

**FORGED CARBON STEEL A105N GATE VALVES FLANGED CLASS 300 PN50 RF
TRIM 5, BOLTED BONNET, FULL BORE**



PED/97/23/CE



Certificate 3.1

Size : DN 15 to 50 (NPS 1/2" to 2")
Ends : Flanges RF CLASS 300 (PN50)
Min Temperature : - 29°C
Max Temperature : + 425°C
Max Pressure : 50 Bars
Specifications : Rising non rotating stem (OS&Y)
Bolted bonnet
Full bore

Materials : Forged carbon steel A105N

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SPECIFICATIONS :

- Full bore
- Integral body flanges
- Rising non rotating stem (OS & Y)
- Bolted bonnet
- Bolted packing
- Forged carbon steel A105N
- Full stellite (Trim 5)
- Flanges R.F. Class 300 (PN50)

USE :

- Petroleum industry, steam, high pressure
- Min and max Temperature Ts : - 29°C to + 425°C
- Max Pressure Ps : 50 bars (see graph)

FLOW COEFFICIENT Kvs (M3 / h) :

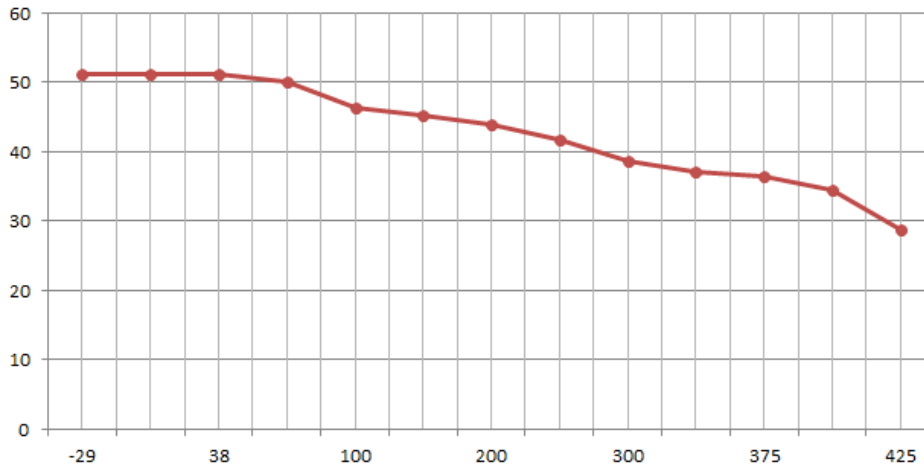
DN	15	20	25	40	50
NPS	1/2"	3/4"	1"	1"1/2	2"
Kvs (m3/h)	10	23	47.2	75.2	93.4

PRESSURE / TEMPERATURE RELATION :

Pressure (bar)	51.1	51.1	51.1	50.1	46.4	45.2	43.8	41.7	38.7	37	36.5	34.5	28.8
Temperature (°C)	-29	0	38	50	100	150	200	250	300	350	375	400	425

PRESSURE / TEMPERATURE GRAPH :

Pressure (Bars)



Temperature (°C)

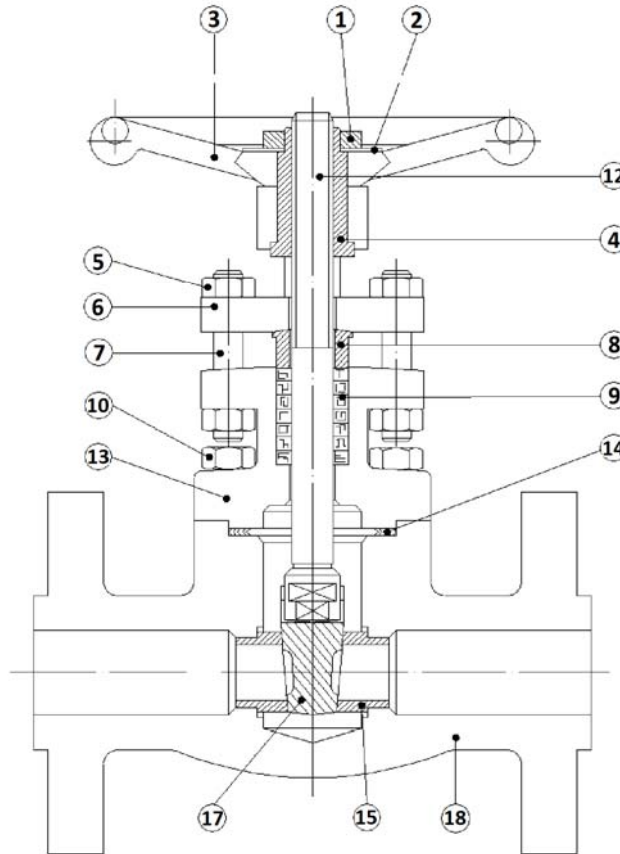


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RANGE :

- Forged carbon steel A105N gate valve with integral body flanges Class 300 (PN50) R.F. **Ref.131** from DN 15 to 50 (NPS 1/2" to 2")

MATERIALS :

