



# BIROTATIONAL POWER PACK



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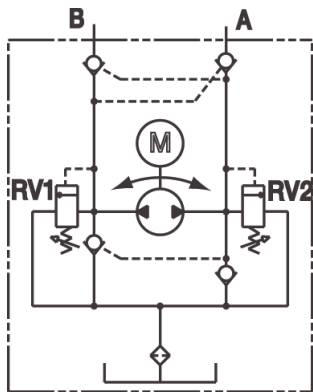
## FEATURES / BENEFITS

- Reduces wiring, leak paths and eliminates directional valves resulting in lower overall system costs and number of parts
- More Reliable
- Smaller, compact
- Units are quiet
- Both AC & DC available with AC controllers and DC start switch cord sets and wireless remotes
- Various circuits

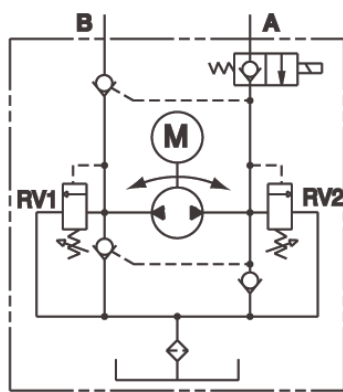
Typical applications are levelers and slideouts, tailgates, over center cabs, handicap lifts, dump trucks, pop-up tent trailers, boat storage, snowplows, lift/hold/lower or power up/gravity down for consolidation of product, special trailers, couplers and attachments.

For optimal performance, system must be bled of air during installation.

