

FIRE SAFE BALL VALVE CLASS 300 (PN50) FLANGED



**FIRE SAFE
ISO 10497**



Size : DN 15 to 200 mm (NPS 1/2" to 8")
Ends : Class 300 (PN50) R.F. Flanges
Min Temperature : -50°C in SS and -29°C in carbon steel
Max Temperature : + 230°C
Max Pressure : 50 Bars
Specifications : ISO 5211 mounting pad
Fire safe ISO 10497 : 2004
Fugitive emissions EN 15848-1 : 2006
Atex

Materials : Carbon steel or stainless steel

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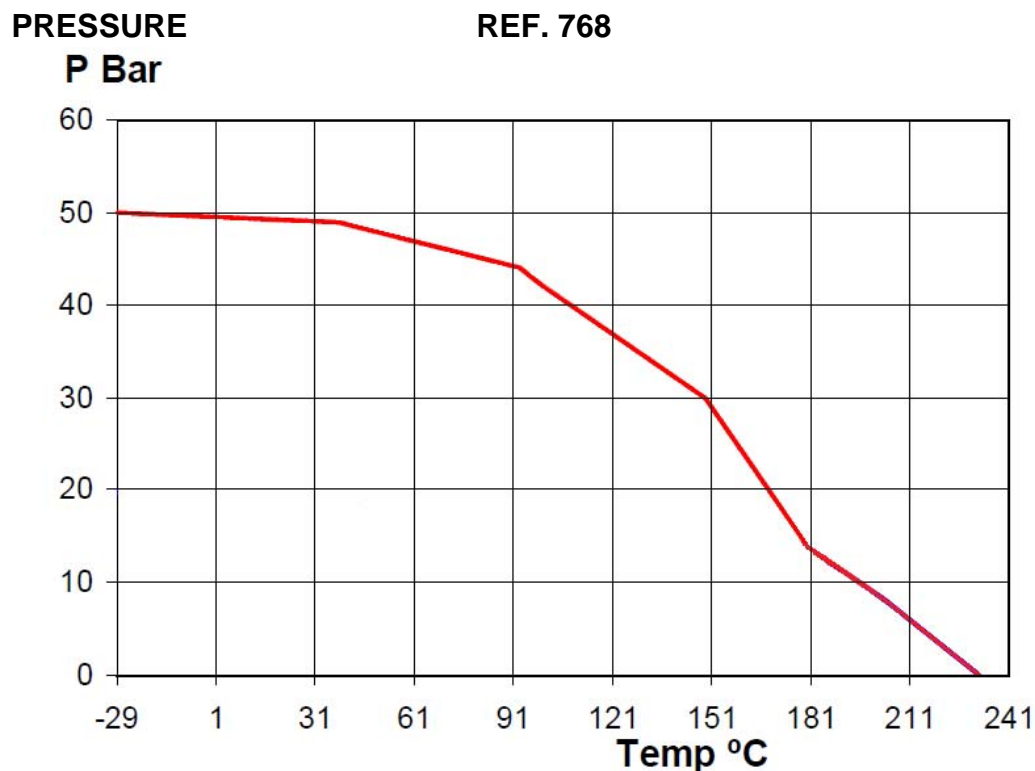
SPECIFICATIONS :

Full bore
 Anti blow-out stem
 Pure PTFE TFM1600 seat (PMD FF)
 Locking device
 ISO 5211 mounting pad
 2 pieces type (Split body)
 Class 300 (PN50) R.F. Flanges
 Antistatic device
 Fire safe ISO 10497 : 2004
 Fugitive emissions EN 15848-1 : 2006
 Graphite packing + FKM O ring on stem
 With exhaust hole in the ball (located in the top of the ball to avoid overpressure in it)
 Black painting colour RAL 9004 , 5-15 microns thickness for carbon steel type (Ref. 768)

USE :

