

# S38

**S38 111.147 PN16 DN50-300**  
**Gate valve flanged**



PED 2014/68/EU



Certificate 3.1

**Size :** DN 50 to DN 400  
**Ends :** Flanges R.F. PN16  
**Min Temperature :** - 29°C  
**Max Temperature :** + 425°C  
**Max Pressure :** 16 Bars  
**Specifications :** Rising, non-rotating stem  
Bolted bonnet and gland pack  
Full bore

**Materials :** Carbon steel ASTM A216 WCB

### SPECIFICATIONS :

- Full bore
- Rising, non-rotating stem
- Fixed non rising handwheel
- Flexible one piece wedge
- Flanges R.F. PN16
- Carbon steel body
- Bolted bonnet and gland pack
- ½ stellite ( Trim 8 ; seat with stellite )
- Grey painting RAL 7001 color, 60 µm thickness

### USE :

- Water distribution, gas oil, steam, petrochemical, petroleum industry, gas
- Min and max Temperature Ts : - 29°C to + 425°C
- Max Pressure Ps : 16 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
Kvs	265	423	614	1124	1807	2690	4940	7720	11540	14070	18650

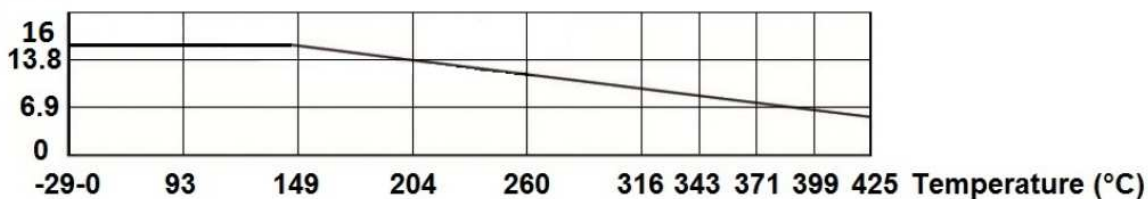
### PRESSURE / TEMPERATURE RELATION :

( According to AMSE B16-34 for A216 WCB )

Pressure ( Bar )	16	16	16	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 :

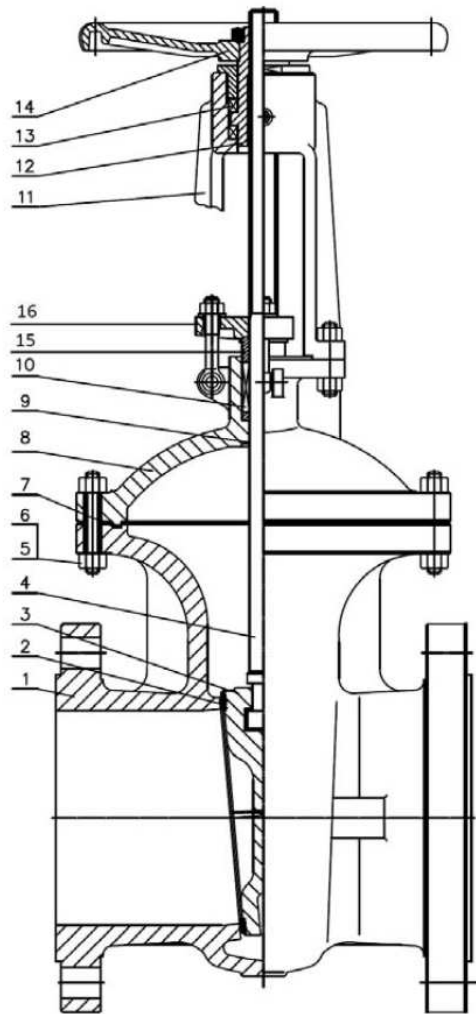
Pressure  
(Bar)



### RANGE :

- Carbon steel gate valve with flanges R.F. PN16 Ref. 147 From DN 50 to DN 350
- Carbon steel gate valve with flanges R.F. PN16 with gearbox Ref. 147 DN 400

MATERIALS DN50-350 :



