Heavy Duty Valves

Series 140, 200, 920, 5620

Patent# 2.696.219

Features

- Original Shear-Seal® technology
- High velocity flow
- Tolerates contaminates
- 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

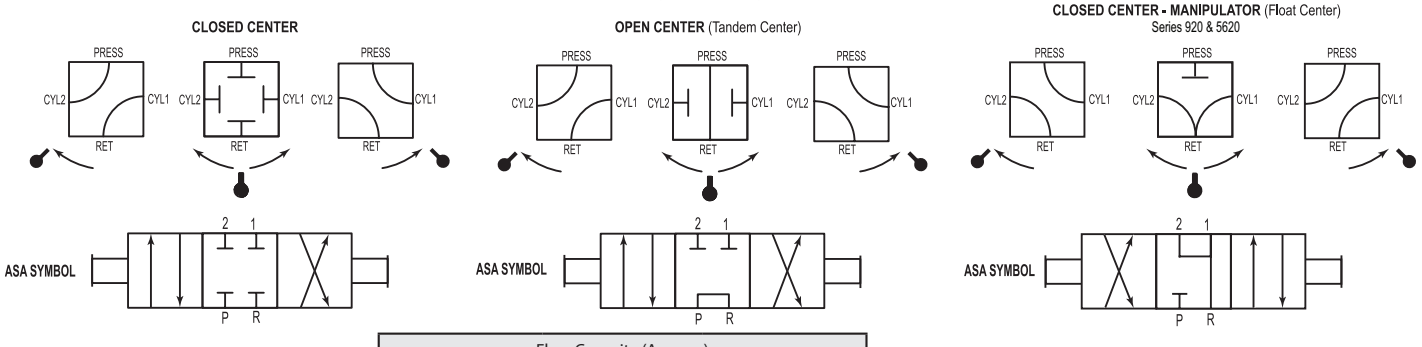
General Specifications*

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

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

* See product configurator for additional options.

FLOW PATTERNS
(viewed from shaft end)

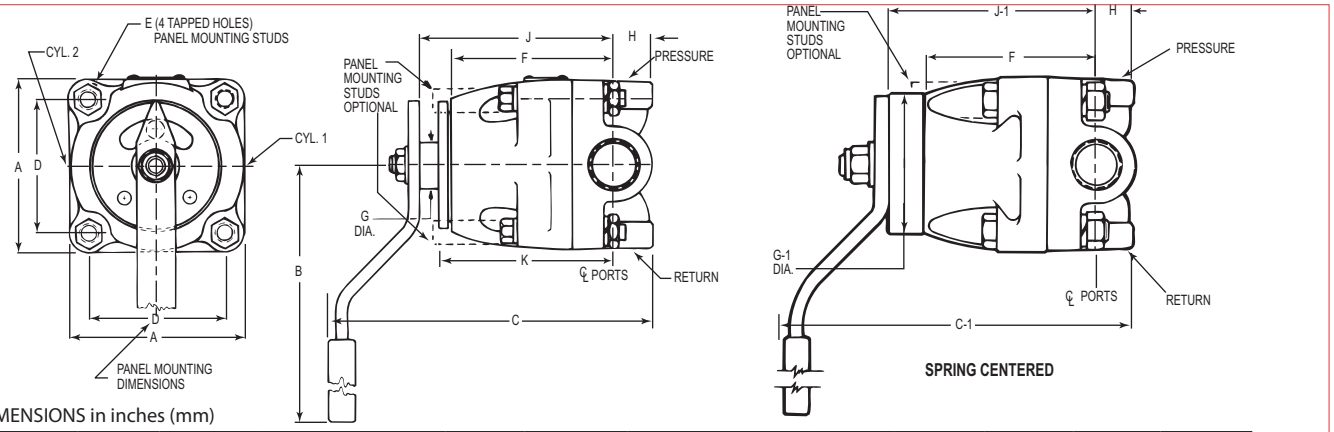


	Main Valve Port Size	Flow Capacity (Approx.) Service: Oil and Lubricated Water 20 ft/sec gpm (l/min)	40 ft/sec gpm (l/min)	60 ft/sec gpm (l/min)	Min. Flow Passage Dia.	Cv Factor	Approx. Shipping Weight lbs (kgs)
140/920 Series Valve	1/4"	3 (11)	6 (23)	9 (34)	1/4"	0.95	4.5 (2)
	3/8" & 1/2"	9 (34)	19 (72)	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)

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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

Optional O-ring material & modifications[1]

-Zxx	See Supplemental Guide for complete list

Options

-MC[2]	Spring centering
-MS	SAE porting
-G	1/4" NPT gauge ports for CYL 1 & 2
-D	Diverter flow pattern (Excludes models 92 & 562 all sizes)
-LD	Lockout Device (See Data Sheet)

Notes:
1. See Supplemental Guide for the appropriate "Z number"
2. 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
3. Not available with Panel Mount
4. Only available with 3/8", 1/2", 3/4" & 1"

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

Subplate Mounted Heavy Duty Valve — Series 3760

Patent # 2.696.219

Features

- Original Shear-Seal® technology
- Convenient sub-plate manifold mounting
- Low pressure drop
- High velocity flow
- Tolerates contaminates
- Low handle load at high pressures

Applications

- Steel mills
- Shipboard hydraulic control systems
- Refineries and chemical processing plants
- Power generation facilities

