# Pressure Sequence Valves

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</table>
PRESSURE SEQUENCE VALVE
SPOOL TYPE, HI–LO PRESSURE SEQUENCE.

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0–022.1

HLSS-10-X-X-X-XX

BASIC
SIZE
10 = 7/8"–14 UNF

SEALS
N = BUNA "N"
V = VITON

ADJUSTMENT
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0–050.0

TORQUE:
Steel = 55/60 Ft–Lb. [74/81 Nm]
Aluminum = 35/40 Ft–Lb. [47/54 Nm]

PRESURE RANGE
12 = 250 TO 1200 PSI
20 = 800 TO 2000 PSI
40 = 2220 TO 4000 PSI

PORTS
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
04BX = G 1/2" BSPP
08TX = SAE – #8
10TX = SAE – #10

"A" – ALUM. HOUSING
"S" – STEEL HOUSING

L/M (28,5 cSt)

Reference: 520-P-060120-EN-00/09.2015
PRESSURE SEQUENCE VALVE
SPOOL TYPE, HI–LO PRESSURE SEQUENCE.

DESCRIPTION
This unit is a DIRECT ACTING, SCREW IN CARTRIDGE STYLE, SPOOL TYPE, ADJUSTABLE, SOFT SHIFT (shock free), HYDRAULIC HI–LO PRESSURE SEQUENCE VALVE.

OPERATIONS
This valve blocks flow from port #2 to port #1 until sufficient pressure is present at port #3 to force the differential area spool to shift thus opening the valve very gradually and without any shock. This valve is used in a two pump circuit to load and unload low press. high volume pump, from a high press. low volume pump pressure signal.

FEATURES AND BENEFITS
Leakproof screw adjustment.
Adjustment screw can not be backed out of the valve.
Overset protection – spring can not go solid.
Hardened precision fitted spool & cage provides reliable, long life.
A unibody cage construction provides very low hysteresis, dependable and reliable operation.
All external carbon steel parts are plated for longer life against the elements.
Valve is available with screw, tamperproof, capped and handknob adjustments.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS
OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 20.0 GPM [76 L/M] nominal. See performance chart.
INTERNAL LEAKAGE: 5 cu.in./min [85 cc/m] @ 85% of crack pressure.
DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
5000 PSI [350 Bar] = Steel – Unplated.
OPERATING TEMPERATURE: −40° to +250° F. [−40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as MIL–H–5606, SAE–#10, SAE–#20, etc.
INSTALLATION: No restriction.
FILTRATION: 25 microns or better.
SEAL KIT NUMBER: SKN–1027 for buna "N".
SKV–1027 for viton.
WEIGHT: 0.46 lb [.21 kg] cartridge only.
VALVE CAVITY: #C1025, See Page 0–022.0.

Reference: 520-P-060120-EN-00/09.2015

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HLSV-10

PRESSURE SEQUENCE VALVE
POPPET TYPE, SOFT-SHIFT, HI-LO SEQUENCE

TORQUE:
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

PRESSURE RANGE
15 = 300 TO 1500 PSI
25 = 1000 TO 2500 PSI
40 = 2000 TO 4000 PSI

PORTS
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
04BX = G 1/2" BSPP
08TX = SAE - #8
10TX = SAE - #10

"A" - ALUM. HOUSING
"S" - STEEL HOUSING

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

Reference: S20-P-060220-EN-00/09.2015
PRESSURE SEQUENCE VALVE
POPPET TYPE, SOFT-SHIFT, HI-LO SEQUENCE.

DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, POPPET TYPE, ADJUSTABLE, SOFT SHIFT (shock free), HYDRAULIC HI-LO PRESSURE SEQUENCE VALVE.

OPERATIONS
This valve blocks flow from port #2 to port #1 until sufficient pressure is present at port #3 to force the differential area poppet to shift thus opening the valve very gradually and without any shock. This valve is used in a two pump circuit to load and unload low press. high volume pump, from a high press. low volume pump pressure signal.

FEATURES AND BENEFITS
Leakproof screw adjustment.
Adjustment screw can not be backed out of the valve.
Overset protection – spring can not go solid.
Hardened precision fitted poppet & cage provides reliable, long life.
A unibody cage construction provides very low hysteresis, dependable and reliable operation.
All external carbon steel parts are plated for longer life against the elements.
Valve is available with screw, tamperproof, capped and handknob adjustments.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS
OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 20.0 GPM [76 L/M] nominal. See performance chart.
INTERNAL LEAKAGE: 10 cu.in./min [164 cc/m] @ 85% of crack pressure.
DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
5000 PSI [350 Bar] = Steel – Unplated.
OPERATING TEMPERATURE: −40° to +250° F. [−40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE—#10, SAE—#20, etc.
INSTALLATION: No restriction.
FILTRATION: 25 microns or better.
SEAL KIT NUMBER: SKN-1027 for buna "N".
SKV-1027 for viton.
WEIGHT: 0.46 lb [.21 kg] cartridge only.
VALVE CAVITY: #C1025, See Page 0-022.0.

