

## 3 PIECES SWING BALL VALVE FORGED A105N CARBON STEEL CLASS 800

3 pieces forged carbon 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 API 607 to reduce risks in case of fire.

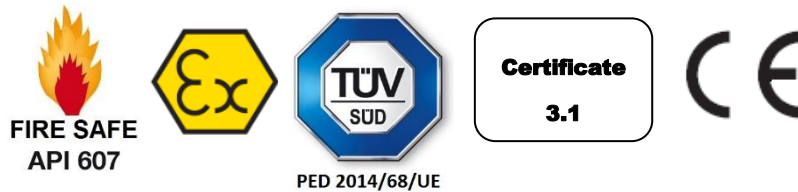
Graphite packing and PTFE filled with glass seat gasket on stem, PTFE filled with glass seat.

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

3 pieces Swing type.

Handling with locking device, on request possible with handwheel or T handle.

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



**Size:** DN15 to DN50 (NPS 1/2" to 2")

**Connection :** Female NPT or SW

**Min Temperature :** -29°C

**Max Temperature :** +220°C

**Max Pressure :** 136 Bars (Class 800)

**Specifications :** Antistatic device, ATEX

ISO 5211 mounting pad

Anti blow-out stem, full bore

Fully encapsulated bolts

Fire safe API 607 V.6

**Materials :** Forged carbon steel ASTM A105N

**3 PIECES SWING BALL VALVE FORGED A105N CARBON STEEL CLASS 800**

**SPECIFICATIONS :**

- Full bore
- Anti blow-out stem
- Packing with elastic rings
- Double tightness on stem by PTFE filled with 25% glass fiber packing and FKM O ring
- Double tightness between body and ends by FKM O ring and graphite gasket
- Antistatic device
- Fire safe according to API 607 version 4
- Atex
- With ISO 5211 mounting pad
- Fully encapsulated bolts
- Class 800
- On request : locking device, handwheel or T handle

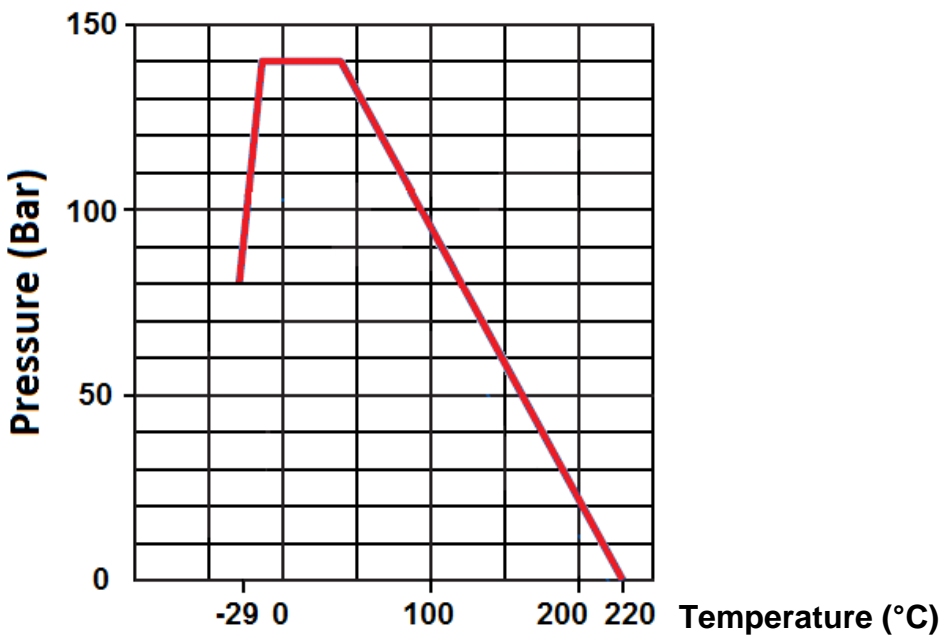
**USE :**

- Chemical and pharmaceutical industries, petrochemical industries, hydraulic installation, compressed air
- Steam : 16 bars maximum
- Min and max Temperature Ts : -29°C to + 220°C
- Max pressure Ps : 136 bars ( see graph under )

**FLOW COEFFICIENT Kvs ( M3 / h ) :**

<b>DN (mm)</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>32</b>	<b>40</b>	<b>50</b>
<b>NPS (")</b>	<b>1/2"</b>	<b>3/4"</b>	<b>1"</b>	<b>1"1/4"</b>	<b>1"1/2"</b>	<b>2"</b>
<b>Kvs ( m3/h )</b>	<b>10.4</b>	<b>28.5</b>	<b>41.5</b>	<b>71.8</b>	<b>103.8</b>	<b>216.2</b>

