



1700 Series

Forged Body, Integral Bonnet Needle Valves

These affordable valves are suited for a wide variety of process control applications. Non-rotating stainless steel or replaceable PCTFE stem tips reduce galling. Dyna-Pak® packing below the stem threads prevents fugitive emissions.



Typical Applications

- Cylinder valves
- Panel board instrumentation
- Pressure gauge valves
- Sampling systems
- Research laboratories
- Oxygen service
- Corrosive or high pressure service

Technical Data

BODY*	316 stainless steel, Monel®
MAXIMUM OPERATING PRESSURE	6000 psig @ 70° F (414 Bar @ 21° C)
OPERATING TEMPERATURE RANGE	<i>Metal stem tip</i> -65° to +450° F (-54° to +232° C) <i>PCTFE stem tip</i> -20° to +250° F (-29° to +121° C)
ORIFICE	0.187" (4.8mm)
Cv FACTOR	0.31

* Consult factory for other materials

Features & Benefits

Safety

- Lock nut secures packing nut to prohibit accidental removal

Long cycle life

- Packing below stem threads prevents fluid from contacting the stem threads
- Non-rotating hardened 17-4PH stainless steel, Monel® or replaceable PCTFE stem tip is combined with a hardened 450 stainless steel - or Monel® thread gland to reduce galling

Helps eliminate fugitive emissions

- Dyna-Pak® packing provides a leak-tight seal with low operating torque

Reliability

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

Installation variety

- Broad selection of male NPT, female NPT, and HOKE Gyrolok® fractional or metric tube fitting connections

Panel mounting

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

needle valves

HOKE Incorporated

405 Centura Court • PO Box 4866 • Spartanburg, SC 29303

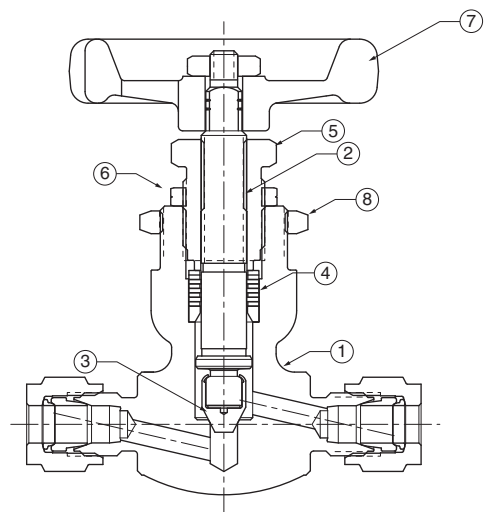
Phone (864) 574-7966 Fax (864) 587-5608

www.hoke.com • sales@hoke.com

1700 Series

Materials of Construction

DESCRIPTION	316 STAINLESS STEEL	MONEL®
1 Body	316 stainless steel	Monel®
2 Stem	316 stainless steel	Monel®
<i>Stem tip</i>		
3 Soft	PCTFE	PCTFE
3 Hard	17-4PH stainless steel	Monel®
4 Stem packing	TFE/316 stainless steel wafers	TFE/Monel® wafers
5 Thread gland	450 stainless steel	Monel®
6 Lock nut	316 stainless steel	316 stainless steel
<i>Handle</i>		
7 1711 Series	Aluminum	Aluminum
7 1751 Series	ABS	ABS
8 Panel mounting nut	Nickel-plated brass	Nickel-plated brass



