

Clarke®



HD SUBMERSIBLE CUTTER PUMPS
MODEL NO: HSEC650A/651A/1400A
PART NO: 7230290/7230295/7230243

OPERATION & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC0921 - rev 2

INTRODUCTION

Thank you for purchasing this CLARKE heavy duty submersible pump.

The pump is fitted with a tungsten carbide cutter, and is especially suited for heavily polluted water containing waste solids, such as sewage, light slurry etc.

This pump is NOT designed for pumping heavy slurry, sludge, mud, salt water, or any water containing chemicals or other acidic contaminants. It is also not suitable for single chamber septic tanks.

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.

SPECIFICATIONS

	HSEC650A	HSEC651A	HSEC1400A
Part Number	7230290	7230295	7230243
Outlet Diameter	2" BSP (inc 2" BSP to 50 mm Hose Adaptor)		
Voltage	230V/50hz	110V/50Hz*	230V/50hz
Motor Wattage@ max flowrate	665W	665W	1400W
Fuse Rating (amps)	13		13A
Cable length (m)	10		
IP Rating	IP68		
Max. Head (m)	9.5m	9.5m	13M
Dimensions (D x W x H) mm	240 x 180 x 420	240 x 180 x 420	228 x 305 x 478
Weight	17kg		29.85 kg
Maximum Depth	5m		6m

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.

We recommend that these pumps **MUST** be fitted with a Residual Current Device (RCD), with a rated residual operating current of no greater than 30mA. This is mandatory when pump is used for pumping swimming pools

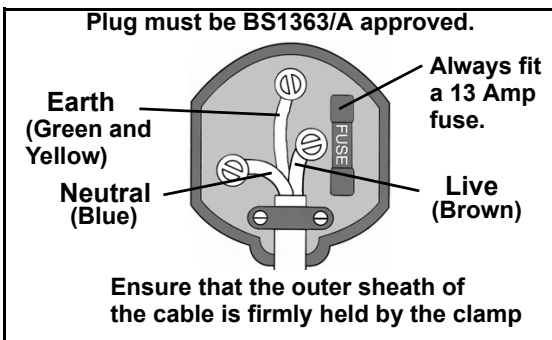
The HSEC650A and 1400A should have the mains lead connected to a standard 230 volt (50Hz) electrical supply through an approved plug or a suitably fused isolator switch.



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



The HSEC651A 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.

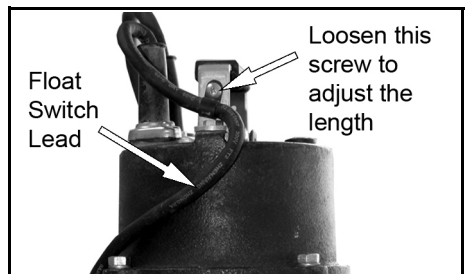
USING THE PUMP



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

WARNING: THE WATER BEING PUMPED WILL BE POLLUTED IF THIS PUMP BECOMES DAMAGED AND LUBRICANT WITHIN THE PUMP ESCAPES.

- Using the adaptor if required, connect a suitable hose (not supplied) to the pump outlet.
 - Suitable hoses are available from your local Clarke dealer.
- Place the pump vertically on a flat surface in the area that you want to drain.
 - If there is sediment in the area, place the pump on house bricks, or similar.
 - Ensure the pump is positioned with adequate space so that the movement of the float switch is not restricted - recommended minimum area of 50 x 50 cm.
 - ALWAYS raise and lower the pump using a rope attached to the lifting handle.
 - Take all necessary precautions as described on page 3.
 - The pump inlet must be fully submerged before the pump is switched on.
- Connect the mains plug to a high sensitivity residual current device (RCD) which has a tripping current of less than 30mA.
- Switch the mains power supply on.
 - The pump will begin to drain water.
 - As the water level falls, so will the float switch, until it stops the pump.
 - You can adjust the position at which the float switch lead is held to the pump. Adjusting the length of the float switch lead will change the depth of water at which the pump will turn on or off.



5. When the pumping is finished, disconnect the pump from the mains power supply.



CAUTION: DO NOT ALLOW THE PUMP TO RUN DRY

OVERLOAD SWITCH

These pumps are fitted with a thermal overload switch. If the pump overheats for any reason, it will automatically switch the pump OFF. Once the pump has cooled (at least 5-10 minutes), it will automatically restart.

MAINTENANCE



WARNING: BEFORE CHECKING THE CONDITION OF THE PUMP, ENSURE IT IS UNPLUGGED FROM THE MAINS SUPPLY. IF THE UNIT IS HARD WIRED, ENSURE THE CIRCUIT BREAKER IS OPEN.

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.

CLEANING

1. Check the pump installation regularly to ensure the water inlet is clear of leaves or other debris.
2. Take extra care to remove any debris from around the impeller.