Chemical industries, petrochemical industries, hydraulic installation, compressed air, hot and cold water
 Min and max Temperature Ts : -50°C to + 230°C for stainless steel type **Ref. 769**
 Min and max Temperature Ts : -29°C to + 230°C for carbon steel type **Ref. 768**
 Max pressure Ps : 50 bars (see graph)
 Vacuum 10⁻² torr
 Compressed air (ambient temperature) : 8 bars maximum
 Steam : 12 bars maximum

PRESSURE / TEMPERATURE GRAPH (STEAM EXCLUDED) FOR CARBON STEEL TYPE REF.768 :



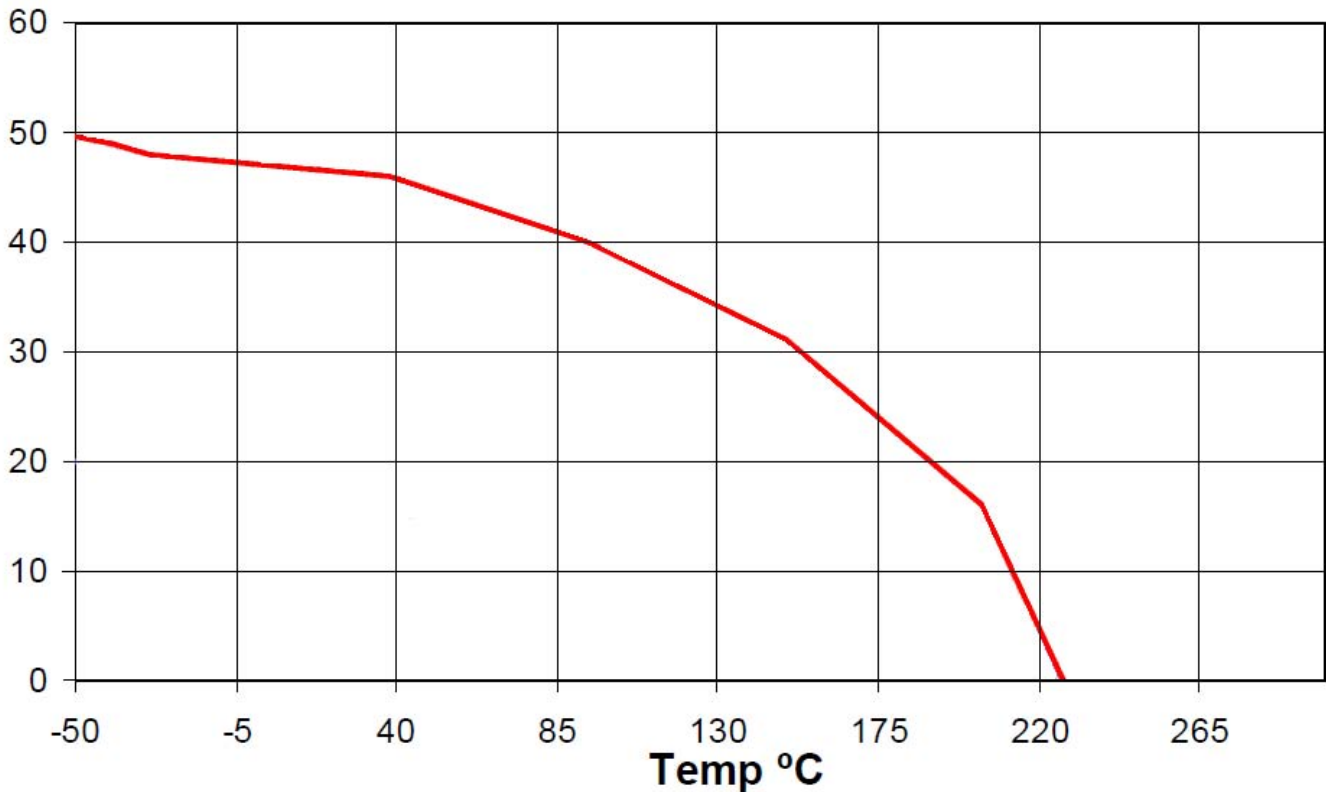
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PRESSURE / TEMPERATURE GRAPH (STEAM EXCLUDED) FOR STAINLESS STEEL TYPE REF.769 :

