

**SURFACE PUMP INSTALLATION AND OPERATION INSTRUCTIONS
& WARRANTY POLICY**



Dear Client

Congratulations on your purchase of a quality pump from the Davies range of pumping products.

Like all Davies products, the quality and reliability is first and foremost, carefully chosen from manufactures worldwide to carry this proven brand name and deliver years of service.

Please check your pump for any physical damage during transit and advise your supplier if so. Check the name plate to make sure the pump is what you ordered.

The longevity of your pump largely depends on the application and the environment it is working in.

Make sure it is the correct type of pump for the application and it has been sized correctly to meet your required duties. Over sizing a pump is often worse than under sizing as it can cycle too often, use a lot of power or even self destruct.

SURFACE PUMP INSTALLATION AND OPERATING INSTRUCTIONS

Installation

Your Davies pump should be mounted on a firm level foundation in an area that is not susceptible to flooding or is exposed to the weather or wet areas.

Make sure your pump is situated in an area that is well ventilated; the maximum ambient temperature must not exceed 40°C. (FIG C)

Connections

Piping

The piping must be fixed or anchored so as not to transmit any thrust, tension or vibration to the pump. The inlet pipe must be as short as possible, not smaller than the inlet of your pump and must be correctly sized for the distance covered. All connections on the suction side must be perfectly sealed and be able to withstand the suction created by the pump. Ensure that it does not rise higher than the pump to prevent air locks.

If your pump is sucking from below itself a foot valve or check valve must be installed. If the pump is being used with a pressure tank, a check valve must also be installed. Other applications may also require a check valve. (FIG D)

A gate valve and pressure gauge should be fitted to the discharge of the pump to maintain optimum operating pressure.

The pressure in the pump must not fall below the minimum rated head of the pump during normal operation.

Electrical

Before connecting your pump to the mains power supply, check that it is sufficient to cope with the motor consumption – see details on the pump. All single phase pumps under 10A are supplied with cord and plug for New Zealand electrical outlets. Make sure the power supply is the same as the details on the specifications label.

Single phase pumps have an internal overload but must also be installed with a Residual Current Device (RCD).

Three phase pumps must be installed with overload protection supplied by the user and be set around 5-10% higher than the full load amps shown on the specification plate.

Electrical connections must be carried out by a qualified electrician.

Starting

Before starting your pump, check the motor shaft turns freely, the electrical connections are tight and secure, pipe connections are tight and thread seal tape or thread sealant has been applied.

Priming

Fill the pump body and the inlet pipe through the priming port with the liquid that is going to be pumped (be sure the liquid is compatible with the pump, e.g. viscosity, suspended solids, corrosive) (FIG A)

Put the priming plug back in and tighten.

Switch on the pump, if it is 3 phase observe the rotation -is it according to the rotation arrow (FIG B), if not it will need to be changed. Now check the pressure gauge, if it reads zero after 10-20 seconds the pump will need to be primed again.

Operation Instructions

Operation

Now that your pump has pressure, check that it is running within its operating parameters, if the pressure is below the minimum head the gate valve on the discharge will need to be closed slightly to allow the pump to run at a higher pressure. If the pressure is below the minimum head stated on the name plate it will damage the pump.

Pressure systems

If the pump is being used as a pressure system (pressure switch and pressure tanks system) the air pressure in the pressure tanks needs to be set correctly to allow the system to work properly and protect your pump.

To set the air pressure in the tank, first allow the pump to build up pressure to the turn off point, with the pump now off open a tap to allow the pressure to drop slowly, observe the pressure gauge on the system and note the pressure when the pump turns on. The air pressure in the tank will need to be set at 2-5 psi below this point.

To check the air pressure in the pressure tank, switch off the pump, turn on the tap and allow the pressure to drop to zero.

With a tyre air pressure gauge check the pressure in the tank and set it accordingly i.e. let some air out of the tank or put some in with a tyre pump or air compressor to achieve the desired pressure.

Check the pressure in the tank every 6 months.

If your pump is being used with an Auto controller there are no adjustments that need to be carried out, the controller will automatically switch the pump on and off according to the demand and protect the pump in the event of dry-run.

Maintenance

Surface pumps do not require any special maintenance apart from periodic visual checks for any leaks or unusual noises.

Any leaking or unusual noises must be reported immediately as long term damage can occur.

If there is risk of freezing, the pump and pipe work must be completely emptied. (FIG E)

Always turn off the power to the pump before any maintenance or repair work is carried out.

