

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**



Lloyd's  
Register  
ISO 9001 : 2015



Lloyd's  
Register  
PED/2014/68/EU



**Certificate 3.1**



**Size :** DN 25 to 150  
**Connection end :** Flanges PN16 R.F.  
**Min Temperature :** - 20°C  
**Max Temperature :** + 150°C  
**Max Pressure :** 16 Bars  
**Specifications :** ISO mounting pad  
PTFE filled with glass seat  
Anti blow-out stem  
Atex

**Materials :** Carbon steel ASTM A216 WCB

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

**SPECIFICATIONS :**

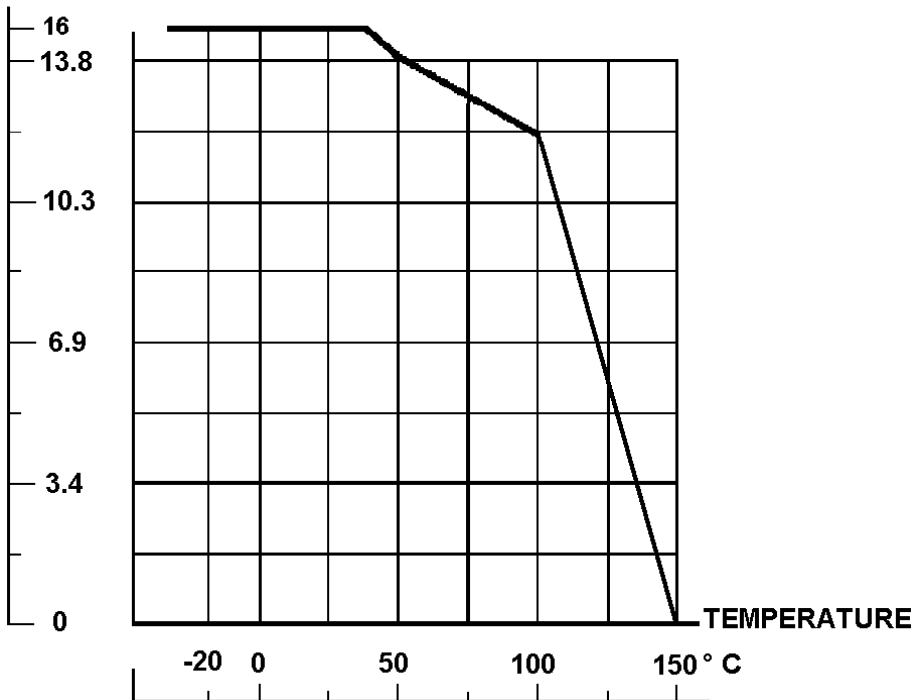
- Full bore
- Anti blow-out stem
- Double antistatic device
- PTFE seat filled with glass
- Locking device
- ISO 5211 mounting pad
- Tightness on 3 ways
- L or T port
- Trunnion mounted ball valve from DN100 to DN150

**USE :**

- Chemical industries, petrochemical industries, hydraulic installation, heating, water distribution, compressed air
- Min and max Temperatures Ts : -20°C to + 150°C
- Max Pressure Ps : 16 bars ( see graph )
- Do not use for vacuum

