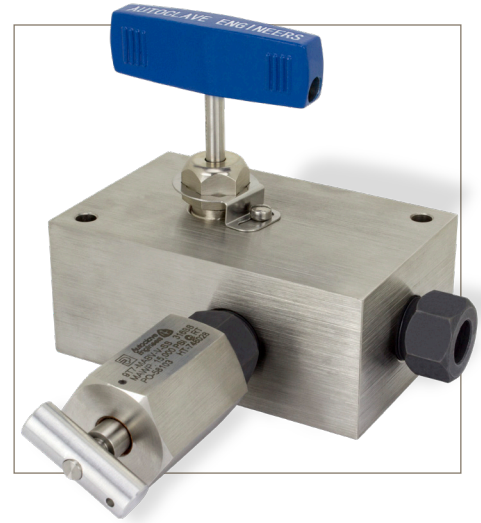


# Needle Valve

## Wellhead Gauge/Bleed Valve

Pressure to 30,000 psi (2068 bar)



### Principle of Operation:

Parker Autoclave Engineers' Wellhead Gauge valves are designed for reliable shut-off service at a maximum working pressure of 30,000 psi (2068 bar). The Wellhead Gauge and Bleed Valves are standard in 316 stainless steel material. Special materials available on request.

### Wellhead Gauge Features:

- One inlet, three outlet ports
- Metal-to-metal bubble tight shut-off
- Packing below stem threads
- Two piece non-rotating stem on standard valves

### Bleed Valve Features:

- One piece hex construction allows easy installation
- Vent port tapped for plumbing to safe area
- Tee handle for easy operation
- Positive blow out prevention on stem
- 1/8" NPT outlet connection
- O-ring Viton

### Wellhead Gauge Applications:

- Sample Lines
- Instrumentation Calibration

### Bleed Valve Applications:

- Pressure Bleed

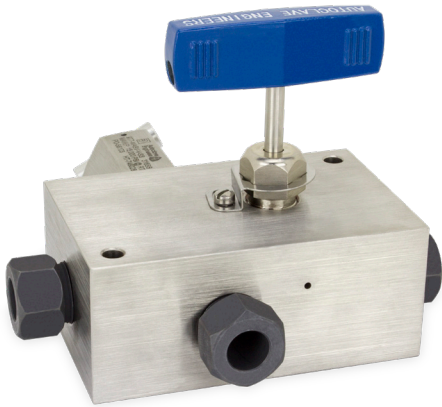
All Parker Autoclave Engineers products are designed in accordance with ASME B31.3 Chapter IX High Pressure Piping standards.



ENGINEERING YOUR SUCCESS.

# Wellhead Gauge/Bleed Valve:

Pressures to 30,000 psi (2068bar)



Series	Tube Outside Diameter Size (inches)	Connection Type	Orifice Size Inches (mm)	Rated C <sub>v</sub> *	Pressure Rating psi (bar) @Room Temperature**
<b>Wellhead Gauge Valve</b>					
20GV	3/8	SF375CX	0.125 (3.18)	0.23	20,000 (1379)
20GV	9/16	SF562CX	0.125 (3.18)	0.23	20,000 (1379)
30GV	9/16	F562C	0.125 (3.18)	0.33	30,000 (2068)

<b>Bleed Valve</b>					
20GV	3/8	SM375CX	0.093 (2.36)	-	20,000 (1379)
20GV	9/16	SM562CX	0.093 (2.36)	-	20,000 (1379)
30GV	9/16	M562C	0.093 (2.36)	-	30,000 (2068)*

**Notes**

\* Rating shown is in closed position.

Rating @ 15,000 psi (1034 bar) in open position.

Glands and collars included

## Ordering Guide:

Catalog number is created based on customer selection of product parameters, see below for example.

