

Oildyne

108 Series Hydraulic Power Units

Pressures to 241 bar (3500 psi)
Flows to 2.8 lpm (³/₄ gpm)





108 Series Self-contained Hydraulic Power Units

Our compact 108 Series power units let you put the power where you need it. They're completely self-contained with an AC or DC motor, gear pump, reservoir, internal valving, load hold checks and relief valves.

The 108 Series models are designed for intermittent service and come in four standard pump sizes which produce flows of .0098, .0187, .0246, and .0321 cubic inches per revolution. Locking check valves are available in all models. Performance will vary with the type of fluid used. Several hydraulic circuits are available.

108 Series units are available with single- or bi-directional rotation. Single units are commonly used to charge accumulators, power one-direction hydraulic motors and cylinders, provide pilot flow to servo valves, pressurize lube systems and supply multi-

Typical applications

Positioning

- Hydraulic door operators
- Conveyor belt tensioners
- Medical chairs, beds, and equipment

Recreational Vehicles

- Leveling
- Slideouts
- Tent Trailers

Clamping

- Tool fixtures and jigs
- Hydraulic brakes
- Crimping tools
- Arbor presses
- Truck restraints

Cycling

- Garbage compactors
- Valve operators
- Press controls
- Packing equipment
- Indexing tables

Lifting

- Handicap lifts
- Scissor lift tables
- Pallet movers

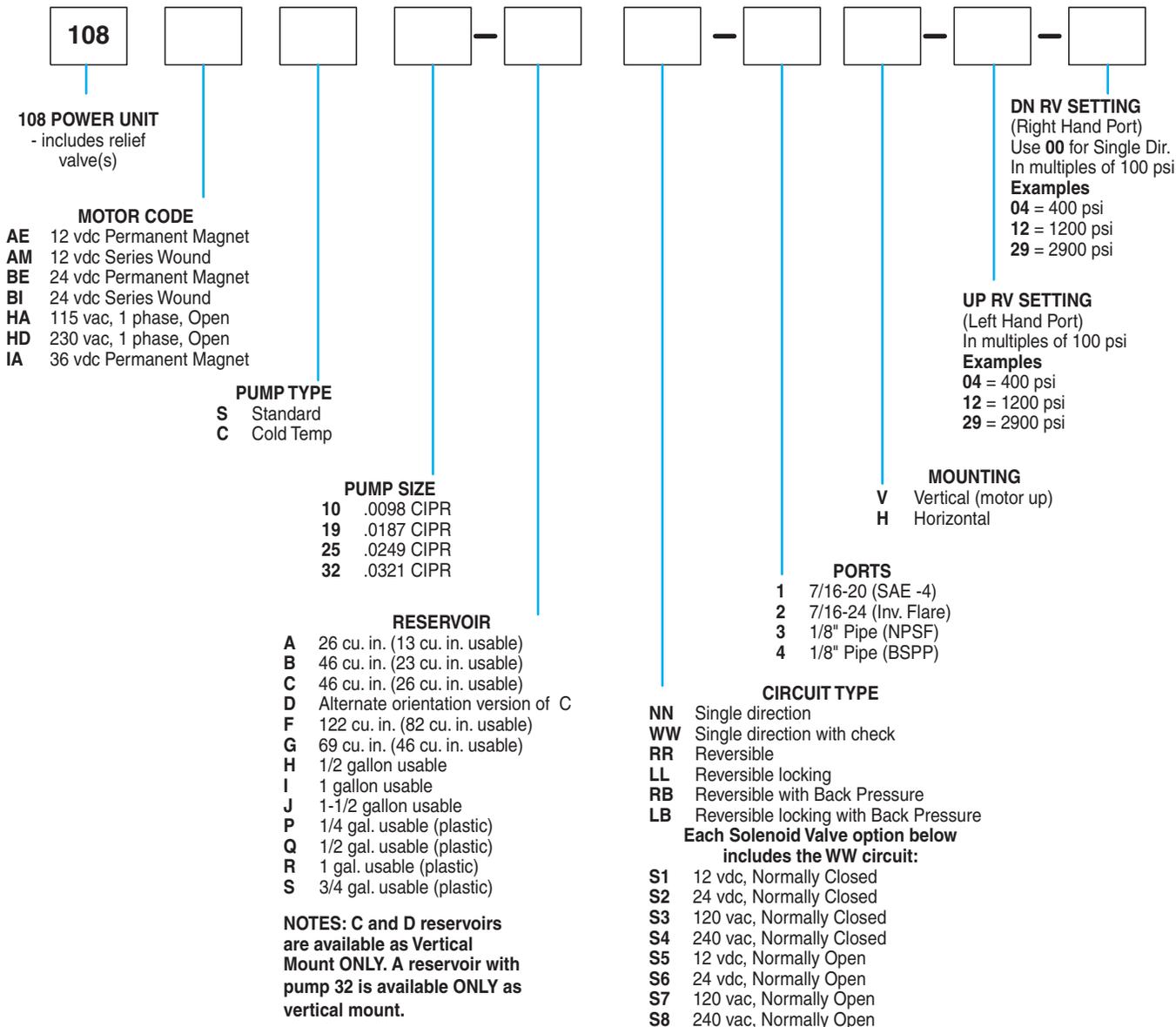
function circuits with external valving.

Bi-directional, reversible units operate double-acting cylinders and two-way motors.

We'd like to work with you on your special hydraulic applications. Our people know small hydraulics. We know how to design them, how to make them and how to apply them. Therefore, we can offer you a practical, economical solution to your fluid power problems.

Oildyne has pioneered top quality, compact hydraulic components since 1955. We can provide standard products or custom design high pressure, space saving solutions to your specific needs.

Standard Product Ordering Code



ORDERING CODE INSTRUCTIONS

Select the model code needed based on catalog information. All boxes above must be filled in before Oildyne can process the order. If the power unit is a single direction unit use '00' for the DN (Right Hand) relief valve box.

<h2 style="margin: 0;">Hydraulic Fluid</h2> <p>ATF, OD18, or other clean hydraulic oil with a viscosity of 150 to 300 SUS at 38°C (100°F) is acceptable. If another type of fluid is needed, please consult the factory.</p>	<h2 style="margin: 0;">Temperature Range</h2> <p>Normal operating range is +20°F to +140°F. Please review your application with the factory for uses below -7°C and over +60°C (+20°F and over +140°F).</p>
--	---

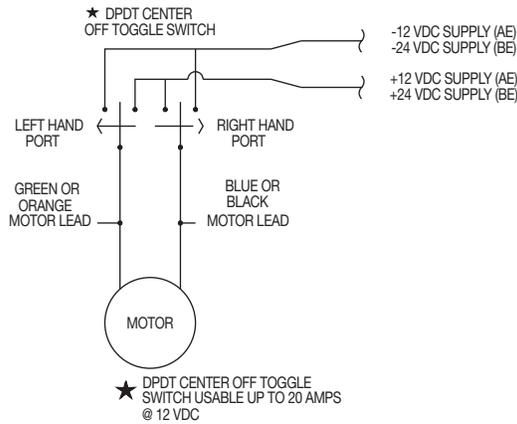
ALL DATA SUBJECT TO CHANGE WITHOUT NOTICE
 FOR POWER UNIT CONFIGURATIONS OTHER THAN THOSE SHOWN PLEASE CONSULT OILDYNE.

12/24 V DC Permanent Magnet Motor • Code AE • BE

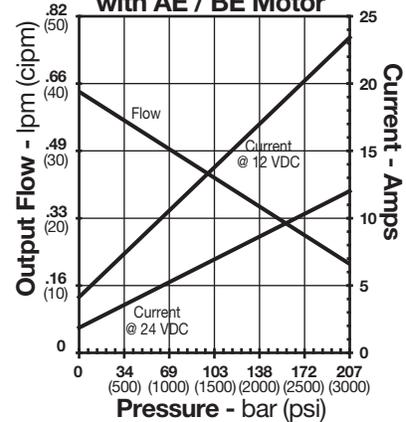
Motor Type: AE and BE
 For intermittent duty cycles.



Wiring Diagram: AE • BE



**.100 Pump (.0098 cipr)
 with AE / BE Motor**

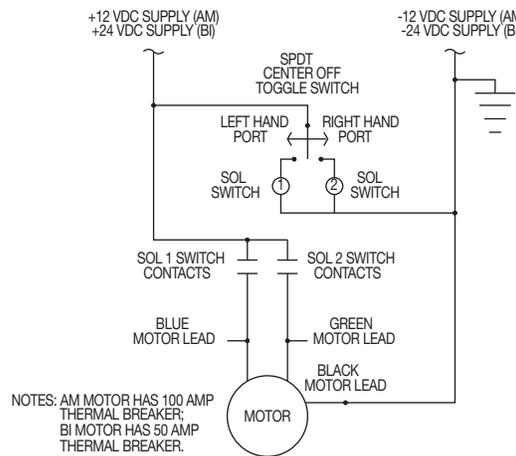


12/24 V DC Series Wound Motor • Code AM • BI

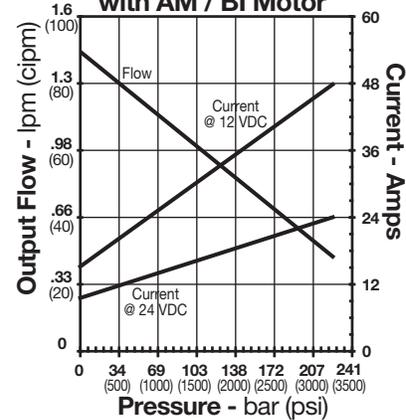
Motor Type: AM and BI
 For intermittent duty cycles.



Wiring Diagram: AM • BI



**.100 Pump (.0098 cipr)
 with AM / BI Motor**

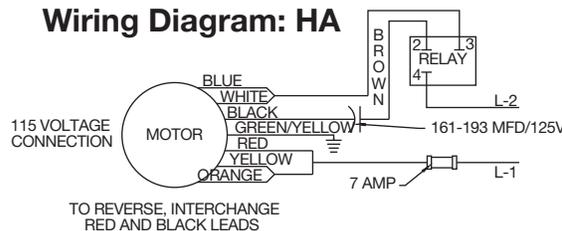


115/230 V AC Capacitor Start Motor • Code HA • HD

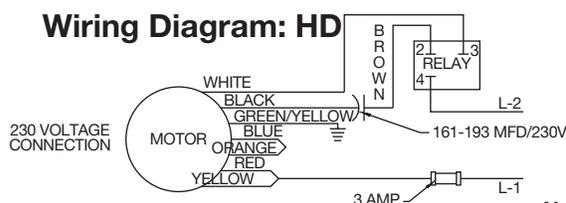
Motor Type: HA and HD
 Dual voltage 1/3 HP, 60/50 hz, 3450/2850 rpm, intermittent duty, single phase, open frame. Capacitor and relay included.