NOTE: Do not attempt to repair the pump yourself. Repairs must be carried out by your CLARKE dealer, or contact the CLARKE Service Dept.

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.

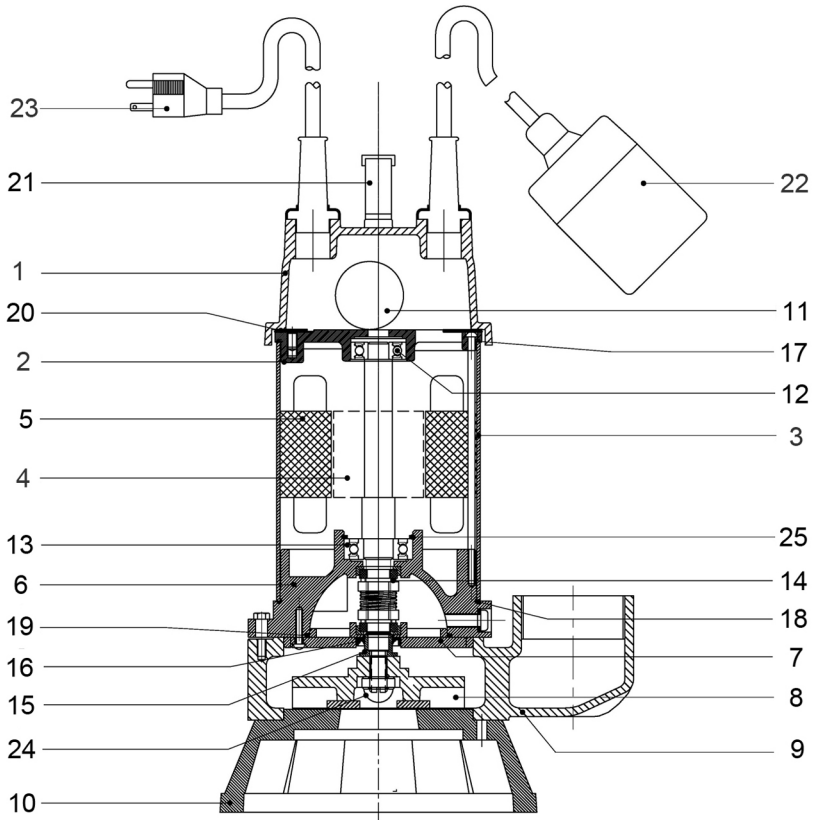
In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

TROUBLESHOOTING

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.

