

Clifton
UNSTIRRED BATH

UNSTIRRED BATHS

NE1B series BOILING BATHS

SHALLOWBATHS

TRIPLEBATHS

NE1 series THERMOSTATIC BATHS

NE2D series DIGITAL BATHS

NE3DT series DIGITAL AND TIMER BATHS

DUOBATHS

NE5 series SHAKERBATHS

SW series ULTRASONICBATHS

THE *Clifton* RANGE



NICKEL-ELECTRO Ltd.



Welcome to the *Clifton* range from Nickel-Electro

Nickel-Electro is a wholly independent, family owned company, based in the South West of England. We design and manufacture the well known Clifton Range of temperature control equipment and instrumentation, which includes unstirred, stirred, shaking baths, digital hotplates and the innovative Duobaths. Trading since 1941, continued investment and development has established Nickel-Electro as a leading manufacturer of laboratory instrumentation.

Our extensive design and production facilities feature state of the art 3D design, computerised punching and forming, powder painting and electrical and electronic assembly all fully supported by an integrated ERP manufacturing system, managing and coordinating the business within an ISO9001 environment. The complete manufacturing solution on one site, controlling the entire production process, a guarantee of quality.

Recognised as an 'Investor in People' our staff offer you high levels of skill and experience, having many years of service in the business. We believe in combining cutting edge technology with traditional skills and values and take pride in being a high quality precision UK manufacturer.

In addition Nickel-Electro manufactures a comprehensive range of laboratory consumables in a variety of materials including aluminium, stainless steel, nickel and zirconium. This complements the Clifton Range and provides our customers with a single source of many types of laboratory equipment.