**PRESSURE / TEMPERATURE GRAPH ( STEAM EXCLUDED ) :**

**PRESSURE  
BAR**



**RANGE :**

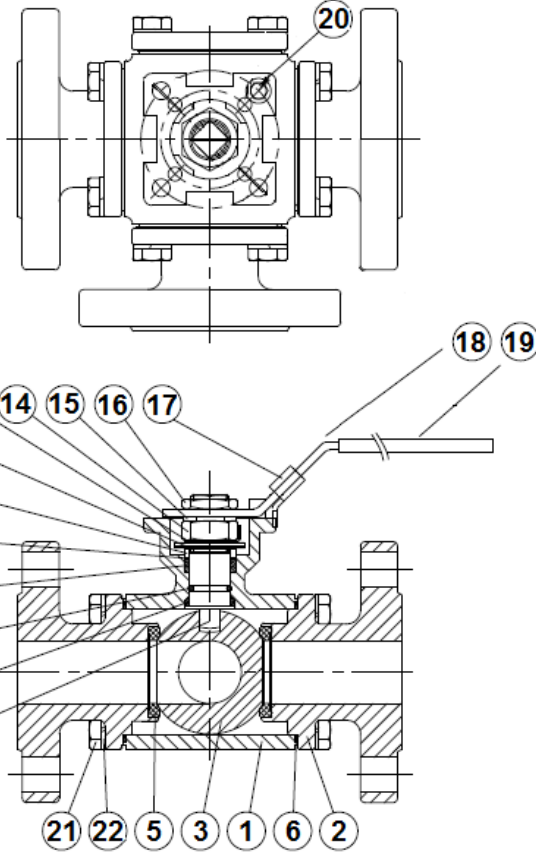
- 3 ways ball valve carbon steel body L port **Ref. 783** DN 25 to DN 150
- 3 ways ball valve carbon steel body T port **Ref. 784** DN 25 to DN 150

**ENDS :**

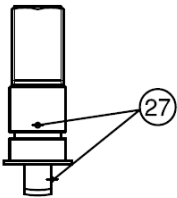
- Flanges R.F. PN16

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

MATERIALS DN 25 - 40 :



Stem Zoom:

