

**END ENTRY MONOBLOCK CARBON STEEL BALL VALVE FLANGED CLASS 150 PN20 JC
RANGE REDUCED BORE SHORT PATTERN (ASME B16.10 TABLE 1-8/9) PTFE SEAT**

End entry monoblock ball valve JC with reduced bore for Chemical industries, petrochemical industries, hydraulic installation, heating, water distribution, compressed air.

Ball valve with firesafe certificate ISO 10497 and API 607 to reduce risks in case of fire.

Fugitive emission according to EN 15848-1 :2006 B Class and TA LUFT for an excellent tightness on the stem and to prevent external leakage.

PTFE seat for a temperature up to +230°C.

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

Handling possible with locking device, lockable gearbox, oval handwheel or stem extension.

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



Certificate
3.1



JC
VALVES



PED/2014/68/UE
BUREAU VERITAS
Certification



NACE MR01-75

Size : DN15 to DN250 (NPS 1/2" to 10")
Connection : Flanges Class 150 PN20 RF
Min Temperature : -29°C
Max Temperature : +230°C
Max Pressure : 20 Bars
Specifications : PTFE seat
ISO 5211 mounting pad
Anti blow-out stem, End Entry type
Fire safe ISO 10497 : 2004, API 607 5th
and API 6FA

Materials : Carbon steel ASTM A216 WCB

*the installation defects and wear defects are not covered by the guarantee

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SPECIFICATIONS :

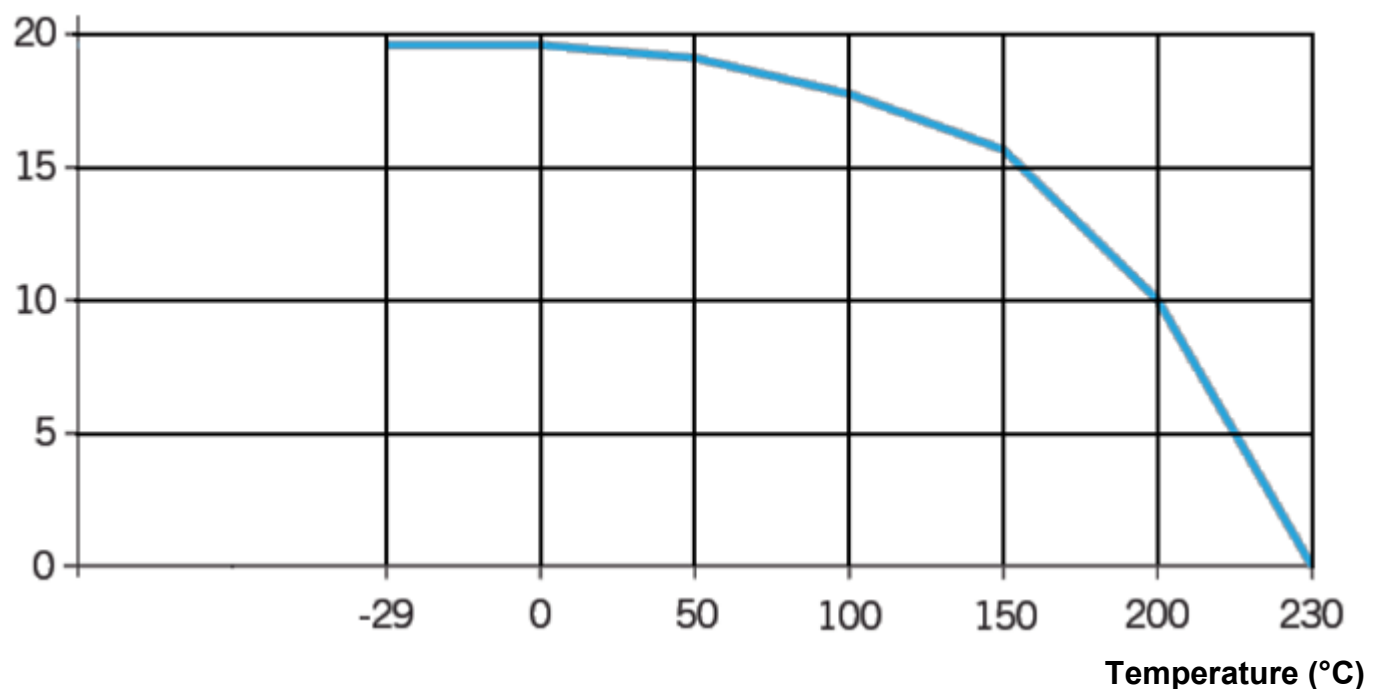
- Reduced bore
- Monoblock type End Entry
- Anti blow-out stem
- PTFE seat
- Locking device on request
- ISO 5211 mounting pad
- Class 150 PN20 Flanges R.F.
- Antistatic device
- Fire safe ISO 10497 : 2004, API 607 5th and API 6FA
- Fugitive emissions EN 15848-1 : 2006 and TA LUFT VDI 2440
- Graphite packing + FKM O ring on stem
- With exhaust hole in the ball (located in the top of the ball to avoid overpressure in it)
- Blue painting RAL 5009 color, 15-50μ thickness

