

Clarke®

PUMP



SUBMERSIBLE PUMPS

MODEL NO: HSE RANGE

PART NO: SEE TABLE PAGE 13

OPERATION & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC0921 - rev 9

INTRODUCTION

Thank you for purchasing this CLARKE heavy duty submersible pump.

Before attempting to use the pump, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to the submersible pump giving you long and satisfactory service.

Please keep these instructions in a safe place for future reference.

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.

SAFETY INSTRUCTIONS

GENERAL

1. Read all instructions before use and save these instructions for future use.
2. An approved residual current device (RCD) which has a tripping current of less than 30mA **MUST** be used for all operations.
3. The electrical supply must be the same as that on the rating plate.
4. Always make sure that your hands are dry when connecting or disconnecting from the mains supply.
5. Never pull the mains lead to disconnect the pump from the mains socket.
6. The mains plug must be kept away from the water at all times.
7. Do not allow children or unauthorised people to touch the pump, cables or connections.
8. Disconnect the pump from the mains supply when not in use.
9. If necessary have the pump repaired by a qualified person.
10. Keep the mains lead away from heat, oil and sharp edges.
11. If you have to use an extension lead with this product, it must be designed for outdoor use and incorporate a cable suitable for use with Class I appliances.
12. Disconnect the pump from the electrical supply and wear gloves during servicing or maintenance.

PUMP SPECIFIC

1. Do not pump explosive / flammable liquids or chemicals.
2. Never allow the pump to run dry or operate out of the water.
3. Submersible pumps should always be submerged and stored vertically.
4. Disconnect the pump from the mains supply before placing it into or removing it from the water.
5. Always check the plug, and all cables for damage before use.
6. Do not use the pump if damaged. Refer to qualified service personnel for repair.
7. Never carry or lower the pump by the power cable or float switch always use the handle or a rope tied securely to the handle.
8. Never insert your fingers into the pump whilst it is connected to the mains.
9. Never use the submersible pump in a swimming pool when there are people or animals in the pool.
10. Keep the pump clear of any sediment by standing it on a platform or brick or suspending it at a suitable depth.
11. 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.

ELECTRICAL CONNECTIONS



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

Models EXCEPT HSE301A & 361A should have their mains lead connected to a standard 230 volt (50Hz) electrical supply through an approved plug or a suitably fused isolator switch. We recommend that these pumps be fitted with a Residual Current Device (RCD).

NOTE: This is mandatory when pump is used for pumping swimming pools.

Models HSE301 & 361 must be connected to a protected 110V supply, through a suitably approved connector. On no account must a 230V-13amp plug be used.

NOTE: If a portable 110V transformer is used, make sure it has a rated capacity sufficient to take the load of the pump.

In the event that the pump is hard-wired into the electrical system, it must be carried out in accordance with IEE regulations.

If used for draining swimming pools or ponds, the pump MUST be fitted with a Residual Current Device (RCD) with a rated residual operating current of no greater than 30mA.

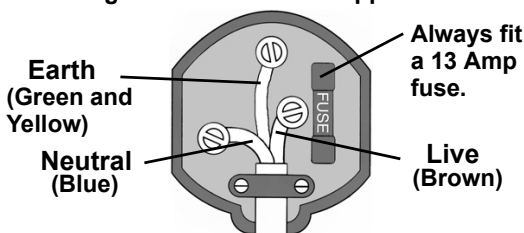


**WARNING: THE WIRES IN THE POWER CABLE OF THIS PRODUCT ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:
BLUE = NEUTRAL BROWN = LIVE YELLOW AND GREEN = EARTH**


As the colours of the flexible cable of this appliance may not correspond with the coloured markings identifying terminals in your plug proceed as follows:

- The BLUE wire must be connected to the terminal which is marked N or coloured black.
- The BROWN wire must be connected to the terminal which is marked L or coloured red.

Plug must be BS1363/A approved.



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

- The YELLOW AND GREEN wire must be connected to the terminal which is marked E  or coloured green.