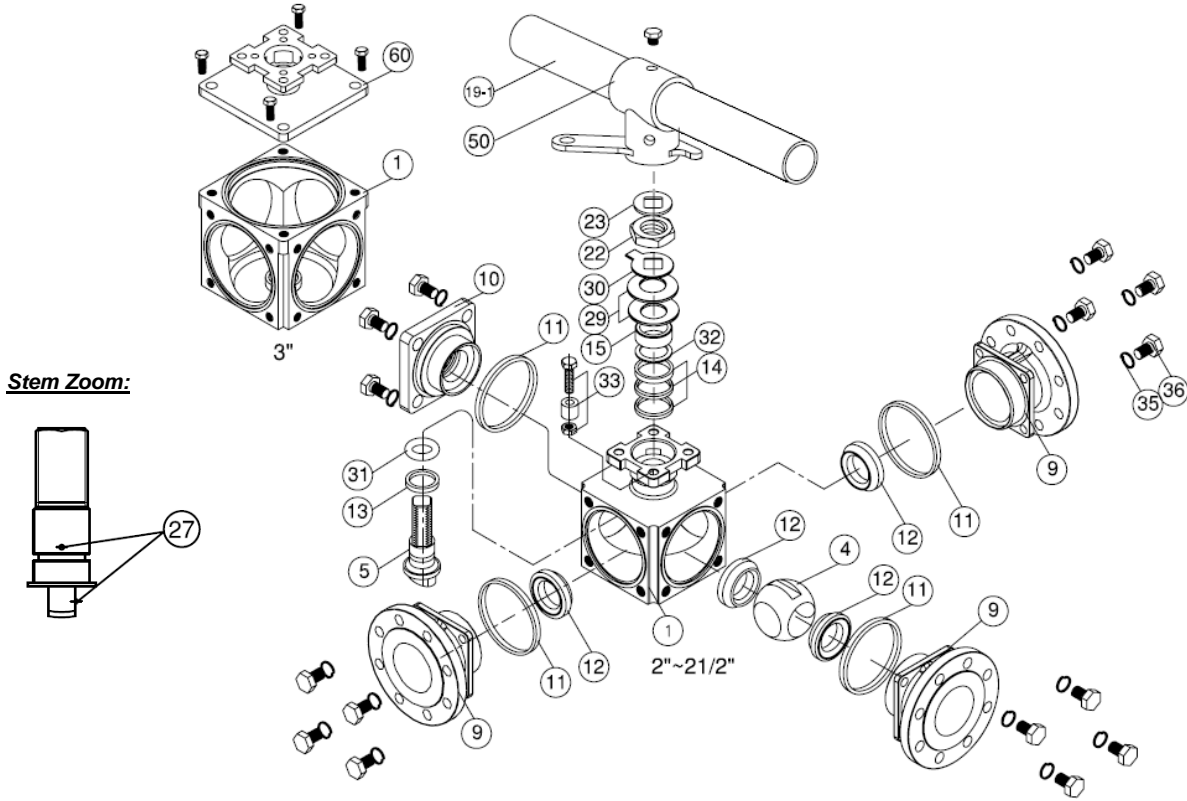


(\* : Included in gaskets kit )

Item	Designation	Materials
1	Body	ASTM A216 WCB
2	Ends	
3	Ball	ASTM A351 CF8
4	Stem	AISI 304
5*	Seat	PTFE filled with 15% glass
6*	Body gasket	PTFE
7*	Thrust washer	PTFE
8*	O ring	FKM
9*	Packing	PTFE
10*	Packing follower	PTFE filled with 25% grafoil
11	Gland	AISI 304
12	Elastic washer	AISI 410
13	Stop washer	AISI 304
14	Packing nut	
15	Handle washer	
16	Handle nut	
17	Locking device	
18	Handle	Plastic
19	Handle cover	
20	Stopper	AISI 304
21	Screw	
22	Washer	
27	Antistatic device	AISI 316

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

MATERIALS DN 50 - 80 :