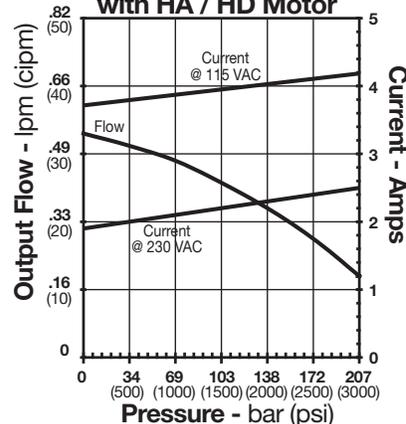
Wiring Diagram: HA



Wiring Diagram: HD

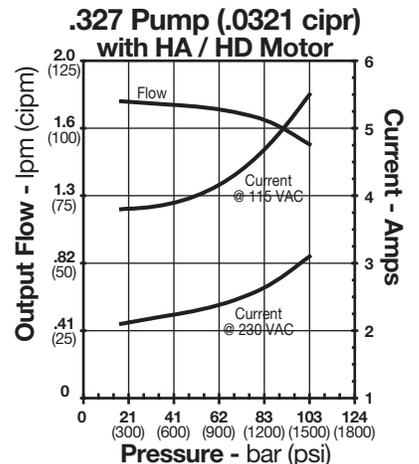
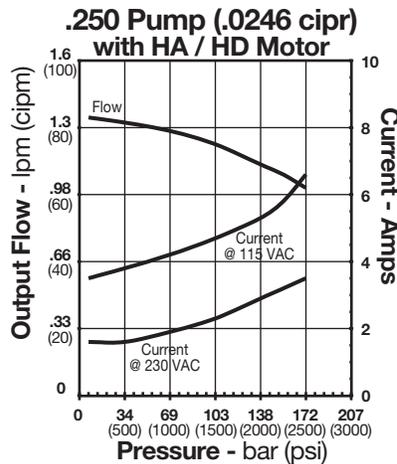
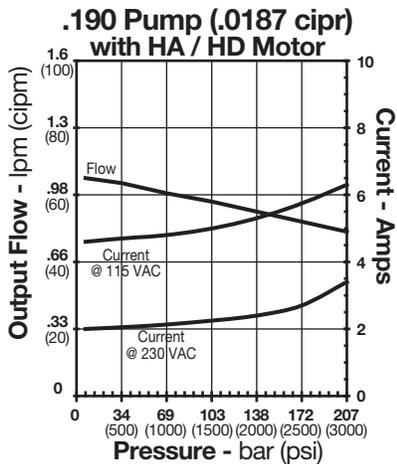
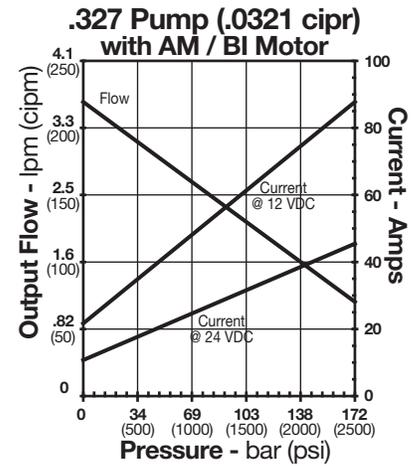
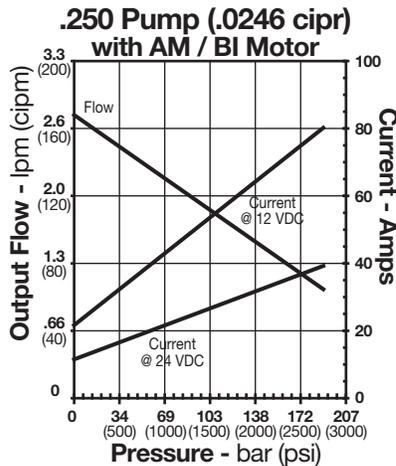
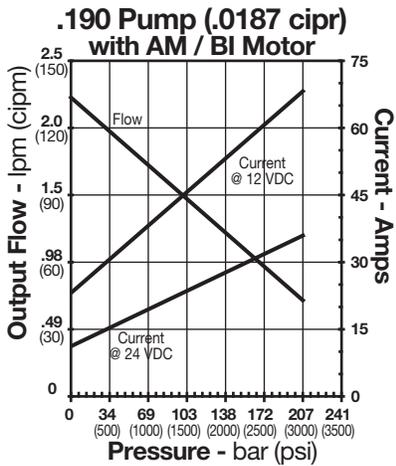
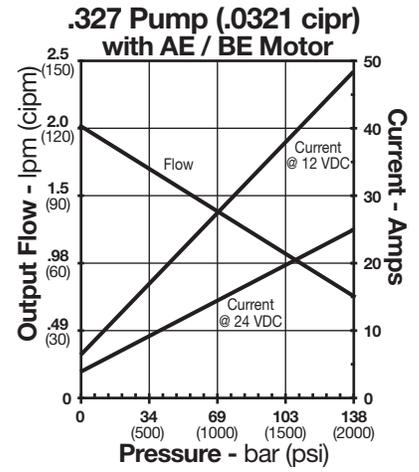
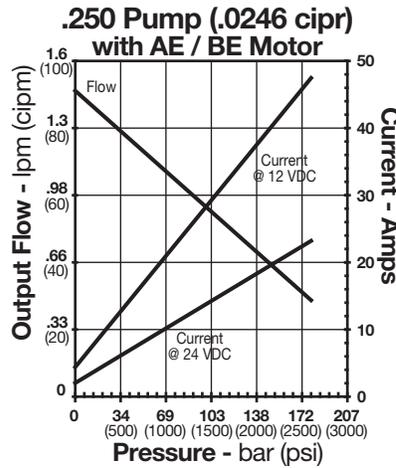
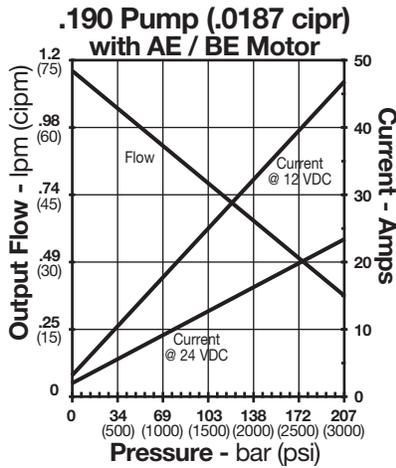


**.100 Pump (.0098 cipr)
 with HA / HD Motor**

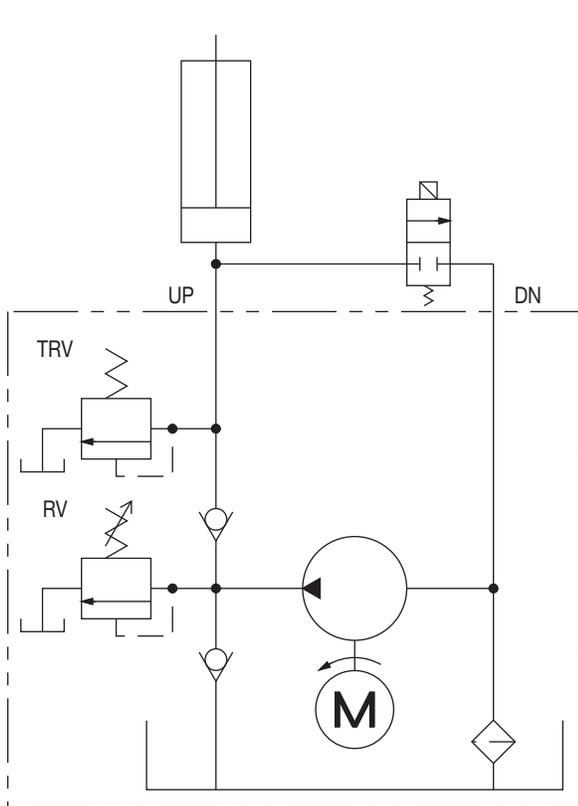


Note: 50 hz performance is 83% of curves shown.

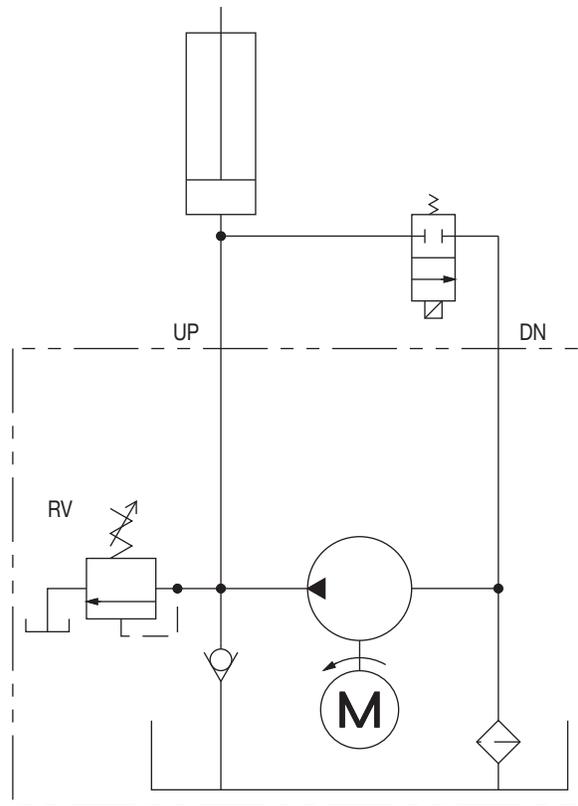
Performance data based on ATF @ 21°C (70°F)



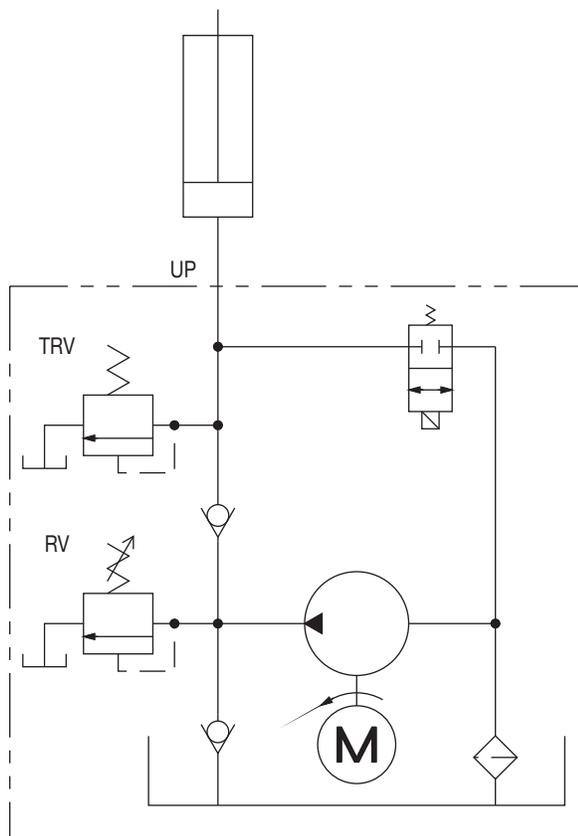
Note: Performance data is for reference only.



“WW” CIRCUIT



“NN” CIRCUIT

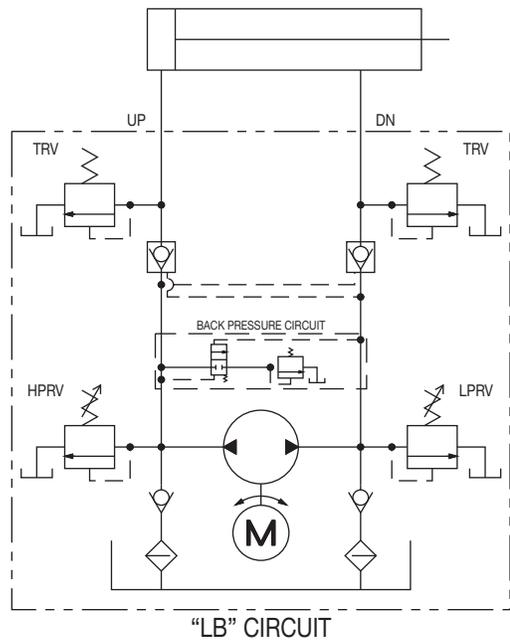
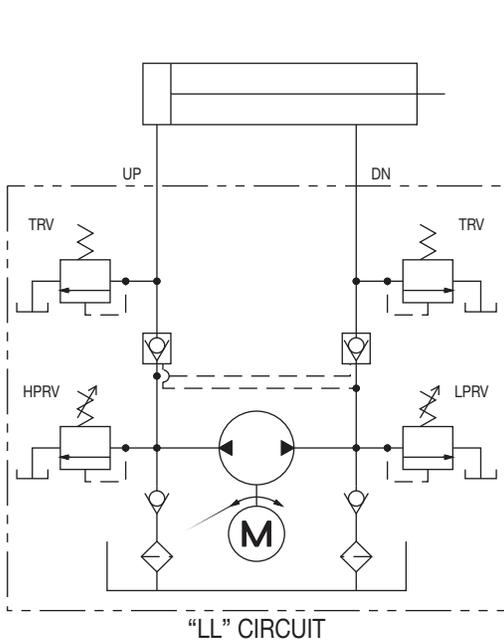
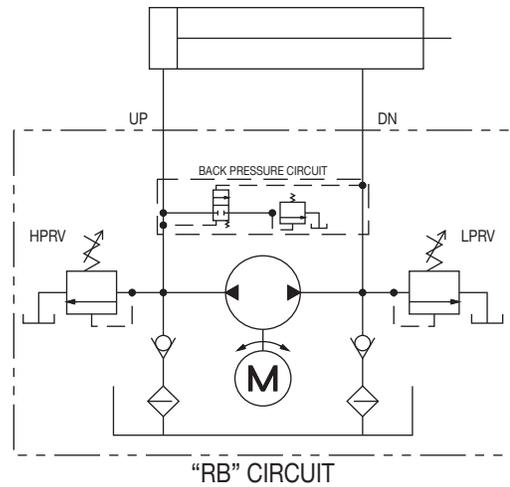
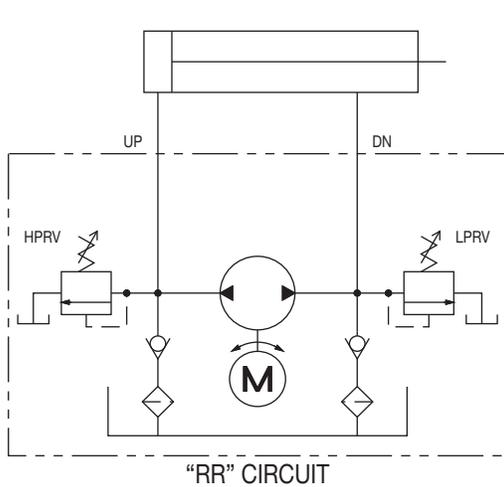


“S*” CIRCUIT

Thermal Relief Valves— Why?

