

CARBON STEEL GATE VALVE FLANGED CLASS 150 PN20 TRIM5

Carbon steel gate valve TRIM5 flanged Class 150 PN20 full bore for water distribution, gas oil, steam, petrochemical, petroleum industry and gas.

Rising non rotating stem with flexible one piece wedge.

Graphite packing for stem and gasket bonnet in stainless steel+graphite.

Gate valve with fire safe certificate API 6FA to reduce risks in case of fire.

Compatible with explosive atmosphere, ATEX Zone 1&21 and Zone 2&22.



NACE
MR01-75

Certificate
3.1



Size : DN50 à DN600 (NPS 2" to 24")

Connection : Flanges RF Class 150 PN20

Min Temperature : -29°C

Max Temperature : +425°C

Max Pressure : 20 Bars

Specifications : Rising non rotating stem
Bolted bonnet and packing
Full bore, Fire safe API 6FA

Materials : Carbon steel ASTM A216 WCB

CARBON STEEL GATE VALVE FLANGED CLASS 150 PN20 TRIM5

SPECIFICATIONS :

- Full bore
- Fire safe API 6FA
- Rising, non-rotating stem
- Fixed non rising handwheel
- Flexible one piece wedge
- Flanges R.F. Class 150 (PN20)
- Carbon steel body
- Bolted bonnet and gland pack
- Full stellite (Trim 5)
- Acrylic grey painting RAL 7001 color, 60 µm thickness
- Corrosion allowance : 3 mm
- ATEX

USE :

- Water distribution, gas oil, steam, petrochemical, petroleum industry, gas
- Min and max Temperature Ts : - 29°C to + 425°C
- Max Pressure Ps : 20 bars
- **Do not use with scraper**
- **Tighten the gland packing in service**

FLOW COEFFICIENT Kvs :

DN (mm)	50	65	80	100	125	150	200	250	300	350	400	450	500	600
NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Kvs	265	423	614	1124	1807	2690	4940	7720	11540	14070	18650	24800	30900	50000

TORQUE VALUE (in Nm without safety coefficient) :

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Torque (Nm)	70	68	69	114	135	200	220	300	340	430	450	1168	1465	2175

GEARBOX SPECIFICATIONS :

DN	450	500	600
NPS (")	18"	20"	24"
Input Torque (Nm)	220	230	230

NUMBER OF CYCLES TO CLOSE OR OPEN THE VALVE :

DN	50	65	80	100	125	150	200	250	300	350	400	450	500	600
NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Nb of cycles	15	20	18	23	28	33	38	45	55	60	52	58	64	68

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PRESSURE / TEMPERATURE RELATION :

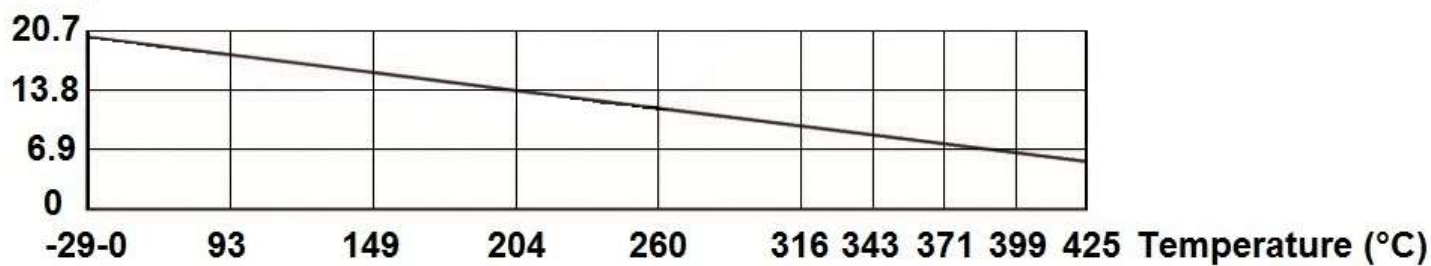
(According to AMSE B16-34 for A216 WCB)

