



**AQUASTRONG CIRC 16**  
**Smart Inline Boosting Pumps**



**Installation &**  
**Operating Manual**

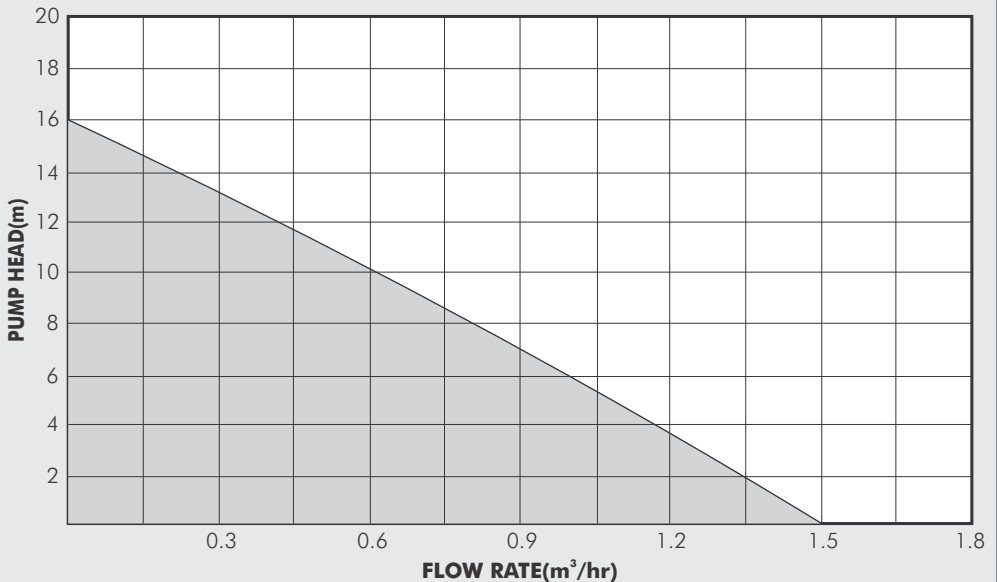


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**Congratulations on selecting Dayliff CIRC 16 Smart Inline Boosting Pump. They are manufactured to the highest standards and if installed and operated correctly will give many years of efficient and trouble free service. Careful reading of this Installation Manual is therefore important, though should there be any queries they should be referred to the equipment supplier.**

## 1. SPECIFICATIONS



## PUMP

**Dayliff Aquastrong CIRC 16** is a highly innovative smart inverter controlled water boosting pump suitable for various domestic applications including hot water circulation for electric or solar water heaters as well as shower and general tap pressure boosting. Particular features include:-

- **Innovative inverter controlled** Permanent magnet water cooled DC motor that features high efficiency and super silent (28dB) operation.
- **Anti-block hydraulic design** with large water passage and optional easy to clean prefilter.
- **Suitable for all water temperatures** up to 90°
- **Fully automatic operation** with inbuilt flow switch control.
- **Integrated Design** using non corroding materials including an aluminium housing and engineering plastic hydraulic parts providing for up to 30,000 running hours operation.
- **Extremely compact dimensions** that enables simplified installation in confined spaces.
- **Supplied complete** with connectors, mounting brackets and separate inverter/controller unit.
- **2-year guarantee.**
- **Certified** in accordance with the EU Uniform EN and the German Industrial DIN Standards.

**Dayliff Aquastrong CIRC 16** is an exceptionally advanced product that uses state of the art inverter technology to provide the perfect solution to all domestic and residential water supply needs.