The thermal relief valve's (TRV) purpose is to allow a bleed off of built up pressure due to thermal expansion of the fluid or to act as a (limited) shock load protection, should a cylinder in the system get bumped.

The thermal relief valve is included in circuits using a pilot operated check valve. The single direction units get one; the reversing units get two. It is located between the check valve and the 108 Series pump outlet port. It is a fixed relief valve with a pressure setting approximately 100-140 bar (1500-2000 psi) above the system relief valve pressure.



Back Pressure Circuits— Why?

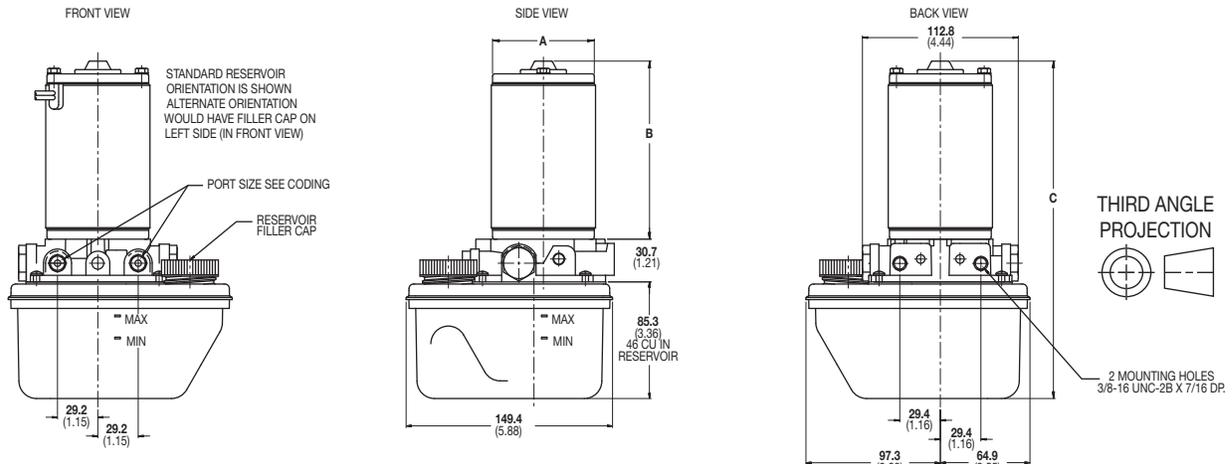
The basic reversible circuit is essentially a closed loop. The oil returning from the system is fed back into the pump inlet. When a cylinder is being retracted more oil is being returned to the power unit than is leaving it due to the rod volume. This results in the DN side relief valve cracking open allowing the rod volume of oil to go back to the tank. The larger the rod volume the more open the relief valve will be. In many applications this is not a problem. However, if work is being done on the retract stroke, or if a pressure switch is used to signal the cylinder is fully retracted, the back pressure circuit is required. This circuit allows the rod volume of

oil to return to the reservoir through a special shuttle spool, before it reaches the pump. Full relief valve pressure is then available to retract the cylinder, also preventing a pressure switch from tripping before the full retract position is achieved.

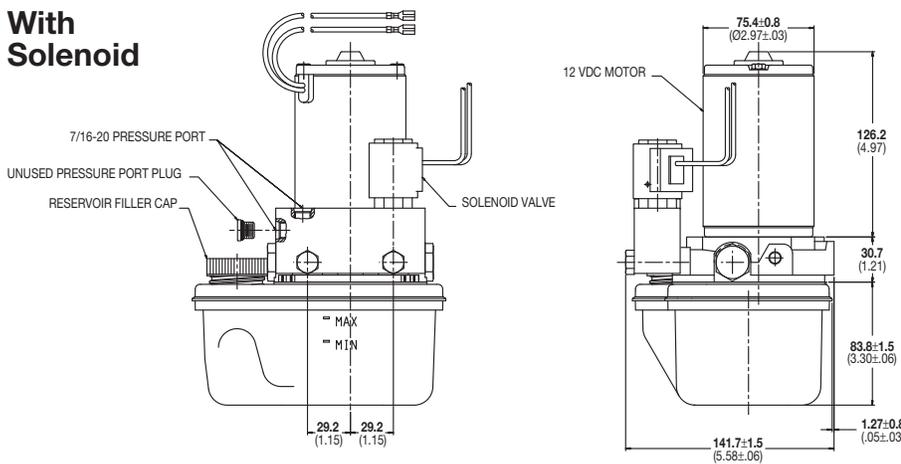
Recommended uses:

- In systems where work is being done on the retract stroke
- Where a pressure switch is used to signal the full retract position
- In systems requiring a faster retract than extend speed

Overall Dimensions



With Solenoid

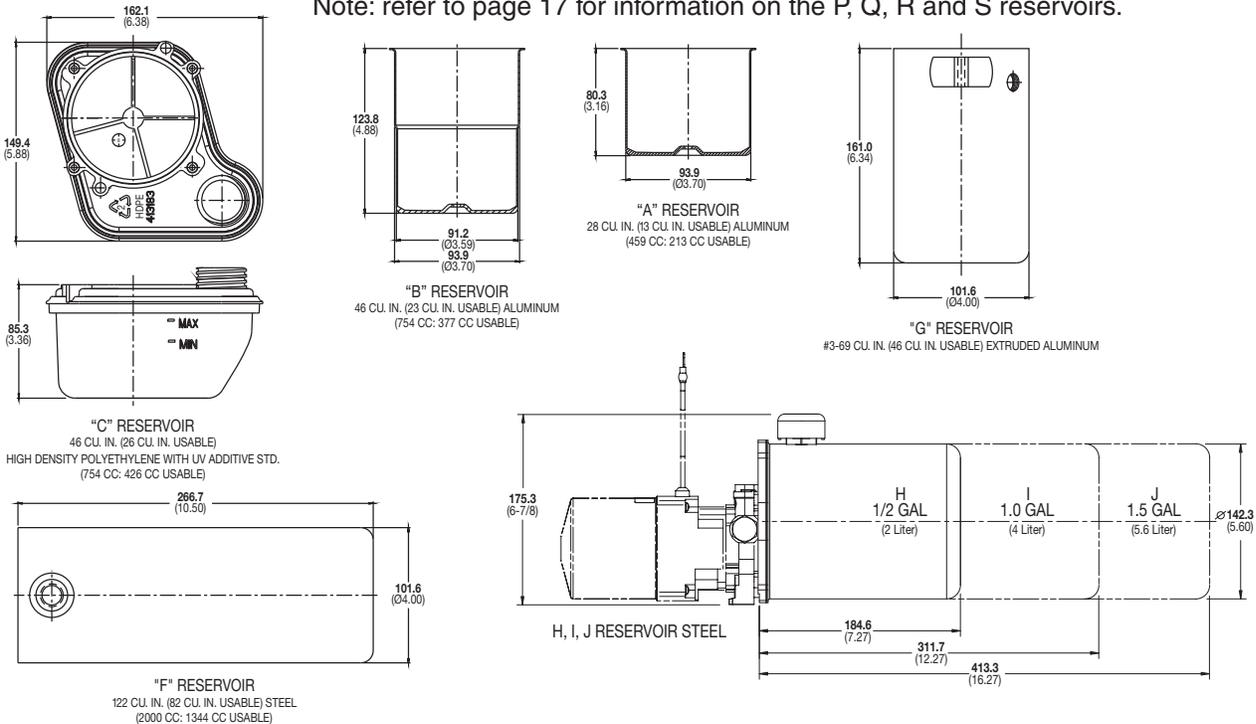


Motor Dimensions ±.13 (±.050)			
	A	B	C
AE/BE	75.4 (2.97)	126.2 (4.97)	241.3 (9.50)
AM/BI	95.8 (3.77)	151.4 (5.96)	266.4 (10.49)
IA	75.4 (2.97)	128.8 (5.07)	244.1 (9.61)
HA/HD	100.1 (3.94)	161.0 (6.34)	276.4 (10.88)

Note: All dimensions in mm (inches).

Reservoir Dimensions

Note: refer to page 17 for information on the P, Q, R and S reservoirs.



Oildyne

165 Series Hydraulic Power Units

Pressures to 241 bar (3500 psi)

Flows to 5.4 lpm (1.4 gpm)



We are pleased to introduce our new 165 Series power units. The 165 Series power units let you put more power where you need it. As big brother to our successful 108 Series, the 165 Series is completely self-contained with a DC motor, gear pump, reservoir, internal valving, load hold checks and relief valves.

The 165 Series units are designed for intermittent duty and are available in three standard pump sizes producing flows of .032, .050 and .065 cubic inches per revolution. The units are available for single or bi-directional application with a number of hydraulic circuit options similar to our 108 Series.

Single direction units are commonly used to charge accumulators, power single direction hydraulic motors and single acting cylinders, as well as multi- function circuits with external valving.

Bi-directional units are commonly used to operate double acting cylinders and reversible motors.

We look forward to working with you on your specific applications. As pioneers and specialists in the design and manufacture of high quality compact hydraulic systems, we are well qualified to offer practical and economical solutions to your fluid power problems.

Your local Parker sales representative will be pleased to provide further information.

Features

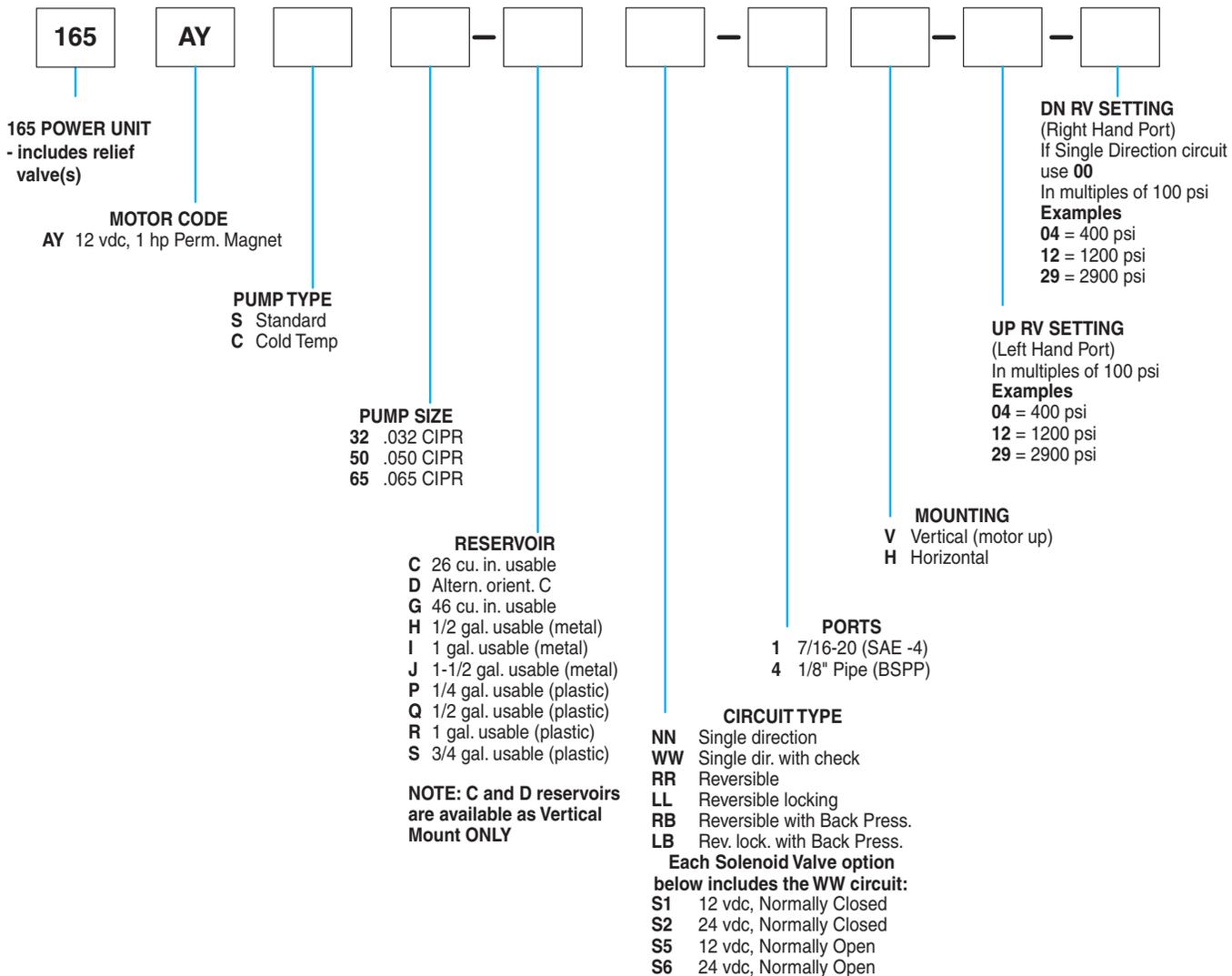
- 1 hp, 12 vdc motor
- 3 pump sizes
- Variety of circuits
- Many reservoir choices
- 241 bar (3500 psi) capability
- Soft seat load hold valves
- Vertical and horizontal mounting

Typical Applications

- Wheelchair lifts
- Scissors lift tables
- RV levelers
- RV room slides
- Cab tilts
- Mobile sign lifts
- Boat lifts
- Pallet movers
- Yours?