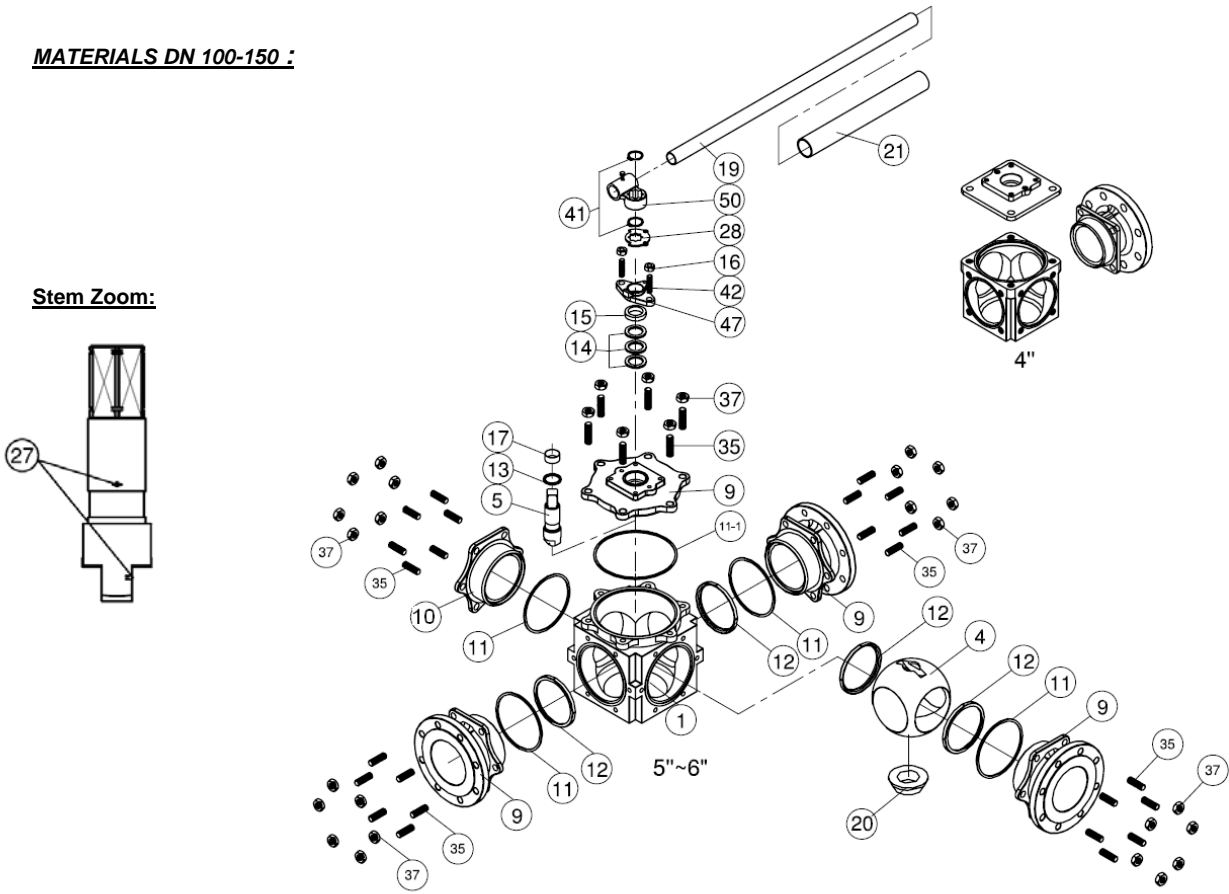


Item	Designation	Materials
1	Body	ASTM A216 WCB
4	Ball	ASTM A351 CF8
5	Stem	AISI 304
9	Ends	ASTM A216 WCB
10	Blind cap	
11*	Body seal	PTFE
12*	Seat	PTFE filled with 15% glass
13*	Thrust washer	PTFE
14*	Stem packing	PTFE
15	Gland	AISI 304
19-1	Handle	Iron
22	Stem nut	AISI 304
23	Handle washer	
27	Antistatic device	AISI 316
29	Elastic washer	AISI 410
30	Stop washer	AISI 304
31*	O ring	FKM
32*	Packing follower	PTFE filled with 15% grafoil
33	Stop pin	AISI 304
35	Bolt washer	
36	Bolt	
50	Handle adapter	ASTM A351 CF8

(\* : Included in gaskets kit)

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

**MATERIALS DN 100-150 :**



Item	Designation	Materials
1	Body	ASTM A216 WCB
4	Ball	ASTM A351 CF8
5	Stem	AISI 304
9	Ends	ASTM A216 WCB
10	Bliand cap	
11*	Body seal	PTFE
11-1*	Top seal	PTFE
12*	Seat	PTFE filled with 15% glass
13*	Thrust washer	PTFE
14*	Stem packing	PTFE
15	Gland bush	AISI 304
16	Gland nut	
17*	Stem bushing	PTFE
19	Handle	Iron
20	Set bolt	AISI 304
21	Handle cover	Plastic
27	Antistatic device	AISI 316
28	Stop plate	AISI 304
35	Bolt	
37	Bolt nut	
41	Snap ring	
42	Gland bolt	
47	Gland flange	
50	Handle adapter	ASTM A351 CF8

(\* : Included in gaskets kit )

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

POSSIBLES POSITIONS :

L PORT ( only 2 consecutive positions are possibles )