**PRESSURE / TEMPERATURE GRAPH :**



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**TORQUES VALUES ( in Nm without safety coefficient ) :**

DN (mm)	15	20	25	32	40	50
NPS (")	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Pressure (bar)	20	35	50	70	105	138
20	6.8	10.1	13.5	16.9	27	56.9
35	6.8	10.1	16.9	20.3	33.8	74.5
50	6.8	10.1	20.3	27	47.4	101.6
70	6.8	13.5	22.4	33.8	59.6	162.7
105	8	17.5	33.8	40.6	67.8	244
138	16.9	33.8	56.2	77.3	135.3	284.7

**BOLT TIGHTENING TABLE ( in Nm ) :**

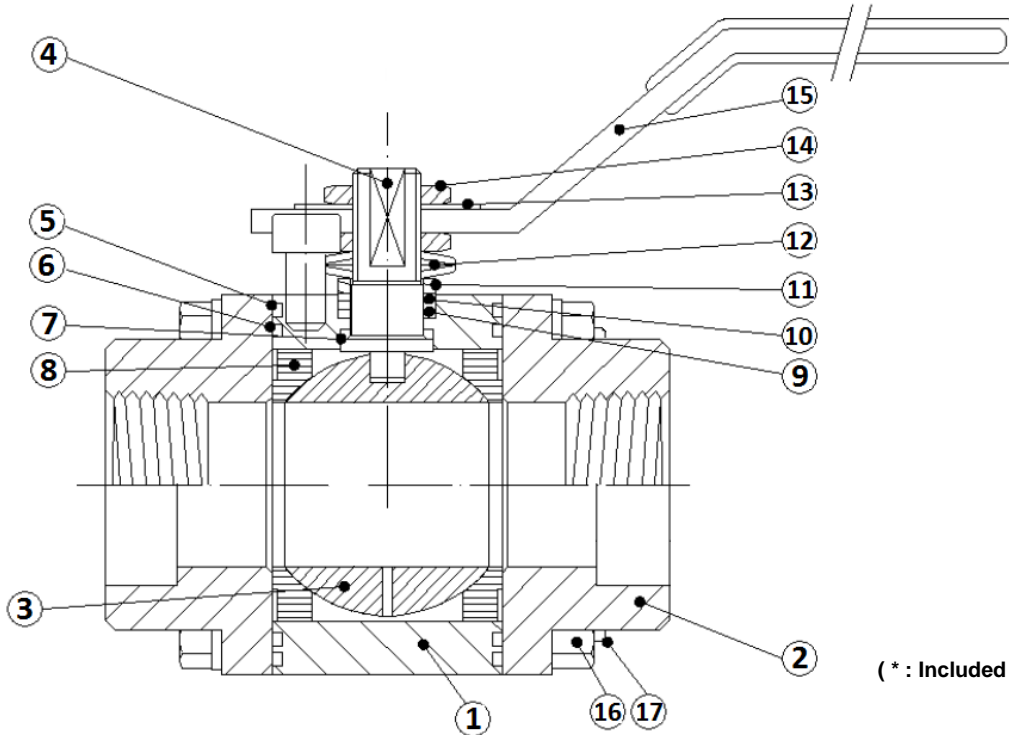
DN (mm)	15	20	25	32	40	50
NPS (")	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Torque ( Nm )	15.9	31.9	31.9	56	56	143.3
15.9	31.9	31.9	56	56	143.3	

**RANGE :**

- Ball valve class 800 threaded NPT **Ref.745** from DN 15 to 50 ( NPS 1/2" to 2" )
- Ball valve class 800 with Socket Welding ends **Ref. 7451** from DN 15 to 50 ( NPS 1/2" to 2" )