**Insulation:** F

**Enclosure Class:** IP57

**Power:** 96W, 175-245V, 50HZ/60HZ

**Speed:** 10,000rpm

## OPERATING CONDITIONS

**Pumped Liquid:** Thin, clean, chemically non-aggressive liquids without solid particles or fibres

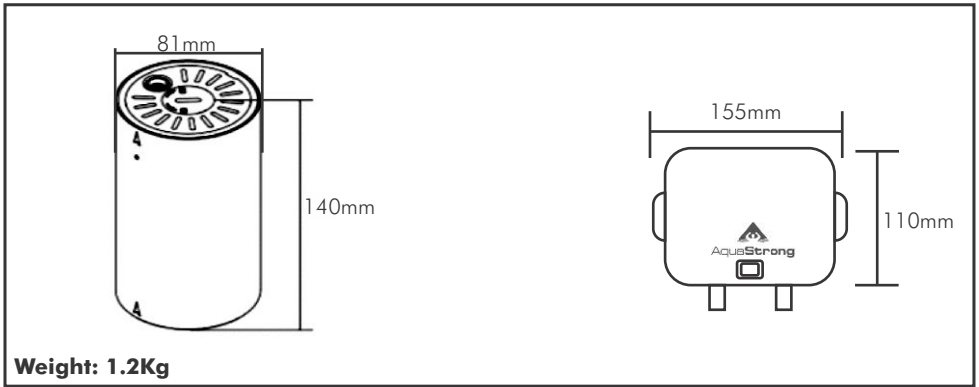
**Max. Ambient Temp:** 50°C

**Max. Liquid Temp:** 90°C

**Max Suction Lift:** 0m (non self-priming)

**Start Flow:** 1 l/min

**Inlet/Outlet:** ½"



## 2. WARNINGS AND SYMBOLS



***The pump must not be installed against wood or any other material which may be affected by heat from the pump.***



***Before installing the pump ensure all soldering/welding adjacent to the pump is complete, the system has been thoroughly flushed out to remove any foreign matter and that vent and feed pipes are positioned so that the pump will not draw in air or over pump.***



***The pump should not be installed in either a high point in the system where air can collect or a low point where sediments could build up.***



***Pipes on both sides of the pump should be supported to reduce strain and must be correctly aligned prior to installing the pump to reduce the risk of scalding.***



***Check the direction of flow indicated by an arrow on the pump casing and install the pump between the isolating valves. When replacing a pump maintain the same direction of flow.***



***Do not leave system empty without protection from corrosion. Ensure to use quality corrosion inhibitors.***



**Non-approved replacement parts may not be used.**



**Ensure no water leakage onto the pump motor or its electrical connections during installations, venting or operations as this may cause electrical shocks.**



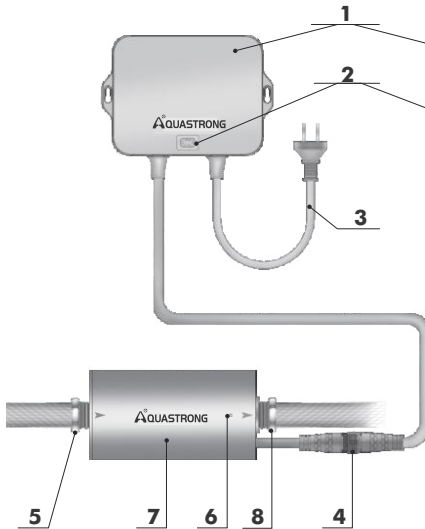
**Any action that doesn't comply with safety warning sign may cause personal injury, pump damage and losses in property. Users must also comply with the local safety regulations.**



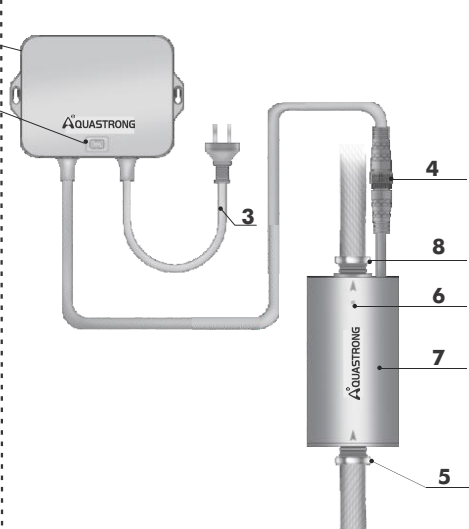
**Electrical work to be carried out by competent qualified and licensed electrician.**

### 3. INSTALLATION

#### a) Horizontal Installation



#### b) Vertical Installation



1. Control Box
2. Forced Start Button
3. AC Input Plug
4. Waterproof Connector

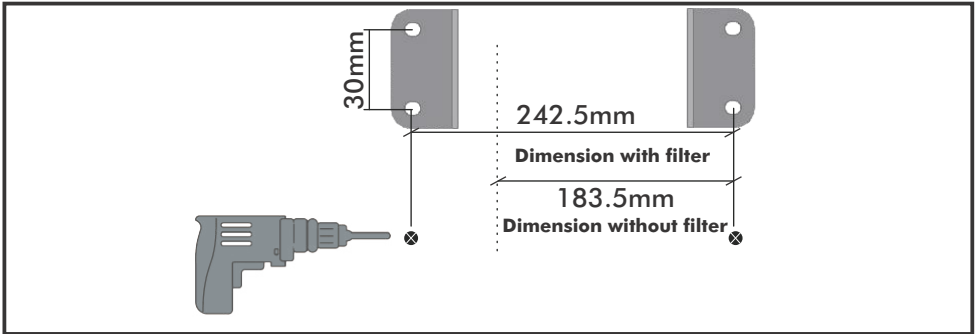
5. Inlet Connector
6. Operating LED Indicator Light
7. Pump Body
8. Outlet Connector