Dimensions

1700 Series: Globe Pattern

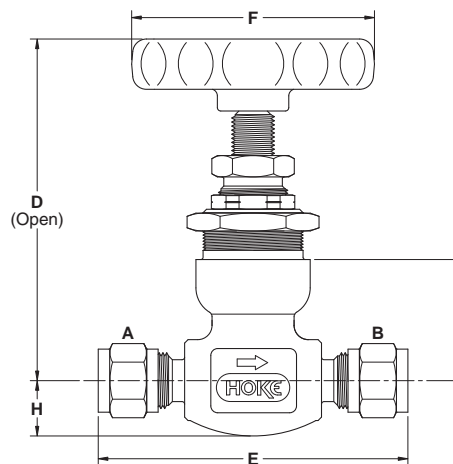
INLET A	OUTLET B		D	E	F	H	H'
¼" Gyrolok®	¼" Gyrolok®	inch	3	2½	2½	½	1½
		mm	76	52	54	13	27
¼" male NPT	¼" male NPT	inch	3	2¾	2½	½	1½
		mm	76	56	54	13	27
¼" male NPT	¼" female NPT	inch	3	2½	2½	½	1½
		mm	76	54	54	13	27
¼" female NPT	¼" female NPT	inch	3	2½	2½	½	1½
		mm	76	52	54	13	27
⅜" Gyrolok®	⅜" Gyrolok®	inch	3	2½	2½	½	1½
		mm	76	54	54	13	27
8mm Gyrolok®	8mm Gyrolok®	inch	3	2½	2½	½	1½
		mm	76	68	54	13	27

Dimensions for reference only, subject to change.

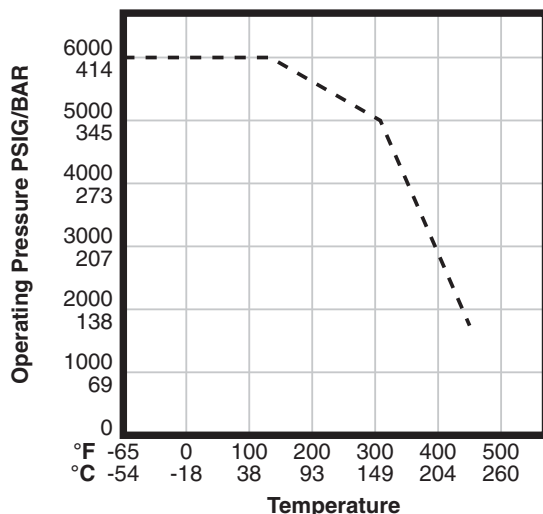
Panel mounting dimensions

Panel hole = 5/16" (22.6 mm) diameter

Panel thickness = 1/4" (6.4 mm) maximum

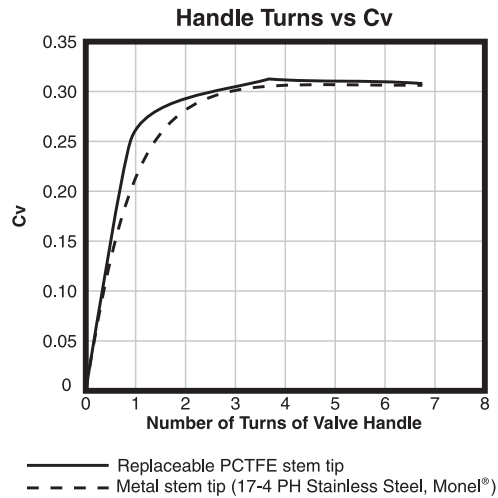


Pressure vs. Temperature Curve



1700 Series

Flow Curves



How to Order: Standard Valves



1711L4Y: Globe pattern

1700 Series: Globe Pattern

Metal stem tip for service to +450° F (+232° C)

0.187" (4.7mm) orifice/0.31 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	316 STAINLESS STEEL	MONEL®
¼" Gyrolok®	¼" Gyrolok®	1711G4Y	—
¼" male NPT	¼" male NPT	1711M4Y	1711M4M
¼" male NPT	¼" female NPT	1711L4Y	—
¼" female NPT	¼" female NPT	1711F4Y	1711F4M
⅜" Gyrolok®	⅜" Gyrolok®	1711G6Y	—
8mm Gyrolok®	8mm Gyrolok®	1711G8YMM	—



1751G4Y: Globe pattern

1700 Series: Globe Pattern

PCTFE stem tip for service to +250° F (+121° C)

0.187" (4.7mm) orifice/0.31 Cv

END CONNECTIONS		ORDER BY PART NUMBER	
INLET	OUTLET	316 STAINLESS STEEL	MONEL®
¼" Gyrolok®	¼" Gyrolok®	1751G4Y	—
¼" male NPT	¼" male NPT	1751M4Y	1751M4M
¼" male NPT	¼" female NPT	1751L4Y	—
¼" female NPT	¼" female NPT	1751F4Y	1751F4M
⅜" Gyrolok®	⅜" Gyrolok®	1751G6Y	—
8mm Gyrolok®	8mm Gyrolok®	1751G8YMM	—

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.

