

# BI-ROTATIONAL UNITS



# BI-ROTATIONAL UNITS

## Serving:

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- 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

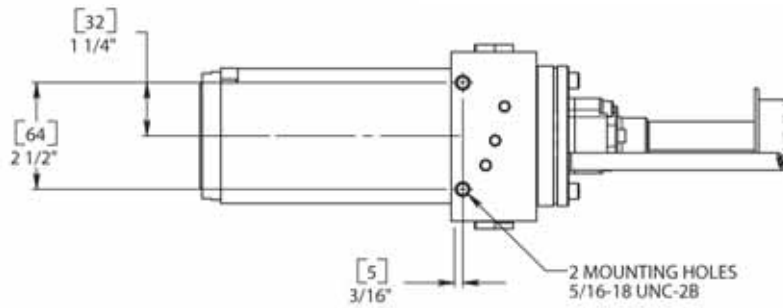
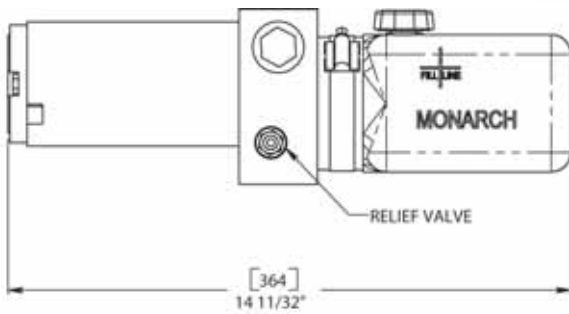
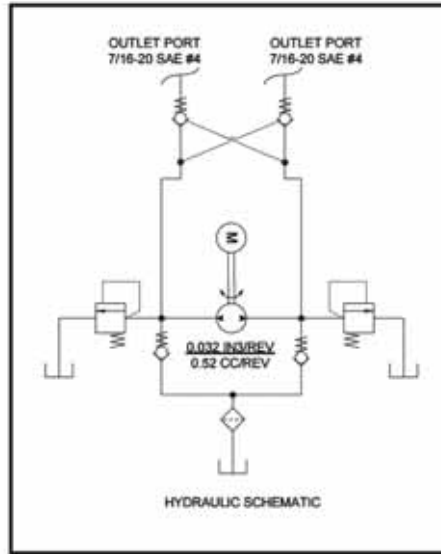
## Model B-3108

**Description:**

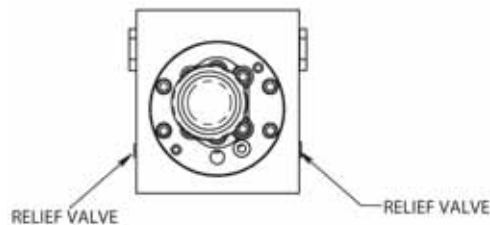
- Birotational Pump and Motor/Reservoir
- Check Valves
- Externally Adjustable Relief Valves
- Pilot-Operated Check Valves
- #4 SAE Outlets
- Horizontal Mounting

**Popular Option:**

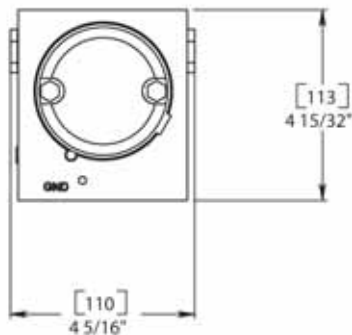
- Vertical Mounting



VIEW SHOWN WITHOUT RESERVOIR

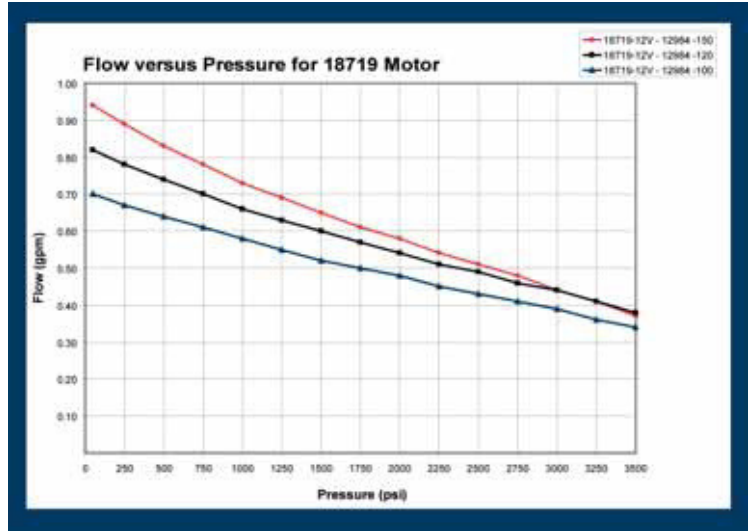
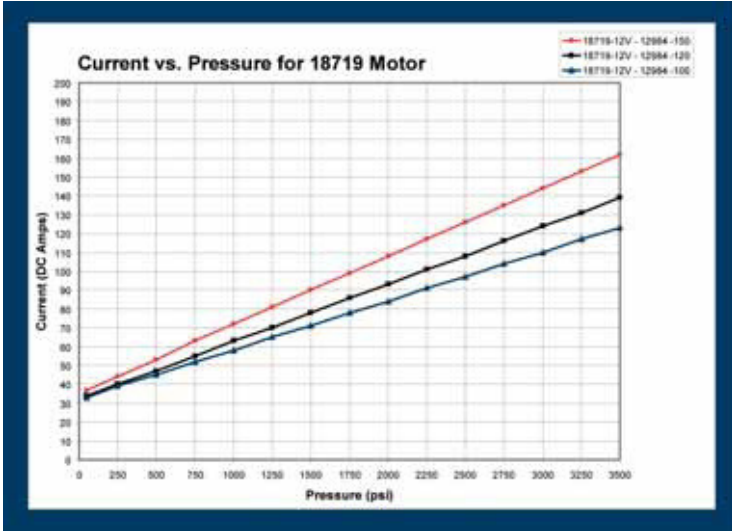