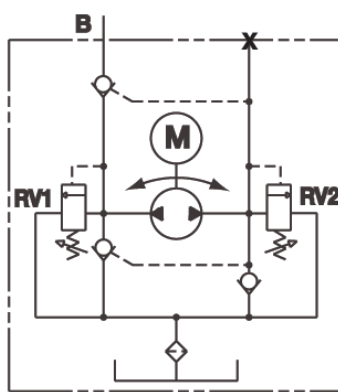
## AVAILABLE CIRCUITS



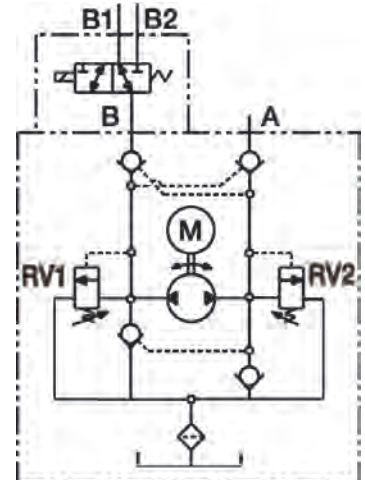
BDRDC



BDRSCV

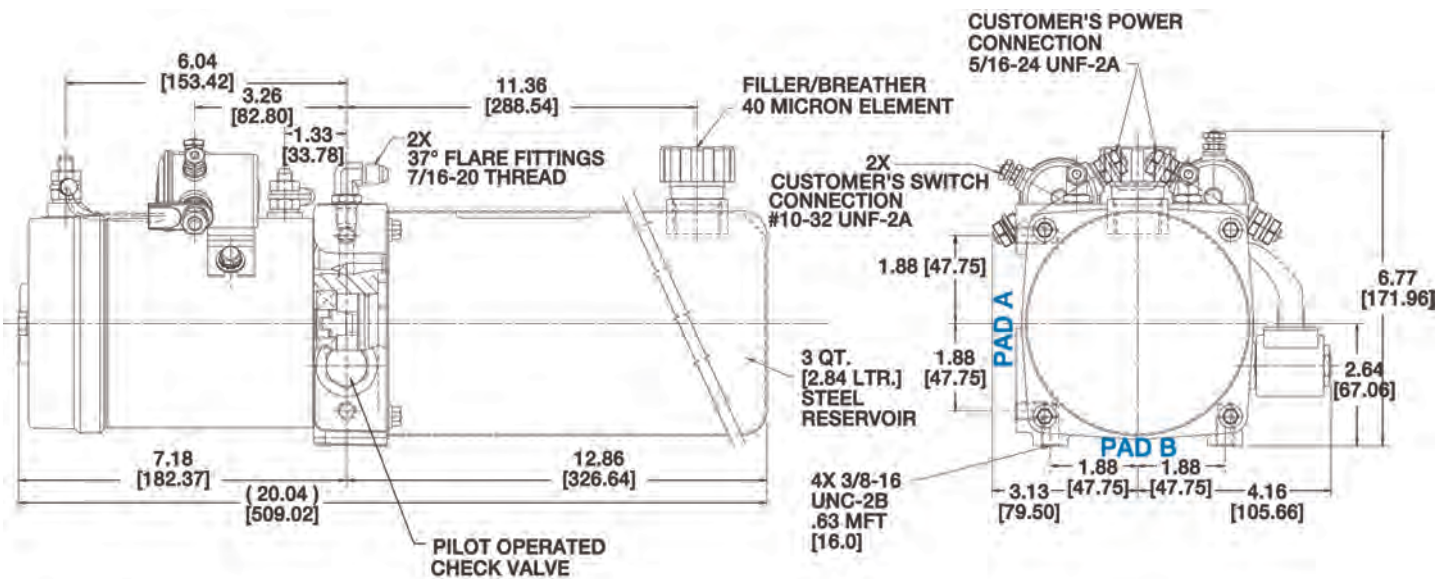


BDRSCP



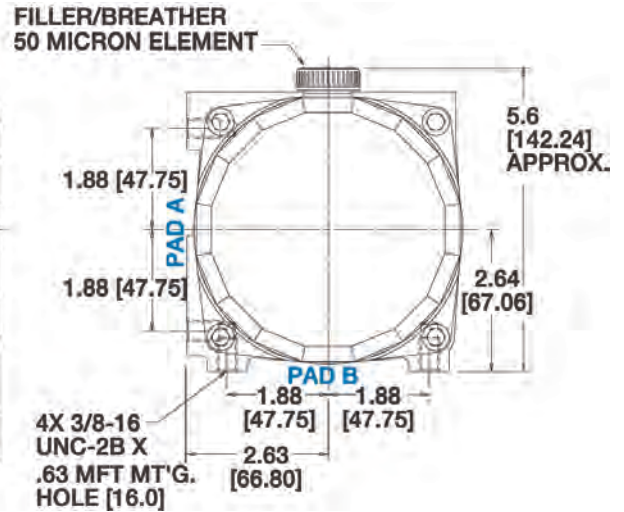
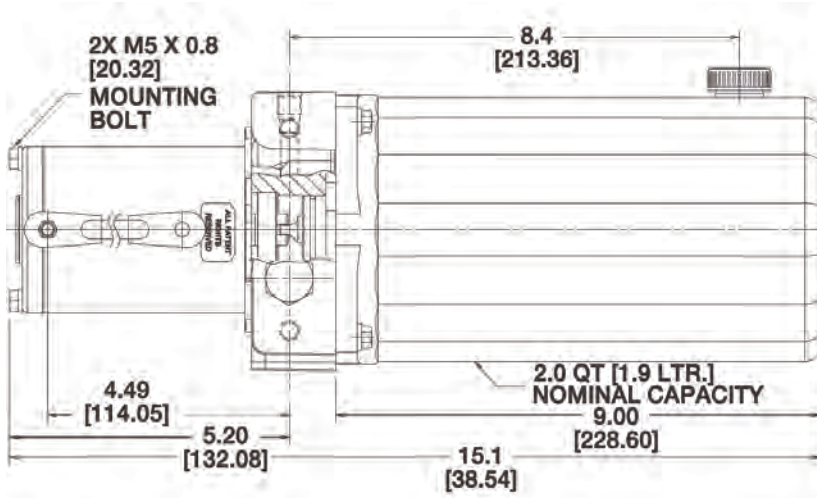
BDRDC23

## DIMENSIONS

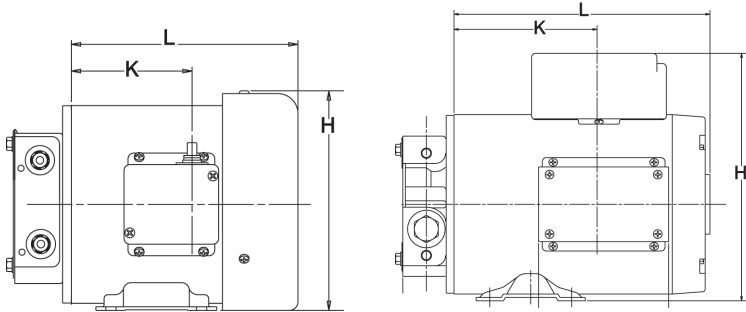


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## DIMENSIONS (cont.)