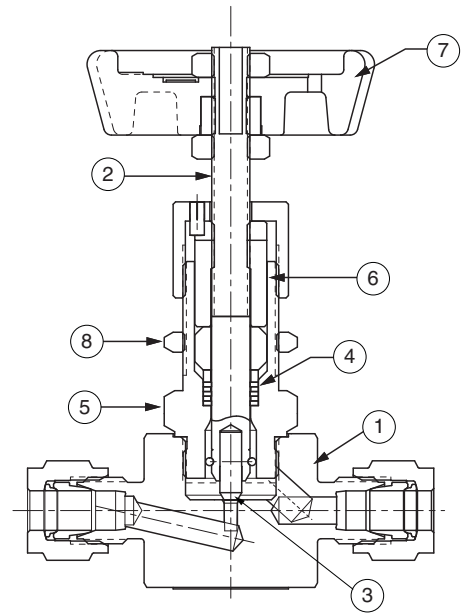
Additional Sizes

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

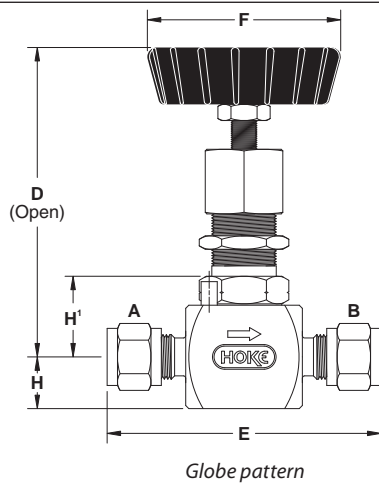
2200 Series

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



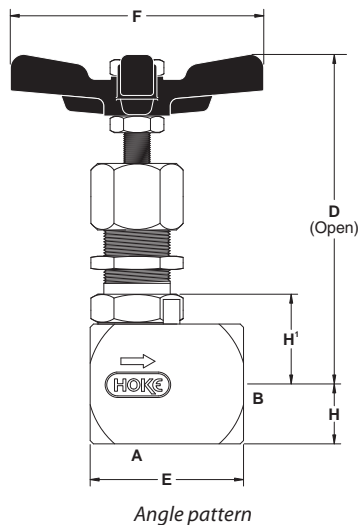
Dimensions



2200 Series: Globe Pattern

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

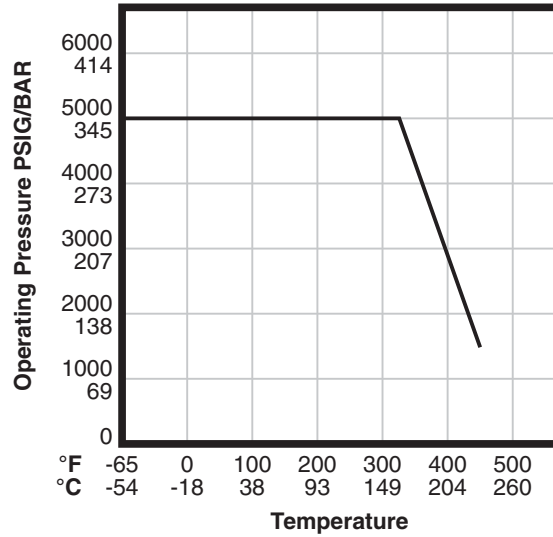
Dimensions for reference only, subject to change.

