

# Clarke®

# air



## SILENT AIR COMPRESSOR MODEL NO: SHHHAIR 50/24

PART NO: 2320875

## OPERATION & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC1220 - rev 10

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## INTRODUCTION

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Thank you for purchasing this Air Compressor.

Before attempting to operate the machine, it is essential that you read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the product giving you long and satisfactory service.

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## SPECIFICATION

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Power supply	230 V/ 50 Hz
Dimensions (L x W x H)	400 x 620 x 400 mm
Weight	29 kg
Receiver capacity	24L
Compressor oil	500ml synthetic oil
Max working pressure	8 Bar/116 psi
Max flow rate	35 L/min @100 psi
Sound power level	40 dBA
Duty cycle	50% (15mins on/15 minutes off)

Please note that the details and specifications contained herein are correct at the time of going to print.

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## GUARANTEE

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This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

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## GENERAL SAFETY WARNINGS

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**WARNING: WHEN USING ELECTRICAL TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND PERSONAL INJURY**

**WARNING: READ ALL THESE INSTRUCTIONS BEFORE ATTEMPTING TO OPERATE THIS PRODUCT AND KEEP THESE INSTRUCTIONS IN A SAFE PLACE.**

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### WORK AREA

1. **Keep the work area clean and well lit.** Floors should always be kept clear. Cluttered or dark areas invite accidents.
2. **Keep children and bystanders away while operating a power tool.** Distractions can cause loss of control.
3. The compressor should only be used in areas with adequate ventilation and should not be exposed to heat or used near flammable substances

### PERSONAL SAFETY

1. **ALWAYS** stay alert, watch what you are doing and use common sense when operating the compressor. Do not use the compressor while you are tired or under the influence of medication, drugs or alcohol. A moment of inattention can result in personal injury.
2. **ALWAYS** use eye protection when operating compressed air equipment, and ensure that others in the work area are protected from flying particles from the front and from the side.
3. **ALWAYS** protect yourself against electric shock. Never operate the compressor in wet or damp locations.
4. **NEVER** over-reach. Keep your proper footing and balance at all times to enable better control of the compressor in unexpected situations.
5. **NEVER** attempt any complex repairs yourself. If you have a technical problem contact your local dealer.
6. **ALWAYS** store the compressor out of reach of children.
7. **ALWAYS** protect your hearing. Ear protection should be worn when operating this compressor and it's associated power tools.
8. **NEVER** direct the air stream at people or animals, as injury may result. Compressed air can cause soft tissue damage and propel dirt and other particles at high speed.
9. **NEVER** insert your fingers or other objects inside the motor housing. Never operate the compressor without the cover in place.

## GENERAL MACHINE USE AND CARE

1. Prior to use, all operators should become familiar with the instructions in this booklet especially the ON/OFF switch for emergency stopping.
2. **ALWAYS** maintain the compressor with care and keep it clean for best / safest performance.
3. **NEVER** use this compressor if any part is damaged. Have it inspected and repaired by your dealer.
4. **NEVER** attempt to modify the air compressor, tank, fittings or attachments in any way. Doing so will invalidate the guarantee and could result in personal injury.
5. **NEVER** abuse the power cable. Never pull on the cable when removing the plug from the socket, or lift the compressor by the power cable.
6. **ONLY** use extension leads that are of an appropriate power rating and suitable for the work environment. Extension leads must have an earth connection. Inspect the extension lead regularly and replace if damaged.
7. **ONLY USE RECOMMENDED PARTS:** To avoid the risk of bursting, only hoses with a rated pressure of 10 bar, or more should be used. Never attempt to repair damaged hoses.
8. **NEVER** abuse the compressor by standing on it.

## AIRLINE HOSES

1. **ALWAYS** ensure that equipment or power tools used in conjunction with the compressor have a safe working pressure exceeding that of the machine.
2. **ALWAYS** keep the air hose away from any attached power tools and ensure that the operator is not restricted by the length of the hose.
3. **ALWAYS** take care when a long air hose is required in the work area as it presents a trip hazard. Coil the hose away as soon as the job is finished.
4. **ALWAYS** avoid kinking or trapping the air hose. Always replace faulty hoses and never attempt a repair if a leak is detected.
5. **NEVER** abuse hoses or connectors. NEVER carry an air tool by the hose, or yank it to disconnect from the air supply. Keep hoses away from heat, oil and sharp edges. Check hoses for leaks or worn condition before use and ensure that all connections are secure.
6. **ALWAYS** ensure that the air supply is turned off at the machine outlet and any air pressure vented from within the compressor and any attached equipment when disconnecting air hoses or other equipment.