VIEW SHOWN WITHOUT RESERVOIR

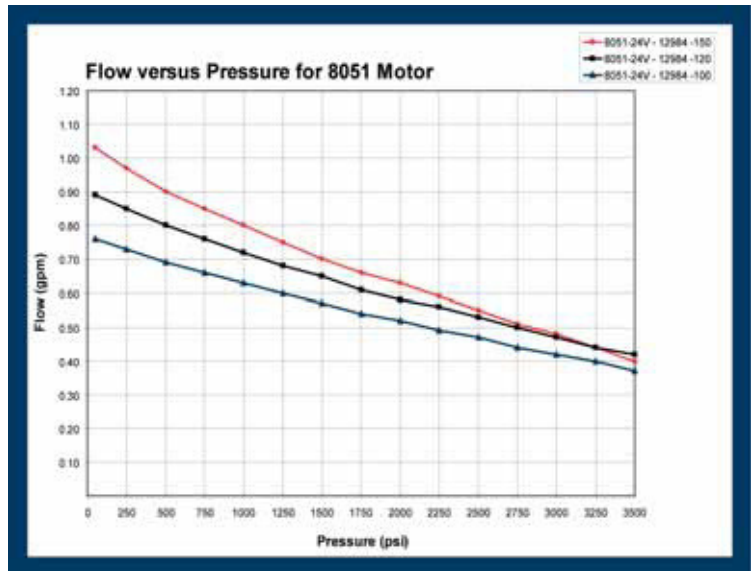
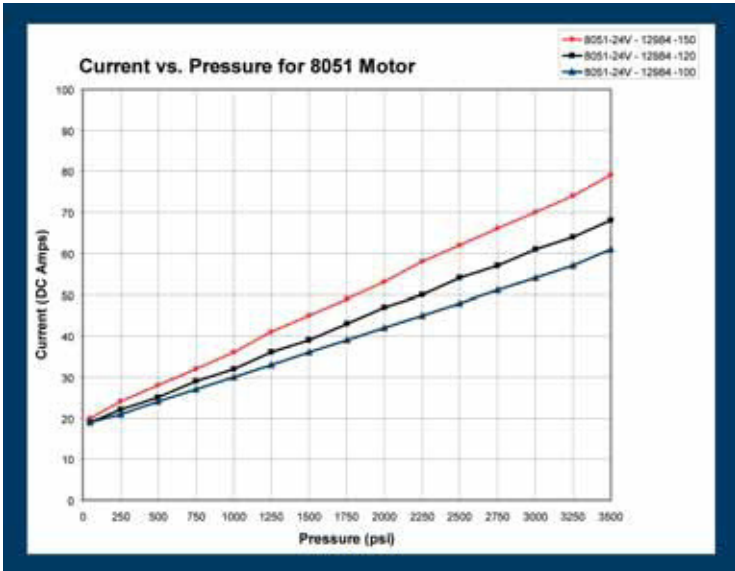


# Bi-Rotational Performance Curves

18719 – 3" – 12V Bi-Rotational Motor

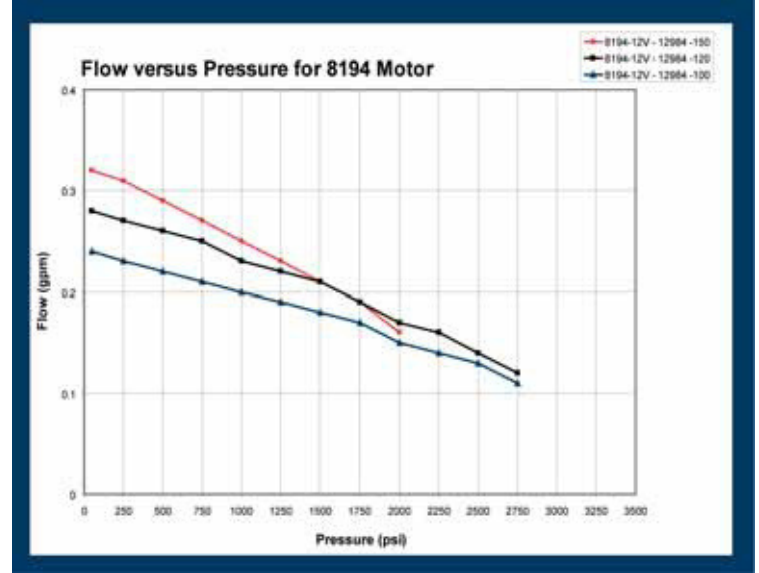
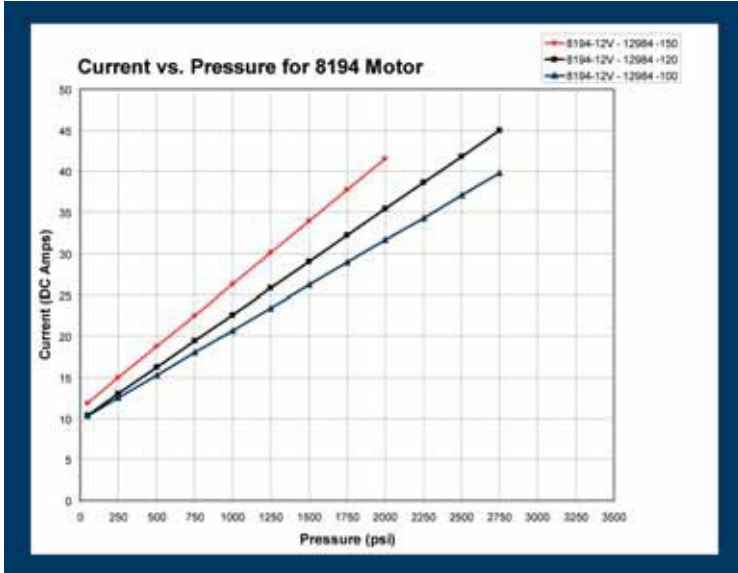


