



## 2200 Series

### Bar Stock, Screwed Bonnet Needle Valves

Dyna-Pak® packing below the stem threads, a hardened thread gland and a Hastelloy® C-276 stem tip keep valves leak-tight while providing long cycle life. A choice of two flow capabilities enables use in a variety of severe service applications.



#### Typical Applications

- Corrosive handling
- Sampling systems
- Metering service

#### Technical Data

<b>BODY*</b>	316 stainless steel
<b>MAXIMUM OPERATING PRESSURE</b>	5000 psig @ 70° F (345 Bar @ 21° C)
<b>OPERATING TEMPERATURE RANGE</b>	-65° to +450° F (-54° to +232° C)
<b>ORIFICE SIZES</b>	0.086" to 0.313" (2.2 mm to 8.0 mm)
<b>Cv FACTORS</b>	0.12 to 1.40

\* Consult factory for other materials

#### Features & Benefits

##### Safety

- Lock pin prevents accidental bonnet disengagement

##### Durability

- Hastelloy® C-276 stem tip provides long service life

##### Extended temperature range

- Dyna-Pak® packing

##### Reliability

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

##### Extended cycle life

- Dyna-Pak® packing below stem threads prevents washing away of thread lubricant and contamination of process fluid

##### Installation variety

- Choose from a broad selection of male NPT, female NPT and HOKE Gyrolok® tube fitting connections in globe or angle patterns

##### Panel mounting

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

needle valves

#### HOKE Incorporated

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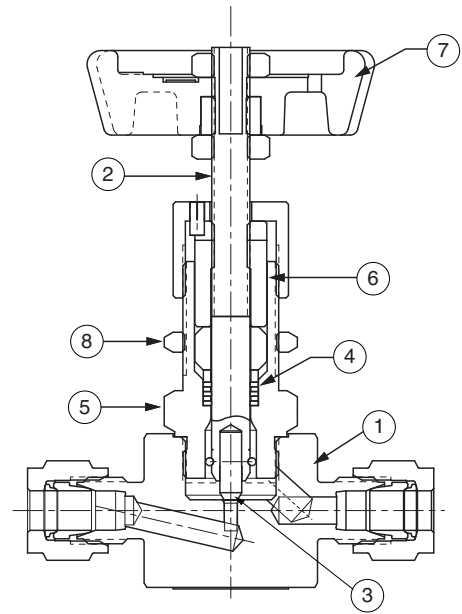
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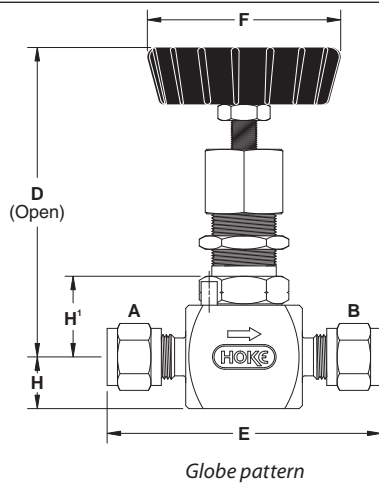
# 2200 Series

## Materials of Construction

DESCRIPTION	MATERIAL
1 Body	316 stainless steel
2 Stem	316 stainless steel
3 Stem tip	Hastelloy® C-276
4 Stem packing	TFE/316 stainless steel wafers
5 Bonnet	316 stainless steel
6 Thread gland	416 stainless steel
<i>Handle</i>	
7 2210, 2220 Series 2230 Series	Aluminum cross, red ABS
8 Panel mounting nut	Nickel-plated brass