## AC

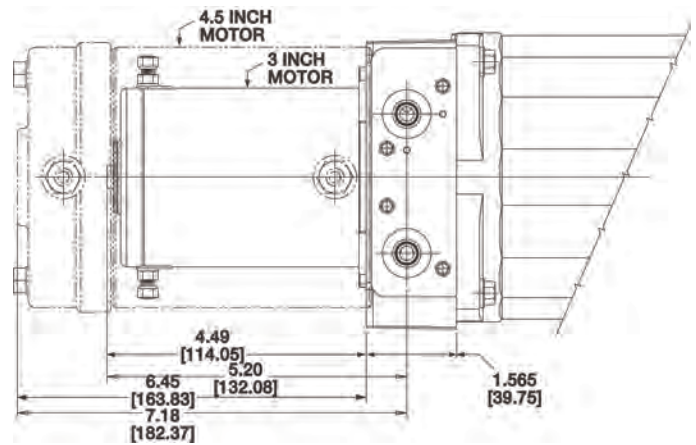


T.E.F.C.

T.E.N.V.

**NOTE:** See A.C. Motor Table (below) for letter dimensions L, H, and K.

## DC

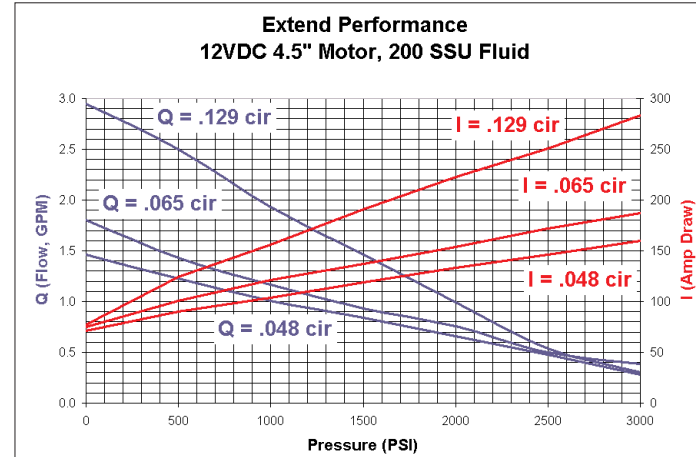
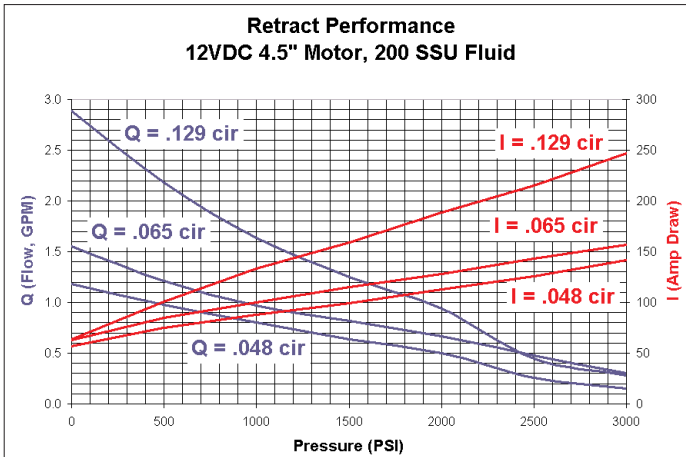
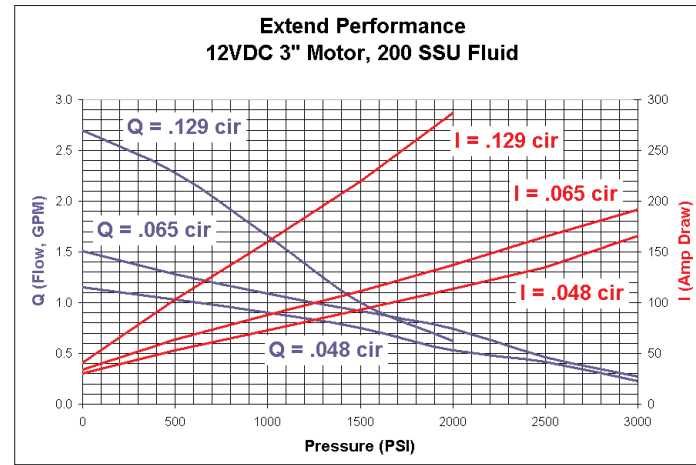
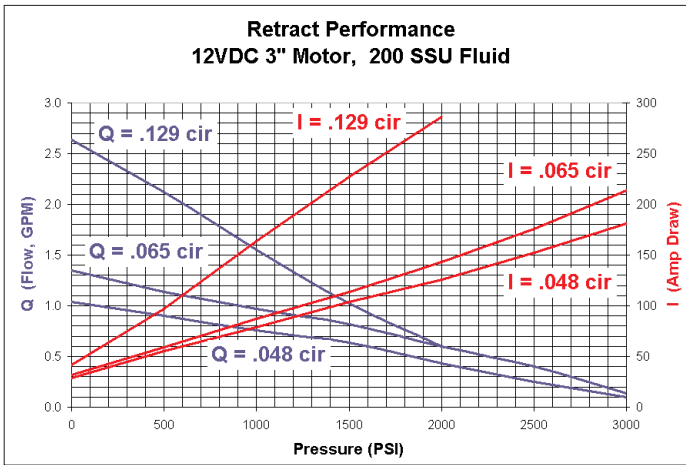
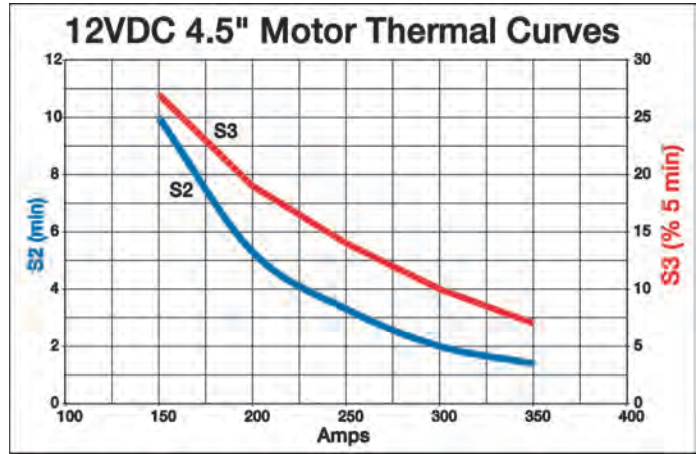
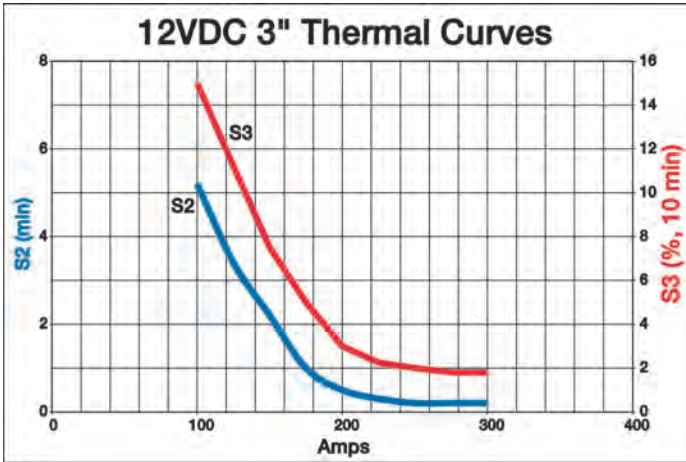


A.C. MOTOR TABLE

Model Code	Catalog P/N	HP	Phase	HZ	Voltage	Encl.	RPM	60 Hertz Ratings									Dimensions		
								HP 5 mn. Rated	HP 15 mn. Rated	HP 30 mn. Rated	Line Voltage	Low Voltage	Max. cc/rev. Starting at 2500 PSI Low Voltage	Pullup Torque at Line Voltage Ft.-lbs.	Breakdown Torque at Line Voltage Ft.-lbs.	5 Min. Duty HP Nominal Amp Draw	L	H	K
62	1300918	1	3	50/60	208-230/460	TENV	2850/3450	2.5	1.8	1	230	188	1.6	6.4	6.7	8.4 A @ 230 V	5.8	6.8	4.0
63	1300919	1	3	50/60	208-230/460	TEFC*	2850/3450	2.5	1.8	1	230	188	1.6	6.4	6.7	8.4 A @ 230 V	7.5	7.3	4.0
64	1300920	1	1	60	115/208-230	TENV	3450	2.5	1.8	1	115	99	1.6	5.7	6.9	28.6 A @ 115 V	7.8	8.8	4.3
65	1300921	1	1	50/60	115/208-230	TEFC*	2850/3450	2.5	1.8	1	115	99	1.6	5.1	6.0	28.6 A @ 115 V	9.5	8.8	4.3
66	1300922	1	3	50/60	208-230/460	TENV	1425/1725	3	2	1	230	188	3.2	12.3	17.1	8.4 A @ 230 V	6.8	6.8	5.0
67	1300923	1	1	60	115/208-230	TENV	1725	2	1.5	1	115	99	3.2	9.1	10.8	8.5 A @ 230 V	9.3	9.0	5.8