**3 PIECES SWING BALL VALVE FORGED A105N CARBON STEEL CLASS 800**

**MATERIALS :**

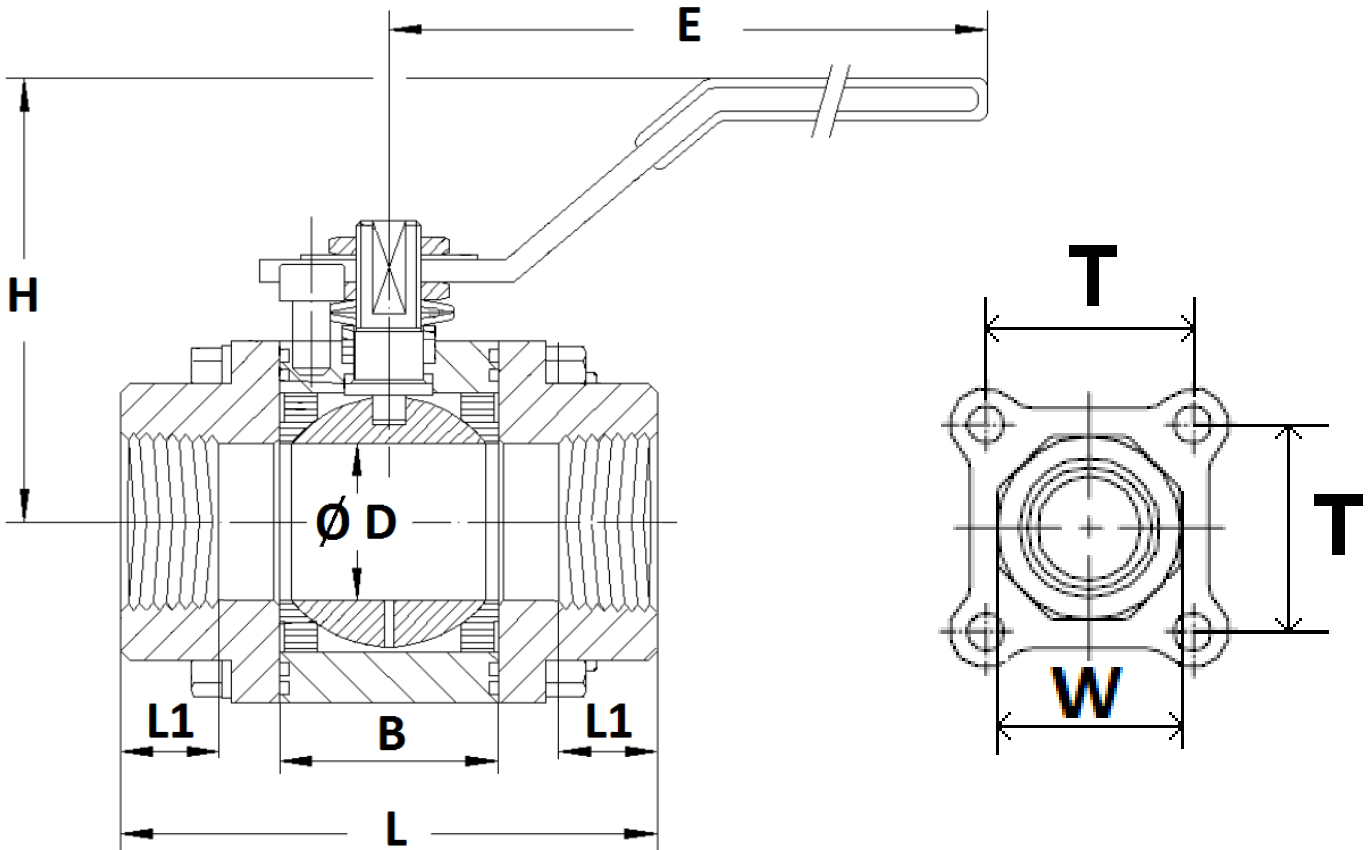


(\* : Included in gaskets kit)

Item	Designation	Materials	
1	Body	ASTM A105N	
2	Ends	ASTM A105N	
3	Ball	ASTM A479 316/316L	
4	Stem		
5*	Body gasket (firesafe)	Graphite	
6*	Body gasket	PTFE	
7*	Thrust washer	DN 15-40	PTFE filled with 25% glass fiber
		DN50	Carbon TexPTFE
8*	Seat	PTFE filled with 15% glass fiber	
9*	Gasket	PTFE filled with 25% glass fiber	
10*	Packing	Graphite	
11	Packing gland	UNS31600/S31603	
12	Elastic ring	AISI 301	
13	ID plate	Aluminium	
14	Nut	ASTM A582 AISI 303	
15	Handle	Zinc carbon steel	
16	Nut	ASTM A194 GR.2H	
17	Screw	ASTM A193 B7	

