

30VM Series: Pressures to 30,000 psi (2068 bar)

Larger Orifice and Higher Cv than 60VM valves

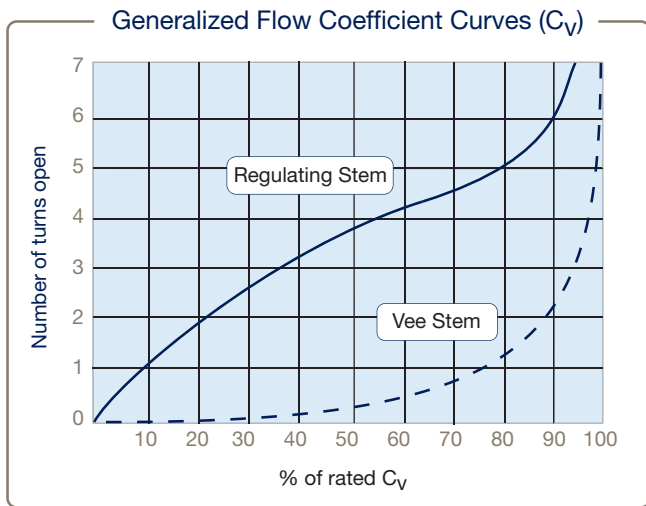


Tube Outside Diameter Size (inches)	Connection Type	Orifice Size Inches (mm)	Rated C _v *	Pressure Rating psi (bar) @Room Temperature**
1/4	F250C	0.094 (2.39)	0.12	30,000 (2068)
3/8	F375C	0.125 (3.18)	0.23	30,000 (2068)
9/16	F562C	0.125 (3.18)	0.33	30,000 (2068)

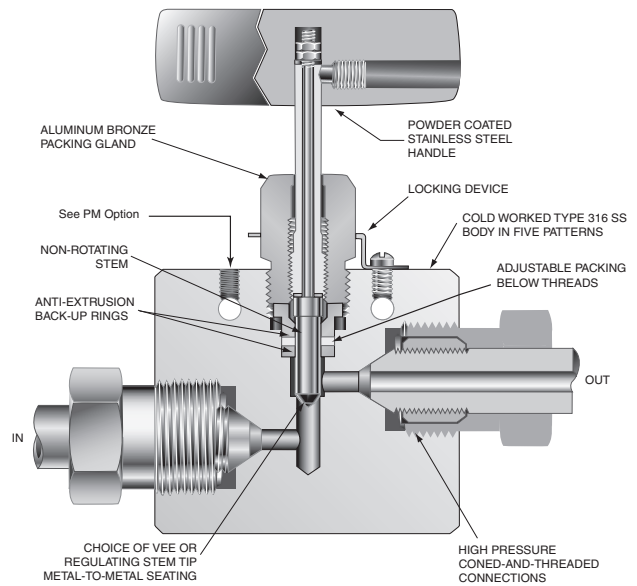
Notes

* C_v values shown are for 2-way straight valve pattern. For 2-way angle patterns, increase CV value 50%. (Based on water). Formula for converting Cv to volumetric flow can be found in Technical Information section.

** Maximum Allowable Working Pressures decrease as temperatures increase - see pressure/temperature rating guide in Technical Information section.



30VM Series Flow Curve for Vee and Regulating Stem Valves



To ensure proper fit use Parker Autoclave tubing

Valve Packing Options:

Standard Parker Autoclave Engineers valves with PTFE packing may be operated from 0°F (-17.8°C) to 450°F (232°C). High and Cryogenic temperature packing and/or extended stuffing box are available for service from -423°F (-252°C) to 1200°F (650°C) by adding the following suffixes to catalog order number:

- B** Cryogenic trim materials and PTFE packing required when below 0°F (-18°C) to -100°F (-73°C)
- LT** Extended stuffing box valve with PTFE packing and Cryogenic trim materials to -423°F (-252°C)
- TG** Standard valve with PTFE-Glass packing -100°F (-73°C) to 600°F (316°C) (See also -B option above when below 0°F (-18°C))
- GY** Standard valve with Graphite Yarn packing 32°F (0°C) to 800°F (427°C). Used when selecting HT option.
- HT** Extended stuffing box valve with Graphite Yarn packing to 1200°F (650°C)

(See "Technical Brochure" for Pressure/Temperature effect on temperatures above ambient.)

Ordering Guide:

For complete information on available stem types, optional connections and additional valve options, see pages 26-27 or contact your Sales Representative. 30VM Series valves are furnished complete with connection components, unless otherwise specified. See High Pressure Fittings and Tubing brochure for compatible products.