## AIR COMPRESSOR SAFETY INSTRUCTIONS

1. **ONLY USE WITHIN THE RECOMMENDED OPERATING TEMPERATURE RANGE:** This compressor should only be used in an ambient temperature of between +5°C and +40°C (never at or below freezing temperatures).
2. **NEVER USE AN AIR COMPRESSOR WHICH APPEARS DEFECTIVE OR IS OPERATING ABNORMALLY:** If the compressor operates unusually or makes strange noises, switch off immediately and purge the air reservoir. Arrange repairs with your nearest dealer.
3. **BREATHING QUALITY AIR:** This compressor should not be used to supply breathing quality air.
4. **SAFETY VALVE:** Never remove or attempt to adjust the safety valve. The maximum pressure is factory set. Keep the safety valve free from paint and other accumulations.
5. **AVOID UNINTENTIONAL STARTING:** Do not move the compressor when it is connected to the mains power supply.
6. **BEFORE EACH USE CHECK THE COMPRESSOR AND HOSE FOR DAMAGED PARTS:** Never use the compressor if it has been damaged in any way. Have the compressor repaired by a qualified service engineer. Do not use the compressor if the On/Off switch does not operate correctly.
7. **KEEP THE MOTOR AIR VENTS CLEAR:** Keep the motor vents clear and free from dust. Wipe regularly to maintain an adequate supply of clean air. Avoid using in dusty conditions.
8. **OPERATE THE COMPRESSOR AT THE CORRECT VOLTAGE:** Make sure that the mains supply voltage is the same as the voltage shown on the label.
9. **ALWAYS** adjust the pressure regulator to the recommended setting for the particular spray gun or air tool being used.
10. When using the compressor for painting:
  - **DO NOT** work in enclosed areas or near naked flames.
  - Ensure that the area in which you are working has good ventilation.
  - Protect your nose and mouth with a suitable face mask.
  - **ALWAYS** check the safety data sheets for substances being sprayed & ensure manufacturer's instructions are followed.
11. **DO NOT USE THIS COMPRESSOR TO INFLATE SMALL, LOW-PRESSURE OBJECTS:** Items such as children's toys or footballs can explode if over-inflated.
12. **NEVER STOP THE COMPRESSOR BY REMOVING THE PLUG OR SWITCHING OFF AT THE MAINS SUPPLY:** Always use the On/Off switch on the compressor.

## ELECTRICAL CONNECTIONS



**WARNING! READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.**

Before switching the product on, make sure that the voltage of your electricity supply is the same as that indicated on the rating plate. This product is designed to operate on 230VAC 50Hz. Connecting it to any other power source may cause damage.


This product may be fitted with a non-rewireable plug. If it is necessary to change the fuse in the plug, the fuse cover must be refitted. If the fuse cover becomes lost or damaged, the plug must not be used until a suitable replacement is obtained.

If the plug has to be changed because it is not suitable for your socket, or due to damage, it should be cut off and a replacement fitted, following the wiring instructions shown below. The old plug must be disposed of safely, as insertion into a mains socket could cause an electrical hazard.

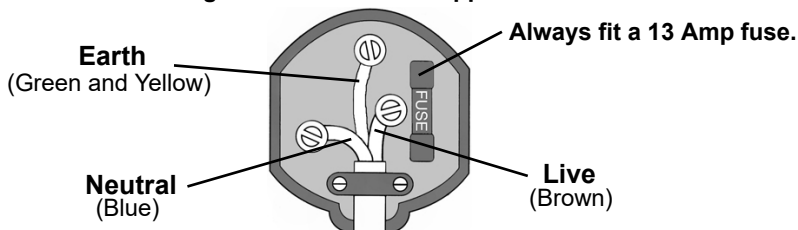


**WARNING! THE WIRES IN THE POWER CABLE OF THIS PRODUCT ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE: BLUE = NEUTRAL BROWN = LIVE YELLOW AND GREEN = EARTH**

If the colours of the wires in the power cable of this product do not correspond with the markings on the terminals of your plug, proceed as follows.

