

# SAFELOK

Severe-Service Union Bonnet  
needle valves



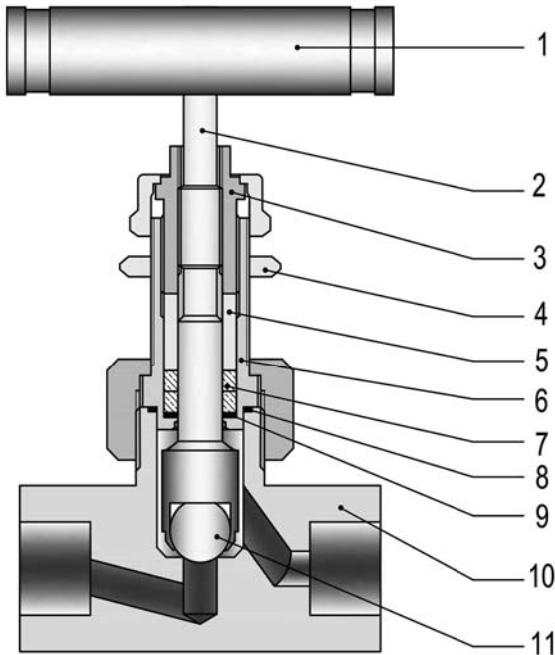
316 Stainless Steel

Pressures upto 10,000 psi

SAFELOK

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## Union Bonnet Needle Valve



### Materials of construction

Item	Part description	material
1	Handle	SS 304
2	Spindle	SS 316
3	Retainer	SS 316
4	Panel lock nut	SS 304
5	Gland bush	SS 316
6	Bonnet	SS 316
7	Gland packing	Graphoil
8	Body seal	Nickel-Chromium-Iron Alloy
9	Gland washer	SS 316
10	Body	SS 316
11	Ball trim	Stellite

### Features

- Union bonnet design ensures high integrity seal under severe service applications.
- Gland packing PTFE (225°C), Graphoil (648°C).
- Non-rotating self-centering, anti-galling stem tip assembly assures bubble tight shut off.
- Stem packing below the threads—prevents media contamination and thread lubricant washout.
- Stem threads rolled to eliminate galling. A special ten micro inch super finish on the seal diameter dramatically reduces operating torque.
- The stem is anti-blowout/non-removable—a major safety feature.
- Packing adjustment without the valve disassembly.
- Back seating of the spindle against the bonnet provides safety by preventing the spindle from being backed out of the valve.
- 100% factory tested.
- Fully traceable material.
- Standard materials 316 Stainless Steel, Carbon Steel, Monel.
- Alternative materials available on request

### Specifications

#### Temperature pressure ratings:

ASME CLASS 2500LB/4500LB

6000PSI/10000PSI

-65°F to 1200°F (-54°C to 648°C)

#### Orifice size and flow coefficient

Orifice: 0.156" to 0.78" (4mm to 20mm)

Cv: 0.35 to 7.0

#### Connections

Socket weld (ASME B16.11)

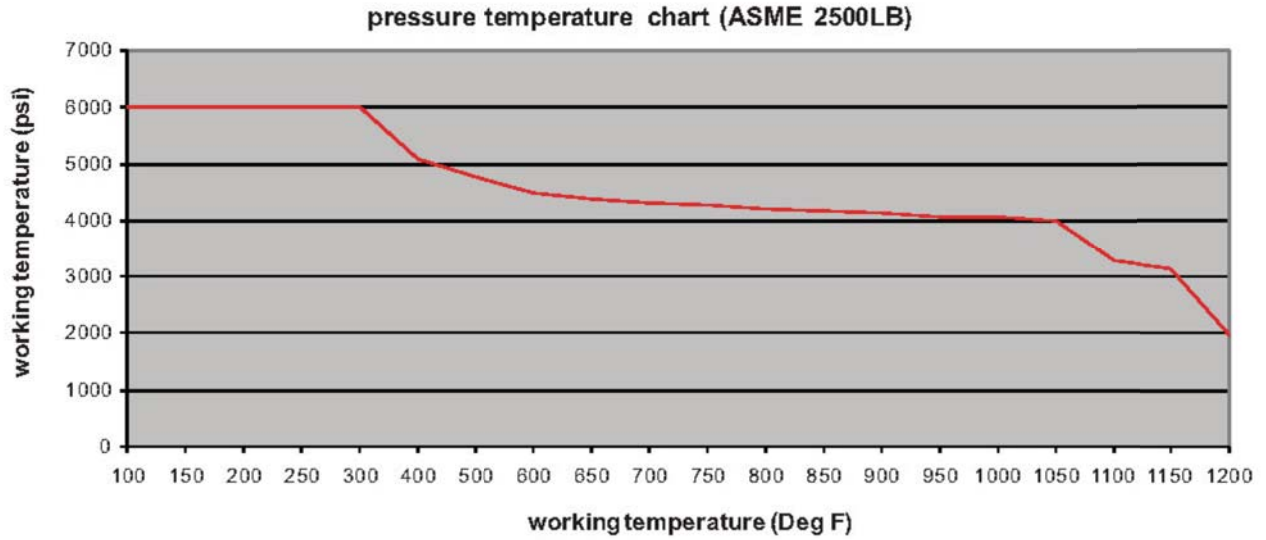
Butt weld (ASME B16.25)