Building a Part Number: Example: 30VM4071

Example Part Number:	30VM	4	07	1	XX
Ordering Parameters/Options:	Valve Series	Outside Diameter Tube Size	Stem/Seat Type	Body Pattern	Options
Table Reference: (see below)	A	B	C	D	E

A - Valve Series	
30VM	High Pressure Needle Valve

B - Outside Diameter Tube Size	
4	1/4"
6	3/8"
9	9/16"

C - Stem/Seal 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 (angle valve only)
88	Regulating Stem with Replaceable Seat (angle valve only)

D - Body Pattern	
1	Two-Way Straight
2	Two-Way Angle
3	Three-Way, Two on Pressure
4	Three-Way, One on Pressure
5	Three-Way, Two Stem Manifold Valve

E - Options	
K	Antivibration Gland (replaces standard gland)
B	All 316 SS Materials required when below 0°F (-18°C) (included in LT)
LT	Low Temperature Extension (to -423°F) (includes PTFE packing)
TG	PTFE Glass (25%) Packing (to 600°F)
GY	Graphite Yarn Packing (to 800°F)
HT	High Temperature Extension (to 1200°F) (includes GY packing)
SOG	NACE MR0175 Material, Hardness Verification/Certificate
HYG	Hydrogen/Helium Upgrade/Seat Testing

Notes: Valve Manuals can be found on our website at www.Autoclave.com. Connection, Running and Seating Torques can be found in the product manual or in our Tools and Installation Catalog Section. Valves that have not been cycled for a substantial period of time may require higher initial actuation torque.

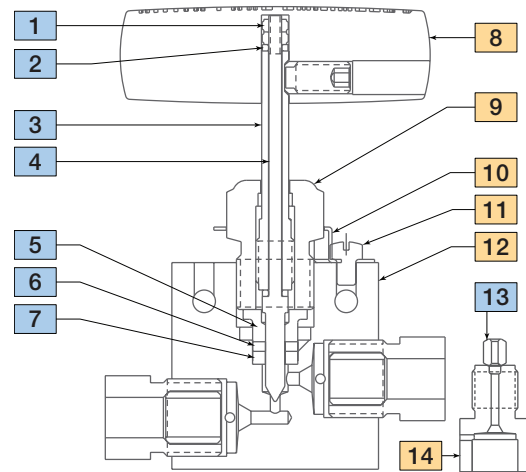
*Replaceable seat option is sold with two (2) seat surfaces 180° apart.

Pneumatic Actuator Options - see Actuator brochure for Suffix Codes
Other materials available upon request. See Technical Brochure for list of common options.
See "Technical Brochure" for Pressure/Temperature effect on temperatures above ambient.

Material of Construction:

Item #	Description	Material
1	Hex Nut	300 Series SS
2	Thrust Washer	17-4 PH
3	Stem Sleeve	316 SS
4	Vee Stem, (3/8" 30VM shown)	316 SS
5	Packing Washer	AMPCO 45
6	Packing	PTFE
7	Bottom Washer	316 SS
8	Handle	316 SS
9	Packing Gland	AMPCO 45
10	Locking Device	302SS
11	Screw #10	18-8 SS
12	Valve Body	316 SS
13	Replaceable Seat	17-4PH
14	Seat Retainer	316 SS

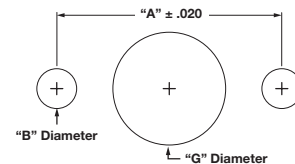
Typical spare parts found in Repair Kits



Panel Hole Sizes:

Valve Size	Inches			
	A	B	Screw Size	G
4 and 6	1.38	.22	#10-24	1.00
9	1.38	.22	#10-24	1.00

Use suffix **-PM** for extra mounting hardware



Needle Valve Panel Mount

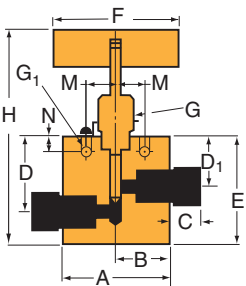
Basic Repair Kits for 316 SS Material:

Stem Type		Basic Repair Kit for 316 SS Material	
		Outside Diameter Tube:	
		1/4", 3/8", 9/16"	
2 Way Straight, 2 Way Angle 3 Way 2 On-Pressure, 3 Way 1 On-Pressure	VEE	R30VM7	
	REG	R30VM8	
2 Way, Replaceable Seat and Stem	VEE	R30VM872	
	REG	R30VM882	
3 Way, 2 Stem Manifold	VEE	R30VM075	
	REG	R30VM085	

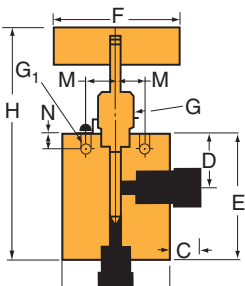
When ordering for valves bought with additional suffix options, please include those exact suffix codes when ordering repair kit. (Example: the stem for a manual valve is manufactured differently for a pneumatically actuated valve and the repair kit must include the exact actuator suffix codes).
Valve Manuals can be found on our website at www.Autoclave.com,
Connection, Running and Seating Torques can be found in the product manual or in our Tools and Installation Catalog Section.

