

## Trouble Shooting Check List

### MOTOR OPERATING BUT NOT PUMPING:

1. Suction line and pump body not filled with water.
2. Leaking foot valve.
3. Air leaks in suction lines or suction pipe not under water.
4. Air trapped in suction lines (also possible with flooded suction) due to uneven rise in piping (eliminate humps and hollows).
5. No water at source or water level too low.
6. Valve on suction or delivery lines closed.

### MOTOR NOT RUNNING:

1. Power not connected.
2. Supply voltage too low.
3. Overload tripped.
4. Motor not free to turn e.g. a blocked impeller.
5. Internal motor fault.

**\*NOTE:** For protection, the Davey pump motor is fitted with an automatic reset thermal overload, constant tripping of this overload indicates a problem e.g. low voltage at pump, excessive temperature (above 50°C) in pump enclosure.

**WARNING:** Automatic reset thermal overloads will allow the pump to restart without warning. Always disconnect the pump motor from the electrical supply before maintenance or repairs.

**WARNING:** When servicing or attending pump, always ensure power is switched off and lead unplugged. Electrical connections should be serviced only by qualified persons.

Care should also be taken when servicing or disassembling pump to avoid possible injury from hot pressurised water. Unplug pump, relieve pressure by opening a tap on the discharge side of the pump and allow any hot water in the pump to cool before attempting to dismantle.

**IMPORTANT: DO NOT USE petroleum based fluids or solvents (e.g. Oils, Kerosene, Turpentine, Thinners, etc) on the plastic pump components or seal components.**

**WARNING: Do not use hydrocarbon based or hydrocarbon propelled sprays around the electrical components of this pump.**



# Installation and Operating Instructions for Davey XF Series Electric Pumps

## Davey Repair or Replacement Guarantee

In the unlikely event in Australia or New Zealand that this Davey product develops any malfunction within two years of the date of original purchase due to faulty materials or manufacture, Davey will at our option repair or replace it for you free of charge, subject to the conditions below.

Should you experience any difficulties with your Davey product, we suggest in the first instance that you contact the Davey Dealer from which you purchased the Davey product. Alternatively you can phone our Customer Service line on 1300 367 866 in Australia, or 0800 654 333 in New Zealand, or send a written letter to Davey at the address listed below. On receipt of your claim, Davey will seek to resolve your difficulties or, if the product is faulty or defective, advise you on how to have your Davey product repaired, obtain a replacement or a refund.

Your Davey Two Year Guarantee naturally does not cover normal wear or tear, replacement of product consumables (i.e. mechanical seals, bearings or capacitors), loss or damage resulting from misuse or negligent handling, improper use for which the product was not designed or advertised, failure to properly follow the provided installation and operating instructions, failure to carry out maintenance, corrosive or abrasive water or other liquid, lightning or high voltage spikes, or unauthorized persons attempting repairs. Where applicable, your Davey product must only be connected to the voltage shown on the nameplate.

Your Davey Two Year Guarantee does not cover freight or any other costs incurred in making a claim. Please retain your receipt as proof of purchase; you **MUST** provide evidence of the date of original purchase when claiming under the Davey Two Year Guarantee.

Davey shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from Davey products. This limitation does not apply to any liability of Davey for failure to comply with a consumer guarantee applicable to your Davey product under the Australian or New Zealand legislation and does not affect any rights or remedies that may be available to you under the Australian or New Zealand Consumer Legislation.

In Australia, you are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Should your Davey product require repair or service after the guarantee period; contact your nearest Davey Dealer or phone the Davey Customer Service Centre on the number listed below.

For a complete list of Davey Dealers visit our website (davey.com.au) or call:

<p>Davey Water Products Pty Ltd Member of the GUD Group ABN 18 066 327 517</p>	<p><b>AUSTRALIA</b> <b>Customer Service Centre</b> 6 Lakeview Drive, Scoresby, Australia 3179 Ph: 1300 232 839 Fax: 1300 369 119 Email: sales@davey.com.au Website: davey.com.au</p>	<p><b>NEW ZEALAND</b> <b>Customer Service Centre</b> 7 Rockridge Avenue, Penrose, Auckland 1061 Ph: 0800 654 333 Fax: 0800 654 334 Email: sales@dwp.co.nz Website: daveynz.co.nz</p>
	<p>© Davey is a registered trademark of Davey Water Products Pty Ltd. © Davey Water Products Pty Ltd 2017. P/N 48095-13</p>	

\* Installation and operating instructions are included with the product when purchased new. They may also be found on our website.

