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# **Installation & Operating Instructions**

# CIRCULATING PUMPS

Models S25 to S69, H32 and H41

#### STARTING THE PUMP

The pump must be fully primed on start-up. Fill system piping and pump body with liquid and vent complete system, turning pump by hand to discharge air from body. Make sure fittings and drain valves are air-tight, then add any additional fill required.

Check motor electrics against available supply, then start pump, making sure rotation is correct: when viewed from motor end, rotation is counter-clockwise on models S25 – S46 and on models H32 – H41

On models S55 – S69, rotation is clockwise. If pressure does not develop stop pump, re-check, vent and fill. Never attempt to fill system when pump is running.

#### **CAUTION**

### Do not fit support under motor.

Before operating pump, carefully check:

- 1) Is the pump primed?
- 2) Is rotation correct?
- 3) Is pump properly lubricated?
- 4) Does the power supply agree with data on motor nameplate?
- 5) Is overload protection provided?
- 6) Is the system clean?

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#### **MOTOR LUBRICATION**

Oil cups are not provided on the 1/12 HP motors supplied with the S25 circulating pumps. These motors are fitted with Permawick bearings and the oil capacity is adequate to permit reliable operation for long periods.

On motors with oil cups, add approximately 15 drops of oil to each cup at the start of each following heating season. (Lubricate every 6 months for high temperature or constant operation). Do not force oil into cups, and stop if cup fills before addition of specified amount. If motor is fitted with grease fittings, follow motor manufacturers recommended procedure. Motors without oil cups or grease fittings are custom-greased for several years operation and require little or no attention.

### **SEAL REPLACEMENT**

Amongst the common causes of early seal failure are careless handling of the seal faces or flexible members during fitting. The faces of the mechanical seals are very highly lapped and care must be taken to ensure that the lapped sealing surfaces are not scratched or chopped.

Remover impeller, damaged seal assembly, also ceramic insert and retainer cup, where applicable. Clean the seal faces of bearing bracket. On units using ceramic face, clean the recess and install new retainer cup and ceramic. Check condition of shaft sleeve. If scored, replace the shaft assembly, otherwise clean shaft extension and polish sleeve with fine crocus cloth if required.

Press against coupler end of shaft to take up end play, while pressing seal firmly against stationary face. A slight amount of clean washing detergent (similar to fairy liquid) may be put on shaft sleeve to assist installation. Do not use spring washer on S25, S34, S35 and H32 current style circulators, where spigot to locate spring is provided on impeller hub.

Continue pressing against coupler end of shaft, remount impeller and re-assemble the seal bearing assembly into body. Install a new body gasket and clean gasket surface of both volute and bracket coverplate if necessary.

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