Twin ferrule

Threaded

#### Note:

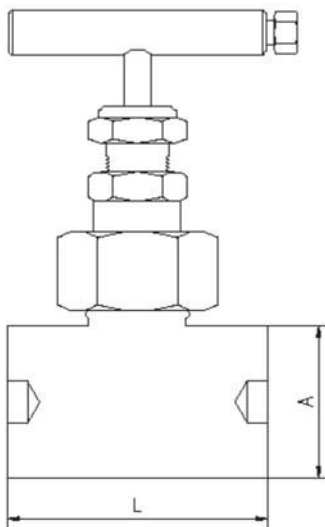
- (1). SS316 is permissible but not recommended for prolonged usage above about 800°F (425°C) .
- (2). At temperature over 1000°F (538°C) use only when the carbon content is 0.04% or higher.



**Note:** Ratings are based on manual valves with optional Graphoil packing. Other packing materials will affect the ratings.

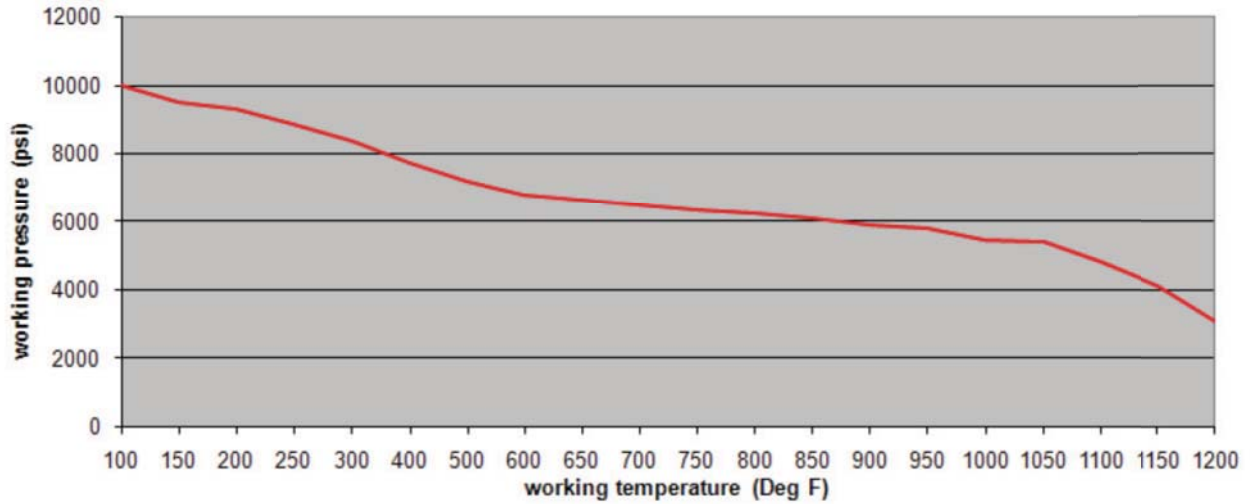
### Sketch

### Table of dimensions



No.	Cv	A	L	Orifice
1	0.86	28.5	65	6.0
2	2.2	34.5	79.5	10.0

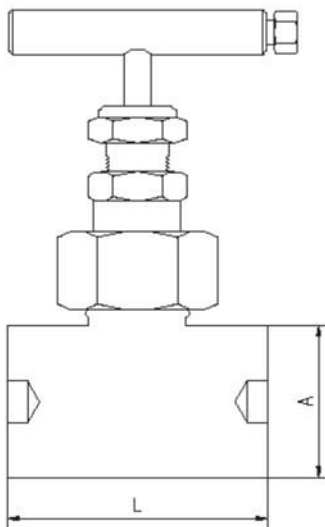
IV series pressure temperature chart (ASME 4500LB)



**Note:** Ratings are based on manual valves with optional Graphoil packing. Other packing materials will affect the ratings.