The HSE301 & 361 must be connected to a protected 110V supply through a suitably approved connector. On no account must a 230V, 13amp plug be used.

NOTE: If a portable 110V transformer is used, make sure it has a rated capacity sufficient to take the load of the pump.

In the event that the pump is hard-wired into the electrical system, it must be carried out in accordance with IEE regulations.

FUSE RATING

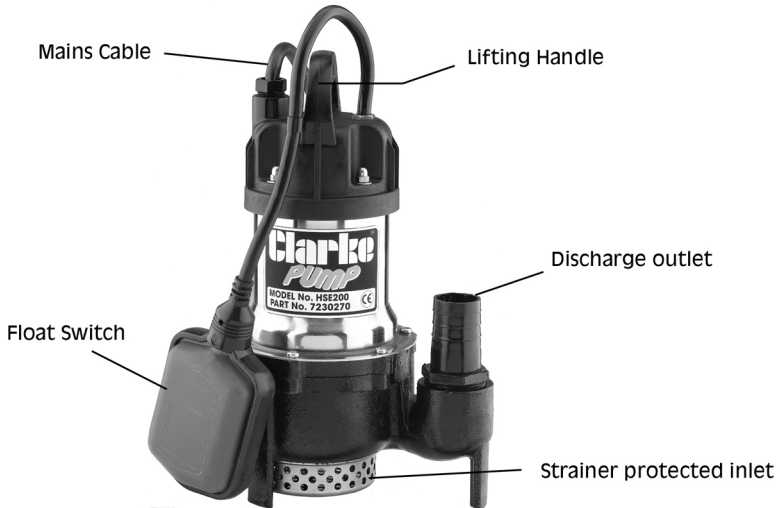
The fuse in the plug for this pump must be rated according to the Technical Specification.

If this product is fitted with a plug which is moulded onto the electrical cable (i.e. non-rewirable) please note:

1. The plug must be thrown away if it is cut from the cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
2. Never use the plug without the fuse cover fitted.
3. Replacement fuse covers can be obtained from your local dealer or most electrical outlets.
4. The fuse in the plug must be replaced with one of the same rating and this replacement must be ASTA approved to BS1362.

IMPORTANT: If in doubt, consult a qualified electrician.

OVERVIEW



The Clarke HSE range of submersible pumps are of rugged and durable construction, designed for long lasting continuous operation. They are suitable for discharging pools, ponds, fountains, pits and any waste water drainage. They can handle foul water containing sewage or other suspended material including sand up to a maximum of 3kg/m³ to an amount stated in the specifications for each model. They may be used for pumping water, (including seawater) or water containing small solids in suspension with particle sizes of up to 6-10mm in diameter, dependant upon the size of pump. The pumps are not suitable for handling inflammable, corrosive, explosive or dangerous liquids.

The range includes models 130, 200, 300/301 & 360/361 as itemised in the Technical Specification.

The HSE200 is fitted with a strainer to prevent the ingress of foreign matter.

Float switches are fitted to those models bearing an 'A' suffix, meaning the pump will stop and restart automatically as the surrounding water level changes. This makes them suitable for permanent or semi-permanent installations, eg. installations where it is necessary to maintain a water at a particular level without an operator in attendance.

As the water level rises, the switch will float and start the pump. As the water level falls, so will the float switch, until it stops the pump. Float switches are factory set to provide the correct ON-OFF switching mode.

- It is not recommended that these pumps be used for pumping drinking water, as there is a remote possibility of water contamination due to leakage of pump lubricant should the pump malfunction or the oil seal become damaged.

