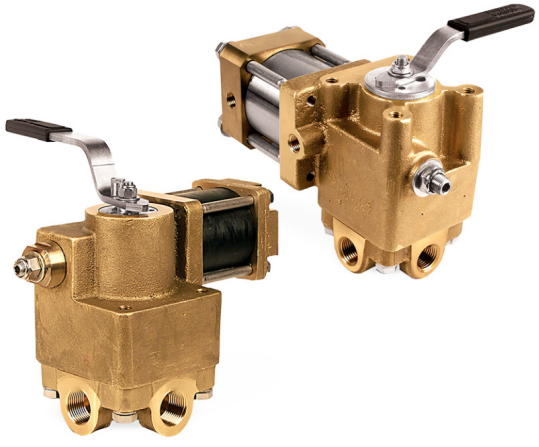
Actuated Heavy Duty Valves Series II - 14, 18, 92, 376, 20, 562

Features

- Original Shear-Seal® technology
- Air or hydraulic integrated actuator
- 2- and 3-position
- Superior shifting performance
- High velocity flow
- Compact design
- Corrosion resistant materials
- Position indication



Applications

- Land-based & offshore oil drilling controls
  BOP control units
- Steel mills
- Shipboard hydraulic control systems
- Refineries and chemical processing plants

General Specifications*

Main Valve

Working Pressure:	Hydraulic up to 3,000 or 6,000 psi (206 bar or 413 bar) Air up to 2,000 or 4,000 psi (138 or 276 bar)
Back Pressure:	Must not exceed 250 psi (17.2) bar at return port for satisfactory operation
Proof Pressure:	1-1/2 times working pressure except at return port
Burst Pressure:	2-1/2 times working pressure except at return port (3,000 psi [206 bar])
Pressure Drop (all Valves):	See supplemental guide for detailed information
Porting:	1/4”, 3/8”, 1/2”, 3/4”, 1”, & 1-1/2” NPT Standard (SAE J1926 Option)
Media Temperature Range:	-40° to +250°F (-40° to +121°C)
Handle Detent:	All valves have 3-position detents for manual shift to Center position
Panel Mounting:	Standard for 1/4”, 3/8”, 1/2” valves Refer to sales drawings for 1” & 1-1/2” valves
Wetted Materials: Body: Shaft: Rotor & Seals: Standard O-Rings:	 Al-Ni bronze Stainless steel 400 series stainless steel Buna N
External: Housing: Hardware: Handle & Detent Disc:	 Al-Ni Bronze Stainless Steel Stainless Steel

Pilot Actuator

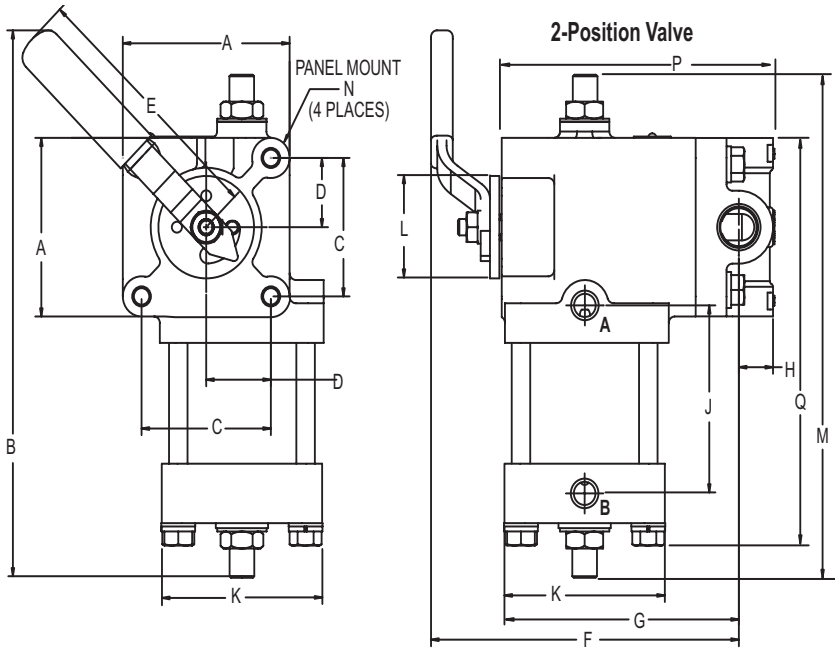
Working Pressure: Air: Hydraulic:	 80 psi (5.2 bar) minimum 250 psi (17.2 bar) maximum 500 psi (34 bar) minimum 1,500 psi (103 bar) maximum
Porting:	1/4”- 18 NPT (2)
Media Temperature Range:	-40° to +250°F (-40° to +121°C
Speed of Operation:	Greater than or equal to 1/2 second to avoid damage.
Materials: Cylinder: End Plate: Hardware:	 Air -Amalga (Std.) -Stainless steel (Opt.) Hydraulic - Stainless steel (Std.) Stainless steel 1/4”, 3/8”, 1/2” Al-Ni Bronze 3/4” 1” & 1-1/2” Stainless steel