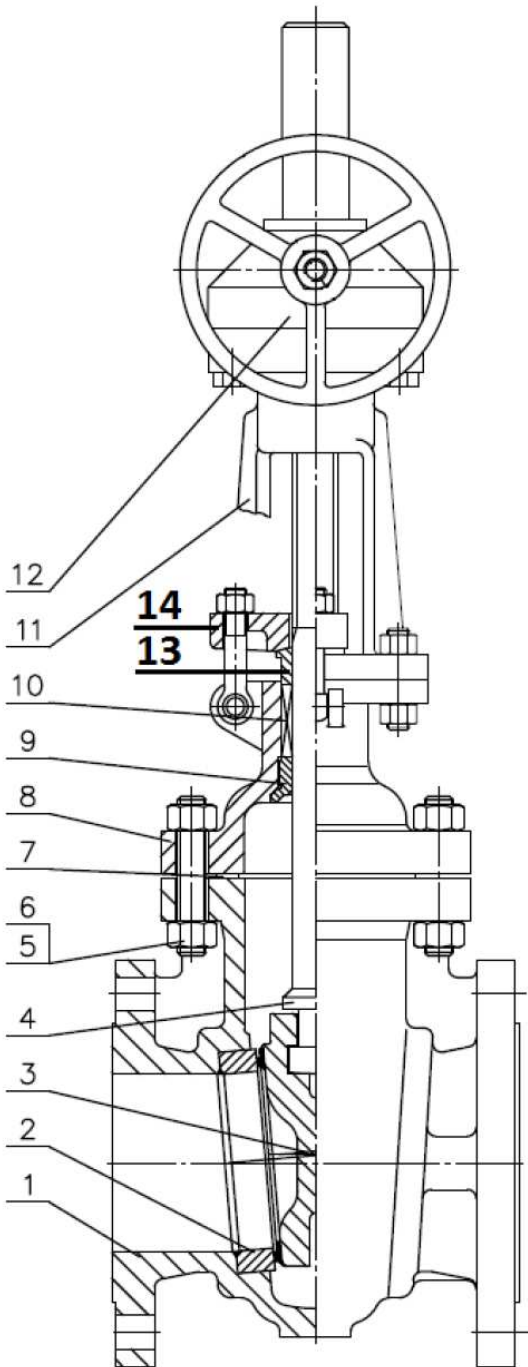
(\* : included in gaskets kit )

Item	Designation	Materials
1	Body	ASTM A216 WCB
2	Seat	ASTM A105 + Stellite Gr.6
3	Wedge	ASTM A216 WCB + 13Cr
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	Deposited 13Cr
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

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MATERIALS DN400 :



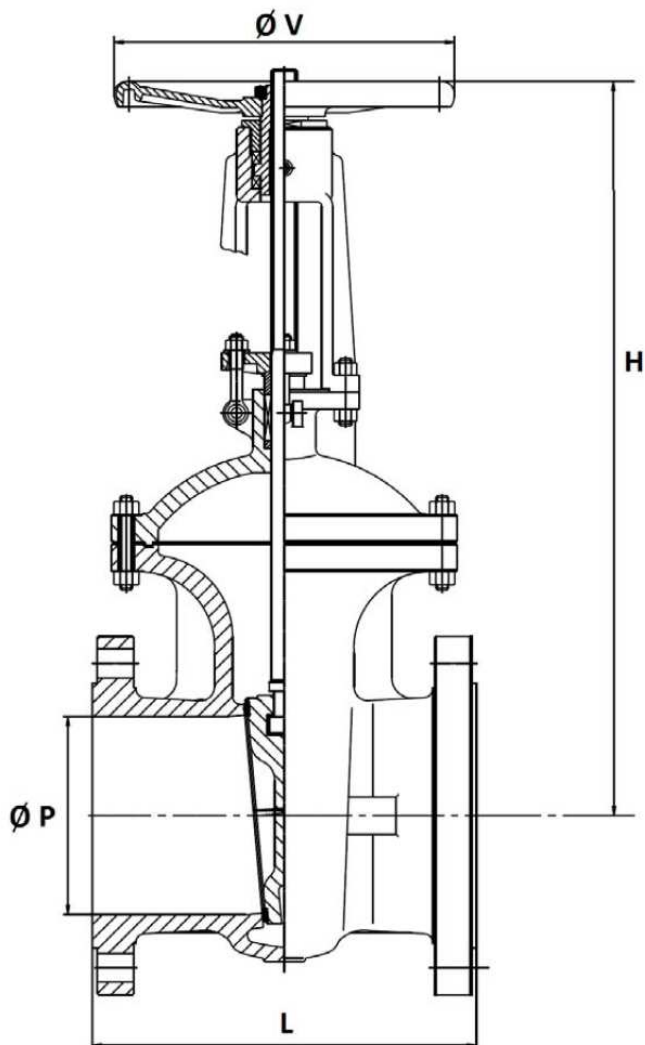
Item	Designation	Materials
1	Body	ASTM A216 WCB
2	Seat	ASTM A105 + Stellite Gr.6
3	Wedge	ASTM A216 WCB + 13Cr
4	Stem	ASTM A182 F6a
5	Stud Bolt	ASTM A193 Gr B7
6	Nut	ASTM A194 Gr 2H
7*	Bonnet gasket	AISI 304 + graphite
8	Bonnet	ASTM A216 WCB
9	Back seat bushing	ASTM A276-420
10*	Packing	Flexible graphite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