Correct and incorrect use.

Correct use

These pumps have been designed to pump clean water. Please make sure that the following conditions are observed when using the pump.

- Max Water Temp
- Max Ambient Temp
- Max Operating Pressure

Incorrect use

These pumps should not be used for pumping dirty water or water with suspended solids, sea water, sand, abrasive or corrosive substances.

- Pumping of explosive or flammable liquids.
- Pumping of water at a higher temp than the max stated in the specification of the pump.

Warnings

The manufacturer and wholesaler decline all liability for accidents to persons, animals, damage to property to the pump if the warnings are not complied with or if the pump has been tampered with.

The above will also render the guarantee invalid.

Preventative measures.

All electric pumps must be protected by the user from lightning strikes, flooding or external water damage , chemicals, dust, vermin, insects, overheating, dry running, dead head running, operating below minimum operating pressure.

Never start your pump with wet hands, bare feet or your feet in the water.

Always disconnect the power supply before carrying out any operation on your pump.

All working / moving parts of the pump have protection covers. Do not remove any of these while your pump is working.

If in doubt – ask

Happy Pumping

Before starting your pump check that the pump turns freely by inserting a screw driver into the groove of the main shaft at the fan end of the motor.

Remove all tools and quickly turn power on and off, checking the cooling fan rotates the correct way.

FIG: A

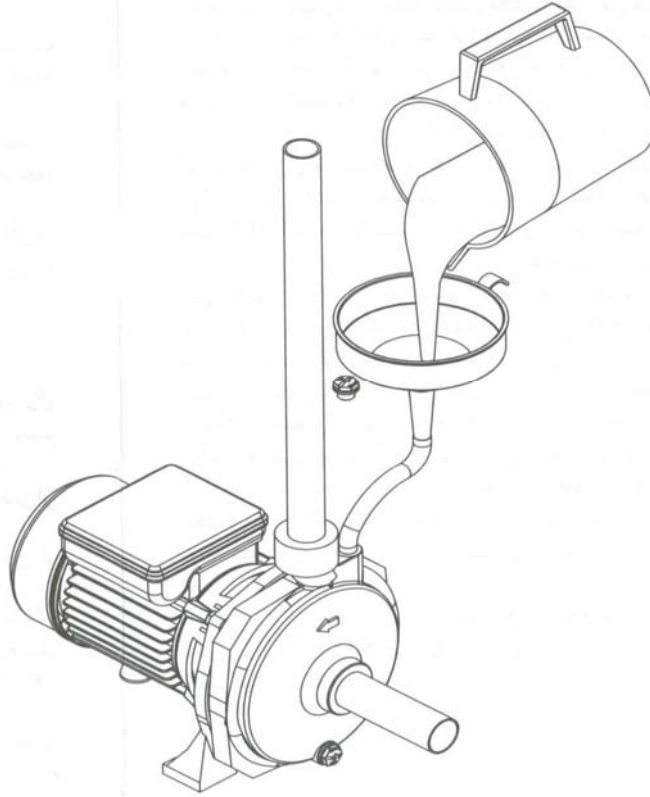
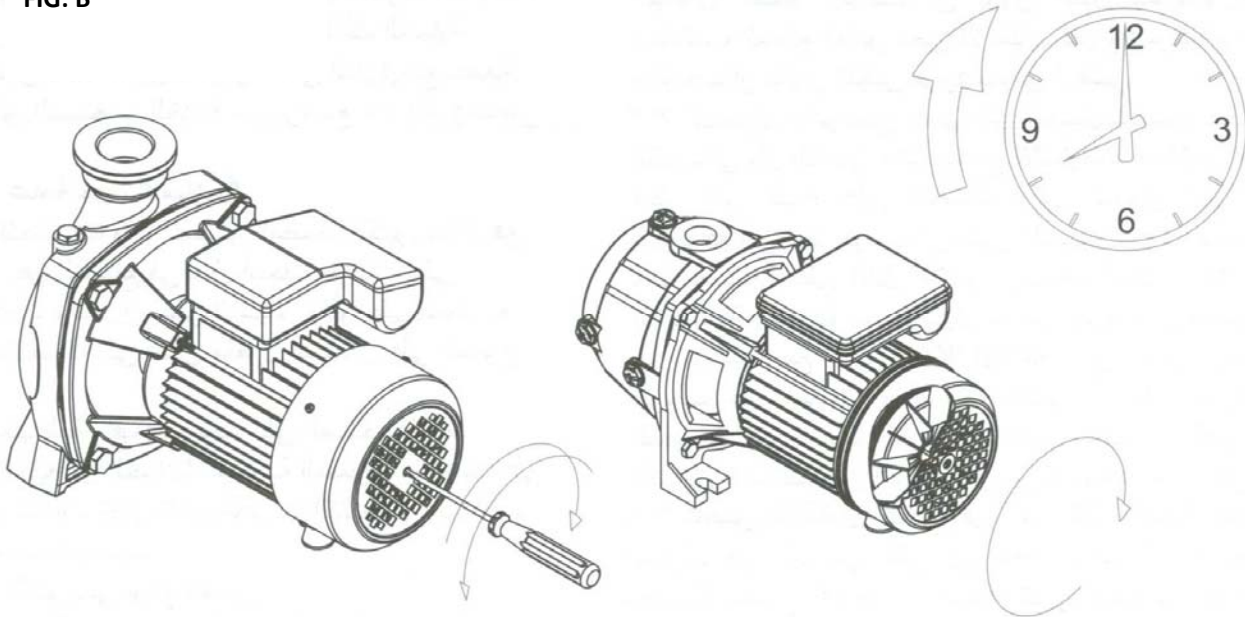


