

CLARKE®

PUMP



870W GRINDER/SLURRY PUMP

MODEL NO: CGP870

PART NO: 7230291

OPERATION & MAINTENANCE INSTRUCTIONS

UK
CA | CE



ORIGINAL INSTRUCTIONS

GC08/22

INTRODUCTION

Thank you for purchasing this CLARKE submersible pump designed for pumping/grinding waste water containing light slurry or sewage.

The CLARKE range of submersible pumps are suitable for discharging pools, ponds, fountains, pits and any waste water drainage. They can handle foul water containing suspended material as listed in the specification. The pumps are not suitable for handling inflammable, corrosive, explosive or dangerous liquids.

The 'Pump Performance Curve' graph shown, displays the characteristics graphically and describes the relation between the flow-rate and the head for the pump.

The pump is provided with a thermal overload cut-out, so that in the event that the pump becomes overheated (due to becoming blocked etc) it will shut off automatically. When the blockage has been cleared, the thermal cutout will cool down and re-set and the pump can be re-started.

Before attempting to use this product, 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.

SPECIFICATIONS

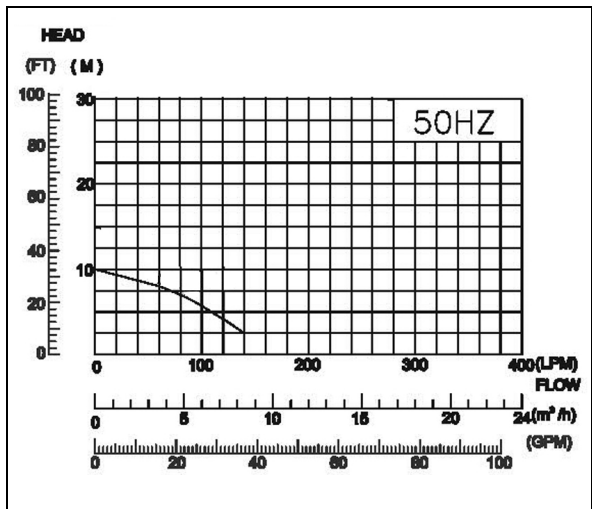
Voltage	230V~50Hz
Outlet Thread Diameter	1¼" BSP
Power	870W
Ingress protection rating	IP68
Maximum Head Height	10 m
Maximum Depth	8 m
Maximum Flow	140 L/min
Minimum pick up water depth	50mm
Maximum Operating Temperature	40°C
Weight	15 kg
Cable Length	10 m
Dimensions (D x W x H)	215 x 170 x 305 mm

OVERVIEW & FEATURES



1. Water inlet screen
2. Power cable with plug
3. Outlet hose adaptor
4. Lifting handle

Pump Performance curve



SAFETY PRECAUTIONS

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 the pump. Distractions can cause loss of control.
3. Remember, the operator or user is responsible for accidents or hazards occurring to other people or their property.

PERSONAL SAFETY

1. ALWAYS stay alert, watch what you are doing and use common sense when operating this pump. Do not install the pump while you are tired or under the influence of medication, drugs or alcohol. A moment of inattention can result in personal injury.
2. DO NOT over-reach. Keep your proper footing and balance at all times when positioning the pump.
3. NEVER direct the water discharge towards electrical wiring or equipment.
4. ALWAYS store the pump out of reach of children and do not allow persons unfamiliar with these instructions to operate it.
5. NEVER direct the discharge flow towards another person.
6. ALWAYS thoroughly familiarise yourself with this pump & its operation and follow all instructions in this manual.
7. ALWAYS ensure that the pump is properly positioned where necessary to prevent it from moving during operation, and that the immediate area surrounding the pump is kept clear.

GENERAL USE AND CARE OF THE PUMP

1. An approved Residual Current Device (RCD) must be used when pumping from ponds or swimming pools.
2. ALWAYS lift the pump using the handle and use a rope or chain attached if necessary to lower it into the water. NEVER lift or carry the pump by the power cable.
3. NEVER use this pump if any part is damaged. ALWAYS check the plug, mains cable for damage before use. Have any damage inspected and repaired by your local CLARKE dealer.