USE :

- Chemical industries, petrochemical industries, hydraulic installation, heating, water distribution, compressed air
- Min and max Temperature Ts : -29°C to + 230°C
- Max Pressure Ps : 20 bars (see graph)
- Vacuum 10^{-2} torr
- Compressed air (ambient temperature) : 16 bars maximum
- Steam : 12 bars maximum

PRESSURE / TEMPERATURE GRAPH (STEAM EXCLUDED) :

Pressure (Bar)



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FLOW COEFFICIENT Kvs (in m³ / h) :

NPS (")	1/2"	3/4"	1"	1"1/2	2"	3"	4"	6"	8"	10"
DN	15	20	25	40	50	80	100	150	200	250
Kvs (m ³ / h)	7	10	26	107	140	300	600	1000	2000	4100

TORQUE VALUE (in Nm without safety coefficient) at 20 bars :

NPS (")	DN	BTO*	RTO	ETO	BTC	RTC	ETC*	MAST stem A479 F316	MAST stem A182 F51
1/2"	15	8	4	5	6	4	6	13	28
3/4"	20	9	5	5	7	5	7	26	57
1"	25	11	6	7	8	6	9	26	57
1"1/2	40	17	9	10	13	9	14	69	151
2"	50	28	14	17	21	14	22	85	185
3"	80	58	29	35	44	29	46	176	386
4"	100	90	45	54	68	45	72	246	539
6"	150	228	114	137	171	114	182	305	668
8"	200	352	176	211	264	176	282	607	1329
10"	250	650	325	390	488	325	520	974	2131

RANGE :

- Carbon steel body ball valve with handle flanged Class 150 PN20 **Ref. 715AIT** from DN 15 to DN 200 (NPS 1/2" to 8")
- Carbon steel body ball valve with free stem Class 150 PN20 **Ref. 715AIT** DN250 (NPS 10")

CONNECTION :

- Class 150 PN20 R.F. Flanges

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ACCESSORIES :

- Reinforced locking device



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"
Ref.	9830119	9830120	9830120	9830122	9830123	9830124	9830125	9830138	9830127

- Stainless steel handle



DN (mm)	20	25	40	50	80	100	150	200
NPS (")	3/4"	1"	1"1/2	2"	3"	4"	6"	8"
Ref.	9830513	9830514	9830515	9830516	9830517	9830518	9830519	



- Oval stainless steel handle

DN (mm)	20	25	40	50
NPS (")	3/4"	1"	1"1/2	2"
Ref.	9830575	9830578	9830576	9830577



- Lockable gearbox

DN (mm)	150	200	250
NPS (")	6"	8"	10"
Ref.	9830590	9830591	9830594



- Single stainless steel stem extension 100 mm (can't be used with oval handwheel)

DN (mm)	15	20	25	40	50	80	100
NPS (")	1/2"	3/4"	1"	1"1/2	2"	3"	4"
Ref. JC	9810615	9810616	9810617	9810619	9810620	9810621	