FIG: B



Always make sure that your pump is well protected from the elements and sufficient ventilation is provided.

Hold pipe work in place securely so that there is no strain or misalignment which could cause damage.

FIG: C

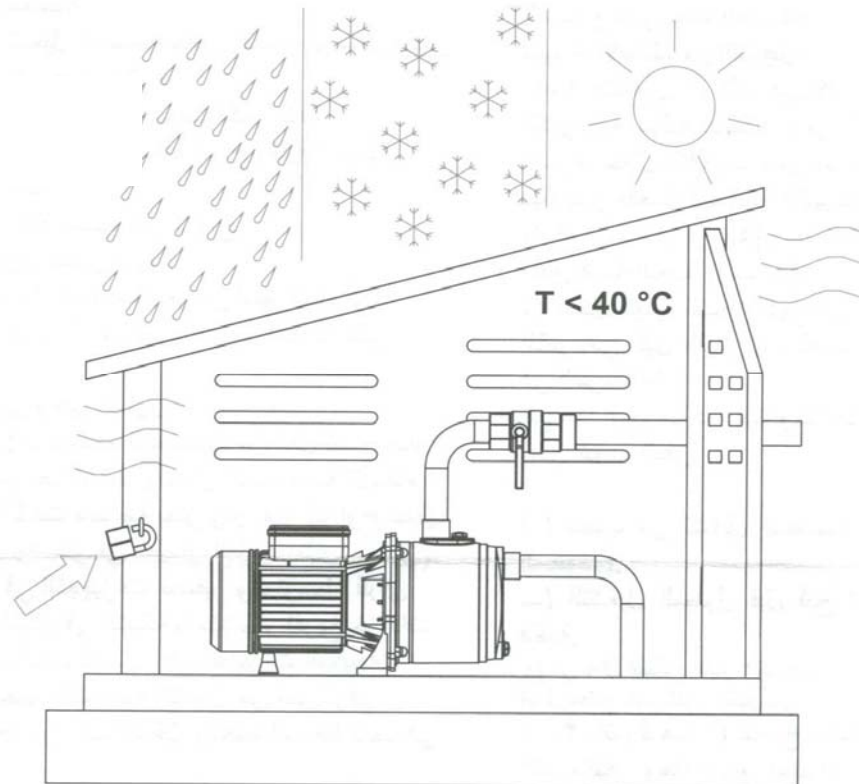
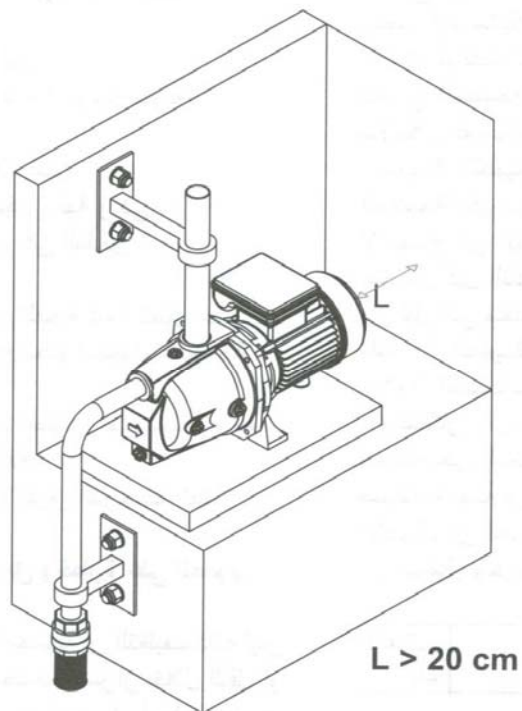


