



2219 Series

Severe Service Needle Valves



needle valve

HOKE Incorporated

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303
Phone (864) 574-7966 Fax (864) 587-5608
www.hoke.com • sales@hoke.com



2219 Series

Severe Service Needle Valves

The new Hoke 2219 Needle Valve is an excellent choice for many steam- and severe service applications. Grafoil® packing below the stem threads provides exceptional service at temperatures up to +1000° F (+538° C). The non-rotating 316 stainless steel stem tip prevents galling.



Typical Applications

- Steam service in power plants
- Hot condensates

Technical Data

BODY MATERIAL	316 stainless steel, carbon steel, Hastelloy® C-276 and Monel®
MAXIMUM OPERATING PRESSURE	6000 psig @ 70° F (414 bar @ 21° C)
PROOF PRESSURE SAFETY FACTOR	2:1
BURST PRESSURE	4:1
TEMPERATURE RANGE	-100° F to + 1000° F @ 1750 psig max. -75° C to + 538° C @ 120 bar max.
ORIFICE SIZES	0.170", 0.250", 0.312", and 0.437" (4.3 mm, 6.4 mm, 7.9 mm, and 11.1 mm)
C_v FACTORS*	0.47, 1.09, and 1.20

* C_v factor for 0.437" orifice not available at time of publication

Features & Benefits

- Meets ANSI 900# specifications
- Grafoil® packing below threads isolates threads from media.
- Non-rotating stem tip prevents galling
- High pressure / high temperature use
- All standard components are 316 stainless steel
- Standard 316 stainless steel cast handle
- Fractional end connections available up to 1"; metric end connections up to 25mm
- Gyrolok®, female NPT, pipe, or tube socket weld end connections
- Bubble-tight leak testing at both seat and packing
- Special High Tolerance NPT Thread

needle valves

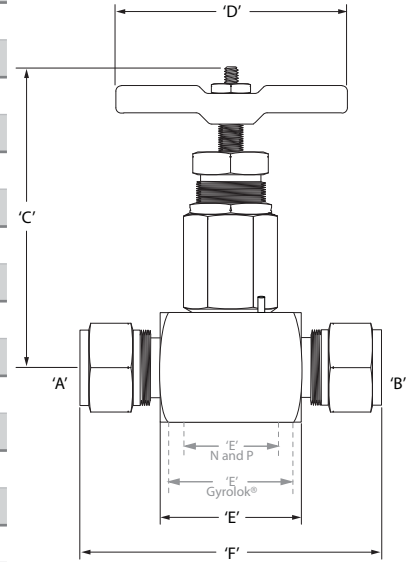
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Dimensions