PRESSURE

REF. 769

P Bar



RANGE :

Carbon steel body **Ref. 768** DN 15 to DN 200 (NPS 1/2" to 8")

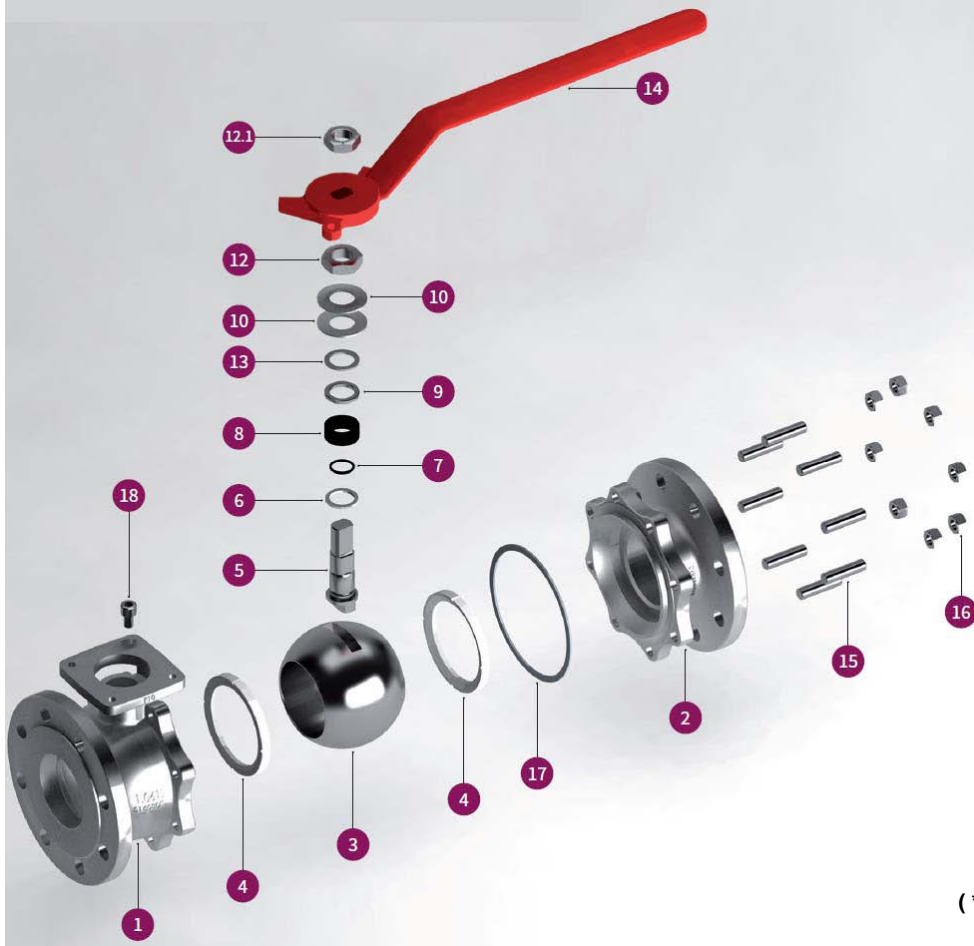
Stainless steel body **Ref. 769** DN 15 to DN 200 (NPS 1/2" to 8")

Possible with gearbox **Ref. 9830221 and 9830266-267** from DN 100 to 200 (NPS 4" to 8")

Possible with ASTM A351 CF8M handle **Ref. 9812090-9812097** from DN 15 to DN 200 (NPS 1/2" to 8")

ENDS :