08051 – 3" – 24V Bi-Rotational Motor

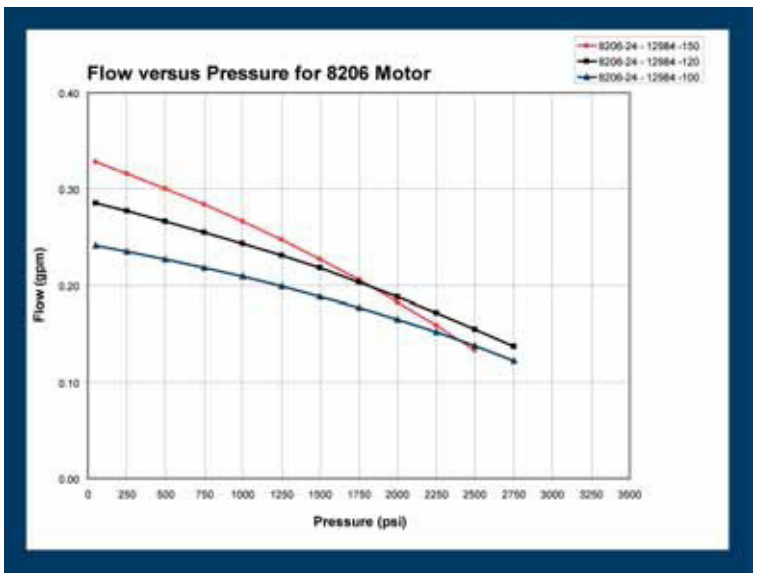
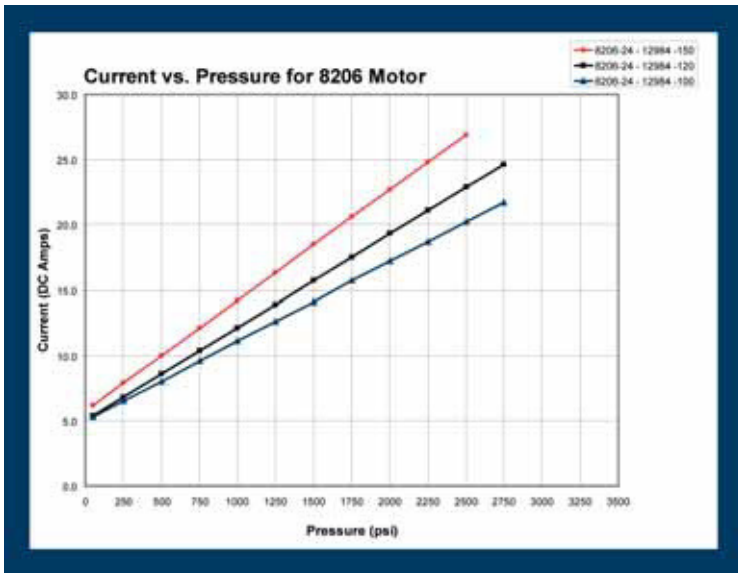


# Bi-Rotational Performance Curves

08194 – 3.17" – 12V Bi-Rotational Motor



08206 – 3.17" – 24V Bi-Rotational Motor



Please refer to [www.bucherhydraulics.com](http://www.bucherhydraulics.com) for metric specifications

# Bi-Rotational Units

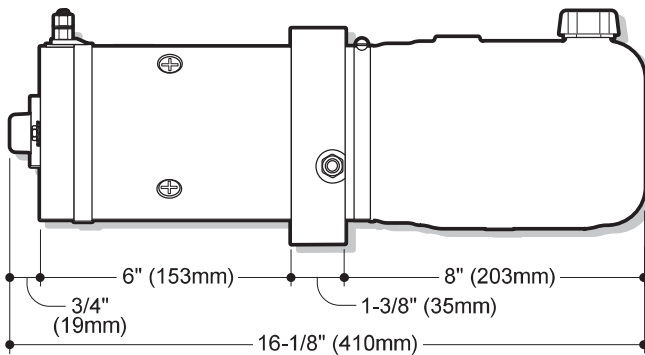
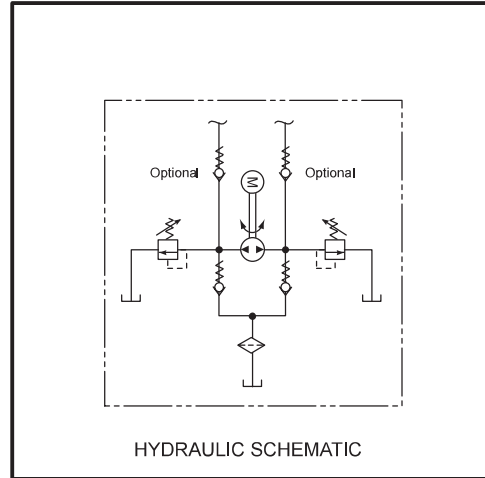
## MODEL B-3504