Pressure (Bar)	19.6	19.6	17.9	15.8	13.8	11.7	9.6	8.6	7.6	6.5	5.5
Temperature (°C)	-29	38	93	149	204	260	316	343	371	399	425

PRESSURE / TEMPERATURE GRAPH :

Pressure

(Bar)

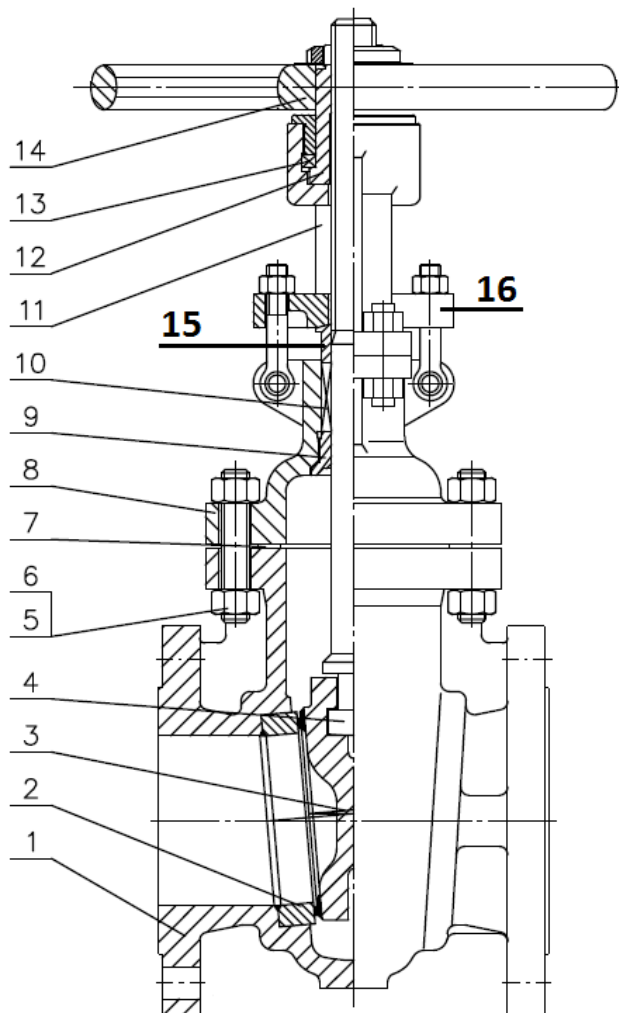


RANGE :

- Carbon steel gate valve with flanges R.F. Class 150 (PN20) **Ref. 145** From DN 50 to DN 300 (from NPS 2" to 12")
- Carbon steel gate valve with flanges R.F. Class 150 (PN20) with gearbox **Ref. 145** DN 350 to 600 (from NPS 14" to 24")

CARBON STEEL GATE VALVE FLANGED CLASS 150 PN20 TRIM5

MATERIALS DN50-300 (NPS 2" to 12") :



Repairability :