4. ALWAYS use an approved cable extension suitable for the power rating of the pump (see specifications). The conductor size should also be at least the same size as that on the pump, or larger. When using a cable reel, always unwind the cable completely.
5. ALWAYS maintain the pump with care and keep it clean.
6. NEVER use for pumping flammable liquids or corrosive chemicals. These pumps are designed to pump water only.
7. NEVER abuse the electrical cable. Never use the cable for pulling or unplugging the pump. Damaged or tangled cables increase the risk of electric shock.
8. NEVER run the pump dry. Ensure the pump is immersed in water before starting. Switch the pump off immediately when the task is completed
9. NEVER pump water from a swimming pool when there is a person or animal still in the pool.
10. NEVER install the pump on sand, silt or mud which is likely to shift or collapse.
11. NEVER modify the pump in any way. Use it only for the purpose for which it is designed.
12. NEVER allow the pump to run dry or operate out of the water.
13. Submersible pumps should always be submerged and stored vertically.
14. Disconnect the pump from the mains supply before placing it into or removing it from the water.
15. NEVER insert your fingers into the pump whilst it is connected to the mains.
16. Keep the pump clear of any sediment by standing it on a platform or brick or suspending it at a suitable depth.
17. DO NOT use the pump if the water is liable to freeze, as this can cause damage to the pump. Remove the pump from the water and store it in a frost free location.

SERVICING & REPAIRS

1. ALWAYS have the pump serviced by your local CLARKE dealer, using only identical replacement parts. This will ensure the safety of the pump is maintained. The use of non standard parts could be hazardous.
2. NEVER attempt any repairs yourself unless suitable qualified. If you have a problem with the pump contact your local CLARKE dealer.
3. ALWAYS disconnect the pump from the electrical supply before placing it into, or removing from the water, and before any cleaning or maintenance.

4. If the power cable becomes damaged, it must be replaced rather than repaired.
5. Your CLARKE water pump has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local CLARKE dealer.

ENVIRONMENTAL RECYCLING POLICY



Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, 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. Recycle unwanted materials instead of disposing of them as waste. All unwanted accessories and packaging should be sorted and taken to a recycling centre for disposal in a manner which is compatible with the environment.

ELECTRICAL CONNECTIONS




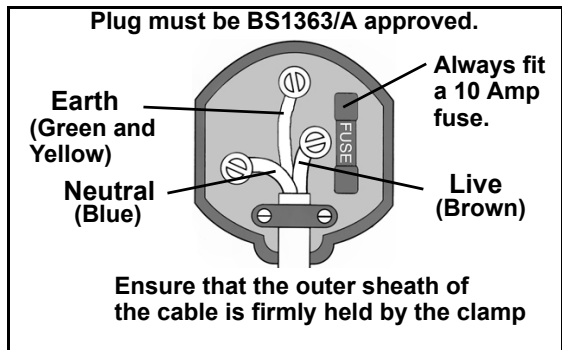
WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.

Connect the mains lead to a standard, 230 Volt (50Hz) electrical supply through an approved 13 amp BS 1363 plug, or a suitably fused isolator switch.

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

If the colours of the wires in the power cable do not agree with the markings on the 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.



AN APPROVED RESIDUAL CURRENT DEVICE (RCD) WHICH HAS A TRIPPING CURRENT OF LESS THAN 30MA MUST BE USED.

If you are not sure, consult a qualified electrician. DO NOT try to do any repairs.

CONNECTION AND POSITIONING

Remove all packaging and make sure that the unit contains no visible damage. Dispose of all packaging appropriately.

CONNECTING THE PUMP

1. Connect the outlet adaptor to the hose.
 - The adaptor fitting allows for connection of 32 mm (1 ¼"), hoses which should be secured with a hose clamp.
2. If a long run of discharge hose is being used, any restriction will reduce capacity and put unnecessary strain on the motor
 - Suitable hoses are available from your local CLARKE dealer.