## Installation Arrangement

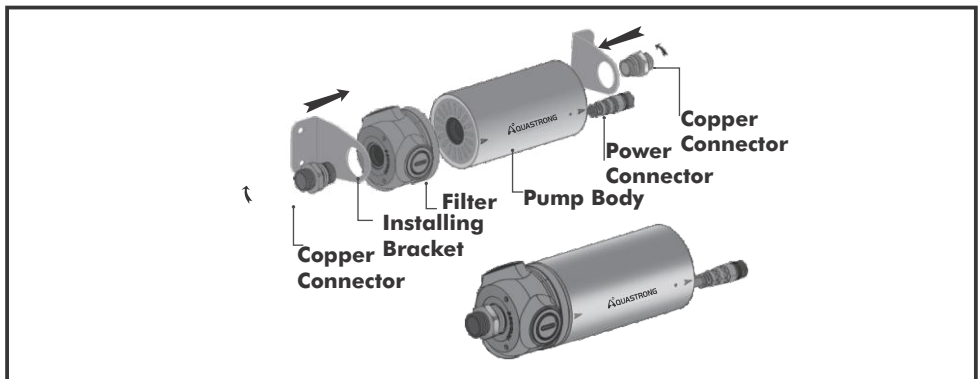


**The pump and the controller must be installed either horizontally or vertically. Angled installations are not allowed.**

1. Mark the location according to the bolt holes of the pump bracket and punch holes in the wall.

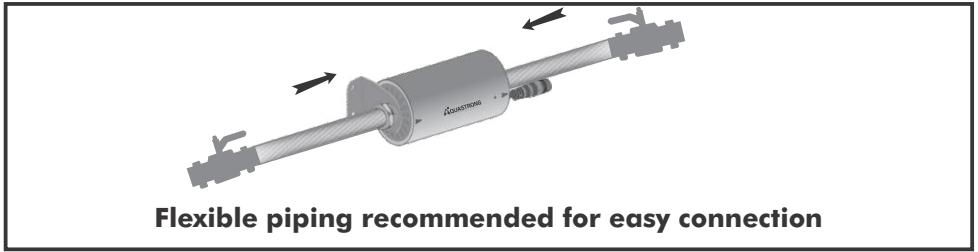


2. Install the bracket and fix firmly on the wall
3. Fix the pump into the pump bracket
4. Fasten the copper connectors to the outlet and inlet by use of a wrench