Reference: 520-P-060220-EN-00/09.2015
PSXS-08

PRESSURE SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

TORQUE:
Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-031.1

PSXS-08-X-X-X-XX

BASIC
SIZE
08 = 3/4"-16 UNF

SEALS
N = BUNA "N"
V = VITON

ADJUSTMENT
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
06X = SAE - #6

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

PRESSURE DROP (ΔP)

L/M (28.5 cSt)

PORTS 2-3 PILOTED OPEN

G.P.M. (135 SUS)

Reference: 520-P-060310-EN-00/09.2015
PRESSURE SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, EXTERNAL PILOT, HYDRAULIC PRESSURE SEQUENCE VALVE.

OPERATIONS
This valve is a normally closed sequence valve, blocking flow from port 2 to port 3. Port 1 is an external pilot port. When pressure in port 1 exceeds bias spring setting the spool will shift allowing flow to pass from port 2 to port 3.

FEATURES AND BENEFITS
Leakproof screw adjustment.
Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
Adjustment screw can not be backed out of the valve.
Overset protection—pilot spring can not go solid.
Hardened precision fitted poppet & cage provides reliable, long life.
A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
All external carbon steel parts are plated for longer life against the elements.
Valve is available with screw, tamperproof, capped and handknob adjustments.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS
OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
INTERNAL LEAKAGE: 5 cu.in./min [.82 cc/m] @ 85% of crack pressure.
DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
5000 PSI [350 Bar] = Steel – Unplated.
OPERATING TEMPERATURE: −40° to +250° F. [−40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE—#10, SAE—#20, etc.
INSTALLATION: No restriction.
FILTRATION: 25 microns or better.
SEAL KIT NUMBER: SKN—0831 for buna "N".
SKV—0831 for viton.
WEIGHT: 0.30 lb [.14 kg] cartridge only.
VALVE CAVITY: #C0830, See Page 0—031.0.
PSXS-10

PRESSURE SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

TORQUE:
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

PSXS-10-X-X-X-XX

BASIC
SIZE
10 = 7/8"-14 UNF

SEALS
N = BUNA "N"
V = VITON

ADJUSTMENT
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE - #6
08TX = SAE - #8

L/M (28,5 cSt)

G.P.M. (135 SUS)

PSXS-10

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-032.1

Reference: 520-P-060320-EN-00/09.2015
## PRESSURE SEQUENCE VALVE
### PILOT OPERATED, SLIDING SPOOL

### DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, EXTERNAL PILOT, HYDRAULIC PRESSURE SEQUENCE VALVE.

### OPERATIONS
This valve is a normally closed sequence valve, blocking flow from port 2 to port 3. Port 1 is an external pilot port. When pressure in port 1 exceeds bias spring setting the spool will shift allowing flow to pass from port 2 to port 3.

### FEATURES AND BENEFITS
- Leakproof screw adjustment.
- Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection—pilot spring can not go solid.
- Hardened precision fitted poppet & cage provides reliable, long life.
- A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements.
- Valve is available with screw, tamperproof, capped and handknob adjustments.
- All cartridge valves are 100% functionally tested.
- Industry common cavity.

### SPECIFICATIONS
- OPERATING PRESSURE: 5,000 PSI [350 Bar]
- PROOF PRESSURE: 10,000 PSI [700 Bar]
- INTERNAL LEAKAGE: 5 cu.in./min [0.82 cc/m] @ 85% of crack pressure.
- DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
  5000 PSI [350 Bar] = Steel – Unplated.
- OPERATING TEMPERATURE: −40° to +250° F. [−40° to +120° C.]
- OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE−#10, SAE−#20, etc.
- INSTALLATION: No restriction.
- FILTRATION: 25 microns or better.
- SEAL KIT NUMBER: SKN−1031 for buna "N".
  SKV−1031 for viton.
- WEIGHT: 0.42 lb [.19 kg] cartridge only.
- VALVE CAVITY: #C1030, See Page 0−032.0.
PSOS-08

PRESSURE SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-031.1

TORQUE:
Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]

PSOS-08-X-S-X-XX

BASIC
08 = 3/4"-16 UNF

SEALS
N = BUNA "N"
V = VITON

ADJUSTMENT
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

CARTRIDGE ONLY

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
028X = G 1/4" BSPP
06TX = SAE - #6

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

PRESSURE DROP (ΔP)

G.P.M.(135 SUS)

BUC HER hydraulics

Reference: 520-P-060410-EN-00/09.2015
PRESSURE SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

DESCRIPTION

This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE SEQUENCE VALVE.

OPERATIONS

This valve is a normally open sequence valve, allowing flow from port 1 to port 2 and blocking flow in port 2 to port 3. When pressure in port 1 exceeds bias spring setting the spool will shift allowing no flow from port 1 to port 2 and pass flow from port 2 to port 3.

FEATURES AND BENEFITS

Leakproof screw adjustment.
Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
Adjustment screw can not be backed out of the valve.
Overset protection—pilot spring can not go solid.
Hardened precision fitted poppet & cage provides reliable, long life.
A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
All external carbon steel parts are plated for longer life against the elements.
Valve is available with screw, tamperproof, capped and handknob adjustments.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS

OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
INTERNAL LEAKAGE: 5 cu.in./min [.82 cc/m] @ 85% of crack pressure.
DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
5000 PSI [350 Bar] = Steel – Unplated.
OPERATING TEMPERATURE: −40° to +250° F. [−40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as MIL–H–5606, SAE–#10, SAE–#20, etc.