COMPONENT PARTS HSEC650A/651A

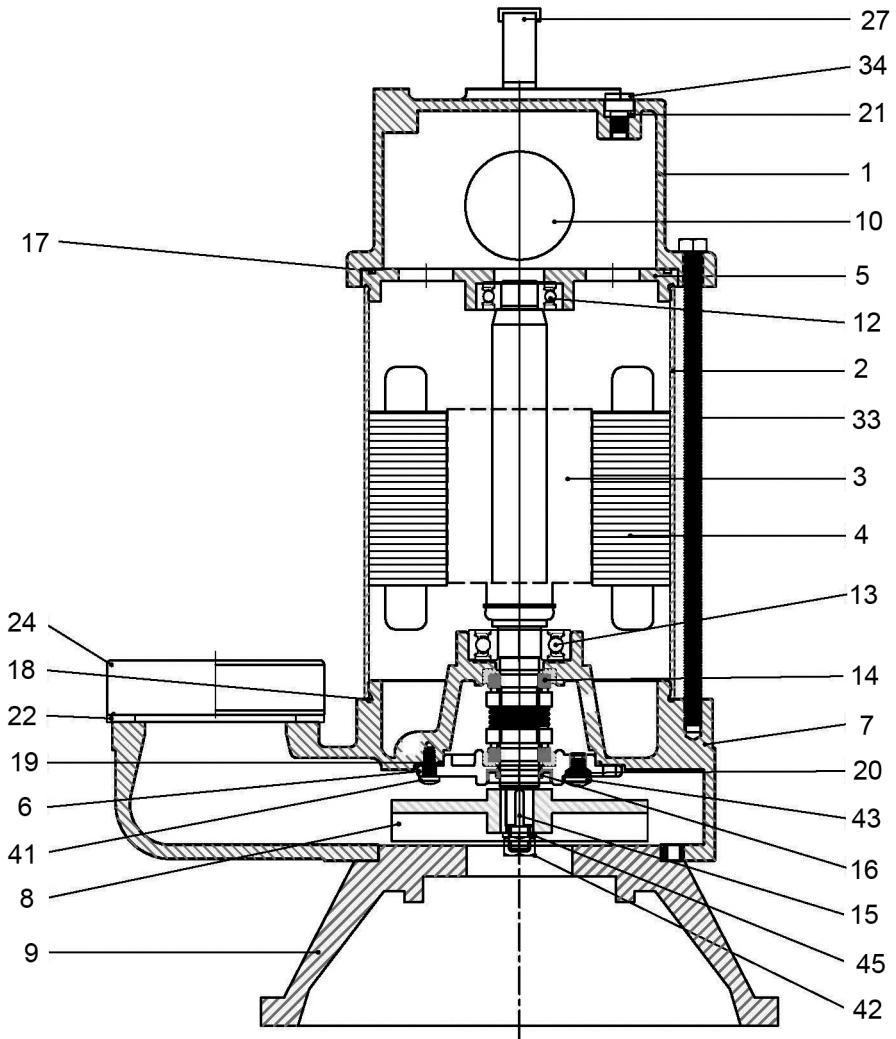


COMPONENT PARTS HSEC650A/651A

1	Upper Cover
2	Top Bearing Cover
3	Motor Housing
4	Rotor
5	Stator
6	Seal Cover
7	Seal Plate
8	Impeller
9	Pump Casing
10	Strainer
11	Capacitor
12	Top Bearings
13	Lower Bearing

14	Double Mech Seal
15	Sleeve
16	Oil Seal
17	O-Ring
18	O-Ring
19	O-Ring
20	Packing
21	Handle
22	Float Switch
23	Power Cable
24	Nut
25	Lock Ring

COMPONENT PARTS HSEC1400A



COMPONENT PARTS HSEC1400A

No	Description
1	Motor Cover
2	Motor Housing
3	Rotor
4	Stator (240V/50HZ)
5	Bearing Cover
6	Oil Seal Cover
7	Pump Housing
8	Cutter Impeller (50HZ)
9	Strainer
10	Capacitor
12	Upper Bearing
13	Lower Bearing
14	Double Mechanical Seals
15	Key
16	Oil Seal
17	O-ring (Motor/Bearing Cover)
18	O-ring (Pump Housing)
19	O-ring (Oil Seal Cover)
20	O-ring (Oil Hole)
21	Gasket (Leak Test Hole)
22	Gasket (Flange)

No	Description
23	Gasket (Cable)
24	Outlet Flange
25	Hose tail (not shown)
27	Handle
28	Float Switch Assy (not shown)
29	Power Cable(not shown)
30	n/a
31	n/a
32	n/a
33	Body Tie Rod 5/16" dia
34	Cable Fastener (not shown)
35	M8 Screw
36	Screws (Cable)(not shown)
37	Screws (Motor Housing) (not shown)
40	Screw (not shown)
41	Screw
42	Impeller retaining nut
43	M8 screw
44	n/a
45	Spring Washer

Part number = (HGHE14 + the number of the part)

DECLARATIONS OF CONFORMITY-HSEC650A



Fitzwilliam Hill, 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):

- 2004/108/EC Electromagnetic Compatibility Directive
- 2006/42/EC Machinery Directive
- 2006/95/EC Low Voltage Equipment Directive
- 2011/65/EU Restriction of Hazardous substances

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

- EN 60204-1:2018, EN 899-1998+A1:2009+AC:2010, EN12162:2001+A1:2009, EN ISO 12100:2010, EN 61000-6-2:2005, EN61000-6-4:2007+A1:2011, IEC 62321-2:2013, IEC 62321-1:2013, IEC 62321-3-1:2013, IEC 62321-5:2013, IEC 62321-4:2013+A1:2017, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-6:2015, IEC 62321-8:2017 ISO 17075-1:2017.

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: 2011

Product Description: Submersible Sewage Cutter Pump
Model number(s): HSEC650A
Serial / batch Number: N/A
Date of issue: 15/09/2021

Signed:

J.A. Clarke
Director

HSEC650A CE Clarke DOC 091521

Page 1 of 1



Hemmill 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 60204-1:2018, EN 899-1998+A1:2009+AC:2010, EN12162:2001+A1:2009, EN ISO 12100:2010, EN 61000-6-2:2005, EN61000-6-4:2007+A1:2011, IEC 62321-2:2013, IEC 62321-1:2013, IEC 62321-3-1:2013, IEC 62321-5:2013, IEC 62321-4:2013+A1:2017, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-6:2015, IEC 62321-8:2017 ISO 17075-1:2017.