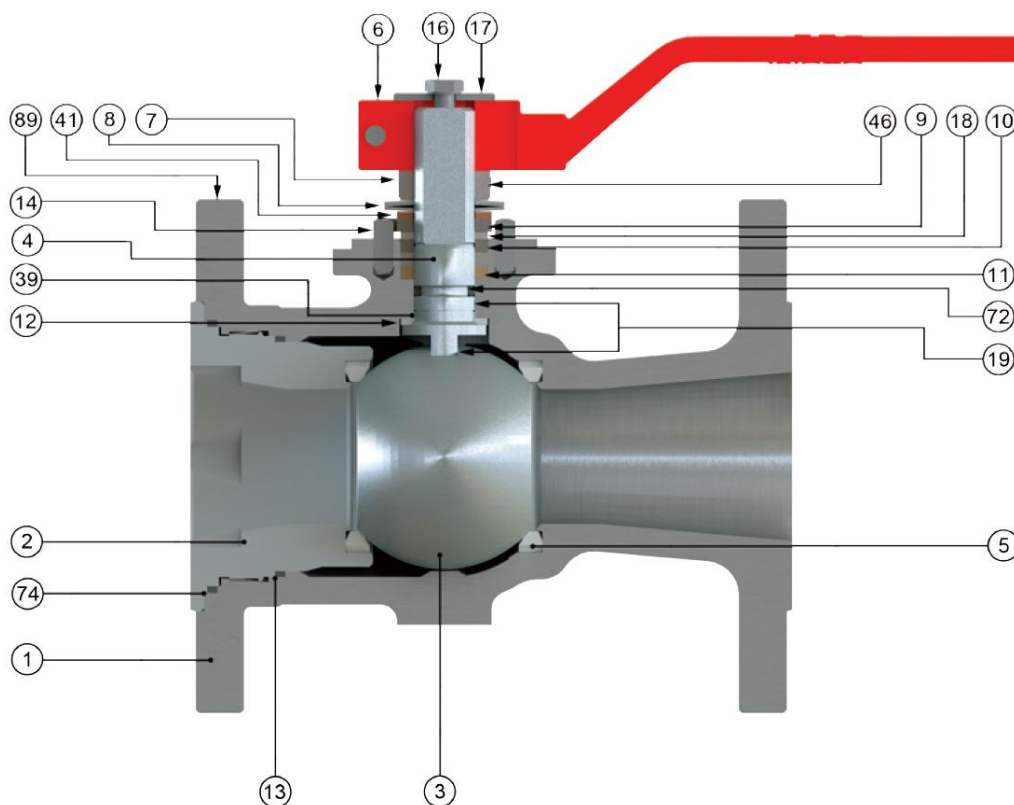


- Stainless steel stem extension 100 mm with ISO plate

DN (mm)	15	20	25	40	50	80	100
NPS (")	1/2"	3/4"	1"	1"1/2	2"	3"	4"
Ref. SF	JCRISO015X	JCRISO025	JCRISO032	JCRISO040050	JCRISO065	JCRISO080	

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VALVE MATERIALS :



Repairability :



*Gaskets kit (Item 5, 11, 12, 13, 18, 46 and 72)	
DN	Ref.
DN15	9804800
DN20	9804801
DN25	9804802
DN40	9804804
DN50	9804805
DN80	9804807
DN100	9804808
DN150	9804810
DN200	9804811

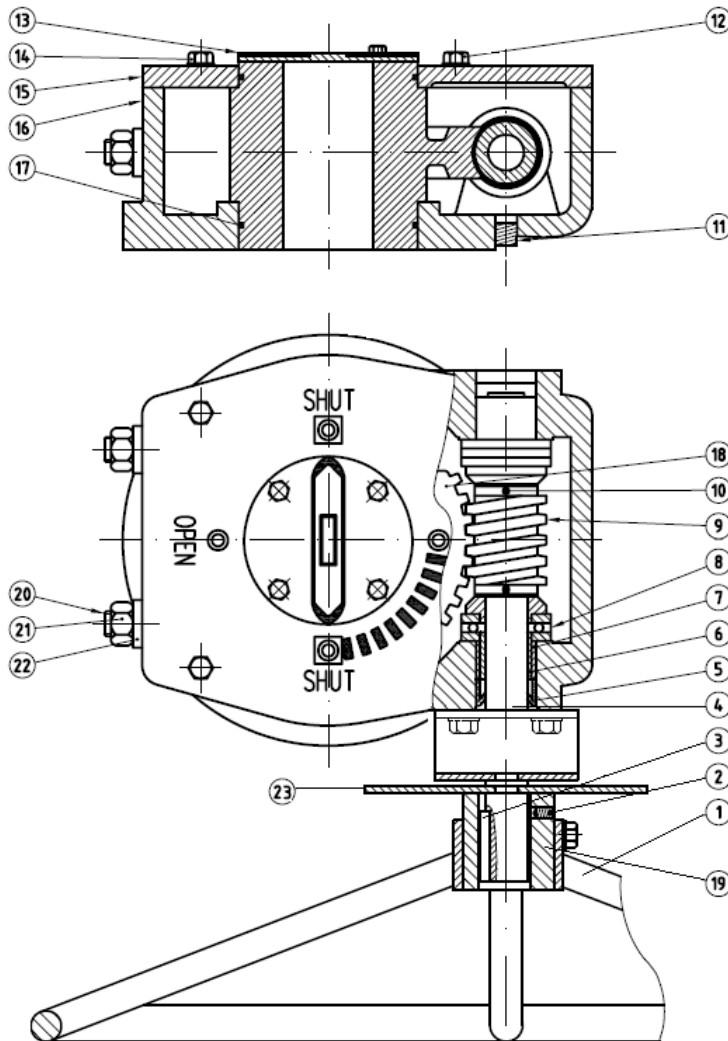
(* : Included in gaskets kit)