**Description:**

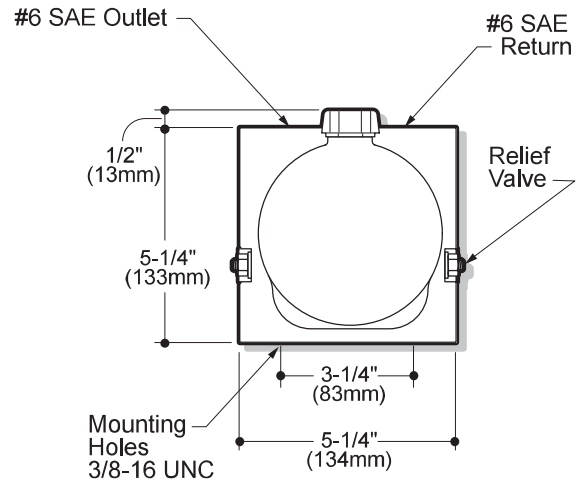
- Birotational Pump and Motor/Reservoir
- Check Valves
- Externally Adjustable Relief Valves
- #6 SAE Outlets
- Horizontal Mounting

**Popular Options:**

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



SIDE VIEW



END VIEW

Consult factory for additional options and specifications.

# Bi-Rotational Units

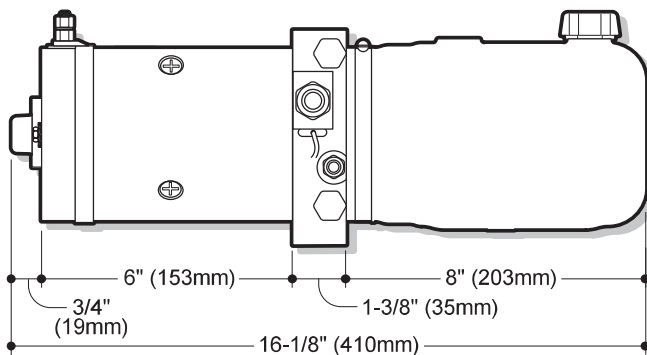
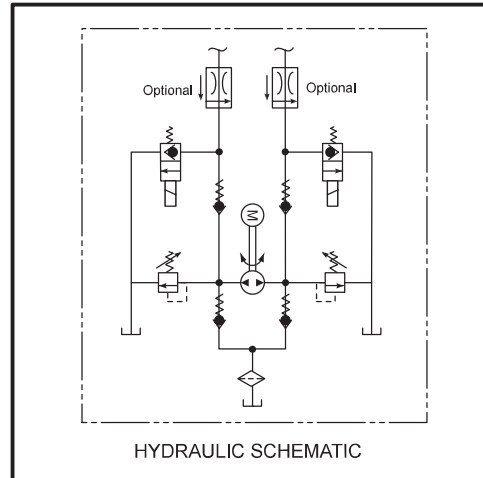
## MODEL B-3547

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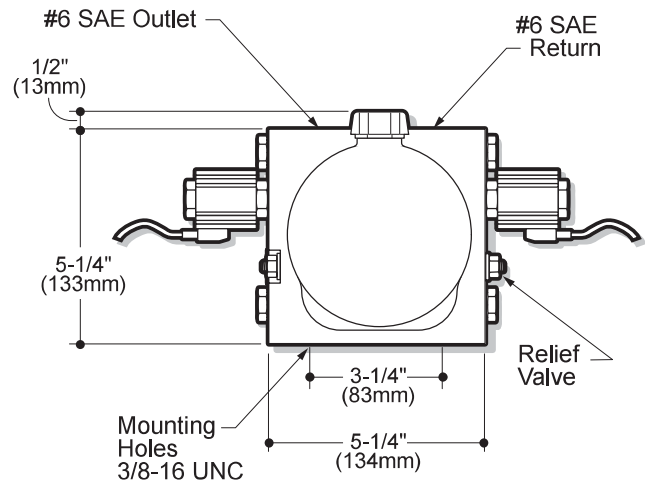
- Birotational Pump and Motor/Reservoir
- 2 x 2-Way/2 Position Solenoid Controlled Cartridge Valves Located Externally and Manifolded Directly to Unit.
- Check Valves
- Externally Adjustable Relief Valves
- #6 SAE Outlets
- Horizontal Mounting

**Popular Options:**

- Pressure Compensated Flow Controls
- Vertical Mounting



SIDE VIEW



END VIEW



# Bi-Rotational Units

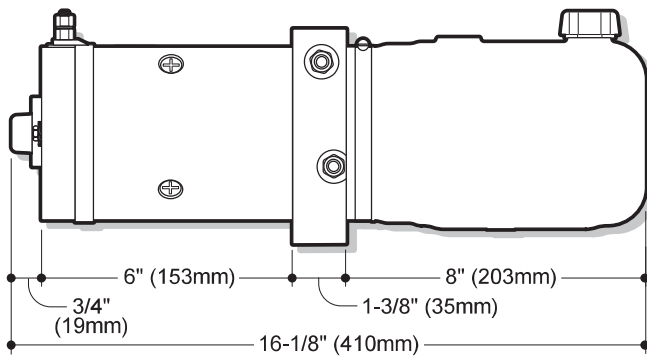
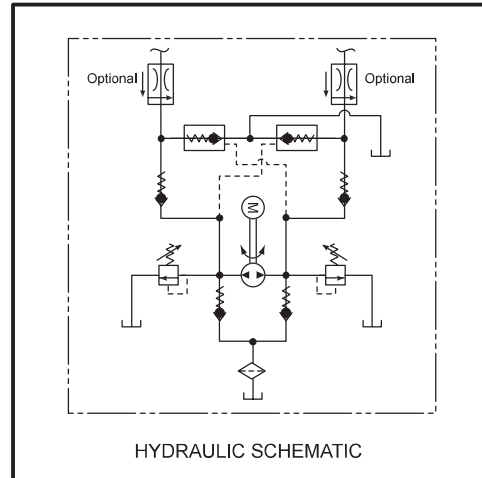
## MODEL B-3530