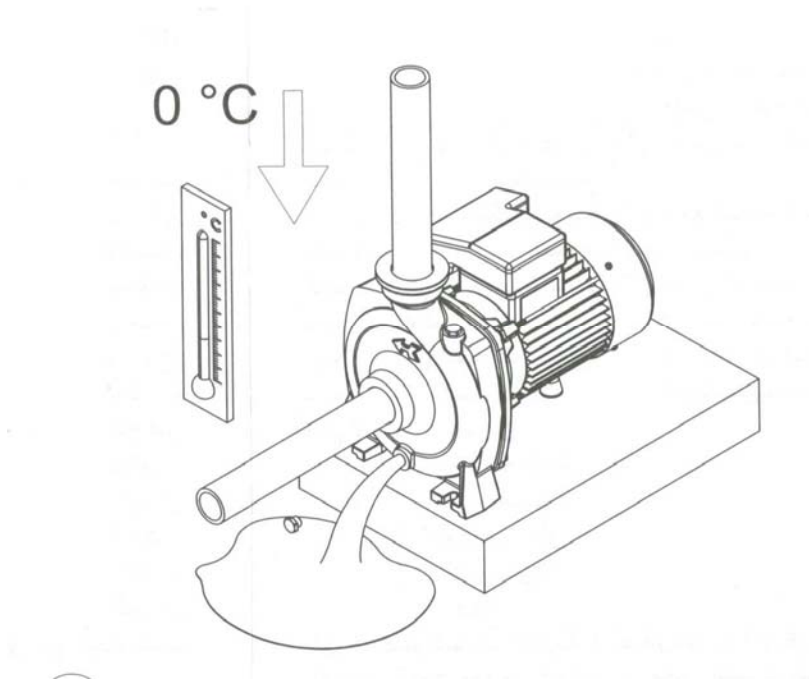
FIG: D



Below 0°C temperatures can cause your pump to freeze if not covered. If your pump is not covered, remove liquid from pump casing by removing the bung and draining.

Before starting you pump always remember to prime by filling the pump casing with water or liquid you are pumping.

FIG: E



Argon Distributors Warranty Policy for Davies Pumps

Your Davies Pump, when used for its designed purpose, correctly installed in an area that is well ventilated, out of the weather and dirt etc. ... should give you trouble free service. Please take the time to read and understand the operator's manual for this pump before installing and running your pump. Failure to install and operate as per the operation instructions will render warranty on this unit void.

Warranty Period: 2 Years from date of purchase.

Davies Pumps are warranted to be free of material and manufacturing defects at the time of purchase.

This warranty is limited to the cost of the product and does not cover travel charges, removal and reinstallation charges, consumables, Electrician or Plumbers charges or any other third party costs unless authorized by Argon Distributors prior to being carried out.

Argon distributors will repair or replace for the consumer any portion of the failed item which has proved to be defective within the warranty period. Replacement product or parts may include refurbished parts or components.

The warranty does not cover:

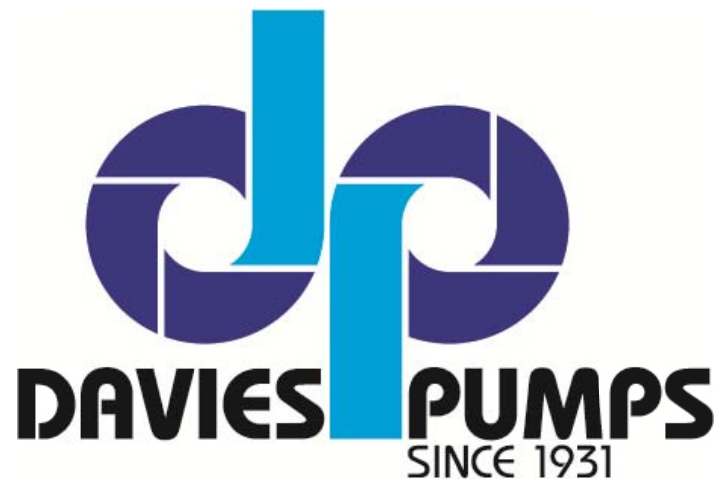
Damage or malfunction resulting from:

