

Valves

High Pressure OEM Valves

Series 6140, 6180

Patent# 3,014,499

Features

- ▶ Original Shear-Seal® technology
- ▶ Low pressure drop
- ▶ Tolerates contaminants
- ▶ Spring return option
- ▶ Flexible design for OEM requirements

Applications

- ▶ Hydraulic presses
- ▶ Military equipment
- ▶ Paper mill controls
- ▶ Hydraulic pilot valves
- ▶ Railroad maintenance equipment
- ▶ Halon fill systems



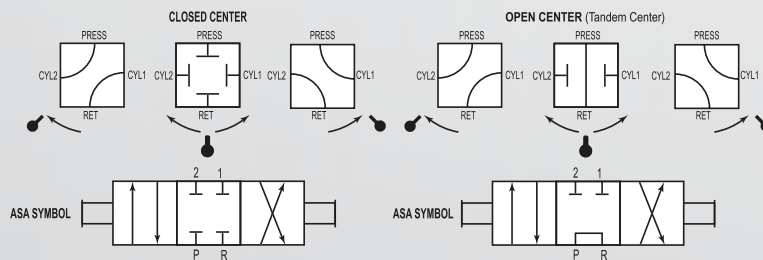
General Specifications*

| | |
|---------------------------|--|
| Working Pressure: | Hydraulic fluid up to 3000 psi (206 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: | 1-1/2 times working pressure except at return port |
| Burst Pressure: | 2-1/2 times working pressure except at return port (see flow chart) |

| | |
|---------------------------------|---------------------------------|
| Media Temperature Range: | -40° to +250°F (-40° to +121°C) |
| Wetted Material: | |
| Rotor: | Hard anodized aluminum |
| Pressure Seals: | Brass |
| Shaft: | Stainless steel |
| Body Housing: | Anodized aluminum |
| Bearings: | Carbon steel |
| Standard O-rings: | 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 | | | Min. Flow Passage Dia. | Cv Factor | Approx. Shipping Weight lbs (kgs) | Return Port Burst Rating |
|----------------------|---|-----------------------------|-----------------------------|------------------------|-----------|-----------------------------------|--------------------------|
| | 20 ft/sec gpm (l/min) | 40 ft/sec gpm (l/min) | 60 ft/sec gpm (l/min) | | | | |
| 1/4" & 3/8" | 5 (19) | 10 (38) | Use Heavy Duty Valve | 5/16" | 1.56 | 1.7 (0.8) | 3,000 psi (207 bar) |
| 1/2" & 3/4" | 14 (53) | 28 (106) | | 17/32" | 4.80 | 3.8 (1.7) | |
| ** 1" | 25 (95) | 51 (190) | | 23/32" | 9.20 | 7.6 (3.5) | 2,000 psi (138 bar) |
| ** 1-1/2" | 62 (235) | 124 (471) | | 1-1/8" | 24.0 | 18.5 (8.4) | 1,500 psi (103 bar) |

** 6140 Series only

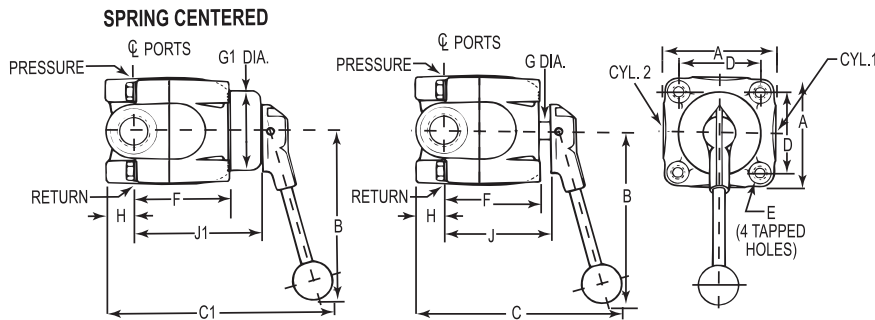
Barksdale®
CONTROL PRODUCTS
Barksdale, Inc./Barksdale GmbH
A Subsidiary of Crane Co.