Standard Product Ordering Code



ORDERING CODE INSTRUCTIONS

Select the model code needed based on catalog information. All boxes above must be filled in before Oildyne can process the order. If the power unit is a single direction unit use '00' for the DN (Right Hand) relief valve box.

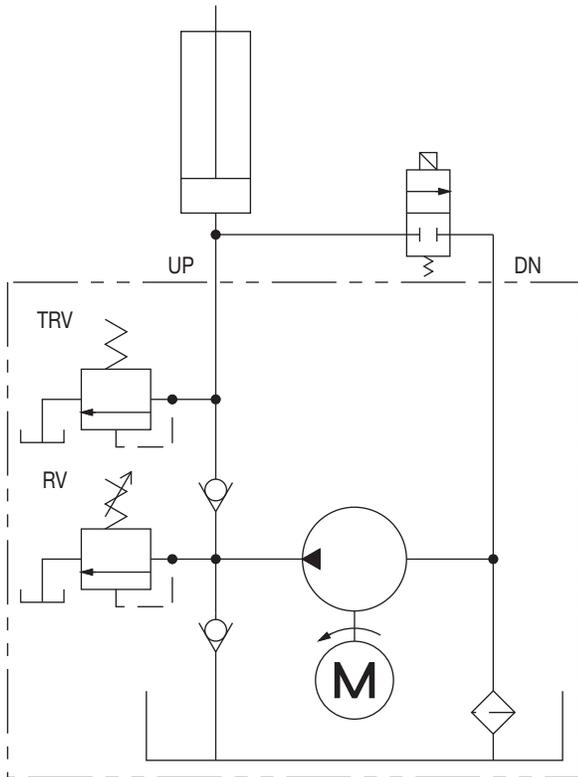
Hydraulic Fluid

ATF, OD18, or other clean hydraulic oil with a viscosity of 150 to 300 SUS at 38°C (100°F) is acceptable. If another type of fluid is needed, please consult the factory.

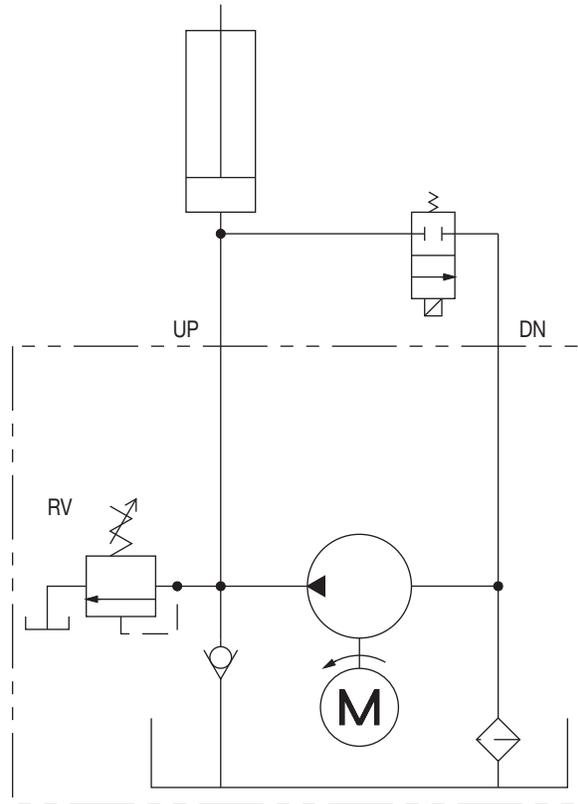
Temperature Range

Normal operating range is +20°F to +140°F. Please review your application with the factory for uses below -7°C and over +60°C (+20°F and over +140°F).

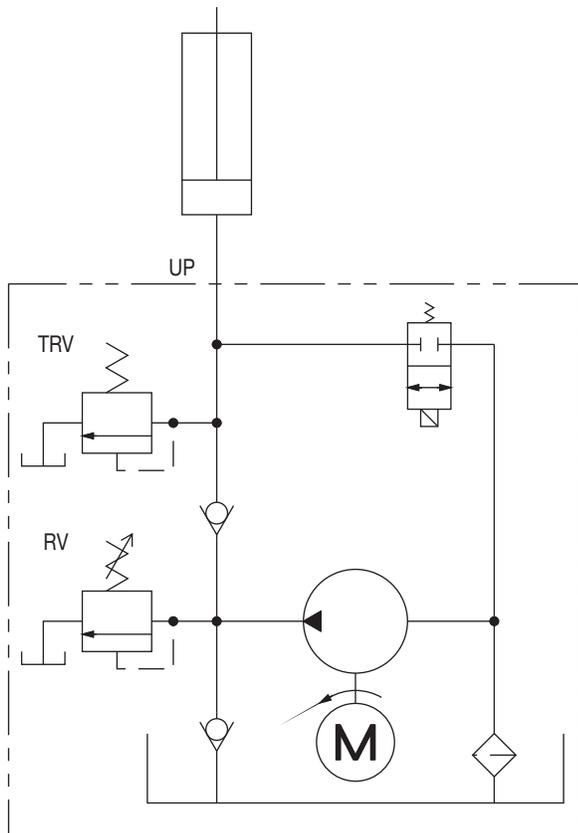
ALL DATA SUBJECT TO CHANGE WITHOUT NOTICE
 FOR POWER UNIT CONFIGURATIONS OTHER THAN THOSE SHOWN PLEASE CONSULT OILDYNE.



“WW” CIRCUIT



“NN” CIRCUIT

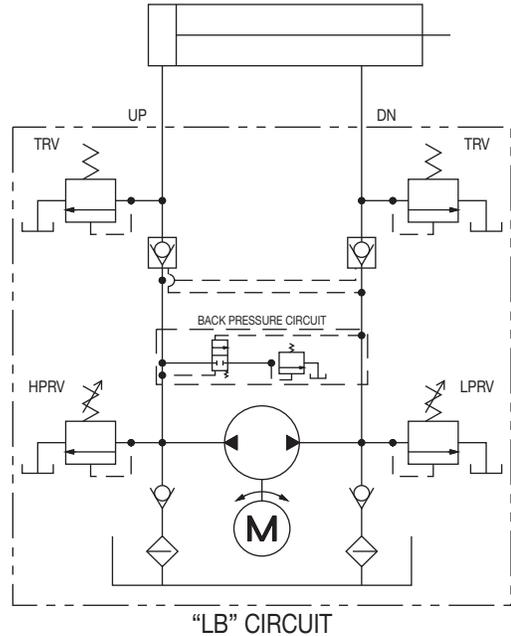
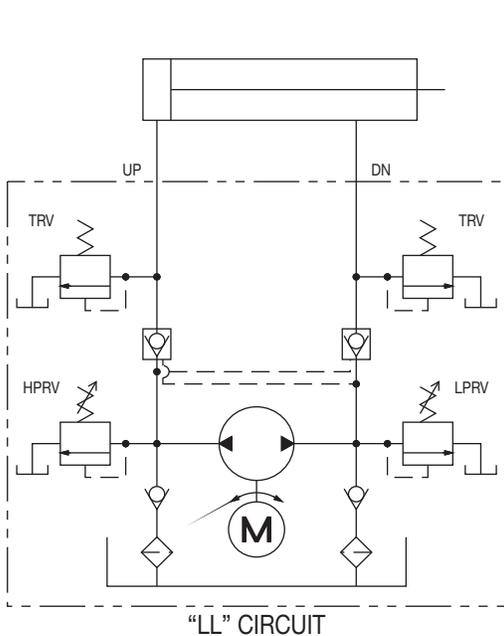
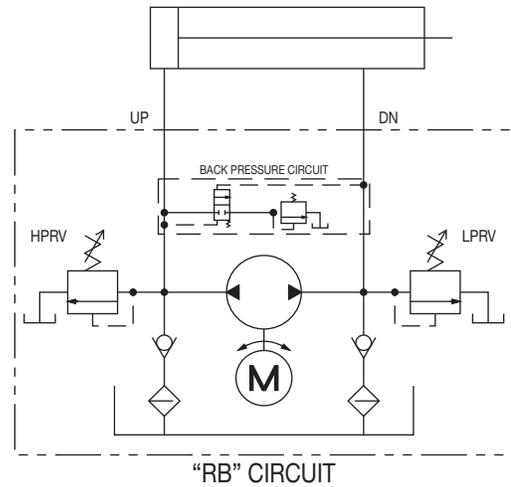
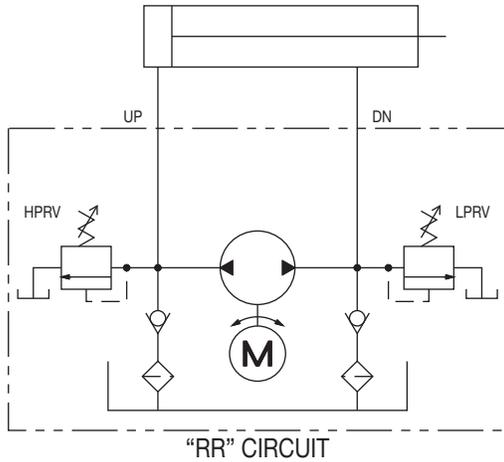


“S*” CIRCUIT

Thermal Relief Valves— Why?

The thermal relief valve's (TRV) purpose is to allow a bleed off of built up pressure due to thermal expansion of the fluid or to act as a (limited) shock load protection, should a cylinder in the system get bumped.

The thermal relief valve is included in circuits using a pilot operated check valve. The single direction units get one; the reversing units get two. It is located between the check valve and the 165 Series pump outlet port. It is a fixed relief valve with a pressure setting approximately 100-140 bar (1500-2000 psi) above the system relief valve pressure.



Back Pressure Circuits— Why?

The basic reversible circuit is essentially a closed loop. The oil returning from the system is fed back into the pump inlet. When a cylinder is being retracted more oil is being returned to the power unit than is leaving it due to the rod volume. This results in the DN side relief valve cracking open allowing the rod volume of oil to go back to the tank. The larger the rod volume the more open the relief valve will be. In many applications this is not a problem. However, if work is being done on the retract stroke, or if a pressure switch is used to signal the cylinder is fully retracted, the back pressure circuit is required. This circuit allows the rod volume of

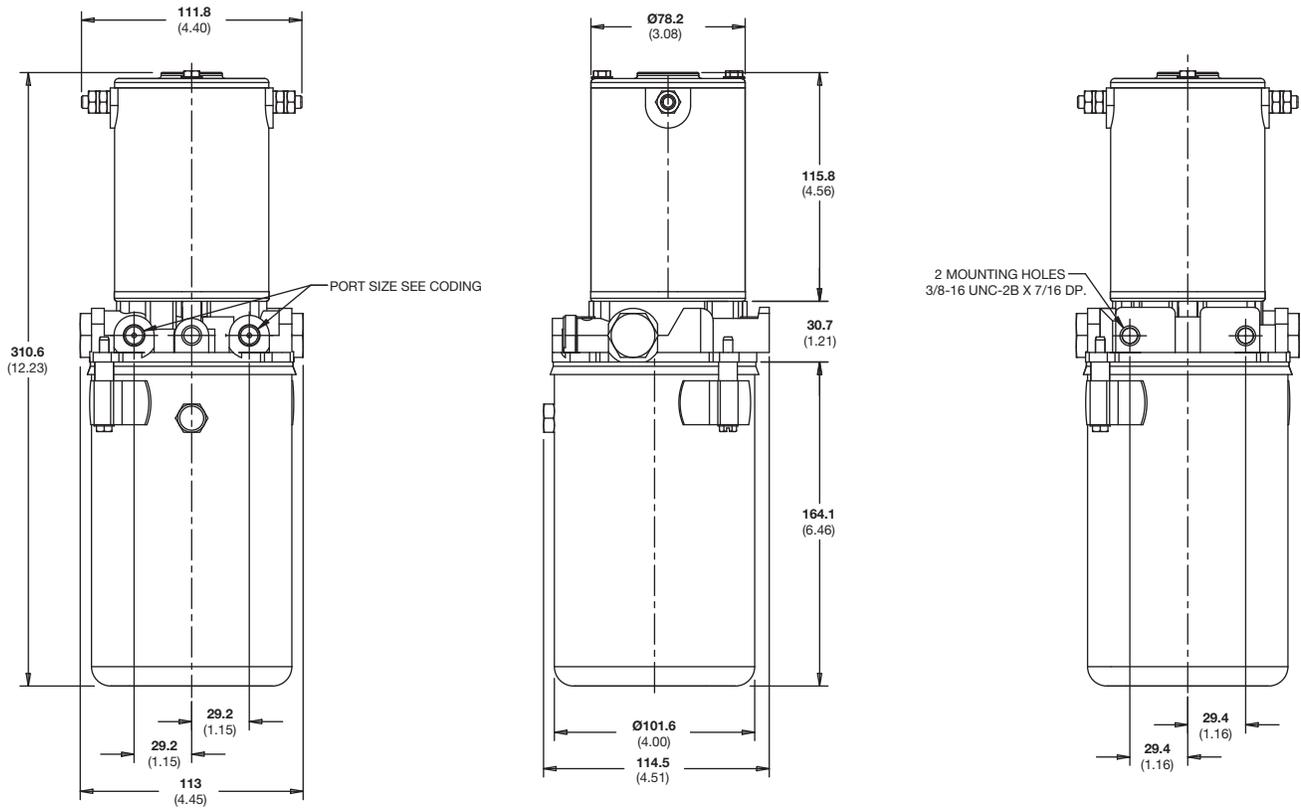
oil to return to the reservoir through a special shuttle spool, before it reaches the pump. Full relief pressure is then available to retract the cylinder, also preventing a pressure switch from tripping before the full retract position is achieved.