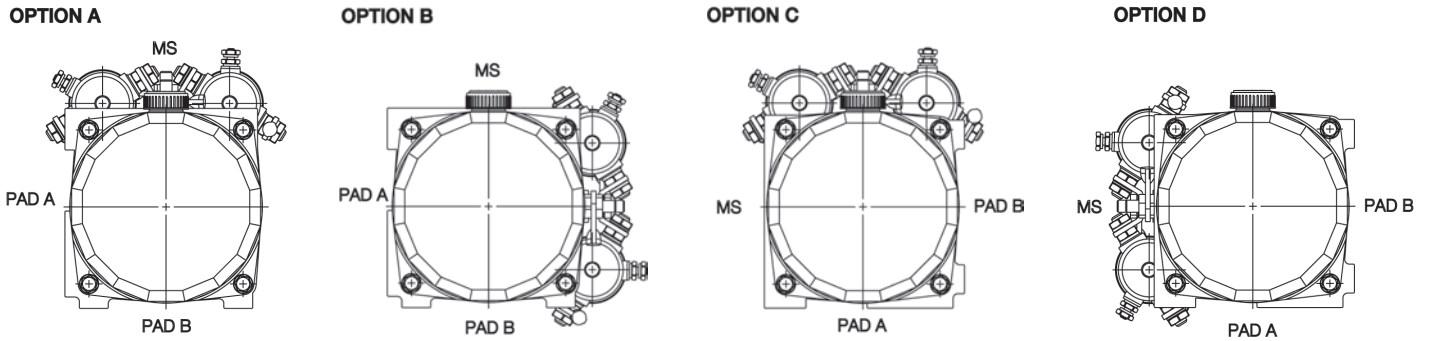
# BIROTATIONAL POWER PACK

## Performance Curves

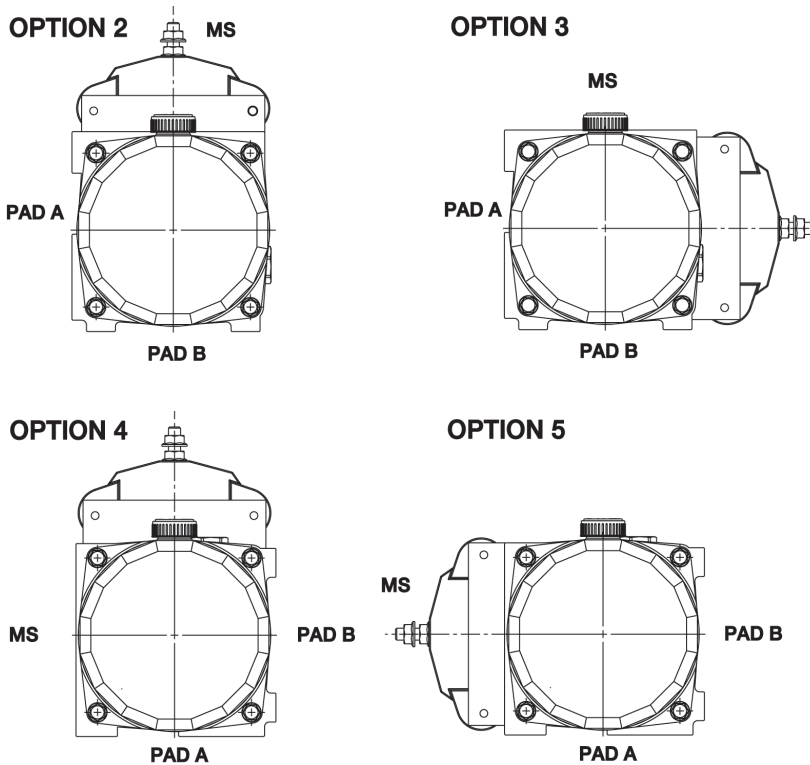


# BIROTATIONAL POWER PACK

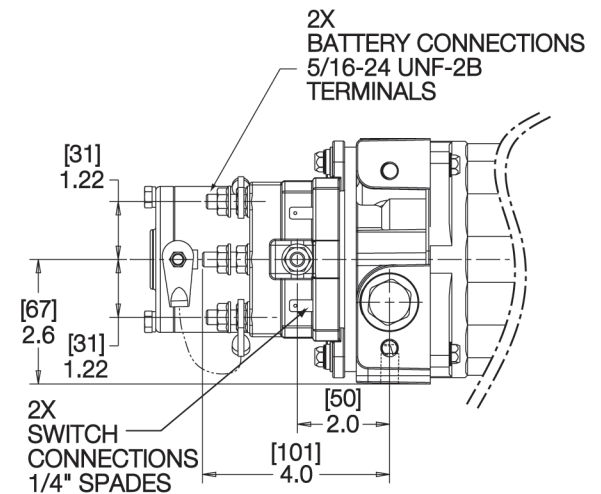
## 4.5" Motor - Terminal, Start Switch & Breather Locations