Item	Designation	Materials
1	Body	ASTM A216 WCB
2	Ends	
3	Ball DN15-25	ASTM A479 Tp.316
	Ball DN 32-250	Inox ASTM A 351 CF8M
4	Stem	ASTM A479 Tp.316 or Duplex ASTM A182 F51
5*	Seat	PTFE
6	Handle	Carbon steel A216 WCB
7	Packing nut	Carbon Steel
8	Elastic ring	Carbon Steel
9	Stop washer	Carbon Steel
10	Packing gland	AISI 303
11*	Packing	Graphite
12*	Gasket	PTFE filled with 25% glass

Item	Designation	Materials
13*	Body spiral seat	AISI 316L + PTFE + Graphite
14	Pin	Carbon Steel
16	Handle screw	DIN 933 5.6 zinc plated
17	Washer	Zinc plated carbon steel
18*	Thrust washer	PTFE filled with 25% glass
19	Antistatic device	Stainless steel
39	Stem bushing (DN25-200)	PTFE filled with 25% glass
41	Spacer (DN40-200)	Carbon Steel
46*	Washer	AISI 304
72*	O ring	FKM
74	End gasket	Graphite
89	ID plate	Stainless steel

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LOCKABLE GEARBOX MATERIALS :

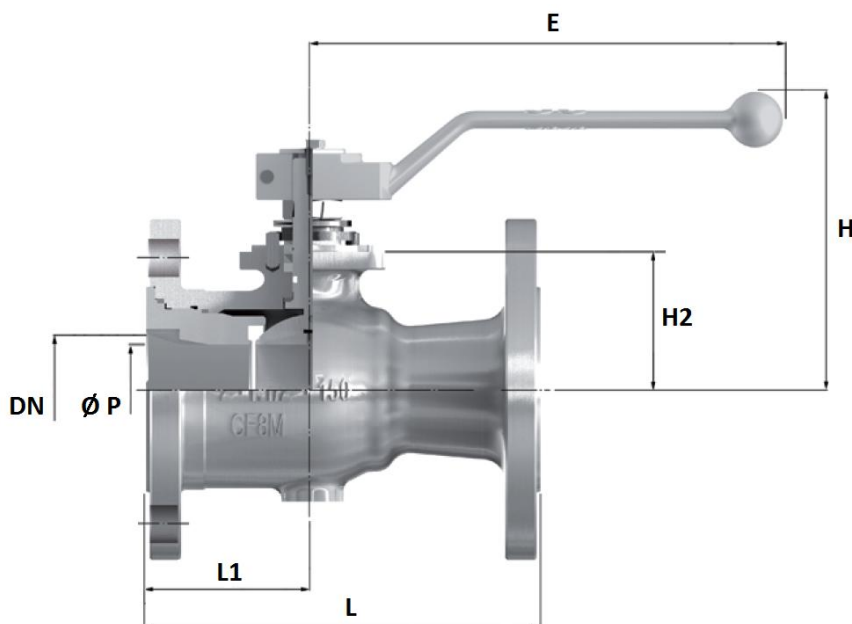


Item	Designation	Materials
1	Handwheel	Carbon steel
2	Screw	
3	Stem key	
4	Input shaft	AISI 1045
5	Oil seal	Rubber
6	Bearing	Cu Base Alloy
7	Oil bearing	
8	Thrust bearing	Carbon steel
9	Worm	AISI 1045
10	Pin	Carbon steel
11	Plug	
12	Screw	Cast iron
13	Indicator plate	
14	Screw	Carbon steel
15	Cover	
16	Housing	Rubber
17	O ring	
18	Worm gear	Ductile iron
19	Nut	Carbon steel
20	Stop screw	
21	Nut	
22	Washer	
23	Locking device	

