

**FORGED CARBON STEEL NEEDLE VALVE 3000 Psi**



**ISO 9001:2008**



**Certificate 3.1**

**Size :** DN 8 to 25 (NPS 1/4" to 1")  
**Ends :** Female - Female BSP or NPT, Socket Welding  
**Min Temperature :** - 29°C  
**Max Temperature :** + 250°C  
**Max Pressure :** 200 Bars  
**Specifications :** Rising rotating stem  
Monobloc  
Standard port

**Materials :** Forged carbon steel A105N

## FORGED CARBON STEEL NEEDLE VALVE 3000 Psi

### SPECIFICATIONS :

- Respect the flow direction ( indicated by the arrow )
- Standard port
- Rising rotating stem
- Monobloc
- Forged carbon steel A105N
- 3000 Psi type

### USE :

- Petroleum industry, steam, high pressure
- Min and max Temperature Ts : - 29°C to + 250°C
- Max Pressure Ps : 200 bars at 20°C

### FLOW COEFFICIENT Kvs ( M3 / h ) :

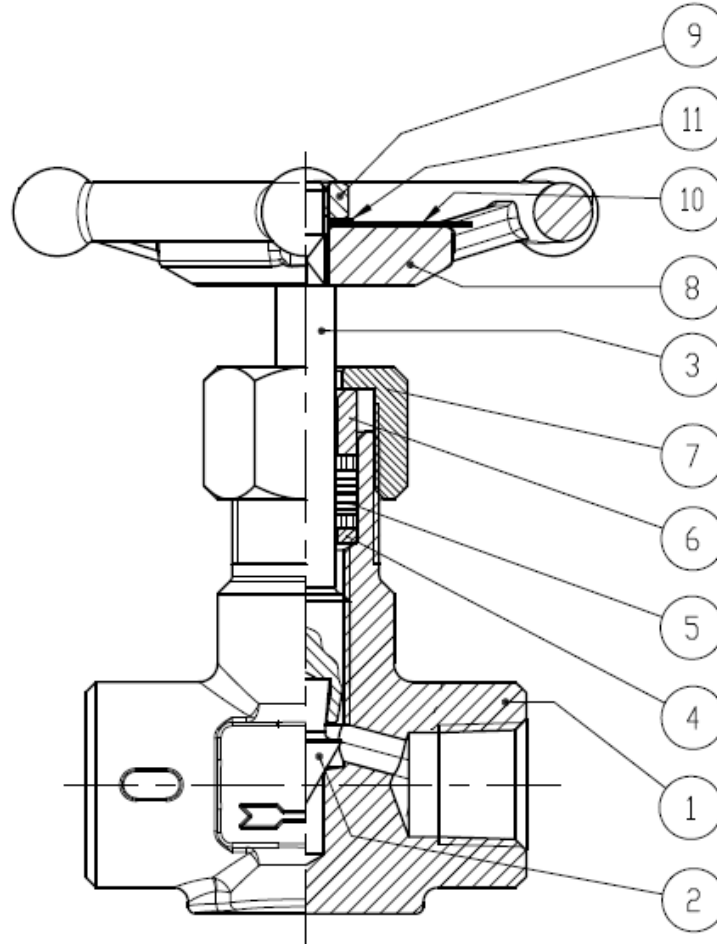
DN (mm)	8	10	15	20	25
NPS (")	1/4"	3/8"	1/2"	3/4"	1"
0	0	0	0	0	0
0.5	0.17	0.22	0.39	0.45	0.52
1	0.26	0.32	0.60	0.67	0.78
2	0.35	0.42	0.78	1.13	1.30
3	0.38	0.48	0.86	1.28	1.47
3.5	0.43	0.54	0.86	1.34	1.51
4			0.86	1.36	1.56
4.75			0.90	1.38	1.58
5				1.39	1.60
6				1.39	1.60

### RANGE :

- Forged carbon steel needle valve threaded BSP cylindrical **Ref. 483** from DN 8 to DN 25 (NPS 1/4" to DN 1")
- Forged carbon steel needle valve threaded NPT **Ref. 484** from DN 8 to DN 25 (NPS 1/4" to DN 1")
- Forged carbon steel needle valve Socket Welding **Ref. 486** from DN 8 to DN 25 (NPS 1/4" to DN 1")