- The **Blue** wire must be connected to the terminal marked **N** or coloured **Black**.
- The **Brown** wire must be connected to the terminal marked **L** or coloured **Red**.
- The **Yellow and Green** wire must be connected to the terminal marked **E** or  or coloured **Green**.

**Plug must be BS1363/A approved.**



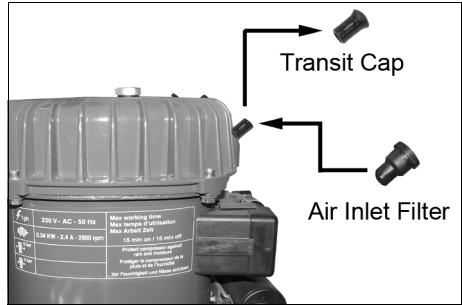
**Ensure that the outer sheath of the cable is firmly held by the clamp**

We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD). If in any doubt, consult a qualified electrician. DO NOT attempt any repairs yourself.

# PREPARING FOR USE

Before connecting your compressor to the mains supply, check the following:-

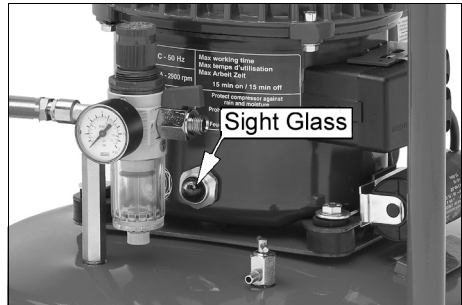
- Firstly, ensure the compressor is on level ground. Do not allow it to run if it is standing on an incline.
- Check also that the mains voltage corresponds with that shown on the data label on the side of the compressor.
- The ON/OFF switch is in the OFF position.
- Remove any transit caps from the air inlets and replace them with the air inlet filters supplied.



## ADDING OIL

The compressor is supplied without any oil inside.

1. Make sure that the oil level is half way up the oil sight glass.



2. If not, remove the oil cap and top up the reservoir.

- Only use Clarke synthetic compressor oil, available from your Clarke dealer (Part No. 3050795).

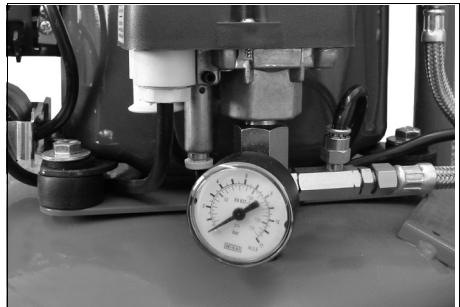


# SWITCHING THE AIR COMPRESSOR ON

1. To start the compressor, turn the ON/OFF switch to the 'I' (ON) position - the motor should start immediately.



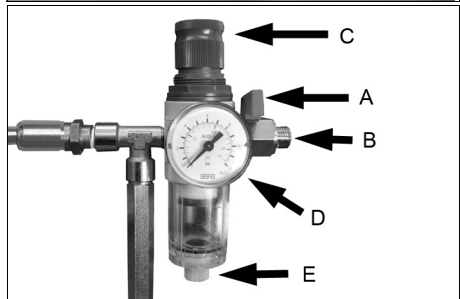
**NOTE:** If the motor fails to start immediately, the air receiver may already be full of air. Check the tank pressure gauge (shown on the right). If you release air, by opening the air outlet tap, the motor will start automatically once the cut-in pressure is reached.



2. Allow the compressor to run for 10 - 15 seconds, with the air outlet tap, (A) open.

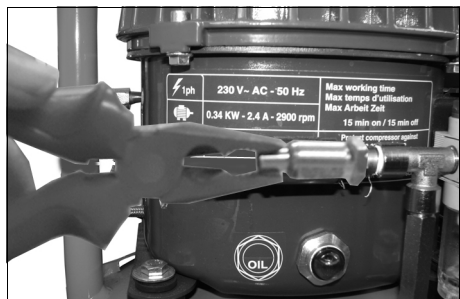
- This will distribute the lubricating oil.

