

# Needle Valves

## Double Block and Bleed

# 20DBNV Series

*Pressures to 20,000 psi (1379 bar)*

Autoclave series DBNV double block and bleed valve is a three system manifold valve providing an economical and convenient method of blocking and bleeding in applications such as pressure monitoring and test, chemical injection and drain line isolation. The valve utilizes our standard valve packing and stem design to make it compact and easy to use. Manifold style valves reduce the number of fittings and space required for installation.

### *Block and Bleed Features:*

- 20DBNV Series valve design provides large valve performance in a small package.
- Tubing sizes: 1/4" to 1".
- Rising stem/barstock body design.
- Metal-to-metal seating achieves bubble-tight shut-off, longer stem/seat life in abrasive flow, greater durability for repeated on/off cycles and excellent corrosion resistance.
- PTFE (Teflon) encapsulated packing provides dependable stem and body sealing.
- Stem and packing gland design have been selected to achieve extended thread cycle life and reduced handle torque.
- Temperatures from -0°F (-17.8°C) to 450°F (232°C).

Autoclave valves are complemented by a complete line of fittings, tubings and accessories. The 20DBNV Series uses Autoclave's pressure connections. This coned and threaded connection provides a reliable bubble-tight seal for dependable performance in gas or liquid service.



**Autoclave  
Engineers** 

Fluid Components  
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[www.autoclave.com](http://www.autoclave.com)

**Needle Valves - 20DBNV Series**  
Double Block and Bleed

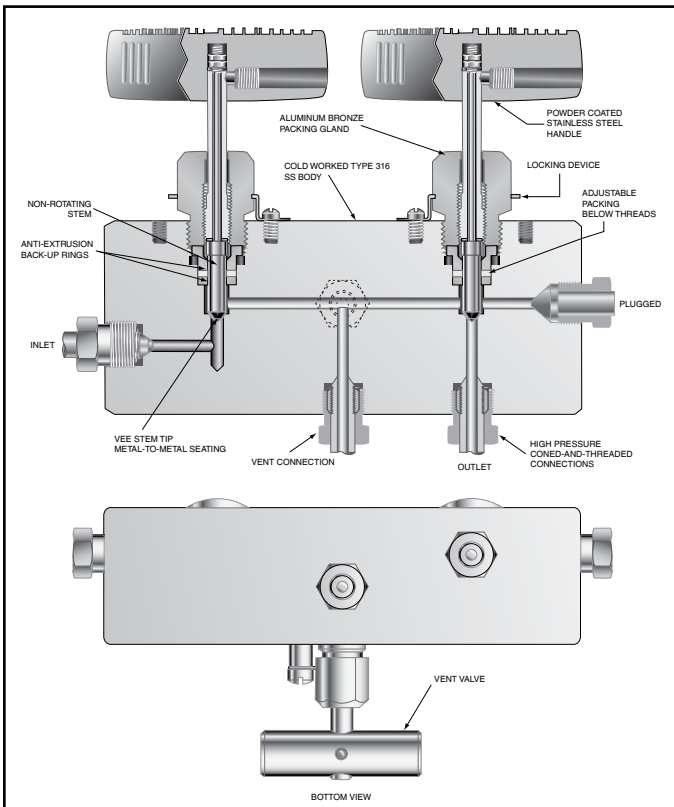
# Needle Valves - 20DBNV Series

**Pressures to 20,000 psi (1379 bar)**

Tube Outside Diameter Size Inches	Connection Type	Orifice Size Inches (mm)	Rated $C_v$	Pressure Rating psi (bar) @ Room Temperature**
1/4	SF250CX	0.093 (2.36)	0.10	20,000 (1379)
3/8	SF375CX	0.093 (2.36)	0.27	20,000 (1379)
9/16	F562C	0.093 (2.36)	0.27	20,000 (1379)

*Notes:*

\*\* For complete temperature ratings see pressure/temperature rating guide in Technical Information section.



To ensure proper fit use Autoclave tubing



## Valve Options

### Extreme Temperatures

Standard Autoclave valves with Teflon packing may be operated to 450°F (232°C). High temperature packing is available for service from 0°F (-17.8°C) to 800°F (427°C) by adding the following suffixes to catalog order number.