(\* : included in gaskets kit )

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SIZE DN 50-350 ( in mm ) :



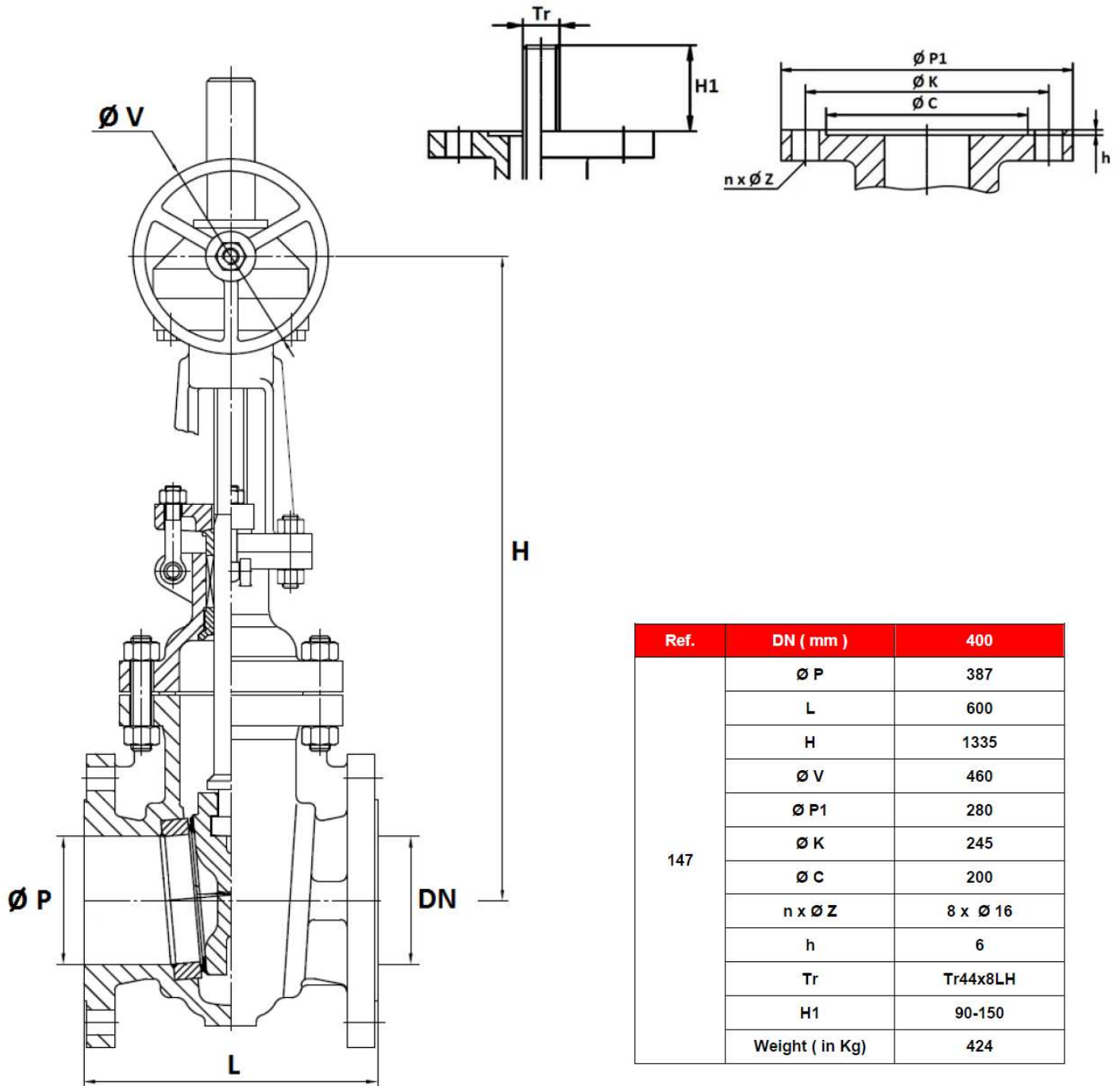
Ref.	DN ( mm )	50	65	80	100	125	150	200	250	300	350
147	Ø P	50	63	76	100	125	150	200	250	300	336
	L	250	270	280	300	325	350	400	450	500	550
	H ( opened )	400	446	515	590	675	780	960	1176	1352	1570
	H ( closed )	340	370	420	480	545	610	750	900	1040	1215
	Ø V	240	240	280	300	300	350	400	450	500	600
	Weight ( Kg )	20	28	35	54	66	84	130	226	347	425