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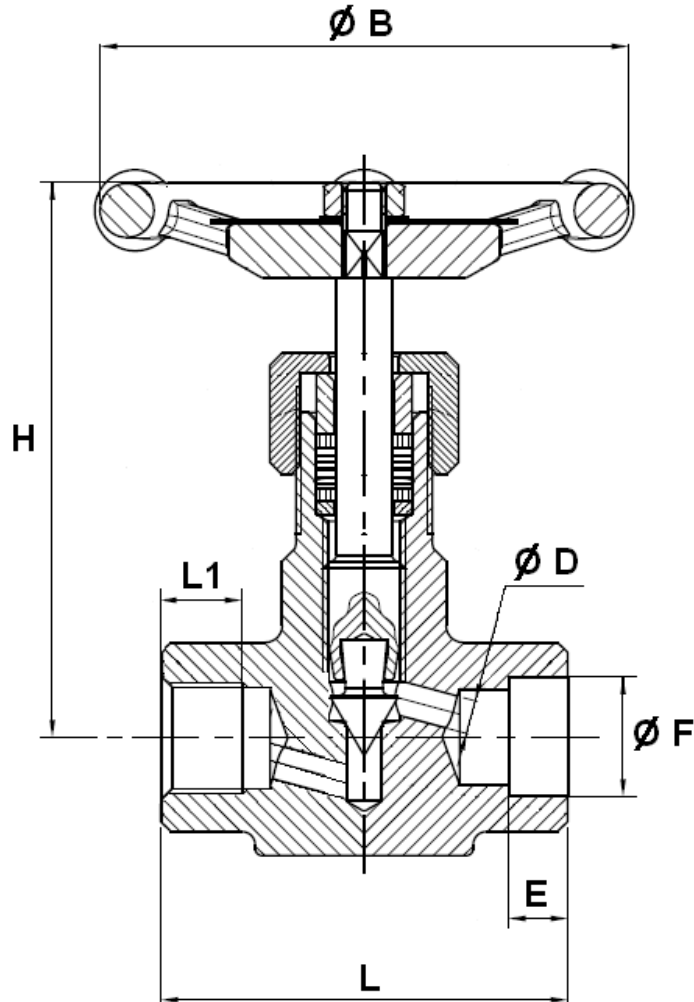
**MATERIALS :**



Item	Designation	Materials
1	Body	ASTM A105N
2	Needle	AISI 410 hardened
3	Stem	AISI 410
4	Ring	AISI 410
5	Packing	Graphite
6	Packing gland	AISI 410
7	Yoke nut	AISI 410
8	Handwheel	ASTM A105N
9	Handwheel nut	Carbon steel
10	Name plate	Aluminium
11	Washer	Carbon steel

**FORGED CARBON STEEL NEEDLE VALVE 3000 Psi**

SIZE ( in mm ) :



Ref.	DN (mm)	8	10	15	20	25
	NPS (")	1/4"	3/8"	1/2"	3/4"	1"
483	$\varnothing D$	4	5	6	7	8.5
	L	60	60	70	75	90
484	H ( opened )	85	85	98	112	134
486	$\varnothing B$	78	78	78	78	98
483/484	L1	11	11	14	15	20
486	E ( SW )	10.1	10.1	10.3	15.5	14.5
	$\varnothing F$ ( SW )	14.2	17.6	21.72	27.05	33.78
483/484/486	Weight ( Kg )	0.65	0.64	0.83	1.04	1.96

**FORGED CARBON STEEL NEEDLE VALVE 3000 Psi****STANDARDS :**

- Fabrication according to ISO 9001 : 2008
- DIRECTIVE 2014/68/EU : Products excluded from directive (Article 4. § 3)
- Certificate 3.1 on request
- Pressure tests according to API 598, table 6
- Threaded NPT female ends according to ASME B1.20.1
- Threaded BSP cylindrical female ends according to ISO 7/1 Rp
- ATEX Group II Category 2 G/2D Zone 1 & 21 Zone 2 & 22 ( optional marking ) according to directive 2014/34/EU

**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.

**FORGED CARBON STEEL NEEDLE VALVE 3000 Psi****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.
- **During welding operation, for S.W. types half open the valve and do not exceed 250°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