**TG** standard valve with Teflon glass packing to 600°F (316°C)

**GY** standard valve with Graphite braided yarn packing to 800°F (427°C).

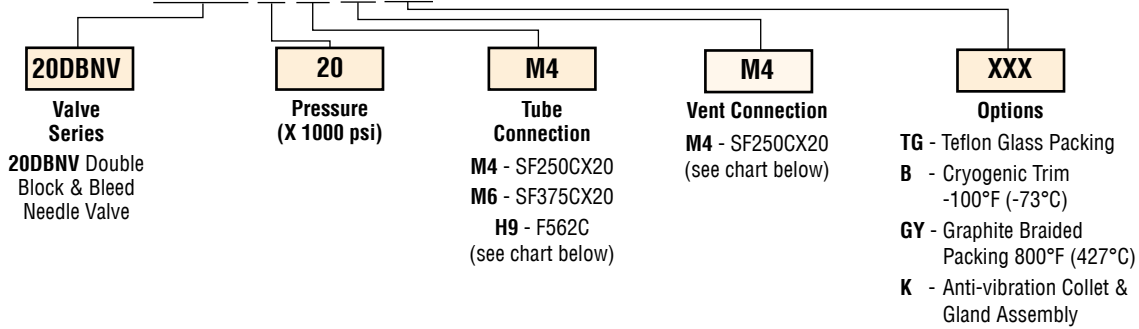
*For additional valve options, contact your Sales Representative.*

*Note: Refer to the Tools, Installation, Operation and Maintenance section for proper maintenance procedures.*

## Ordering Procedure

For complete information on available end connections, see end connections options below. 20DBNV valves are furnished complete with tube connections.

Typical catalog number: **20DBNV 20 M4 M4 XXX**



## Connection Options

Catalog Number	Tube Connection Number	Connection	MAWP @ Room Temperature	Vent Connection Number	Vent Connection
20DBVNM4M4	M4	SF250CX20	20,000 psi (1379 bar)	M4	SF250CX20
20DBVNM6M4	M6	SF375CX20	20,000 psi (1379 bar)	M4	SF250CX20
20DBVNH9M4	M9	F562C	20,000 psi (1379 bar)	M4	SF250CX20

MAWP: Maximum Allowable Working Pressure

## Valve Options

See needle valve options for complete information on available stem types, optional connections and additional valve options. For material options consult factory.

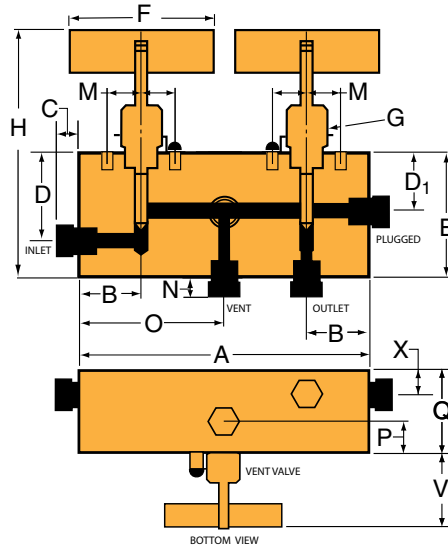
## Valve Maintenance

Consult your Autoclave representative for pricing on repair kits. Refer to the Operation and Maintenance manual for proper maintenance procedures.

Catalog Number	Stem Type	Pipe Size	Orifice Diameter	Dimensions - inches (mm)														
				A	B	C	D	D <sub>1</sub>	E	F	G	H	M	N	O	P	Q	V

20DBNVM4M4	VEE	1/4	0.094	5.25	1.00	0.38	1.50	1.13	2.13	3.00	1.00	4.65	0.69	0.50	0.75	0.63	1.50	1.43
		(6.35)	(2.39)	(133.35)	(25.40)	(9.65)	(38.10)	(28.70)	(54.10)	(76.20)	(25.40)	(118.11)	(17.53)	(12.70)	(19.05)	(16.00)	(38.10)	(36.32)
20DBNVM6M4	VEE	3/8	0.094	5.25	1.00	0.44	1.50	1.13	2.13	3.00	1.00	4.65	0.69	0.50	0.75	0.63	1.50	1.43
		(9.53)	(2.39)	(133.35)	(25.40)	(11.18)	(38.10)	(28.70)	(54.10)	(76.20)	(25.40)	(118.11)	(17.53)	(12.70)	(19.05)	(16.00)	(38.10)	(36.32)
20DBNVH9M4	VEE	9/16	0.094	5.88	1.31	0.53	1.50	1.13	3.00	3.00	1.00	5.53	0.69	0.50	1.38	0.63	1.75	1.43
		(14.29)	(2.39)	(149.35)	(33.27)	(13.46)	(38.10)	(28.70)	(76.20)	(76.20)	(25.40)	(140.46)	(17.53)	(12.70)	(35.05)	(16.00)	(44.45)	(36.32)

For complete information on available options, contact your Sales representative. 20DBNV Series valves are furnished with connection components unless otherwise specified.



G - Packing gland mounting hole drill size

\* H Dimension is with stem in closed position.  
All dimensions for reference only and subject to change.

**For prompt service, Autoclave stocks select products. Consult factory.**

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