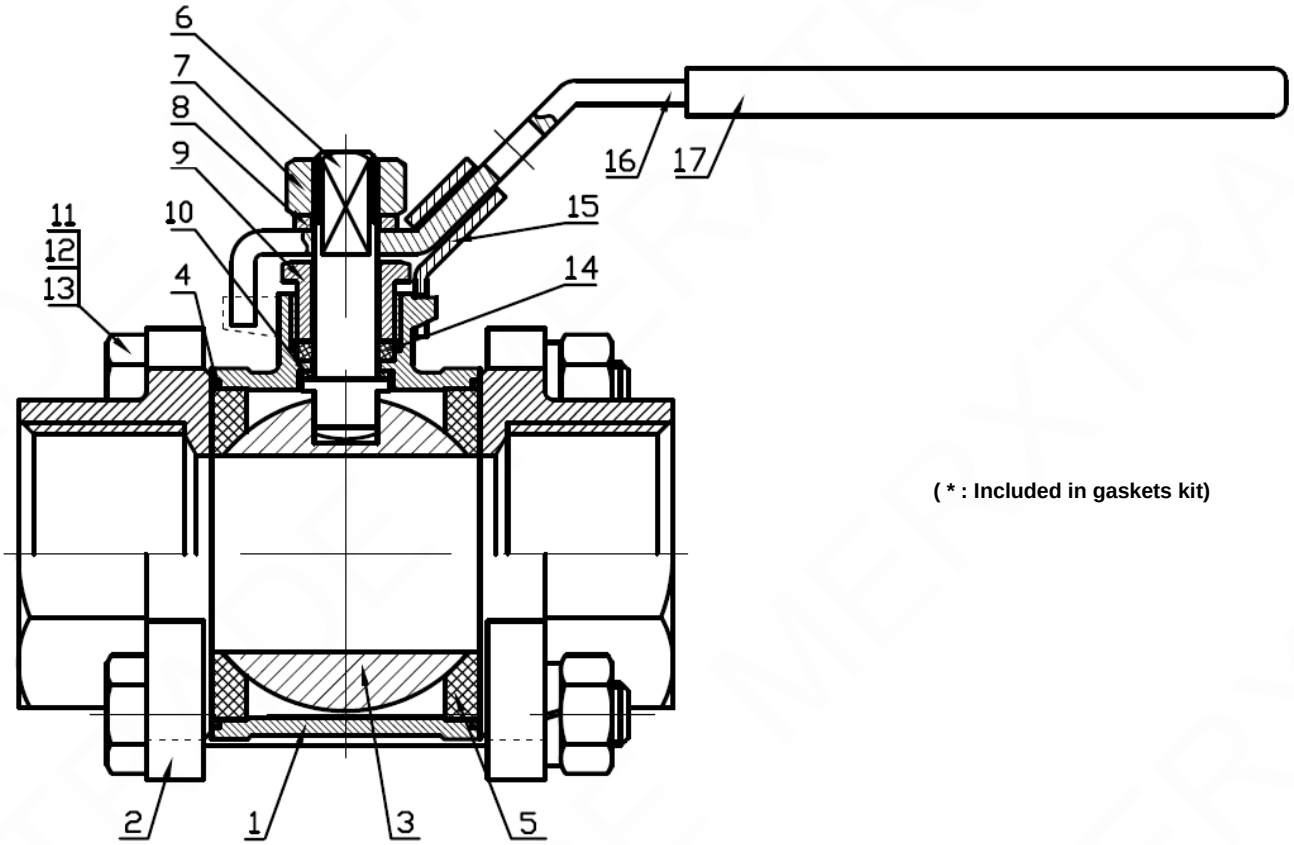
MATERIALS :



(* : Included in gaskets kit)

Item	Designation	Materials
1	Body	ASTM A351 CF8M
2	Ends	
3	Ball	AISI 316
4*	Body gasket	PTFE
5*	Seat	PTFE filled with 15% glass fiber
6	Stem	AISI 316
7	Packing nut	AISI 304
8	Handle washer	
9	Packing gland	
10*	Thrust washer	PTFE
11	Stud	AISI 304
12	Stud washer	
13	Stud nut	
14*	Packing	PTFE
15	Locking device	AISI 304
16	Handle	
17	Handle cover	PVC