### Wellhead Gauge Valve (order individually)

Building a Part Number: <i>Example: 30GV9078</i>				
Example Part Number:	<b>30GV</b>	<b>9</b>	<b>07</b>	<b>8</b>
Ordering Parameters/Options:	Valve Series	Outside Diameter Tube Size	Stem Type	Body Pattern
Table Reference: (see below)	A	B	C	D



A - Valve Series	
20GV	Wellhead Gauge Valve
30GV	Wellhead Gauge Valve

C - Stem Type	
00	One Piece Vee Stem
07	Non-Rotating Vee Stem

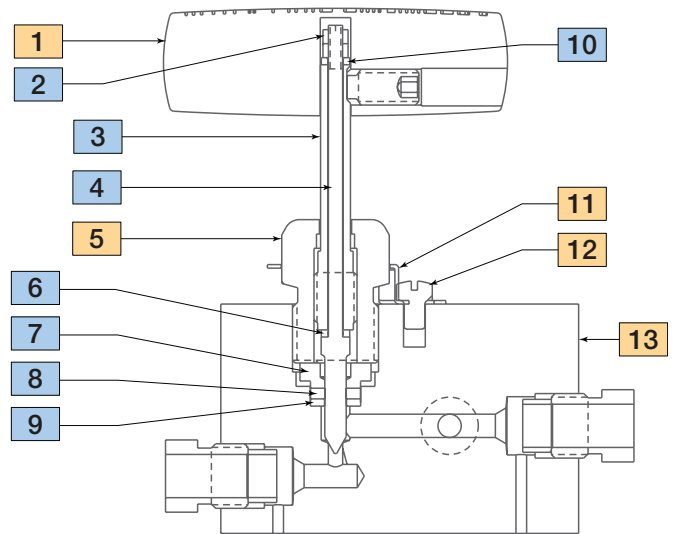
B - Outside Diameter Tube Size	
6	3/8"
9	9/16"

D - Body Pattern	
8	4 Ports, 1 Inlet, 3 Outlets

## Material of Construction:

Item #	Description	Material
1	Handle	316 SS
2	Hex Nut, #5-40	300 Series SS
3	Stem Sleeve	316 SS
4	Vee Stem	AMPCO 45
5	Packing Gland	AMPCO 45
6	Thrust Washer	17-4 PH
7	Packing Washer	AMPCO 45
8	Packing	PTFE
9	Bottom Washer	316 SS
10	Thrust Washer	17-4 PH
11	Locking Device	302 SS
12	Screw, #10	18-8 SS
13	Body	316 SS

Typical spare parts found in Repair Kits



## Wellhead Gauge Valve Dimensions:

Wellhead Gauge Valve					
		Catalog Number			
Stem Type	VEE	20GV6078	20GV9078	30GV9078	
Connection Type		SF375CX	SF562CX	F562C	
Connection Size		3/8	9/16	9/16	
Pressure Rating: psi (bar)		20,000 (1379)	20,000 (1379)	30,000 (2068)	
Dimensions: inches (mm)					
		A	2.00 (50.80)	2.00 (50.80)	2.00 (50.80)
		B	3.12 (79.25)	3.88 (98.55)	3.88 (98.55)
		C	2.00 (50.80)	2.75 (69.85)	2.75 (69.85)
		D	4.52 (114.80)	4.54 (115.31)	4.50 (114.30)
		E	1.13 (28.58)	1.31 (33.27)	1.31 (33.27)
		F	1.00 (25.40)	1.38 (34.93)	1.38 (34.93)
		G	0.50 (12.70)	0.66 (16.76)	0.66 (16.76)
		H	0.94 (23.83)	0.94 (23.83)	0.94 (23.83)
		J	3.00 (76.20)	3.00 (76.20)	3.00 (76.20)
		Mounting Hole Dimensions			
K	.25 (6.40)	.25 (6.40)	.28 (7.10)		
L	.25 (6.40)	.38 (9.70)	.28 (7.10)		
M	.28 (7.10)	.38 (9.70)	.28 (7.10)		

All dimensions for reference only and subject to change • For prompt service, Parker Autoclave stocks select products. Consult factory.

## Ordering Guide:

Catalog number is created based on customer selection of product parameters, see below for example.