Class 300 (PN50) R.F. Flanges

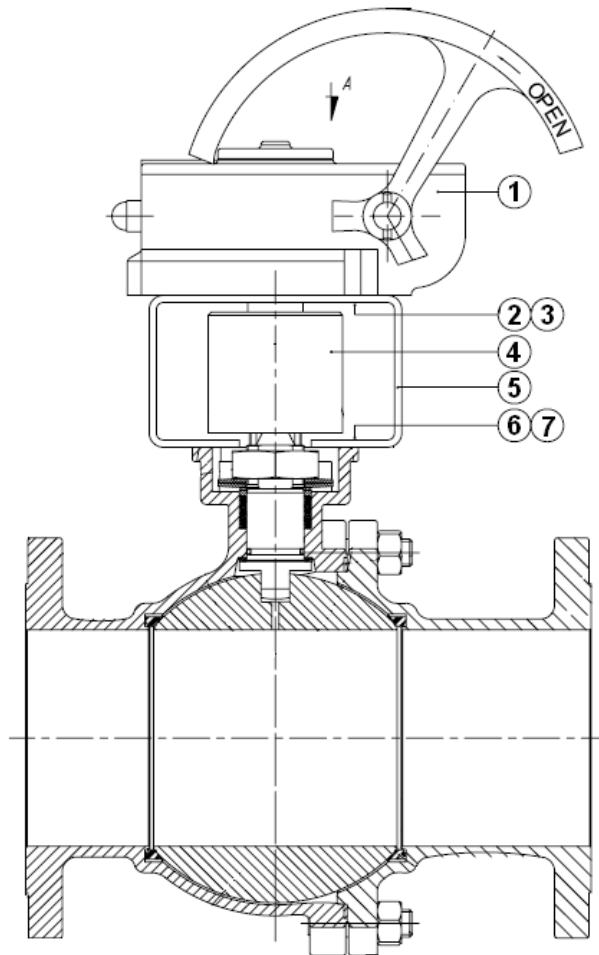
FIRE SAFE BALL VALVE CLASS 300 (PN50) FLANGED
VALVE MATERIALS :


(* : Included in gaskets kit)

Item	Designation	Materials 768	Materials 769
1	Body	ASTM A216 WCB	ASTM A351 CF8M
2	Ends	ASTM A216 WCB	ASTM A351 CF8M
3	Ball	ASTM A351 CF8M	
4*	Seat	Pure PTFE TFM 1600 (PMD FF)	
5	Stem	ASTM A479 type 316	
6*	Stem thrust seal	PTFE filled with 25% Glass	
7*	Stem O ring	FKM	
8*	Gland Packing	Graphite	
9	Gland	SS 303	
10	Elastic ring	SS 303	
12	Gland nut	SS 303	
12.1	Handle nut	SS 303	
13	Antifriction washer	PTFE filled with 25% Glass	
14	Handle	Nodular iron	
15	Stud	A 193 Gr. B7M	A 193 Gr. B8M
16	Nut	A 194 Gr. 2HM	A 194 Gr. 8M
17*	Spiralwound gasket	SS 316L + PTFE + Graphite	
18	Bolt	A2	