**Description:**

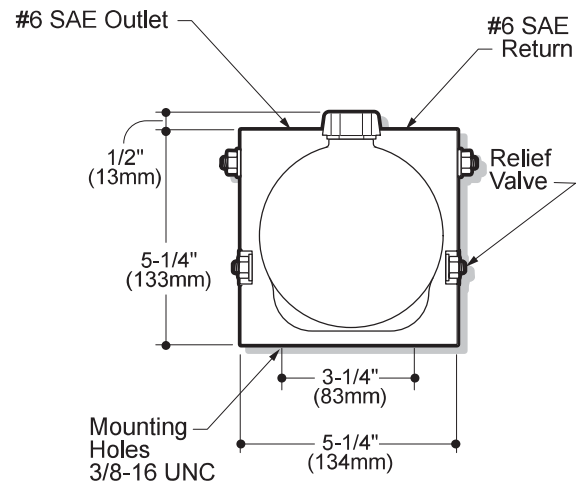
- Birotational Pump and Motor/Reservoir
- Check Valves
- Pilot-Operated Check Valves
- Externally Adjustable Relief Valves
- #6 SAE Outlets
- Horizontal Mounting

**Popular Options:**

- Pressure Compensated Flow Controls
- Vertical Mounting



SIDE VIEW



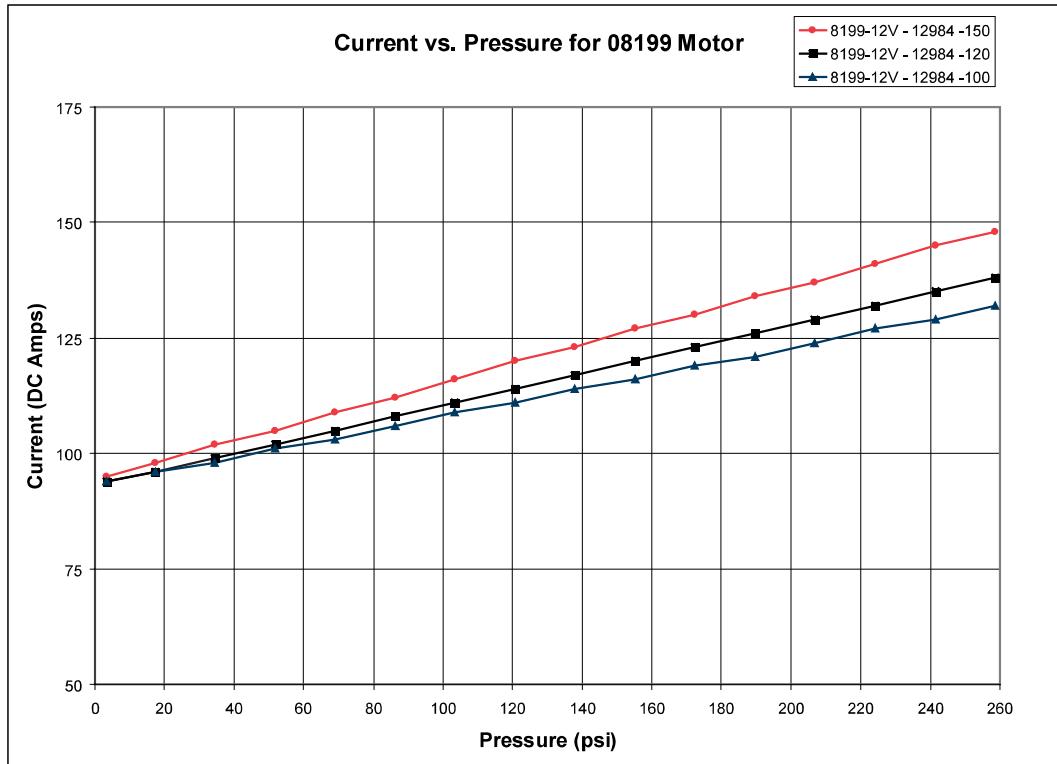
END VIEW



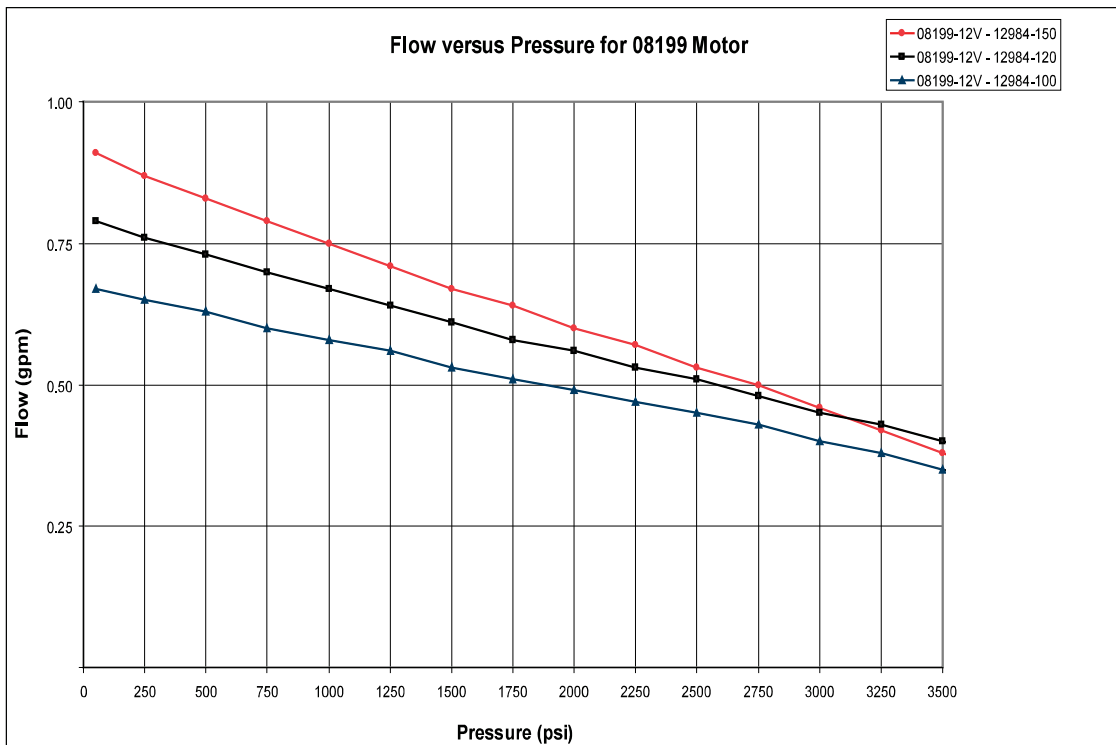
# Bi-Rotational Performance Curves 08199