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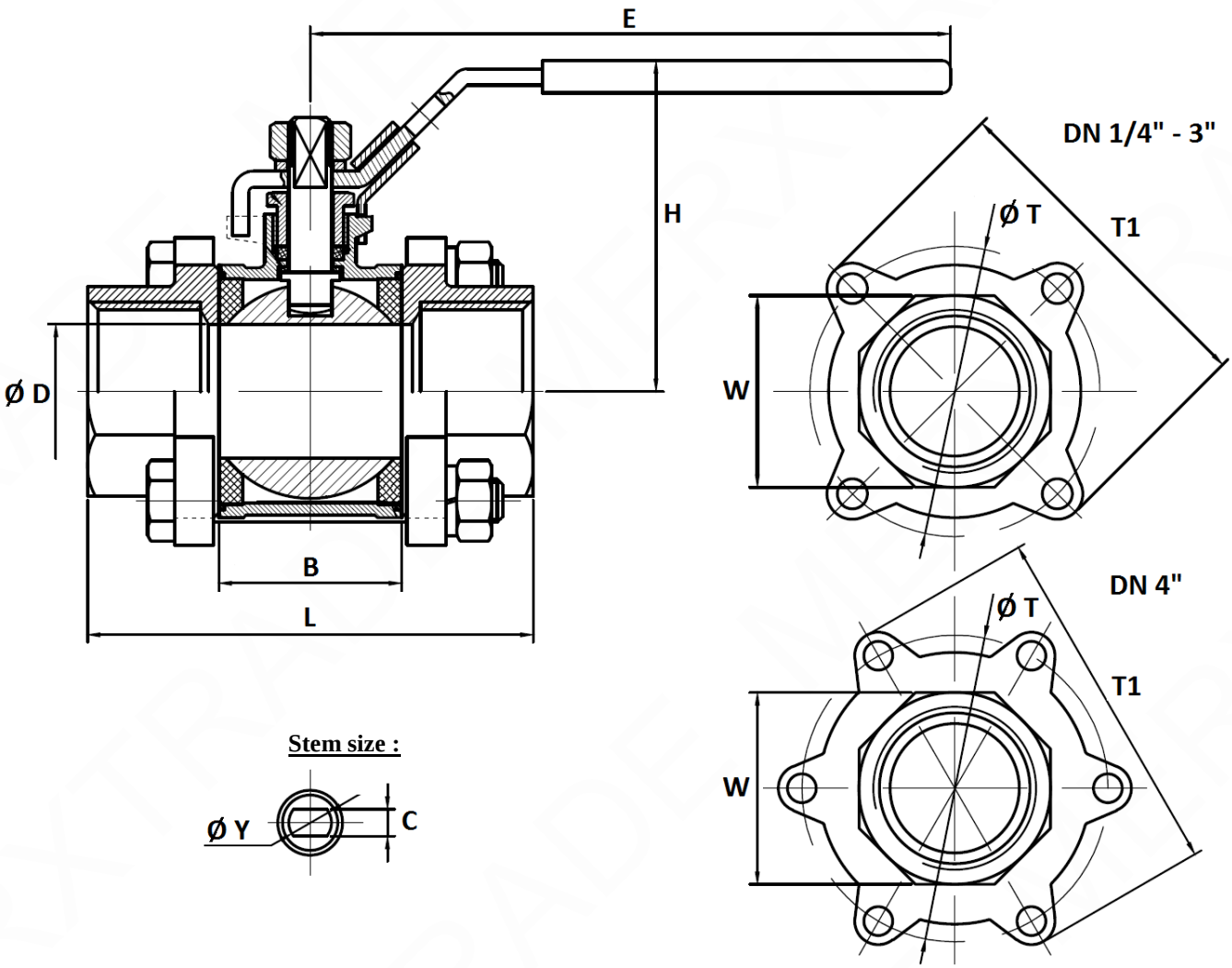
SIZE THREADED TYPES (in mm) REF. 790 / 744 :



Stem size :