***Gaskets kit (Items 7, 10 and 13)**

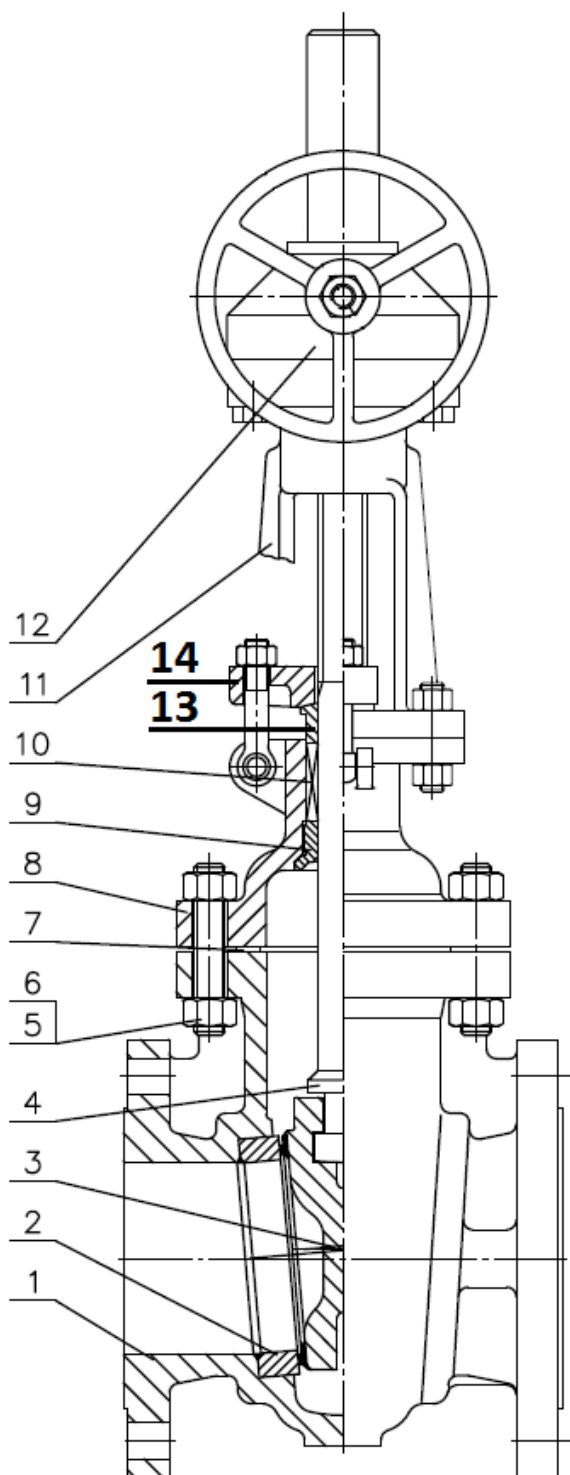
DN (mm)	NPS (")	Ref.
50	2"	9802300
65	2"1/2	9802301
80	3"	9802302
100	4"	9802303
125	5"	9802303a
150	6"	9802304
200	8"	9802305
250	10"	9802306
300	12"	9802307
350	14"	9802308

(* : included in gaskets kit)

Item	Designation	Materials
1	Body	ASTM A216 WCB
2	Seat	ASTM A105 + Stellite Gr.6
3	Wedge	ASTM A216 WCB + Stellite Gr.6
4	Stem	ASTM A182 F6a
5	Stud bolt	ASTM A193 Gr B7
6	Nut	ASTM A194 Gr 2H
7*	Bonnet gasket	AISI 304 + graphite
8	Bonnet	ASTM A216 WCB
9	Back seat bushing	ASTM A276-420
10*	Packing	Flexible graphite
11	Yoke	ASTM A216 WCB
12	Stem nut	Aluminium + Bronze
13	Ring	E51100
14	Handwheel	Cast iron
15	Packing gland	ASTM A276-420
16	Gland flange	ASTM A216 WCB

CARBON STEEL GATE VALVE FLANGED CLASS 150 PN20 TRIM5

MATERIALS FROM DN350 to 600 (NPS 14" to 24") :



Repairability :