Current versus Pressure for 08199 Motor

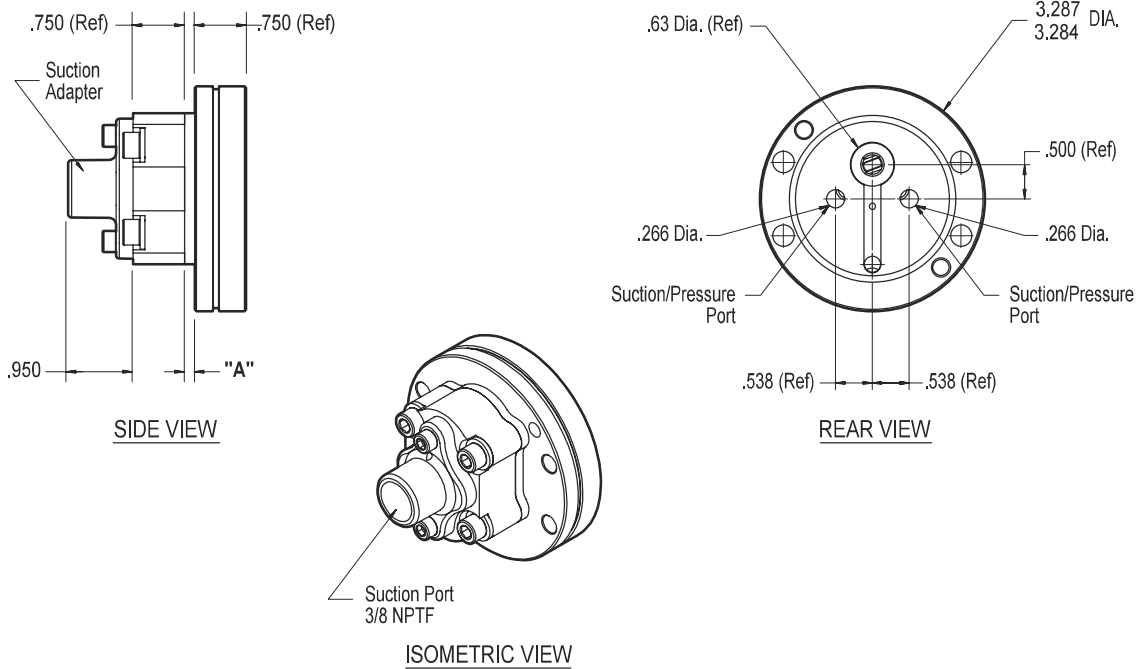
12V 4.5" DC motor



Flow versus Pressure for 08199 Motor

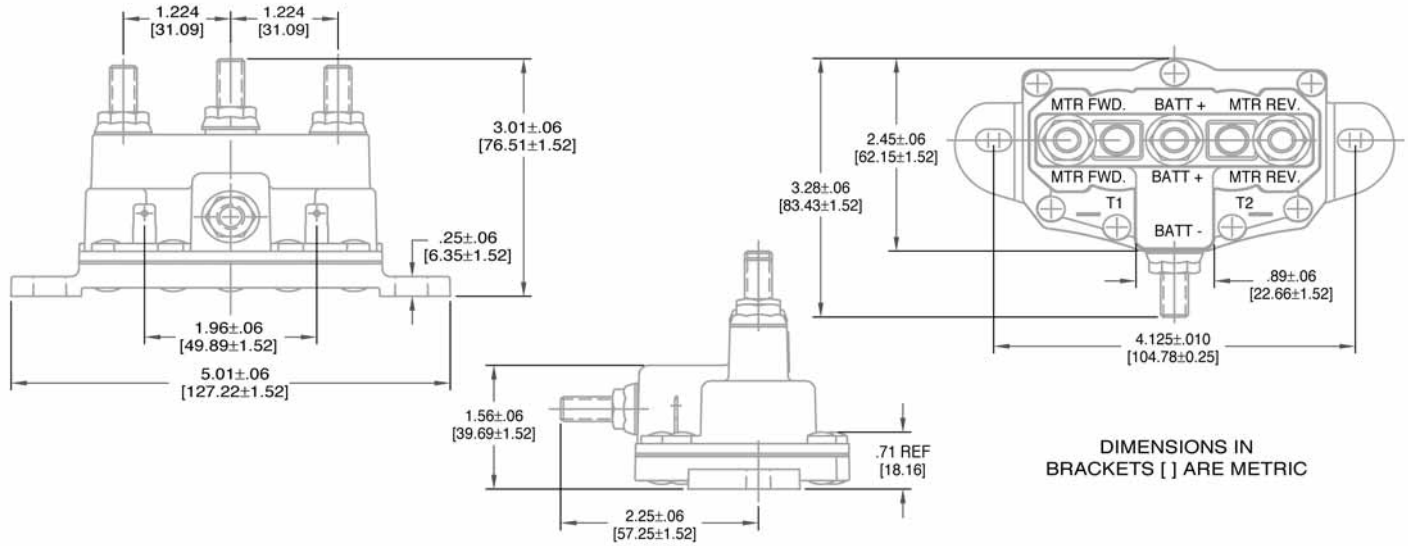


## Birotational *i* - Pump



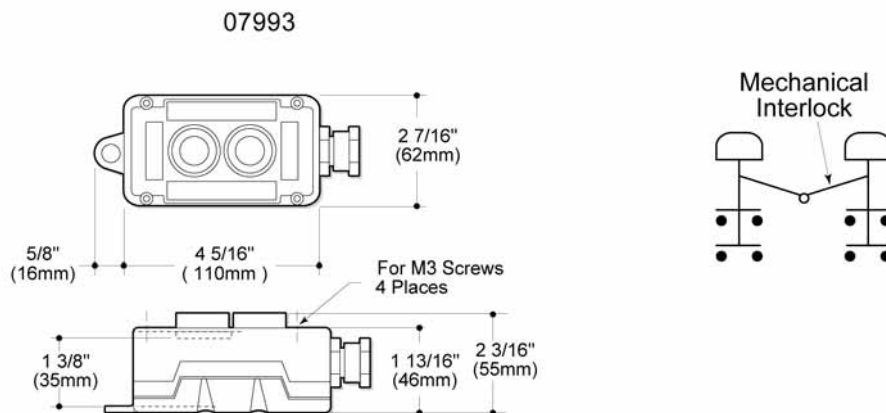
Bi-Rotational <i>i</i> - Pump Data				
Pump Number	"A"	Displacement (in <sup>3</sup> /Rev)	Displacement (cc/Rev)	Flow @ 1800 rpm (GPM)
0 0 1 - 8 01 08		12.1 2 2 0 . 0	6 3 . 0	7 1 . 0
12818-120	.120	0.027	0.44	0.21
0 5 1 - 8 01 58		12.1 2 3 0 . 0	2 5 . 0	5 2 . 0

## Start Switches



Part Number	Voltage	Description
17911	12 VDC	SWITCH, SOLENOID ACTUATED MOTOR START, 12 VDC, REVERSING POLARITY
18546	24 VDC	SWITCH, SOLENOID ACTUATED MOTOR START, 24 VDC REVERSING POLARITY

## Control Stations

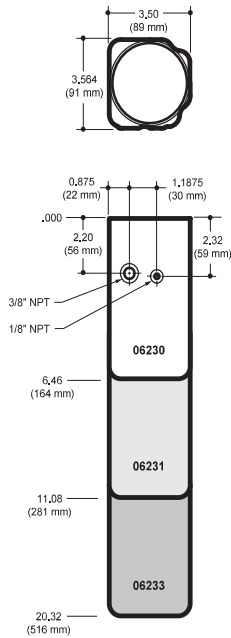


