

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.

After Sales Service

For professional after sales service or repair contact your Davey Dealer.

For assistance in locating your nearest dealer contact the Davey Customer Service Centre on 1300 367 866 or the appropriate branch as listed on the back of this document.



DAVEY WATER PRODUCTS GUARANTEE FOR AUSTRALIA & NEW ZEALAND
This Davey Water Products is guaranteed to be free of material or manufacturing defects at the time of original purchase. Should any part fail as a result of such defects within two years of original purchase, the product will be repaired free of charge.

TERMS AND CONDITIONS

1. This guarantee applies to all states and territories of Australia and New Zealand only and is subject to the provisions of the Trade Practices Act (Aust.), the Goods and Consumer Protection Legislation of the various Australian states and the Consumers Guarantee Act 1993 (NZ) as applicable.
2. The guarantee period commences on the date of original purchase of the equipment. Evidence of this date of original purchase must be provided when claiming repairs under guarantee. It is recommended you retain all receipts in a safe place.
3. This guarantee covers parts and workshop labour only. Goods should be forwarded, with proof of date of original purchase, to an Authorised Davey Service Centre freight paid.
4. This guarantee is subject to due compliance by the original purchaser with all directions and conditions set out in the Installation and Operating Instructions. Failure to comply with these instructions, damage or breakdown caused by fair wear and tear, negligence, misuse, incorrect installation, chemical or additives in the water, inadequate protection against freezing, rain or other adverse weather conditions, corrosive or abrasive water, lightning or high voltage spikes or through unauthorised persons attempting repairs are not covered under guarantee. The product must only be connected to the voltage shown on the nameplate.
5. Without limiting the original purchaser's entitlements under the Trade Practices Act (Aust.), the Goods & Consumer Protection Legislation of the various Australian states, or the Consumers Guarantee Act 1993 (NZ), 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 the product or any defect.
6. Where the Trade Practices Act (Aust.), the Goods and Consumer Protection Legislation of the various Australian states and the Consumers Guarantee Act 1993 (NZ) does not apply, Davey shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever suffered by the purchaser arising directly or indirectly from the product or any defect and the purchaser shall indemnify Davey against any claim by any other person whatsoever in respect of any such loss, damage or injury.
7. Nothing in this guarantee is intended to have the effect of contracting out of the provisions of the Trade Practices Act (Aust.), the Goods and Consumer Protection Legislation of the various Australian states and Consumers Guarantee Act 1993 (NZ) except to the extent permitted by the various Acts and this guarantee is to be modified to the extent necessary to give effect to that intention.
8. Davey may be collecting personal information from you in order to provide you with a service. Davey Water Products Pty Ltd promises only to use this information in accordance with the Provisions of the Privacy Act 1988 (Cth) and the Privacy Policy of Davey Water Products Pty Ltd which is available at davey.com.au.

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Davey Water Products Pty Ltd
Member of the CUP Group
ABN 18 066 327 517

Head Office and Manufacturing

6 Lakeview Drive,
Scoresby, Australia 3179
Ph: +61 3 9730 9222
Fax: +61 3 9753 4100
Website: davey.com.au

Customer Service Centre
Ph: 1300 367 866
Fax: 1300 369 119
E-mail: sales@davey.com.au

Interstate Offices:
Sydney • Brisbane • Adelaide
Perth • Townsville

International

6 Lakeview Drive,
Scoresby, Australia 3179
Ph: +61 3 9730 9121
Fax: +61 3 9753 4248
E-mail: export@davey.com.au

Germany

Kantstrasse 53,
04275 Leipzig
Ph: +49 341 301 0412
Fax: +49 341 301 0413
E-mail: akrenz@davey-europe.com

New Zealand

7 Rockridge Avenue,
Penrose, Auckland 1330
Ph: +64 9 570 9135
Fax: +64 9 527 7654
Website: daveynz.co.nz
E-mail: sales@daveynz.co.nz

USA - Davey Pumps Inc.