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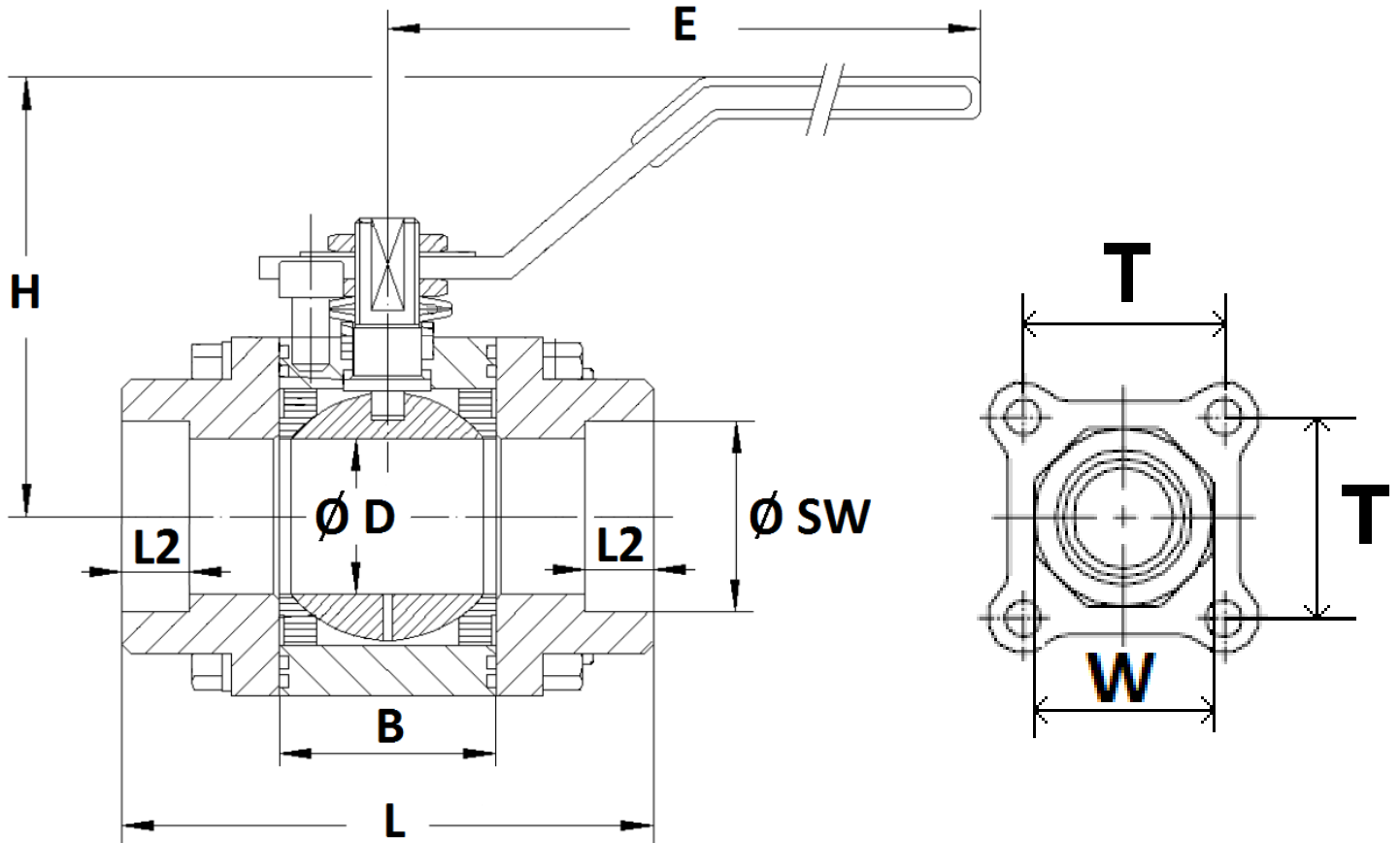
**SIZE THREADED NPT TYPE ( in mm ) :**



DN (mm)	15	20	25	32	40	50
NPS (")	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Ø D	14.2	20.5	25.4	31.7	38	51
B	21	28	37	45	50	62
L	80	100	110	120	140	160
L1	14	14	17.5	18	19	23
E	160	170	170	226	230	310
H	78	100	100	123	128	155
T	35.4	45.25	50.9	59.4	68.6	83.45
W	32	42.5	52	58	71	78
Weight (in Kg)	1.25	2.4	3.11	4.5	6.2	10.2
Ref.	745004	745005	745006	745007	745008	745009

