

## Service and Maintenance

1. Daily Check vacuum pump oil level and top up if needed and when you start the unit. ( Oil required Multigrade 15W-40)
2. Daily and after each pumping cycle "Drain and Flush" the pump body and priming system, utilising the drain and flushing points.
3. Daily inspection of all power cables, if damaged please replace or contact your local Depot.



### CAUTION!

- When flushing please make sure (where fitted) the vacuum shut off valve is closed. Failure to do so could result in the pumped medium entering the vacuum pump, resulting in vacuum pump failure.
- Isolate/disconnect the power supply before moving or working on the pumpset.
- Pumps must be drained after use to avoid frost damage
- Repairs must only be carried out by a competent person, if in any doubt please contact your local Andrews Sykes Depot.



### CAUTION!

#### General Safety

- Always assess the risk before use. Appropriate PPE must be worn,
- This equipment should only be used by a competent person.
- Follow operation and maintenance instructions.
- Ensure safe and correct positioning of equipment prior to use.
- Moving parts are guarded to protect you or others. Guards removed for maintenance must be replaced before starting the pump.
- Never operate this equipment if you are ill or under the influence of alcohol or drugs.
- Ensure that the equipment is inspected & serviced at appropriate intervals.
- All lifting attachments or equipment are checked prior to use for suitability / rating and replaced if found damaged or faulty. Do not use if faulty.
- Lifting must always be vertical and never subjected to snatch loadings. Always use the lifting points provided. Do not allow the unit to swing whilst being lifted.
- Never insert your hand or any other object into the pump casing/inlets unless you are sure the pump has been switched off, preferably lock it off and retain key or remove and keep starter key.
- If pumps and or hoses are to be used for contaminated, noxious or corrosive liquids then it is the duty of the hirer to notify Andrews Sykes of the specific nature of the material. After use both pumps and or hoses should be flushed with clean water.

# SYKES PUMPS

## Operating, Maintenance and Safety Instruction leaflet

For Further Information Visit [www.sykes-pumps.com](http://www.sykes-pumps.com) or contact your local Andrews Sykes Depot on 0800 211611

## Bentonite B150 E

(Three Phase 415V 50HZ 30KW 53.8Amps)

### Important

It is the user's responsibility to ensure that the information contained within this leaflet is read and fully understood before any attempt is made to use the equipment



## General Operation

This pumpset is a fully automatic self-prime unit, it requires no additional priming fluid. The pump will prime automatically on start-up and from intermittent periods of dry running where the intake has been exposed to atmosphere.



### DANGER!

- The pump must not be used in an explosive or flammable environment or for pumping flammable liquids.
- The pump and supply cable should be installed in a safe manner to avoid risk of electrical accidents, ensuring the cables are not stressed or in contact with sharp edges which could cause damage to the supply cable.



### CAUTION!

#### Siting the Pumpset

- When installing or uninstalling the pump must always be disconnected to the power supply.
- The pump should be placed on a level area of ground.
- Never lift with the suction or delivery hoses attached. The increased weight of these items may cause lifting gear failure.
- Check the area where the liquid will be discharged, make sure that you will not be creating a hazard for persons or for the environment.
- Connect and Position the hoses to avoid unnecessary stress. Sharp bends should be eliminated and protective measures taken where hoses come into contact with abrasive surfaces.
- Collapsible type hoses must not be used on the suction side of the pump.
- On all Hoses and fittings make sure where "O" rings are fitted that they are in place and in good condition. Air leaks will affect the performance of the pump.
- For flooded suction applications the pumpset is fitted with a priming system isolation valve, please also read the priming system isolation valve operating, maintenance and safety instruction leaflet.
- All electrical work should be carried out by a qualified electrician or competent person. The installation must conform to national and local regulations (site requirements).
- All electrical equipment must always be earthed (grounded).
- If the pump is to be connected to an alternative starter panel please make sure all overloads/fuses are correctly rated for the pump before use, see motor data plate.

## Starting

Read the instructions in the pump manual or proceed as follows:

The control panel is fitted as standard with a 63Amp 4 Pin Socket, when connecting the power supply please use a suitable plug. (Electrical data is displayed on the motor data plate.)