* See product configurator for additional options.

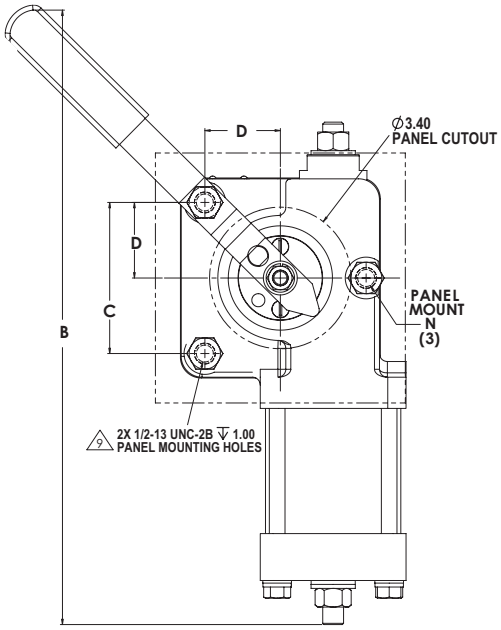
GENUINE Barksdale® CONTROL PRODUCTS CRANE SHEAR-SEAL® VALVE

Technical Drawings

2-Position Valve



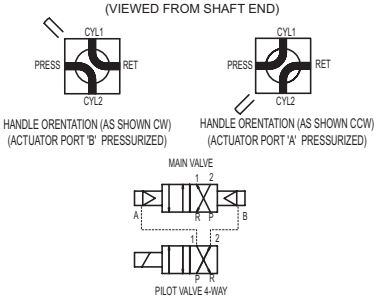
1/4", 3/8", 1/2"



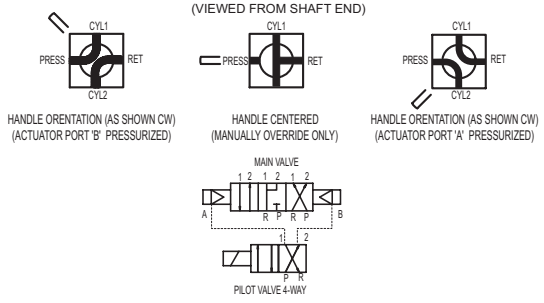
3/4", 1", 1 1/2"

Refer to Sales Drawings for more detailed information

2-POSITION FLOW PATTERN SELECTOR
(VIEWED FROM SHAFT END)



CLOSED CENTER MANIPULATOR FLOW PATTERN
(VIEWED FROM SHAFT END)