High Pressure OEM Valves

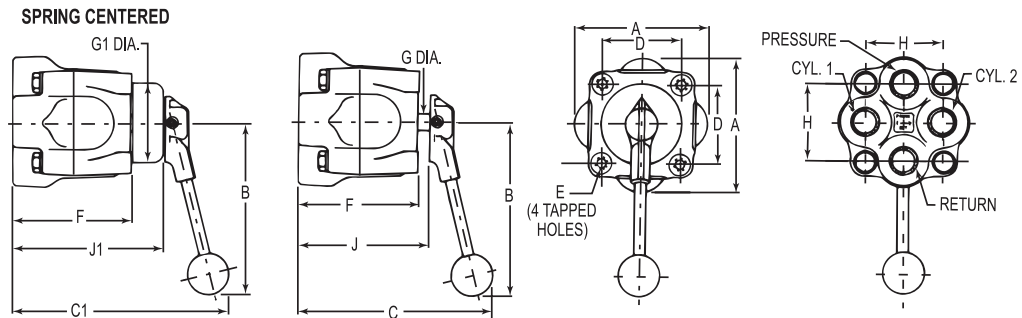
Series 6140, 6180

Technical Drawings

6140 Series



6180 Series



6140 Series In-Line (side) Porting

| Port Size NPT | A | B | C | C1 | D | E | F | G Dia. | G1 Dia. | H | J | J1 |
|------------------|-------------|-------------|--------------|---------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1/4" & 3/8" | 2.63 (66.8) | 5.44 (138) | 6.38 (161.9) | 6.718 (170.6) | 1.81(46.0) | 5/16 - 18 NC | 2.31(58.7) | 0.44 (11.2) | 1.91(48.5) | 0.56 (14.2) | 2.66 (67.6) | 3.03 (77.0) |
| 1/2" & 3/4" | 3.5 (88.9) | 5.44 (138) | 7.37 (187) | 7.93 (201) | 2.56 (65.0) | 3/8 - 16 NC | 3.03 (77.0) | 0.56 (14.2) | 2.56 (65.0) | 0.88 (22.4) | 3.38 (85.9) | 3.94 (100) |
| 1" | 4.5 (114) | 8.44 (214) | 8.16 (207) | 9.03 (229.3) | 3.31 (84.1) | 1/2 - 13 NC | 3.59 (91.2) | 0.75 (19.1) | 3.38 (86) | 1.06 (26.9) | 3.94 (100) | 4.81 (122) |
| 1-1/2" | 6.38 (162) | 10.35 (263) | 9.66 (245) | 10.53 (268) | 4.75 (121) | 3/4 - 10 NC | 4.6 (118) | 0.88 (22.4) | 3.38 (86) | 1.34 (34.0) | 5.03 (128) | 5.91 (150) |

6180 Series Straight (bottom) Porting

| Port Size NPT | A | B | C | C1 | D | E | F | G Dia. | G1 Dia. | H | J | J1 |
|------------------|-------------|------------|------------|------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1/4" & 3/8" | 2.63 (66.8) | 5.44 (138) | 6.13 (156) | 6.50 (165) | 1.81(46.0) | 5/16 - 18 NC | 2.66 (67.6) | 0.44 (11.2) | 1.91(48.5) | 1.50 (38.1) | 3.00 (76.2) | 3.38 (85.9) |
| 1/2" & 3/4" | 4.19 (106) | 5.44 (138) | 7.34 (186) | 7.91 (201) | 2.56 (65.0) | 3/8 - 16 NC | 3.88 (98.6) | 0.56 (14.2) | 2.56 (65.0) | 2.50 (63.5) | 4.22 (107) | 4.78 (121) |

Dimensions in inches (mm)

Product Configurator

Example: 614 2 R 3 H C 3

Series

| | |
|-----|---------------------------|
| 614 | Regular (side) porting |
| 618 | Straight (bottom) porting |

Port Size

| | |
|---|-----------------------------|
| 1 | 1/4" NPT ports |
| 2 | 3/8" NPT ports |
| 3 | 1/2" NPT ports |
| 4 | 3/4" NPT ports |
| 5 | 1" NPT ports (614 only) |
| 7 | 1-1/2" NPT ports (614 only) |

Style

| | |
|---|--|
| R | Regular (side) porting (series 614) |
| S | Straight (bottom) porting (series 618) |

Pressure

3 3,000 psi

Working Media

H Hydraulic oil

Flow Pattern

C Closed center
O Open center (tandem center)

Position

3 3-position

Options

See Supplemental Guide for complete list

Options

| | |
|-----|--|
| -A | SAE Porting |
| -MC | Spring centering * |
| -NF | Non-interflow (port size 1/4" and 3/8" NPT only) |

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