Davey® Repair or Replacement Guarantee

In the unlikely event in Australia or New Zealand that this Davey product develops any malfunction within 1 year 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 1 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 1 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 1 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:

DEPEND ON DAVEY
WATER PRODUCTS

AUSTRALIA
Customer Service Centre
6 Lakeview Drive,
Scoresby, Australia 3179
Ph: 1300 367 866
Fax: 1300 369 119
Website: davey.com.au

NEW ZEALAND
Customer Service Centre
7 Rockridge Avenue,
Penrose, Auckland 1061
Ph: 0800 654 333
Fax: 09 527 7654
Website: daveynz.co.nz

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

P/N 48171-4 supersedes P/N 48171-3

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

DEPEND ON DAVEY
WATER PRODUCTS

Installation and Operating Instructions

Circulator Pumps
SC20-25
SB25-20
SB30-25
SS30-25

PLEASE READ IMPORTANT CAREFULLY

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

1. GENERAL

1.1 Applications

SC20-25
For faster circulation of water in closed - circuit domestic (individual) central heating and air-conditioning systems.

SB25-20, SB30-25, SS30-25
For faster circulation of hot water in:
- Secondary hot water distribution loops.
- Industrial water loops (air conditioning, cooling, tank circulating).

1.2 Specifications

- Temperature range: -10° to +110°C
- Ambient temperature: up to +40°C
- Max. service pressure: 10 bar
- Min. suction pressure: 1.5m (0.15 bar) (m w.g.*) at +82°C; 3m (0.3 bar) at +95°C; 10m (1 bar) at +100°C
- Antifreeze (water + glycol): up to 50% (with the exclusion of all other liquids without first obtaining the written approval from Davey Products Pty Ltd)
- Hardness of water (TH): max. 350ppm
- Recommended flow velocity: between 0.5 and 1m/s max

NOTE: This pump is **not** approved nor intended for use in swimming pools, spa pools or spa baths.

2. SAFETY

Read this data sheet carefully before installing and starting up. Pay special attention to the points concerning the safety of the equipment for the end user.

2.1 Symbols used in the manual


Warning


Instructions concerning electricity

ATTENTION ! Calls attention to a potential risk that might affect safety.

3. TRANSPORT AND STORAGE

When taking delivery of the equipment, check that it has not been damaged in transit.


If the equipment delivered is to be installed at a later time, store it in a dry place and protect it from impact and outside influences (moisture, frost, etc).

4. PRODUCTS AND ACCESSORIES

4.1 The Pump

With threaded ports according to model.
The motor has a wet rotor and the bearings are self lubricating.
Three-speed with manual selection by selector switch.
- Compliance: TF10
- Insulation class: F (155°C)
- Protection: IP42 (only with terminal box at 6, clock position on SS30-25).

4.2 Accessories

Supplied: Unions with gaskets
Recommended: Non return valves
Isolating valves

5. INSTALLATION

5.1 Assembly (see FIG. 1&2)

- Make sure that the circulator is accessible.
- Assemble directly on a pipe, preferably vertical, and if possible on the boiler return circuit; never at the low point (to protect against deposits).
- **The motor shaft axis must always be horizontal.**
- The arrow on the pump casing indicates the direction of water flow (see FIG. 3).
- Install isolating valves on both sides of the circulator to facilitate removal for servicing.

ATTENTION ! **If the circulator must be insulated, we advise against obstructing the evacuation notches in the motor flange (see FIG. 3).**

5.2 Orientation of terminal box (see FIG. 4)

If necessary, the orientation of the motor, and with it that of the terminal box, can be changed.

- Remove the motor attachment screws and turn the motor to the desired position.

Take care not to damage the casing gasket, and reinstall it correctly.

The terminal box should not be placed at 3 and 6 o'clock on an cold water circuit.

5.3 Electrical connection

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

Complete electrical information about the circulator is given on the data plate.

Power supply network

Use a three-conductor cable (3 x 1.5mm^2) to connect mains power to the corresponding terminals of the circulator; phase (L), neutral (N), and earth (⏚) (see FIG. 5).

The power cable must not touch the pipe or the pump; make sure that it is away from any moisture.

Check line ⏚ protection and the mains voltage and frequency. The circulator must be connected to the mains via a switch with an opening distance, on each pole, of at least 3mm. The motors of the circulator models SC & SB are self protected by impedance, therefore they don't need external protection. The motors of the circulators SS need a contactor with overload fitted. The power outlet must have an earthing contact. After making the connections, put the cover back on the terminal box.