### Bleed Valve (order individually)

Building a Part Number: <i>Example: 30BV9002</i>				
Example Part Number:	<b>30BV</b>	<b>9</b>	<b>00</b>	<b>2</b>
Ordering Parameters/Options:	Valve Series	Outside Diameter Tube Size	Stem Type	Body Pattern
Table Reference: (see below)	A	B	C	D



A - Valve Series	
20BV	Bleed Valve
30BV	Bleed Valve

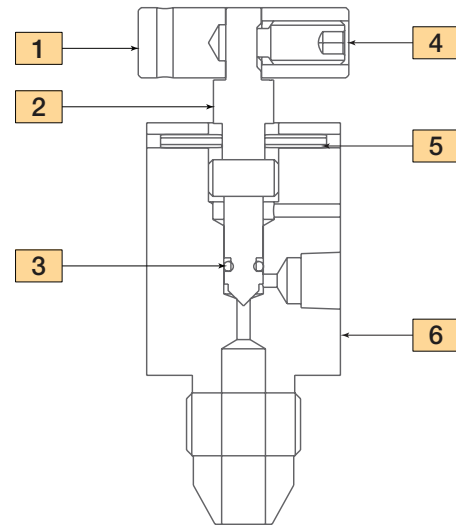
B - Outside Diameter Tube Size	
6	3/8"
9	9/16"

C - Stem Type	
00	One Piece Vee Stem

D - Body Pattern	
2	Angle

## Material of Construction:

Item #	Description	Material
1	Handle	Aluminum
2	Stem	316 SS
3	O-ring	Viton
4	Hex Screw	300 Series SS
5	Spring Pin	18-8 SS
6	Body	316 SS



## Bleed Valve Dimensions:

Bleed Valve					
		Catalog Number			
Stem Type	VEE	20BV6002	20BV9002	30BV9002	
Connection Type		SM375CX	SM562CX	M562C	
Connection Size		3/8	9/16	9/16	
Pressure Rating: psi (bar)		20,000 (1379)	20,000 (1379)	30,000 (2068)	
Dimensions: inches (mm)		<b>A</b>	3.23 (82.04)	3.68 (93.47)	3.44 (87.38)
		<b>B</b>	2.42 (61.47)	2.86 (76.64)	2.61 (66.29)
		<b>C</b>	1.12 (28.45)	1.12 (28.45)	1.12 (28.45)
		<b>D</b>	1.38 (35.05)	1.38 (35.05)	1.38 (35.05)
		<b>E</b>	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)

All dimensions for reference only and subject to change • For prompt service, Parker Autoclave stocks select products. Consult factory.

# Valve Options: (For Actuator Options please reference specific Actuator brochure)



## Pneumatic Valve Actuators:

The need to control process and vent valves from a remote location makes air operated valves a vital component to many processing operations. All Parker Autoclave Engineers' valves are available with piston type actuators. Five sizes of air actuators (light, mini-light, medium, heavy duty or extra heavy, single and double stage) are offered to meet the service requirements of Parker Autoclave Engineers' Low, Medium and High Pressure needle valves. Both air-to-open (normally closed) and air-to-close (normally open) designs are included in the product line. Optional air to open AND close actuators available upon request. Please see our Pneumatic Valve Actuator Brochure to help size the proper actuator for your application.



## Electric Valve Actuators:

Remotely controlling process flow at high pressure enhances safety and lowers labor costs. Parker Autoclave Engineers developed a flow control valve available in several models including weatherproof and explosionproof options.

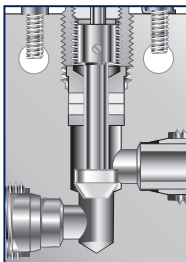
The Electrically Actuated Shut-off/Flow Regulating Actuator (FRC Series) is available for most of our Needle Valves through 9/16" tubing size and up to 60,000 psi maximum pressure. They are available in all body patterns except 3-Way / 2-Stem Manifold, and can withstand wide process temperature ranges.

Please consult the appropriate needle valve brochure for information on valve options, ratings, flow coefficient, body dimensions, and other specifications.

## Stem Options:

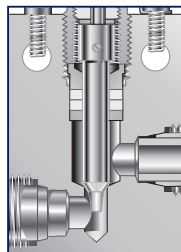
Most Parker Autoclave Engineers' valves are available with either Vee (on-off) or Regulating (Flow Control) Stems in our standard valve body seat or with our optional replaceable seat as shown below:

### VEE Stem



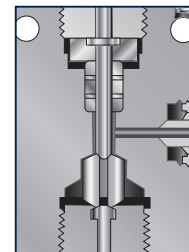
The Vee stem is used for direct on-off, metal-to-metal shut-off with quick-opening flow characteristics.