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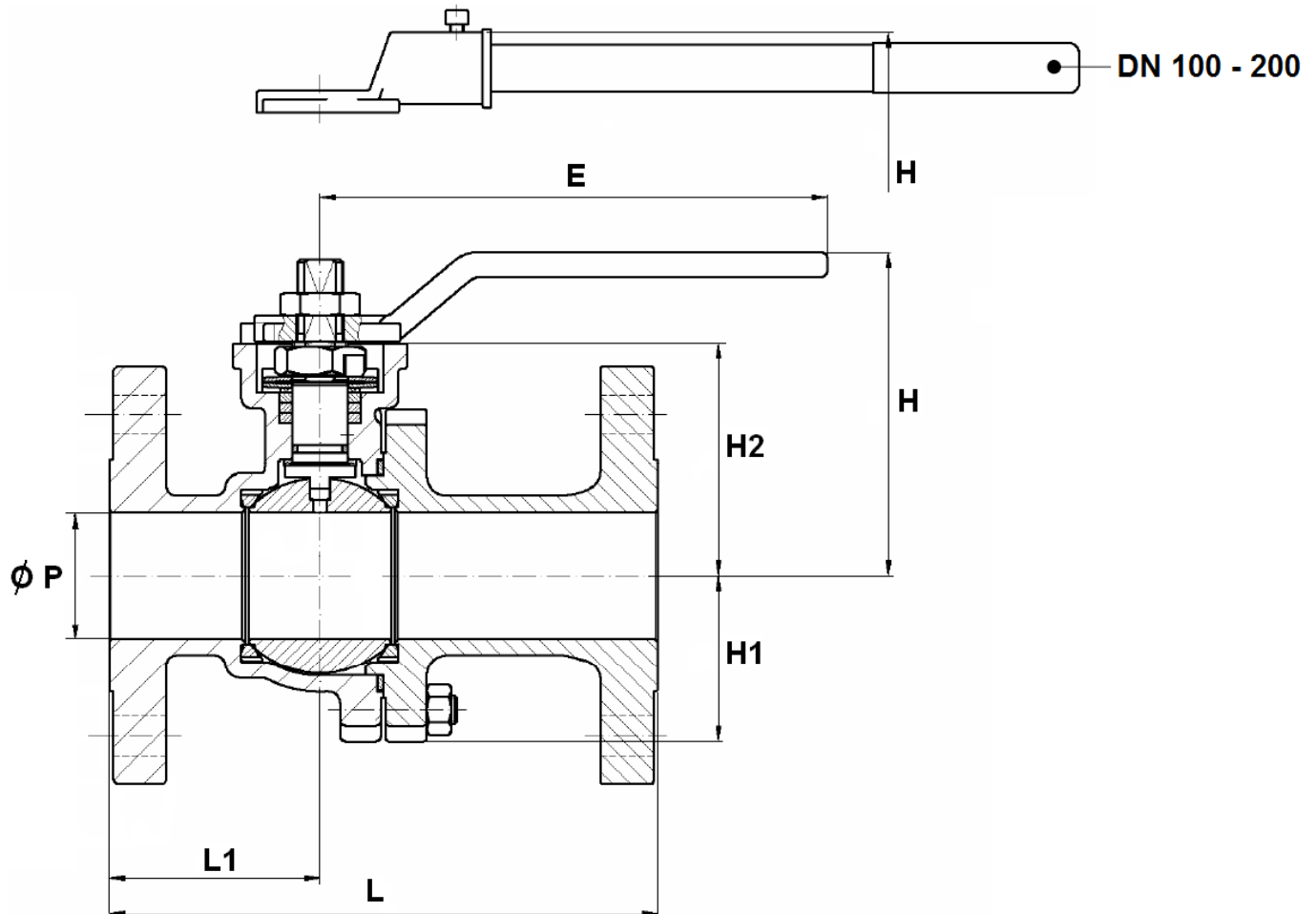
GEARBOX MATERIALS :



Item	Designation	Materials
1	Gearbox	Painted steel
2	Screw	DIN 912 A2
3	Washer	DIN 912 A2
4	Coupling	Stainless steel
5	Mounting bracket	Stainless steel
6	Screw	DIN 912 A2
7	Washer	DIN 912 A2

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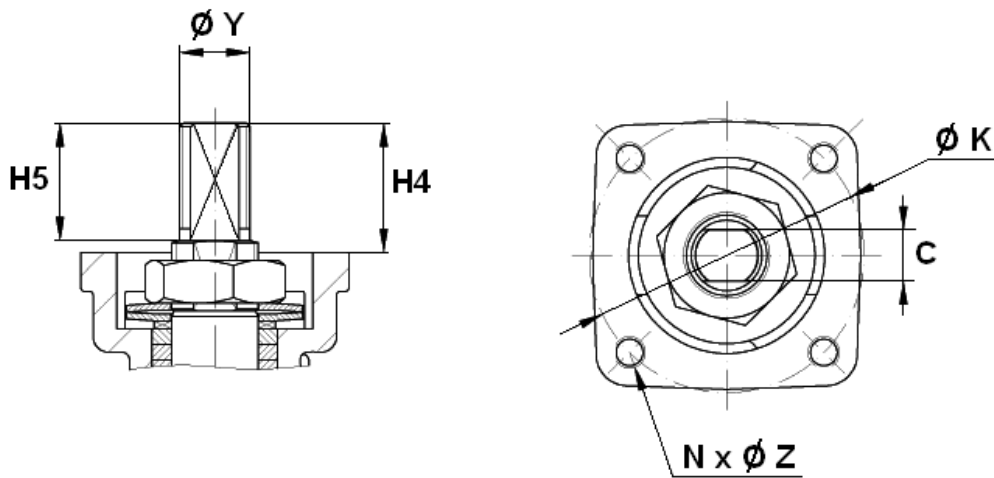
VALVES SIZE (in mm) :



