

## Reversible DC Autopack Installation

Before commencing the installation of your new Reversible DC Autopack please read the information on both pages of this document. It holds key information and tips, to help you with installation and commissioning.

Before the pack is operated the 'start up' procedure must be followed.

### Electrical Connections.

IF IN DOUBT CONSULT A COMPETENT ELECTRICIAN.

This information should be used as a guide to connection for the Autopack.

Direction of cylinder movement is dependant on motor polarity.

Reversing the direction of the cylinder is achieved by reversing the direction of motor rotation this is achieved by REVERSING the POLARITY of the motor connections, i.e.: -

If the Black wire or Negative terminal is connected to the NEGATIVE SUPPLY and the Coloured wire or Positive terminal is connected to the POSITIVE SUPPLY the cylinder might EXTEND (retract).

By swapping the Black wire or Negative terminal onto the POSITIVE SUPPLY and the Coloured wire or Positive terminal onto the NEGATIVE SUPPLY the cylinder might RETRACT (extend).

NOTE: before changing over the wires the main electrical supply must be turned off and isolated to avoid electrical shock and fires, etc.

### Autopack Mounting

Autopacks can be mounted either horizontally or vertically.

If the Autopack is to be installed vertically, then the tank must be uppermost.

Threaded mounting holes are located in the centre block on the opposite face to the pressure connections for installation purposes.

An optional Mounting Bracket can be supplied with wide mounting holes.

### Hydraulic Oil

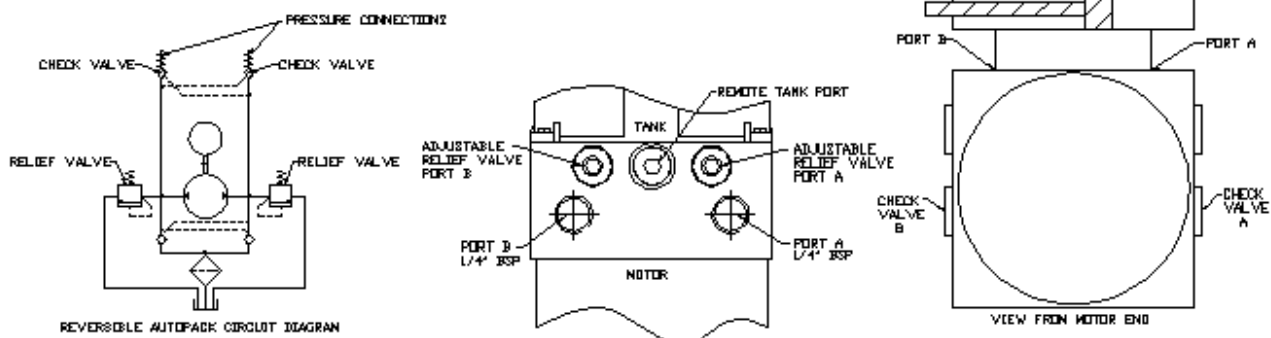
Fill the pack using clean new HM or HV hydraulic oil.

For temperatures below  $-5^{\circ}\text{C}$  use ISO VG15, for temperatures  $-5^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  use ISO VG32.

## Start Up

**NOTE:** Under no circumstances should an un-primed pack be run continuously as this will damage the pump and invalidate the warranty.

During start up the tank oil level must be maintained especially during priming.



When completing this process please refer to the above drawing.

**Tip:** Before commencing start up or priming we have found by experience that priming hoses, valves & cylinders etc. with oil, will greatly ease the priming process & help avoid air locks within the power pack and hydraulic system, cylinders should be placed into their 'mid' position.

## Priming

**NOTE:** the priming process can be messy, ensure you have taken adequate precautions to collect spilt oil, discard in an appropriate manner or re-cycle the collected oil.

- With the tank and system full of oil, remove the tank cap, slacken the check valve 'B' and operate the pack in short bursts to extend the cylinder. Re-tighten check valve 'B'; check the oil level in the tank topping up as required.
- Repeat the above (a) for check valve 'A' by retracting the cylinder. Re-tighten check valve 'A'; check the oil level in the tank topping up as required.
- Operate the pack so as to extend and retract the cylinder a few times to ensure that all the air has been expelled from the system. If some air remains or operation is 'jerky', repeat the above procedure. Finally, with the cylinder fully retracted, check the oil level in the tank topping up as required, replace the tank cap.

**Tip:** we have noted that when assembling systems which have been thoroughly pre-primed, as detailed above, it is sometimes possible to assemble the system and run it without having to slacken the check valves. Any air in the system will to an extent 'self bleed'. Under these circumstances topping up the tank is all that is required.

## Relief Valve Adjustment

**NOTE.** DO NOT EXCEED THE MANUFACTURERS MAXIMUM RECOMMENDED WORKING PRESSURE OR S2 RATING, THIS WILL DAMAGE THE AUTOPACK.  
IF THE UNIT OVER HEATS SWITCH OFF AND ALLOW TO COOL.  
IF IN DOUBT CONTACT YOUR SUPPLIER.

This type of Autopack contains two integral Relief Valves, shown on the left hand drawing above, which can be set independently of each other, i.e. they can be set to different pressures.

- Release all hydraulic pressure in the system.
- Insert a suitable pressure gauge into the circuit, or directly onto the pressure ports.
- Remove the plastic anti-tamper balls and place to one side.
- Check all hydraulic connections are secure and leak free.
- Start the Autopack; screwing IN the Relief valve will INCREASE the set pressure, screwing OUT DECREASE the set pressure.
- When the new setting is achieved, operate the pack a few times to ensure the setting is stable.
- Re-insert the Anti-tamper balls, the new Relief Valve setting must be written on the Autopack for future reference.
- Remove the pressure gauge from the circuit & re-test the Autopack, topping up the oil in the tank . if the pack becomes air locked complete the priming procedure detailed above.