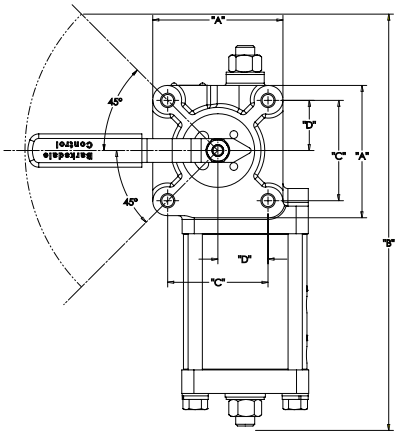


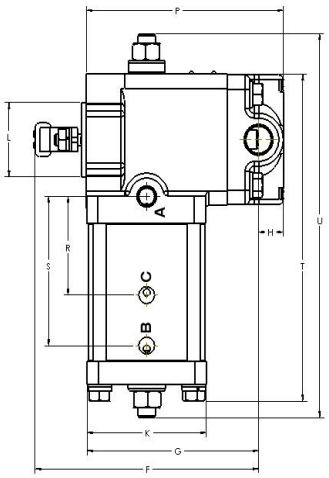
Porting	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
1/4" NPT	2.75 (69.9)	10.38 (254.0)	2.00 (50.8)	1.00 (25.4)	5.00 (127.0)	5.72 (146.1)	4.25 (108)	0.50 (12.7)	3.34 (85)	3.25 (82.6)	1.94 (49.2)	9.43 (231.7)	3/8-18 UNC	4.88 (124.0)	7.44 (189.0)	NA	NA	NA	NA
3/8" & 1/2" NPT	3.406 (86.5)	10.937 (277.8)	2.625 (66.7)	1.312 (33.3)	5.00 (127.0)	6.25 (158.8)	4.750 (120.65)	0.688 (17.46)	3.531 (89.7)	3.25 (82.6)	1.94 (49.2)	9.531 (242.1)	3/8-18 UNC	5.50 (139.7)	7.85 (199.3)	NA	NA	NA	NA
3/4" & 1" 2 pos NPT	4.781 (121.4)	14.375 (365.1)	3.625 (92)	1.812 (46)	9.00 (228.6)	8.75 (222.3)	6.562 (166.6)	1.00 (25.4)	4.25 (108)	3.50 (88.9)	3.00 (76.2)	12.00 (482.0)	1/2-13 UNC	7.562 (192.0)	10.125 (257.0)	NA	NA	NA	NA
1-1/2" 2 pos NPT	6.75 (171.5)	16.00 (406.4)	5.312 (134.9)	2.656 (67.5)	9.00 (228.6)	10.50 (266.7)	8.139 (209)	1.50 (38.1)	4.00 (101.6)	4.75 ;(120.7)	3.00 (76.2)	12.00 (482.0)	1/2-13 UNC	8.31 (211.1)	NA	NA	NA	NA	NA