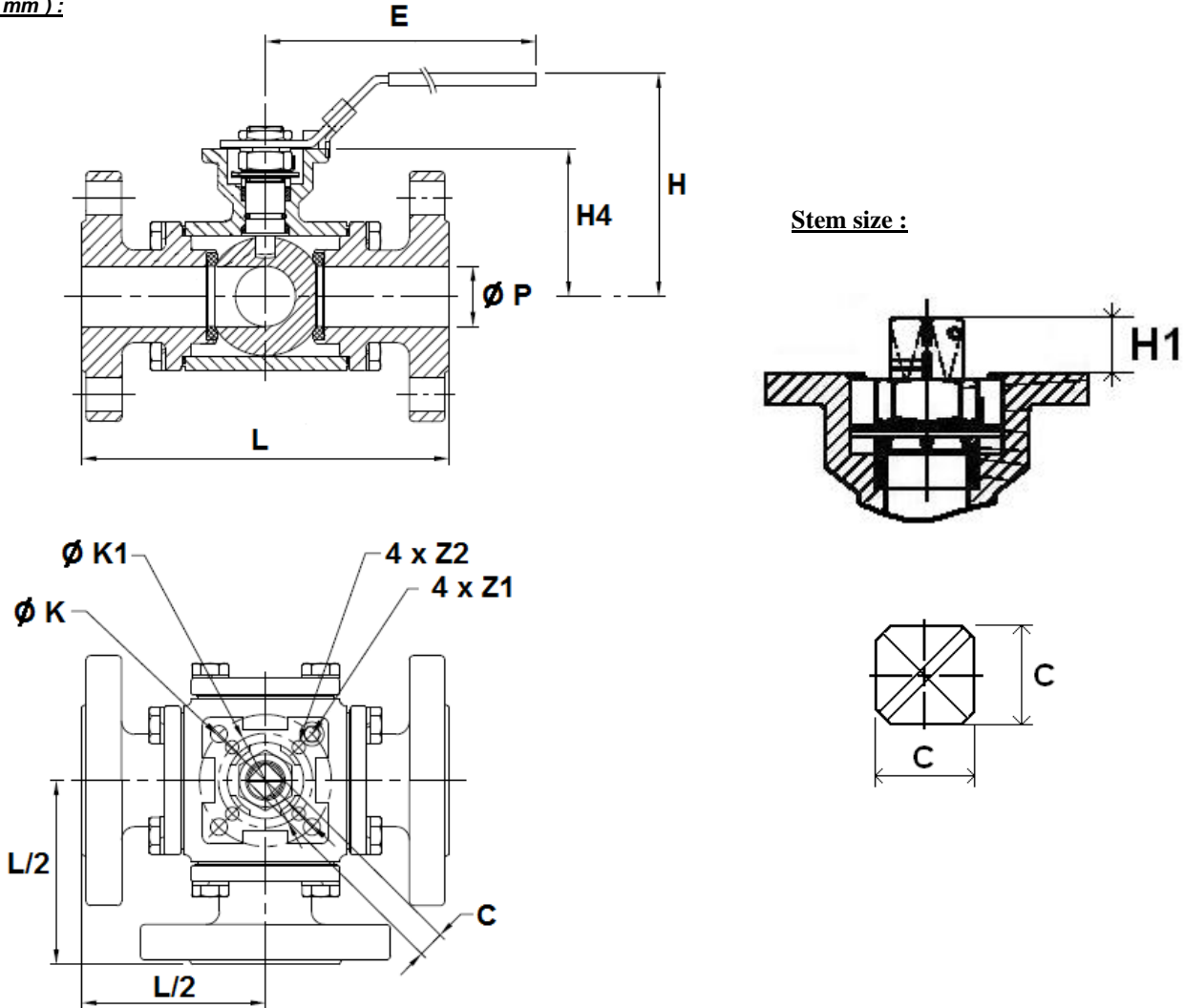
Position L1	Position L2	Position L3	Position L4	Position L5

T PORT ( only 2 consecutive positions are possibles )