### Regulating Stem



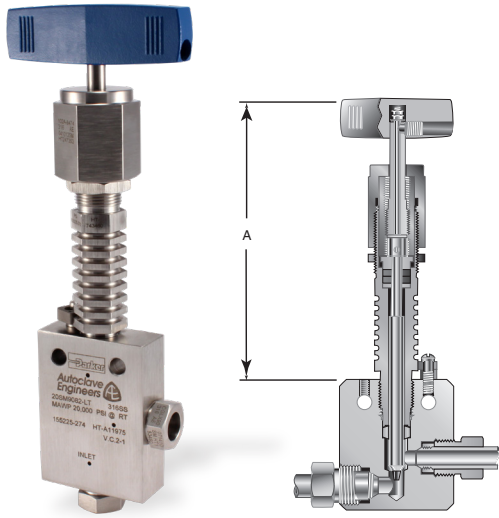
In some applications, more precise flow control is required than is possible with a Vee stem. For these cases, Autoclave offers a non-rotating, two-piece regulating stem which can be used for both control and shut-off. While it is not as precise as the control associated with the MicroMetering stem, especially with smaller flows, it does offer substantially better control than the Vee stem.

### Replaceable Seat (with Vee Stem)



Replaceable seat option is only available with Right-Angle Style body. Replaceable seat is supplied as standard with an additional seat - rotate to use second side. Can be used with either stem type. Options include Stellite material or N-Dura coating to increase service life.

# Valve Options: (For Actuator Options please reference specific Actuator brochure)



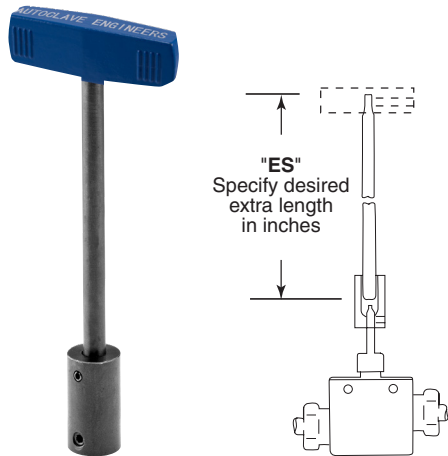
## High/Low Temperature Extension:

Not typically needed for 10V/SW Series valves as temperature range does not exceed the barriers below, but option is shown for consideration.

- HT High Temperature (over 800°F (427°C))
- LT Low Temperature (under -100°F (-73°C))

Valve Series	Outside Diameter Tube Size (inches)	Dimensions "A" inches (mm)
<b>10V &amp; SW</b> (this option not typically needed)	1/8"	5.38 (137)
	1/4"	5.50 (140)
	3/8"	5.50 (140)
	9/16"	6.31 (160)

HT option code includes Graphite (-GY) packing  
LT option code includes 316 SS Trim material and PTFE packing



## ES Stem Extender:

Stem extenders are offered for High and Low temperature operation or to extend through panel or barricade.

To order valve with Stem Extender, add "ES-" and length (6", 12", 18", 24") to beginning of valve part number e.g. ES12-20SM6071. Other lengths to special order.

To order Stem Extender only, provide valve model prefix e.g. ES12-20SM6. Handle not included – use same provided with original valve.



## Needle Valve Clam Shell Handle Lockout:

(order separately using part numbers shown below, padlock not included)

Clam Shell Handle locks are provided to lockout valves in open or closed position preventing unauthorized personnel from actuating valve during shutdown or emergency situations. This clamshell design is available in four (4) sizes dependent on handle length:

- P/N AE004855 – 1" to 2.5" handle length
- P/N 90088 – 2.5" to 5.0" handle length
- P/N 90194 – 6.5" to 10" handle length
- P/N AE004350 – 8" to 13" handle length

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## ! CAUTION !

Do not mix or interchange component parts or tubing with those of other manufacturers. Doing so is unsafe and will void warranty.

Parker Autoclave Engineers Valves, Fittings, and Tools are not designed to interface with common commercial instrument tubing and are designed to only connect with tubing manufactured to Parker Autoclave Engineers AES specifications. Failure to do so is unsafe and will void warranty.

## WARNING

**FAILURE, IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

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