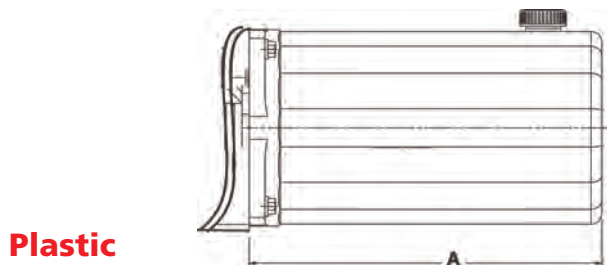
## 3" Motor - Start Switch & Breather Locations



NOTE: MS = Mounting Surface for Valve Manifold / Port Locations

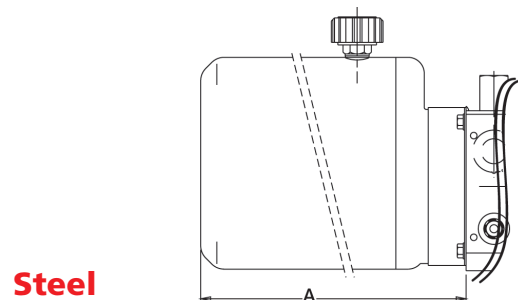


## Reservoirs



Plastic

Capacity	Length "A"
2 QT (1.9 L)	9.0 IN. (229 MM)
3 QT (2.8 L)	12.0 IN. (305 MM)



Steel

Capacity	Length "A"
1.0 GAL (3.8 L)	8.3 IN. (212 MM)
1.5 GAL (5.7 L)	12.6 IN. (320 MM)
2.0 GAL (7.6 L)	15.3 IN. (390 MM)

# BIROTATIONAL POWER PACK

## ORDERING INFORMATION

Each option has been assigned an order code -- listed in the tables below -- for placement in the sequence shown to the right.

	1	2	3	4	5	6	7	8	9	10	11	12	13
	Adapter	Pump	Relief Valve 1	Relief Valve 2	Motor	Term./Breather Locations	Mounting	Start Switch	Solenoid Valve Voltage	Cord Sets	Controllers	Fittings	Reservoirs
Example	BDRDC23	04	080	080	2	A	1	1	1	A	1	1	A
Your Options													

1

Order Code	Adapter Options
BDRDC	2 Relief Valves, 2 Check Valves
BDRSCV	2 Relief Valves, 1 Check Valve, 1 Normally Closed 2-Position 2-Way Solenoid Release Valve
BDRSCP	2 Relief Valves, 1 Check Valve, 1 Check Valve Plug
BDRDC23	2 Relief Valves, 2 Check Valves, 1 Manifold w/2-Position 3-Way Solenoid Valve

2

Order Code	Pump Options
03	0.048 in.3/rev. - GC
04	0.065 in.3/rev. - GC
08	0.129 in.3/rev. - GC

3

Order Code	Relief Valve 1 Options (PSI) *
___0	Fill in 3 digits.

\* Must be less than a 4:1 ratio for P.O. check valves to pilot open.

4

Order Code	Relief Valve 2 Options (PSI) *
___0	Fill in 3 digits.

\* Must be less than a 4:1 ratio for P.O. check valves to pilot open.

5

Order Code	Motor Options
0	None
1	3 - 12 V 2 TERMINAL
2	4.5 - 12 V 2 TERMINAL
3 *	1 HP, 3 PH, 50/60 HZ, 208-230/460 VAC, TENV, 2850/3450 RPM
4 *	1 HP, 3 PH, 50/60 HZ, 208-230/460 VAC, TEFC, 2850/3450 RPM
5 *	1 HP, 1PH, 60 HZ, 115/208-230 VAC, TENV, 3450 RPM
6 *	1 HP, 1PH, 50/60 HZ, 115/208-230 VAC, TEFC, 2850/3450 RPM
7 *	1 HP, 3PH, 50/60 HZ, 208-230/460 VAC, TENV, 1425/1725 RPM
8 *	1 HP, 1 PH, 60 HZ, 115/208-230 VAC, TENV, 1725 RPM
9	AC FLANGE ADAPTER (NEMA C, 56 Frame)

\* All AC motors are rated for 30 minute operation.