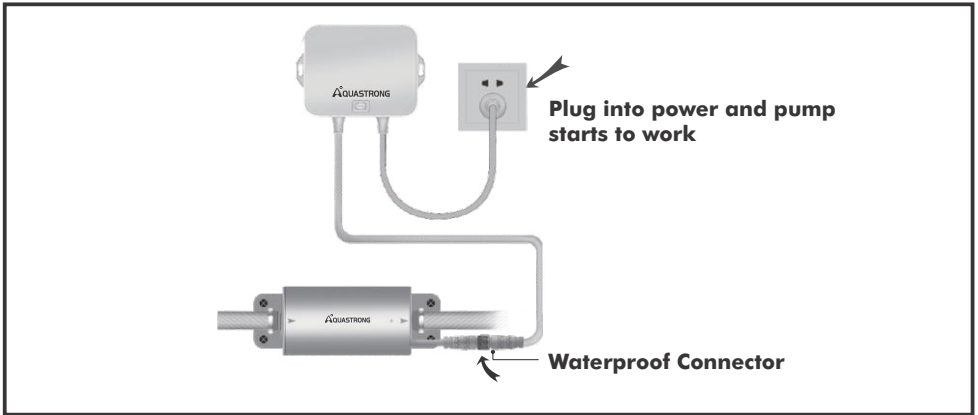




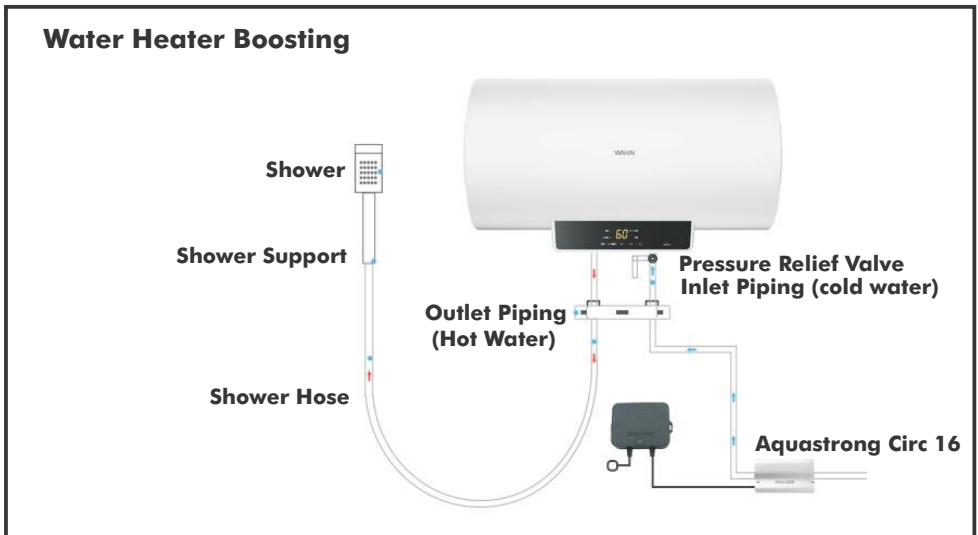
5. Connect the inlet and outlet to the pipe ensuring to fit isolating valves.



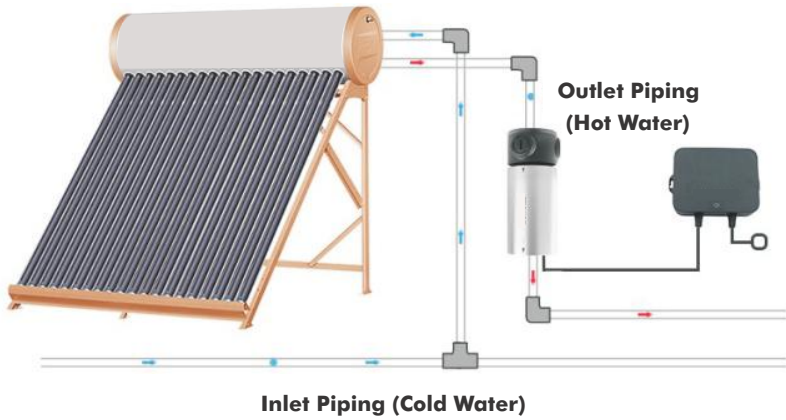
6. Using the water proof connector, connect the controller to the pump and plug to the power supply, the pump shall start automatically.



