

DEPEND ON
DAVEY

WATER PRODUCTS

Sump Pump

INSTALLATION AND OPERATING INSTRUCTIONS



CAUTION: This pump **MUST** be installed with a suitable earth leakage circuit breaker (E.L.C.B.) or residual current device (R.C.D.).



These Instructions must be delivered with the pump to the operator.

MODELS

DOUBLE CASE: DC10, DCS40, RS250, RSD400
DEWATERING: D10, D15, D25, D40
VORTEX: D15V, D25V, D40V
TWIN IMPELLER: D42

Suffix: A = Automatic Float Switch Fitted
M = Manual (D75 Models only)

Voltage: 220/250V 50Hz Single Phase

Installation & Operating Instructions

The Davey range of Submersible Sump Pumps are suitable for small to medium Dewatering (or recirculating) applications. Vortex models are suitable for pumping small soft solids in fluid suspension. The twin impeller D42M & D42A are designed for clean water only.

They are extremely quiet in operation which makes them ideal for applications within residential areas for sullage pits, waterfalls and general drainage.

Other Ideal Applications are:

Lift Wells, Car Park Sumps, Basements, Cable Pits, etc.

This Submersible pump has been factory checked prior to delivery; however, please check for any damage during transport. After Sales Service is available from Davey or Special Davey Authorised Service Dealers.



DO NOT:

- Run the pump dry.
- Attempt electrical repairs, unless qualified to do so.
- Run the pump with the motor fully exposed for long periods.
- Install the pump on soft or loose ground.
- Operate the pump if the inlet is submersed by sand or debris.
- Lift or carry the pump by the power cable.

Suitable Fluids

This pump is designed to pump waste water, clean water and water containing mild pollutants at ambient temperatures. It is **not suitable** for pumping flammable or corrosive fluids, nor fluids at elevated temperatures. If you are unsure as to the suitability of the fluids, contact your Davey dealer for advice.

The twin impeller D42M & D42A are designed for clean water only.



This pump is not a slurry pump, it is not designed to pump hard solids (eg stones) nor fluids containing excessive amounts of abrasive materials.

Installation

This Davey pump is completely submersible up to 10 metres and should be placed on a solid flat surface (if not available, sit the pump on timber or house bricks) in the vertical position. Pump should always be installed so that it will be clear of settled silt or debris. It is recommended to fit the biggest diameter hose possible, to obtain the best flow from the pump. To remove or lift the pump from deep wells or pits connect a rope to the handle during installation. Automatic versions should be placed in a sump which has adequate dimensions so as not to restrict the movement of the float switch.

Automatic controlled pump units have float switches factory set to provide the correct high (ON) and low (OFF) liquid levels.

Motor Cooling

All models rely upon water flow around the motor shell for correct motor cooling. DC & RS models have a double case which forces water around the motor. These models are therefore suitable to operate partially submerged.

All models other than the double case models are suitable for partially submerged operation only for short periods up to 10 minutes.

Where the pump (other than double case models) is required to operate for longer than 10 minutes partially submerged, or where water flow over the motor may not be assured, it is advisable to direct a low flow (2-3lpm) cooling jet of water over the motor shell (eg. when installed in large tanks or ponds).

Power Connection

A power connection point should be provided by a qualified electrician, in compliance with the requirements of AS 3000 (1991). Single phase models are rated for 220/250 Volts, 50Hz operation, and may be connected to a standard 10 amp power outlet.

All single phase models have automatic reset thermal overload protection built in, ie. should overload on motor cause thermal to open circuit and switch motor off, it will automatically reset and switch the motor on when the motor has cooled down sufficiently, usually within a few minutes.