### Sketch

### Table of dimensions



No.	Cv	A	L	Orifice
1	0.86	38	65	6.0
2	2.2	34.5	79.5	10.0

## HOW TO ORDER SAFELOK NEEDLE VALVES

# SAFELOK

Example:	UB	14M	SW	S	-10	-GP	-ST
<b>TYPE</b>	UB-Union bonnet Valve Series						
<b>SIZE</b>	14M-INLET14mm, OUTLET14mm 16M-INLET 16mm, OUTLET 16mm 16M14M-INLET 16mm, OUTLET14mm M20*1.5-INLET M20X1.5, OUTLET M20X1.5 M24*1.5-INLET M24X1.5, OUTLET M24X1.5 28M-INLET 28mm, OUTLET 28mm						
<b>CONNECTION</b>							
<b>SW-socket weld</b>							
<b>BW-butt weld</b>							
<b>C2- twin ferrule</b>							
<b>MATERIAL</b>							
<b>S-316SS</b>							
<b>316H/416-316HSS BODY&amp;TRIM,416SS PUSHER</b>							
<b>CS-Carbon Steel</b>							
<b>M-MONEL</b>							
<b>D-DUPLEX 31803</b>							
<b>HC-HASTELLOY C</b>							
<b>IN825-INCOLLOY 625</b>							
<b>IN625-INCONELL 625</b>							
<b>BORE SIZE</b>							
<b>-6-6mm bore</b>							
<b>-10-10mm bore</b>							
<b>-17-17mm bore</b>							
<b>-20-20mm bore</b>							
<b>PACKING</b>							
<b>-GP -GRAPHOIL Packing</b>							
<b>TRIM</b>							
<b>-ST- Stellite trim</b>							
<b>EXAMPLE: 14MM OD 316SS SOCKET WELD UNION BONNET NEEDLE VALVE. GRAPHOIL PACKING. 6MM BORE.6000PSI</b>							
<b>PT NO: UB14MSWS-6-GP-ST</b>							

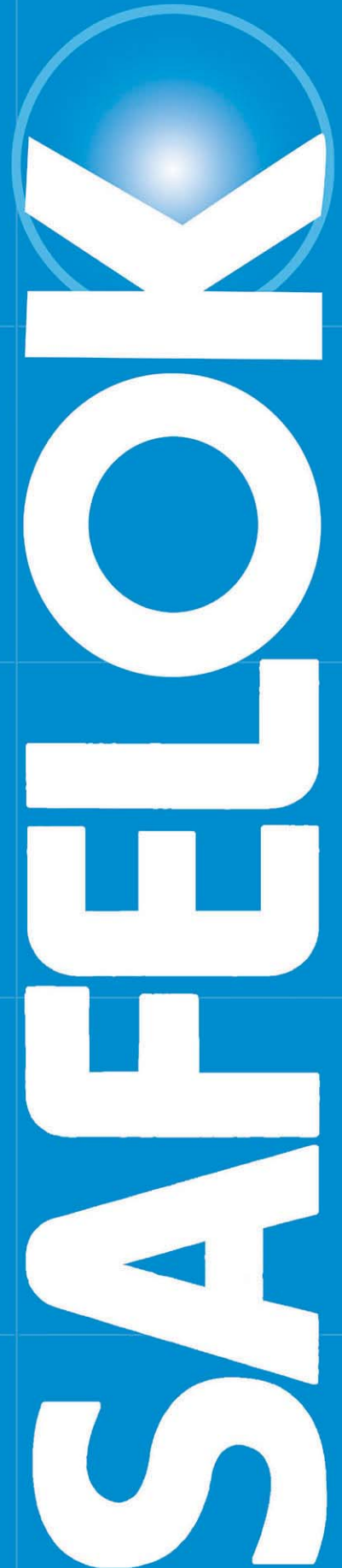
**SAFELOK**

MANUFACTURED BY:

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