Actuated Heavy Duty Valves Series II - 14, 18, 92, 376, 20, 562

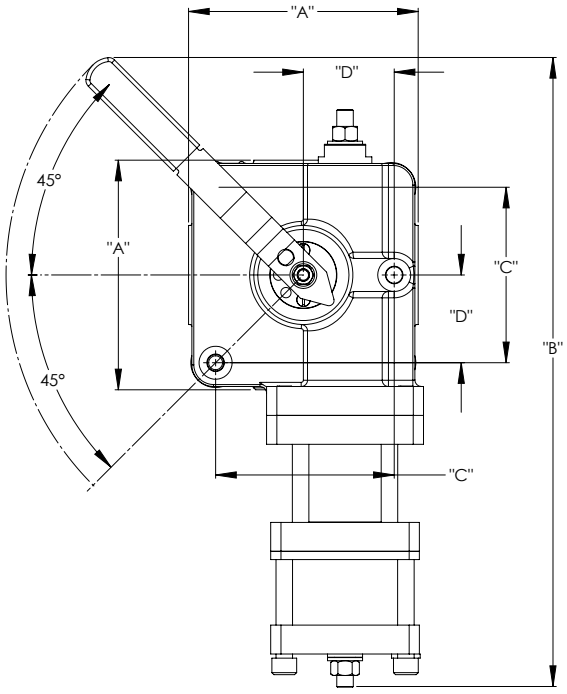
Technical Drawings

3-Position Valve





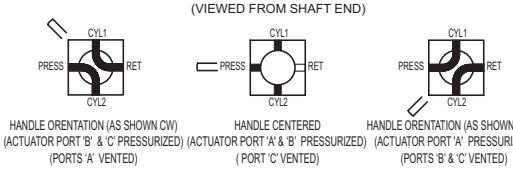
1/4", 3/8", 1/2"



3/4", 1", 1 1/2"

Refer to Sales Drawings for
more detailed information

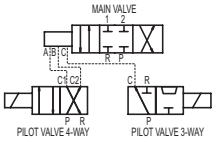
3-POSITION FLOW PATTERN SELECTOR
(VIEWED FROM SHAFT END)



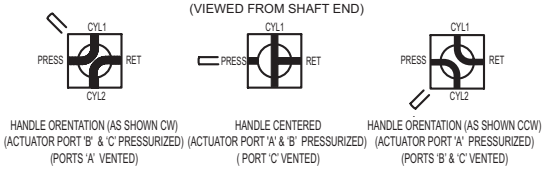
HANDLE ORENTATION (AS SHOWN CW)
(ACTUATOR PORT 'B' & 'C' PRESSURIZED)
(PORTS 'A' VENTED)

HANDLE CENTERED
(ACTUATOR PORT 'A' & 'B' PRESSURIZED)
(PORT 'C' VENTED)

HANDLE ORENTATION (AS SHOWN CCW)
(ACTUATOR PORT 'A' PRESSURIZED)
(PORTS 'B' & 'C' VENTED)



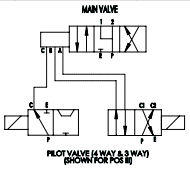
CLOSED CENTER MANIPULATOR FLOW PATTERN
(VIEWED FROM SHAFT END)



HANDLE ORENTATION (AS SHOWN CW)
(ACTUATOR PORT 'B' & 'C' PRESSURIZED)
(PORTS 'A' VENTED)

HANDLE CENTERED
(ACTUATOR PORT 'A' & 'B' PRESSURIZED)
(PORT 'C' VENTED)

HANDLE ORENTATION (AS SHOWN CCW)
(ACTUATOR PORT 'A' PRESSURIZED)
(PORTS 'B' & 'C' VENTED)



Porting	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
1/4"	2.75	10.38	2.00	1.00	5.00	5.72	4.25	0.50	3.34	3.25	1.94	9.43	3/8-18 UNC	4.88	7.44	2.44	3.75	6.44	10.468
NPT	(69.9)	(254.0)	(50.8)	(25.4)	(127.0)	(146.1)	(108)	(12.7)	(85)	(82.6)	(49.2)	(231.7)		(124.0)	(189.0)	(62)	(95.3)	(214.4)	(265.9)
3/8" & 1/2"	3.406	10.937	2.625	1.312	5.00	6.25	4.75	0.688	3.531	3.25	1.94	9.531	3/8-18 UNC	5.50	7.85	2.56	3.88	8.688	10.25
NPT	(86.5)	(277.8)	(66.7)	(33.3)	(127.0)	(158.8)	(120.65)	(17.46)	(89.7)	(82.6)	(49.2)	(242.1)		(139.7)	(199.3)	(65.1)	(98.4)	(220.7)	(260.4)
3/4" & 1" 3 pos	4.813	17.313	3.625	1.812	9.00	8.750	6.562	1.00	4.250	4.50	3.00	12.00	1/2-13 UNC	7.563	NA	3.938	7.063	NA	15.188
NPT	(122.3)	(439.8)	(92)	(46)	(228.6)	(222.3)	(166.6)	(25.4)	(108)	(114.3)	(76.2)	(482.0)		(192.1)		(100)	(179.4)		(385.8)
1-1/2" 3-Pos	7.00	18.75	5.25	2.656	9.00	10.50	8.138	1.50	4.00	4.50	3.00	17.50	1/2-13 UNC	8.31	NA	4.188	7.313	NA	17.50
NPT	(177.8)	(476.3)	(133.4)	(67.5)	(228.6)	(266.7)	(209)	(38.1)	(101.6)	(114.3)	(76.2)	(444.5)		(211.1)		(106.4)	(185.7)		(444.5)