Recommended uses:

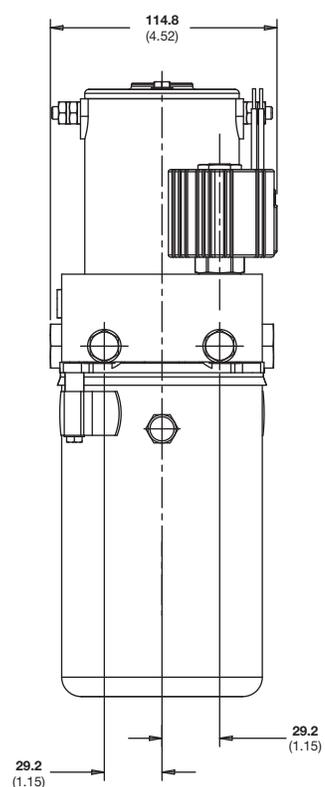
- In systems where work is being done on the retract stroke
- Where a pressure switch is used to signal the full retract position
- In systems requiring a faster retract than extend speed

Dimensions

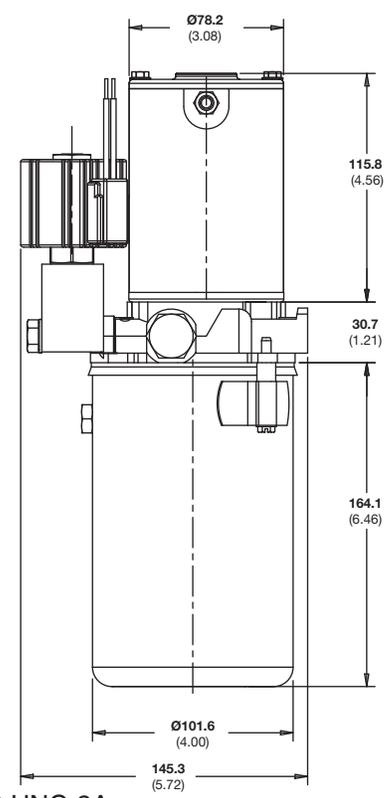
Shown with "G" reservoir



THIRD ANGLE
 PROJECTION



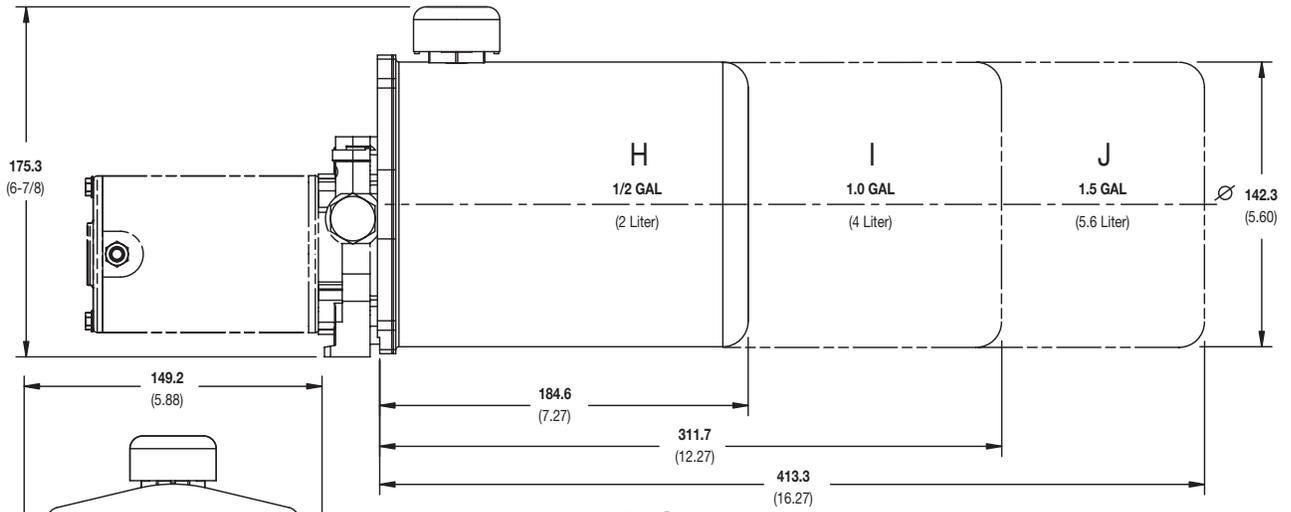
Shown with "G"
 reservoir and
 solenoid valve
 option



Motor terminals are 1/4-20 UNC-2A.

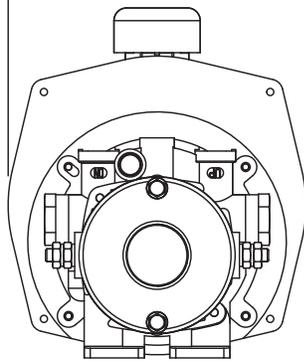
Note: All dimensions in mm (inches).

Dimensions

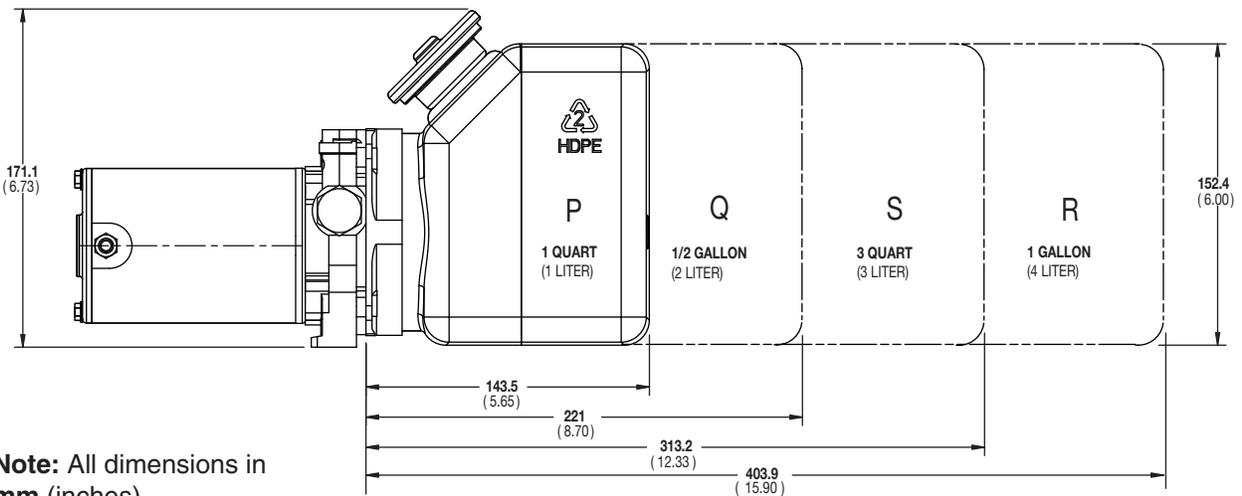
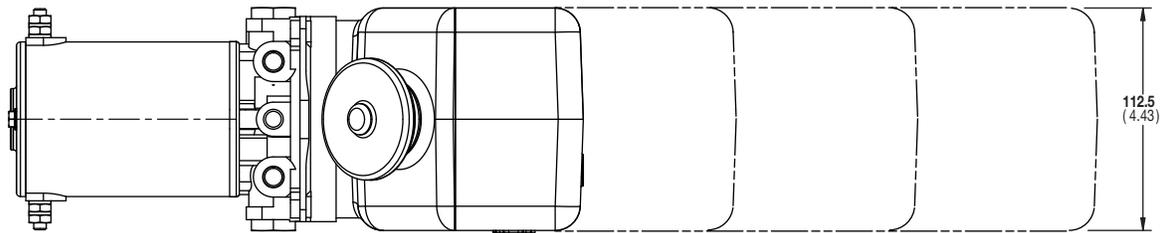


165 Series shown with steel reservoirs

Motor end view of
 above drawing



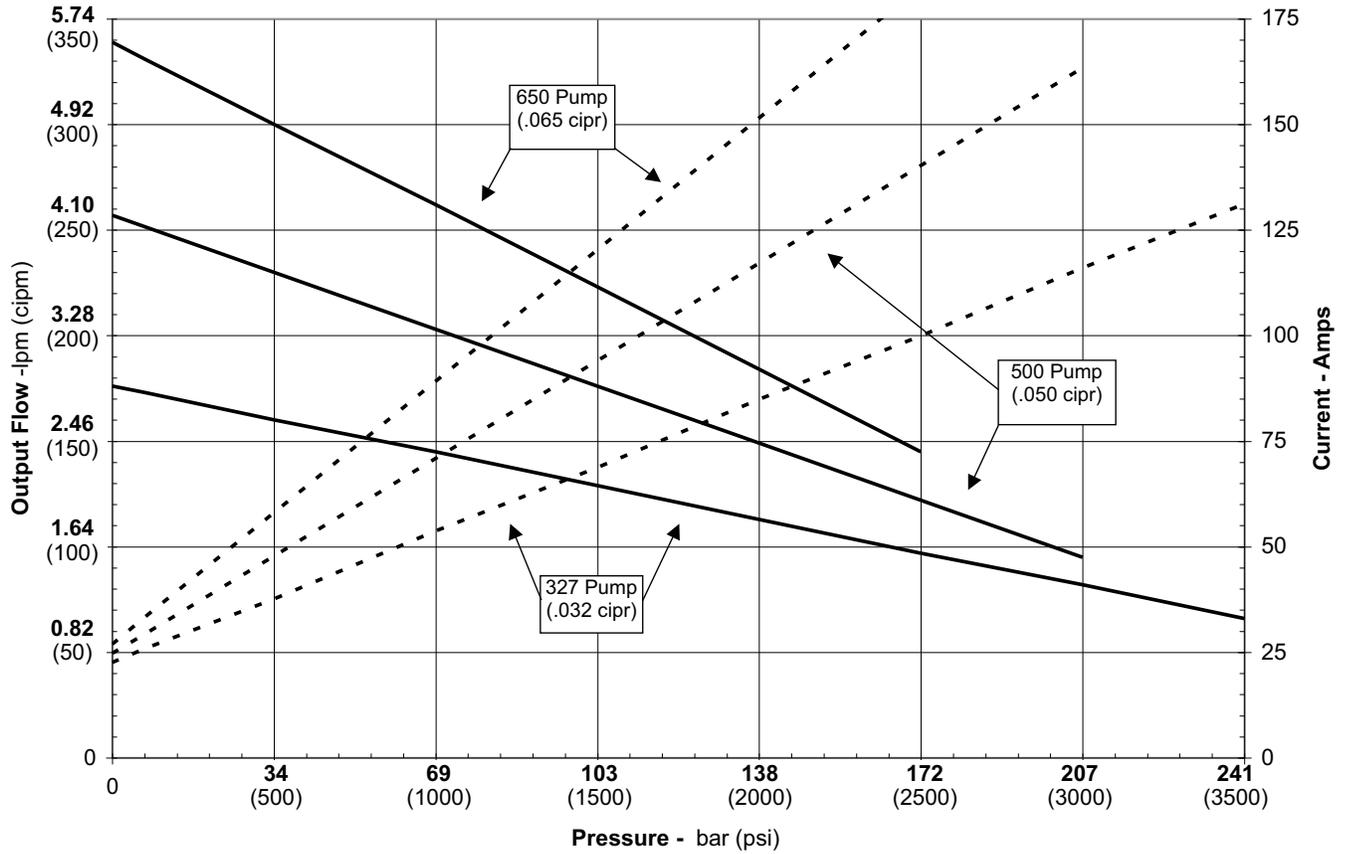
165 Series shown with plastic reservoirs



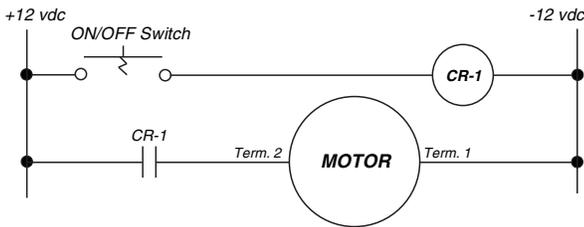
Note: All dimensions in
 mm (inches).