3. Close the outlet tap and connect a suitable air hose to the filter/regulator outlet (B). Connect the other end to the equipment to be used.



4. Check the safety valve by pulling on the end cap shown.

5. Pliers will be needed to grip the end cap and pull hard against the spring. Air should hiss out when pulled.





6. Adjust the pressure regulator.

- To do this, lift the pressure regulator knob (C), and turn it clockwise to increase the pressure, anticlockwise to decrease the pressure. The pressure is shown on the outlet gauge (D).
- To lock the pressure regulator knob, push the pressure regulator knob down until it clicks into place.

**IMPORTANT:** *Always refer to the accessory manufacturers recommendations for optimum operating pressures for their equipment.*

7. With operating pressure set, open the air outlet tap.

**NOTE:** If the machine pumps continuously without cutting out then the compressor is too small for the application/tool being used, and damage may result. Consult your Clarke dealer.

**NOTE:** DO NOT exceed the duty cycle for the machine (see Specifications).

## SHUTTING DOWN THE COMPRESSOR

1. To shut off the compressor, simply turn the ON/OFF switch to the O (OFF) position.
2. Close the air outlet tap and trigger the equipment (spray gun, air tool etc.) to release air from the air hose before disconnecting the hose from the machine.
3. Before transporting your compressor or when leaving overnight, expel all air from the receiver by opening the vent valve.

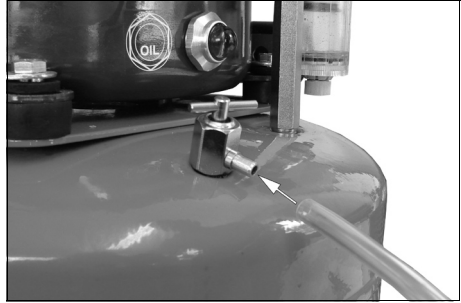


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## DRAINING THE RESERVOIR

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1. Pressurise the reservoir slightly and then turn the compressor off.
2. Attach the small hose supplied to the vent valve as shown.
3. Take the compressor to the sink and place the free end of the small hose in the sink.
4. Slowly open the vent valve.
5. When the reservoir has been drained, re-tighten the vent valve and remove the hose.

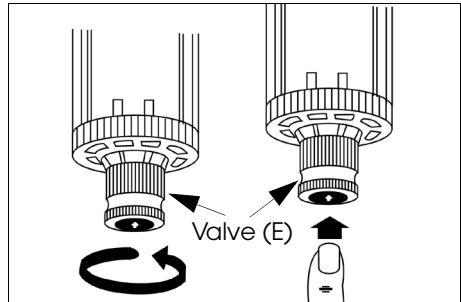


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## DRAINING THE AIR OUTLET FILTER

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1. Drain any liquid that may have accumulated in the air filter chamber, by first twisting and then pushing the valve (E) upwards.



## TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	REMEDY
The compressor will not start, or stops and will not start again	Bad connections	Check the electrical connections
	Blown fuse	Replace fuse
	Overload cutout switch has tripped	Wait 25-20 mins before attempting to restart
Compressor does not start	Air receiver charged	Open drain valve to expel air. Compressor should start again when pressure reduces to approx 95 psi.
The compressor does not reach the set pressure and overheats easily	Inlet Air Filter is blocked NOTE: It is also possible that you are trying to use more air than the compressor is capable of delivering	Renew oil filler/air Filter plug
Air leaking from the pressure switch valve when the compressor is not running	Faulty non-return valve	First drain the receiver completely of air. Renew the non-return valve
Air pressure from the regulator will not adjust	Broken diaphragm within the regulator body	Replace regulator
Compressor operating, but no air from outlet	Inlet air filter blocked	Renew oil filler/air Filter plug
	Pressure regulator closed	Turn regulator clockwise to set required pressure
	Drain valve open	Close vent valve
	Bleed pipe (from Pressure Switch to non-return valve) broken or disconnected	Reconnect or replace bleed pipe

