

## Heavy Duty Valves

Series 140, 200, 920, 5620

Patent# 2.696.219

### Features

- ▶ Original Shear-Seal® technology
- ▶ High velocity flow
- ▶ Tolerates contaminants
- ▶ Low handle load at high pressures
- ▶ Spring return option
- ▶ Low pressure drop

### Applications

- ▶ Land-based and offshore drilling equipment
- ▶ Steel mills
- ▶ Nitrogen charging panels
- ▶ Refineries and chemical processing plants
- ▶ Power generation facilities



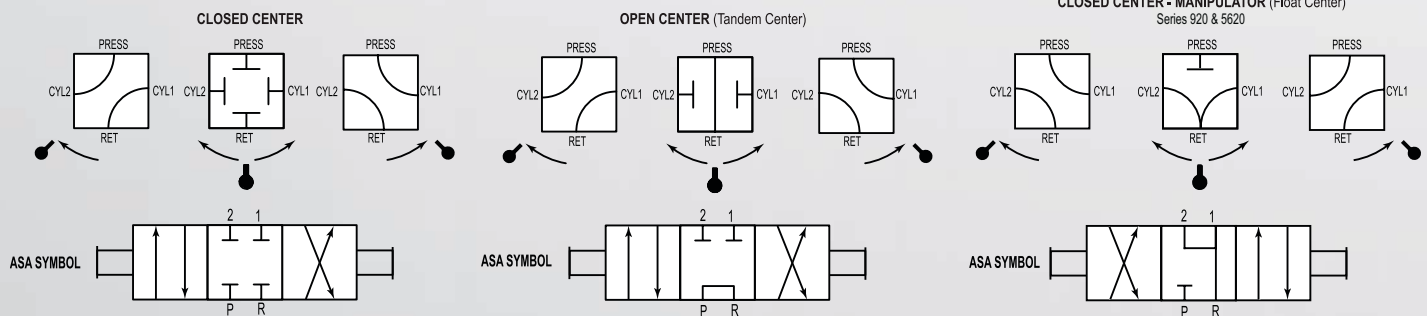
### General Specifications\*

<b>Working Pressure:</b>	Air (pneumatic) up to 4,000 psi (275 bar) hydraulic oil or lubricated water up to 6,000 psi (413 bar)
<b>Flow Capacity, Cv:</b>	See table
<b>Back Pressure:</b>	Must not exceed 250 psi (17 bar) at return port for satisfactory operation
<b>Pressure Drop:</b>	14 psi (0.96 bar) at 20 ft/sec See Supplemental Guide for more detailed information
<b>Proof Pressure:</b>	1.5x working pressure except at return port
<b>Burst Pressure:</b>	2.5x working pressure except at return port 3,000 psi (206 bar)

<b>Media Temperature Range:</b>	-40° to +250°F (-40° to +121°C)
<b>Rotor:</b>	400 series stainless steel
<b>Pressure Seals:</b>	Stainless steel
<b>Shaft:</b>	Stainless steel
<b>Body:</b>	Bronze
<b>Housing:</b>	Ductile iron
<b>Standard O-ring:</b>	Buna N, others available
<b>Back-up Rings:</b>	Teflon®

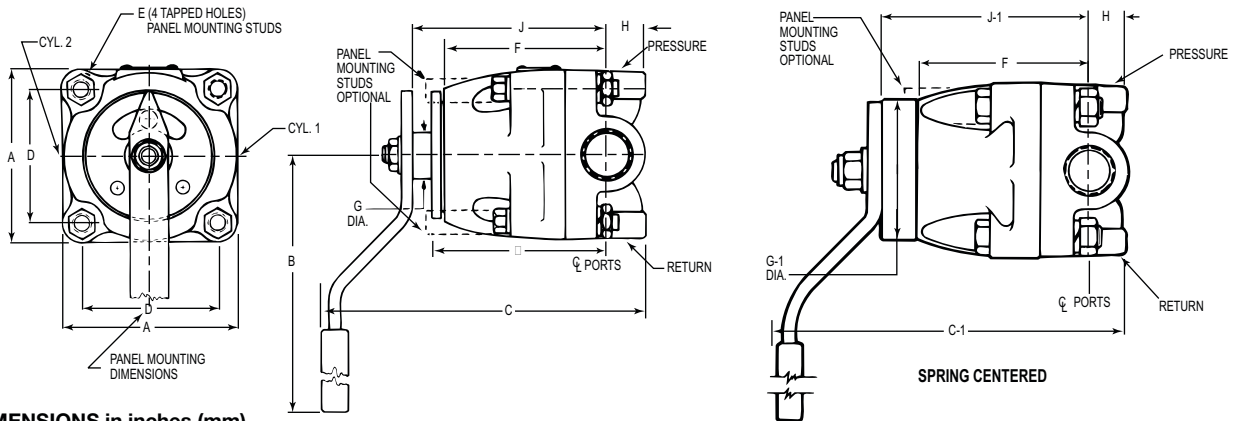
\* See product configurator for additional options.