Performance data based on ATF @ 21°C (70°F)

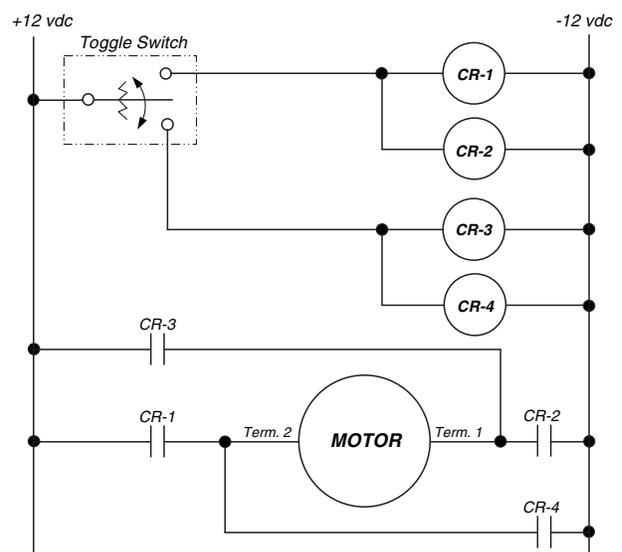
165 Series Performance



“AY” Wiring Diagram
 -Single Direction



“AY” Wiring Diagram
 -Reversible



Note: Performance data is for reference only

Oildyne

550 Series Hydraulic Power Units

*Pressures to 207 bar (3000 psi)
Flows to 11.4 lpm (3 gpm)*



550 Series Hydraulic Power Units

We are pleased to introduce our new 550 Series AC hydraulic power units. The 550 Series combines the features and benefits our customers and markets have requested in a durable and economical package.

The integral motor, pump and reservoir are complemented with a full line of Parker D03 and cartridge valve options. Add a linear or rotary actuator and you have a complete hydraulic system solution for your application.

These high quality power units are ideal for industrial machine tool clamping circuits, dock levelers, food processing, hose crimping, scissor lift, presses, and a myriad of AC applications. Let them go to work for you.

Your local Parker sales representative will be pleased to provide further information.

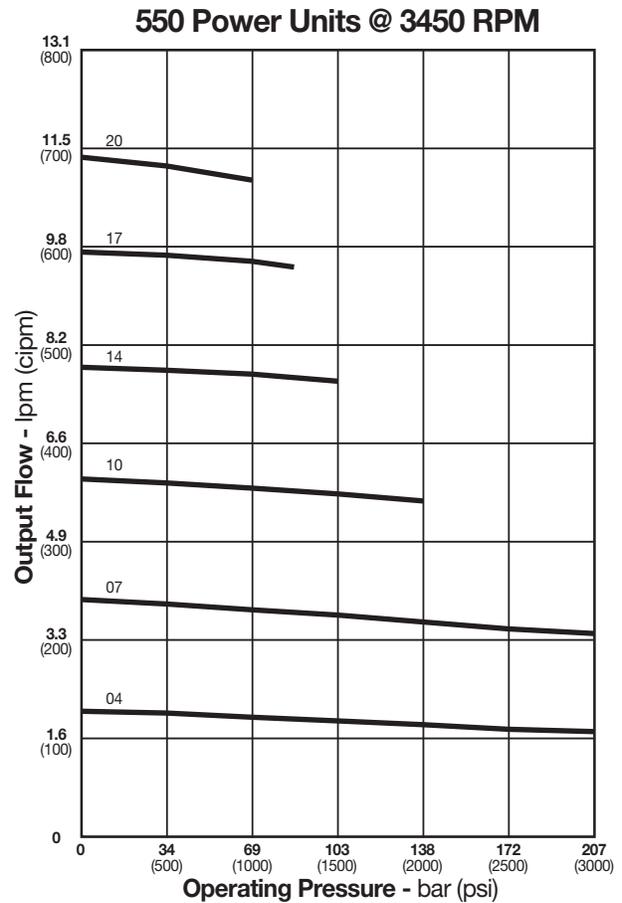
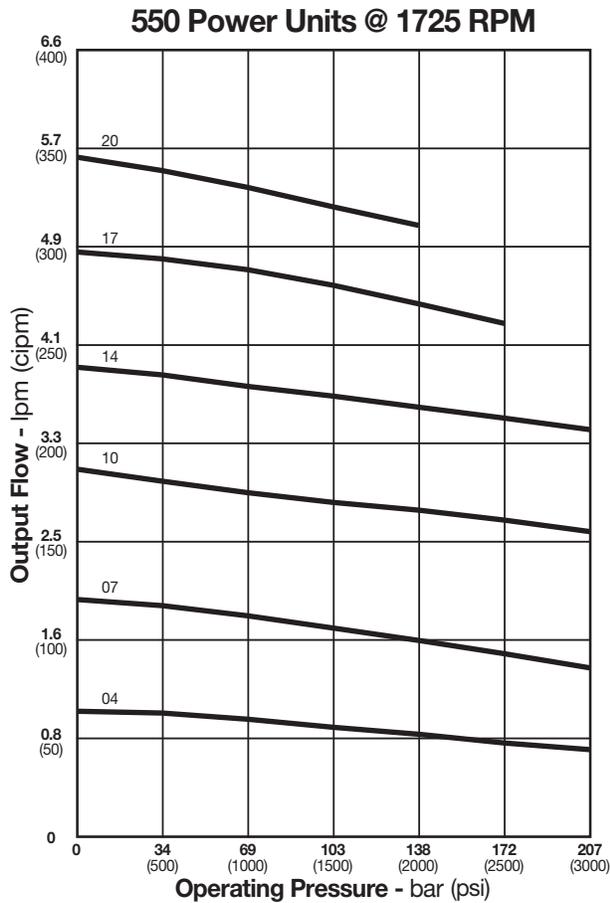
Typical Applications

- Machine tool clamping
- Dock levelers
- Man lifts
- Scissors lifts
- Wheelchair lifts
- Trash compactors
- Hose crimpers
- Boat lifts
- Presses
- Commercial ovens

Features

- Numerous motors up to 3 hp
- 6 pump sizes – flows from 1 to 11.4 lpm (1/4 to 3 gpm)
- Externally adjustable relief valve
- Variety of reservoirs
- 207 bar (3000 psi) capability
- D03 pad or standard P and T ports





Performance data based on ATF @ 21°C (70°F)

Motor Horsepower Recommendations at Flow/Pressure

Pump Size	Nominal GPM		Pressure (PSI)					
	@ 1725	@ 3450	500	1000	1500	2000	2500	3000
04	1/4		.50 HP	.50 HP	.50 HP	.50 HP	.50 HP	.50 HP
04		1/2	.50 HP	.50 HP	.50 HP	.75 HP	1.0 HP	1.0 HP
07	1/2		.50 HP	.50 HP	.50 HP	.75 HP	1.0 HP	1.0 HP
07		1	.50 HP	.75 HP	1.0 HP	1.5 HP	2.0 HP	2.0 HP
10	3/4		.50 HP	.50 HP	.75 HP	1.0 HP	1.5 HP	1.5 HP
10		1 1/2	.50 HP	1.0 HP	1.5 HP	2.0 HP	3.0 HP	3.0 HP
14	1		.50 HP	.75 HP	1.0 HP	1.5 HP	2.0 HP	2.0 HP
14		2	.75 HP	1.5 HP	2.0 HP	3.0 HP		
17	1 1/4		.50 HP	1.0 HP	1.5 HP	2.0 HP	2.0 HP	
17		2 1/2	1.0 HP	2.0 HP	3.0 HP			
20	1 1/2		.50 HP	1.0 HP	1.5 HP	2.0 HP		
20		3	1.0 HP	2.0 HP	3.0 HP			

Note: Performance data is for reference only

Standard Product Ordering Code



550 POWER UNIT
 - includes relief valve

MOTOR SELECTION - TEFC
 Single Phase = 115/230 VAC, 60 HZ
 Three Phase = 230/460 VAC, 60 HZ

CODE	HP	RPM	PHASE
TC	.50	1725	Single
TD	.50	1725	Three
TM	.50	3450	Single
TT	.50	3450	Three
TE	.75	1725	Single
TF	.75	1725	Three
TN	.75	3450	Single
TU	.75	3450	Three
TJ	1.0	1725	Single
TK	1.0	1725	Three
TP	1.0	3450	Single
TW	1.0	3450	Three
TL	1.5	1725	Single
TO	1.5	1725	Three
TQ	1.5	3450	Single
TX	1.5	3450	Three
TV	2.0	1725	Single
TR	2.0	1725	Three
TS	2.0	3450	Single
TY	2.0	3450	Three
TH	3.0	3450	Three

PUMP SIZE

CODE	DISPLACEMENT
04	.04 CIPR
07	.07 CIPR
10	.10 CIPR
14	.14 CIPR
17	.17 CIPR
20	.20 CIPR

RESERVOIR

CODE	VOLUME
05	0.5 Gal. Steel
10	1.0 Gal. Steel
15	1.5 Gal. Steel
50	5.0 Gal. Steel
06	0.5 Gal. Plastic
11	1.0 Gal. Plastic
16	1.5 Gal. Plastic
26	2.5 Gal. Plastic

Note: 5 gal. steel reservoir can be mounted vertically only. All others are vertical and horizontal ready

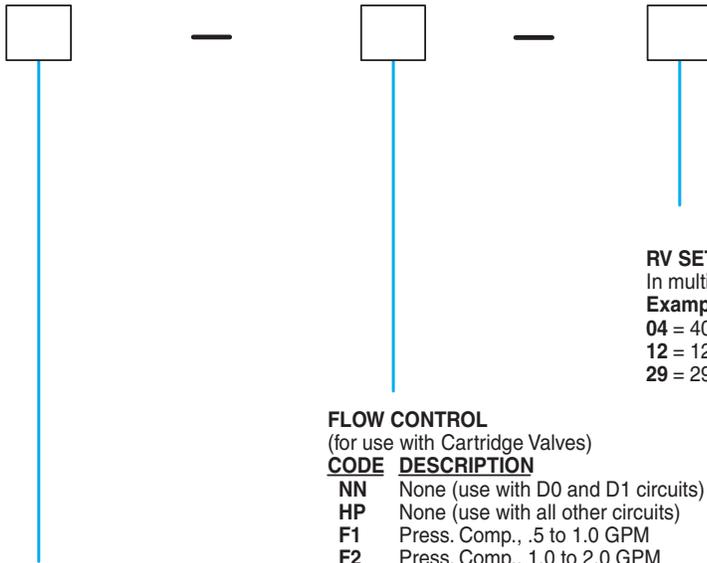
CIRCUIT

CODE	DESCRIPTION
D0	D03 Pad & Extension Fittings
D1	D03 Pad with Dual PO Check Manifold (Manapak) (for use with D03 Directional Control Valves)
SA	Standard Pressure & Tank Ports
SW	Std P & T Ports with Outlet Port Check Valve

Two Position Two Way Cartridge Valves
 Following circuits include outlet port check valve:

S1	12 VDC, Normally Closed, Conduit Connector
S2	24 VDC, Normally Closed, Conduit Connector
S3	120 VAC, Normally Closed, Conduit Connector
S4	240 VAC, Normally Closed, Conduit Connector
S5	12 VDC, Normally Open, Conduit Connector
S6	24 VDC, Normally Open, Conduit Connector
S7	120 VAC, Normally Open, Conduit Connector
S8	240 VAC, Normally Open, Conduit Connector
P1	12 VDC, Normally Closed, DIN Connector
P2	24 VDC, Normally Closed, DIN Connector
P3	120 VAC, Normally Closed, DIN Connector
P4	240 VAC, Normally Closed, DIN Connector
P5	12 VDC, Normally Open, DIN Connector
P6	24 VDC, Normally Open, DIN Connector
P7	120 VAC, Normally Open, DIN Connector
P8	240 VAC, Normally Open, DIN Connector

Technical Specifications



RV SETTING
In multiples of 100 psi
Examples
04 = 400 psi
12 = 1200 psi
29 = 2900 psi