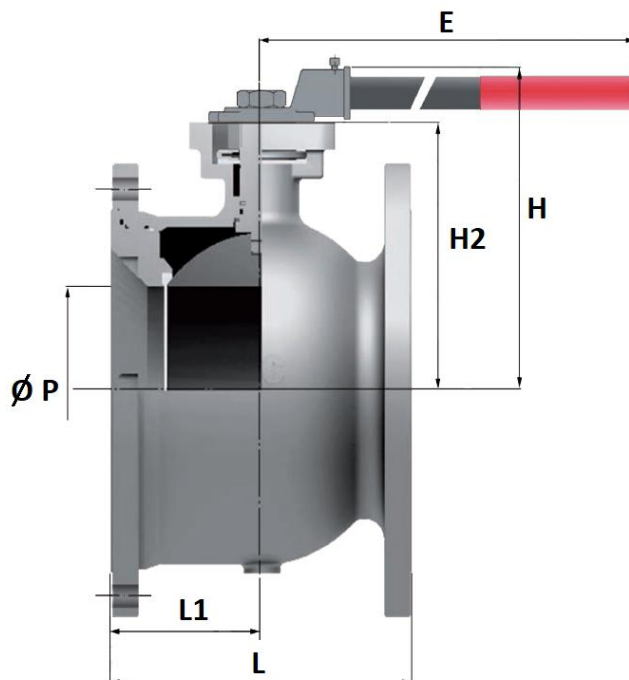
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VALVES SIZE (in mm) :

DN15-200 (1/2"-8")



DN250 (10")



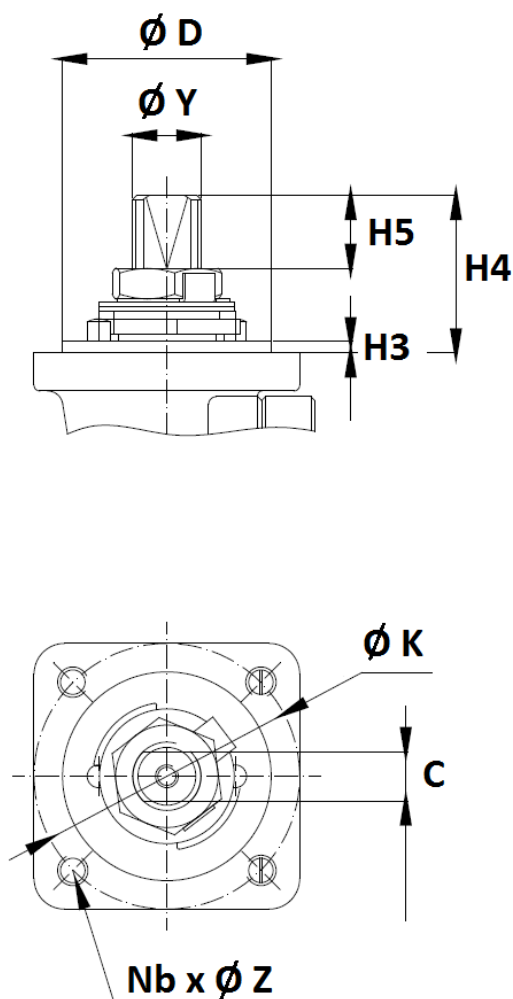
NPS (")	1/2"	3/4"	1"	1"1/2	2"	3"	4"	6"	8"	10"
DN	15	20	25	40	50	80	100	150	200	250
Ø P	9.5	15	20	32	40	58	80	111	144	187
L	108	117	127	165	178	203	229	267	292	330
L1	54	60	65	72	75	88	104	125	135	165.5
E	164	164	164	210	213	348	445	495	698	-
H	81	99	102	117	133	148	189	228	267	-
H2	21.5	26	29	51	61.5	76	92.5	129	158	239
Weig. (Kg)	1.6	2.1	2.7	5.1	7.9	14.3	25.9	43.8	77	115
Ref.	715AIT015	715AIT020	715AIT025	715AIT040	715AIT050	715AIT080	715AIT100	715AIT150	715AIT200	715AIT250*

