Needle Valves

Yoke

Y Series

Pressures to 50,000 psi (3447 bar)



Parker Autoclave Engineers' yoke valves are extra heavy-duty, plant grade instrument valves for industrial and severe service applications. Yoke valves feature low closing torque for ease of operation and are designed for use with Parker Autoclave Engineers medium and high pressure tubing and fittings.

Yoke Valve Features:

- 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.
- Choice of Vee or Regulating stem tips.
- Available in two body patterns.
- Optional materials for cryogenic and other applications.

Parker Autoclave Engineers valves are complemented by a complete line of fittings, tubing, and accessories.

Parker

Autoclave Engineers

www.autoclave.com

Valve Series - Y Series

Pressures to 50,000 psi (3447 bar)

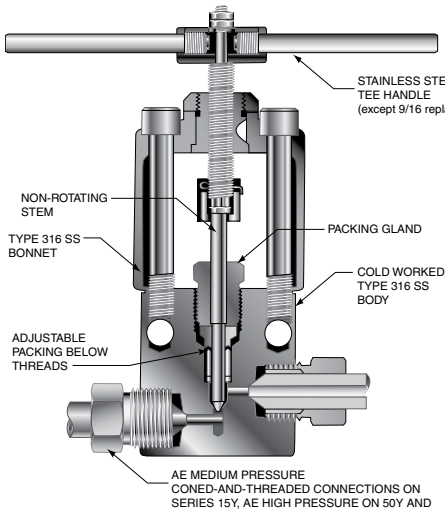
Tube Outside Diameter Size Inches	Connection Type	Orifice Size Inches (mm)	Rated C_V *	Pressure psi (bar) @ Room Temperature**
9/16	F562C	0.188 (4.76)	0.66	50,000 (3447)
3/4	SF750CX	0.438 (11.13)	2.41	15,000 (1034)
1	SF1000CX	0.562(14.27)	3.15	15,000 (1034)
1	F1000C43	0.375 (9.53)	2.3	43,000 (2965)

Notes:

** C_V values shown are for 2-way straight valve pattern. For 2-way angle patterns, increase C_V value 50%.*

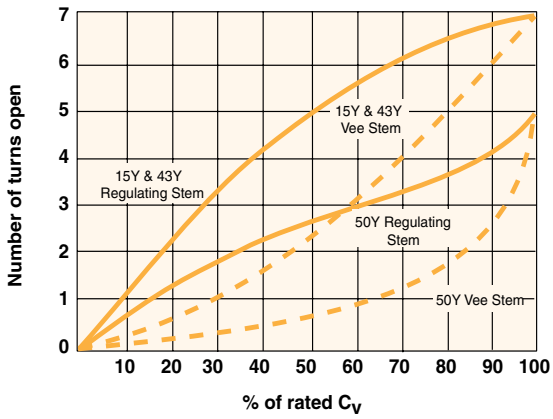
*** For complete temperature ratings see pressure/temperature rating guide in Technical Information section.*





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 Y Series valves are furnished complete with connection components, unless otherwise specified.

Typical catalog number: **50Y9071**

50Y — Valve Series
- **15Y**
- **43Y**
- **50Y**

9 — Outside Diameter Tube Size
- **9**-9/16"
- **12**-3/4"
- **16**-1.0"

07 — Stem/Seat Type
- **07** - non-rotating Vee stem (on-off service)
- **08** - non-rotating Regulating stem (tapered tip for Regulating and shutoff)
- **87** - Vee stem with replaceable seat
- **88** - Regulating stem with replaceable seat

1 — Body Pattern
- **1** - two-way straight
- **2** - two-way angle

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XX — Options
- **TG** - PTFE Glass Packing
- **B** - Cryogenic Trim and PTFE Packing

See Valve options for ratings

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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 is available for service from 0°F (-17.8°C) to 600°F (316°C) by adding the following suffixes to catalog order number.

TG standard valve with PTFE glass packing to 600°F (316°C).
B standard valve with cryogenic trim materials and PTFE packing to -100°F (-73°C).

Valve Maintenance

Repair Kits: add "R" to the front of valve catalog number for proper repair kit. (Example: **R50Y9071**)

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.

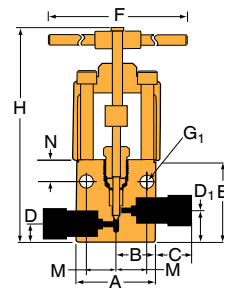
Consult your Parker Autoclave Engineers representative for pricing on repair kits and valve bodies. Refer to the Tools, Installation, Operation and Maintenance section for proper maintenance procedures.