Ref.	DN (mm)	15	20	25	40	50	80	100	150	200
	NPS (")	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
768 / 769	Ø P	15	20	25	40	50	78	100	151	203
	L	140	152	165	190	216	283	305	403	502
	L1	60	65	70	80	83	118	133	160	239
	E	170	170	170	215	215	430	466	680	845
	H	68	70	86	122.5	127.5	190	192.5	259	319
	H1	31	33	39	48	63	87	108	152	202
	H2	41	43	58.5	86.5	91.5	118.5	144	203	250
	Weight (Kg)	2.5	3.7	4.7	9.4	12.2	25	39.5	88.1	160.5

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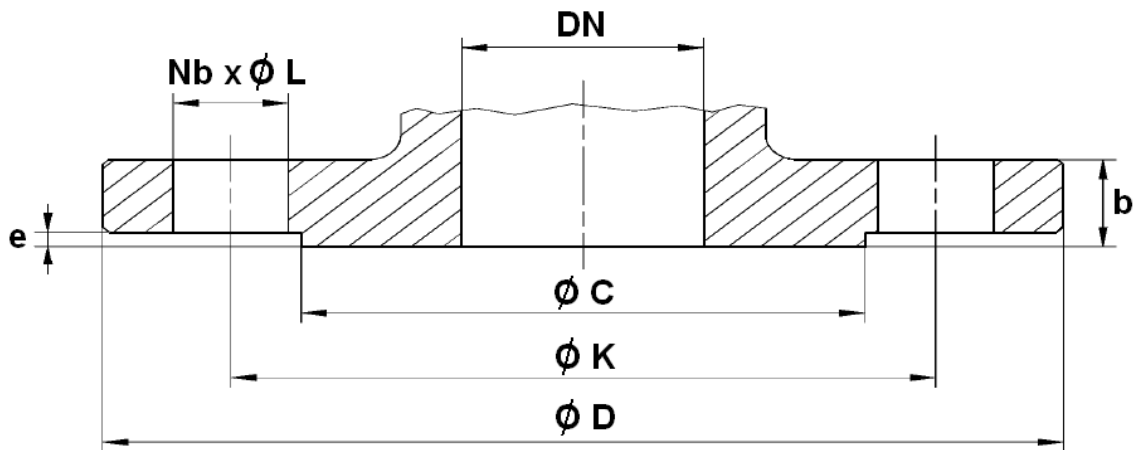
ISO MOUNTING PAD AND STEM SIZE (in mm) :



Ref.	DN (mm)	15	20	25	40	50	80	100	150	200
	NPS (")	1/2"	3/4"	1"	1"1/2	2"	3"	4"	6"	8"
768 / 769	H4	18	18	22	33	33	34	45	56	69
	H5	11	11	21	32	32	33	43.5	54.5	67
	C	7	7	8	12	12	15	19	24	32
	Ø Y	M10	M10	M12	M18	M18	M22	M28	M36	M48
	Ø K	50	50	50	70	70	102	102	125	140
	ISO	F05	F05	F05	F07	F07	F10	F10	F12	F14
	N x Ø Z	4 x M6	4 x M6	4 x M6	4 x M8	4 x M8	4 x M10	4 x M10	4 x M12	4 x M16