Position T1	Position T2	Position T3	Position T4	Position T5

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

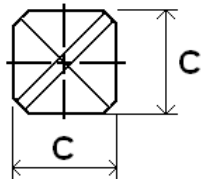
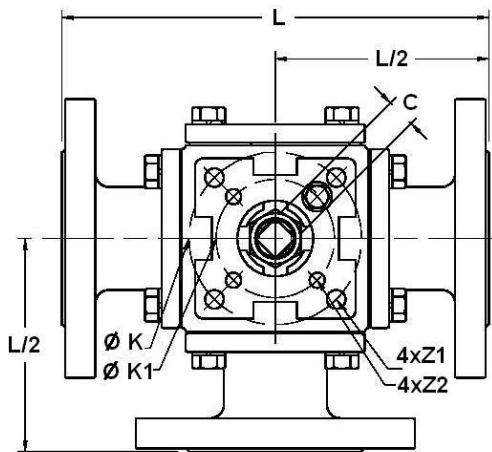
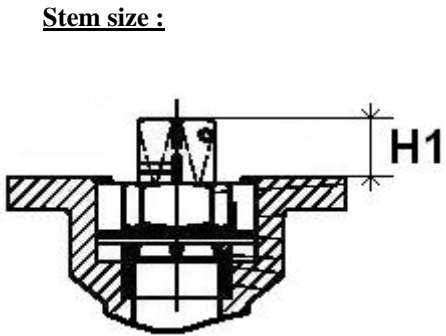
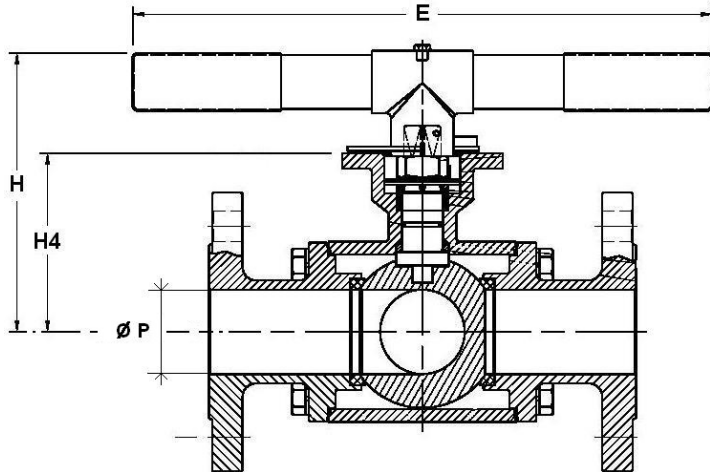
SIZE DN 25 - 40 ( in mm ) :



Ref.	DN	25	32	40
783 / 784	Ø P	25	32	38
	L	185	195	232
	L/2	92.5	97.5	116
	E	218	235	235
	H	102	118.5	127
	H1	11.5	15.2	14.3
	H4	64	79	88.5
	C	11	14	14
	Ø K	50	70	70
	ISO	F05	F07	F07
	Ø K1	-	50	50
	ISO 1	-	F05	F05
	4xZ1	4 x 7	4 x 9	4 x 9
	4xZ2	-	4 x 7	4 x 7
Weight ( Kg )		7.5	10.9	14.9

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

SIZE DN 50-80 ( in mm ) :