6

Order Code	4.5" Motor - TERMINAL, START SWITCH & BREATHER LOCATIONS (AS VIEWED FROM RESERVOIR END)
0	N/A
A	PAD B @ 6 O'CLOCK, TERMINALS @ 12, BREATHER @ 12
B	PAD B @ 6 O'CLOCK, TERMINALS @ 3, BREATHER @ 12
C	PAD A @ 6 O'CLOCK, TERMINALS @ 12, BREATHER @ 12
D	PAD A @ 6 O'CLOCK, TERMINALS @ 9, BREATHER @ 12

7

Order Code	Mounting Options
1	Horizontal
2	Vertical

8

Order Code	3" Motor - Start Switch & Breather Location (viewed from reservoir end)
0	N/A
1	4.5 - ALWAYS IN LINE WITH THE TERMINALS
2*	3" - PAD B @ 6 O'CLOCK, START SWITCH @ 12 O'CLOCK, BREATHER @ 12 O'CLOCK
3*	3" - PAD B @ 6 O'CLOCK, START SWITCH @ 3 O'CLOCK, BREATHER @ 12 O'CLOCK
4*	3" - PAD A @ 6 O'CLOCK, START SWITCH @ 12 O'CLOCK, BREATHER @ 12 O'CLOCK
5*	3" - PAD A @ 6 O'CLOCK, START SWITCH @ 9 O'CLOCK, BREATHER @ 12 O'CLOCK
6	REMOTE (CUSTOMER MOUNTED)

\* 9 / 3 O'Clock from the chosen mounting pad.

9

Order Code	Solenoid Valve Voltages
0	NONE
1	12 V (Spade Terminals)
2	115 V (1/2" Conduit w/Dual Wire Leads)

10

Order Code	Cord Sets (w/115 VAC contactor start switch)
0	NONE
A	8 FT
B	12 FT

11

Order Code	Handset Controller Options (10 FT)
0	None
1	POWER-UP/POWER-DOWN (MOTOR ONLY)
2	POWER-UP/POWER-DOWN (MOTOR AND 2POS/2WAY SOLENOID VALVE)
3	POWER-UP/POWER-DOWN (MOTOR AND 2POS/3WAY SOLENOID VALVE)

12

Order Code	Fittings Options
0	None
1	TWO - 7/16-20 STRAIGHT
2	TWO - 7/16-20 90 DEGREE (facing reservoir)

13

Order Code	Reservoir Options (breather hole located at closed end of reservoir)
A	2 QT PLASTIC
B	3 QT PLASTIC
C	1 GAL PLASTIC *
D	1.5 GAL PLASTIC *
E	2.0 GAL PLASTIC *
F	1 GAL STEEL
G	1.5 GAL STEEL
H	2.0 GAL STEEL

\* Contact factory for availability.

# Only Haldex offers this extensive range of hydraulic pumps, hydraulic motors, electro-hydraulic power units and rotary flow dividers worldwide.

## GC Series Hydraulic Pumps

Compact cast iron gear pumps with a wide variety of integrated options provide custom systems capability and high-efficiency performance. Displacements from 0.065 to 0.711 cu. in. (1.066 to 11.65 cc) per revolution. Pressures to 4,000 psi (276 Bar).

## W Series Gear Pumps

Highly efficient pumps feature 4,000 psi continuous operation, speed range from 500 to 4,000 rpm, low noise operation and overall efficiency greater than 90%. Displacements from .183 to 3.05 cu. in. (3 to 50 cc) per revolution. Other features include SAE, ISO and DIN shafts, flanges and ports; integrated valves and multiple pump configurations.

## F15 Ferra Series Gear Pumps

Haldex Hydraulics Systems F15 series gear pumps is the result of Haldex extensive experience in the off-road vehicle market. Proven design elements enhanced by new technology have created a product of very high efficiency, in a robust cast iron bodied gear pump.

The Haldex F15 offering includes a variety of porting options (SAE, DIN, NPT, BSPP, JIS), sizes and combinations of side or rear locations. Drive shafts are available in SAE, splined, keyed and tapered. Mounting flanges offered are SAE 2-bolt "A", SAE 2-bolt "B", or SAE 2/4-bolt "C" with either single or double shaft seal configuration. The double shaft seal option is designed for use when the pump pilot extends into a crankcase or transmission to prevent fluid from one environment entering the other. Displacement range is 19 to 50 cc (1.159 to 3.050 in.3/rev) at speeds from 600 to 3600 rpm.

## F20LS/F30LS Load Sense Variable Discharge Gear Pumps

Offers the horsepower conservation of a load sense system and the low cost reliability of a gear pump. Featuring cast iron construction and 4,000 psi continuous operation for severe-duty applications. Displacements from 1.41 to 9.82 cu. in. (23 to 161 cc).