### CAUTION!

- It is advised that a suitable Earth Leakage Detector (ELCB) is fitted to the power supply.
- Ensure that the supply voltage matches the pump voltage and that the supply cable to the starter is not so long as to cause excessive volt drop, see motor data plate.
- When starting please make sure all Drain and Flushing valves are closed.
- If fitted please follow Priming Tank Isolation Valve instructions.
- If in any doubt please contact your local depot.

1. Please fully wind in the surge control valve on the pump.
2. The Pump Hand/ Auto switch should be in the OFF position, along with the Isolator switch.
3. Connect power supply.
4. Turn the Isolator switch to ON position 1.
5. Turn the Hand/Auto switch to Hand or Auto.
6. The pump should now start. ( Pump will not run on Auto until activated to do so)
7. If the Incorrect Sequence lamp is lit and the pump has failed to start then turn Hand/Auto switch back to OFF, now move changeover Isolator to OFF then to alternative ON position 2.  
Once this is complete the incorrect sequence lamp should be off and the pump can be controlled as normal.
8. Then turn Hand/Auto switch to Hand or Auto.
9. When pump is running please adjust the surge control for optimum performance.

## Stopping

1. Turn Hand/Auto switch to OFF and the changeover Isolator switch.
2. Depress Back Flush to eliminate vacuum and wind back in surge control valve.
3. Open all Drain and flushing valves, drain and flush pump body with clean water.
4. When flushing please make sure (where fitted) the vacuum shut off valve is closed.

## Service and Maintenance

1. Daily check condition of air intake filter, clean or replace as necessary.
2. Check full operation of all valves, clean and grease as necessary.



### CAUTION!

- Pumps must be drained after use to avoid frost damage
- Repairs must only be carried out by a competent person, if in any doubt please contact your local Andrews Sykes Depot.
- Do not close the vacuum shut off valve without opening the air filter vent valve. Failure to do so can damage the vacuum pump.
- Do not shut off the priming tank isolation valve without closing the vacuum shut off valve and opening the air filter vent valve. Failure to do so can cause damage to the priming system.



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- Never operate this equipment if you are ill or under the influence of alcohol or drugs.
- Ensure that the equipment is inspected & serviced at appropriate intervals.
- Never insert your hand or any other object into the pump casing/inlets unless you are sure the pump has been switched off, preferably lock it off and retain key or remove and keep starter key.
- If pumps and or hoses are to be used for contaminated, noxious or corrosive liquids then it is the duty of the hirer to notify Andrews Sykes of the specific nature of the material. After use both pumps and or hoses should be flushed with clean water.

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# PRIMING SYSTEM ISOLATION VALVE

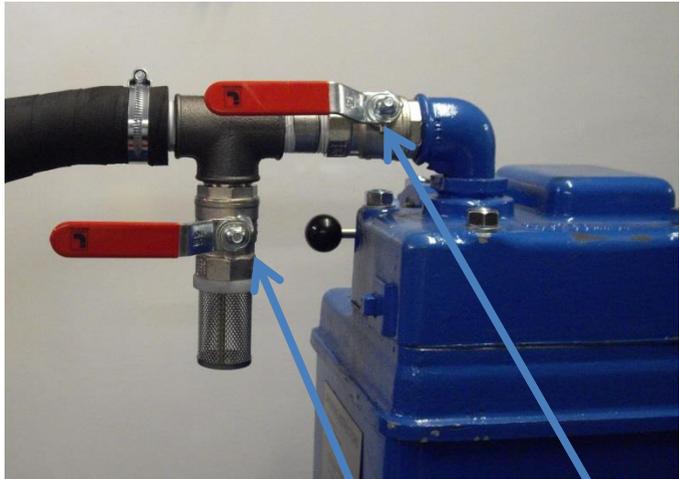
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### Normal Operation of Priming system

For normal operation of auto prime system the air filter vent valve is closed and the vacuum shut off valve is open. The priming tank isolation valve would also be in the open position.



VACUUM SHUT OFF VALVE OPEN

AIR FILTER VENT VALVE CLOSED

PRIMING TANK ISOLATION VALVE OPEN

### Operation with priming system closed

When operating with the priming system switched off and vented the air filter valve must be in the open position and the vacuum shut of valve in the closed position. The priming tank isolation valve would now be moved to the closed position. No other action is required.



VACUUM SHUT OFF VALVE CLOSED

AIR FILTER VENT VALVE OPEN

PRIMING TANK ISOLATION VALVE CLOSED