30VM Series Dimensions:

2 Way Straight					
Stem Type	VEE REG	Catalog Number			
		30VM4071 30VM4081	30VM6071 30VM6081	30VM9071 30VM9081	
Outside Diameter Tube		1/4 (6.35)	3/8 (9.53)	9/16 (14.29)	
Orifice Diameter		0.94 (2.39)	0.125 (3.18)	0.125 (3.18)	
Dimensions: inches (mm)	A	2.00 (50.80)	2.00 (50.80)	2.62 (66.55)	
	B	1.00 (25.40)	1.00 (25.40)	1.31 (33.27)	
	C	0.50 (12.70)	0.53 (13.46)	0.81 (20.57)	
	D	1.50 (38.10)	1.50 (38.10)	1.56 (39.62)	
	D1	1.12 (28.45)	1.12 (28.45)	1.12 (28.45)	
	E	2.00 (50.80)	2.00 (50.80)	2.44 (61.98)	
	F	3.00 (76.20)	3.00 (76.20)	3.00 (76.20)	
	G	1.00 (25.40)	1.00 (25.40)	1.00 (25.40)	
	G1	0.22 (5.59)	0.22 (5.59)	0.28 (7.11)	
	H*	4.62 (117.35)	4.68 (118.87)	5.06 (128.52)	
	M	0.69 (17.53)	0.69 (17.53)	0.69 (17.53)	
	N	0.38 (9.65)	0.38 (9.65)	0.38 (9.65)	
	Block Thickness		1.00 (25.40)	1.00 (25.40)	1.50 (38.10)



2 Way Angle					
Stem Type	VEE REG	Catalog Number			
		30VM4072 30VM4082	30VM6072 30VM6082	30VM9072 30VM9082	
Outside Diameter Tube		1/4 (6.35)	3/8 (9.53)	9/16 (14.29)	
Orifice Diameter		0.94 (2.39)	0.125 (3.18)	0.125 (3.18)	
Dimensions: inches (mm)	A	2.00 (50.80)	2.00 (50.80)	2.62 (66.55)	
	B	1.00 (25.40)	1.00 (25.40)	1.31 (33.27)	
	C	0.50 (12.70)	0.53 (13.46)	0.81 (20.57)	
	D	1.12 (28.45)	1.12 (28.45)	1.12 (28.45)	
	D1	-	-	-	
	E	2.00 (50.80)	2.12 (53.85)	2.44 (61.98)	
	F	3.00 (76.20)	3.00 (76.20)	3.00 (76.20)	
	G	1.00 (25.40)	1.00 (25.40)	1.00 (25.40)	
	G1	0.22 (5.59)	0.22 (5.59)	0.28 (7.11)	
	H*	4.62 (117.35)	4.74 (120.40)	5.06 (128.52)	
	M	0.69 (17.53)	0.69 (17.53)	0.69 (17.53)	
	N	0.38 (9.65)	0.38 (9.65)	0.38 (9.65)	
	Block Thickness		1.00 (25.40)	1.00 (25.40)	1.50 (38.10)



G - Packing Gland mounting hole drill size • G1 - 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 stocks select products. Consult factory.

30VM Series Dimensions:

3 Way, 2 On Pressure						
		Catalog Number				
Stem Type	VEE REG	30VM4073 30VM4083	30VM6073 30VM6083	30VM9073 30VM9083		
Outside Diameter Tube		1/4 (6.35)	3/8 (9.53)	9/16 (14.29)		
Orifice Diameter		0.94 (2.39)	0.125 (3.18)	0.125 (3.18)		
Dimensions: inches (mm)		A	B	C		
		2.00 (50.80)	2.00 (50.80)	2.62 (66.55)		
		B	1.00 (25.40)	1.00 (25.40)	1.31 (33.27)	
		C	0.50 (12.70)	0.53 (13.46)	0.81 (20.57)	
		D	1.50 (38.10)	1.50 (38.10)	1.56 (39.62)	
		D1	1.12 (28.45)	1.12 (28.45)	1.12 (28.45)	
		E	2.12 (53.85)	2.50 (63.50)	2.88 (73.15)	
		F	3.00 (76.20)	3.00 (76.20)	3.00 (76.20)	
		G	1.00 (25.40)	1.00 (25.40)	1.00 (25.40)	
		G1	0.22 (5.59)	0.22 (5.59)	0.28 (7.11)	
		H*	4.74 (120.40)	5.12 (130.05)	5.49 (139.45)	
		M	0.69 (17.53)	0.69 (17.53)	0.69 (17.53)	
		N	0.38 (9.65)	0.38 (9.65)	0.38 (9.65)	
		Block Thickness		1.00 (25.40)	1.00 (25.40)	1.50 (38.10)