**NOTE:**

1. Long extension leads should be avoided as they often have insufficient current carrying capacity to run electric motors, hence they can cause substantial voltage drop and operating problems.
2. Minimum voltage at the electric motor must not fall below 216 Volts for single phase, otherwise motor damage may result which is not claimable under guarantee.
3. If the electrical fittings in your country make it necessary to remove the plug (where fitted) from the lead fitted to the motor, care should be taken to ensure that the earth conductor green/yellow in the lead is properly connected to a good earth. This work should be undertaken by a suitably qualified person.
4. Expansion and contraction inside the motor due to heating and cooling is vented via the lead. The lead end must never be sealed off, but must always be open to the atmosphere.
5. ALWAYS disconnect pump from power supply prior to commencing ANY maintenance or adjustment.

Fault Checks**(A) Pump will not start:****(1) Manual Type**

- Check to ensure power is available and the outlet is switched ON.
- Blown fuse or tripped circuit breaker (replace/reset or call an electrician).
- If an extension lead is fitted, check connection.

**NOTE:**

If fitting an extension lead a QUALIFIED ELECTRICIAN should be consulted to ensure correct rating is provided. Extension leads are not allowed for permanent installations.

- Impeller jammed - disconnect from power supply, and ensure impeller is free to rotate.
- Thermal cut-out switch has not reset (wait 5 minutes).
- If pump does not start from new then the seal has possibly stuck due to the length of time it has been standing since it was manufactured. In this case, disconnect from power supply, remove bottom strainer and turn the impeller nut clockwise, this will release the initial friction on the seal and once the power is connected will allow the pump to work.

(2) Auto Type (with float switch)

- Check all in (1) above.
- Float switch jammed against sump side wall.
- Insufficient liquid to place the float switch in the ON position, i.e. higher than the horizontal.

(B) Pump runs, but does not pump water or pumps insufficient water:

- Insufficient liquid in sump.
- Strainer, impeller and/or discharge pipework blocked.
- Impeller damaged.
- Air lock in discharge pipework. Ensure pump is filled with water.
- Excessive back pressure or lift.

(C) Pump will not stop:**(1) Manual Type**

- Must be switched off at the power supply.

(2) Auto Type (with float switch)

- Float switch is prevented from moving to the fully down position.
- Float switch may be faulty.

(D) Pump runs for short periods only (the overload protection has tripped):

- Some foreign body is clogging the impeller.
- The liquid temperature is too high.
- Pump operating in non submerged position or with no water movement around motor (not applicable to DC10).
- Electrical fault.

Do not run the pump dry as this will damage the seal and reduce the life of the pump.

Where hair, lint or other string-like material may be in the water, the pump should be regularly checked. It might become necessary sometimes to clean the suction strainer, impeller and/or discharge pipework.

With simple cleaning and regular examination this pump should give reliable service.

DAVEY PRODUCT GUARANTEE FOR AUSTRALIA & NEW ZEALAND

This Davey product 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. Continuous operation or operation with impure water or with abrasive materials in the water will accelerate wear and reduce the life of the product. Failure from these causes is excluded from repair under guarantee.
6. 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.
7. 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.
8. 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.
9. Davey may be collecting personal information from you in order to provide you with a service. Davey Pumps 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 Pumps Pty Ltd which is available at www.davey.com.au.

© Davey is a registered trade mark of Davey Products Pty Ltd.

© Davey Products Pty Ltd 2001

Maintenance

The oil in the seal chamber should be periodically checked and replaced. This work should be done by a suitably qualified Davey Service Dealer every 2,000hrs of operation or every 12 months, whichever occurs first.

DEPEND ON
DAVEY

WATER PRODUCTS

Davey Products Pty Ltd

Member of the CUD Holdings Ltd 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: www.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

Karlstrasse 47,
04275 Leipzig
Ph: +49 341 301 0412
Fax: +49 341 301 0413
E-mail: akrenz@daveyeurope.com

New Zealand

2 Rothwell Avenue,
North Harbour, Auckland 1330
Ph: +64 9 914 3680
Fax: +64 9 914 3685
Website: www.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: www.daveyusa.com
E-mail: sales@daveyusa.com