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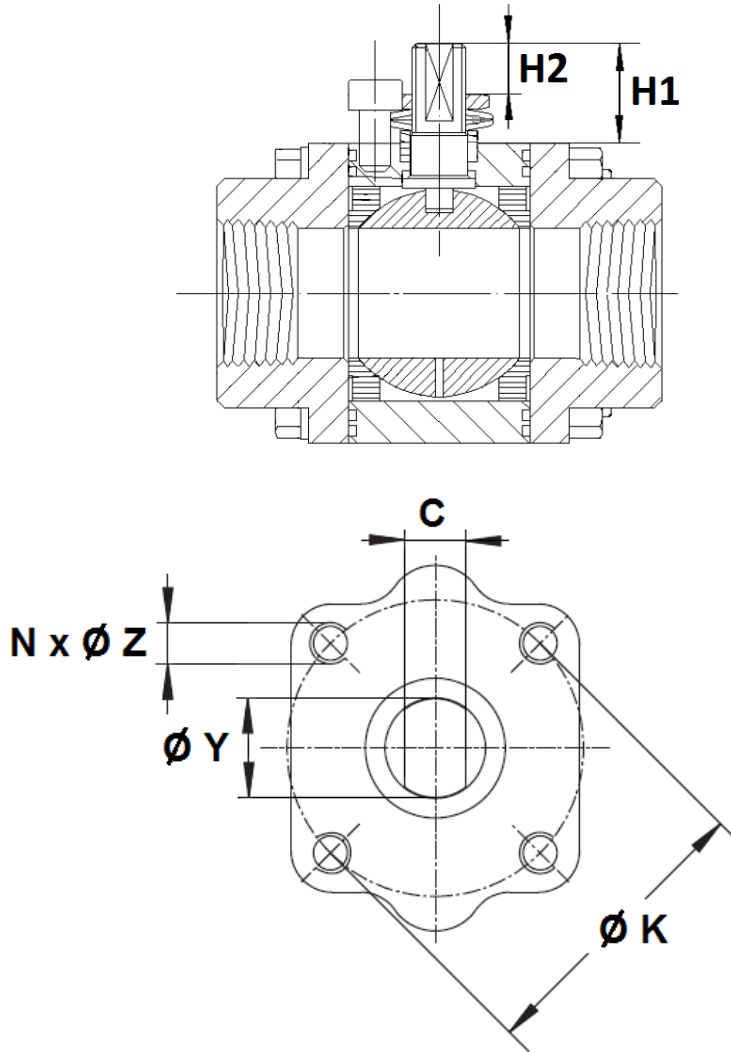
**SIZE S.W. TYPE ( in mm ) :**



DN (mm)	15	20	25	32	40	50
NPS (")	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Ø D	14.2	20.5	25.4	31.7	38	51
B	21	28	37	45	50	62
L	80	100	110	120	140	160
E	160	170	170	226	230	310
H	78	100	100	123	128	155
L2	12.7	14.5	16	17.5	19	22
Ø SW	21.8	27.2	33.9	42.5	48.8	61.2
T	35.4	45.25	50.9	59.4	68.6	83.45
W	32	42.5	52	58	71	78
Weight (in Kg)	1.25	2.4	3.11	4.5	6.2	10.2
Ref.	745115	745120	745125	745132	745140	745150

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



Ref.	DN (mm)	15	20	25	32	40	50
	NPS (")	1/2"	3/4"	1"	1"1/4	1"1/2	2"
745 / 7451	H1	10.3	17	25	38.6	38.5	44.5
	H2	7.9	13.5	15.7	24	24	27
	C	5.4	7.5	7.5	8.9	8.9	14
	Ø Y	10 (M10 x 1.5)	12 (M12 x 1.5)	12 (M12 x 1.5)	14 (M14 x 1.5)	14 (M14 x 1.5)	20 (M20 x 1.5)
	Ø K	36	42	42	50	50	70
	ISO	F03	F04	F04	F05	F05	F07
	N x Ø Z	4x M5	4x M5	4x M5	4x M6	4 x M6	4 x M8

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**STANDARDS :**

- Manufacturer certified ISO 9001 : 2015
- DIRECTIVE 2014/68/EU : **CE N° 0036**  
Risk category III module H
- Certificate 3.1 on request
- Construction according to ISO 17292
- Designing according to ASME B16.34
- Pressure Tests according to API 598, table 6
- Fire safe according to API 607 version 4
- Threaded NPT ends according to ANSI B1.20.1
- SW ends according to ASME B16.11
- ISO 5211 mounting pad
- ATEX Group II Category 2 G T3 (optional marking)

**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.