FLOW CONTROL
(for use with Cartridge Valves)
CODE DESCRIPTION
NN None (use with D0 and D1 circuits)
HP None (use with all other circuits)
F1 Press. Comp., .5 to 1.0 GPM
F2 Press. Comp., 1.0 to 2.0 GPM

4-WAY VALVE (ALL D03 SIZE)

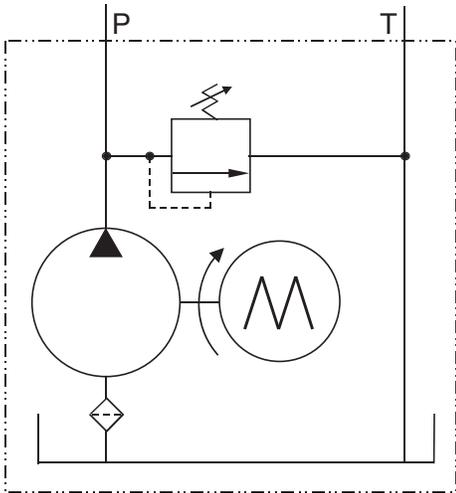
CODE DESCRIPTION (For use only with Circuit Codes D0 and D1)

- NNN** No 4-Way Valve Included
- 01Y** Closed Center, 120 VAC, Conduit Connectors
- 01T** Closed Center, 240 VAC, Conduit Connectors
- 01K** Closed Center, 12 VDC, Conduit Connectors
- 01J** Closed Center, 24 VDC, Conduit Connectors
- 02Y** Open Center, 120 VAC, Conduit Connectors
- 02T** Open Center, 240 VAC, Conduit Connectors
- 02K** Open Center, 12 VDC, Conduit Connectors
- 02J** Open Center, 24 VDC, Conduit Connectors
- 07Y** Float Center, 120 VAC, Conduit Connectors
- 07T** Float Center, 240 VAC, Conduit Connectors
- 07K** Float Center, 12 VDC, Conduit Connectors
- 07J** Float Center, 24 VDC, Conduit Connectors
- 08Y** Tandem Center, 120 VAC, Conduit Connectors
- 08T** Tandem Center, 240 VAC, Conduit Connectors
- 08K** Tandem Center, 12 VDC, Conduit Connectors
- 08J** Tandem Center, 24 VDC, Conduit Connectors
- 30Y** Single Solenoid, 120 VAC, Conduit Connector
- 30T** Single Solenoid, 240 VAC, Conduit Connector
- 30K** Single Solenoid, 12 VDC, Conduit Connector
- 30J** Single Solenoid, 24 VDC, Conduit Connector

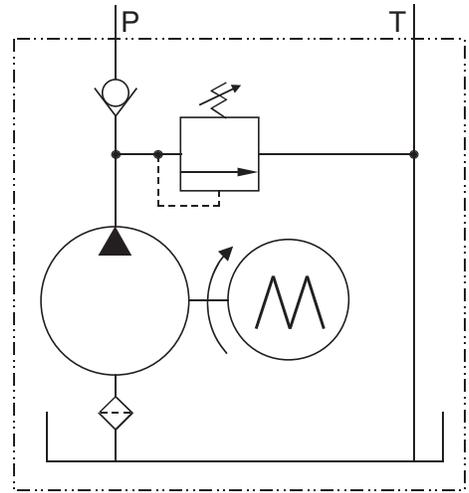
- Y01** Closed Center, 120 VAC, Hirschmann w/out Plugs
- T01** Closed Center, 240 VAC, Hirschmann w/out Plugs
- K01** Closed Center, 12 VDC, Hirschmann w/out Plugs
- J01** Closed Center, 24 VDC, Hirschmann w/out Plugs
- Y02** Open Center, 120 VAC, Hirschmann w/out Plugs
- T02** Open Center, 240 VAC, Hirschmann w/out Plugs
- K02** Open Center, 12 VDC, Hirschmann w/out Plugs
- J02** Open Center, 24 VDC, Hirschmann w/out Plugs
- Y07** Float Center, 120 VAC, Hirschmann w/out Plugs
- T07** Float Center, 240 VAC, Hirschmann w/out Plugs
- K07** Float Center, 12 VDC, Hirschmann w/out Plugs
- J07** Float Center, 24 VDC, Hirschmann w/out Plugs
- Y08** Tandem Center, 120 VAC, Hirschmann w/out Plugs
- T08** Tandem Center, 240 VAC, Hirschmann w/out Plugs
- K08** Tandem Center, 12 VDC, Hirschmann w/out Plugs
- J08** Tandem Center, 24 VDC, Hirschmann w/out Plugs
- Y30** Single Solenoid, 120 VAC, Hirschmann w/out Plug
- T30** Single Solenoid, 240 VAC, Hirschmann w/out Plug
- K30** Single Solenoid, 12 VDC, Hirschmann w/out Plug
- J30** Single Solenoid, 24 VDC, Hirschmann w/out Plug

Hydraulic Fluid
Any clean hydraulic oil with a viscosity of 150 to 300 SUS at 38°C (100°F) is acceptable. If another type of fluid is needed, please consult the factory.

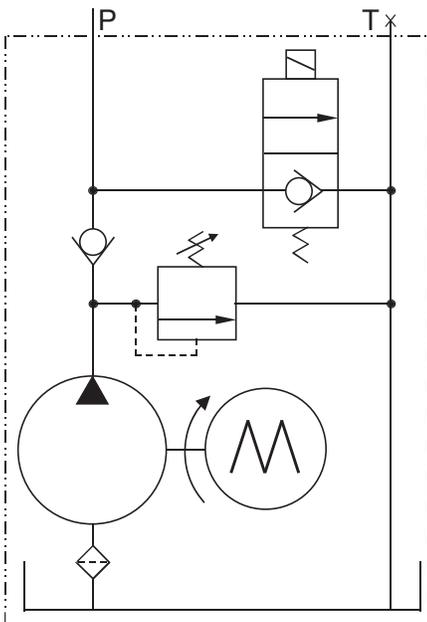
Temperature Range
Normal operating range is -7°C to 60°C (+20°F to +140°F). Please consult the factory for applications outside this range.



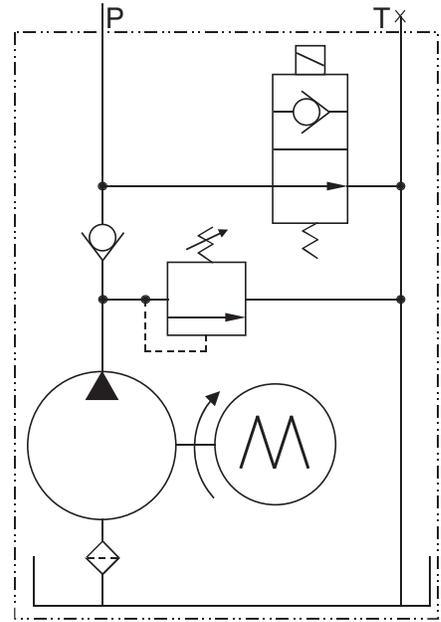
"SA" CIRCUIT



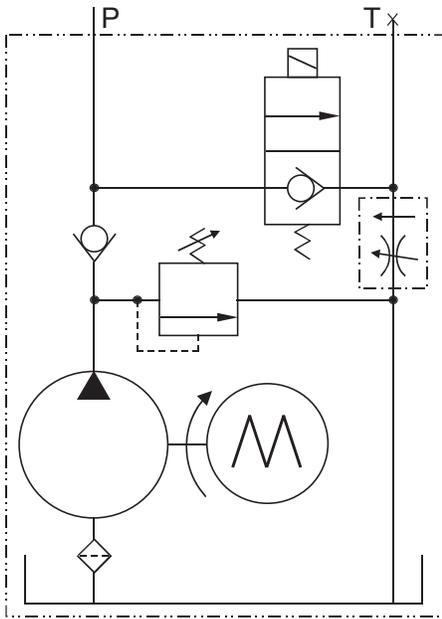
"SW" CIRCUIT



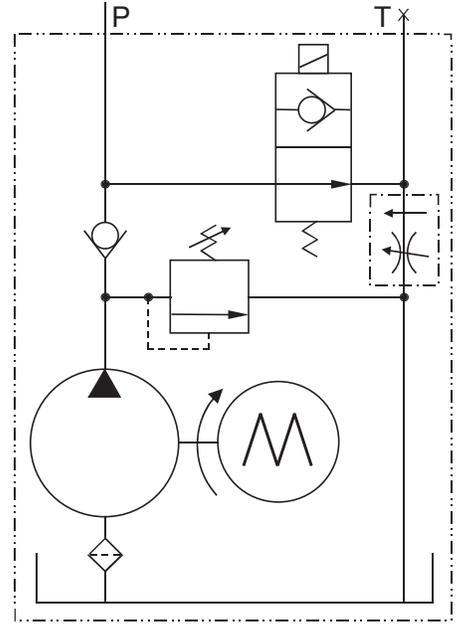
"S1-S4, P1-P4" CIRCUITS



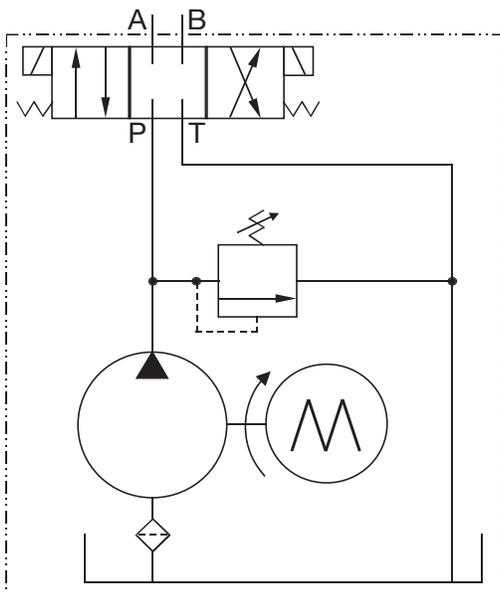
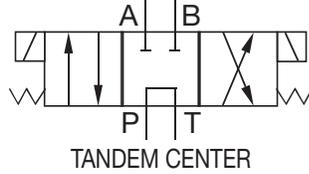
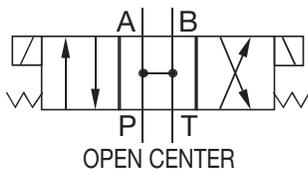
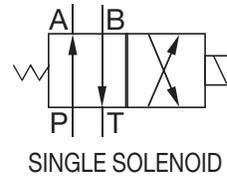
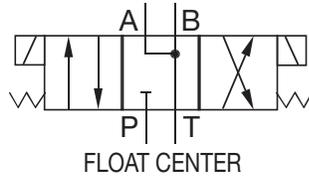
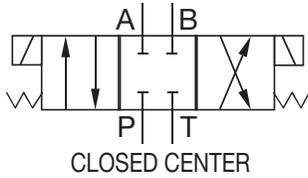
"S5-S8, P5-P8" CIRCUITS