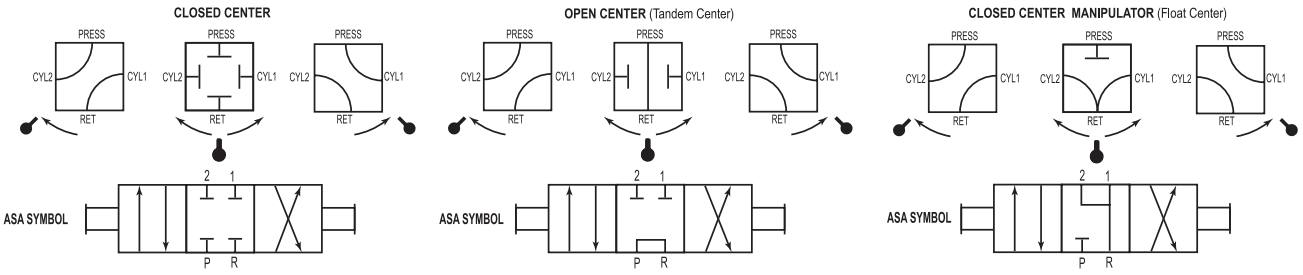


General Specifications*

Working Pressure:	Hydraulic oil or lubricated water up to 4,500 psi (310 bar)
Flow Capacity, Cv:	See table
Back Pressure:	Must not exceed 250 psi (17.2 Bar) at return port for satisfactory operation
Pressure Drop:	14 psi (0.96 bar) at 20 ft/sec * See Supplemental Guide for more detailed information
Proof Pressure:	1.5x times working pressure except at return port
Burst Pressure:	2x times working pressure except at return port (3,000 psi [206 bar])
Media Temperature Range:	-40° to +250°F (-40° to +121°C)

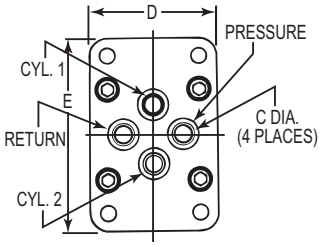
Wetted Material: Rotor:	400 series stainless steel
Pressure Seals:	Stainless steel
Shaft:	Stainless steel
Body:	Bronze
Housing:	Ductile iron
Standard O-rings:	Buna N, others available
Back-up Rings:	PTFE

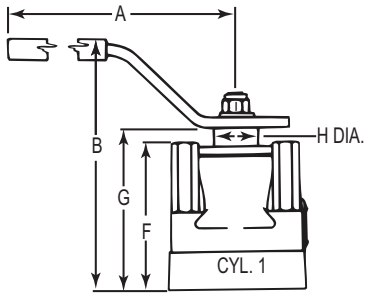
* See product configurator for additional options.

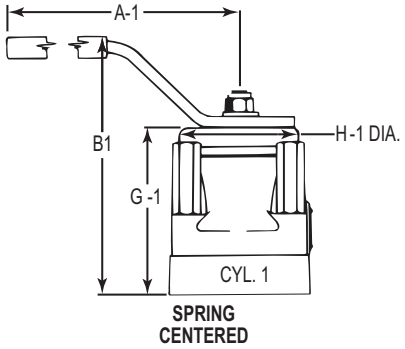


	Main Valve Port Size	Flow Capacity (Approx.) Service: Oil and Lubricated Water 20 ft/sec gpm (l/min)	40 ft/sec gpm (l/min)	60 ft/sec gpm (l/min)	Min. Flow Passage Dia.	Cv Factor	Approx. Shipping Weight lbs (kgs)
3760 Series Valve	1/2"	9 (34)	19 (72)	28 (106)	7/16"	3.20	9.5 (4.3)
	1"	25 (95)	50 (189)	75 (284)	23/32"	9.20	25 (11.3)
	1-1/2"	57 (217)	114 (433)	171 (650)	1-3/32"	21.00	53 (24)

Technical Drawings







Valve Dimensions - inches (mm)

Size	A	A-1	B	B-1	C	D	E	F	G	G-1	H	H-1
1/2"	7.00 (178)	9.00 (229)	5.81 (148)	6.06 (154)	0.47 (12)	3.44 (87)	5.44 (138)	3.56 (90)	3.94 (100)	4.06 (103)	1.06 (27)	2.63 (67)
1"	10.0 (254)	14.0 (356)	7.63 (194)	8.81 (224)	0.75 (19)	4.75 (121)	6.88 (175)	4.81(122)	5.13 (130)	6.19 (157)	1.25 (32)	3.56 (90)
1-1/2"	12.00 (305)	14.0 (356)	8.75 (222)	10.0 (254)	1.25 (32)	6.81 (173)	9.38 (238)	5.94 (151)	6.25 (159)	7.5 (191)	1.25 (32)	3.56 (90)

Product Configurator

Example:	376	5	M	3	W	C	3		

Series

376	Basic 376 series valve

Port Size

3	1/2" NPT ports
5	1" NPT ports
7	1-1/2" NPT ports

Style

M	Manifold porting

Pressure Range

3	3,000 psi lubricated water or hydraulic oil

Working Media

W	Lubricated water or hydraulic

Flow Pattern

C	Closed center
O	Open center (tandem center)
Q	Closed center manipulator

Position

3	3-position

Options

	See Supplemental Guide for complete list

Options

-MC	Spring centering *
-H	4,500 psi rated

* For 1" ported valve pressure rating 1,500 psi
Not available on 1-1/2" ported valves