Melvin Dickson

Managing Director



INVESTOR IN PEOPLE

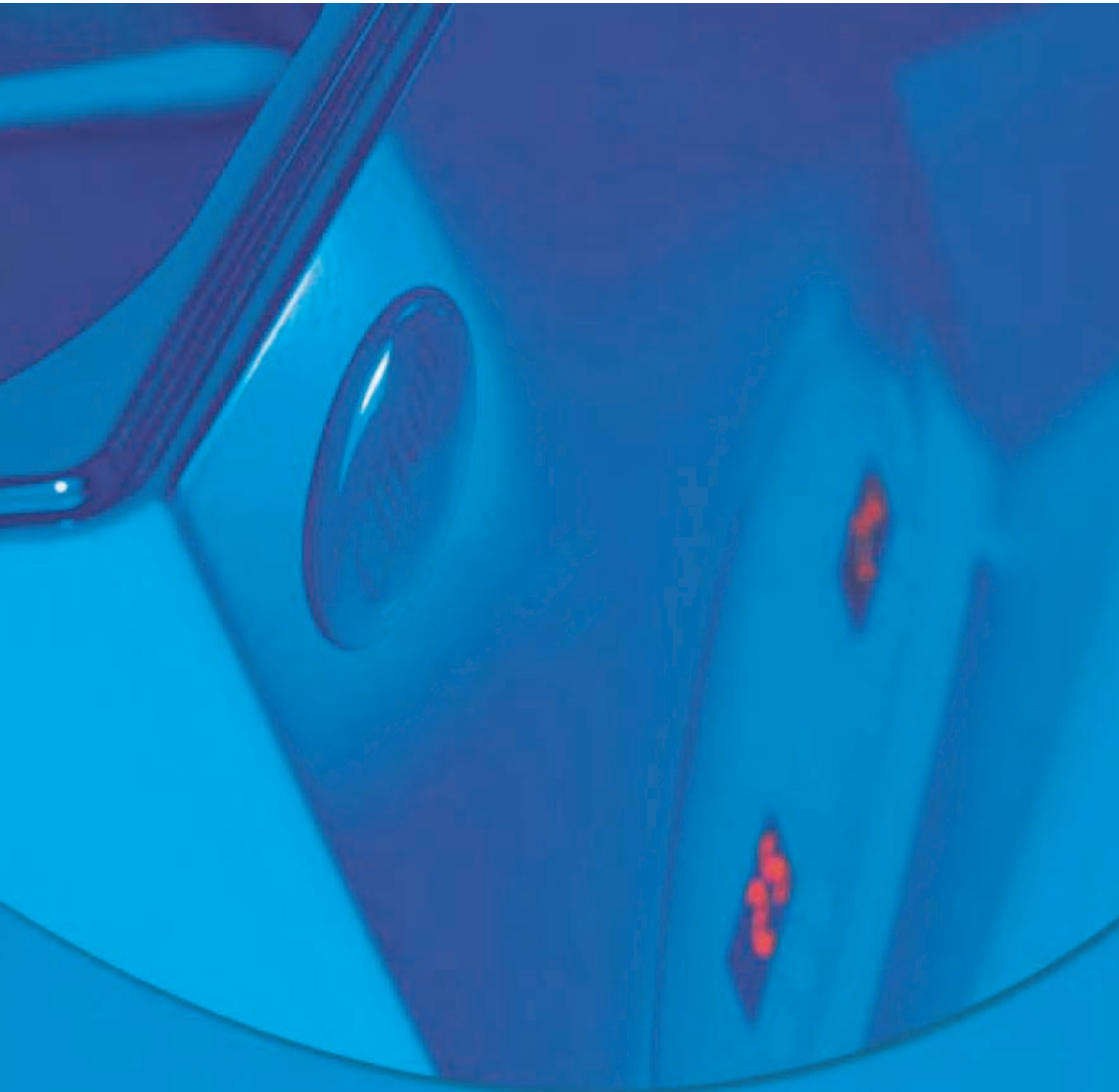


SOLID EDGE
VELOCITY SERIES

radan

rainer **k3**

Our partners Providing world class innovative manufacturing solutions



UNSTIRRED BATHS

1000 series ROUND AND RECTANGULAR BOILING BATHS

NE1B series BOILING BATHS

SHALLOWBATHS

TRIPLEBATHS

NE1 series THERMOSTATIC BATHS

NE2D series DIGITAL BATHS

NE3DT series DIGITAL AND TIMER BATHS

DUOBATHS

ACCESSORIES

NE2-D series, Digital

These water baths provide a stable temperature environment ideal for meeting quality control requirements. Featuring a digital PID controller with smart technology for adaptive temperature control to maintain accuracy. Also featuring auto alarm settings, illuminated on/off switch, heater and over and under temperature indicators.



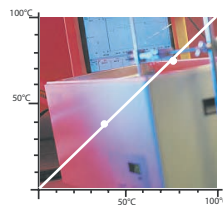
Cat No.	NE2-4D	NE2-8D	NE2-10D	NE2-14D
Capacity, litres	4 litre	8 litre	10 litre	14 litre
Internal Dims	300w x 150d x 150h mm	300w x 240d x 150h mm	300w x 240d x 200h mm	325w x 300d x 150h mm
Overall Dims	332w x 185d x 290h mm	332w x 270d x 290h mm		361w x 332d x 290h mm
Heater, Watts	400W	800W		1000W
Voltage	120V or 230V models	120V or 230V models		120V or 230V models

1. Shallow series of Digital water baths available: NE2-2D, NE2-5D, NE2-9D, details page 7.
2. Painted body and control panel on these Clifton water baths feature Anti-bacterial protection, hygienic coating which actively inhibits bacterial growth.



Features Include:

- * Temperature
 - range: ambient +5°C - 99°C
 - digital PID adaptive control
 - LED display: 0.1°C resolution
 - sensitivity: ±0.2°C
 - uniformity: ±0.1°C
 - heating element, safety cut out and temperature sensor concealed
 - over-temperature alarm always on experiment/sample protection
 - ~ in alarm condition, indicator on and heating suspended
 - bath and sensor diagnostics
 - every water bath factory calibrated at two temperatures



- * Lids recommended above 60°C
 - to **save energy**¹ and optimum bath performance



NE2-22D

NE2-28D

NE2-56D

22 litre

28 litre

56 litre

500w x 300d x 150h mm

500w x 300d x 200h mm

620w x 500d x 200h mm

538w x 332d x 290h mm

538w x 332d x 290h mm

660w x 540d x 290h mm

1500W

1500W

2500W

120V or 230V models

120V or 230V models

120V or 230V models



NE2-56D

- * Drain outlet fitted on 22, 28, 56 litre baths, large bore fast emptying
 - accessory tap can be fitted for convenience
- * Tank
 - corrosion resistant stainless steel
 - easy to clean, clutter free area
- * Controls
 - touch pad temperature setting
 - wipe clean, easy clean antibacterial surfaces
- * Side lifting handles
 - for ease of transportation

ACCESSORIES

NE1B, NE1, NE2-D, ShallowBaths, DuoBaths and TripleBaths

STAINLESS STEEL GABLE LIDS

The use of a lid helps **reduce evaporation**, assists in keeping samples free from contamination and **saves energy**.