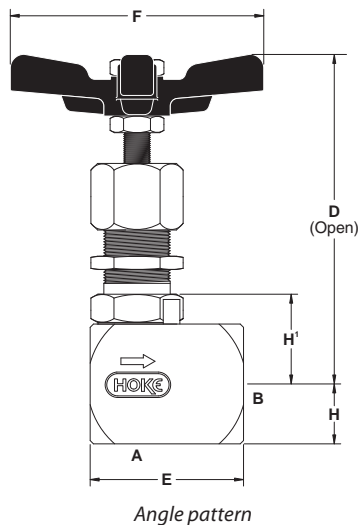
## Dimensions



### 2200 Series: Globe Pattern

INLET A	OUTLET B	D	E	F	H	H'
1/4" Gyrolok®	1/4" Gyrolok®	inch 3 5/16	2 23/32	2 3/8	1/2	2 5/32
		mm 84	67	60	13	20
1/4" female NPT	1/4" female NPT	inch 3 5/16	2	2 3/8	1/2	1 3/16
		mm 84	51	60	13	21
3/8" Gyrolok®	3/8" Gyrolok®	inch 3 1/4	2 1 1/16	2 3/8	1/2	3/4
		mm 83	68	60	13	19
3/8" female NPT	3/8" female NPT	inch 3 5/16	2	2 3/8	1/2	1 3/16
		mm 84	51	60	13	21
1/2" Gyrolok®	1/2" Gyrolok®	inch 3 1/4	2 1 5/16	2 3/8	1/2	2 5/32
		mm 83	75	60	13	20
1/2" male NPT	1/4" female NPT	inch 3 5/16	2 1/8	2 3/8	1/2	1 3/16
		mm 84	54	60	13	21
1/2" female NPT	1/2" female NPT	inch 3 1 1/16	2 1/2	2 3/8	5/8	7/8
		mm 94	64	60	16	22
10mm Gyrolok®	10mm Gyrolok®	inch 3 5/16	2 1 1/16	2 3/8	1/2	2 5/32
		mm 84	68	60	13	20
12mm Gyrolok®	12mm Gyrolok®	inch 3 5/16	2 1 5/16	2 3/8	1/2	3/4
		mm 84	75	60	13	19

*Dimensions for reference only, subject to change.*



### 2200 Series: Angle Pattern

INLET A	OUTLET B	D	E	F	H	H'
1/4" female NPT	1/4" female NPT	inch 3 5/16	1 7/16	2 3/8	3/8	7/8
		mm 90	37	60	14	22

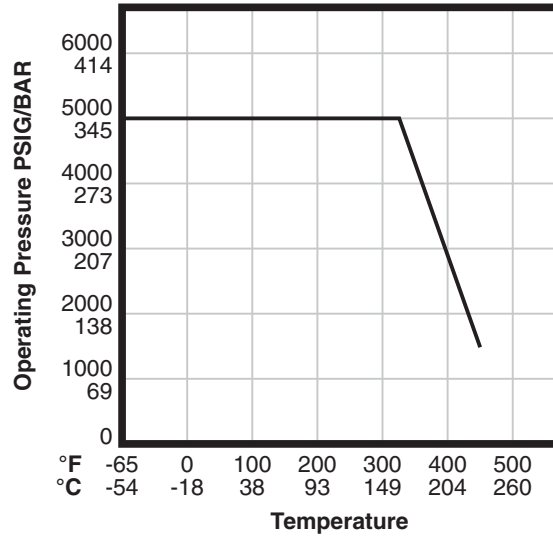
*Dimensions for reference only, subject to change.*

### Panel mounting dimensions

Panel hole: for 1/2" models = 4 5/4" (19.4 mm) diameter  
 for all other models = 4 1/4" (16.2 mm) diameter  
 Panel thickness = 3/16" (4.7 mm) maximum