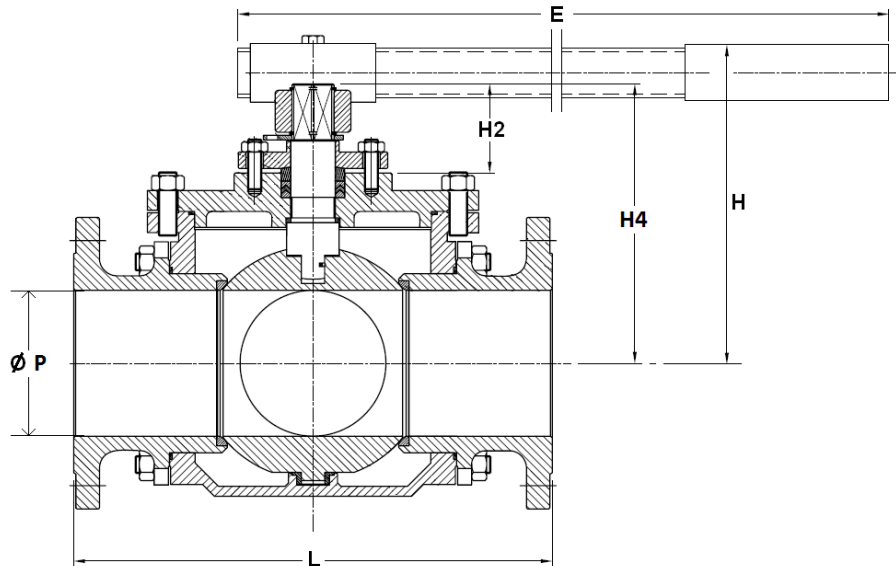


Ref.	DN	50	65	80
783 / 784	Ø P	50	65	76
	L	253	270	292.2
	L/2	126.5	135	146.1
	E	400	400	400
	H	154.8	166.2	173.8
	H1	17.8	17.5	17.5
	H4	105.8	117.3	128
	C	17	17	17
	Ø K	102	102	102
	ISO	F10	F10	F10
	Ø K1	70	70	70
	ISO 1	F07	F07	F07
	4xZ1	4x11	4x11	4x11
	4xZ2	4x9	4x9	4x9
Weight ( Kg )	19	23.75	34.5	

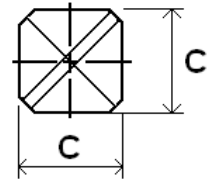
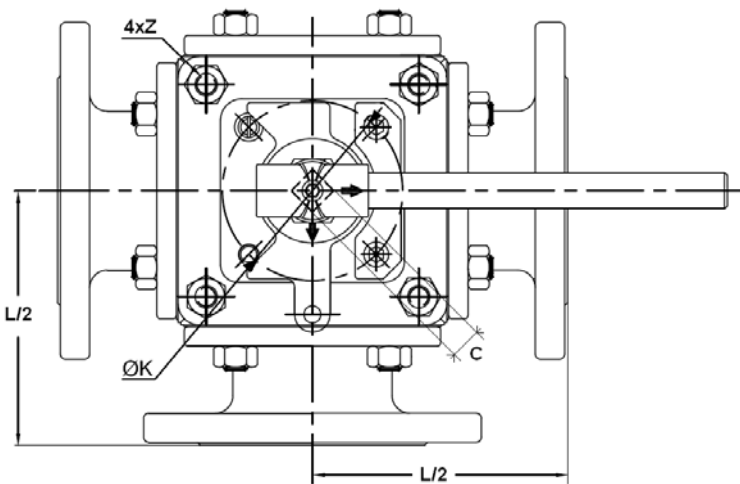
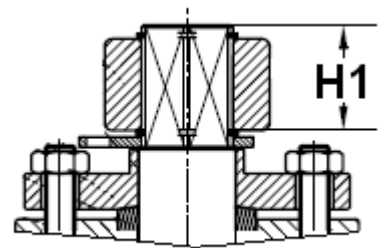


**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

SIZE DN 100-150 ( in mm ) :



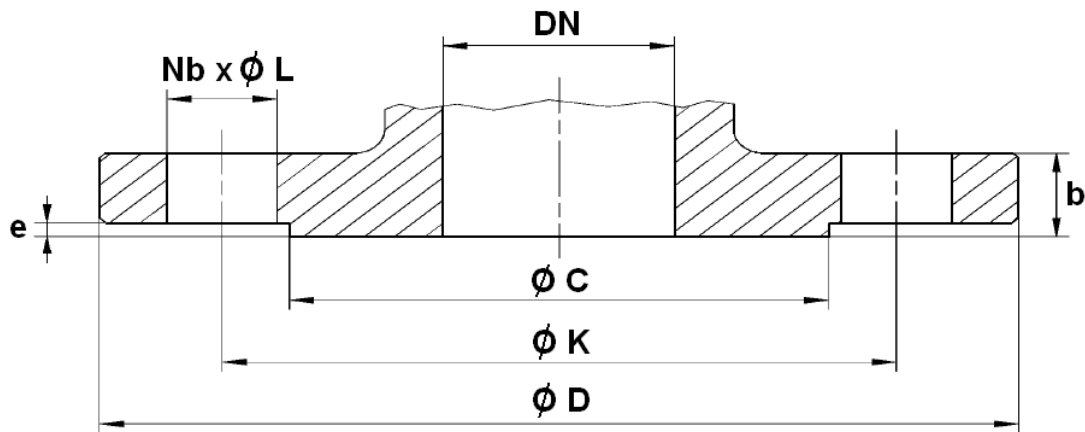
Stem size :