- * Stainless gable lids with a high profile allowing extended use of the bath area, right into edges of the tank
- * Insulated handles
- * Design ensures that all condensate goes back into bath.
- * No drip points to contaminate samples

Cat No.	Description
SL1-4	Gabled lid, stainless steel, for 2 and 4 litre baths
SL1-8	Gabled lid, stainless steel, for 8 and 10 litre baths
SL1-14	Gabled lid, stainless steel, for 5 and 14 litre baths
SL1-22	Gabled lid, stainless steel, for 9/22/28 litre baths
SL1-22H	Hinged gabled lid, stainless steel, for 22/28 litre baths



SL1-22

NE1, NE2-D and ShallowBaths

HINGED GABLE LIDS

The use of a lid helps **reduce evaporation**, assists in keeping samples free from contamination and **saves energy**.

- * Clear polycarbonate lid, hinged, light and easy to use.
- * With a high profile allowing extended use of bath, right into edges of tank
- * Lid easy to remove and clean.
- * Design ensures that all condensate goes back into bath, even when raised.
- * No drip points to contaminate samples

Cat No.	Description
GL1-4	Gabled lid, for 4 litre baths
GL1-8	Gabled lid, for 8 and 10 litre baths
GL1-14	Gabled lid, for 5 and 14 litre baths
GL1-22	Gabled lid, for 9/22/28 litre baths



GL1-14



NE1, NE2-D, ShallowBaths, DuoBaths and TripleBaths

LIFT-OFF GABLE LIDS

Cat No.	Description
GL1-4AF	Gabled lid, for 4 litre baths
GL1-8AF	Gabled lid, for 8 and 10 litre baths
GL1-14AF	Gabled lid, for 5 and 14 litre baths
GL1-22AF	Gabled lid, for 9/22/28 litre baths

NE1B, NE1, NE2-D and NE3-DT series

STAINLESS STEEL RING SET LIDS

- * Ringed lids allow necks of immersed flasks to protrude.
- * Concentric ringed lid, stainless steel.

Cat No.	Description
SLR1-4	2 x 105mm holes for 4 litre baths
SLR1-8	4 x 83mm holes for 8 and 10 litre
SLR1-14	4 x 105mm holes for 5 and 14 litre baths
SLR2-14	6 x 83mm holes for 5 and 14 litre baths
SLR1-22	6 x 105mm holes for 9/22/28 litre baths



SLR1-14

NE1B, NE1, NE2-D, NE3-DT and DuoBaths

BASKETS, STAINLESS STEEL WIRE

Cat No.	Description
BSK-4	Basket, stainless steel, for 4 litre baths
BSK-8	Basket, stainless steel, for 8 litre baths
BSK-14	Basket, stainless steel, for 14 litre baths
BSK-22	Basket, stainless steel, for 22 litre baths



BSK-8

NE1B series

STERILISING TRAY

Cat No.	Description
ST-1	Raise and Lower Sterilising Tray for NE1B-18W
SA01409	Pair of Guide Rail assemblies for ST-1



ST-1 in a NE1B-14

NE1, NE2-D, NE3-DT, DuoBaths and TripleBaths

THERMOMETER

Cat No.	Description
TC-1	Thermometer clip with bent stem spirit filled thermometer lies flush with top edge of the bath to prevent accidental damage. Scale: 0-100°C in 2°C graduations

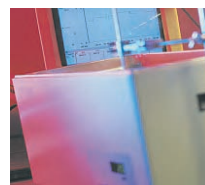


TC-1

NE1, NE2-D, NE3-DT, DuoBaths and TripleBaths

CALIBRATION

Cat No.	Description
CAL	Calibration Record



CAL

NE1B, NE1 and NE2-D series

GATED TAP FOR DRAIN

Cat No.	Description
BX0953	Drain Tap



BX0953



NE1, NE2-D, NE3-DT, DuoBaths and TripleBaths

Lab Armor™ replacement for water in water baths, dry media, thermally efficient pellets enabling you to almost eliminate water bath cleaning and protects your bath from drying out. Also saves the need for racks, floaties or weights.

Cat No.	Description
BA-5	Bath Armor 4 litre pack
BA-12	Bath Armor 12 litre pack



BA-5 in NE2-4D

ACCESSORIES

NE1B, NE1, NE2-D, NE3-DT, DuoBaths and TripleBaths

SPHERES, POLYPROPYLENE

Provides a floating lid on water baths to **reduce evaporation**, allows easy immersion/removal of flasks and **saves energy**.

