





Ends : Min Temperature : Max Temperature : Max Pressure :	
	Bolted bonnet and gland pack Standard port

Materials : Carbon steel A105N



SPECIFICATIONS :

- Respect the flow direction (indicated by the arrow)
- Standard port
- Rising stem non rotating
- Bolted bonnet and gland pack
- Forged Carbon steel A105N
- ¹/₂ stellite (Trim 8)
- · Stainless steel bellow
- Class 600

<u>USE :</u>

- Petroleum industry, steam, high pressure
- Min and max Temperature Ts : 29°C to + 425°C
- Max Pressure Ps : 100 bars (see graph)

PRESSURE / TEMPERATURE GRAPH :

Pressure



Pressure (bar)	100	100	100	92.8	90.5	87.6	83.4	77.5	73.9	72.9	69	57.5
Temperature (°C)	-29	38	50	100	150	200	250	300	350	375	400	425

FLOW COEFFICIENT Kvs (M3/h):

DN	15	20	25	32	40	50
NPS	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Kvs (m3/h)	1.3	3.3	5.9	9.5	12.4	21.6



RANGE :

- Forged A105N carbon steel globe valve with bellow and Socket Welding ends Ref. 402 DN 15 to DN 50 (NPS 1/2" to DN 2")
- Forged A105N carbon steel globe valve with bellow and NPT threaded ends Ref.403 DN 15 to DN 50 (NPS 1/2" to DN 2")
- Forged A105N carbon steel globe valve with bellow and BSP conical threaded ends Ref.404 DN 15 to DN 50 (NPS 1/2" to DN 2")

MATERIALS:



Item	Designation	Materials 402/403/404				
1	Wheel nut	Carbon steel				
2	Name plate	Aluminium				
3	Handwheel	Carbon steel				
4	Yoke nut	ASTM A582 type 416				
5	Gland nut	ASTM A194 2H				
6	Gland flange	ASTM A105				
7	Gland stud	SS 410				
8	Gland	ASTM A276 type 410				
9	Packing	Graphite				
10	Bolts	ASTM A193 B7				
12	Stem	ASTM A276 type 410				
13	Bonnet	ASTM A105N				
14	Gasket	SS 316 + graphite spiral wound				
16	Seat	Stellite GR.6'				
18	Body	ASTM A105N				
19	Disc	ASTM A276 type 410				
30	Bellow	ASTM A479 type 321				
58	Gasket	Renforced graphite				



<u>SIZE (in mm) :</u>



Ref.	DN (mm)	15	20	25	32	40	50
	NPS (")	1/2"	3/4"	1"	1"1/4	1"1/2	2"
	Ø D	9	13	17.5	22.5	29.5	35
402	L	80	90	110	127	155	170
403/404	H (open)	136	144	167	194	220	230
	ØВ	90	90	110	130	130	180
403/404	L1	15	18	19	20	21	21
402	E(SW)	12.7	14.5	16	17.5	19	22
	ØF(SW)	21.72	27.05	33.78	42.54	48.64	61.11
402/403/404	Weight (Kg)	1.85	2.07	3.44	5	7.1	11



STANDARDS :

- Fabrication according to ISO 9001 : 2008
- DIRECTIVE 2014/68/EU : CE N° 0036 Risk category III module H
- Certificate 3.1 on request
- Designing according to ISO 15761 and API 602 8th
- Pressure Tests according to API 598, table 6
- Valves approved by the main oil industries (certificates on request)
- ATEX Group II Category 2 G/2D T3 Zone 1 & 21 Zone 2 &22 (optional marking) according to directive 2014/34/EU
- Threaded female BSP conical ends according to ISO 7-1 Rc
- Threaded female NPT ends according to ANSI B1.20.1
- Socket Welding ends according to ISO 15761

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.



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 strenght 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 thightness 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.
- During welding operation, for S.W. types half open the valve and do not exceed 350-400°C
- The theoretical lengths given by ISO/R7 for the tapping are typically longer than required, the length of the thread should be limited, and check that the end of the tube does not press right up to the head of the thread.
- Never use a vice to tighten the fixings of the valve.
- 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.
- It may be necessary to screw the packing gland during using according to the type of use.
- Do not use a tool to shut the valve
- Fluids in the valve must not contain solid objects (it could damaged the seat).
- It's recommended to operate the valve (open and close) 1 to 2 times per year