INSTALLATION: No restriction.
FILTRATION: 25 microns or better.
SEAL KIT NUMBER: SKN–0831 for buna "N".
SKV–0831 for viton.
WEIGHT: 0.30 lb [.14 kg] cartridge only.
VALVE CAVITY: #C0830, See Page 0–031.0.

Reference: 520-P-060410-EN-00/09.2015

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PSOS-10

PRESSURE SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

Pat.#5,546,980

Steel = 55/60 Ft–Lb. [74/81 Nm]
Aluminum = 35/40 Ft–Lb. [47/54 Nm]

TORQUE:

PSOS-10-X-X-X-XX

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE – #6
08TX = SAE – #8

"A" – ALUM. HOUSING
"S" – STEEL HOUSING

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0–050.0

Reference: 520-P-060420-EN-00/09.2015
# PRESSURE SEQUENCE VALVE

## PILOT OPERATED, SLIDING SPOOL

### DESCRIPTION

This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE SEQUENCE VALVE.

### OPERATIONS

This valve is a normally open sequence valve, allowing flow port 1 to port 2 and blocking flow port 2 to port 3. When pressure in port 1 exceeds bias spring setting the spool will shift allowing no flow from port 1 to port 2 and pass flow from port 2 to port 3.

### FEATURES AND BENEFITS

- Leakproof screw adjustment.
- Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection—pilot spring can not go solid.
- Hardened precision fitted poppet & cage provides reliable, long life.
- A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements.
- Valve is available with screw, tamperproof, capped and handknob adjustments.
- All cartridge valves are 100% functionally tested.
- Industry common cavity.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>OPERATING PRESSURE: 5,000 PSI [350 Bar]</th>
</tr>
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<tbody>
<tr>
<td>PROOF PRESSURE: 10,000 PSI [700 Bar]</td>
</tr>
<tr>
<td>FLOW: 12.0 GPM [46 L/M] nominal. See performance chart.</td>
</tr>
<tr>
<td>INTERNAL LEAKAGE: 5 cu.in./min [.82 cc/m] @ 85% of crack pressure.</td>
</tr>
<tr>
<td>DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]</td>
</tr>
<tr>
<td>5000 PSI [350 Bar] = Steel – Unplated.</td>
</tr>
<tr>
<td>OPERATING TEMPERATURE: –40° to +250° F. [–40° to +120° C.]</td>
</tr>
<tr>
<td>OPERATING MEDIA: All general purpose hydraulic fluids such as MIL–H–5606, SAE–#10, SAE–#20, etc.</td>
</tr>
<tr>
<td>INSTALLATION: No restriction.</td>
</tr>
<tr>
<td>FILTRATION: 25 microns or better.</td>
</tr>
<tr>
<td>WEIGHT: 0.42 lb [.19 kg] cartridge only.</td>
</tr>
<tr>
<td>VALVE CAVITY: #C1030, See Page 0–032.0.</td>
</tr>
</tbody>
</table>

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Reference: S20-P-060420-EN-00/09.2015
PSCS-08

PRESSURE SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

TORQUE:
Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-031.1

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

Reference: 520-P-060510-EN-00/09.2015
# PRESSURE SEQUENCE VALVE
## PILOT OPERATED, SLIDING SPOOL

### DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE SEQUENCE VALVE.

### OPERATIONS
This valve is a normally closed sequence valve, blocking flow from port 1 to port 2. When pressure in port 1 exceeds bias spring setting the spool will shift allowing flow from port 1 to port 2 and blocking flow from port 2 to port 3.

### FEATURES AND BENEFITS
- Leakproof screw adjustment.
- Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection—pilot spring can not go solid.
- Hardened precision fitted poppet & cage provides reliable, long life.
- A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements.
- Valve is available with screw, tamperproof, capped and handknob adjustments.
- All cartridge valves are 100% functionally tested. Industry common cavity.

### SPECIFICATIONS
- **OPERATING PRESSURE:** 5,000 PSI [350 Bar]
- **PROOF PRESSURE:** 10,000 PSI [700 Bar]
- **FLOW:** 6.0 GPM [23 L/M] nominal. See performance chart.
- **INTERNAL LEAKAGE:** 5 cu.in./min [.82 cc/m] @ 85% of crack pressure.
- **DEFINITION OF CRACK:** evident at 0.06 GPM [0.25 LPM]
- **VALVE HOUSINGS:** 2500 PSI [175 Bar] = Aluminum – Anodized. 5000 PSI [350 Bar] = Steel – Unplated.
- **OPERATING TEMPERATURE:** -40° to +250° F. [-40° to +120° C.]
- **OPERATING MEDIA:** All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.