3 Way, 1 On Pressure						
		Catalog Number				
Stem Type	VEE REG	30VM4074 30VM4084	30VM6074 30VM6084	30VM9074 30VM9084		
Outside Diameter Tube		1/4 (6.35)	3/8 (9.53)	9/16 (14.29)		
Orifice Diameter		0.94 (2.39)	0.125 (3.18)	0.125 (3.18)		
Dimensions: inches (mm)		A	B	C		
		2.00 (50.80)	2.00 (50.80)	2.62 (66.55)		
		B	1.00 (25.40)	1.00 (25.40)	1.31 (33.27)	
		C	0.50 (12.70)	0.53 (13.46)	0.81 (20.57)	
		D	1.12 (28.45)	1.12 (28.45)	1.12 (28.45)	
		D1	-	-	-	
		E	2.00 (50.80)	2.12 (53.85)	2.44 (61.98)	
		F	3.00 (76.20)	3.00 (76.20)	3.00 (76.20)	
		G	1.00 (25.40)	1.00 (25.40)	1.00 (25.40)	
		G1	0.22 (5.59)	0.22 (5.59)	0.28 (7.11)	
		H*	4.62 (117.35)	4.74 (120.40)	5.12 (130.05)	
		M	0.69 (17.53)	0.69 (17.53)	0.69 (17.53)	
		N	0.38 (9.65)	0.38 (9.65)	0.38 (9.65)	
		Block Thickness		1.00 (25.40)	1.00 (25.40)	1.50 (38.10)

2 Way Angle Replaceable Seat						
		Catalog Number				
Stem Type	VEE REG	30VM4872 30VM4882	30VM6872 30VM6882	30VM9872 30VM9882		
Outside Diameter Tube		1/4 (6.35)	3/8 (9.53)	9/16 (14.29)		
Orifice Diameter		0.94 (2.39)	0.125 (3.18)	0.125 (3.18)		
Dimensions: inches (mm)		A	B	C		
		2.00 (50.80)	2.00 (50.80)	2.62 (66.55)		
		B	1.00 (25.40)	1.00 (25.40)	1.31 (33.27)	
		C	0.50 (12.70)	0.53 (13.46)	0.81 (20.57)	
		D	1.12 (28.45)	1.12 (28.45)	1.12 (28.45)	
		D1	2.06 (52.32)	2.31 (58.67)	2.62 (66.55)	
		E	2.38 (60.45)	2.38 (60.45)	2.44 (61.98)	
		F	3.00 (76.20)	3.00 (76.20)	3.00 (76.20)	
		G	1.00 (25.40)	1.00 (25.40)	1.00 (25.40)	
		G1	0.22 (5.59)	0.22 (5.59)	0.28 (7.11)	
		H*	5.80 (147.32)	6.05 (153.67)	6.45 (163.83)	
		M	0.69 (17.53)	0.69 (17.53)	0.69 (17.53)	
		N	0.38 (9.65)	0.38 (9.65)	0.38 (9.65)	
		Block Thickness		1.00 (25.40)	1.00 (25.40)	1.50 (38.10)

3 Way, 2 Stem Manifold						
		Catalog Number				
Stem Type	VEE REG	30VM4075 30VM4085	30VM6075 30VM6085	30VM9075 30VM9085		
Outside Diameter Tube		1/4 (6.35)	3/8 (9.53)	9/16 (14.29)		
Orifice Diameter		0.94 (2.39)	0.125 (3.18)	0.125 (3.18)		
Dimensions: inches (mm)		A	B	C		
		2.00 (50.80)	2.00 (50.80)	2.62 (66.55)		
		B	1.00 (25.40)	1.00 (25.40)	1.31 (33.27)	
		C	0.50 (12.70)	0.53 (13.46)	0.81 (20.57)	
		D	1.53 (38.86)	1.62 (41.15)	1.88 (47.75)	
		D1	1.12 (28.45)	1.12 (28.45)	1.12 (28.45)	
		E	3.06 (77.72)	3.25 (82.55)	3.75 (95.25)	
		F	3.00 (76.20)	3.00 (76.20)	3.00 (76.20)	
		G	1.00 (25.40)	1.00 (25.40)	1.00 (25.40)	
		G1	0.22 (5.59)	0.22 (5.59)	0.28 (7.11)	
		H*	5.68 (144.27)	5.87 (149.10)	6.37 (161.80)	
		M	0.69 (17.53)	0.69 (17.53)	0.69 (17.53)	
		N	0.38 (9.65)	0.38 (9.65)	0.38 (9.65)	
		Block Thickness		1.00 (25.40)	1.00 (25.40)	1.50 (38.10)

G - Packing Gland mounting hole drill size • G1 - 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 stocks select products. Consult factory.