#### FLOW PATTERNS (viewed from shaft end)



		Flow Capacity (Approx.)					
		Service: Oil and Lubricated Water					
	Main Valve Port Size	20 ft/sec gpm (l/min)	40 ft/sec gpm (l/min)	60 ft/sec gpm (l/min)	Min. Flow Passage Dia.	Cv Factor	Approx. Shipping Weight lbs (kgs)
140/920 Series Valve	1/4"	3 (11)	6 (23)	9 (34)	1/4"	0.95	4.5 (2)
	3/8" & 1/2"	9 (34)	19 (72)	28 (106)	7/16"	3.20	8.5 (3.9)
	3/4" & 1"	25 (95)	50 (189)	75 (284)	23/32"	9.20	23.0 (10.5)
	1-1/2"	57 (217)	114 (433)	171 (650)	1-3/32"	21.00	48.5 (22)
200/562 Series Valve	1/4"	3 (11)	6 (23)	9 (34)	1/4"	0.95	4.5 (2)
	1/2"	5 (19)	10 (38)	15 (57)	5/16"	1.60	8.5 (3.9)
	1"	9 (34)	19 (72)	28 (106)	7/16"	3.20	23.0 (10.5)

## Technical Drawings



DIMENSIONS in inches (mm)

Port Size NPT	A	B	C	C-1	D	E	F	G Dia.	G-1 Dia.	H	J	J-1	K (max.)
1/4"	2.6 (66)	5 (127)	4.7 (119)	4.87 (124)	1.8 (46)	3/8 - 16 NC	2.4 (61)	0.7 (18)	1.9 (48)	0.6 (15)	2.9 (74)	3.1 (79)	2.7 (69)
3/8" & 1/2"	3.3 (84)	7.0 (178)	6.8 (173)	6.8 (173)	2.4 (61)	3/8 - 16 NC	3.2 (81)	1.1 (28)	2.6 (66)	0.7 (18)	4.0 (102)	3.9 (99)	3.5 (88)
3/4" & 1"	4.6 (117)	10.0 (254)	8.7 (221)	9.9 (251)	3.6 (91)	1/2 - 13 NC	4.3 (109)	1.3 (33)	3.6 (91)	1.0 (25)	5.2 (132)	6.4 (163)	4.8 (122)
1-1/2" *	6.8 (173)	12.0 (305)	10.5 (267)	11.8 (300)	5.3 (135)	3/4 - 10 NC	5.8 (147)	1.3 (33)	3.6 (91)	1.5 (38)	6.5 (165)	7.8 (198)	6.1 (155)

\* 1 1/2" available in Series 14 and 92 only

## Product Configurator

Example: 20 3 P 6 W C 3

### Series

14	3,000 psi (206 bar), 4-way selector with 5,000 psi (344 bar) option
20	6,000 psi (413 bar), 4-way selector
92	3,000 psi (206 bar), 4-way closed center manipulator with 5,000 psi (344 bar) option
562	6,000 psi (413 bar), 4-way closed center manipulator

### Port Size

1	1/4" NPT ports
2	3/8" NPT ports (Series 14 & 92 only)
3	1/2" NPT ports
4	3/4" NPT ports (Series 14 & 92 only)
5	1" NPT ports
7	1-1/2" NPT ports (Series 14 & 92 only)

### Port Location

R	Regular side porting
P	Panel mount with side porting

### Pressure Range

3	3,000 psi lubricated water or hydraulic, 2,000 psi (137 bar) air (Series 14 & 92)
6	6,000 psi lubricated water or hydraulic, 4,000 psi (275 bar) air (Series 20 & 562)

### Working Media

A	Air (pneumatic)
W	Lubricated water or hydraulic oil

### Flow Pattern

C	Closed center (Series 14, 20)
O	Open center (tandem center) (Series 14, 20)
Q	Closed center manipulator (float center) (Series 92, 562)

### Position

3	Three position
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### Optional O-ring material & modifications<sup>1</sup>

-Zxx	See Supplemental Guide for complete list
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### Options

-MC <sup>2</sup>	Spring centering <sup>2</sup>
-MS	SAE porting
-M	5,000 psi hydraulic working pressure (Only 1" sizes for models 14 & 92)
-G <sup>3</sup>	1/4" SAE gauge ports for CYL 1 & 2
-D	Diverter flow pattern (Excludes models 92 & 562 all sizes)
-NF	Non-interflow (Consult Factory)

- See Supplemental Guide for the appropriate "Z number"
- For 3/4" & 1" ported valve pressure rating 1,500 psi (103 bar) max in water or hydraulic; 1,000 psi (69 bar) max in air. Not available on 1-1/2" ported valves
- G option is limited to 1" and 1.5" port sizes

## Oil and Gas BOP Control Valves

Part Number	Port Size	Pressure Range	Position	Flow Pattern
145R3WC3-Q6	1" NPT	3K psi lub. water or hyd. oil	3	Selector
145R3WC3-Q8	1" NPT	3K psi lub. water or hyd. oil	3	Diverter
145R3WC3-Q32	1" NPT	3K psi lub. water or hyd. oil	3	Selector
145R3WC3-Q33	1" NPT	3K psi lub. water or hyd. oil	3	Diverter
145R3WC3-Q16	1" NPT	5K psi lub. water or hyd. oil	3	Selector
145R3WC3-Q17	1" NPT	5K psi lub. water or hyd. oil	3	Diverter

Refer to sales drawings for technical reference and specifications

Part Number	Port Size	Pressure Range	Position	Flow Pattern
147R3WC3-Q4	1.5" NPT	3K psi lub. water or hyd. oil	3	Selector
147R3WC3-MS-Q4	1.5" SAE	3K psi lub. water or hyd. oil	3	Selector
147R3WC3-Q7	1.5" NPT	3K psi lub. water or hyd. oil	3	Diverter
147R3WC3-MS-Q7	1.5" SAE	3K psi lub. water or hyd. oil	3	Diverter
925R3WQ3-Q8	1" NPT	5K psi lub. water or hyd. oil	3	Manipulator
927R3WQ3-Q4	1.5" NPT	3K psi lub. water or hyd. oil	3	Manipulator
927R3WQ3-MS-Q4	1.5" SAE	3K psi lub. water or hyd. oil	3	Manipulator