POSITIONING THE PUMP

1. It may be safer to raise and lower the pump into deep water using a rope attached to the lifting handle.
2. Place the pump in a vertical position resting on a firm, flat surface in the area that you want to drain. If there is sediment in the operating area, the pump should be placed vertically on house bricks, or similar but ensure they are not likely to collapse. Never position the pump on sand, silt, mud or ground which is likely to collapse.
3. Keep the pump clear of sediment by standing it on a platform or brick or suspending from a rope attached to the handle if the pump is to be used where there may be silt or mud etc (e.g. garden ponds).
4. Route the hose as straight as possible. Excessive bending of the hose could obstruct the flow of water, reduce the pumping volume or clog the pump with mud, thus disabling the pumps function. If the hose is kinked at its base it will create air pockets in the pump, causing it to operate in a partially dry state. Take care to straighten any kinks or bends in the hose.
5. DO NOT operate the pump if the water is too shallow. This will be below the level of the outlet elbow with the impeller fully immersed.
6. Allowance must also be made for the overall width of the pump including the outlet elbow on one side.
 - When the pump is being used in a permanent or semi-permanent installation, a non-return valve should be fitted in the delivery hose. Suitable hoses and valves are available from your CLARKE dealer.
 - Take all necessary safety precautions as described on pages 4-6.
 - The pump inlet must be fully submerged before being switched on.

USING THE PUMP



WARNING: CHECK THE PUMP FOR DAMAGE BEFORE USE, DO NOT USE THE PUMP IF IT IS DAMAGED IN ANY WAY.

1. Plug in the pump and switch on the power supply.
 - The pump will begin to drain water.
2. Run the pump continuously or remove from the water and store in a frost free location if the water is likely to freeze.
3. Ensure the pump is switched off when water has stopped flowing.
 - The pump should be able to clear water down to a residual depth of the inlet port, In this situation, air and residual water may be seen escaping from the discharge hose.
4. Disconnect from the power supply when the water has been pumped out. Avoid running the pump continuously if the discharge hose has become obstructed and water is not flowing.
5. DO NOT ALLOW THE PUMP TO RUN DRY
6. Disconnect the pump from the mains supply before placing it into or removing it from the water.
7. NEVER insert your fingers into the pump whilst it is connected to the mains.
8. DO NOT use the pump if the water is liable to freeze, as this can cause damage to the pump. Remove the pump from the water and store it in a frost free location.

OVERLOAD PROTECTION

These pumps are fitted with automatic thermal overload protection.

If the pump overheats due to an obstruction in the pump, or pumping warm water for example, it will shut off automatically.

Switch the pump OFF at the mains supply. Check for blockages and allow the motor to cool (at least 5 minutes) by which time the cut-out will have reset.

Once the pump has cooled the pump will automatically restart.

CLEANING, MAINTENANCE & STORAGE



WARNING: MAKE SURE THAT THE PUMP IS DISCONNECTED FROM THE POWER SUPPLY BEFORE CLEANING OR PERFORMING MAINTENANCE

The pump should require no maintenance other than regular cleaning.