INLET A	OUTLET B	ORIFICE SIZE	C		D	E	F
			inch	mm			
¼" female NPT	¼" female NPT	0.250" (6.4 mm)	inch	3.4	2.63	2.25	N/A
			mm	86.4	66.8	57.2	N/A
½" female NPT	½" female NPT	0.312" (7.9 mm)	inch	3.4	2.63	2.51	N/A
			mm	86.4	66.8	63.8	N/A
¾" female NPT	¾" female NPT	0.437" (11.1 mm)	inch	3.55	2.63	3.50	N/A
			mm	89.6	66.8	88.9	N/A
1" female NPT	1" female NPT	0.437" (11.1 mm)	inch	3.59	2.63	4.25	N/A
			mm	91.3	66.8	108.0	N/A
¼" Gyrolok®	¼" Gyrolok®	0.170" (4.3 mm)	inch	3.4	2.63	1.87	3.15
			mm	86.4	66.8	47.4	80.1
½" Gyrolok®	½" Gyrolok®	0.250" (6.4 mm)	inch	3.4	2.63	1.50	3.43
			mm	86.4	66.8	38.1	87.1
¾" Gyrolok®	¾" Gyrolok®	0.437" (11.1 mm)	inch	3.53	2.63	2.88	4.87
			mm	89.7	66.8	73.2	123.8
1" Gyrolok®	1" Gyrolok®	0.437" (11.1 mm)	inch	3.53	2.63	2.51	5.00
			mm	89.7	66.8	63.8	120.9
12 mm Gyrolok®	12 mm Gyrolok®	0.250" (6.4 mm)	inch	3.40	2.63	1.51	3.36
			mm	86.4	66.8	38.5	85.4
22 mm Gyrolok®	22 mm Gyrolok®	0.437" (11.1 mm)	inch	3.53	2.63	2.76	4.86
			mm	89.7	66.8	70.1	123.3
25 mm Gyrolok®	25 mm Gyrolok®	0.437" (11.1 mm)	inch	3.53	2.63	2.51	5.11
			mm	89.7	66.8	63.8	129.7
⅜" tube socket weld	⅜" tube socket weld	0.250" (6.4 mm)	inch	3.4	2.63	1.94	2.44
			mm	86.4	66.8	49.3	62.0
½" tube socket weld	½" tube socket weld	0.250" (6.4 mm)	inch	3.40	2.63	1.94	2.44
			mm	86.4	66.8	49.3	62.0
¾" tube socket weld	¾" tube socket weld	0.437" (11.1 mm)	inch	3.53	2.63	2.50	3.50
			mm	89.7	66.8	63.5	88.9
1" tube socket weld	1" tube socket weld	0.437" (11.1 mm)	inch	3.53	2.63	2.50	3.50
			mm	89.7	66.8	63.5	88.9
⅜" NPS socket weld	⅜" NPS socket weld	0.250" (6.4 mm)	inch	3.4	2.63	2.01	2.51
			mm	56.4	66.8	51.05	63.8
½" NPS socket weld	½" NPS socket weld	0.312" (7.9 mm)	inch	3.4	2.63	1.75	2.51
			mm	86.4	66.8	44.45	63.8
¾" NPS socket weld	¾" NPS socket weld	0.437" (11.1 mm)	inch	3.53	2.63	2.50	3.50
			mm	89.7	66.8	63.5	88.9
1" NPS socket weld	1" NPS socket weld	0.437" (11.1 mm)	inch	3.59	2.63	2.50	3.50
			mm	91.3	66.8	63.5	88.9

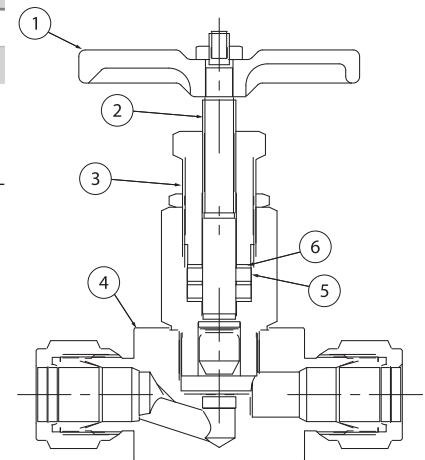


Dimensions for reference only, subject to change.