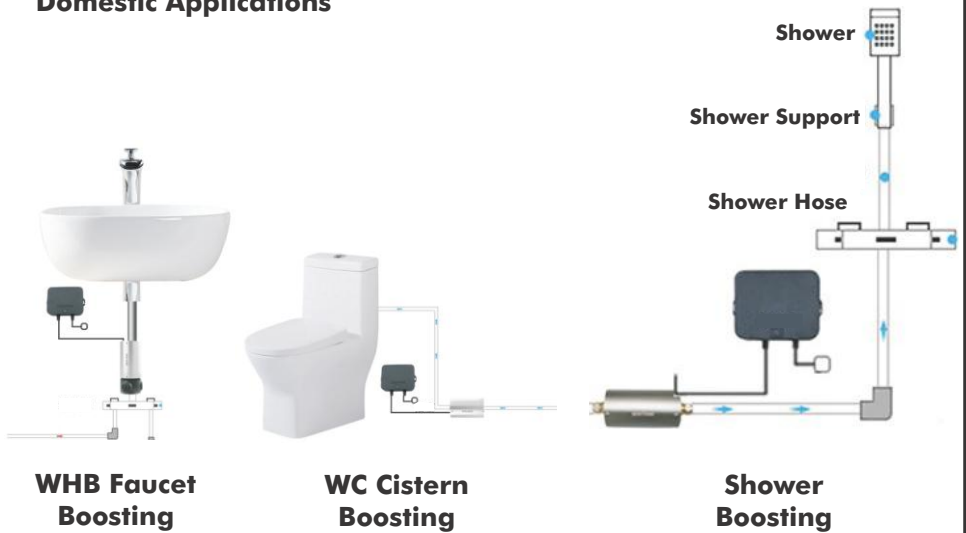
## 4. APPLICATION



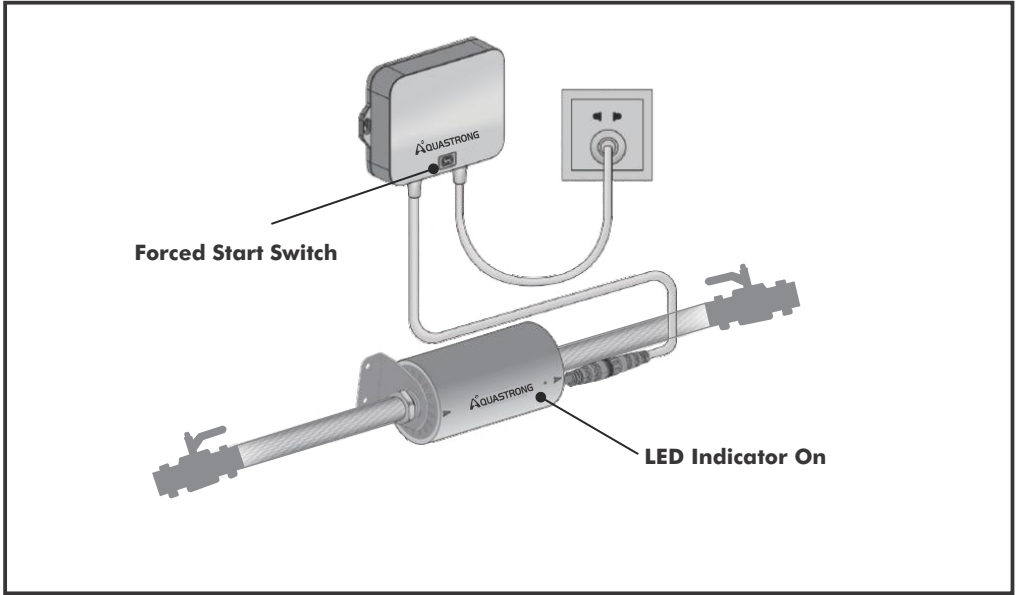
## Solar Water Heater Boosting



## Domestic Applications



## 5. OPERATION



- The LED indicator light is always on when the pump is on automatic mode.
- The LED indicator light flashes continuously when the pump is on forced start mode .
- CIRC 16 will start and stop automatically due to inbuilt flow sensor.
- If the pump does not work due to water flow being lower than 1.0L/min, pressing the force start button can activate it.
- CIRC 16 will stop automatically after it runs for 20 minutes under the forced mode and switch to automatic mode.