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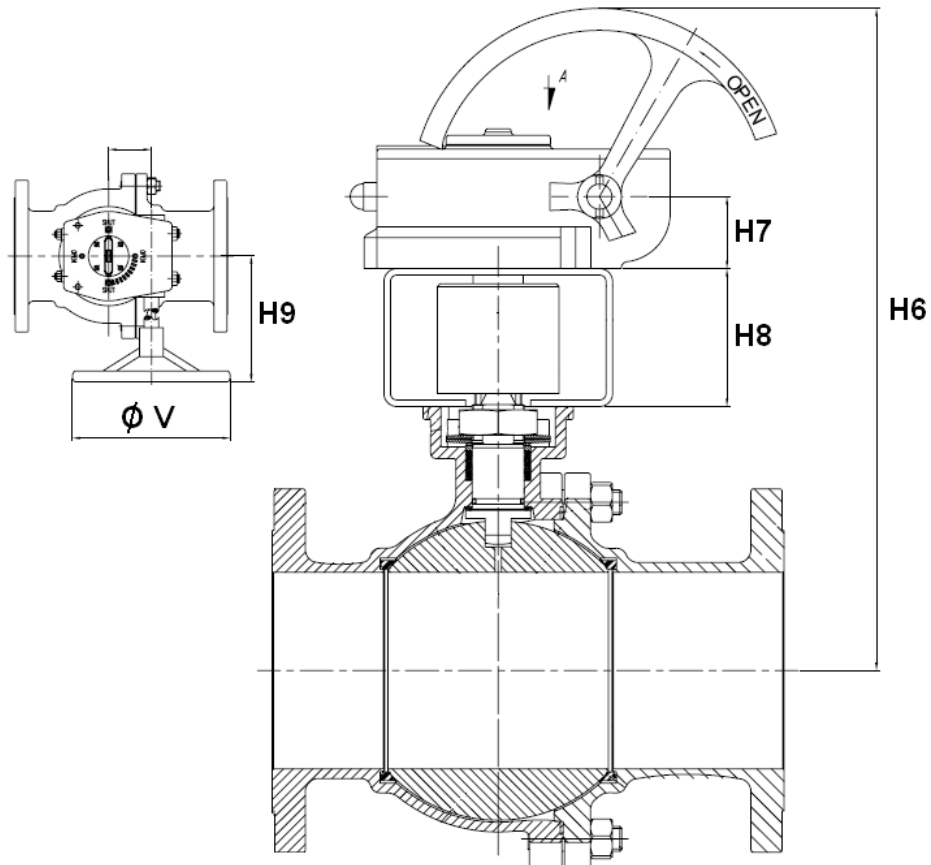
FLANGES SIZE (in mm):



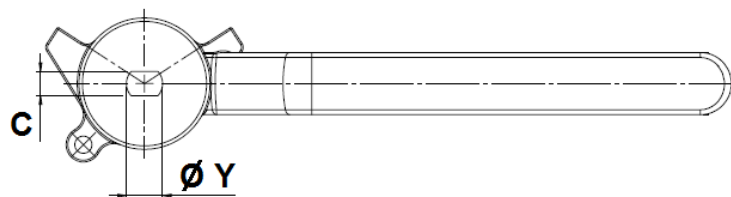
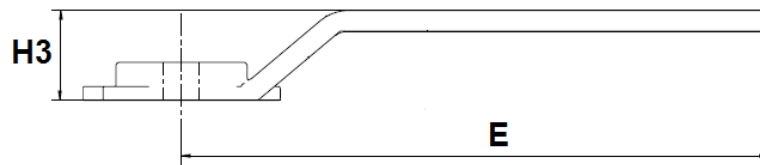
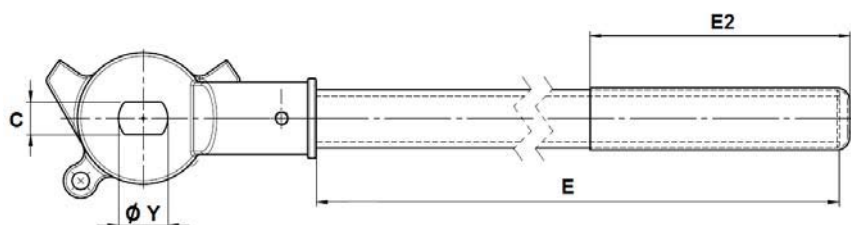
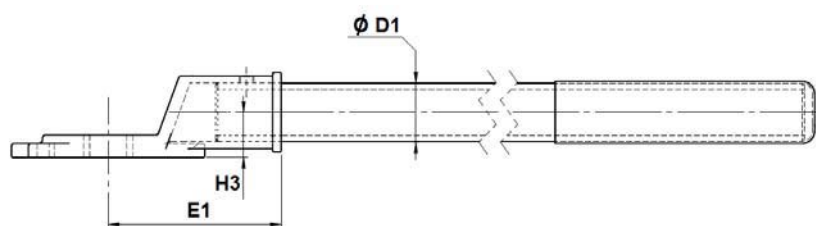
Ref.	DN (mm)	15	20	25	40	50	80	100	150	200
	NPS (")	1/2"	3/4"	1"	1"1/2	2"	3"	4"	6"	8"
768 / 769	Ø C	35	43	51	73	92	127	157	216	270
	Ø D	95	117.5	124	155.5	165	210	254	318	381
	Ø K	66.55	82.55	88.9	114.3	127	168.1	200.15	269.75	330.2
	Nb x Ø L	4 x 15.74	4 x 19	4 x 19	4 x 22.2	8 x 19	8 x 22.2	8 x 22.2	12 x 22.2	12 x 25.4
	b	14.3	15.8	17.6	20.6	22.4	28.5	31.8	36.6	41.2
	e	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6

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GEARBOX SIZE (in mm) :



DN (mm)	100	150	200
NPS (")	4"	6"	8"
H6	521.5	596.5	643.5
H7	55	55	55
H8	90	106	106
H9	229	229	229
ϕV	465	465	465
Ref. gearbox	9830221	9830266	9830267
Weight gearbox (Kg)	17.8	19.5	19.7
Weight gearbox + valve (Kg)	57.3	107.6	180.2

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STAINLESS STEEL HANDLE SIZE (in mm):
DN 15 - 80

DN 100 - 200


DN	15-20	25-32	40-50	65	80	100	125-150	200
NPS (")	1/2"-3/4"	1"-1 1/4"	1 1/2"-2"	2 1/2"	3"	4"	5"-6"	8"
E	170	170	215	335	430	375	578	730
E1	-	-	-	-	-	100	115	140
E2	-	-	-	-	-	120	200	200
H3	26	26	35	35	71	26	30	36
Ø D1	-	-	-	-	-	26.8	33	42
C	7	8	12	15	15	19	24	32
Ø Y	10.5	12.5	18.5	22.5	22.5	28.5	36.5	48.5
Ref.	9812090	9812091	9812092	9812093	9812094	9812095	9812096	9812097

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FLOW COEFFICIENT Kvs (in m³/h) :

DN (mm)	15	20	25	40	50	80	100	150	200
NPS (")	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
Kvs (m ³ /h)	20	40	75	170	270	1000	1650	4200	9000

TORQUE VALUE (in Nm without safety coefficient) :

DN (mm)	15	20	25	40	50	80	100	150	200
NPS (")	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
Torque (Nm)	10	13	17	30	49	135	170	308	780

STANDARDS :

Fabrication according to ISO 9001:2008

DIRECTIVE 97/23/CE : CE N° 0035
 Risk Category III module H

Valve designing according to EN 1983 – ISO 17292

Materials according to NACE MR 01-75

Body designing according to ASME B16.34 and API 6D

Pressure Tests according to EN 12266-1, range A and API 598

Marking according to EN 19

Fire safe according to ISO 10497 : 2004

Fugitive Emissions according to EN 15848-1 : 2006

Class 300 (PN50) Flanges R.F. according to ASME B16.5

ISO 5211 mounting pad and stem size according to EN 15081

Long length according to ASME B16.10 (EN 558 series 4 up to DN150)

ATEX Group II Category 2 G/2Dc Zone 1 & 21 Zone 2 & 22 (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.

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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