***Gaskets kit (Items 7 and 10)**

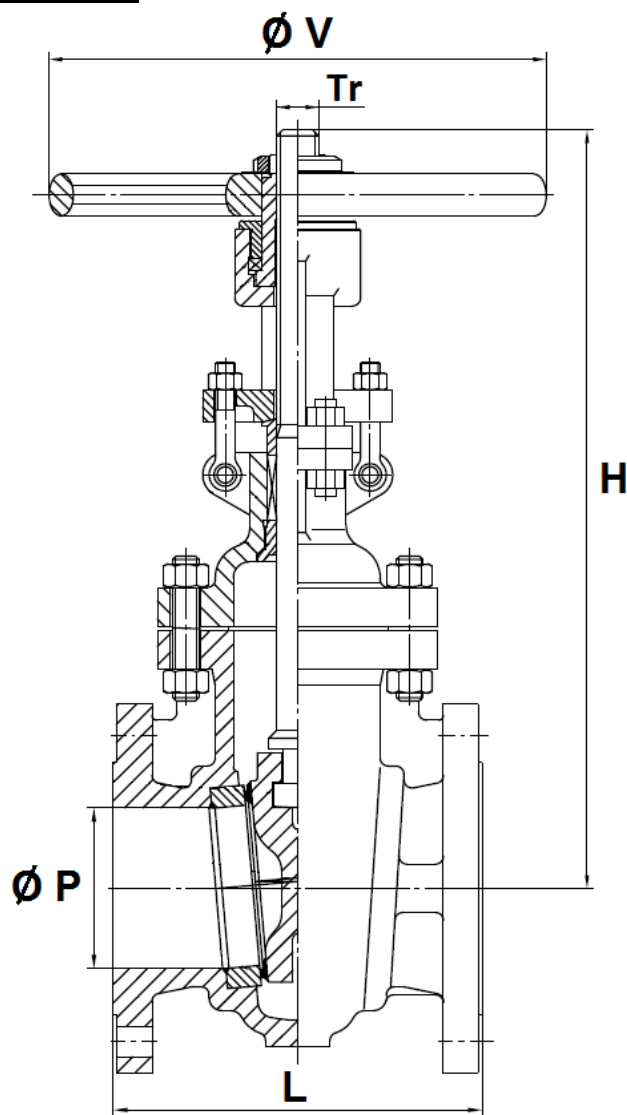
DN400	NPS 16"	9802309
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Item	Designation	Materials
1	Body	ASTM A216 WCB
2	Seat	ASTM A105 + Stellite Gr.6
3	Wedge	ASTM A216 WCB + Stellite Gr.6
4	Stem	ASTM A182 F6a
5	Stud Bolt	ASTM A193 Gr B7
6	Nut	ASTM A194 Gr 2H
7*	Bonnet gasket	AISI 304 + graphite
8	Bonnet	ASTM A216 WCB
9	Back seat bushing	ASTM A276-420
10*	Packing	Flexible graphite
11	Yoke	ASTM A216 WCB
12	Gearbox	-
13	Packing gland	ASTM A276-420
14	Gland flange	ASTM A216 WCB

(* : included in gaskets kit)

CARBON STEEL GATE VALVE FLANGED CLASS 150 PN20 TRIM5

SIZE DN 50-300 (NPS 2"-12") (in mm) :



DN (mm)	50	65	80	100	125	150	200	250	300
NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"
Ø P	51	63.5	76	102	127	152	203	254	305
L	178	191	203	229	254	267	292	330	356
H (opened)	410	470	500	581	690	745	971	1160	1376
H (closed)	355	390	421	479	550	593	768	905	1071
Ø V	200	240	240	300	350	350	400	400	500
Threading stem Tr	Tr18x4LH	Tr20x4LH	Tr22x5LH	Tr26x5LH	Tr28x5LH	Tr28x5LH	Tr32x6LH	Tr36x6LH	Tr38x6LH
Weight (in Kg)	18	25	30	45	69	77	127	176	281
Ref.	145050	145065	145080	145100	145125	145150	145200	145250	145300

Sferaco 90 rue du Ruisseau 38297 St Quentin Fallavier Tel: + 33 (0) 474.94.15.90 Fax: + 33 (0) 474.95.62.08 Internet: www.sferaco.com E-mail : info@sferaco.fr