6. STARTING UP

6.1 Filling, degassing

Never operate the circulator WITHOUT WATER

- Open the valves on both sides of the circulator and fill the installation completely.
- Bleed the circuit at the high point.
- Bleed air from the circuit, by hand, by unscrewing the plug (see FIG. 6) a few turns; close it when water runs out and when there are no more air bubbles.

ATTENTION ! **Risks of scald. Use a screwdriver for unscrewing the tap.**

- Power up the motor to start the circulator.
- The flow rate is adjusted by changing the speed of rotation of the motor using the selector switch.

ATTENTION ! **Risk of burning. In operation, the motor casing may be hotter than 100°C.**

7. SERVICING

The circulator needs no special servicing in operation. The motor bearings are lubricated by the liquid pumped.
At the beginning of each heating season, or after a prolonged shutdown, make sure that the circulator turns freely.

8. OPERATING TROUBLE

Causes and remedies

ATTENTION ! **Switch the circulator OFF before doing any work on it.**

8.1 The circulator is noisy

a) Air in circulator
- Bleed the circulator, loosen the rear plug; continue until there are no more air bubbles, then screw the plug back in.

b) The suction pressure is too low
- Raise the pressure in the circuit.

c) Considerable flowing water noise
- Consider a slower speed.

d) Foreign bodies in impeller
- Remove the motor and clean the impeller.

8.2 The circulator fails to start

a) Shaft stalled by fouling after a prolonged shutdown
- Free the shaft; remove the rear plug. Use a flat bladed screwdriver to turn the motor shaft. Then reinsert the rear plug (see FIG. 7).

b) No power supply to circulator
- Check that the motor is connected.
- Check the fuses of the installation.

c) Capacitor defective
- Replace it; the characteristics are indicated on the rear data plate (μFV). For changing the capacitor lift-up the fixing clip of the capacitors wires (see FIG. 5 - rep. A). For removing the wires, insert the new capacitor wires then press the clip for locking.

d) Foreign bodies in impeller
- Remove the motor and clean the impeller.

FIG. 1

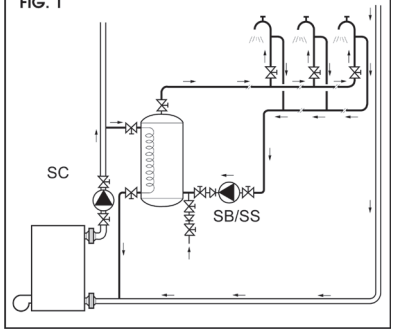

FIG. 2

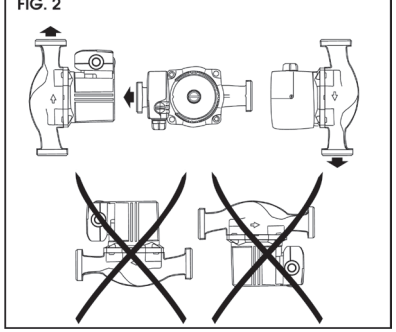

FIG. 3

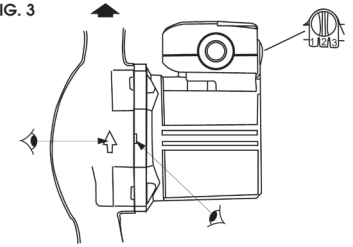

FIG. 4

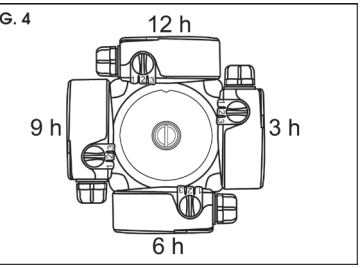

FIG. 6

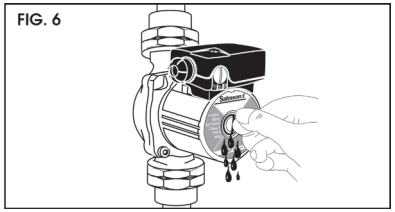

FIG. 5

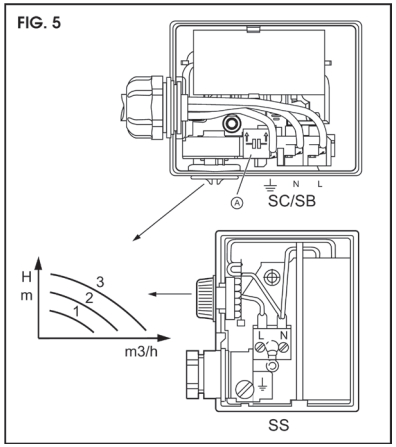

FIG. 7