*Free stem for DN250

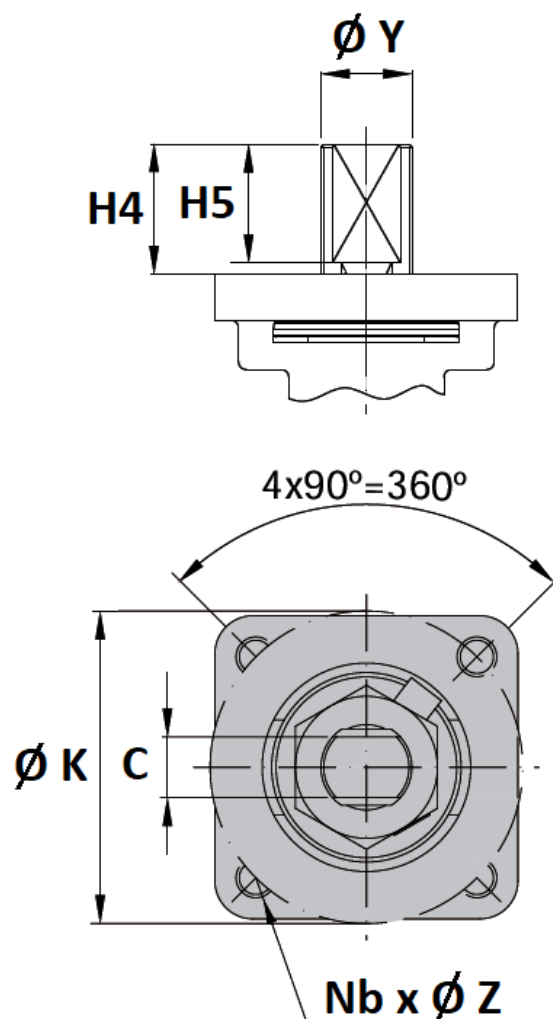
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ISO MOUNTING PAD AND STEM SIZE (in mm) :

DN15-200 (NPS 1/2"-8")



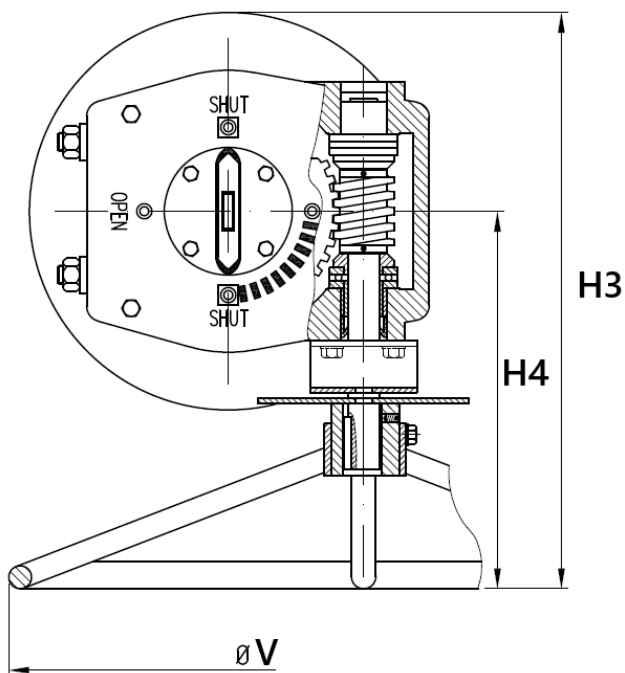
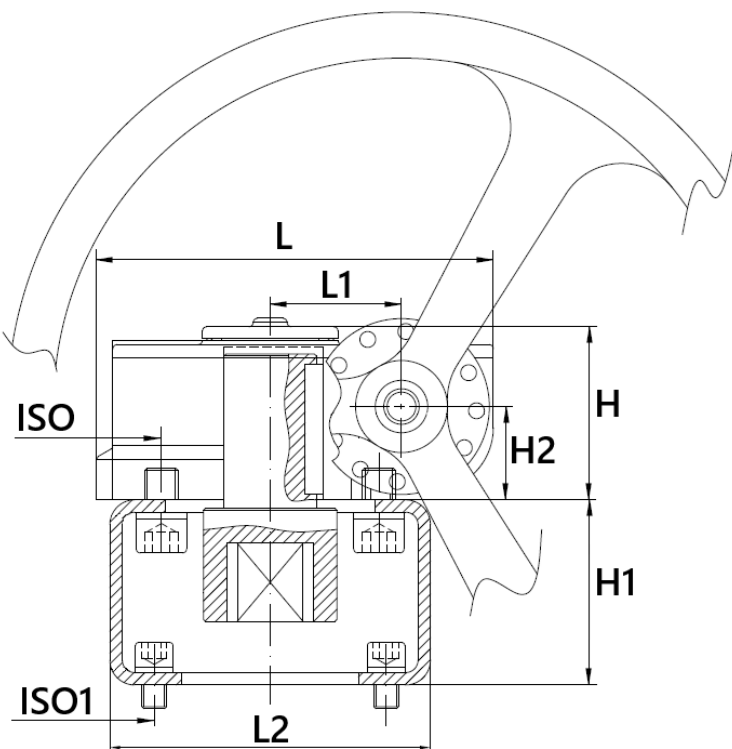
DN250 (NPS 10")