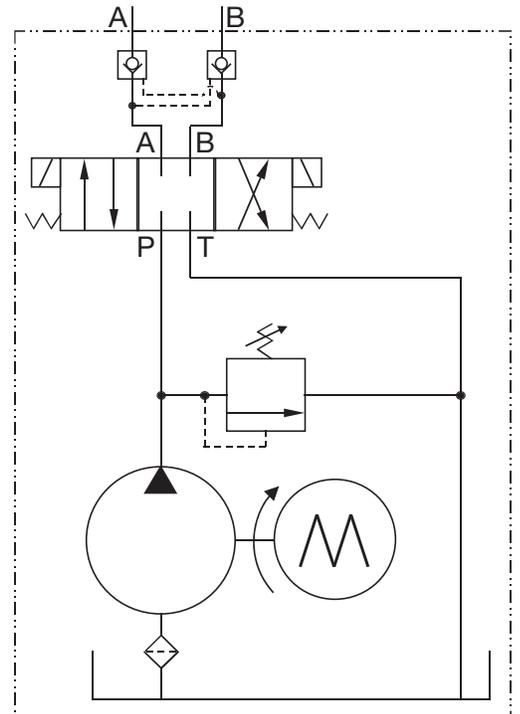
“S1-S4, P1-P4” CIRCUITS WITH
 PRESSURE COMPENSATED FLOW
 CONTROL F1 OR F2



“S5-S8, P5-P8” CIRCUITS WITH
 PRESSURE COMPENSATED FLOW
 CONTROL F1 OR F2



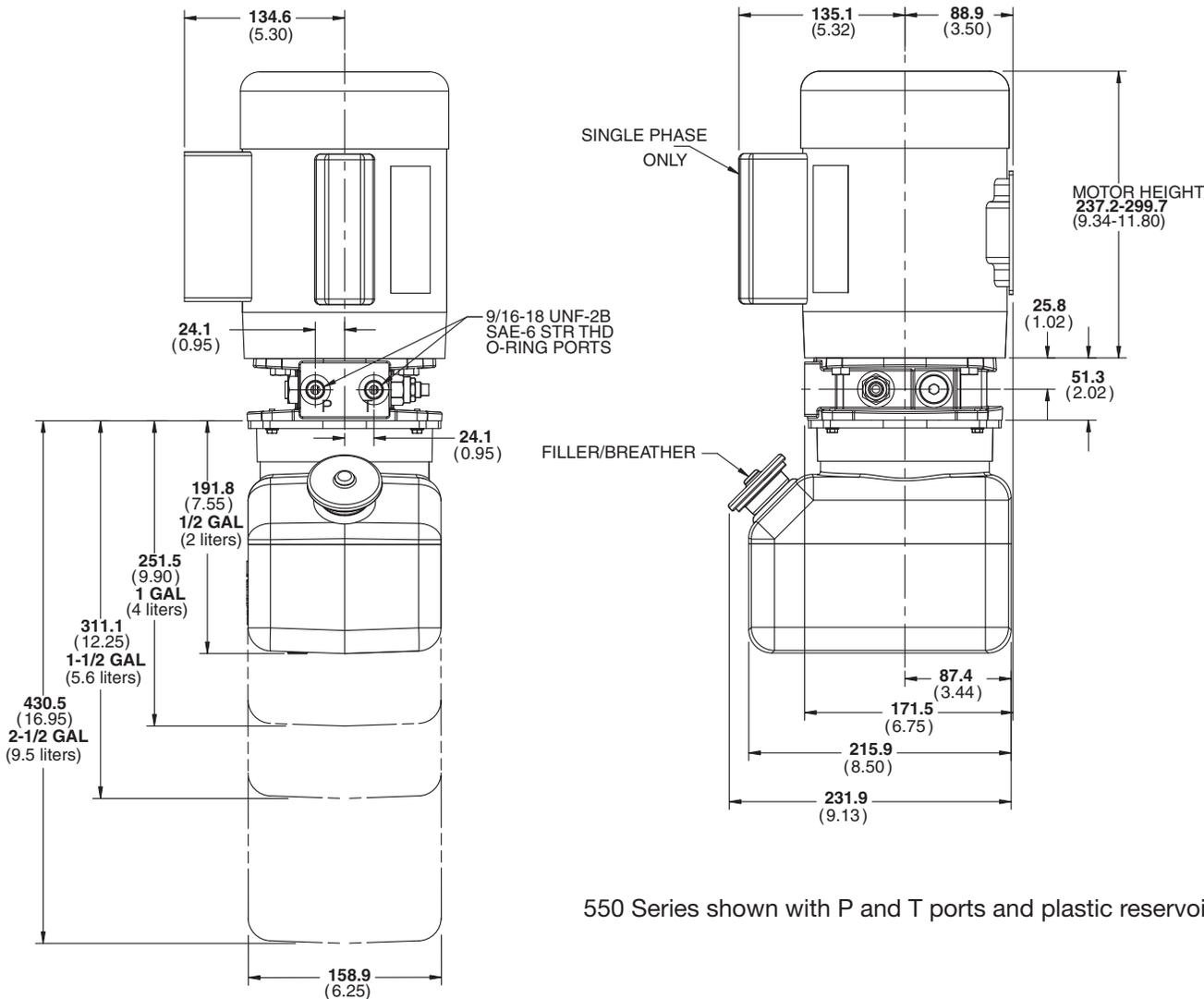
“D0” CIRCUIT (D03 VALVE TO BE SELECTED)



“D1” CIRCUIT INCLUDES MANAPAK DUAL P0
 CHECK VALVE (D03 VALVE TO BE SELECTED)

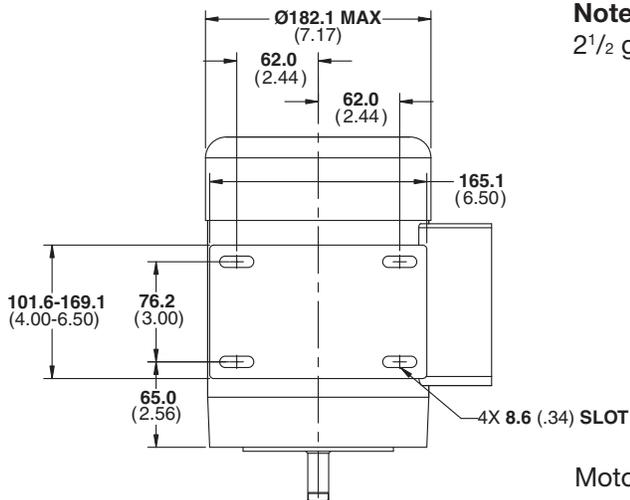
Dimensions

Dimensions

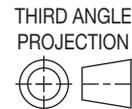


550 Series shown with P and T ports and plastic reservoir

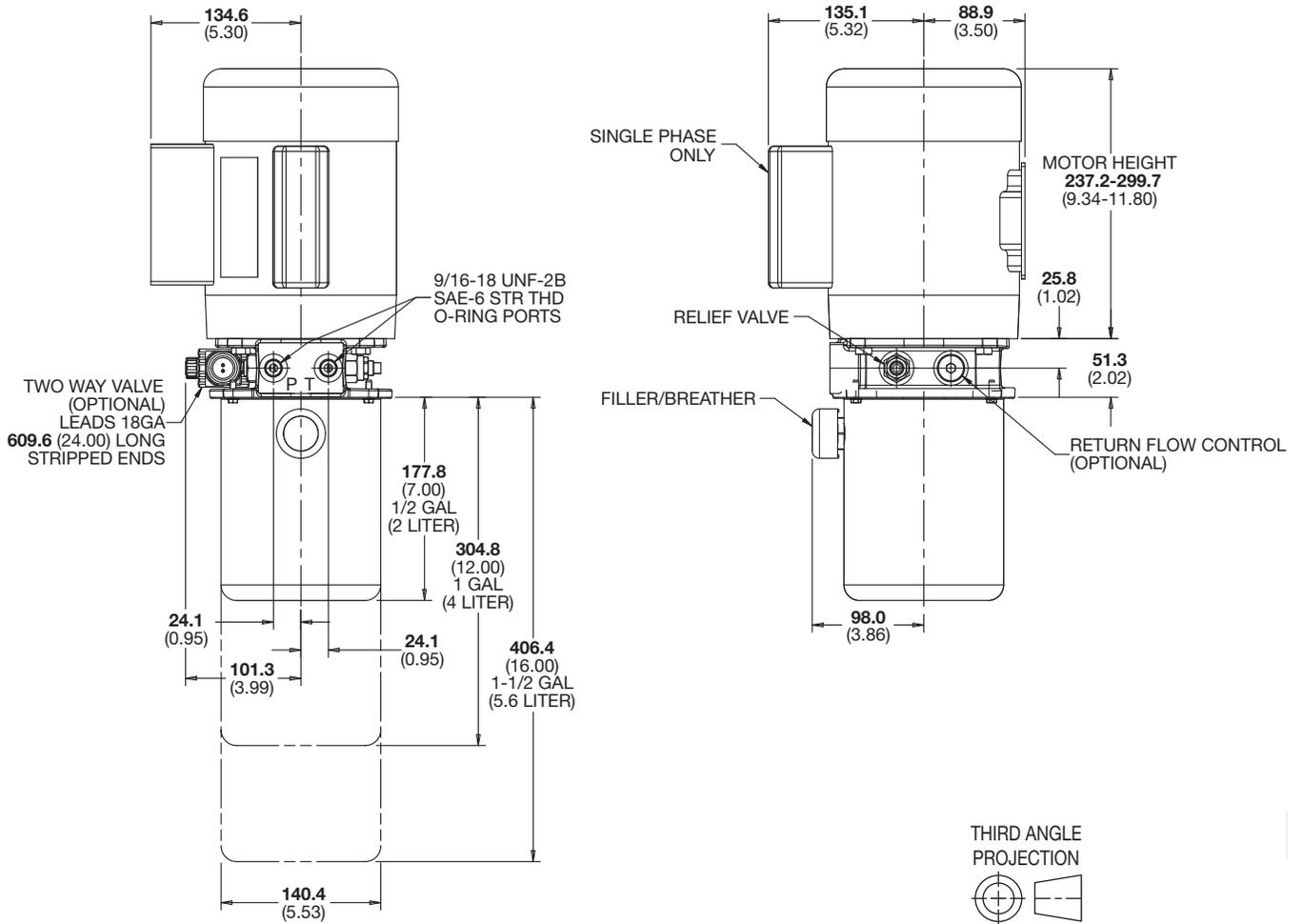
Note: When mounted in the horizontal configuration the 2½ gallon plastic reservoir must be supported



Motor foot dimensions are common to all 550 Series electric motors

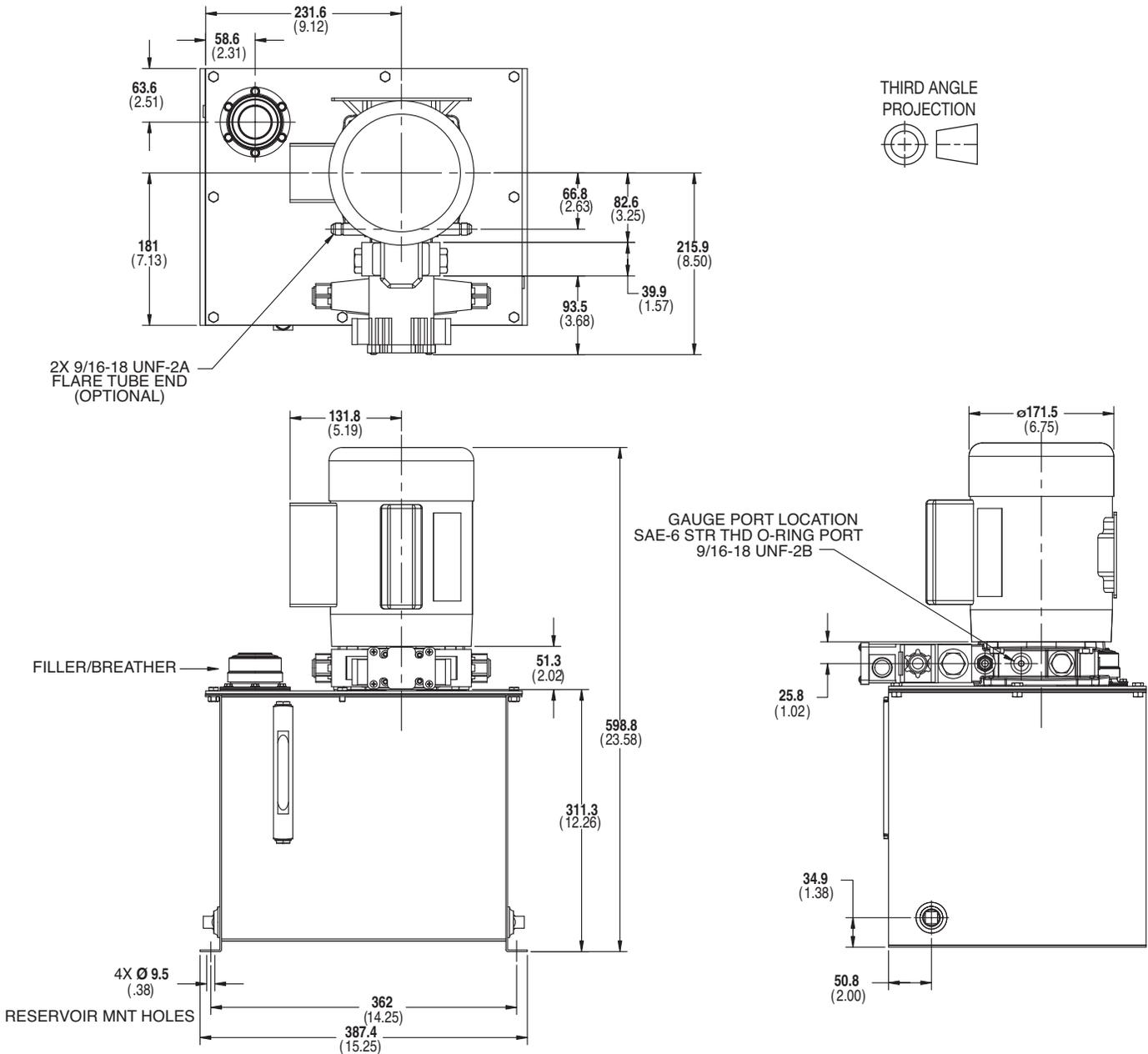


Note: All dimensions in mm (inches).



550 Series shown with optional solenoid 2-way valve and steel reservoirs

Note: All dimensions in mm (inches).



550 Series shown with D03 valve, Manapak block and 5 gallon reservoir

Note: All dimensions in mm (inches).