



## 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

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

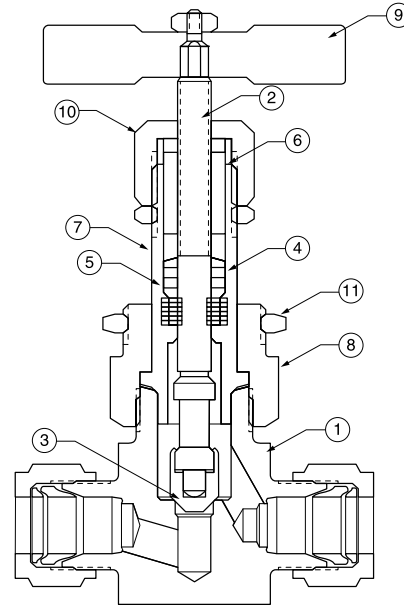
#### HOKE Inc.

PO Box 4866 • Spartanburg, SC 29305-4866  
Phone (864) 574-7966 Fax (864) 587-5608  
www.hoke.com • Sales-hoke@circor.com

# 2800 Series

## 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

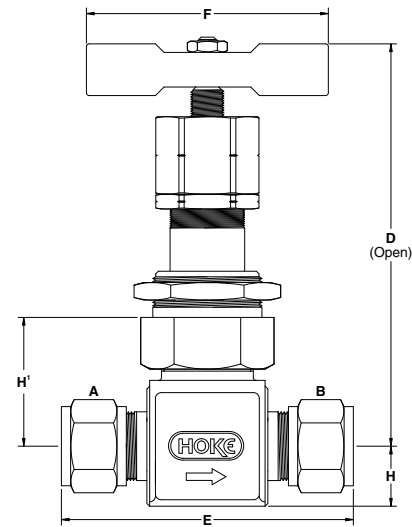
INLET A AND OUTLET B		D	E	F	H	H'
¼" GYROLOK®	inch	4¾	2½ <sup>1</sup> / <sub>6</sub>	2¾	¾	1 <sup>1</sup> / <sub>2</sub> <sup>2</sup> / <sub>2</sub>
	mm	121	75	67	16	36
⅜" GYROLOK®	inch	4¾	2½ <sup>1</sup> / <sub>6</sub>	2¾	¾	1 <sup>1</sup> / <sub>2</sub> <sup>2</sup> / <sub>2</sub>
	mm	121	75	67	16	36
⅜" socket weld	inch	4¾	2 <sup>7</sup> / <sub>16</sub>	2¾	¾	1 <sup>1</sup> / <sub>2</sub> <sup>2</sup> / <sub>2</sub>
	mm	121	62	67	16	36
½" GYROLOK®	inch	4¾	3 <sup>5</sup> / <sub>16</sub>	2¾	¾	1 <sup>1</sup> / <sub>2</sub> <sup>2</sup> / <sub>2</sub>
	mm	121	84	67	16	36
½" female NPT	inch	4¾	2 <sup>7</sup> / <sub>16</sub>	2¾	¾	1 <sup>1</sup> / <sub>2</sub> <sup>2</sup> / <sub>2</sub>
	mm	121	62	67	16	36
½" socket weld	inch	4¾	2 <sup>7</sup> / <sub>16</sub>	2¾	¾	1 <sup>1</sup> / <sub>2</sub> <sup>2</sup> / <sub>2</sub>
	mm	121	62	67	16	36

Dimensions for reference only, subject to change.

### Panel mounting

Panel hole = 1<sup>3</sup>/<sub>16</sub>" (30.2 mm) diameter

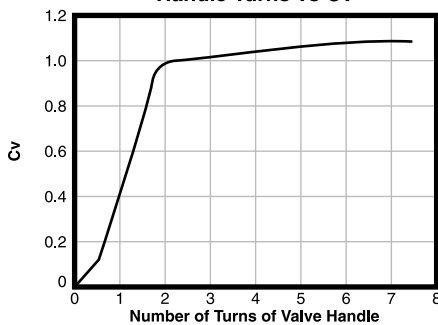
Panel thickness = <sup>3</sup>/<sub>16</sub>" (4.7 mm) maximum



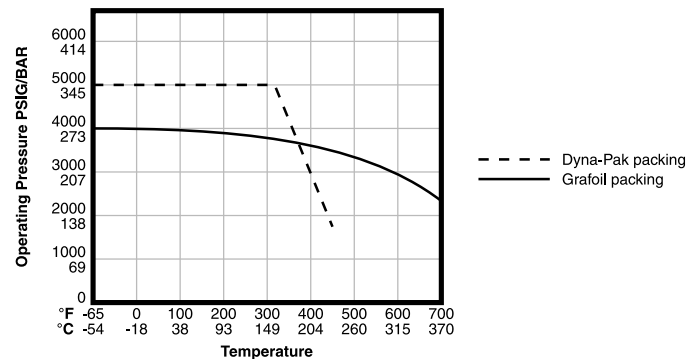
2800 Series

## Curves

Handle Turns vs Cv



Pressure vs Temperature



# 2800 Series

## 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
<b>INLET AND OUTLET</b>	<b>316 STAINLESS STEEL</b>
½" female NPT	2813F8Y
½" <b>GYROLOK</b> ®	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
<b>INLET AND OUTLET</b>	<b>316 STAINLESS STEEL</b>
¼" <b>GYROLOK</b> ®	2811G4Y
⅜" <b>GYROLOK</b> ®	2811G6Y
⅜" socket weld	2811N6Y
½" <b>GYROLOK</b> ®	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.