**NOTE:** Prior to installation remove the red transport plugs from the suction and/or discharge.



**Please pass these instructions on to the operator of this equipment.**

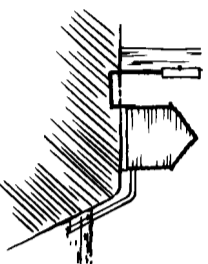
- Prior to using this pump you must ensure that:
- The pump is installed in a safe and dry environment
  - The pump enclosure has adequate drainage in the event of leakage
  - Any transport plugs are removed
  - The pipe-work is correctly sealed and supported
  - The pump is primed correctly
  - The power supply is correctly connected
  - All steps have been taken for safe operation

Appropriate details for all of these items are contained in the following Installation and Operating Instructions. Read these in their entirety before switching on this pump. If you are uncertain as to any of these Installation and Operating Instructions please contact your Davey dealer or the appropriate Davey office as listed on the back of this document.

**Before installing your new pump, please read all instructions carefully as failures caused by incorrect installation or operation are not covered by the guarantee. Your XF Electric Pump is designed to handle clean water. The system should not be used for any other purpose without specific referral to Davey. The use of the pump to pump flammable, corrosive and other materials of a hazardous nature is specifically excluded.**

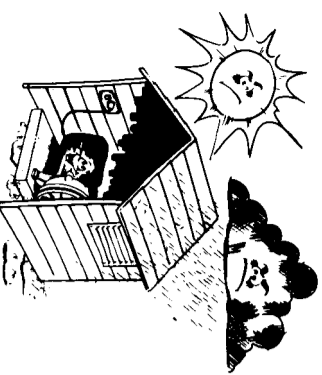
## Choosing a Site

Choose a site with a firm base as close to the water source as possible with correct power supply. Make sure your pump is always connected to an adequate, reliable source of clean water.



## Housing your Davey Pump

To protect your pump from the weather, make sure the pump house is both water proof, frost free and has adequate ventilation.



The pump should be mounted on a firm base allowing for drainage, to avoid damage to flooring etc., that over time may occur from leaking pipe joints or pump seals.

Do not mount the pump vertically.

**WARNING:** Some insects, such as small ants, find electrical devices attractive for various reasons. If your pump enclosure is susceptible to insect infestation you should implement a suitable pest control plan.

## Power Connection

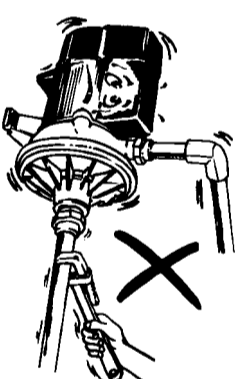
**!** In accordance with AS 3350.2.41 we are obliged to inform you that this pump is not to be used by children or infirm persons and must not be used as a toy by children.

**⚡** The electrical connections and checks must be made by a qualified electrician and comply with applicable local standards.

**⚡** Connect lead to power supply designated on pump label, do not use long extension leads as they cause substantial voltage drop, poor pump performance and may cause motor overload.

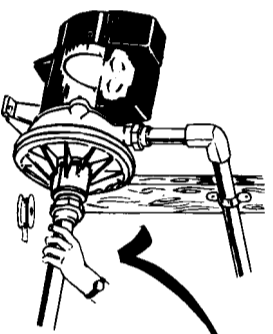
## Pipe Connections

For best performance use P.V.C. or polythene pipe at least the same diameter as the pump's inlet. Larger diameter pipe may be used to minimise resistance to flow when pumping longer distances.

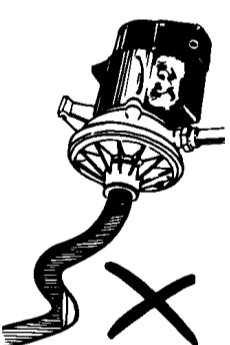


Use unions at pipe connections to enable easy removal and servicing. Use sufficient tape to ensure airtight seal and hand tighten only, do not screw connections all the way into suction port. To prevent strain on pump thread always support heavy inlet and outlet pipes.

Lay suction pipe at a constant gradient to avoid air pockets which may reduce pump efficiency.