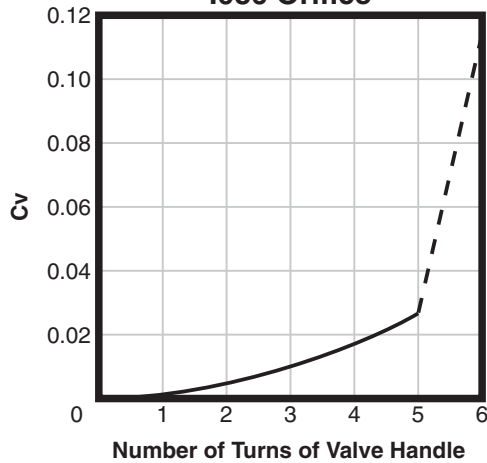
# 2200 Series

## Pressure vs. Temperature Curve



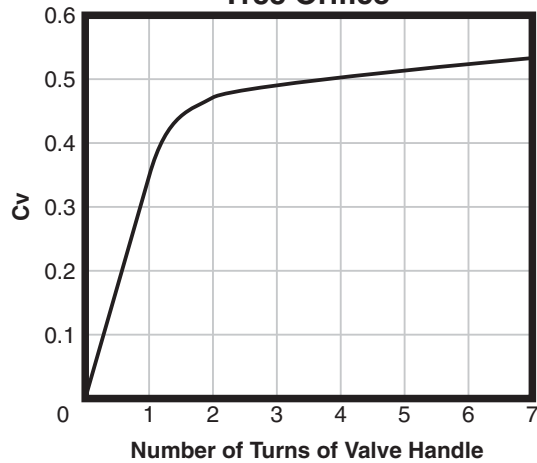
## Flow Curves

**Handle Turns vs Cv  
.086 Orifice**

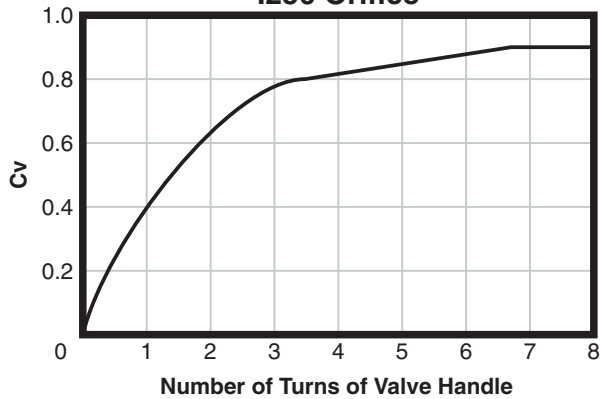


Note: Metering range of valve is within the first 5 handle turns.

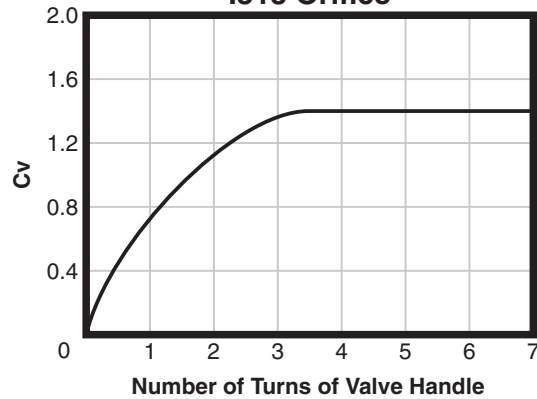
**Handle Turns vs Cv  
.188 Orifice**



**Handle Turns vs Cv  
.250 Orifice**

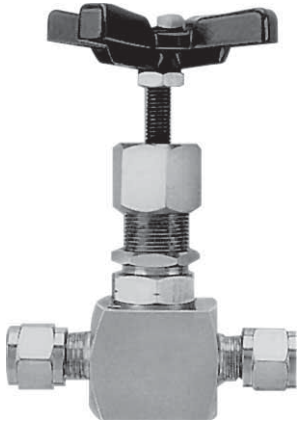


**Handle Turns vs Cv  
.313 Orifice**



# 2200 Series

## How to Order: Standard Valves



2215G6Y: Globe pattern



Regulating stem tip  
(for greater control  
of flow)



2225F4Y: Angle pattern



Blunt vee-point tip  
(full flow with only  
a few handle turns)

### 2200 Series: Globe Pattern

Blunt vee-point stem tip

END CONNECTIONS		ORDER BY PART NUMBER 316 STAINLESS STEEL	ORIFICE (INCHES)	Cv
INLET	OUTLET			
¼" Gyrolok®	¼" Gyrolok®	2215G4Y	0.188	0.40
¼" female NPT	¼" female NPT	2215F4Y	0.188	0.50
⅜" Gyrolok®	⅜" Gyrolok®	2215G6Y	0.250	0.76
⅜" female NPT	⅜" female NPT	2215F6Y	0.250	0.90
½" Gyrolok®	½" Gyrolok®	2215G8Y	0.250	0.90
½" male NPT	¼" female NPT	2215L84Y	0.188	0.50
½" female NPT	½" female NPT	2215F8Y	0.313	1.40
10mm Gyrolok®	10mm Gyrolok®	2215G10YMM	0.250	0.90
12mm Gyrolok®	12mm Gyrolok®	2215G12YMM	0.250	0.90

### 2200 Series: Globe Pattern

Regulating stem tip

END CONNECTIONS		ORDER BY PART NUMBER 316 STAINLESS STEEL	ORIFICE (INCHES)	Cv
INLET	OUTLET			
¼" female NPT	¼" female NPT	2232F4Y	0.086	0.12

### 2200 Series: Angle Pattern

Blunt vee-point stem tip

END CONNECTIONS		ORDER BY PART NUMBER 316 STAINLESS STEEL	ORIFICE (INCHES)	Cv
INLET	OUTLET			
¼" female NPT	¼" female NPT	2225F4Y	0.188	0.55

## 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.