### INSTALLATION:
No restriction.

### FILTRATION:
25 microns or better.

### SEAL KIT NUMBER:
- SKN-0831 for buna "N".
- SKV-0831 for viton.

### WEIGHT:
0.30 lb [.14 kg] cartridge only.

### VALVE CAVITY:
#C0830, See Page 0-031.0.

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Reference: 520-P-060510-EN-00/09.2015

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PSCS-10

PRESSURE SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

Pat.#5,546,980

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4” BSPP
03BX = G 3/8” BSPP
06TX = SAE - #6
08TX = SAE - #8

“S” = STEEL HOUSING
“A” = ALUM. HOUSING

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-032.1

TORQUE:
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

PSCS-10-X-X-X-XX

1.06” [27,0] HEX

.315” [8,0] HEX.

1.75” [44,5] MAX.

1.85” [47,0]

2.75” [69,9]

2.50” [63,5]

2.50” [63,5]

Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

Reference: 520-P-060520-EN-00/09.2015
## PRESSURE SEQUENCE VALVE
### PILOT OPERATED, SLIDING SPOOL

### DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE SEQUENCE VALVE.

### OPERATIONS
This valve is a normally closed sequence valve, blocking flow from port 1 to port 2. When pressure in port 1 exceeds bias spring setting the spool will shift allowing flow from port 1 to port 2 and blocking flow from port 2 to port 3.

### FEATURES AND BENEFITS
- Leakproof screw adjustment.
- Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection—pilot spring can not go solid.
- Hardened precision fitted poppet & cage provides reliable, long life.
- A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements.
- Valve is available with screw, tamperproof, capped and handknob adjustments.
- All cartridge valves are 100% functionally tested.
- Industry common cavity.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Measurement</th>
<th>Unit</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPERATING PRESSURE</td>
<td>5,000 PSI</td>
<td>[350 Bar]</td>
<td></td>
</tr>
<tr>
<td>PROOF PRESSURE</td>
<td>10,000 PSI</td>
<td>[700 Bar]</td>
<td></td>
</tr>
<tr>
<td>FLOW</td>
<td>12.0 GPM [46 L/M]</td>
<td>nominal</td>
<td></td>
</tr>
<tr>
<td>INTERNAL LEAKAGE</td>
<td>5 cu.in./min [0.82 cc/m]</td>
<td>@ 85% of crack pressure.</td>
<td></td>
</tr>
<tr>
<td>DEFINITION OF CRACK</td>
<td>evident at 0.06 GPM [0.25 LPM]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VALVE HOUSINGS</td>
<td>2500 PSI [175 Bar]</td>
<td>= Aluminum – Anodized.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5000 PSI [350 Bar]</td>
<td>= Steel – Unplated.</td>
<td></td>
</tr>
<tr>
<td>OPERATING TEMPERATURE</td>
<td>-40° to +250° F. [−40° to +120° C.]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPERATING MEDIA</td>
<td>All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INSTALLATION</td>
<td>No restriction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FILTRATION</td>
<td>25 microns or better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEAL KIT NUMBER</td>
<td>SKN-1031 for buna &quot;N&quot;.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SKV-1031 for viton.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEIGHT</td>
<td>0.42 lb (.19 kg)</td>
<td>cartridge only.</td>
<td></td>
</tr>
<tr>
<td>VALVE CAVITY</td>
<td>#C1030, See Page 0-032.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PSVP-10
PRESSURE SEQUENCE VALVE
POPPET TYPE WITH FREE REVERSE FLOW

Pat.#5,546,980

TORQUE:
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

PSVP-10-X-X-X-XX

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
04BX = G 1/2" BSPP
08TX = SAE - #8
10TX = SAE - #10

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

FOR ADJUSTMENT OPTIONS SEE PAGE 0-050.0

Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

Reference: 520-P-060720-EN-00/09.2015
# PRESSURE SEQUENCE VALVE

## POPOPET TYPE WITH FREE REVERSE FLOW

### DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, POPOPET TYPE WITH BUILT IN FREE REVERSE FLOW CHECK, HYDRAULIC PRESSURE SEQUENCE VALVE.

### OPERATIONS
This valve (PSVP) blocks flow from port #1 to port #2 until sufficient pressure is present at port #1 to force the pilot poppet from its seat thus opening the valve. This sequence cartridge valve offers a free reverse flow from port 2 to port 1.

### FEATURES AND BENEFITS
- Leakproof screw adjustment.
- Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection—pilot spring can not go solid.
- Hardened precision fitted poppet & cage provides reliable, long life. A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements. Valve is available with screw, tamperproof, capped and handknob adjustments. All cartridge valves are 100% functionally tested.
- Industry common cavity.

### SPECIFICATIONS
- **OPERATING PRESSURE:** 5,000 PSI [350 Bar]
- **PROOF PRESSURE:** 10,000 PSI [700 Bar]
- **FLOW:** 20.0 GPM [76 L/M] nominal. See performance chart.
- **INTERNAL LEAKAGE:** 5 drops/min (.25 cc/m) @ 85% of crack pressure.
- **DEFINITION OF CRACK:** evident at 0.06 GPM (0.25 LPM)
- **VALVE HOUSINGS:**
  - 2500 PSI [175 Bar] = Aluminum – Anodized.
  - 5000 PSI [350 Bar] = Steel – Unplated.
- **OPERATING TEMPERATURE:** 
  - -40° to +250° F. [-40° to +120° C.]
- **OPERATING MEDIA:** All general purpose hydraulic fluids such as MIL–H–5606, SAE–#10, SAE–#20, etc.
- **INSTALLATION:** No restriction.
- **FILTRATION:** 25 microns or better.
- **SEAL KIT NUMBER:** SKN–1028 for buna "N".
  - SKV–1028 for viton.
- **WEIGHT:** 0.42 lb [.19 kg] cartridge only.
- **VALVE CAVITY:** C1025, See Page 0–022.0.