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SIZE DN 400 ( in mm ) :

STEM AND PLATESIZE :

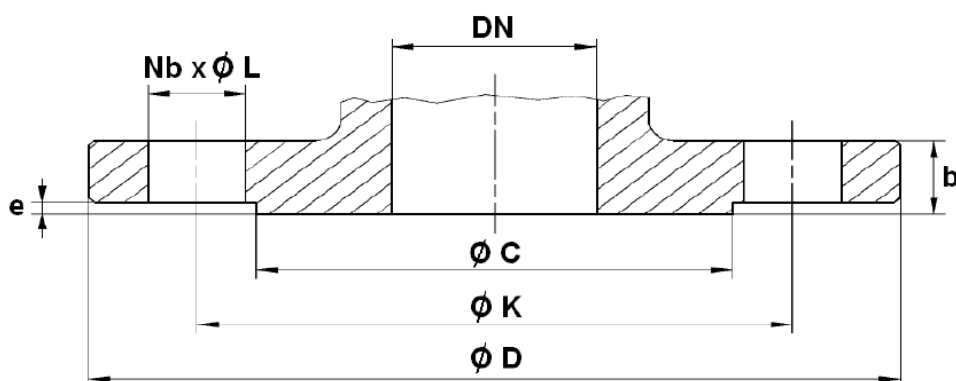


Ref.	DN ( mm )	400
147	$\varnothing P$	387
	L	600
	H	1335
	$\varnothing V$	460
	$\varnothing P1$	280
	$\varnothing K$	245
	$\varnothing C$	200
	$n \times \varnothing Z$	8 x $\varnothing 16$
	h	6
	Tr	Tr44x8LH
	H1	90-150
	Weight ( in Kg)	424

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FLANGES SIZE ( in mm ) :



DN ( mm )	50	65	80	100	125	150	200	250	300	350	400
Ø C	102	122	138	158	188	212	268	320	378	438	490
Ø D	165	185	200	220	250	285	340	405	460	520	580
Ø K	125	145	160	180	210	240	295	355	410	470	525
Nb x Ø L	4 x 18	8 x 18	8 x 18	8 x 18	8 x 18	8 x 22	12 x 22	12 x 26	12 x 26	16 x 26	16 x 30
b	18	18	20	20	22	22	24	26	28	30	32
e	3	3	3	3	3	3	3	3	4	4	4

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TORQUE VALUE ( in Nm without safety coefficient ) :

DN	50	65	80	100	125	150	200	250	300	350	400
Torque (Nm)	35	75	90	106	137	160	255	375	510	710	1018

NUMBER OF CYCLES TO CLOSE OR OPEN THE VALVE :

DN	50	65	80	100	125	150	200	250	300	350	400
Number of cycles	15	19	19	22	26	33	42	46	52	59	50

STANDARDS :

- Fabrication according to ISO 9001 : 2008 and ISO 14001 : 2004
- DIRECTIVE 2014/68/EU : CE N° 0036  
Risk category III Module H
- Certificate 3.1 on request
- Designing according to EN 1984
- Pressure Tests according to EN 122661-1, Range B
- Length according to EN 558 series 15 (DIN 3202-1, series F5)
- Flanges R.F. according to EN 1092-1 PN16
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 & 22 ( optional marking )



## **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.