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

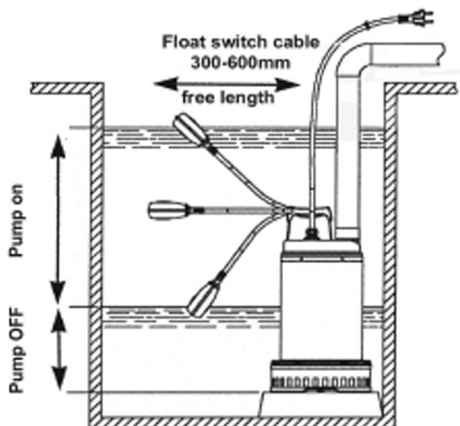
OPERATION

CONNECTION AND LOCATION

1. Place the pump in a vertical position resting on a firm, flat surface. If this is not available, sit the pump on timber or house bricks, but ensure they are not likely to collapse. Never install the pump on sand, silt, mud or ground that is likely to collapse.

Automatic versions should only be placed in a sump which is large enough not to restrict the movement of the float switch. It is advisable to use a strainer when using the pump as a sump pump.

2. Keep the pump clear of any 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).
3. Connect the outlet to the largest diameter hose available, as any restrictions will reduce capacity and put further strain on the motor. The outlet hose diameter for each HSE pump is given in the Technical Specification.



4. Ensure that the hose diameter is equal to or greater than the diameter of the pump outlet if a long run of discharge hose is being used.
5. Ensure the float has sufficient room to operate correctly if used in a confined space such as a shaft or sump.

NOTE: When the pump is being used in a permanent or semi-permanent installation, a check valve must be fitted in the delivery hose. Suitable hoses are available from your Clarke dealer.

USING THE PUMP

1. Take all necessary precautions as described on page 4 before plugging in the pump and switching ON. Where the pump is an automatic unit fitted with a float switch, the pump will only run where there is sufficient depth of water for the float to rise and activate the pump.

If the water is likely to freeze, the pump must be run continuously, otherwise the pump must be removed from the water and stored in a frost free location.

2. Never run the pump dry. Never run the pump with the body exposed for more than 10 minutes.
3. When the water has been pumped out, disconnect from the power supply. Avoid running the pump continuously.

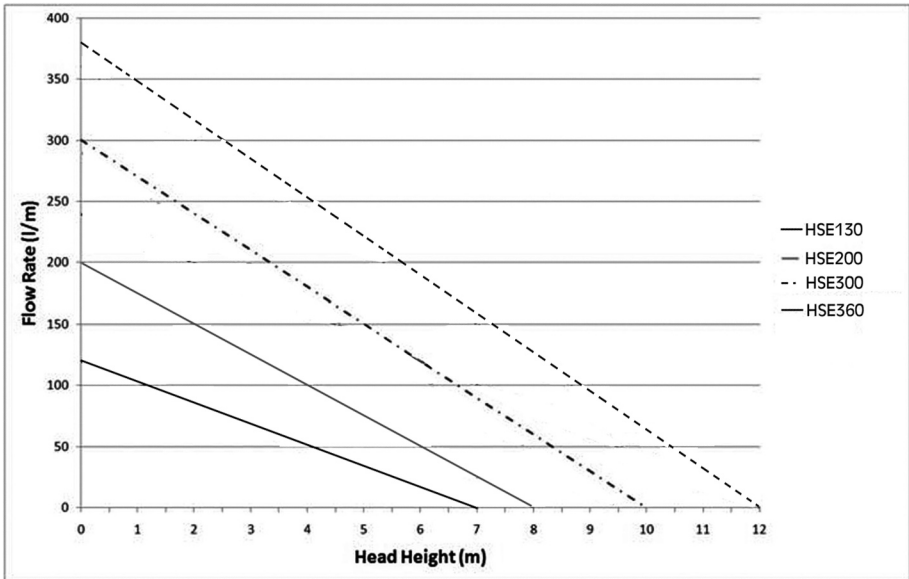
AUTOMATIC THERMAL OVERLOAD

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 and disconnect from the mains supply. Check for blockages and allow the motor to cool (at least 5 minutes) before attempting to restart, by which time the cut-out will have reset.

ACCESSORIES

A wide range of accessories is available from your nearest CLARKE dealer, for further information, contact your nearest dealer, or telephone CLARKE International Sales department on 01992 565300.

