



2800 Series

Forged Body, Union Bonnet Needle Valves

For the most severe service applications, these valves feature a stem backseat for safety, a long cycle life with high temperature capability to 700° F (370° C), and a union bonnet for safe, convenient maintenance.



Typical Applications

- High temperature service to 700° F (370° C)
- Corrosive handling
- Reactive and hot condensates

Technical Data

| | |
|------------------------------------|--|
| BODY | 316 stainless steel |
| MAXIMUM OPERATING PRESSURE | <i>Grafoil® packing:</i> <ul style="list-style-type: none">• 4000 psig @ 70° F (276 Bar @ 21° C)• 2500 psig @ 700° F (172 Bar @ 370° C) <i>Dyna-Pak® packing:</i> <ul style="list-style-type: none">• 5000 psig @ 70° F (345 Bar @ 21° C) |
| OPERATING TEMPERATURE RANGE | <i>Grafoil® packing</i> -100° to +700° F (-75° to +370° C) <i>Dyna-Pak® packing</i> -40° to +450° F (-40° to +232° C) |
| ORIFICE | 0.312" (7.9 mm) |
| Cv FACTOR | 1.10 |

Features & Benefits

Safety

- Integral stem backseat
- Union bonnet design

High temperature service

- Grafoil® packing ring located below stem threads extends service to 700° F (370° C)

Extended cycle life

- 17-4PH stainless steel hardened stem with dry film lubricant on threads and hardened thread gland for increased thread life
- Nonrotating hardened stem tip prevents galling

Reliability

- All valves are tested for bubble-tight leakage at both seat and packing

Installation variety

- Choice of HOKE Gyrolok® tube fittings, female NPT, or tube socket weld connections

Panel mounting

- Panel mounting is standard on all models
- Special High Tolerance NPT Thread

needle valves

HOKE Incorporated

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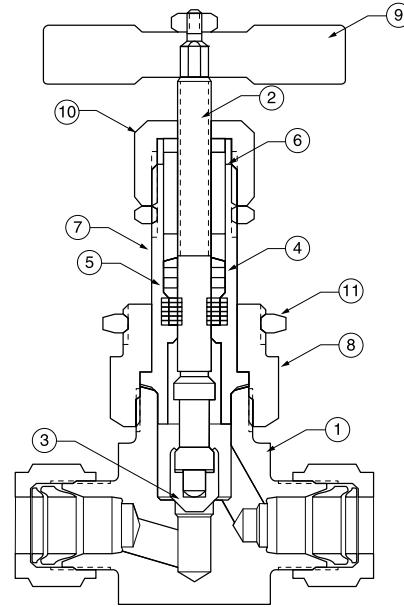
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Materials of Construction

| DESCRIPTION | MATERIAL |
|-----------------------|-------------------------------|
| 1 Body | 316 stainless steel |
| 2 Stem | 17-4PH stainless steel |
| 3 Stem tip | 17-4PH stainless steel |
| <i>Stem packing</i> | |
| 4 Grafoil® packing | Grafoil® |
| Dyna-Pak® packing | TFE/316 stainless steel wafer |
| 5 Ring gland | 316 stainless steel |
| 6 Thread gland | 416 stainless steel |
| 7 Housing | XM-19 stainless steel |
| 8 Adapter nut | 316 stainless steel |
| 9 Handle | 316 stainless steel |
| 10 Packing nut | 316 stainless steel |
| 11 Panel mounting nut | 316 stainless steel |



Dimensions

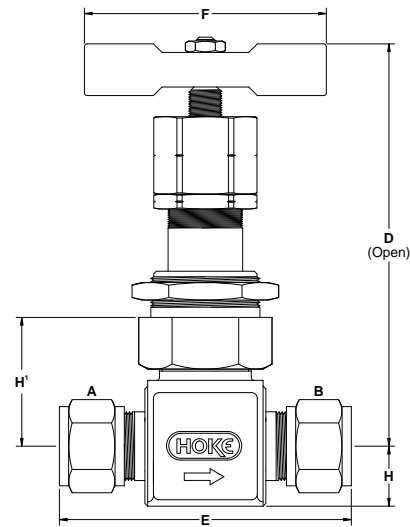
| INLET A AND OUTLET B | | D | E | F | H | H' |
|----------------------|------|-----|----|----|----|-----|
| ¼" Gyrolok® | inch | 4¾ | 2⅞ | 2⅞ | ⅞ | 1⅜½ |
| | mm | 121 | 75 | 67 | 16 | 36 |
| ⅜" Gyrolok® | inch | 4¾ | 2⅞ | 2⅞ | ⅞ | 1⅜½ |
| | mm | 121 | 75 | 67 | 16 | 36 |
| ⅜" socket weld | inch | 4¾ | 2⅞ | 2⅞ | ⅞ | 1⅜½ |
| | mm | 121 | 62 | 67 | 16 | 36 |
| ½" Gyrolok® | inch | 4¾ | 3⅞ | 2⅞ | ⅞ | 1⅜½ |
| | mm | 121 | 84 | 67 | 16 | 36 |
| ½" female NPT | inch | 4¾ | 2⅞ | 2⅞ | ⅞ | 1⅜½ |
| | mm | 121 | 62 | 67 | 16 | 36 |
| ½" socket weld | inch | 4¾ | 2⅞ | 2⅞ | ⅞ | 1⅜½ |
| | mm | 121 | 62 | 67 | 16 | 36 |

