Needle Valves

Diverter

20DV Series

Pressures to 20,000 psi (1379 bar)



Parker Autoclave Engineers diverter valves provide the ability to direct incoming flow to one of two outlets. Flow is changed by rotating the handle in or out causing a double-ended stem to block the flow path to the outlet not needed. Diverter valves eliminate the need for multiple valves and the possibility of error in flow direction changes.

AE Diverter Valve Features:

- Diverts incoming flow to one of two outlet lines.
- Tubing sizes from 9/16” to 1”.
- Rising stem/barstock body design.
- Non-rotating stem prevents stem/seat galling.
- 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 encapsulated packing provides dependable stem and body sealing.
- Stem sleeve and packing gland materials have been selected to achieve extended thread cycle life and reduced handle torque.

Parker Autoclave Engineers valves are complemented by a complete line of fittings, tubing, and accessories. The 20DV series uses Parker Autoclave Engineers' medium pressure connection. This coned and threaded connection provides a reliable bubble-tight seal for dependable performance to 20,000 psi (1379).

Parker

Autoclave Engineers

www.autoclave.com

Valve Series - 20DV Series

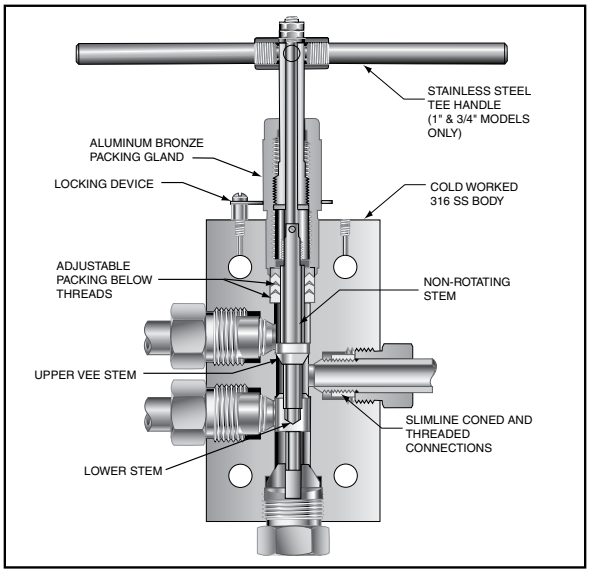
Pressures to 20,000 psi (1379 bar)

Tube Outside Diameter Size Inches	Connection Type	Orifice Size Inches (mm)	Rated C_V	Pressure psi (bar) @ Room Temperature**
9/16	SF562CX	0.359 (9.12)	1.5	20,000 (1379)
3/4	SF750CX	0.516 (13.10)	2.9	20,000 (1379)
1	SF1000CX	0.562 (14.27)	4.5	20,000 (1379)

Notes:

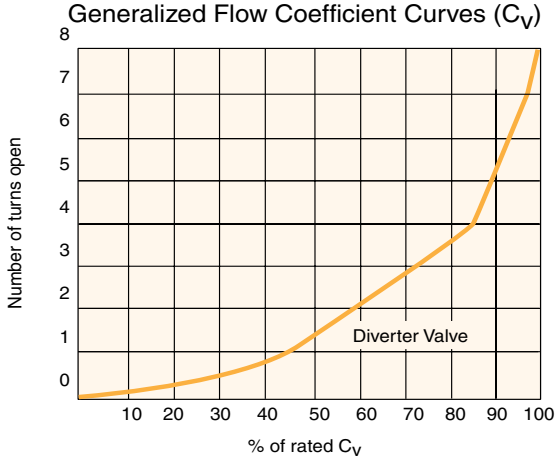
*** For complete temperature ratings see pressure/temperature rating guide in Technical Information section.*





To ensure proper fit use Parker Autoclave Engineers tubing

Generalized Flow Coefficient Curves (C_V)



Ordering Procedure

For complete information on available stem types, optional connections and additional valve options, see Needle Valve Options section or contact your Sales Representative. The 20DV Series valves are furnished complete with connection components, unless otherwise specified.

Typical catalog number: **20DV16077**

20DV — Valve Series

16 — Outside Diameter Tube Size
9-9/16"
12-3/4"
16-1"

07 — Stem Type
07 - non-rotating Vee stem (on off service)

7 — Body Pattern
7 - diverter

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XX — Options
For extreme temperature and other options, see Valve Options.

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Valve Options

Extreme Temperatures
Standard Parker Autoclave Engineers valves with PTFE packing may be operated to 450°F (232°C). High temperature packing and/or extended stuffing box is available for service from -423°F (-252°C) to 1200°F (649°C) by adding the following suffixes to catalog order number.

HT extended stuffing box valve with graphite braided yarn packing to 1200°F (648°C).
B standard valve with cryogenic trim materials and PTFE packing to -100°F (-73°C).
LT extended stuffing box valve with PTFE packing and cryogenic trim materials to -423°F (-252°C).
K anti-vibe collet gland assembly.

Valve Maintenance

Repair Kits: add "R" to the front of valve catalog number for proper repair kit. (Example: **R20DV16077**)

Valve Bodies: Valve bodies are available. Order using the eight (8) digit part number found on the valve drawing or contact your Sales Representative for information.

Consult your Parker Autoclave Engineers representative for pricing on repair kits and valve bodies. Refer to the Tools, Installation, Operation and Maintenance section for proper maintenance procedures.

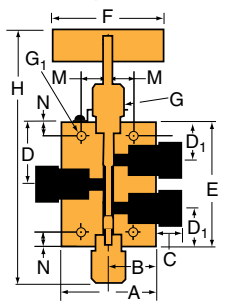
Catalog Number	Stem Type	Outside Diameter Tube	Orifice Diameter	Dimensions - inches (mm)												Block Thickness	Valve Pattern
				A	B	C	D	D_1	E	F	G	G_1	H*	M	N		
20DV9077	VEE	9/16	0.359	2.50	1.25	0.53	2.41	1.75/1.63	4.69	4.00	1.00	0.34	8.88	0.69	0.50	1.00	See Figure 1
		(14.29)	(9.12)	(63.50)	(31.75)	(13.46)	(61.21)	(44.45/41.40)	(119.13)	(101.60)	(25.40)	(8.64)	(225.55)	(17.53)	(12.70)	(25.40)	
20DV12077	VEE	3/4	0.516	3.00	1.50	0.62	3.00	2.13/1.81	5.69	10.25	1.12	0.44	10.12	0.88	0.62	1.38	
		(19.05)	(13.11)	(76.20)	(38.10)	(15.75)	(76.20)	(54.10/45.97)	(144.53)	(260.35)	(28.45)	(11.18)	(257.05)	(22.35)	(15.75)	(35.05)	
20DV16077	VEE	1	0.562	4.12	2.06	0.72	3.75	2.81/2.62	7.25	10.25	1.62	0.56	12.79	1.25	1.12	1.75	
		(25.40)	(14.27)	(104.65)	(52.33)	(18.29)	(95.25)	(71.37/66.55)	(184.15)	(260.35)	(41.15)	(14.22)	(324.87)	(31.75)	(28.45)	(44.45)	

G - Packing gland mounting hole drill size
G_1 - Bracket mounting hole size
Panel mounting drill size: 0.22" all valves.

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

For prompt service, Parker Autoclave Engineers stocks select products. Consult factory.

Figure 1



Diverter 20DV Series

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