Ref.	DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
790 744 Threaded	Ø D	11.6	12.5	15	20	25	32	38	50	64	76	100
	L	59	59	63.3	70.6	82	97	109	124.6	162	175	216
	B	21.1	21.1	23.3	28.6	34	44	51	63	84.3	94.7	119.2
	E	103	103	126	126	162	162	193	193	230	230	320
	H	49	49	57	62	72	78	91	102	122	132	177
	Ø Y	M8	M8	M8	M8	M10	M10	M12	M12	M14	M14	M20
	C	5	5	5	5	6.5	6.5	8.5	8.5	9.8	9.8	16
	Ø T	38.5	38.5	43	51.5	58	70	81.5	101	136	157	195.5
	T1	51	51	57.5	66	74.5	86.5	100.5	121.5	161	185	226.5
	W	18	21	26	32	39	48	55	67	83	99	127
	Weight (Kg)	0.30	0.30	0.45	0.60	0.86	1.32	2.03	3.19	7.06	10.7	20.95

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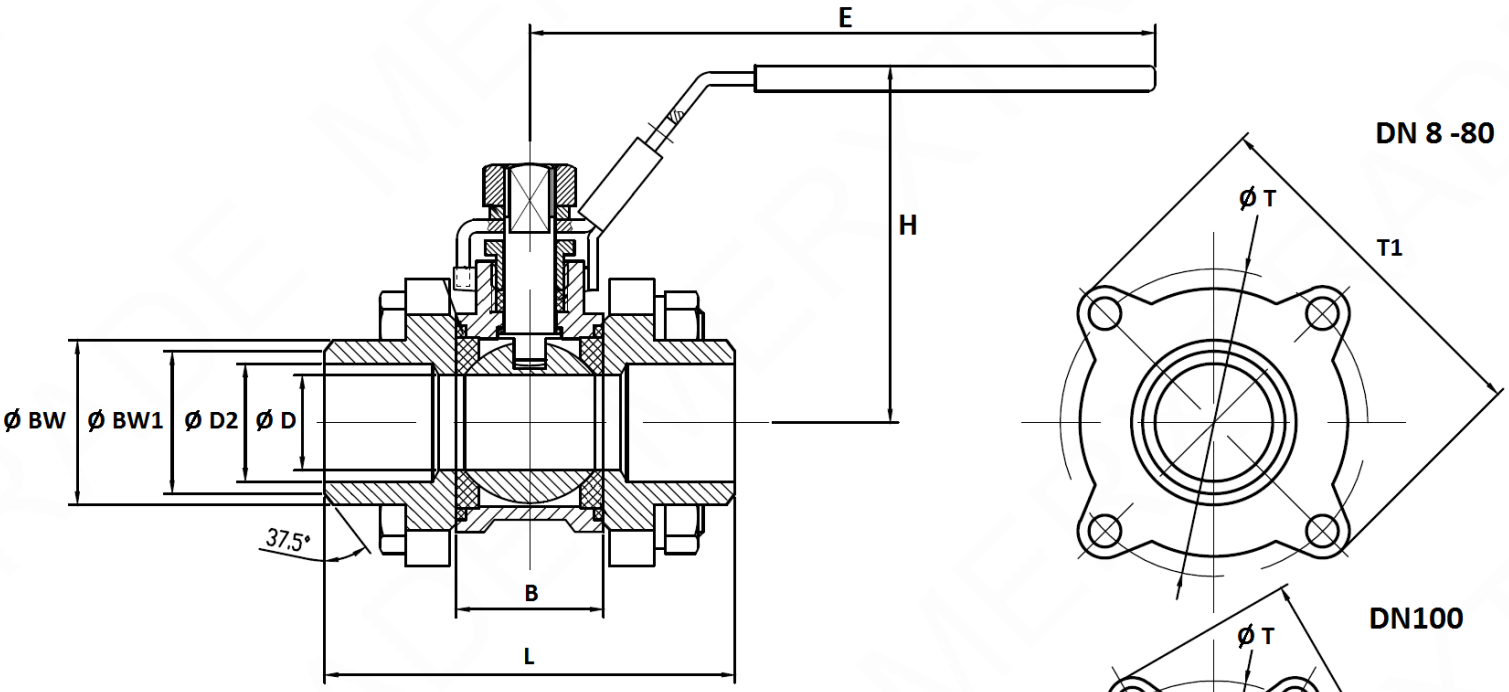
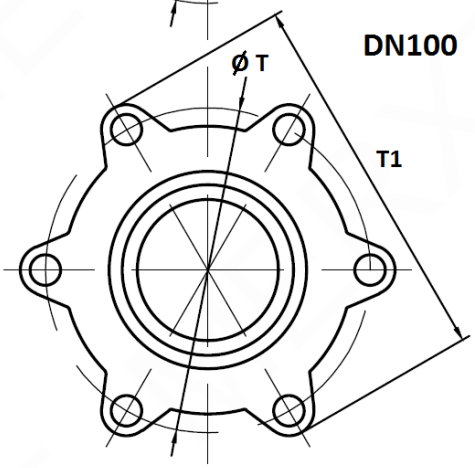
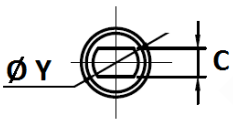
SIZE B.W. TYPE (in mm) REF. 791 :