Date : 01/25

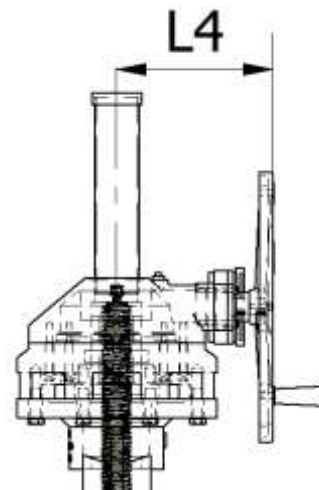
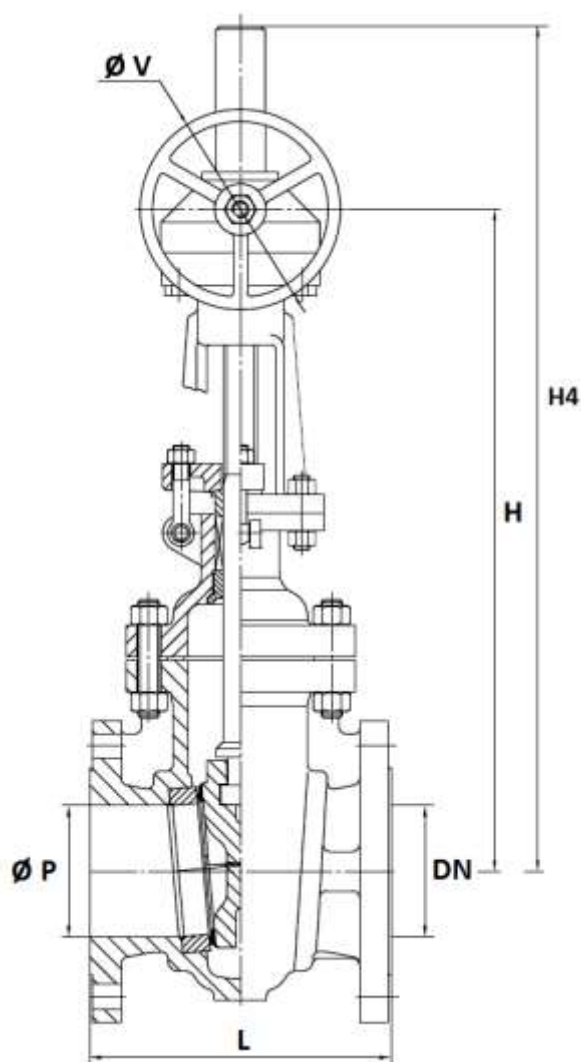
Page 6 sur 9

Rev.03

Information provided as an indication and subject to possible modification

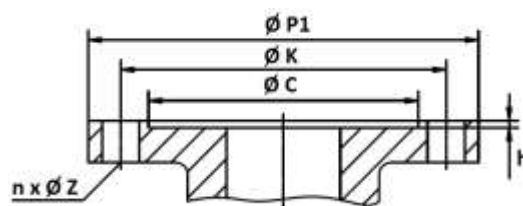
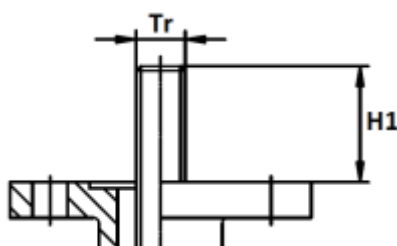
CARBON STEEL GATE VALVE FLANGED CLASS 150 PN20 TRIM5

SIZE DN 350 to 600 (NPS 14"to 24") (in mm) :