Materials of Construction*

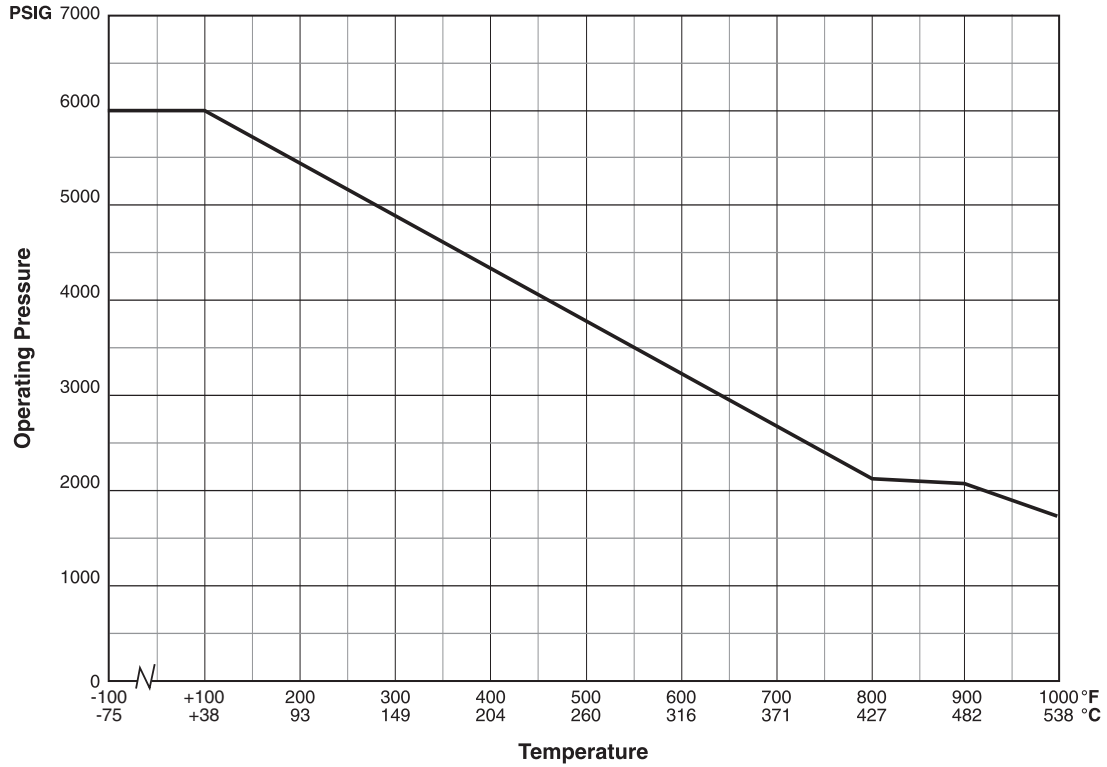
DESCRIPTION	MATERIAL
1 Handle	316 stainless steel
2 Stem assembly	316 stainless steel
3 Packing nut	316 stainless steel
4 Body	316 stainless steel
5 Packing	Grafoil®
6 Packing washer	316 stainless steel

* This listing contains standard valve information only. See page 4 for a complete list of options.