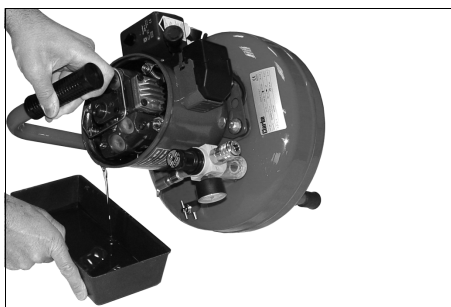
# MAINTENANCE

	Daily	Monthly	Yearly
Check the oil level	X		
Drain the water collected in the air outlet filter. See Draining the Reservoir on page 10.	X		
Remove the condensate that has collected in the air tank. See Draining the Reservoir on page 10.	X		
Once a month check the compressor for loose connections, wear, etc.		X	
Clean the compressor with a soft cloth.		X	
Check the safety valve when there is pressure in the tank.	X		
Total replacement of oil. See below.			X

## DRAIN AND REPLACE THE OIL

Drain and replace the oil annually, as follows:

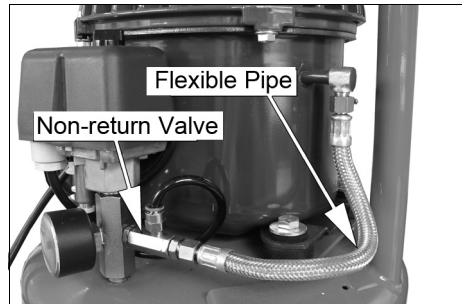
1. Loosen the collar securing screw and remove the collar.
2. Pull off the head, complete with sealing ring.
3. Tilt the compressor carefully on to its side, so that the oil is drained into a suitable container.
  - Dispose of the oil according to local regulations.
4. Reassemble the head ensuring the sealing ring is in perfect condition and is located correctly.



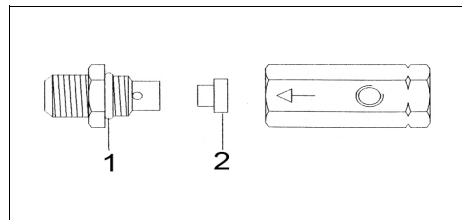
## CHECK THE NON RETURN VALVE

If the tank pressure decreases for no apparent reason, it is possible that the non-return valve is leaking. To check, ensure the tank is under pressure and the machine switched OFF.

1. Take off the flexible hose and check if air leaks out from the valve.



2. If so, unscrew the valve from the connection and disassemble it as shown.
3. Clean all the components with a dry cloth and reassemble the valve taking care to place the internal rubber disc(2) as shown.

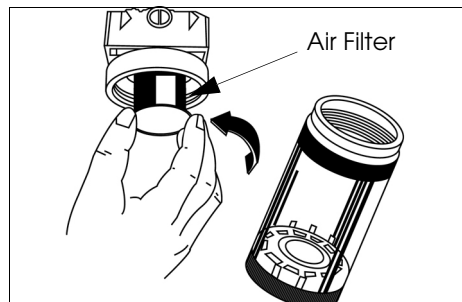


4. Fasten the valve to the connection and join the flexible hose. If the leakage persists, the whole valve must be replaced.

## REPLACING THE AIR OUTLET FILTER

The compressor must be completely depressurised before carrying out this procedure.

1. Unscrew the cartridge from the air filter assembly.
2. Unscrew and replace the small air filter.



## STORAGE

Disconnect the mains plug and ventilate the compressor and any connected pneumatic tools. Store the compressor in a dry location. Always store upright.

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## ENVIRONMENTAL RECYCLING POLICY