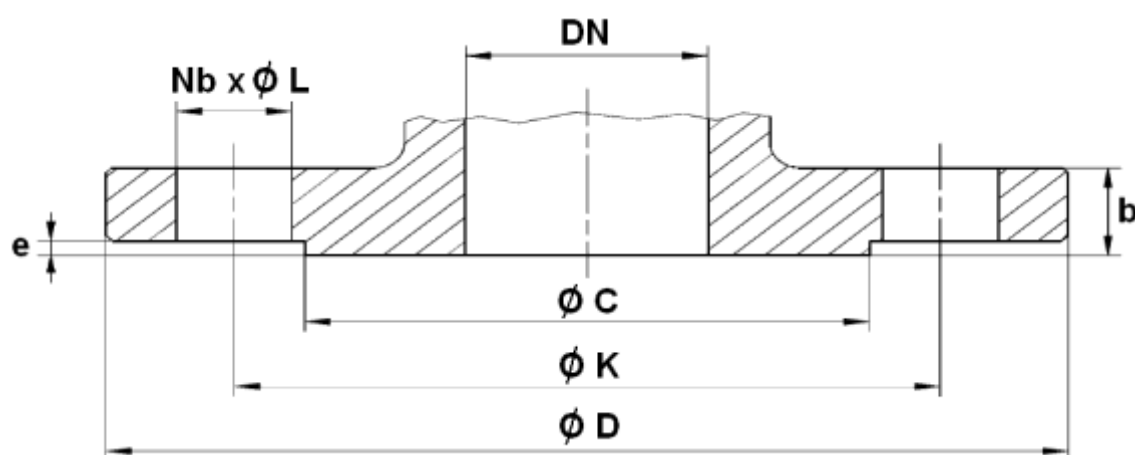
DN (mm)	350	400	450	500	600
NPS (")	14"	16"	18"	20"	24"
Ø P	337	388	439	489	591
L	381	406	432	457	508
L4	320	320	400	400	400
H	1175	1335	1520	1650	1925
H4	1590	1787	2032	2220	2610
Ø V	460	460	530	530	530
Ø P1	280	280	340	340	340
Ø K	245	245	300	300	298
Ø C	200	200	230	230	230
n x Ø Z	8 x Ø 16	8 x Ø 16	8 x Ø 22	8 x Ø 22	8 x Ø 22
h	6	6	6	6	6
Threading stem Tr	Tr42x6LH	Tr44x8LH	Tr44x8LH	Tr50x8LH	Tr60x9LH
H1	95	90-150	105-150	105-150	135
Weight (in Kg)	410	505	714	860	1172
Ref.	145350	145400	145450	145500	145600

STEM AND PLATE SIZE :



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FLANGES SIZE (in mm) :



DN (mm)	50	65	80	100	125	150	200	250	300	350	400	450	500	600
NPS (")	2"	2"1/2	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Ø C	92.1	104.8	127	157.2	185.7	215.9	269.9	323.8	381	412.8	469.9	533.4	584.2	692.2
Ø D	150	180	190	230	255	280	345	405	485	535	595	635	700	815
Ø K	120.7	139.7	152.4	190.5	215.9	241.3	298.5	362	431.8	476.3	539.8	577.9	635	749.3
Nb x Ø L	4 x 19	4 x 19	4 x 19	8 x 19	8 x 22	8 x 22	8 x 22	12 x 26	12 x 26	12 x 29	16 x 29	16 x 32	20 x 32	20 x 35
b	16.3	17.9	19.5	24.3	24.3	25.9	29	30.6	32.2	35.4	37	40.1	43.3	48.1
e	2	2	2	2	2	2	2	2	2	2	2	2	2	2

CARBON STEEL GATE VALVE FLANGED CLASS 150 PN20 TRIM5

STANDARDS :

- Manufacturer certified ISO 9001 : 2015 and ISO 14001 : 2015
- DIRECTIVE 2014/68/EU : For liquids and gas of Group 1
 - DN50 (NPS 2") : Risk Category I, CE 0036 marking
 - DN65-150 (NPS 2"1/2-6") : Risk Category II, CE 0036 marking
 - DN200-600 (NPS 8"-24") : Risk Category III, CE 0036 marking
- Certificate 3.1 on request
- Designing according to API 600
- Pressure Tests according to API 598, table 6
- Length according to ASME B16.10, table 1 A8 series and EN 558 series 3
- Flanges R.F. according to ASME B16.05 Class 150
- Fire safe according to API SPEC 6FA 3th edition 04-1999
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 & 22 (optional marking) according to directive 2014/34/EU
- Materials according to NACE MR 01-75

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.