2219 Series Severe Service Needle Valve

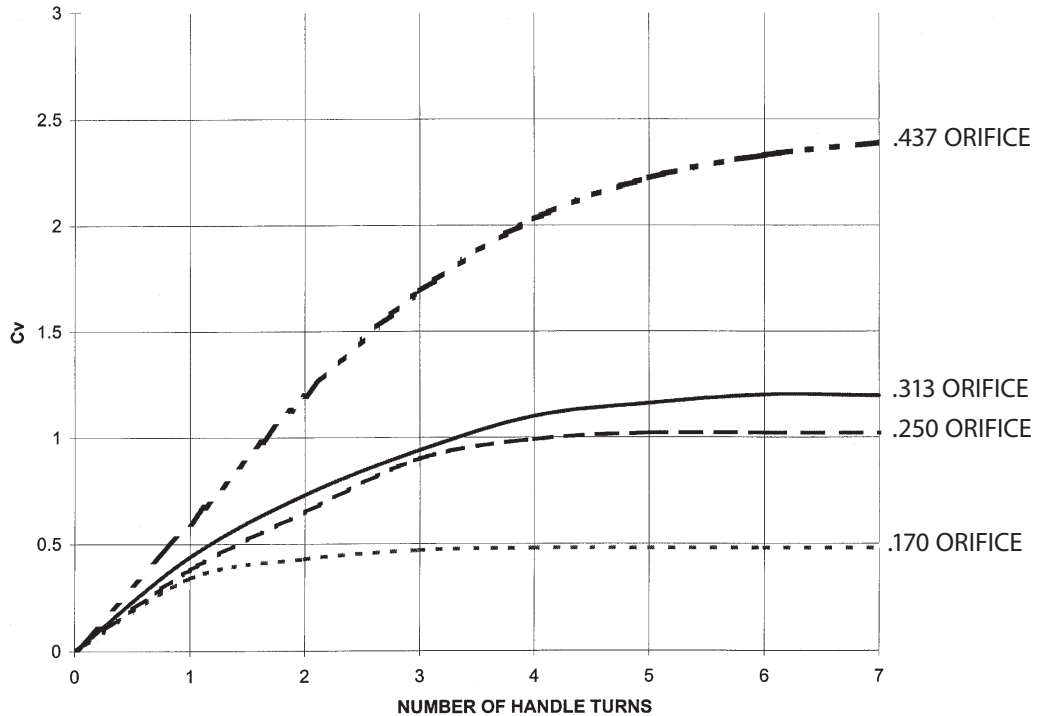
Pressure vs. Temperature Curve



Flow Curve

Handle Turns vs. C_v

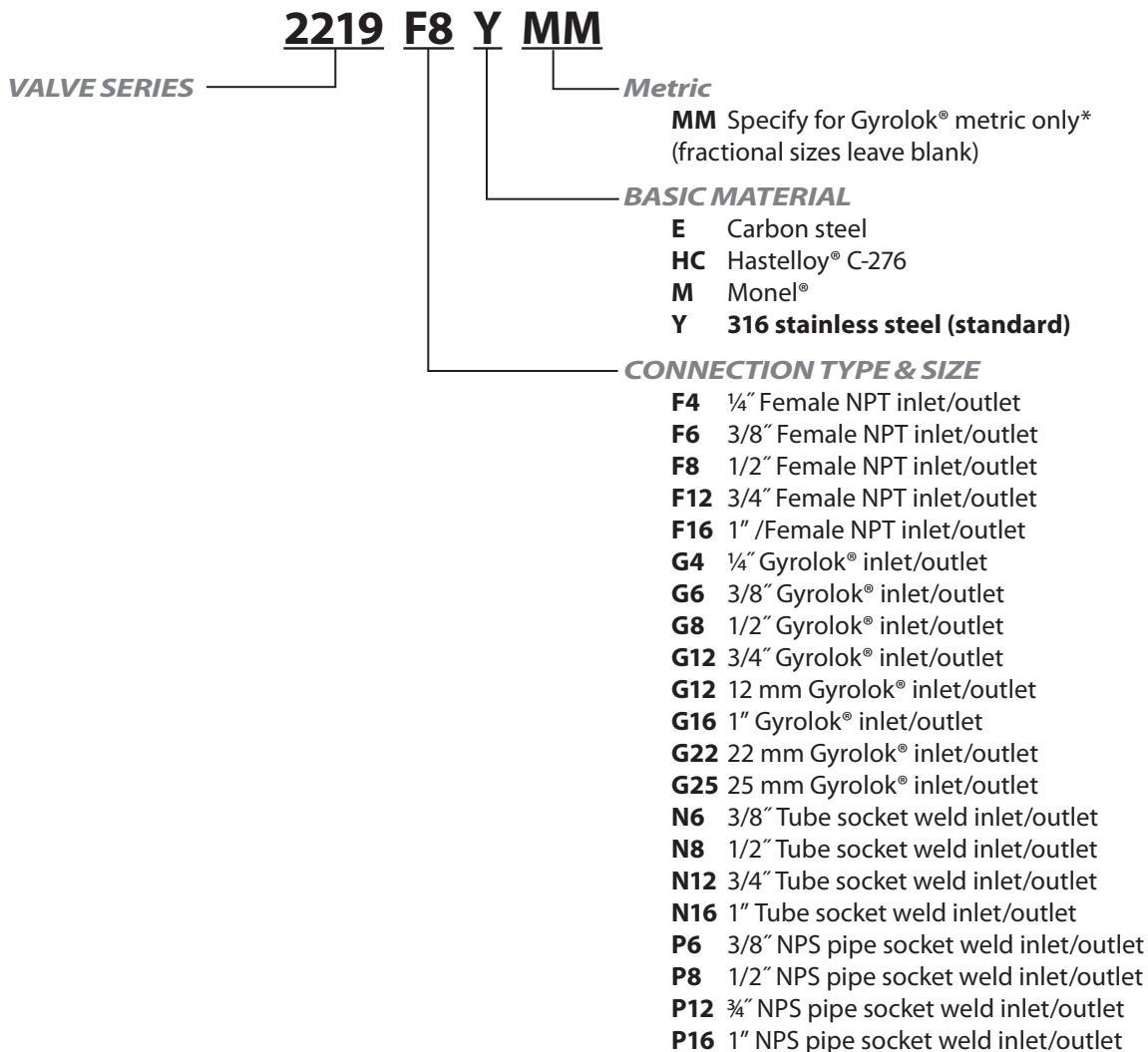
2219 SERIES FLOW CURVES



* Data for 0.437" orifice not available at time of publication

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How to Order: Build-to-Order



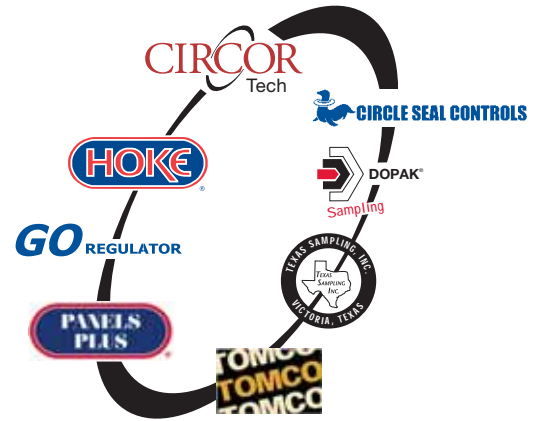
* Consult factory for metric connections and additional material options.

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.

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Hoke • GO Regulator • Tomco • CIRCOR Tech

405 Centura Court • PO Box 4866 (29305)
Spartanburg, SC 29303
Tel (864) 574-7966 • Fax (864) 587-5608
www.circortechnologies.com

CIRCOR Instrumentation Technologies Central Europe

Leeuwenhoekweg 24
2661 CZ Bergschenhoek
The Netherlands
Tel +31 10 4206011 • Fax +31 10 4566774
www.circortechnologies.com

Hoke Controls / Panels Plus

2054 Francis St.
Ontario, CA 91761
Tel (909) 923-3770
Fax (909) 923-2550
www.circor-panelsplus.com

Texas Sampling, Inc

3706 Rio Grande
Victoria, Texas 77901
Tel (361) 575-8087
Fax (361) 575-8157
www.texasampling.com

CIRCOR Instrumentation, Ltd.