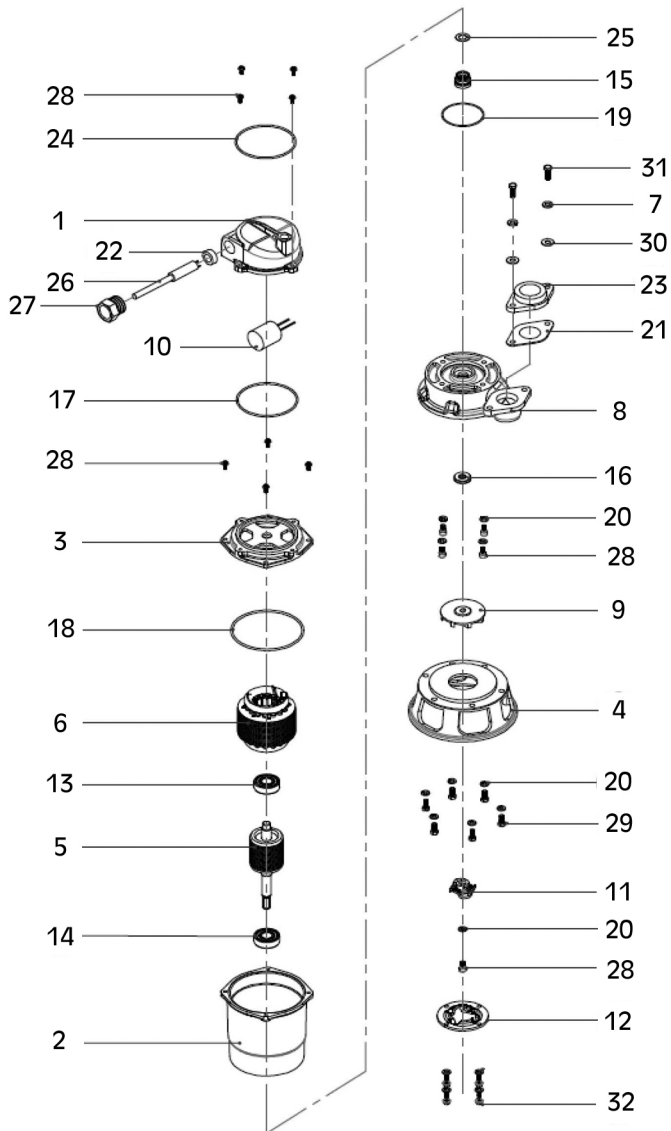
1. Inspect the pump prior to use and do not use the pump if there is any damage to the mains power cable.
2. Check pump regularly to ensure the inlet is clear of leaves or other debris. It can be cleaned out either by back-flushing or by cleaning out by hand. Take extra care to remove any debris from around the impeller.
3. If the pump has been used for pumping swimming pool water or salty water likely to leave chemical residues, it should be flushed through with clean water before storage.
4. When the pump is not being used for extended periods, clean and dry it thoroughly and store in indoors. If the pump is left in water, it should be run at least once a week to prevent it from seizing up.
5. If the pump shows signs of wear or damage, contact your CLARKE dealer for advice. Do not attempt to repair the pump yourself, as you may damage the waterproof seals and invalidate your guarantee. Repairs should be carried out by your local CLARKE dealer, or contact the CLARKE Service Department on 020 8988 7400.

TROUBLESHOOTING

PROBLEM	CAUSE AND REMEDY
PUMP WILL NOT START	<ol style="list-style-type: none"> 1. Make sure that the power is switched on. 2. Check fuse (consult an electrician if in doubt). 3. If extension lead is fitted, check connections (consult an electrician if in doubt). 4. Internal thermal cut-out has not re-set. Leave for 5-10 minutes and try again. 5. The impeller may be jammed. Disconnect from the mains supply and remove any objects that may be obstructing the impeller. 6. If the pump still fails to start, consult your CLARKE dealer.
PUMP WILL START BUT NOT PUMP	<ol style="list-style-type: none"> 1. Check that the inlet is not blocked. 2. Check that the discharge tube is not clogged or obstructed. 3. The head may be too great, i.e. you are trying to lift the water too great a distance for the pump to cope with. 4. Air bubbles in the pump, produced during immersion. Immerse the pump again, at an angle, and shake it whilst lowering to remove any air trapped in the system. 5. Impeller may be damaged - Consult your CLARKE dealer.
PUMP STOPS RUNNING	<ol style="list-style-type: none"> 1. Thermal overload has operated. Leave for 5-10 minutes and try again. 2. A foreign object has jammed the impeller.

If this does not solve your problem, please contact the Clarke service department.