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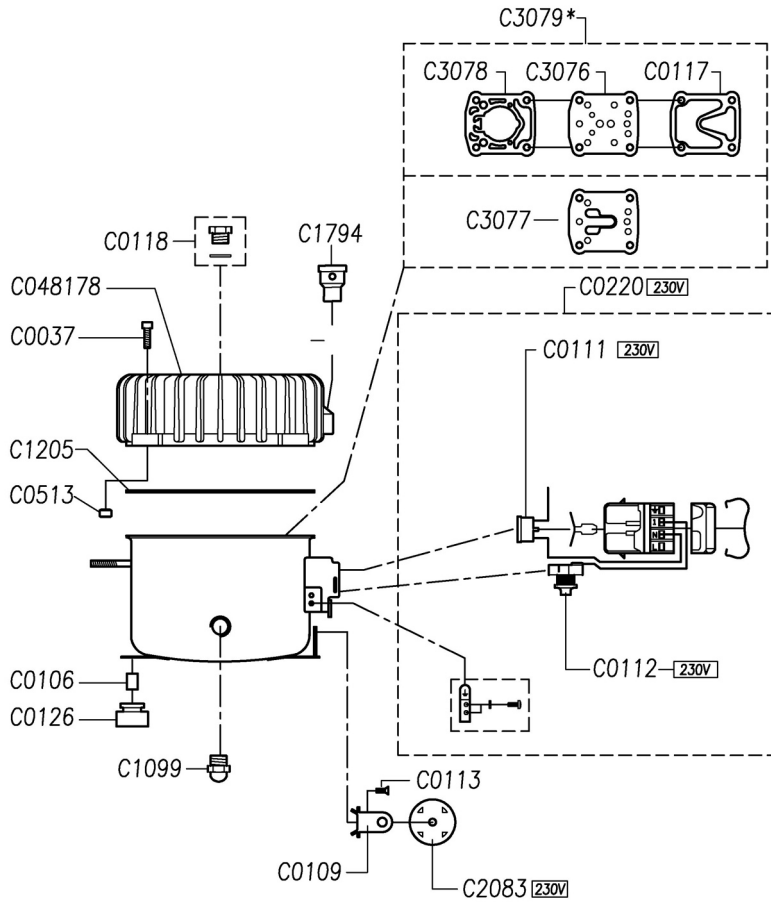


By purchasing this product, the customer is taking on the obligation to comply with current WEEE regulations.

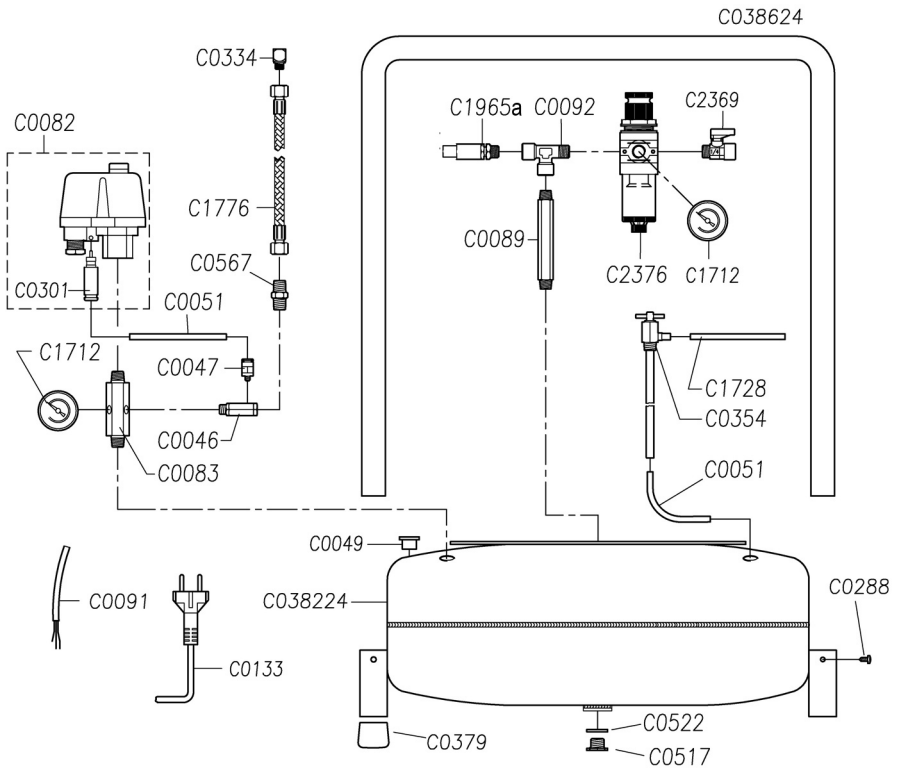
This means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

This product contains valuable raw materials. Metal products should be taken to your local civic amenity site for recycling of metal products.