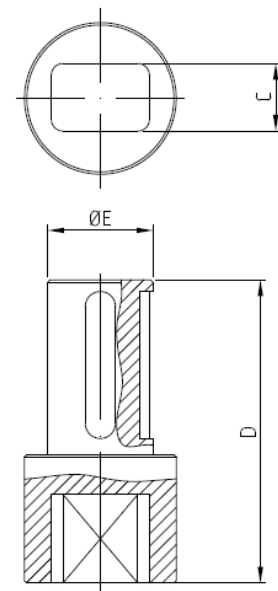
NPS (")	1/2"	3/4"	1"	1"1/2	2"	3"	4"	6"	8"	10"
DN	15	20	25	40	50	80	100	150	200	250
H3	1.5	3								
H4	22	22.7	22.7	34.5	42	44	44.5	56.5	56	69
H5	7.9	8.5	8.5	14	18.8	18.6	18.6	27.8	24.8	67
C	7	9	9	12	13	16	18	20	25	32
Ø Y	M10x1.5	M12x1.5		M16x1.5	M18X1.5	M22x1.5	M25x1.5	M28x1.5	M35x2	M48x3
Ø D	35				55		70	85		-
Ø K	50				70		102	125		165
ISO	F05				F07		F10	F12		F16
N x Ø Z	4 x M6				4 x M8		4 x M10	4 x M12		4 x M20

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LOCKABLE GEARBOX SIZE DN150-250 NPS 6" to 10" (in mm) :



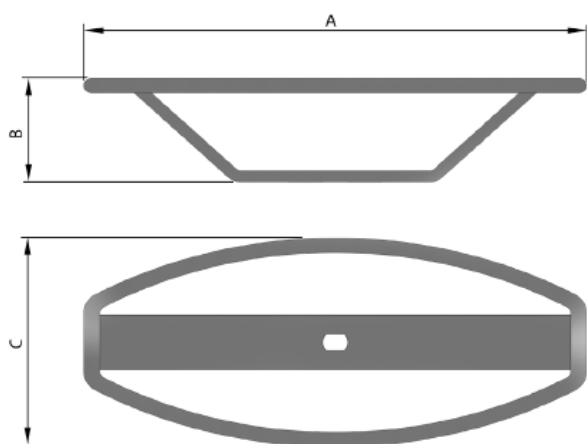
COUPLING :



PN	Class 150 PN20		
DN (mm)	150	200	250
NPS (")	6"	8"	10"
H	102		105
H1	80		100
H2	56		50
H3	365		480
H4	255		345
L	217		242
L1	77.5		90
L2	156	160	200
Ø V	465		600
ISO	F14		
ISO1	F12		F16
C	20	25	32
D	110	114	158
Ø E	45		65
Weight (in Kg)	21.8	21.7	30.2
Torque (Nm)	1200		
Ref.	9830590	9830591	9830594

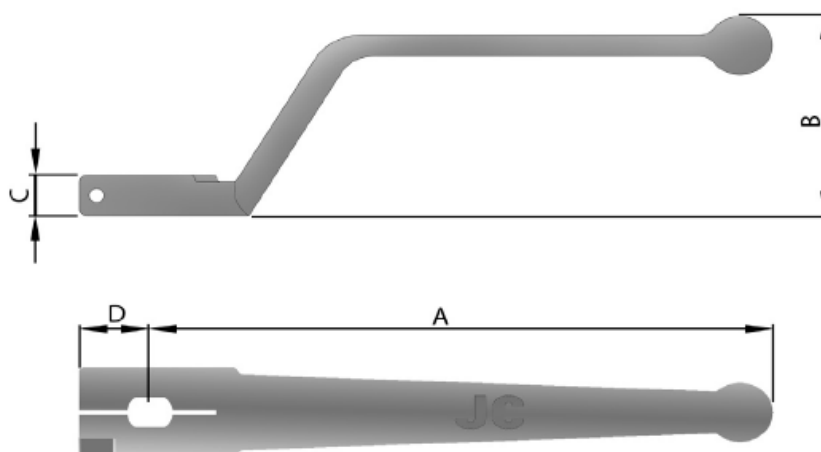
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OVAL HANDWHEEL SIZE DN15-50 NPS 1/2" to 2" (in mm) :