Dimensions for reference only, subject to change.

Panel mounting

Panel hole = 1⅜" (30.2 mm) diameter

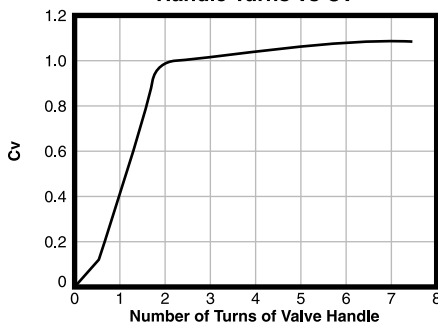
Panel thickness = ⅜" (4.7 mm) maximum



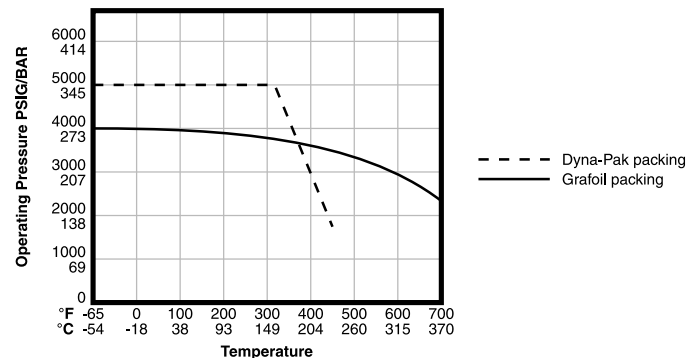
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Curves

Handle Turns vs Cv



Pressure vs Temperature



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How to Order: Standard Valves



2813F8Y: Globe pattern

2800 Series Globe Pattern

Metal stem tip; Dyna-Pak® packing for service to +450° F (232° C) at 1800 psi

0.312" orifice/1.10 Cv

| END CONNECTIONS | ORDER BY PART NUMBER |
|-------------------------|----------------------------|
| INLET AND OUTLET | 316 STAINLESS STEEL |
| ½" female NPT | 2813F8Y |
| ½" Gyrolok® | 2813G8Y |



2811G8Y: Globe pattern

2800 Series Globe Pattern

Metal stem tip; Grafoil® packing for service to +700° F (371° C) at 2500 psi

0.312" orifice/1.10 Cv

| END CONNECTIONS | ORDER BY PART NUMBER |
|-------------------------|----------------------------|
| INLET AND OUTLET | 316 STAINLESS STEEL |
| ¼" Gyrolok® | 2811G4Y |
| ⅜" Gyrolok® | 2811G6Y |
| ⅜" socket weld | 2811N6Y |
| ½" Gyrolok® | 2811G8Y |
| ½" female NPT | 2811F8Y |
| ½" socket weld | 2811N8Y |

FOR YOUR SAFETY

IT IS SOLELY THE RESPONSIBILITY OF THE SYSTEM DESIGNER AND USER TO SELECT PRODUCTS SUITABLE FOR THEIR SPECIFIC APPLICATION REQUIREMENTS AND TO ENSURE PROPER INSTALLATION, OPERATION AND MAINTENANCE OF THESE PRODUCTS. MATERIAL COMPATIBILITY, PRODUCT RATINGS AND APPLICATION DETAILS SHOULD BE CONSIDERED IN THE SELECTION. IMPROPER SELECTION OR USE OF PRODUCTS DESCRIBED HEREIN CAN CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.

Ordering Options

Spare Parts

Spare parts and repair kits are available for all needle valves. Please contact your distributor for specific information.

Cleaning and Testing

When ordering, please specify if oxygen cleaning or helium leak testing is required.

Additional Sizes

Additional sizes and options are available on special request. Please consult your local HOKE distributor.