COMPONENT PARTS





COMPONENT PARTS

1	Motor cover
2	Motor housing
3	Bearing cover
4	Strainer base
5	Rotor and shaft
6	Stator and coil
7	Flat washer
8	Pump housing
9	Impeller
10	Capacitor
11	Cutter
12	Cutter ring
13	Bearing
14	Bearing
15	Mechanical seal
16	Oil seal

17	O-ring
18	O-ring
19	O-ring
20	Washer
21	Gasket
22	Gasket
23	Outlet connector
24	Handle ring
25	Washer
26	Power cable
27	Threaded connector
28	Screw
29	Screw
30	Spring washer
31	Bolt
32	Bolt

USEFUL ACCESSORIES FROM THE CLARKE CATALOGUE

Hoses	Hose Clips
	
<ul style="list-style-type: none"> Available in 100 metre coils or per meter. 	<ul style="list-style-type: none"> Zinc plated for corrosion resistance.

Hoses, clips and other items are available from your CLARKE dealer.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required 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.

DECLARATIONS OF CONFORMITY



Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

2014/50/EU Electromagnetic Compatibility Directive
 2006/42/EC Machinery Directive
 2011/65/EU Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive

The following standards have been applied to the product(s):

EN IEC 55074-1:2021, EN IEC 55014-2:2021, EN IEC 61000-3-2:2019+A1, EN 61000-3-3:2013+A1,
 EN 61000-6-2:2005, EN 61000-6-4:2007/A1:2011, IEC 60335-2-41:2012, IEC 60335-1:2010+A1+A2,
 EN 809:1998+A1:2009/AC:2010, EN ISO 12100:2010, EN 60204-1:2018, EN 12162:2001+A1:2009,
 IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015,
 IEC 62321-7-2:2017, IEC 62321-8:2017

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2022

Product Description: 870W Grinder Pump
 Model number(s): CGP870
 Serial / batch Number: N/A
 Date of issue: 06/06/2022

Signed:

J.A. Clarke
 Director

CGP870 CE Clarke DOC 08832

Page 1 of 1



Hemhill Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following statutory requirement(s):

Electromagnetic Compatibility Regulations 2016
 Supply of Machinery (Safety) Regulations 2008
 The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

The following standards have been applied to the product(s):

EN IEC 55074-1:2021, EN IEC 55014-2:2021, EN IEC 61000-3-2:2019+A1, EN 61000-3-3:2013+A1,
 EN 61000-6-2:2005, EN 61000-6-4:2007/A1:2011, IEC 60335-2-41:2012, IEC 60335-1:2010+A1+A2,
 EN 809:1998+A1:2009/AC:2010, EN ISO 12100:2010, EN 60204-1:2018, EN 12162:2001+A1:2009,
 IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015,
 IEC 62321-7-2:2017, IEC 62321-8:2017

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The UKCA mark was first applied in: 2022

Product Description: 870W Grinder Pump
 Model number(s): CGP870
 Serial / batch Number: N/A
 Date of issue: 06/06/2022

Signed:

J.A. Clarke
 Director

CGP870 UKCA Clarke DOC 08832

Page 1 of 1

A SELECTION FROM THE VAST RANGE OF

Clarke®

QUALITY PRODUCTS



AIR COMPRESSORS

From DIY to industrial, Plus air tools, spray guns and accessories.

GENERATORS

Prime duty or emergency standby for business, home and leisure.

POWER WASHERS

Hot and cold, electric and engine driven - we have what you need

WELDERS

Mig, Arc, Tig and Spot. From DIY to auto/industrial.

METALWORKING

Drills, grinders and saws for DIY and professional use.

WOODWORKING

Saws, sanders, lathes, mortisers and dust extraction.

HYDRAULICS

Cranes, body repair kits, transmission jacks for all types of workshop use.

WATER PUMPS

Submersible, electric and engine driven for DIY, agriculture and industry.

POWER TOOLS

Angle grinders, cordless drill sets, saws and sanders.

STARTERS/CHARGERS

All sizes for car and commercial use.

PARTS & SERVICE:

0208 988 7400

Parts Enquiries

Parts@clarkeinternational.com

Servicing & Technical Enquiries

Service@clarkeinternational.com

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

Clarke INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG
www.clarkeinternational.com