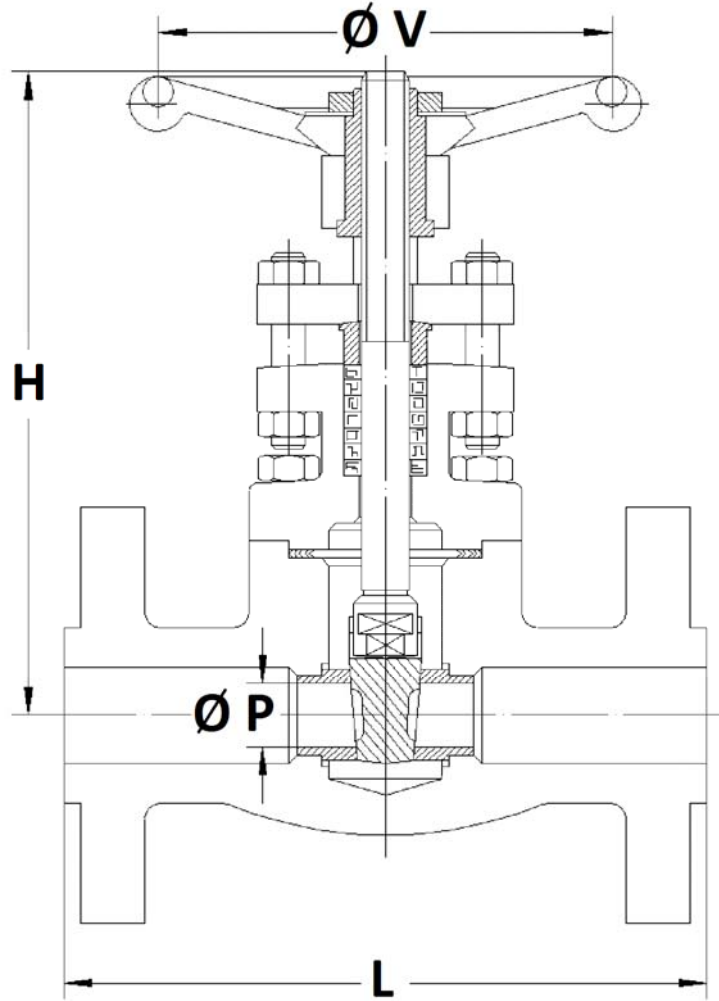


Item	Designation	Materials
1	Handwheel nut	Carbon steel
2	ID plate	Aluminium
3	Handwheel	Carbon steel
4	Yoke nut	ASTM A473 type 416
5	Packing nut	ASTM A194 2H
6	Gland flange	ASTM A105
7	Packing studs	ASTM A276 type 410
8	Gland	ASTM A276 type 410
9	Packing	Graphite
10	Screw	ASTM A193 B7
12	Stem	ASTM A276 type 410
13	Bonnet	ASTM A105N
14	Gasket	ASTM A182 F316 + graphite
15	Seat	ASTM A276 Tp 410 Stellite
17	Wedge	ASTM A182 F6a Stellite
18	Body	ASTM A105N



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SIZE (in mm) :

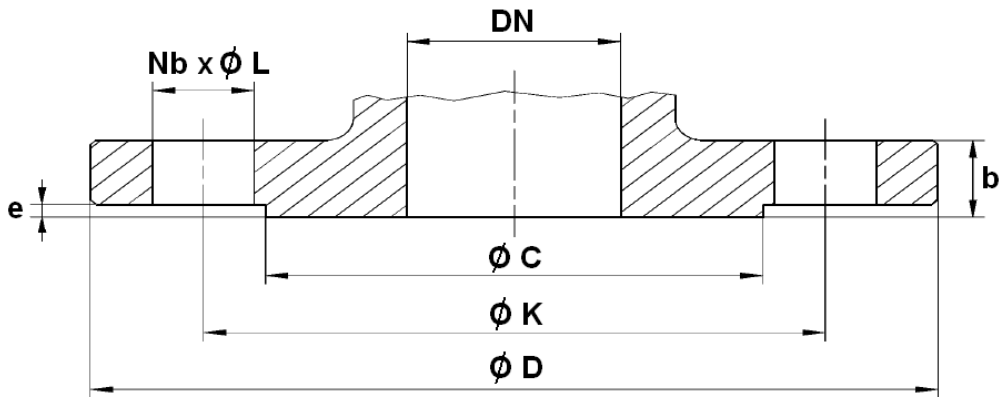


Ref.	DN (mm)	15	20	25	40	50
	NPS (")	1/2"	3/4"	1"	1"1/2	2"
131	Ø P	14	18	24	36.5	48.5
	L	140	152	165	190	216
	H (opened)	185	210	240	285	315
	Ø V	80	80	110	130	180
	Weight (in Kg)	3.9	6	8.1	14.7	17.8



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FLANGES SIZE (in mm):



DN (mm)	15	20	25	40	50
NPS (")	1/2"	3/4"	1"	1"1/2	2"
Ø C	34.9	42.9	50.8	73	92.1
Ø D	95.5	117.5	124	156	165.5
Ø K	66.5	82.5	89	114.5	127
Nb x Ø L	4 x 16	4 x 19	4 x 19	4 x 22	8 x 19
b	14.5	16	18	21	22.5
e	1.6	1.6	1.6	1.6	1.6



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STANDARDS :

- Fabrication according to **ISO 9001 :2008**
- **DIRECTIVE 97/23/CE : CE N° 0036**
Risk category III module H
- Certificate 3.1 on request
- Designing according to **ISO 15761** and **API 602** 8th
- Approval certificate **API 6D**
- Pressure Tests according to **API 598, table 6**
- Valves approved by the main oil industries (certificates on request)
- **ATEX** Group II Category 2 GD T3 Zone 1 & 21 Zone 2 & 22 (optional marking) according to directive 2014/34/EU
- Integral body flanges R.F. according to **ASME B16.05 Class 300**
- Length according to **EN 558 Series 4 (ASME B16.10 table 2, Column 10)**

ADVICE : Our opinion and our advice are not guaranteed and lauridsen industri 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
- Keep greased the stem so that the valve remains easy to open or close.