- A. Misuse, accident, fire, water, lightning, negligence, abuse, product modifications,
- B. Repairs or attempted repairs by unauthorized persons
- C. Damages to product caused by transit
- D. Removal or installation of the product
- E. Normal wear and tear.
- F. Water and Insect ingress
- G. Exposure to corrosive conditions
- H. Dry run
- I. Foreign objects in the liquid being pumped
- J. Electrical power fluctuations

Argon Distributors liability is limited to the cost of the product and shall not be liable for:

- A. Damage to other property caused by defects in the product.
- B. Loss of use of the product.
- C. Loss of time, loss of profits, loss of business opportunity, loss of goodwill
- D. Any other damages-incident, consequential or otherwise.
- E. Claims under this warranty must give evidence of the Date of purchase, Invoice Copy, Model, Serial Number, photos and information of the installation as soon as the failure has occurred. Owner's details must be noted.

If any of the above is unclear please contact the Warranty Manager at ARGON DISTRIBUTORS Freephone :0508 634 341



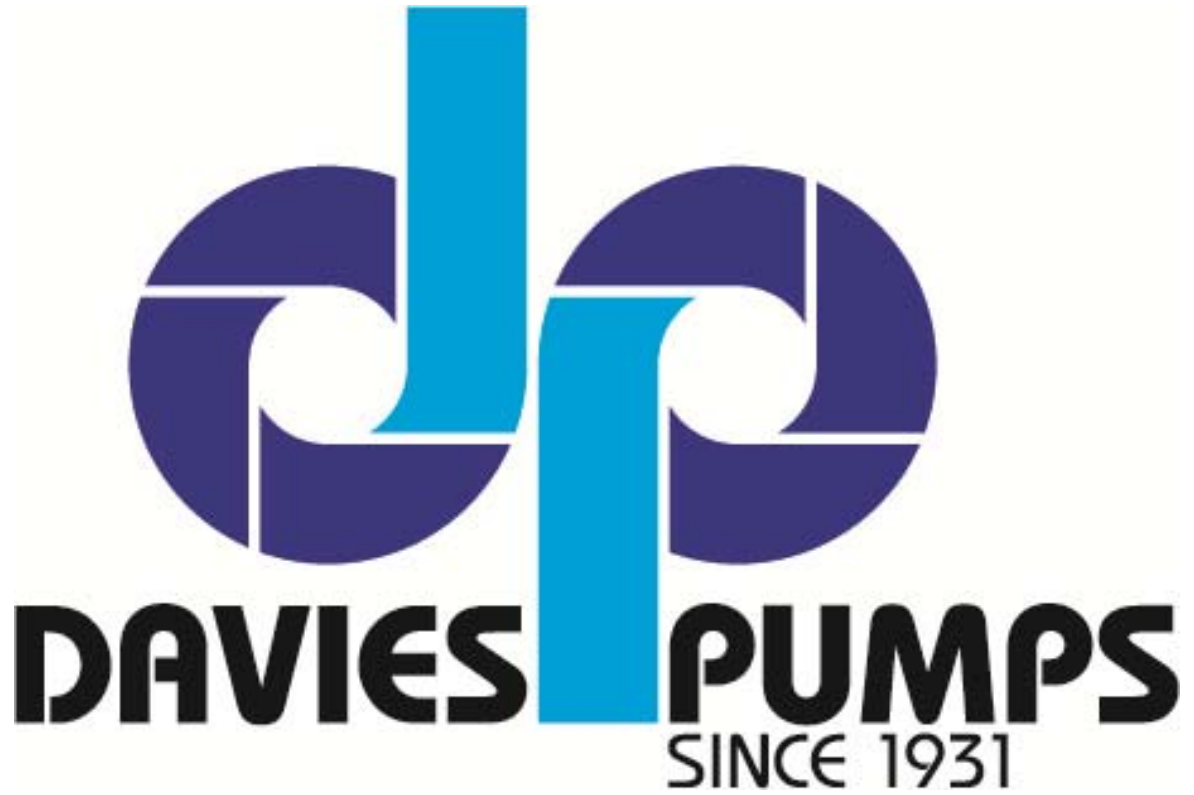
When it comes to pumps.... what's needed is proven:

✓ **Reliability**

✓ **Features**

✓ **Technology**





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