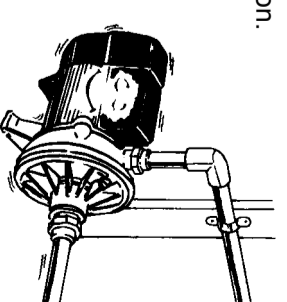


**!** NOTE: Suction leaks are the largest cause of poor pump performance and are difficult to detect. Ensure all connections are completely sealed using thread tape only. Do not use sealing compounds or pipe dope.



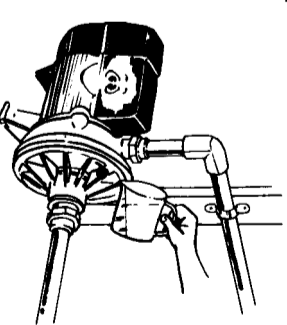
## Priming and Operation

1. Ensure outlet nearest pump is open.
3. Switch on.



2. Fill pump body and suction line through priming plug hole located above suction inlet and replace plug.

4. Prime should establish almost immediately with a strong flow of water, however, in some installations it may be necessary to repeat the above operation to remove all air from the system.



**!** WARNING: DO NOT RUN DRY. DO NOT RUN WITH LOSS OF PRIME. DO NOT PUMP WATER CONTAINING ABRASIVE MATERIALS.

## Special Models

**XF models fitted with "THERMOTECTION"**

**XF92F, XF171F, XF221F, XF192F, XF92S, XF171S, XF221S AND XF192S**

Special models of XF pumps are supplied with a unique device (Thermotection) to automatically stop the pump should the water in the casing reach 85°C. This condition may occur when a fully primed pump is operated without being allowed to discharge water (i.e. closed head operation). Twin impeller models also have high grade 316 stainless steel casings.

**⚡** CAUTION: Thermotection will automatically restart the pump when the water temperature drops below 65° ± C 5°C.

**XF models fitted with Silicon Carbide Seals**

**XF92B, XF171B, XF221B and XF192B**

**XF92S, XF171S, XF221S and XF192S**

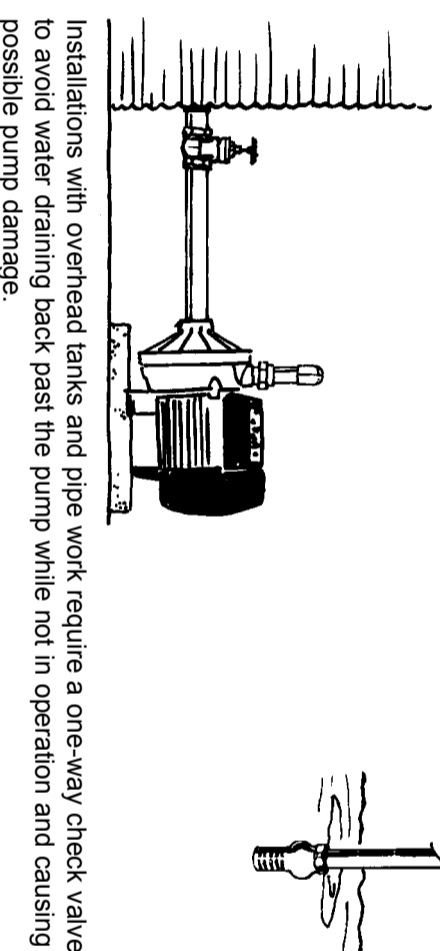
These models are fitted with special hard face silicon carbide mechanical seals to allow them to better handle corrosive and abrasive water. Twin impeller models also have high grade 316 stainless steel casings.

**!** DO NOT RUN DRY WARNING: If these models are operated without water the mechanical seals will emit a high pitched noise. Continued operation without water may result in damage to the seal chamber.

**XF model with Chemical Resistant Pump End**

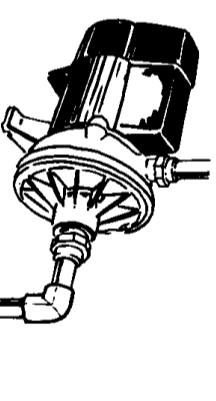
**XF171D**

This model is fitted with pump components made from a special plastic. This model is better suited to pump certain chemical solutions such as those used in "dog spas". For more information on acceptable chemicals contact your Davey dealer or the Davey Customer Service Centre.



Installations with flooded suction require a gate valve so water supply can be turned off for pump removal and servicing.

Installations with a suction lift require a good quality foot valve to avoid loss of prime.



Installations with overhead tanks and pipe work require a one-way check valve to avoid water draining back past the pump while not in operation and causing possible pump damage.