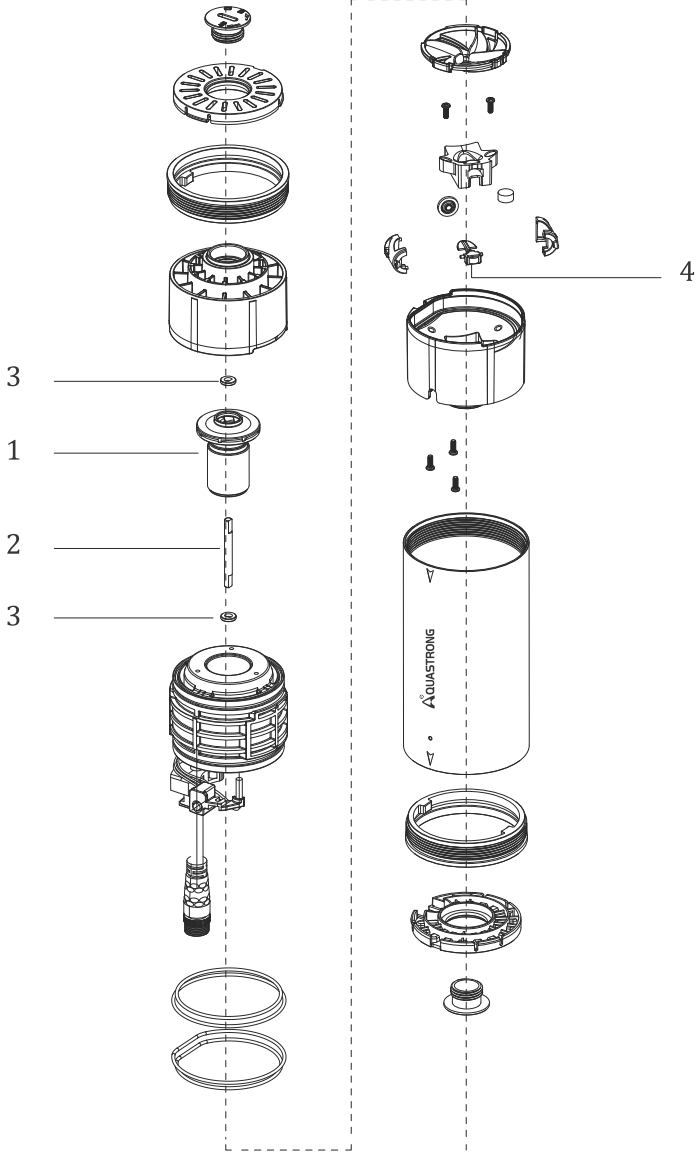


***Circ16 does not have inbuilt dry running protection during operation. Ensure that there is no air in the pipeline to protect the pump from dry running.***

## 6. TROUBLE SHOOTING

Problem	LED Indicator Light	Errors	Main Problems	Solutions
Pump not working	LED Indicator flashes once	Overtoltage or Undervoltage	Controller faulty	Replace the controller
	LED Indicator flashes twice	Overcurrent	Controller faulty	Replace the controller
	LED Indicator flashes thrice	Overcurrent	Impeller stuck due to debris	Disassemble the pump and clean
			Rotor damaged	Replace the motor
	LED Indicator flashes four times	Flow sensor damaged	The flow sensor is jammed and cannot open properly	Disassemble the pump and clean
			Flow sensor damaged	Replace the sensor
	LED Indicator flashes five times	Water Shortage	No water in the pipeline	Start the pump when water supply resumes
			Air in the pipeline	Empty the pipeline
Pump does not stop	None	Pump running continously	The flow sensor is jammed with debris	Disassemble the pump and clean
			Controller is damaged	Replace the controller
Pump vibration with high noise	None	Loud Vibrations	Debris in the pump body	Clean the debris in the pump chamber
			Air in the pipeline	Open the tap and eliminate air
			Rotor is worn out	Replace the rotor

# EXPLODED DIAGRAM



No.	Parts	No.	Parts
1	Rotor impeller assembly	3	Ceramic washer
2	Motor shaft	4	Water flow switch

## 7. TERMS OF WARRANTY

### i) General Liability

- In lieu of any warranty, condition or liability implied by law, the liability of Dayliff (hereafter called the Distributor) in respect of any defect or failure of equipment supplied **is limited to making good by replacement or repair** (at the Distributor's discretion) defects which under proper use appear therein and arise solely from faulty design, materials or workmanship within a specified period. This period commences **immediately after the equipment has been delivered to the customer** and at its termination all liability ceases. Also the warranty period will be assessed **on the basis of the date that the Distributor is informed of the failure.**
- This warranty applies solely to equipment supplied and **no claim for consequential damages**, however arising, will be entertained. Also the warranty specifically excludes defects caused by fair wear and tear, the effects of careless handling, lack of maintenance, faulty installation, incompetence on the part of the equipment user, Acts of God or any other cause beyond the Distributors's reasonable control. Also, any repair or attempt at repair carried out by any other party **invalidates all warranties.**

### ii) Standard Warranty

If equipment failure occurs in the normal course of service having been competently installed and when operating within its specified duty limits warranty will be provided as follows:-

- **Up to one year- The item will be replaced or repaired at no charge.**
- **Over one year, less than two years - The item will be replaced or repaired at a cost to the customer of 50% of the Davis & Shirliff market price.**

The warranty on equipment supplied or installed by others is conditional upon the defective unit **being promptly returned free to a Davis & Shirliff office** and collected thereafter when repaired. No element of site repair is included in the warranty and any site attendance costs will be payable in full at standard chargeout rates. Also proof of purchase including the purchase invoice must be provided for a warranty claim to be considered.



**DAYLIFF** is a brand of **Davis & Shirliff**

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for details of the nearest branch or stockist