Ref.	DN	100	125	150
783 / 784	Ø P	100	125	150
	L	360	416	473
	L/2	180	208	236.5
	E	600	600	800
	H1	33	33	43.5
	H2	70	70	77.5
	H4	193	233	266
	H	212	261	283.5
	C	27	27	36
	Ø K	125	125	140
	ISO	F12	F12	F14
4xZ	4x M12x1.75	4x M12x1.75	4x M16x2	
783	Weight ( Kg )	67.4	95	124
784	Weight ( Kg )	61.8	95	127

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16**

FLANGES SIZE ( in mm ) :



DN	25	32	40	50	65	80	100	125	150
Ø C	68	78	88	102	122	138	158	188	212
Ø D	115	140	150	165	185	200	220	250	285
Ø K	85	100	110	125	145	160	180	210	240
Nb x Ø L	4 x 14	4 x 18	4 x 18	4 x 18	4 x 18	8 x 18	8 x 18	8 x 18	8 x 22
b	18	18	18	20	18	20	20	22	22
e	2	2	2	2	2	2	2	2	2

## 3 WAYS CARBON STEEL BALL VALVE FLANGED PN16

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

DN	25	32	40	50	65	80	100	125	150
Torque ( Nm )	16.2	26	44	126	174	210	290	572	924

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

Ref.	DN	25	32	40	50	65	80	100	125	150
783	Kvs ( M3 / H )	30	50	72	131.2	227.7	311.4	554.7	893.3	1328.6
784 (Straight)	Kvs ( M3 / H )	37	61	88	160.6	278.9	381.3	679.3	1094.1	1627.2
784 (Branch)	Kvs ( M3 / H )	21	35	51	92.8	161	220.2	392.2	631.7	939.5

**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 EN 12266-1, Rate A
- Flanges R.F. PN16 according to EN 1092-1
- 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.

**3 WAYS CARBON STEEL BALL VALVE FLANGED PN16****INSTALLATION INSTRUCTIONS****GENERAL GUIDELINES :**

- Ensure that the valves to be used are appropriate for the conditions of the installation (type of fluid, pressure and temperature).
- Be sure to have enough valves to be able to isolate the sections of piping as well as the appropriate equipment for maintenance and repair.
- Ensure that the valves to be installed are of correct strength to be able to support the capacity of their usage.
- **Installation of all circuits should ensure that their function can be automatically tested on a regular basis (at least two times a year).**

**INSTALLATION INSTRUCTIONS :**

- **Before installing the valves, clean and remove any objects from the pipes** (in particular bits of sealing and metal) which could obstruct and block the valves.
- **Ensure that both connecting pipes either side of the valve (upstream and downstream) are aligned (if they're not, the valves may not work correctly).**
- **Make sure that the two sections of the pipe (upstream and downstream) match, the valve unit will not absorb any gaps. Any distortions in the pipes may affect the tightness of the connection, the working of the valve and can even cause a rupture.** To be sure, place the kit in position to ensure the assembling will work.
- **If sections of piping do not have their final support in place, they should be temporarily fixed. This is to avoid unnecessary strain on the valve.**
- Tighten the bolts in cross.
- It's recommended to operate the valve ( open and close ) 1 to 2 times per year