NPS (")	3/4"	1"	1 1/2"	2"
DN	20	25	40	50
A	160	160	200	216
B	54	54	56	57
C	75	75	90	100
Weight (Kg)	0.25	0.25	0.5	0.55
Ref.	9830575	9830578	9830576	9830577

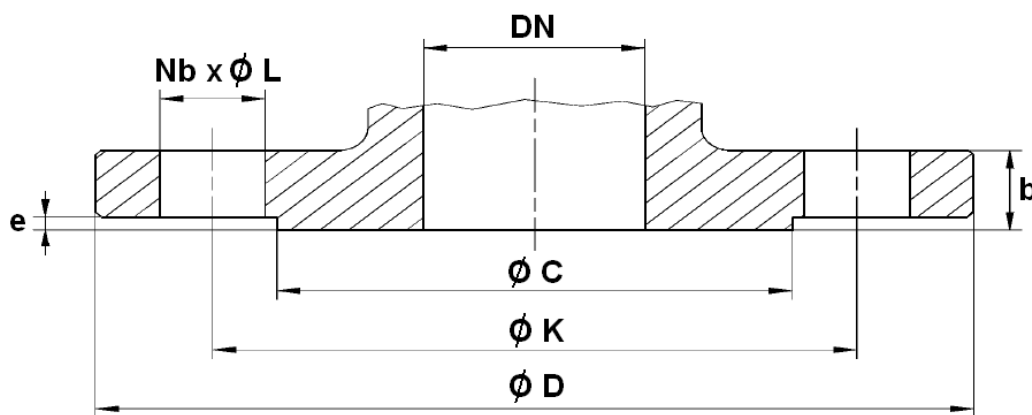
STAINLESS STEEL HANDLE SIZE DN15-200 NPS 1/2" to 8" (in mm) :



NPS (")	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
DN	20	25	40	50	80	100	150	200
A	163.5		300	212.5	347.5	445	495	697.5
B	58.5		45	48.5	46.5	70	70	77.5
C	12		16	21	20		29	30
D	18.5		22	25.5		33		47
Weight (Kg)	0.2		0.3	0.53	0.63	1.52	1.85	2.95
Ref.	9830513		9830514	9830515	9830516	9830517	9830518	9830519

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FLANGES SIZE (in mm) :



NPS (")	1/2"	3/4"	1"	1"1/2	2"	3"	4"	6"	8"	10"
DN	15	20	25	40	50	80	100	150	200	250
Ø C	35.1	42.9	50.8	73	91.9	127	157.2	215.9	269.7	323.8
Ø D	89	99	108	127	152	190	229	279	343	406
Ø K	60.5	69.8	79.2	98.6	120.6	152.4	190.5	241.3	298.4	362
Nb x Ø L	4 x 15.9				4 x 19.1		8 x 19.1	8 x 22.2		12 x 25.4
b	9.4	10.1	11.2	14.2	15.7	19	23.9	25.4	28.4	29.9
e	1.5									

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- Manufacturer certified to ISO 9001:2015 and ISO 14001 : 2015
- DIRECTIVE 2014/68/EU: For liquids or Gas of Group 1
 - DN15-25 (NPS 1/2"-1") : Article 4, §3 (SEP), no CE marking
 - DN40-100 (NPS 1"1/2-4") : Risk category I, CE marking
 - DN150-250 (NPS 6"-10") : Risk category II, CE 0056 marking
- Certificate 3.1 on request
- Valve designing according to ISO 17292, API 6D and ASME B16.34
- Body design according to ASME VIII Div.1
- Materials according to NACE MR 01-75
- Pressure Tests according to API 598
- Marking according to EN 19
- Fire safe according to ISO 10497 : 2004, API 607 5th and API 6FA 1994
- Fugitive Emissions according to EN 15848-1 : 2006 B Class and TA LUFT VDI 2440
- SIL2 according to IEC/EN 61508, SIL 3 possible according to the type of installation
- Flanges R.F. type B1 Class 150 according to ASME B16.5
- Shell finishing quality MSS SP 55
- ISO 5211 mounting pad
- Length according to ASME B16.10 Table 1 Column 8-9 (EN 558 series 3)
- ATEX Group II Category 2 G/2Dc Zone 1 & 21 Zone 2 & 22 (optional marking) according to directive 2014/34/EU
- Russian certificate TRCU 10, TRCU 12 and TRCU 32 (EAC marking and declaration **on request**)

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.