1-3 Bouverie Road
Harrow
Middlesex, HA1 4HB
UK
Tel +44 18 9520 6780
Fax +44 18 9520 6781
www.circor.co.uk

Dopak Inc.

9572 Kempwood
Houston, Texas 77080
Tel (713) 460-8311
Fax (713) 460-8578
www.dopak.com

Circle Seal Controls, Inc.

2301 Wardlow Circle
Corona, CA 92880
Tel (951) 270-6200
Fax (951) 270-6201
www.circlesealcontrols.com

Hoke GmbH

Weitzesweg 11
Postfach 1541
D-61118 Bad Vilbel-Dortelweil
Germany
Tel +49 6101 82 56 0
Fax +49 6101 82 56 40
www.hoke.de

CIRCOR Instrumentation Technologies

CIRCOR Instrumentation Technologies (CIT) is a product group of CIRCOR International (NYSE: CIR), specializing in fluid process control solutions with orifice sizes typically up to 1". Our main product lines include ball, needle, packless, diaphragm, solenoid, and metering valves, pressure regulators, quick couplers, Gyrolok® compression tube fittings, and fully integrated sampling systems.

CIT markets primarily to the petrochemical, refining, power generation, food and beverage, semiconductor, and pharmaceutical industries, and to OEM's. CIT separates itself from the competition by offering highly engineered components manufactured to exacting standards and a variety of custom options.