# DAVEY

# Sump Pump

## Installation and Operating Instructions

#### **Models:**

**DOUBLE CASED:** DC10, DCS40, RS250, RSD400

**DEWATERING:** D10, D15, D25, D40 **VORTEX:** D15V, D25V, D40V

TWIN IMPELLER: D42, D53

Suffix: A = Automatic Float Switch Fitted

M = Manual (D75 Models only)

Voltage: 220/250V 50Hz Single Phase



This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.



CAUTION: This pump <u>MUST</u> be installed with a suitable earth leakage circuit breaker (E.L.C.B.) or residual current device (R.C.D.) with a rated residual operating current <30mA.



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.

## 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 multi impeller D42 & D53 models 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.



Not intended to be used for swimming pool. Note that these pumps may be used for the repair or maintenance of swimming pools, but never with people present in the water.

#### 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 multi impeller D42 & D53 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

Depending on models, Davey pumps are fitted with a 10m lead and are allowed to submerge up to 7m. Please contact Davey for applications requiring longer lead for deeper submergence. They 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: If the cord is damaged, the appliance should be repaired by a qualified Davey Service Centre. The supply cord must only be replaced by a suitably qualified person with a genuine Davey replacement supply cord.



#### 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.



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- 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 Warranty**

Davey Water Products Pty Ltd (Davey) warrants all products sold will be (under normal use and service) free of defects in material and workmanship for a minimum period of one (1) year from the date of original purchase by the customer as marked on the invoice, for specific warranty periods for all Davey products visit daveywater.com.

This warranty does not cover normal wear and tear or apply to a product that has:

- been subject to misuse, neglect, negligence, damage or accident
- been used, operated or maintained other than in accordance with Davey's instructions
- not been installed in accordance with the Installation Instructions or by suitably qualified personnel
- been modified or altered from original specifications or in any way not approved by Davey
- had repairs attempted or made by other than Davey or its authorised dealers
- been subject to abnormal conditions such as incorrect voltage supply, lightning or high voltage spikes, or damages from electrolytic action, cavitation, sand, corrosive, saline or abrasive liquids,

The Davey warranty does not cover replacement of any product consumables or defects in products and components that have been supplied to Davey by third parties (however Davey will provide reasonable assistance to obtain the benefit of any third-party warranty).

To make a warranty claim:

- If the product is suspected of being defective, stop using it and contact the original place of purchase.
   Alternatively, phone Davey Customer Service or send a letter to Davey as per the contact details below
- Provide evidence or proof of date of original purchase
- If requested, return the product and/or provide further information with respect to the claim.
   Returning the product to the place of purchase is at your cost and is your responsibility.
- The warranty claim will be assessed by Davey on the basis of their product knowledge and reasonable judgement and will be accepted if:
  - o a relevant defect is found
  - o the warranty claim is made during the relevant warranty period; and
  - o none of the excluded conditions listed above apply

 The customer will be notified of the warranty decision in writing and if found to be invalid the customer must organise collection of the product at their expense or authorise its disposal.

If the claim is found to be valid Davey will, at its option, repair or replace the product free of charge.

The Davey warranty is in addition to rights provided by local consumer law. You are entitled to a replacement or refund for a major failure and 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.

For any internet connected products the consumer is responsible for ensuring a stable internet connection. In the event of a network failure the consumer will need to address the concern with the service provider. Use of an App is not a substitute for the User's own vigilance in ensuring the product is working to expectation. Use of a Smart Product App is at the User's own risk. To the fullest extent permitted by law Davey disclaims any warranties regarding the accuracy, completeness or reliability of App data. Davey is not responsible for any direct or indirect loss, damage or costs to the User arising from its reliance on internet connectivity. The User indemnifies Davey against any claims or legal actions from them or others relying on internet connectivity or App data may bring in this regard.

Products presented for repair may be replaced by refurbished products of the same type rather than being repaired. Refurbished parts may be used to repair the products. The repair of your products may result in the loss of any user-generated data. Please ensure that you have made a copy of any data saved on your products.

To the fullest extent permitted by law or statute, 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 local laws and does not affect any rights or remedies that may be available to you under local laws.

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

### DAVEY

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

#### daveywater.com

#### **AUSTRALIA**

**Customer Service Centre** 6 Lakeview Drive,

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Fax: 1300 369 119
Email: sales@davey.com.au

#### **NEW ZEALAND**

**Customer Service Centre** 

7 Rockridge Avenue, Penrose, Auckland 1061 Ph: 0800 654 333 Fax: 0800 654 334 Email: sales@dwp.co.nz

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