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Reference: 520-P-060720-EN-00/09.2015
PBVP-10

PRESSURE BREAKER/SEQUENCE VALVE
POPPET TYPE WITH FREE REVERSE FLOW

Pat.#5,546,980

Torque:
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

PBVP-10-X-X-X-XX

Pressure Range
15 = 50 to 1500 PSI
30 = 50 to 3000 PSI
50 = 50 to 5000 PSI

Ports
0 = CARTRIDGE ONLY
03BX = G 3/8" BSPP
04BX = G 1/2" BSPP
08TX = SAE - #8
10TX = SAE - #10

Adjustment
S = Adjusting Screw
C = Capped
T = Tamperproof
K = Handknob
M = Metal Handknob

For adjustment control options see page 0-050.0

Reference: 520-P-061120-EN-00/09.2015
## DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, POPPET TYPE WITH BUILT IN FREE REVERSE FLOW CHECK, HYDRAULIC PRESSURE BREAKER/SEQUENCE VALVE.

## OPERATIONS
This valve (PBVP) blocks flow from port #1 to port #2 until sufficient pressure is present at port #1 to force the pilot poppet from its seat thus opening the valve and unloads the system to a low pressure. Acts as a circuit breaker in a hydraulic system. This sequence cartridge valve offers a free reverse flow from port 2 to port 1.

## FEATURES AND BENEFITS
Leakproof screw adjustment.
Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
Adjustment screw can not be backed out of the valve.
Overset protection—pilot spring can not go solid.
Hardened precision fitted poppet & cage provides reliable, long life.
A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
All external carbon steel parts are plated for longer life against the elements.
Valve is available with screw, tamperproof, capped and handknob adjustments.
All cartridge valves are 100% functionally tested.
Industry common cavity.

## SPECIFICATIONS
**OPERATING PRESSURE:** 5,000 PSI [350 Bar]
**PROOF PRESSURE:** 10,000 PSI [700 Bar]
**FLOW:** 20.0 GPM [76 L/M] nominal. See performance chart.
**INTERNAL LEAKAGE:** 5 drops/min (.25 cc/m) @ 85% of crack pressure.
**DEFINITION OF CRACK:** evident at 0.06 GPM (0.25 LPM)
**VALVE HOUSINGS:**
- 2500 PSI [175 Bar] = Aluminum – Anodized.
- 5000 PSI [350 Bar] = Steel – Unplated.
**OPERATING TEMPERATURE:** -40° to +250° F. [-40° to +120° C.]
**OPERATING MEDIA:** All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.
**INSTALLATION:** No restriction.
**FILTRATION:** 25 microns or better.
**SEAL KIT NUMBER:** SKN-1028 for buna "N".
**WEIGHT:** 0.42 lb [.19 kg] cartridge only.
**VALVE CAVITY:** #C1025, See Page 0–022.0.
BSXS-08

PRESSURE BREAKER/SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

CARTRIDGE ONLY

PRESSURE DROP (ΔP)

L/M (28.5 cSt)

G.P.M. (135 SUS)

PRESSURE BREAKER/SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

Reference: 520-P-061310-EN-00/09.2015
### Pressure Breaker/Sequence Valve

**Description**
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE BREAKER/SEQUENCE VALVE.

**Operations**
This is a normally closed breaker/sequence valve, blocking flow from port 2 to port 3. Port 1 is as external pilot port. When pressure in port 1 exceeds spring bias setting, the spool will shift and stay shifted allowing flow from port 2 to port 3, until pressure at port 1 is removed. It acts like a circuit breaker in a hydraulic system.

**Features and Benefits**
- Leakproof screw adjustment.
- Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection – pilot spring can not go solid.
- Hardened precision fitted spool & cage provides reliable, long life.
- A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements.
- Valve is available with screw, tamperproof, capped and handknob adjustments.
- All cartridge valves are 100% functionally tested.
- Industry common cavity.