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

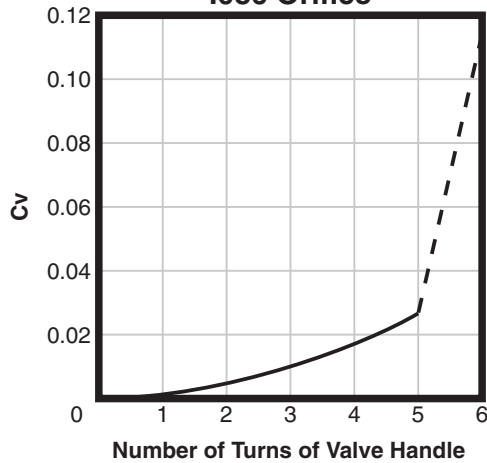
2200 Series

Pressure vs. Temperature Curve



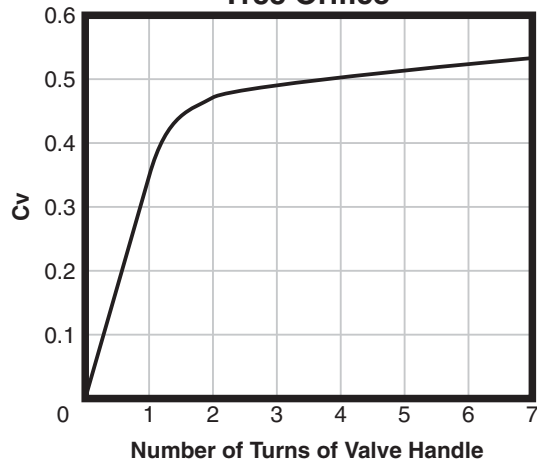
Flow Curves

**Handle Turns vs Cv
.086 Orifice**

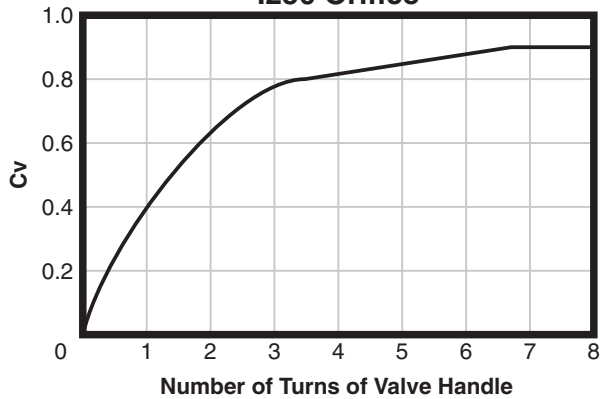


Note: Metering range of valve is within the first 5 handle turns.

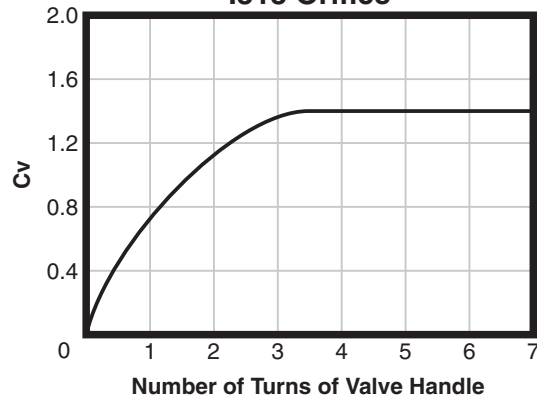
**Handle Turns vs Cv
.188 Orifice**



**Handle Turns vs Cv
.250 Orifice**

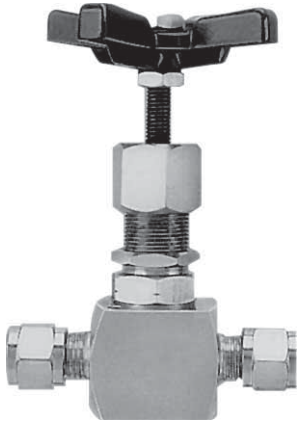


**Handle Turns vs Cv
.313 Orifice**



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.