



1000 SERIES CIRCULAR
BOILING BATHS
1026E



1100 SERIES RECTANGULAR
BOILING BATHS
1101E 1104E
1102E 1105E

Clifton Range[®]

High quality products at affordable prices

Dear Customer

The Clifton Range® is part of Nickel-Electro Ltd a family firm based in Weston-Super-Mare which was incorporated as a limited company in 1941 but its roots can be traced back to 1935 when the business first started. Now in its 3rd generation of family members, the company prides itself on being a strongly established, independent British manufacturer.

Thank you for purchasing this piece of Clifton Range® temperature control equipment. To get the best performance from your equipment and for your own safety please read these instructions carefully before use.

GENERAL NOTES

1. This product is designed for laboratory use only. Always follow good laboratory practice.
2. Fill the tank prior to connection to electrical supply.
3. Use caution when topping up/draining the tank. If this product is not used in accordance with these instructions then basic safety protection may be affected.
4. The mains supply cord fitted to this product is heat resistant and should be replaced with an equivalent type by a qualified electrician.
5. Ensure that the power supply has a safety earth (ground) terminal.
6. Connect to a mains power supply with RCD protection if possible.
7. Ensure that the mains switch and power supply connector are accessible during use.
8. Before using any cleaning or decontamination method please refer to the Maintenance and Cleaning section to ensure the proposed method will not damage the unit.
9. Connect only to a power supply with the corresponding voltage to that specified on the rating label positioned on the rear of the unit. Ensure substances being heated present no risk of a hazard (explosion, implosion or release of toxic or flammable gases) or that these have been addressed. When heating substances where liberation of gases occurs suitable extraction should be used.
10. Use only liquids specified within this Instruction Manual within their specified temperature range.
11. Drain before moving the bath.
12. Over voltage category II (IEC 644) and Pollution Degree 2 (IEC 644).
13. The 1000 and 1100 series are fitted with a non-resetting overtemperature device which will operate once. The heater is capable of withstanding boil dry situations.

LOCATION

The product must be placed on a smooth, level and sturdy work surface, preferably near a drain for emptying. Use in a ventilated room. Suitable for use in ambient temperatures 5°C to 40°C with a maximum humidity 80% (temperature 31°C) decreasing to 50% (temperature 40°C). Mains voltage fluctuations are not to exceed +/- 10% of the nominal supply.

UNPACKING

Remove the product from its packaging and retain over the warranty period. Contents consist of:

- Bath
- Lid with concentric ring sets
- Power lead
- Instruction manual

Remove any protective vinyl coating prior to use. Place the lid onto the bath. Fit the concentric ring sets. Fit the power lead into the socket at the rear.

SAFETY



Do not touch any electrical contacts or open any closure panels.
RISK OF ELECTRIC SHOCK!!

POWER LEAD AND CONNECTION TO ELECTRICAL SUPPLY



Check the electrical supply is compatible with the rating label.
IF IN DOUBT CONSULT AN ELECTRICIAN. THE PRODUCT MUST BE EARTHED!

Where the mains supply or plug connection differs refer to local regulations or consult an electrician.

OPERATING INSTRUCTIONS:

CONNECTING CONSTANT LEVEL AND MAINTAINING LIQUID LEVEL

1. Connect one outlet of the constant level to the water supply using laboratory tubing. Adjust the water flow to gently top up the water level whilst maintaining boiling. Once connected water should be flowing out of the spout into the bath. At a glance this allows the user to ensure the water levels are being maintained.
2. The second outlet acts as an overflow to a sink or drain. Connect laboratory tubing to suit.



PLEASE ENSURE THE CONSTANT LEVEL IS USED CORRECTLY TO AVOID THE BATH BOILING DRY. PLEASE BE AWARE THE NON-RESETTING SAFETY CUTOUT IS NOT COVERED UNDER WARRANTY.

OPERATING INSTRUCTIONS: BOILING

1. Always ensure the boiling bath is filled with water and the correct water level is maintained. Ensure there is a slow running supply of water topping up for losses due to steam.
2. Switch the mains electrical supply on and allow the water to boil.
3. For temperatures above 60°C the bath should be used with a lid to achieve and maintain boiling.



DO NOT SWITCH ON OR USE UNLESS FILLED WITH WATER.

BE AWARE! SURFACES MAY BE HOT TO THE TOUCH.

FAULT CONDITION

A fault condition will occur if the bath is allowed to boil dry. The bath is fitted with a non-resetting safety cutout. It operates only once.

1. Turn the unit OFF and allow to cool before moving.
2. Connect the Service Department on +44 (1934) 626691.



ALWAYS USE THE CONSTANT LEVEL DEVICE TO MAINTAIN LIQUID LEVEL.