### Specifications

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Pressure</strong></td>
<td>5,000 PSI (350 Bar)</td>
</tr>
<tr>
<td><strong>Proof Pressure</strong></td>
<td>10,000 PSI (700 Bar)</td>
</tr>
<tr>
<td><strong>Flow</strong></td>
<td>6.0 GPM (23 L/M)</td>
</tr>
<tr>
<td><strong>Internal Leakage</strong></td>
<td>5 cu.in./min (.82 cc/m) @ 85% of crack pressure</td>
</tr>
<tr>
<td><strong>Definition of Crack</strong></td>
<td>evident at 0.06 GPM (0.25 LPM)</td>
</tr>
<tr>
<td><strong>Valve Housings</strong></td>
<td>2500 PSI (175 Bar) = Aluminum – Anodized.</td>
</tr>
<tr>
<td></td>
<td>5000 PSI (350 Bar) = Steel – Unplated.</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-40° to +250° F. [-40° to +120° C.]</td>
</tr>
<tr>
<td><strong>Operating Media</strong></td>
<td>All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.</td>
</tr>
</tbody>
</table>

**Installation:** No restriction.

**Filtration:** 25 microns or better.

**Seal Kit Number:** SKN-0831 for buna "N". SKV-0831 for viton.

**Weight:** 0.30 lb (.14 kg) cartridge only.

**Valve Cavity:** #C0830, See Page 0-031.0.

---

Reference: S20-P-061310-EN-00/09.2015

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BSXS-10

PRESSURE BREAKER/SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

Pat.#5,546,980

TORQUE:
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

BSXS-10-X-X-X-XX

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
O = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE - #6
08TX = SAE - #8

SEALS
N = BUNA "N"
V = VITON

ADJUSTMENT
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-032.1

Reference: S20-P-061320-EN-00/09.2015
### PRESSURE BREAKER/SEQUENCE VALVE

#### PILOT OPERATED, SLIDING SPOOL

### DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, EXTERNAL PILOT, HYDRAULIC PRESSURE BREAKER/SEQUENCE VALVE.

### OPERATIONS
This is a normally closed breaker/sequence valve, blocking flow port 2 to port 3. Port 1 is an external pilot port. When pressure in port 1 exceeds spring bias setting the spool will shift and stay shifted allowing flow from port 2 to port 3 until pressure at port 1 is removed. Acts like a circuit breaker in a hydraulic system.

### FEATURES AND BENEFITS
- Leakproof screw adjustment.
- Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection—pilot spring can not go solid.
- Hardened precision fitted spool & cage provides reliable, long life.
- A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements.
- Valve is available with screw, tamperproof, capped and handknob adjustments.
- All cartridge valves are 100% functionally tested.
- Industry common cavity.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure</td>
<td>5,000 PSI [350 Bar]</td>
</tr>
<tr>
<td>Proof Pressure</td>
<td>10,000 PSI [700 Bar]</td>
</tr>
<tr>
<td>Flow</td>
<td>12.0 GPM [46 L/M] nominal</td>
</tr>
<tr>
<td>Internal Leakage</td>
<td>5 cu.in./min [.82 cc/m] @ 85% of crack pressure</td>
</tr>
<tr>
<td>Definition of Crack</td>
<td>evident at 0.06 GPM [0.25 LPM]</td>
</tr>
<tr>
<td>Valve Housings</td>
<td>2500 PSI [175 Bar] = Aluminum - Anodized</td>
</tr>
<tr>
<td></td>
<td>5000 PSI [350 Bar] = Steel - Unplated</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40° to +250° F. [-40° to +120° C.]</td>
</tr>
<tr>
<td>Operating Media</td>
<td>All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.</td>
</tr>
<tr>
<td>Installation</td>
<td>No restriction.</td>
</tr>
<tr>
<td>Filtration</td>
<td>25 microns or better.</td>
</tr>
<tr>
<td>Seal Kit Number</td>
<td>SKN-1031 for buna “N”</td>
</tr>
<tr>
<td></td>
<td>SKV-1031 for viton.</td>
</tr>
<tr>
<td>Weight</td>
<td>0.42 lb [.19 kg] cartridge only</td>
</tr>
<tr>
<td>Valve Cavity</td>
<td>#C1030, See Page 0-032.0</td>
</tr>
</tbody>
</table>

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info.el@bucherhydraulics.com  www.bucherhydraulics.com/commoncavity

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PRESSURE BREAKER/SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

TORQUE:
Steel = 35/40 Ft-Lb. [47/54 Nm]
Aluminum = 25/30 Ft-Lb. [34/41 Nm]

BSOS-08-X-X-X-XX

PRESSURE RANGE
15 = 100 TO 1500 PSI
30 = 300 TO 3000 PSI
50 = 500 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
06TX = SAE - #6

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0–050.0

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0–031.1

Reference: 520-P-061410-EN-00/09.2015
### DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE BREAKER/SEQUENCE VALVE.

### OPERATIONS
This is a normally open breaker/sequence valve, allowing flow from port 1 to port 2 and no flow from port 2 to port 3. When pressure in port 1 exceeds bias spring setting the spool will shift and stay shifted allowing no flow from port 1 to port 2 and pass flow from port 2 to port 3, until pressure at port 1 is removed. Acts like a circuit breaker in a hydraulic system.

### FEATURES AND BENEFITS
- Leakproof screw adjustment.
- Pressure in tank port (3) will and to the bias spring setting, and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection – pilot spring can not go solid.
- Hardened precision fitted spool & cage provides reliable, long life.
- A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements.
- Valve is available with screw, tamperproof, capped and handknob adjustments.
- All cartridge valves are 100% functionally tested.
- Industry common cavity.