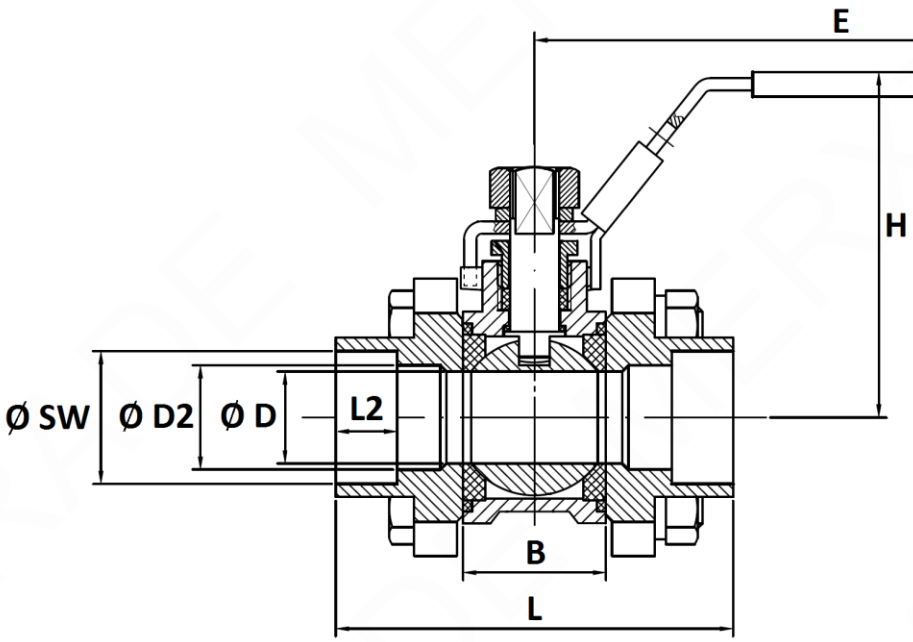
Stem size :

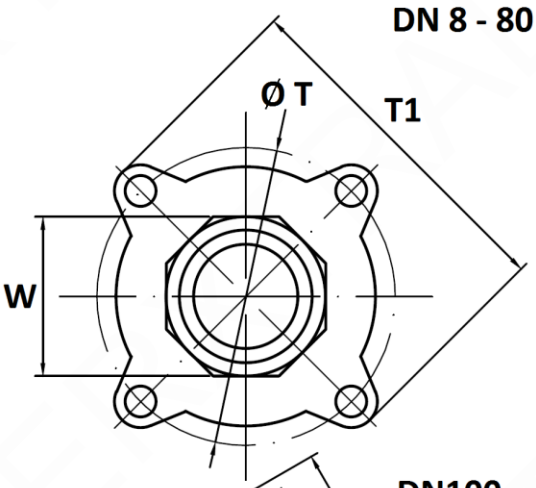


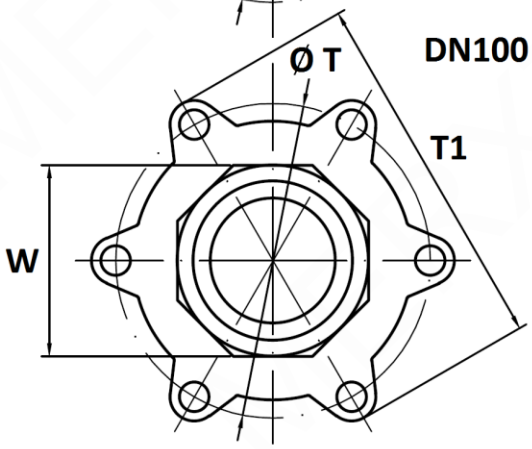
Ref.	DN	8	10	15	20	25	32	40	50	65	80	100
791 BW	Ø D	11.6	12.5	15	20	25	32	38	50	64	76	100
	L	59	59	63.3	70.6	82	97	109	124.6	162	175	216
	B	21.1	21.1	23.3	28.6	34	44	51	63	84.3	94.7	119.2
	E	103	103	126	126	162	162	193	193	230	230	320
	H	49	49	57	62	72	78	91	102	122	132	177
	Ø Y	M8	M8	M8	M8	M10	M10	M12	M12	M14	M14	M20
	C	5	5	5	5	6.5	6.5	8.5	8.5	9.8	9.8	16
	Ø T	38.5	38.5	43	51.5	58	70	81.5	101	136	157	195.5
	T1	51	51	57.5	66	74.5	86.5	100.5	121.5	161	185	226.5
	Ø BW	15.5	17.5	22	27.3	34	42.7	48.7	61	76.5	90	115
	Ø BW1	13.3	14.5	17	22.5	28.6	36	43	54	68	84	104
	Ø D2	11.6	12.5	15	20	25	32	39.8	50	64	76	100
	Weight (Kg)	0.30	0.30	0.45	0.60	0.86	1.35	2.03	3.19	7.06	10.7	20.95