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 Sewage Cutter Pump
Model number(s): HSEC650A
Serial / batch Number: N/A
Date of issue: 15/09/2021

Signed:

J.A. Clarke
Director

HSEC650A UKCA Clarke DOC 091521

Page 1 of 1

DECLARATIONS OF CONFORMITY - HSEC651A



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):

- 2004/108/EC Electromagnetic Compatibility Directive
- 2006/42/EC Machinery Directive
- 2006/95/EC Low Voltage Equipment Directive
- 2011/65/EU Restriction of Hazardous substances

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

- EN 60204-1:2018, EN 809-1998+A1:2009+AC:2010, EN12162:2001+A1:2009, EN ISO 12100:2010, EN 61000-6-2:2005, EN61000-6-4:2007+A1:2011, IEC 62321-2:2013, IEC 62321-1:2013, IEC 62321-3-1:2013, IEC 62321-5:2013, IEC 62321-4:2013+A1:2017, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-8:2015, IEC 62321-8:2017 ISO 17075-1:2017.

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: 2011

Product Description: Submersible Sewage Cutter Pump
Model number(s): HSEC651A
Serial / batch Number: N/A
Date of Issue: 15/09/2021

Signed:

J.A. Clarke
Director

HSEC651A CE Clarke DOC 091521

Page 1 of 1



Clarke®
INTERNATIONAL
Hemmill 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 60204-1:2018, EN 809-1998+A1:2009+AC:2010, EN12162:2001+A1:2009, EN ISO 12100:2010, EN 61000-6-2:2005, EN61000-6-4:2007+A1:2011, IEC 62321-2:2013, IEC 62321-1:2013, IEC 62321-3-1:2013, IEC 62321-5:2013, IEC 62321-4:2013+A1:2017, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-8:2015, IEC 62321-8:2017 ISO 17075-1:2017.

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 Sewage Cutter Pump
Model number(s): HSEC651A
Serial / batch Number: N/A
Date of Issue: 15/09/2021




Signed:




J.A. Clarke
Director

HSEC651A UKCA Clarke DOC 091521

Page 1 of 1

DECLARATIONS OF CONFORMITY - HSEC1400A

	 <p>Hemmal Street, Epping, Essex, CM16 4UG</p>
<p>DECLARATION OF CONFORMITY</p> <p>This is an important document and should be retained.</p>	
<p>We hereby declare that this product(s) complies with the following statutory requirement(s):</p> <p><i>Electromagnetic Compatibility Regulations 2016</i> <i>Supply of Machinery (Safety) Regulations 2008</i> <i>Electrical Equipment (Safety) Regulations 2016</i> <i>The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012</i></p>	
<p>The following standards have been applied to the product(s):</p> <p>EN 60204-1:2018, EN 809:1998+A1:2009+AC:2010, EN12162:2001+A1:2009, EN ISO 12100:2010, EN 61000-6-2:2005, EN61000-6-4:2007+A1:2011, IEC 62321-2:2013, IEC 62321-1:2013, IEC 62321-3-1:2013, IEC 62321-5:2013, IEC 62321-4:2013+A1:2017, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-6:2015, IEC 62321-8:2017 ISO 17075-1:2017.</p>	
<p>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</p>	
<p>The UKCA mark was first applied in: 2021</p>	
<p>Product Description:</p>	<p>Submersible Sewage Cutter Pump</p>
<p>Model number(s):</p>	<p>HSEC1400A</p>
<p>Serial / batch Number:</p>	<p>N/A</p>
<p>Date of Issue:</p>	<p>15/09/2021</p>
<p>Signed:</p>	 <p>J.A. Clarke Director</p>
<p>HSEC1400A UKCA, Clarke, DOC 091521</p>	

	 <p>Fitzwilliam Hall, Fitzwilliam Place, Dublin 2</p>
<p>DECLARATION OF CONFORMITY</p> <p>This is an important document and should be retained.</p>	
<p>We hereby declare that this product(s) complies with the following directive(s):</p> <p>2004/108/EC <i>Electromagnetic Compatibility Directive</i> 2006/42/EC <i>Machinery Directive</i> 2006/95/EC <i>Low Voltage Equipment Directive</i> 2011/65/EU <i>Restriction of Hazardous substances</i></p>	
<p>The following standards have been applied to the product(s):</p> <p>EN 60204-1:2018, EN 809:1998+A1:2009+AC:2010, EN12162:2001+A1:2009, EN ISO 12100:2010, EN 61000-6-2:2005, EN61000-6-4:2007+A1:2011, IEC 62321-2:2013, IEC 62321-1:2013, IEC 62321-3-1:2013, IEC 62321-5:2013, IEC 62321-4:2013+A1:2017, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-6:2015, IEC 62321-8:2017 ISO 17075-1:2017.</p>	
<p>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.</p>	
<p>The CE mark was first applied in: 2011</p>	
<p>Product Description:</p>	<p>Submersible Sewage Cutter Pump</p>
<p>Model number(s):</p>	<p>HSEC1400A</p>
<p>Serial / batch Number:</p>	<p>N/A</p>
<p>Date of Issue:</p>	<p>15/09/2021</p>
<p>Signed:</p>	 <p>J.A. Clarke Director</p>
<p>HSEC1400A CE Clarke, DOC 091521</p>	

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