# PARTS DIAGRAM



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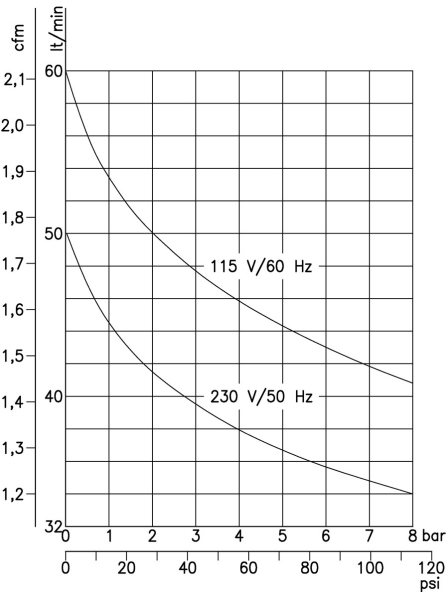
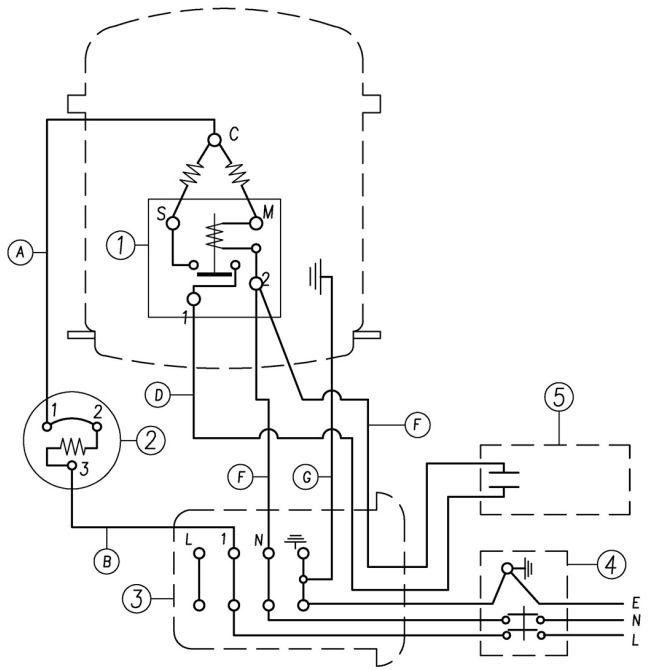


## COMPONENT PARTS LIST

NO	DESCRIPTION
C0037	Screw TCEI 6X20
C0106	Spacer T21
C0109	Capacitor Bracket
C0111	Overload Protector T2134A (230V)
C0112	Start Relay T21 (230V)
C0113	Screw
C3078	Cylinder Gasket
C3076	Valve Plate T21 with Valve
C0117	Head Gasket
C0118	Oil Plug 3/8+O Ring
C0126	Rubber Grommet T21
C0220	Kit Terminal Box T21 (230V)
C3077	Intake Valve
C3079	Valve Plate Set (from s/n 18E)
C048178	Rubber Head
C0513	Nut with Washer
C0567	Nipple 1/8"
C1099	Oil Level Glass 1/2"
C1205	O Ring 4700
C1235	Valve Plate Set (until s/n 17s)
C1794	Kit - Intake Filter
C2083	Capacitor
C0046	Non Return Valve M-F 1/8"
C0047	Quick Coupling M5X?6
C0051	Rylsan Hose ?4/6
C0077	Swivel Connector M1/4

C0082	Pressure 1 WAY
C0083	Connection M 1/4 L=80
C0089	Nipple 1/4" L=95
C0091	Electric Cable MM 500
C0092	"T" Connection F-F-F 1/4"
C0133	240v Cable 3X0.75 L.2500
C0164	Filter Regulator
C0288	KTC Screw
C0301	Exhaust Valve
C0334	"Distribution Frame "L" M-F 1/8 CH13"
C0354	Draincock M 1/4 90
C0379	Tank Foot
C038244	Tank
C038624	Handle
C0387	Plug M1/4" TCEI
C0517	Plug M1
C0522	Aluminium Washer 1"
C0567	Nipple 1/8"
C1712	Gauge D40 1/8 0-12 BAR
C0582	Black Rubber Support D20
C1728	Hose
C1776	Flex Pipe
C1965a	Pressure Relief Valve
C2369	Outlet tap
C0046	Non Return Valve M-F 1/8"

# WIRING DIAGRAM & FLOW CHART





# A SELECTION FROM THE VAST RANGE OF

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