3 PIECES STAINLESS STEEL BALL VALVE PN63 INITIAL RANGE

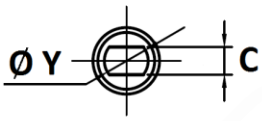
SIZE S.W. TYPE (in mm) REF. 792 :







Stem size :



Ref.	DN	8	10	15	20	25	32	40	50	65	80	100
792 SW	Ø D	11.6	12.5	15	20	25	32	38	50	64	76	100
	Ø D2	11.6	14.5	18	23.5	29.5	38.5	44.5	56	68	83	108
	L	59	59	63.3	70.6	82	97	109	124.6	162	175	216
	B	21.1	21.1	23.3	28.6	34	44	51	63	84.3	94.7	119.2
	L2	11	11	11	14	18	18	19	21	20	16	19
	E	103	103	126	126	162	162	193	193	230	230	320
	H	49	49	57	62	72	78	91	102	122	132	177
	Ø Y	M8	M8	M8	M8	M10	M10	M12	M12	M14	M14	M20
	C	5	5	5	5	6.5	6.5	8.5	8.5	9.8	9.8	16
	Ø T	38.5	38.5	43	51.5	58	70	81.5	101	136	157	195.5
	T1	51	51	57.5	66	74.5	86.5	100.5	121.5	161	185	226.5
	W	18	21	26	32	39	48	55	67	83	99	127
	SW	14.1	17.6	21.9	27.4	34.2	42.8	48.8	61.1	77	89.9	115.4
	Weight (Kg)	0.30	0.30	0.45	0.60	0.86	1.3	2.03	3.19	7.06	10.7	20.95

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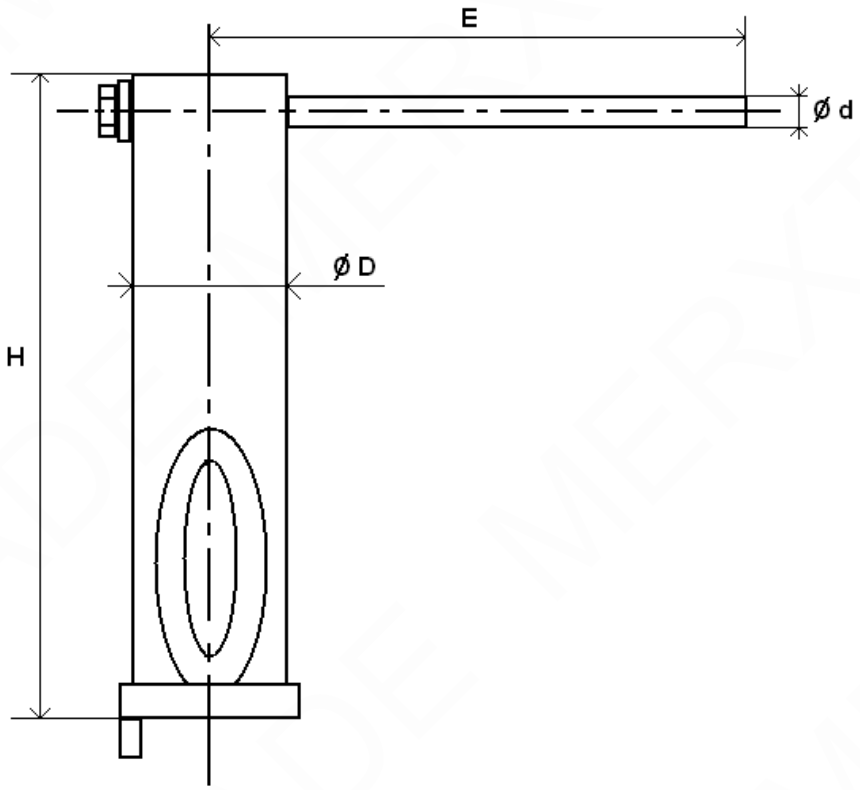
STEM EXTENSION (in mm) :



DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"
H	126		126.3		126.3		128	
E	124		124		157.8		188.5	
Ø D	28		28		32		36.5	
Ø d	12		12		14		14	
Weight (in Kg)	0.33		0.34		0.48		0.62	
Ref.	9810611		9810612		9810613		9810614	

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TORQUE VALUES (In Nm without safety coefficient) :

DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2“1/2	3“	4“
Torque (Nm)	2	2	2.5	3.5	6	7	12	16	40	50	70

BOLT TIGHTENING TABLE (in Nm) :

DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2“1/2	3“	4“
Torque (Nm)	4	4	8	8	10	13	20	20	35	45	65

FLOW COEFFICIENT Kvs (M3 / h) :

DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
Kvs (m3/h)	5.2	5.2	20.7	30.2	40.6	70	90.8	208.4	275.9	501.6	865

STANDARDS :

- Fabrication according to ISO 9001 : 2015
- DIRECTIVE 2014/68/EU : CE N° 0038
  Risk Category III Module H
- Certificate 3.1 on request
- Pressure tests according to API 598, table 6
- Threaded BSP cylindrical ends according to ISO 228-1
- Threaded NPT ends according to ANSI B1.20.1

ADVICE : Our opinion and our advice are not guaranteed and MXT 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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INSTALLATION AND MAINTENANCE

BEFORE INSTALLATION :

Pipe-line must be cleaned and free from residual of weldings,rubbish,shaving and every kind of extraneous materials.
Pipe-line must be perfectly aligned and their support properly dimensioned so that there's no external constraint.

Check to use a produce compatible to the services conditions for the sealing of the threaded types.
To tighten the ends,use the appropriate tool.
Use the right bolt tightening so that the ends won't be damaged.

The welding of the ends for the SW and the BW types,must be done with the central part removed.
A gauge can be used to have the good lenght and alignement between the ends.

INSTALLATION OF THE CENTRAL PART

During the installation of the central part , tighten bolts according to the table below.Tighten bolts in cross.

BOLT TIGHTENING TABLE (in Nm) :

DN	1/4"	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"	4"
Torque (Nm)	4	4	8	8	10	13	20	20	35	45	65

CLEANING AND TESTS
Keep opened the valves during the cleaning operation so that there are no impurities between the ball and the body.

Tests under pressure must be done with a cleaned pipe-line.

Open partially the valve for tests. Pressure test do not exceed the valve specifications according to EN 12266-1.

MAINTENANCE
It's recommended to operate the valve twice (open and close) 1 to 2 times per year.

When intervention on the valve, be sure there's no pressure in the pipe-line, there's no fluid in it,and that it is isolated.
The temperature must be low enough to operate without risks.
If there's a corrosive fluid,inert installation before intervention.

When the valve is under pressure :
If there's a leakage between the body and the ends, tighten bolts according to the above table

If there's a leakage at the packing, tighten it slightly so that the leakage disappears.

MAINTENANCE OPERATION IN WORKSHOP

REPLACEMENT OF SEAT GASKETS AND PACKING.
The central part must be removed.
Turn the ball at 45° and removed the seat gaskets.
Operate the valve in closed position to removed the ball.Verify the surface of the ball has no impacts and no scores.
If there are important scores or impatcs,replace the ball.
Clean inside the body valve and remove the impurities.
To replace the packing,remove the handle,unscrew the gland nut, extract the stem by the inside of the valve.
Clean the paking seat.
Reassemble thrust washer on stem, introduce stem by the inside of the valve, reassemble packing with packing nut,reassemble hand washer,hand nut and the handle.
Turn stem in closed position and insert the ball.
Then turn the ball in opened position and reassemble the seat.
Place the valve on the installation,tighten bolts according to the above table.
Then proceed to the tests in the same way that the first installation.

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