### SPECIFICATIONS
- **Operating Pressure:** 5,000 PSI [350 Bar]
- **Proof Pressure:** 10,000 PSI [700 Bar]
- **Flow:** 6.0 GPM [23 L/M] nominal. See performance chart.
- **Internal Leakage:** 5 cu.in./min [82 cc/m] @ 85% of crack pressure.
- **Definition of Crack:** evident at 0.06 GPM [0.25 LPM]
- **Valve housings:** 2500 PSI [175 Bar] = Aluminum – Anodized.
  - 5000 PSI [350 Bar] = Steel – Unplated.
- **Operating Temperature:** -40° to +250° F. [-40° to +120° C.]
- **Operating Media:** All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.

### INSTALLATION
No restriction.

### Filtration
25 microns or better.

### Seal Kit Number
- SKN-0831 for buna "N".
- SKV-0831 for viton.

### Weight
- 0.30 lb [.14 kg] cartridge only.

### Valve Cavity
- #C0830, See Page 0–031.0.
PRESSURE BREAKER/SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

Pat.#5,546,980

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

TORQUE:
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE - #6
08TX = SAE - #8

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

L/M (28.5 cSt)

PRESSURE DROP (\(\Delta P\))

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-032.1

Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]
PRESSURE BREAKER/SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE BREAKER/SEQUENCE VALVE.

OPERATIONS
This is a normally open breaker/sequence valve, allowing flow from port 1 to port 2 and no flow from port 2 to port 3. When pressure in port 1 exceeds bias spring setting the spool will shift and stay shifted allowing no flow from port 1 to port 2 and pass flow from port 2 to port 3, until pressure at port 1 is removed. Acts like a circuit breaker in a hydraulic system.

FEATURES AND BENEFITS
Leakproof screw adjustment.
Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
Adjustment screw can not be backed out of the valve.
Overset protection – pilot spring can not go solid.
Hardened precision fitted spool & cage provides reliable, long life.
A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
All external carbon steel parts are plated for longer life against the elements.
Valve is available with screw, tamperproof, capped and handknob adjustments.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS
OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 12.0 GPM [46 L/M] nominal. See performance chart.
INTERNAL LEAKAGE: 5 cu.in./min [0.82 cc/m] @ 85% of crack pressure.
DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
5000 PSI [350 Bar] = Steel – Unplated.
OPERATING TEMPERATURE: −40° to +250° F. [−40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE−#10, SAE−#20, etc.
INSTALLATION: No restriction.
FILTRATION: 25 microns or better.
SEAL KIT NUMBER: SKN−1031 for buna "N".
SKV−1031 for viton.
WEIGHT: 0.42 lb [0.19 kg] cartridge only.
VALVE CAVITY: #C1030, See Page 0−032.0.

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Reference: 520-P-061420-EN-00/09.2015
FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-031.1

**BSCS-08-X-X-X-XX**

- **BASIC**
- **SIZE**
  - 08 = 3/4”-16 UNF
- **SEALS**
  - N = BUNA “N”
  - V = VITON
- **ADJUSTMENT**
  - S = ADJUSTING SCREW
  - C = CAPPED
  - T = TAMPERPROOF
  - K = HANDKNOB
  - M = METAL HANDKNOB

**PRESSURE RANGE**
- 15 = 50 TO 1500 PSI
- 30 = 50 TO 3000 PSI
- 50 = 50 TO 5000 PSI

**PORTS**
- 0 = CARTRIDGE ONLY
- 02BX = G 1/4” BSPP
- 06TX = SAE - #6

- "A" = ALUM. HOUSING
- "S" = STEEL HOUSING

**TORQUE:**
- Steel = 35/40 Ft-Lb. [47/54 Nm]
- Aluminum = 25/30 Ft-Lb. [34/41 Nm]

**PRESSURE DROP (ΔP)**

<table>
<thead>
<tr>
<th>PSI</th>
<th>0</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
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<tbody>
<tr>
<td>G.P.M. (135 SUS)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<table>
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<tr>
<th>BAR</th>
<th>0</th>
<th>7,0</th>
<th>10,5</th>
<th>14,0</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PRESSURE DROP (ΔP)</th>
<th>P/L (28,5 cSt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,8</td>
<td>11,4</td>
</tr>
<tr>
<td>7,6</td>
<td>15,2</td>
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<tr>
<td>11,4</td>
<td>19</td>
</tr>
<tr>
<td>15,2</td>
<td>22,8</td>
</tr>
</tbody>
</table>

**CARTRIDGE ONLY**

- PORTS 2-3 FREEFLOW

Reference: 520-P-061510-EN-00/09.2015
PRESSURE BREAKER/SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE BREAKER/SEQUENCE VALVE.

OPERATIONS
This is a normally closed breaker/sequence valve, blocking flow from port 1 to port 2. When pressure in port 1 exceeds bias spring setting the spool will shift and stay shifted allowing flow from port 1 to port 2 and blocking flow from port 2 to port 3, until pressure at port 1 is removed. Acts like a circuit breaker in a hydraulic system.

FEATURES AND BENEFITS
Leakproof screw adjustment.
Pressure in tank port (3) will add to the bias spring setting, and is limited to 2000 PSI.
Adjustment screw can not be backed out of the valve.
Overset protection—pilot spring can not go solid.
Hardened precision fitted spool & cage provides reliable, long life.
A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
All external carbon steel parts are plated for longer life against the elements.
Valve is available with screw, tamperproof, capped and handknob adjustments.
All cartridge valves are 100% functionally tested.
Industry common cavity.

SPECIFICATIONS
OPERATING PRESSURE: 5,000 PSI [350 Bar]
PROOF PRESSURE: 10,000 PSI [700 Bar]
FLOW: 6.0 GPM [23.0 L/M] nominal. See performance chart.
INTERNAL LEAKAGE: 5 cu.in./min [.82 cc/m] @ 85% of crack pressure.
DEFINITION OF CRACK: evident at 0.06 GPM [0.25 LPM]
5000 PSI [350 Bar] = Steel - Unplated.
OPERATING TEMPERATURE: -40° to +250° F. [-40° to +120° C.]
OPERATING MEDIA: All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.
INSTALLATION: No restriction.
FILTRATION: 25 microns or better.
SEAL KIT NUMBER: SKN-0831 for buna "N".
SKV-0831 for viton.
WEIGHT: 0.30 lb [.14 kg] cartridge only.
VALVE CAVITY: #C0830, See Page 0–031.0.
PRESSURE BREAKER/SEQUENCE VALVE
PILOT OPERATED, SLIDING SPOOL

Pat.#5,546,980

FOR ALUMINUM OR STEEL VALVE HOUSING CONFIGURATIONS SEE PAGE 0-032.1

TORQUE:
Steel = 55/60 Ft-Lb. [74/81 Nm]
Aluminum = 35/40 Ft-Lb. [47/54 Nm]

BSCS-10-X-X-X-XX

BASIC
SIZE
10 = 7/8"-14 UNF

SEALS
N = BUNA "N"
V = VITON

ADJUSTMENT
S = ADJUSTING SCREW
C = CAPPED
T = TAMPERPROOF
K = HANDKNOB
M = METAL HANDKNOB

PRESSURE RANGE
15 = 50 TO 1500 PSI
30 = 50 TO 3000 PSI
50 = 50 TO 5000 PSI

PORTS
0 = CARTRIDGE ONLY
02BX = G 1/4" BSPP
03BX = G 3/8" BSPP
06TX = SAE - #6
08TX = SAE - #8

"A" = ALUM. HOUSING
"S" = STEEL HOUSING

FOR ADJUSTMENT CONTROL OPTIONS SEE PAGE 0-050.0

L/M (28,5 cSt)

[Graph showing pressure drop vs. speed]

Reference: 520-P-061520-EN-00/09.2015
## PRESSURE BREAKER/SEQUENCE VALVE
### PILOT OPERATED, SLIDING SPOOL

### DESCRIPTION
This unit is a PILOT OPERATED, SCREW IN CARTRIDGE STYLE, SLIDING SPOOL TYPE, ADJUSTABLE, INTERNAL PILOT, HYDRAULIC PRESSURE BREAKER/SEQUENCE VALVE.

### OPERATIONS
This is a normally closed breaker/sequence valve, blocking flow from port 1 to port 2. When pressure in port 1 exceeds bias spring setting the spool will shift and stay shifted allowing flow from port 1 to port 2 and blocking flow from port 2 to port 3, until pressure at port 1 is removed. Acts like a circuit breaker in a hydraulic system.

### FEATURES AND BENEFITS
- Leakproof screw adjustment.
- Tank port (3) will add to the bias spring setting and is limited to 2000 PSI.
- Adjustment screw can not be backed out of the valve.
- Overset protection—pilot spring can not go solid.
- Hardened precision fitted spool & cage provides reliable, long life.
- A unique self aligning (floating) cage provides very low hysteresis and reliable operation.
- All external carbon steel parts are plated for longer life against the elements.
- Valve is available with screw, tamperproof, capped and handknob adjustments.
- All cartridge valves are 100% functionally tested.
- Industry common cavity.

### SPECIFICATIONS
- **OPERATING PRESSURE**: 5,000 PSI [350 Bar]
- **PROOF PRESSURE**: 10,000 PSI [700 Bar]
- **FLOW**: 12.0 GPM [46 L/M] nominal. See performance chart.
- **INTERNAL LEAKAGE**: 5 cu.in./min [82 cc/m] @ 85% of crack pressure.
- **DEFINITION OF CRACK**: evident at 0.06 GPM [0.25 LPM]
- **VALVE HOUSINGS**: 2500 PSI [175 Bar] = Aluminum – Anodized.
  - 5000 PSI [350 Bar] = Steel – Unplated.
- **OPERATING TEMPERATURE**: −40° to +250° F. [−40° to +120° C.]
- **OPERATING MEDIA**: All general purpose hydraulic fluids such as MIL-H-5606, SAE-#10, SAE-#20, etc.
- **INSTALLATION**: No restriction.
- **FILTRATION**: 25 microns or better.
- **SEAL KIT NUMBER**: SKN-1031 for buna "N".
  - SKV-1031 for viton.
- **WEIGHT**: 0.42 lb [.19 kg] cartridge only.
- **VALVE CAVITY**: #C1030, See Page 0–032.0.

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