Cat No.	Sphere dia.	Pk qty
BP0368	20 mm	200
Bath Size	No. of packs required	
2 and 4 litres	1 pack	
5, 8, 10, 14 and 18 litres	2 packs	
9, 22, and 28 litres	4 packs	
56 litres	8 packs	

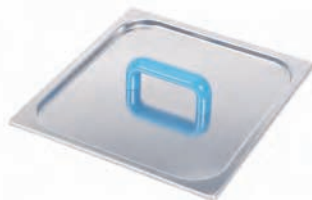


NE3-8DT shown with BP0368 polypropylene spheres

STAINLESS STEEL FLAT LIDS

The use of a lid helps reduce evaporation and can be used as a dust cover whilst the bath is left overnight, reducing water contamination.

Cat No.	Description
LD-4	Flat lid, stainless steel, for 2 and 4 litre baths
LD-8	Flat lid, stainless steel, for 8 and 10 litre baths
LD-14	Flat lid, stainless steel, for 5 and 14 litre baths
LD-22	Flat lid, stainless steel, for 9/22/28 litre baths
LD-56	Flat lid, stainless steel, for 56 litre baths

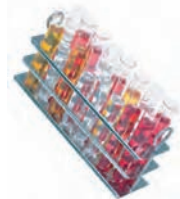


LD-14

STAINLESS STEEL RACKS

* All 304 stainless steel construction.

Cat No.	Description
6870	Test tube rack, stainless steel, 26 holes x 17mm dia.
6871	Test tube rack, stainless steel, 16 holes x 26mm dia.
6872	Test tube rack, stainless steel, 36 holes x 13mm dia. also suitable for 1.5ml microtubes
6873	Test tube rack, stainless steel, 18 holes x 19mm dia.
6900	Test tube rack, stainless steel, 12 holes x 32mm dia.
Overall dimensions of rack: 260mm long x 70mm wide, height to top of lifting handle: 138mm	
Max number of racks per bath	
Bath size	2/4 litre 8 litre 5/14 litre 9/22/28 litre 56 litre
No. racks	1 2 4 6 12



6871

6875	Test tube rack, stainless steel, 50 holes x 32mm dia.
Overall dimensions of rack: 270mm long x 290mm wide, height to top of lifting handle: 138mm	
Max number of racks per bath	
Bath size	2/4 litre 8 litre 5/14 litre 9/22/28 litre 56 litre
No. racks	0 0 1 2 4

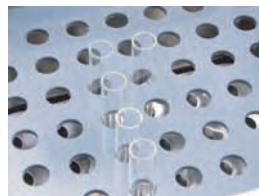


6875

NE1, NE2-D, NE3-DT, DuoBaths and TripleBaths

Churchill test tube racks

Churchill test tube racks have been developed in conjunction with a school to allow a classroom of students to each place a test tube into the rack for incubation and other experiments in a water bath. Churchill racks can accommodate the popular 18mm or 25mm diameter test tubes. Each rack fits into Clifton water baths and easily removed and stored flat.



Cat No.	C18-4	C18-8	C18-14
Fits Water baths	4 litre	8 litre	14 litre
Tube, diameter	18mm	18mm	18mm
Capacity, holes	28	44	68
Clifton water bath models	NE1-4, NE1-4/4/4, NE2-4D, NE3-4DT, NE2D-4/4, NE2D-4/8, NE2D-4/22	NE1-8, NE2-8D, NE3-8DT, NE2D-4/8	NE1-14, NE2-14D, NE3-14DT

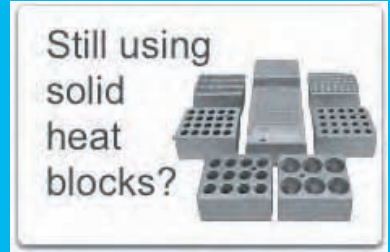


Cat No.	C25-4	C25-8	C25-14
Fits Water baths	4 litre	8 litre	14 litre
Tube, diameter	25mm	25mm	25mm
Capacity, holes	28	44	68
Clifton water bath models	NE1-4, NE1-4/4/4, NE2-4D, NE3-4DT, NE2D-4/4, NE2D-4/8, NE2D-4/22	NE1-8, NE2-8D, NE3-8DT, NE2D-4/8	NE1-14, NE2-14D, NE3-14DT

- Churchill test tube racks are manufactured from nylon.
 - Offer good resistance to solvents, formaldehyde and alcohols.
 - Limited resistance to dilute acids.
 - Not recommended for use with phenols, alkalis, iodine and acids.
 - Maximum recommended temperature 70°C.