## F20 & F30 Series Gear Pumps

Rugged cast iron pumps offer high performance for severe-duty applications. Available in single, multiple and through-drive versions. Displacements from 1.41 to 9.82 cu. in. (23 to 161 cc) per revolution. Pressures to 4,000 psi (276 Bar) continuous.

## F20 / G30 Specialty Products

- F20-DM Pump/Motor Series, F20 series pump with direct mount motor options. Motor options --- 7.5 HP, 10 HP, and 15 HP and displacements from 1.41 to 2.94 cu. in. (23 to 48 cc) for pump/motor units. Integral manifold options also available.
- F20 / F30 PTO Pump Series. Specifically designed pump options and features for PTO (power take off) applications. Displacements from 1.41 to 9.82 cu. in. (23 to 161 cc).
- F20 / F30 two section flow dividers. Displacements from 1.41 to 9.82 cu. in. (23 to 161 cc) per section. Pressures to 4,000 psi continuous (276 Bar).

## GC-9500 AC Hydraulic Power Units

AC power units offering the ultimate in design versatility and ordering flexibility. It can be ordered completely assembled or in kits. Standard options include: motors (1/2-5 hp, TEFC, open, and drip-proof); 4 reservoirs (5, 10, 15 and 20 gal.); and pumps (pressure balanced and high/low with flows to 28 gpm and pressures to 3500 psi).

## HE AC & DC Hydraulic Power Packs

Self-contained modular power systems in fully assembled or component form; wide range of standard pumps, motors, switches, mounts, valves, and reservoirs. Custom options also available. Pressures to 4,000 psi (276 Bar). Flows from 0.20 to 7.0 GPM.

## Hydraulic Motors

Available in the GC, W and F20 Series in unidirectional and birotational configurations. Motors available with modular valve, bearing, seal and shaft options for maximum flexibility. Displacements from 0.065 to 5.30 cu. in. (1.06 to 87.0 cc) per revolution. Pressures to 4,000 psi (276 Bar).

## Two-Stage Hydraulic Pumps

External gear pumps designed for high-speed positioning combined with maximum working pressure. High-pressure displacements from 0.258 to 1.395 cu. in. (4.23 to 22.86 cc) per revolution. Pressures to 4,000 psi (276 Bar). Flows from 5 to 28 GPM.

## Rotary Flow Dividers

Rotary-gear units up to four sections for synchronized operation of multiple cylinders or motors, proportional division of output or intensified flow. Single-section displacements from 0.065 to 0.813 cu. in. (1.0 to 13.32 cc) per revolution. Pressures to 4,500 psi (306 Bar).

## Call us for more information

For application assistance or detailed literature on any Haldex product line, call us toll-free: **1-800-572-7867**.

Visit our web site: <http://www.haldex.com/hbus>

E-mail us: [info.hydraulics.us@haldex.com](mailto:info.hydraulics.us@haldex.com)





## PRODUCT RANGE

### HE Powerpacks

12/24/48 VDC 0.3 – 4.5 kW and  
0.75 – 3 kW AC modular power packs

### HE Box Powerpacks

12/24/48 VDC modular powerpacks  
in weatherproof boxes

### Pressure Switches

5 - 350 bar, connecting/disconnecting

### W100 Hydraulic pumps

0,5 - 2,0 cc 227 bar

### W300 Hydraulic pumps

0,8 – 5,7 cc 230 bar

### W600 Hydraulic pumps / motors

3 – 12 cc 276 bar

### W900 Hydraulic pumps / motors

5 – 31 cc/section 276 bar

### Calma The new quiet pumps

6,2 - 23,7 cc/section 250 bar

### WQ900 The quiet pumps

5 - 23 cc/section 230 bar

### WP900X Hydraulic pumps

16 - 31 cc/section 276 bar

### W1500 Hydraulic pumps / motors

19 - 50 cc/section 276 bar

### F12 FERRA Heavy duty pumps

16 - 41 cc/section 276 bar

### F15 FERRA Heavy duty pumps

19 - 50 cc/section 276 bar

### F20/F30 (LS) Hydraulic pumps / motors

23 – 161 cc/section 276 bar

### GPA Internal Gear pumps

1,7 – 63 cc/section 100 bar

### GC Hydraulic pumps / motors

1,06 – 11,65 cc/section 276 bar

### D Hydraulic pumps

3,8 – 22,9 cc/section 207 bar

### H Hydraulic pumps

9,8 – 39,4 cc/section 207 bar

### II-Stage Hydraulic pumps

4,2 – 22,8 cc/section 276 bar

### Rotary Flow Dividers

3,8 – 13,3 cc/section 300 bar

### Transmission pumps

[www.haldex.com/hbus](http://www.haldex.com/hbus)



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BIROT PU 9/04

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