Catalog Number	Stem Type	Outside Diameter Tube	Orifice Diameter	Dimensions - inches (mm) A	B	C	D	D_1	E	F	G	G_1	H*	M	N	Block Thickness	Valve Pattern
2-Way Straight																	
15Y12071	VEE	3/4	0.438	3.00	1.50	0.63	.75	1.50	3.50	8.00		0.28	9.38	1.13	0.88	1.38	
15Y12081	REG	(19.05)	(11.13)	(76.20)	(38.10)	(15.88)	(19.05)	(38.10)	(88.90)	(203.20)		(7.11)	(238.25)	(28.58)	(22.23)	(34.93)	
15Y16071	VEE	1.00	0.562	4.13	2.06	0.63	.88	1.88	4.13	10.25		0.28	10.00	1.50	1.13	1.75	
15Y16081	REG	(25.40)	(14.27)	(104.78)	(52.39)	(15.88)	(22.35)	(47.75)	(104.78)	(260.35)		(7.11)	(254.00)	(38.10)	(28.58)	(44.45)	See Figure 1
43Y16071	VEE	1.00	0.375	4.13	2.07	0.72	1.00	1.88	4.13	10.25		0.28	9.56	1.50	1.00	1.75	
43Y16081	REG	(25.40)	(9.53)	(104.90)	(52.45)	(18.29)	(25.40)	(47.75)	(104.78)	(260.35)		(7.11)	(242.82)	(38.10)	(25.40)	(44.45)	
50Y9071	VEE	9/16	0.188	3.00	1.50	0.56	.688	1.25	3.25	13.00		0.50	8.69	1.13	0.88	1.38	
50Y9081	REG	(14.27)	(4.78)	(76.20)	(38.10)	(14.27)	(17.48)	(31.75)	(82.55)	(330.20)		(12.70)	(220.73)	(28.58)	(22.23)	(34.93)	
2-Way Angle																	
15Y12072	VEE	3/4	0.438	3.00	1.50	0.63	1.75		3.75	8.00		0.28	9.63	1.13	0.88	1.38	
15Y12082	REG	(19.05)	(11.13)	(76.20)	(38.10)	(15.88)	(44.45)		(95.25)	(203.20)		(7.11)	(244.48)	(28.58)	(22.23)	(34.93)	
15Y16072	VEE	1.00	0.562	4.13	2.06	0.63	2.25		4.50	10.25		0.28	10.38	1.50	1.13	1.75	
15Y16082	REG	(25.40)	(14.27)	(104.90)	(52.39)	(15.88)	(57.15)		(114.30)	(260.35)		(7.11)	(263.53)	(38.10)	(28.58)	(44.45)	See Figure 2
43Y16072	VEE	1.00	0.375	4.13	2.07	0.72	2.31		4.56	10.25		0.28	10.80	1.50	1.00	1.75	
43Y16082	REG	(25.40)	(9.53)	(104.90)	(52.45)	(18.29)	(58.67)		(115.82)	(260.35)		(7.11)	(274.32)	(38.10)	(25.40)	(44.45)	
50Y9072	VEE	9/16	0.188	3.00	1.50	0.56	1.50		3.50	13.00		0.50	8.81	1.13	0.88	1.38	
50Y9082	REG	(14.27)	(4.78)	(76.20)	(38.10)	(14.27)	(38.10)		(88.90)	(330.20)		(12.70)	(223.82)	(28.58)	(22.23)	(34.93)	
2-Way Angle/Replaceable Seat																	
15Y12872	VEE	3/4	0.438	3.00	1.50	0.63	2.06		4.00	8.00		0.28	11.31	1.13	0.88	1.38	
15Y12882	REG	(19.05)	(11.13)	(76.20)	(38.10)	(15.88)	(52.32)		(101.60)	(203.20)		(7.11)	(287.27)	(28.58)	(22.23)	(34.93)	
15Y16872	VEE	1.00	0.562	4.13	2.06	0.63	2.06		4.13	10.25		0.28	11.75	1.50	1.03	1.75	
15Y16882	REG	(25.40)	(14.27)	(104.78)	(52.39)	(15.88)	(52.32)		(104.78)	(260.35)		(7.11)	(298.45)	(38.10)	(26.16)	(44.45)	See Figure 3
43Y16872	VEE	1.00	0.375	4.13	2.07	0.72	2.13		4.38	10.25		0.28	11.95	1.50	1.00	1.75	
43Y16882	REG	(25.40)	(9.53)	(104.78)	(52.45)	(18.29)	(54.10)		(111.25)	(260.35)		(7.11)	(303.53)	(38.10)	(25.40)	(44.45)	
50Y9872	VEE	9/16	0.188	3.00	1.50	0.56	1.38		3.38	4.00		0.28	12.12	1.13	1.06	1.38	
50Y9882	REG	(14.27)	(4.78)	(76.20)	(38.10)	(14.27)	(35.05)		(85.73)	(101.60)		(7.11)	(307.85)	(28.58)	(26.97)	(34.93)	

G - Bracket mounting hole size ** H Dimension is with stem in closed position.*
All dimensions for reference only and subject to change.

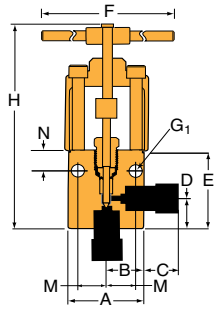
For prompt service, Parker Autoclave Engineers stocks select products. Consult factory.

Figure 1



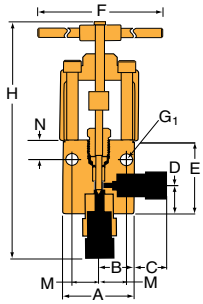
2-Way Straight

Figure 2



2-Way Angle

Figure 3



2-Way Angle/Replaceable Seat

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Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark