Serving:

- Agricultural Equipment
- Aerial Work Platforms
- Aerospace — Aircraft Support, Hangar Doors
- Cemetery and Mortuary Equipment
- Commercial Fishing Equipment
- Food Processing Equipment
- Home Leisure — Pool Covers, Shore Stations
- Material Handling Equipment
- Medical Industry — Wheelchairs, Lifts and Gurneys
- Military Equipment
- Pleasure Vehicles — RV Levelers, Slideouts, Yacht Davits, Swim Platforms, Shore Stations
- Specific Hardware: Cement Saws, Scissor Lifts
- Theatrical and Production Equipment
- Transportation — Trucking, Tailgates, Hoists, Haulers, Vehicle Recovery Equipment
- Work Tables — Industrial, Medical, Massage and Veterinary
- Work Trucks — Bucket Trucks, Fire Truck Apparatus, Street Sweepers
Bi-Rotational Units

Model B-3108

Description:
- Birotational Pump and Motor/Reservoir
- Check Valves
- Externally Adjustable Relief Valves
- Pilot-Operated Check Valves
- #4 SAE Outlets
- Horizontal Mounting

Popular Option:
- Vertical Mounting
Bi-Rotational Performance Curves

18719 – 3” – 12V Bi-Rotational Motor

08051 – 3” – 24V Bi-Rotational Motor
Bi-Rotational Performance Curves

08194 – 3.17” – 12V Bi-Rotational Motor

Please refer to www.bucherhydraulics.com for metric specifications

08206 – 3.17” – 24V Bi-Rotational Motor

Please refer to www.bucherhydraulics.com for metric specifications
MODEL B-3504

Description:
- Birotational Pump and Motor/Reservoir
- Check Valves
- Externally Adjustable Relief Valves
- #6 SAE Outlets
- Horizontal Mounting

Popular Options:
- Check Valves in C1 and C2 Ports for Optional Manifold
- Vertical Mounting

Consult factory for additional options and specifications.
**MODEL B-3547**

**Description:**
- Birotational Pump and Motor/Reservoir
- 2 x 2-Way/2 Position Solenoid Controlled Cartridge Valves Located Externally and Manifolded Directly to Unit.
- Check Valves
- Externally Adjustable Relief Valves
- #6 SAE Outlets
- Horizontal Mounting

**Popular Options:**
- Pressure Compensated Flow Controls
- Vertical Mounting

**SIDE VIEW**

**END VIEW**
MODEL B-3530

Description:

- Birotational Pump and Motor/Reservoir
- Check Valves
- Pilot-Operated Check Valves
- Externally Adjustable Relief Valves
- #6 SAE Outlets
- Horizontal Mounting

Popular Options:

- Pressure Compensated Flow Controls
- Vertical Mounting

SIDE VIEW

Hydraulic Schematic

END VIEW
Current versus Pressure for 08199 Motor

Flow versus Pressure for 08199 Motor
Birotational *i*-Pump

Bi-Rotational *i*-Pump Data

<table>
<thead>
<tr>
<th>Pump Number</th>
<th>&quot;A&quot;</th>
<th>Displacement (in^3/Rev)</th>
<th>Displacement (cc/Rev)</th>
<th>Flow @ 1800 rpm (GPM)</th>
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</thead>
<tbody>
<tr>
<td>0 0 0 8 1</td>
<td>- 8 0 1 0 8</td>
<td>12 . 1 2 2 0 . 0</td>
<td>6 3 . 0</td>
<td>7 1 . 0</td>
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<tr>
<td>12818-120</td>
<td>.120</td>
<td>0.027</td>
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<td>0 5 1 8 0 1 5 8</td>
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<td>2 5 . 0</td>
<td>5 2 . 0</td>
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### Start Switches

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Voltage</th>
<th>Description</th>
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<tbody>
<tr>
<td>17911</td>
<td>12 VDC</td>
<td>SWITCH, SOLENOID ACTUATED MOTOR START, 12 VDC, REVERSING POLARITY</td>
</tr>
<tr>
<td>18546</td>
<td>24 VDC</td>
<td>SWITCH, SOLENOID ACTUATED MOTOR START, 24 VDC REVERSING POLARITY</td>
</tr>
</tbody>
</table>

### Control Stations

07993

Mechanical Interlock

For M3 Screws 4 Places

5/8" (16mm)
**B-3100 Series**

### 3.5" X 3.5" MINI

<table>
<thead>
<tr>
<th>PIN</th>
<th>Usable Volume Cu In</th>
<th>US Ltr</th>
<th>In</th>
<th>mm</th>
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<tbody>
<tr>
<td>06230</td>
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<td>2.25</td>
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<td>06231</td>
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<td>5.70</td>
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<tr>
<td>06233*</td>
<td>125.10</td>
<td>2.25</td>
<td>20.22</td>
<td>516.12</td>
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### 3.5" X 5.38" MINI

<table>
<thead>
<tr>
<th>PIN</th>
<th>Usable Volume Cu In</th>
<th>US Ltr</th>
<th>In</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>06218</td>
<td>33.24</td>
<td>5.60</td>
<td>8.40</td>
<td>214.00</td>
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<tr>
<td>06217</td>
<td>35.89</td>
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<tr>
<td>06197</td>
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<td>06216</td>
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<td>06215*</td>
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<td>1.75</td>
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<td>61.90</td>
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**Poly**

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**B-3500 Series**

### 4.5" Diameter

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Usable Volume Cu In</th>
<th>US Ltr</th>
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<th>mm</th>
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</thead>
<tbody>
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<tr>
<td>06102</td>
<td>95.07</td>
<td>1.24</td>
<td>10.00</td>
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<tr>
<td>06103</td>
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<td>06105</td>
<td>106.79</td>
<td>1.75</td>
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</table>

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Usable Volume Cu In</th>
<th>US Ltr</th>
<th>In</th>
<th>mm</th>
</tr>
</thead>
<tbody>
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<tr>
<td>04017</td>
<td>65.91</td>
<td>1.08</td>
<td>10.00</td>
<td>254.00</td>
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<tr>
<td>04018</td>
<td>66.20</td>
<td>1.45</td>
<td>12.00</td>
<td>304.80</td>
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<tr>
<td>04019</td>
<td>106.54</td>
<td>1.80</td>
<td>13.00</td>
<td>330.20</td>
</tr>
</tbody>
</table>

**Poly**

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Useable Volume may be increased 7.5% with the addition of a suction shroud assembly 13048. When using an l-pump, a 15% reduction in useable volume should be expected.
**How to Order**

**Sample Order**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Motor</th>
<th>Pump</th>
<th>Reservoir</th>
<th>Start Switches</th>
<th>Control Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-3108</td>
<td>c</td>
<td>12</td>
<td>ah</td>
<td>12</td>
<td>a</td>
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</tbody>
</table>

Your order: B-3108-c12ah-12 a

**Note:**
Reservoirs can be purchased as horizontal or vertical. (Example: ah = the horizontal reservoir of the 06230, av = the vertical reservoir of the 06230)

A B-Rotational 3108 unit, with a 3.17", 12v, DC motor (06194). With a pump size of 120 (12984-120). The reservoir size is the horizontal 3.5" x 3.5" mini (06230). The unit will have a 12v start switch (17911) and a standard control station of 10' (07993).
Mission Statement
Bucher Hydraulics is an innovative and worldwide leading provider of electro-hydraulic systems, with an emphasis in mobile hydraulics and selected markets, specializing in applications requiring technically demanding solutions.

Quality Policy
Bucher Hydraulics will provide our customers with products and services of continually improving quality to the mutual satisfaction of all parties.

Prototype Policy
After reviewing your system requirements and mutually agreeing on a design, we will manufacture a hydraulic system that will satisfy your objectives. The unit will be invoiced at an agreed upon price and marked "Prototype". Thereafter, you have 90 days free use of the product for testing and evaluation from the date of invoice. At the end of this period, you can purchase the unit as invoiced or return the unit via prepaid transportation for full credit. There is no risk to you or your customer.
Smart Solutions.
Superior Support.