BATH ARMOR™

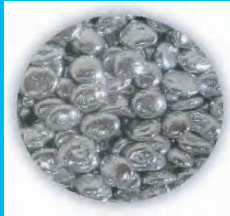
FULL METAL



Then use Bath Armor

Moisture and Gas impermeable

Smooth, rounded & fluid-like



High thermal conductivity

Reduces water consumption



Water baths

- * No more filling.
- * No more routine cleaning.
- * No water borne contamination.
- * No longer incubating microbes.
- * Washes and sterilizes easily.
- * Good thermal heat distribution.

Replace water in your water bath with these thermally efficient pellets that are easy to keep clean. It enables you to eliminate nearly all water bath cleaning and protects your water bath from drying out.

Saving need for racks, floaties and bottle weights. More free time, one less lab duty, never have to wash or refill a water bath again.



Blockheaters

- * One pile suits all tube sizes.
- * Replaces pre-drilled blocks.
- * More convenient to use.
- * Thermally efficient.
- * Accepts any size and shape vessels.
- * Washes and sterilizes easily.

Replaces pre-drilled blocks in your blockheaters with thermally efficient pellets that are easy to keep clean.

Reduces investment in blocks and heating well can be used for heating any tube size or shape at the same time.

Service Support

At Nickel-Electro our customers can rely on good service throughout the life of their equipment and even give you the opportunity to download operating instructions that you may have mislaid.

Our service engineers are fully trained in the assembly and use of all Clifton instrumentation. Products can be returned to our comprehensively equipped service centre where a fast and efficient turnaround is guaranteed.

A full technical service is available.

We are keen to ensure that new and existing distributors are fully aware of our products. We can arrange training if requested.

Environmental Policy

We recognise our responsibility towards the environment and strive to ensure that all aspects of the business and its products have the least harmful effect on the environment by:

- * Designing products for long durable working life supported with comprehensive backup of spares.
- * Designing equipment using mainly metal based structures for easy conversion, recycling at the end of product life.
- * Designing equipment to reduce energy consumption during their working life.
- * Minimising waste in manufacturing and where it is produced compost, re-use or recycle.

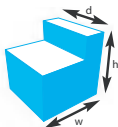
Anti-bacterial surfaces

Anti-bacterial finishes inhibit the growth of bacteria. It has been tested by independent specialist test houses such as the Law Laboratories (in the UK) using internationally recognized test methods and proven to be effective versus a wide range of bacteria species including *Escherichia coli* and *Staphylococcus aureus* (MRSA).

Hygienic coatings are part of a controlled approach to cleaner facilities. Within its formulation an active ingredient with proven anti-bacterial properties is bound into the coating. The efficacy of the finish applied to the Clifton range is maintained over its lifetime, as the anti-bacterial agent is integral within the paint.

In a busy laboratory environment, this finish effectively limits everyday bacteria transfer from operator to equipment and then on to other operators. This is one less source of contamination, contributing to essential clean working practices.

Key to Dimensions



Engineered & Built in Great Britain



Safety and product marking

Clifton range laboratory equipment carries CE mark indicating that it meets the requirements of applicable European Directives.

The Clifton range meets International Standards BS EN 61010-1, Safety requirements for electrical and electronic equipment for measurement, control and laboratory use.

Equipment used for heating additionally meets BS EN 61010-2-010 Particular requirements for laboratory equipment for the heating of materials.

Equipment used for mixing additionally meets BS EN 61010-2-051 Particular requirements for laboratory equipment for mixing and stirring.

Centrifuges meet requirements BS EN 61010-2-020 Particular requirements for laboratory centrifuges.

The Clifton range meets International Standards BS EN 61326-1 Electrical equipment for measurement, control and laboratory use - EMC Requirements both A and B classes.



Every piece of Clifton equipment has a unique serial number, recorded on our database with its manufacturing inspection data. Every item is electrically tested for safety, and a copy of test certificate enclosed in the instruction book.

Temperature performance

We pride ourselves on assuring that Clifton range performs to the highest level. All Clifton temperature controlled equipment undergoes temperature calibration, in controlled conditions, to thoroughly test its performance before release to you.

Analogue controlled equipment is checked at one temperature over its working range against a UKAS calibrated reference device. We adjust the equipment to reference temperature.

Digital controlled equipment is checked at one or two temperatures over its range against a UKAS calibrated reference device measuring actual and indicated temperatures. A sophisticated system then automatically enters any necessary temperature adjustments and only then is equipment released from the factory.

Quality System

Our products are designed, developed and manufactured in a tightly controlled ISO9001:2008 environment and all products are CE compliant.



Future Development

We have a policy of ongoing product development to ensure that tomorrow's laboratory is equipped with innovative, well-designed and reliable equipment.



NICKEL - ELECTRO LTD.



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