HSE SERIES PUMP PERFORMANCE



CLEANING & MAINTENANCE



WARNING: MAKE SURE THAT THE PUMP IS DISCONNECTED FROM THE MAINS SUPPLY BEFORE CLEANING, OR PERFORMING ANY MAINTENANCE.

This pump should require no maintenance other than regular cleaning. If the pump starts to show signs of wear or damage, contact your CLARKE dealer for advice.

Do not use the pump if there is any damage to the mains power cable, or to the float switch or it's connecting cable.

Check pump installation regularly to ensure the base inlet is clear of leaves or other debris.

Do not attempt to repair the pump yourself, as you may damage the waterproof seal and invalidate your guarantee. Repairs must be carried out by your CLARKE dealer, or contact the CLARKE Service Department on 020 8988 7400.

If using this pump to empty a garden pond, please note that there is a small quantity of oil in the pump seal. If the pump or seal is damaged, possibly caused by running the pump dry, oil may leak out, and appear as a film on the surface of the water. The oil must be cleared to prevent any possible harm to pond life. Disconnect the pump from the electrical supply, remove it from the pond and clear the oil, then contact your CLARKE dealer for advice.

STORAGE

When the pump is not being used for extended periods, clean and dry it thoroughly and store it indoors. If the pump is left in water, it must be run at least once a week to prevent it from seizing up.

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.

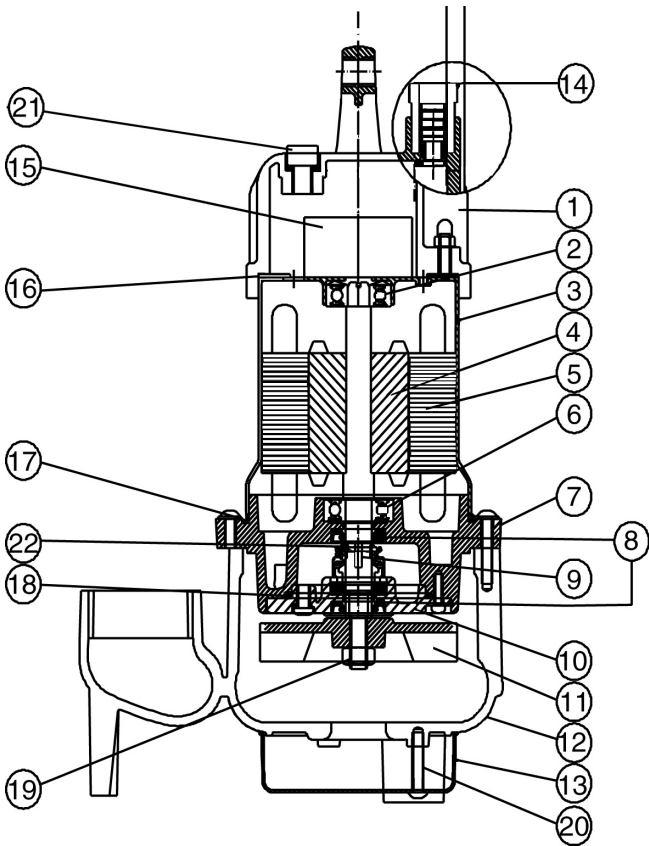
In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

FAULTFINDING

PROBLEM	SOLUTION
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. Float switch may be jammed against side wall, or prevented from moving. 7. Water level too low - float switch in OFF position - lift float to check switch. 8. If the pump still fails to start, consult your CLARKE dealer for advice.
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 bubble in the pump, produced during the plunge. Plunge 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 WILL NOT STOP	<ol style="list-style-type: none"> 1. Float switch may be prevented from moving to the fully down position. 2. Float switch may be faulty. Consult your CLARKE dealer for advice.
PUMP STOPS RUNNING	<ol style="list-style-type: none"> 1. Thermal overload has operated. Leave for 5-10 minutes and try again. 2. Pump has run dry, or float switch has cut in. 3. A foreign object has jammed the impeller.