## B-3100 Series

### 3.5" X 3.5" MINI

P/N	HORIZONTAL		P/N	VERTICAL		'L' Dim	
	Useable Volume			Useable Volume			
	Cu IN	Liter		CU IN	Liter	Inch	mm
06230	30,51	0,50	06230	24,50	0,40	6,46	164,08
06231	62,04	1,02	06231	69,22	1,13	11,08	281,43
06233 *	125,10	2,05	06233 *	158,67	2,60	20,32	516,13

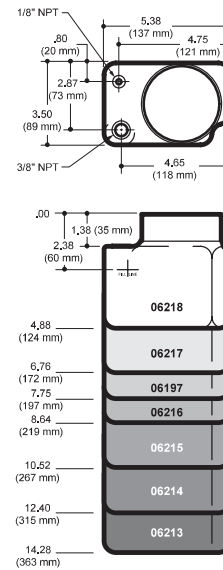
Poly



### 3.5" X 5.38" MINI

P/N	HORIZONTAL		P/N	VERTICAL		'L' Dim	
	Useable Volume			Useable Volume			
	Cu IN	Liter		CU IN	Liter	Inch	mm
06218	32,34	0,53	06218	27,46	0,45	4,88	123,95
06217	50,89	0,83	06217	58,58	0,96	6,76	171,70
06197	60,66	0,99	06197	74,97	1,23	7,75	196,85
06216	69,44	1,14	06216	91,54	1,50	8,64	219,46
06215 *	88,00	1,44	06215 *	120,83	1,98	10,52	267,21
06214 *	106,55	1,75	06214 *	151,95	2,49	12,40	314,96
06213 *	125,10	2,05	06213 *	183,08	3,00	14,28	362,71