CARE AND MAINTENANCE



Please ensure that the washing agent and sanitizing agent are BSI accredited and approved by the H&S department for use on laboratory equipment and stainless steel within your laboratory.

DISCONNECT THE BATH FROM THE POWER SUPPLY PRIOR TO CLEANING

BASIC CLEANING

The stainless steel crevice free tank should provide years of valuable service and is resistant to chloride containing solutions but it is important to avoid high concentrations of halogens- particularly chloride. Halogen deposits may show as rust which can be cleaned off with nitric acid (10%) on a cloth. **WEAR PROTECTIVE EQUIPMENT!**

The Clifton Range® bath should be emptied at the end of each day, then for interior surfaces:

• WASH • RINSE • DRY •

Constant Level Device: Please ensure that the above cleaning process includes the outlet, paying particular attention to flushing the outlet thoroughly.

Scale Build Up: In hard water areas limescale can build up and reduce the efficiency of the water bath. Cleaning at the end of each day can prevent this but periodically it may be necessary to descale the bath. Add 1 litre of vinegar to the normal capacity of water and heat for 1 hour to 50°C.

WARRANTY TERMS AND CONDITIONS

1. Nickel Electro Ltd warrants to the Customer that the product purchased is free from defects in materials and workmanship.
2. Provided the terms of payment are duly complied with, Nickel Electro Ltd undertakes to remedy any original defects arising from faulty materials or workmanship, in any goods manufactured/supplied by Nickel Electro Ltd, which under proper and normal conditions of use, may develop within a period of three years from the date of delivery.
3. In the case of components which by their nature of application have an unpredictable life, this guarantee shall only be to the extend of the guarantee given by the manufacturers of these articles.
4. Nickel Electro Ltd will accept no liability, where in the opinion of the company the defect has been caused by damage due to the Customers failure to follow operating instructions, correct installation, wear and tear, or damage due to the use of spare parts other than those spare parts of Nickel Electro Ltd or which are recommended by Nickel Electro Ltd, the defect has been caused by alterations or repairs being undertaken by a person(s) other than an authorised representative of Nickel Electro Ltd.
5. Any damage claim must be in writing, and give the serial number and description of the goods, order number and date of delivery, and will not apply where any names or serial numbers or other information which may be attached to or inscribed upon the goods have been removed, covered up or defaced in any way.
6. Any goods or parts thereof, which may require repair or replacement, shall be repaired or replaced (at the discretion of Nickel Electro Ltd) at the works of Nickel Electro Ltd. The product to be repaired shall be delivered carriage paid back to Nickel Electro Ltd by the customer at the Customer's risk and expense. Any such goods or parts will be delivered by Nickel Electro Ltd to the Customer free within the United Kingdom but if required to be borne by the Customer. All faulty parts removed from the equipment will become Nickel Electro Ltd's property. Any other repairs or work by Nickel Electro Ltd will be carried out under the terms and conditions for specialist engineers currently in force.
7. In the event of replacement with a new or reconditioned model, the replacement unit will continue the warranty period of the original equipment.
8. If any goods or parts thereof are returned unnecessarily all cost involved, including a charge for inspection, handling and the return carriage must be paid by the sender. In no circumstances shall any of the goods be returned to Nickel Electro Ltd without its prior written consent.
9. Please retain the original packaging over the warranty period.

NON WARRANTY INFORMATION

Spare parts shall be made available for a period of 3 years after a piece of equipment is discontinued.

Common Spare Parts

Description	Part Number	Quantity	Where Used:
Non resetting safety cutout	SA01809	1	1000 and 1100 Series
1000W 240V Element	EE0987	1	1000 and 1100 Series
Plug and Lead Set	EX0621	1	1000 and 1100 Series

PORTABLE APPLIANCE TESTING

These tests should be conducted by a qualified person.



DO NOT PAT test the boiling bath unless it contains water.

DO NOT Flash Test!!

ACCESSORIES FOR THE 1000 AND 1100 SERIES OF BOILING BATHS

ER-1

Energy Regulator

- Adds level of boiling control to circular and rectangular, multiplace baths.
- Simple to use and control. Robust and reliable.
- Small footprint with non-slip feet.



EC Declaration of Conformity

We herewith confirm the following product:

1000 Series Circular Boiling Baths
1100 Series Rectangular Boiling Baths

Conforms with the requirements outlined by the following European Directives:

Low Voltage Directive 2006/95/EEC
EMC Directive 2004/108/EEC

Conforms with the requirements of the following standards:

BS EN 61010:1
BS EN 61010:2.010
Safety requirements for electrical equipment for measurement, control and laboratory use

BS EN 61326
Electrical equipment for measurement control and laboratory use - EMC requirements

Designed and Manufactured in the UK by:

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NICKEL - ELECTRO LTD.
Manufacturers of the Clifton Range