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

PARTS DIAGRAM



1	Top cover
2	Upper Bearing
3	Motor Housing
4	Shaft
5	Stator
6	Lower Bearing
7	Seal Plate
8	Oil Seal
9	Mechanical Seal
10	Seal Cover
11	Impeller

	Pump Casing
	Strainer
14	Power Cable
15	Capacitor
16	Cap Packing
17	O-ring
18	O-ring
19	Nut
20	Setting Screw
21	Screw-in Plug
22	Retaining Ring

TECHNICAL SPECIFICATIONS

Model	HSE130 HSE130A	HSE200A	HSE300 HSE300A HSE301A	HSE360 HSE360A HSE361A
CLARKE part no	7230215 7230217	7230270	7230255 7230260 7230265	7230275 7230280 7230285
Outlet Dia (mm/inches)	32 / 1-1/4"	38 / 1-1/2"	50 / 2"	50 / 2"
Motor Voltage	230V/50hz	230V/50hz	230V/50hz 110V/50hz *	230V/50hz 110V/50hz *
Motor Wattage@ max flowrate	283	420	720	960
Fuse Rating (amps)	5	5	13	13
Cable length (m)	10	10	10	10
IP Rating	IP68	IP68	IP68	IP68
Max. Head (m)	7	8	10	12
Max.Flow Rate (L/min)	140	200	300	360
Dimensions LxWxH (mm)	305x188x133	197x135x314	225x141x350	225x141x365
Weight (kg)	7	8.1	12	12
Maximum Depth (m)	10	10	10	10

*** 301A & 361A model only**

DECLARATION OF CONFORMITY-UK



Clarke[®]
INTERNATIONAL

Hemnoll 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

Electrical Equipment (Safety) Regulations 2016

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 61000-6-2:2005, EN 61000-6-4:2007+A1:2011, EN ISO 12100:2010,

EN 809:1998+A1:2000+AC:2010, EN 12162:2001+A1:2009, EN 60204-1:2018,

IEC 62321-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-2:2013,

IEC 62321-6:2015, IEC 62321-8:2017, IEC 62321-3-1:2013, IEC 62321-7-1:2015,

IEC 62321-7-2:2017, IEC 62321-1-4:2013+A1:2017

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: 2021

Product Description: Submersible Water Pump with and without float switch
Model number(s): HSE130/A, 200A, 300/A, 301A, 360/A, 361A
Serial / batch Number: N/A
Date of Issue: 14/09/2021

Signed:

J.A. Clarke
Director

DECLARATION OF CONFORMITY-EU



Clarke[®]
INTERNATIONAL

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):

2014/30/EU *Electromagnetic Compatibility Directive.*
2006/42/EC *Machinery Directive.*
2014/35/EU *Low Voltage Equipment Directive.*
2011/65/EU *Restriction of Hazardous substances.*

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

*EN 61000-6-2:2005, EN 61000-6-4:2007+A1:2011, EN ISO 12100:2010,
EN 809:1998+A1:2000+AC:2010, EN 12162:2001+A1:2009, EN 60204-1:2018,
IEC 62321-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-2:2013,
IEC 62321-6:2015, IEC 62321-8:2017, IEC 62321-3-1:2013, IEC 62321-7-1:2015,
IEC 62321-7-2:2017, IEC 62321-1-4:2013+A1:2017*

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: 2006

Product Description: Submersible Water Pump with and without float switch
Model number(s): HSE130/A, 200A, 300/A, 301A, 360/A, 361A
Serial / batch Number: N/A
Date of Issue: 14/09/2021

Signed:

J.A. Clarke
Director

A SELECTION FROM THE VAST RANGE OF

Clarke®

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

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STARTERS/CHARGERS

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PARTS & SERVICE: 0208 988 7400

Parts Enquiries
Parts@clarkeinternational.com

Servicing & Technical Enquiries
Service@clarkeinternational.com

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