1005 N. Commons Drive
Aurora, Illinois 60504
Ph: +1 630 898 6976
Fax: +1 630 851 7744
Website: daveyusa.com
E-mail: sales@daveyusa.com

P/N 48095-11 Supersedes P/N 48095-10

DEPEND ON
DAVEY

WATER PRODUCTS

Installation and Operating Instructions for Davey XF Series Electric Pumps



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:

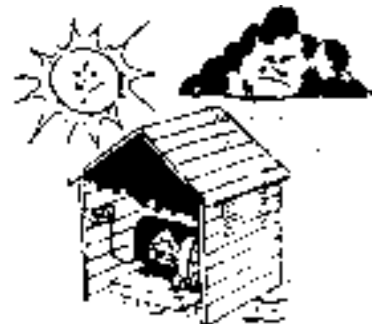
- The pump is installed in a safe and dry environment
- The pump enclosure has adequate drainage in the event of leakage
- Any transport plugs are removed
- The pipe-work is correctly sealed and supported
- The pump is primed correctly
- The power supply is correctly connected
- All steps have been taken 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.



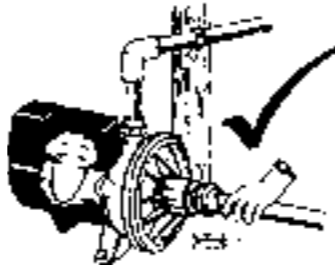
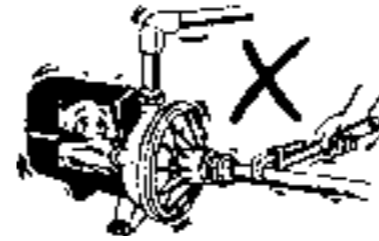
The electrical connections and checks must be made by a qualified electrician and comply with applicable local standards.



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

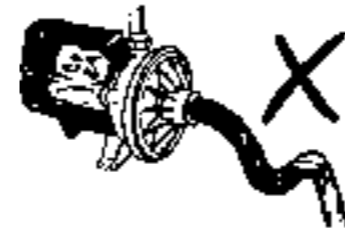
For best performance use P.V.C. or polythene pipe at least the same diameter as the pump's inlet. Larger diameter pipe may be used to minimise resistance to flow when pumping longer distances.



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.



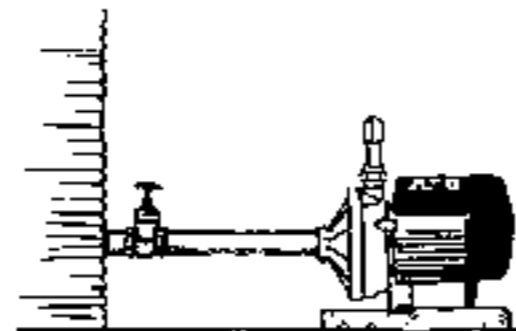
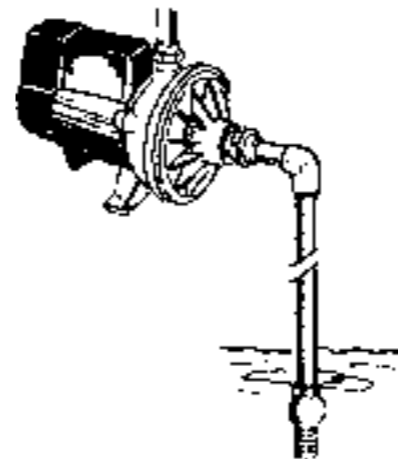
NOTE: Suction leaks are the largest cause of poor pump performance and are difficult to detect. Ensure all connections are completely sealed using thread tape only. Do not use sealing compounds or pipe dope.



Where to use Check Valves and Foot Valves

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

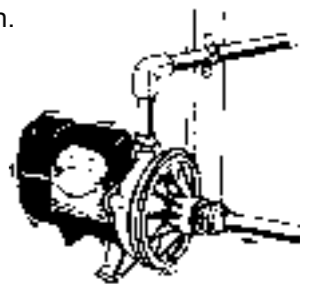
Installations with flooded suction require a gate valve so water supply can be turned off for pump removal and servicing.



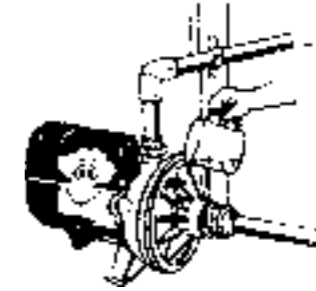
Installations with overhead tanks and pipe work require a one-way check valve to avoid water draining back past the pump while not in operation and causing possible pump damage.

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 spa's". For more information on acceptable chemicals contact your Davey dealer or the Davey Customer Service Centre.