Flow Capacity

	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 2 Pos.	Approx. Shipping Weight 3 Pos.
A14/A92 & A376 Series Valve	1/4"	3 (11)	6 (23)	9 (34)	1/4"	0.95	30	32
	3/8" & 1/2"	9 (34)	19 (72)	28 (106)	7/16"	3.20	35	37
	3/4" & 1"	25 (95)	50 (189)	75 (284)	23/32"	9.20	50	52
	1-1/2"	57 (217)	114 (433)	171 (650)	1-3/32"	21.00	129	134
A20/A562 Series Valve	1/4"	3 (11)	6 (23)	9 (34)	1/4"	0.95	30	32
	1/2"	5 (19)	10 (36)	15 (57)	5/16"	1.60	35	37
	1"	9 (34)	19 (72)	28 (106)	7/16"	3.20	50	52

Product Configurator

Example:	A	14	5	R	3	W	C	2		

Actuator Media

A	Air cylinder
H	Hydraulic cylinder

Series II Models

14	3,000 psi (206 bar), 4-way selector or diverter
92	3,000 psi (206 bar), 4-way closed center manipulator
18	3,000 psi (206 bar), straight porting, 4-way selector, diverter or manipulator
376	3,000 psi (206 bar), 4-way sub-plate mount selector/diverter or closed center manipulator
20	6,000 psi (412 bar), 4-way selector or diverter

Port Size

1	1/4" NPT
2	3/8" NPT (14 and 92 series only)
3	1/2" NPT
4	3/4" NPT (14 and 92 series only)
5	1" NPT
7	1 1/2" NPT (14, 92 and 376 series only)

Port Location

R	Regular side porting
S	Straight (Bottom) porting (18 Series Only)
M	Manifold porting (376 series only)
P	Panel mount with side porting (Standard for 1/4", 3/8", 1/2")

Pressure Range

3	3,000 psi lubricated water or hydraulic oil, 2,000 psi air (14, 92 & 376 Series)
6	6,000 psi lubricated water or hydraulic oil, 4,000 psi air (20 & 562 series)

Working Media

W	Lubricated water or hydraulic oil

Flow Pattern

C	Closed center
O	Open center (tandem center)
Q	Closed center manipulator Standard on 92 and 562 series Optional on 376 Series in closed center only Not available on 14 and 20 Series

Notes:
1. See Supplemental Guide for the appropriate "Z number"
2. -G option is limited to 1" and 1.5" port sizes
3. Not available for 1.5" port size with Air Cylinder Actuator
4. Only for air Actuators.

Optional O-ring Material[1]

-Zxx	See supplemental guide

Options

- B	Position Indicator
-C[4]	3 x 2 converter Allows 3-position valve to be actuated with 2 inlets (3-position actuator only)
-D	Diverter flow pattern (Excludes 1/4" port size and all 92 & 562 models)
-MS	SAE J1926 Porting (except 376 models)
-SS	Stainless Steel Cylinder (Air only) Optional for: 2-Pos Sizes: 1/4"- 1 1/2" and 3 Pos Size 1"
-G[2]	1/4" NPT gauge ports for CYL 1 & 2

Position

2	2-position actuator, 90° rotation
3[3]	3-position actuator