Poly



## B-3500 Series

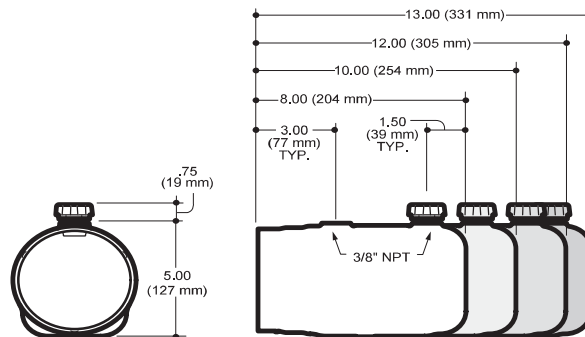
### 4.5" Diameter

Part No.	HORIZONTAL		'L' Dim	
	Useable Volume			
	Cu IN	Liter	Inch	mm
06102	54,92	0,90	8,00	203,20
06103	75,67	1,24	10,00	254,00
06104	96,41	1,58	12,00	304,80
06105	106,79	1,75	13,00	330,20

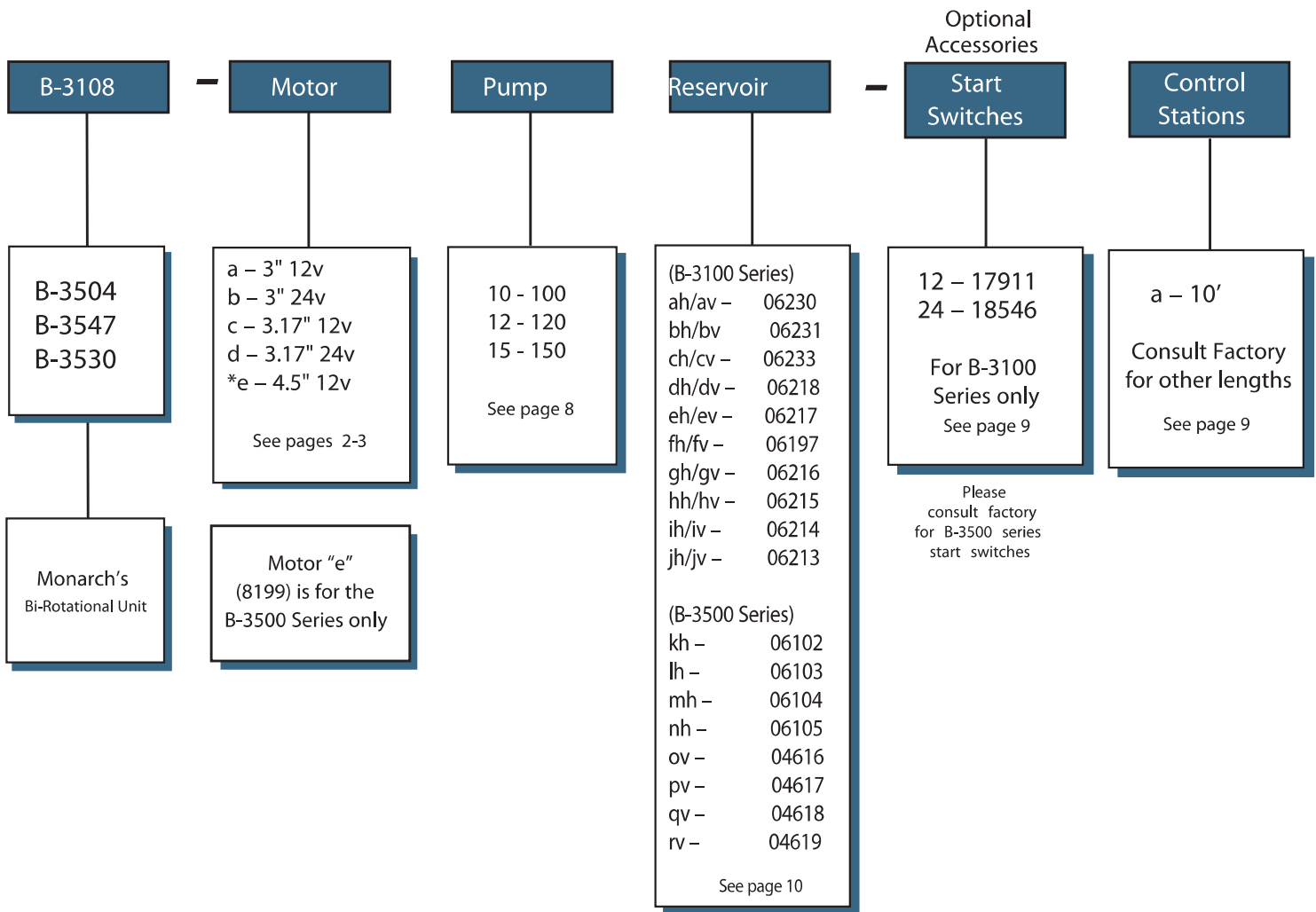
Part No.	VERTICAL		'L' Dim	
	Useable Volume			
	CU IN	Liter	Inch	mm
04616	36,61	0,60	8,00	203,20
04617	65,91	1,08	10,00	254,00
04618	95,20	1,56	12,00	304,80
04619	109,84	1,80	13,00	330,20

Useable Volume may be increased 7.5% with the addition of a suction shroud assembly 13082  
When using an I pump, up to 3% reduction in useable volume should be expected.

Poly



# How to Order



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

Sample Order						
Unit	Motor	Pump	Reservoir	Start Switches	Control Stations	
B-3108	c	12	ah	12	a	
Your order:						
				<b>B-3108-c12ah-12 a</b>		
Please consult factory for pricing.						

A Bi-Rotational 3108 unit, with a 3.17", 12v, DC motor (08194). 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).



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### **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.

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## Smart Solutions. Superior Support.

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[www.bucherhydraulics.com](http://www.bucherhydraulics.com)