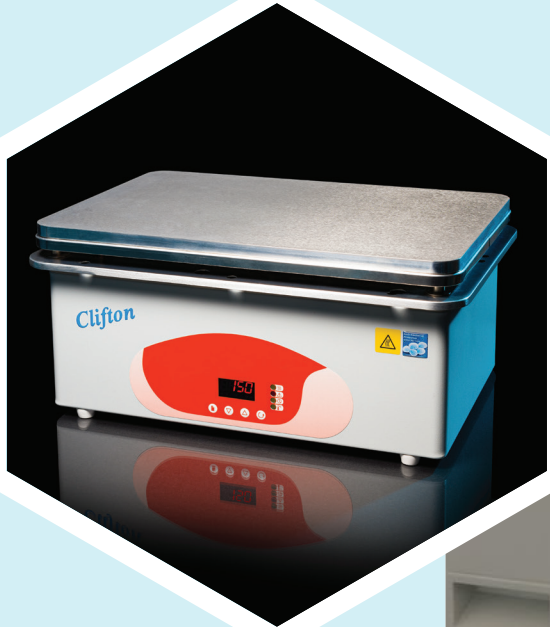




NICKEL - ELECTRO LTD.
Manufacturers of the *Clifton Range*®



Lab Essentials

Innovative Solutions for
the Modern Laboratory

About Us

Nickel-Electro Ltd. is a family firm based in Weston-super-Mare which was incorporated as a limited company in 1941, but our roots can be traced back to 1935 when the business first started. Now in our 3rd generation of family members, we pride ourselves on being a strongly established, independent British manufacturer.

The Clifton brand takes its name from The Clifton Suspension Bridge in Bristol which was designed and built by the famous Victorian engineer Isambard Kingdom Brunel and is recognised as engineering excellence.

As a company who specialise in the design and manufacture of temperature control equipment for a wide range of markets, we are committed to sustainable practices throughout all operations within our business. From design conception, sourcing raw materials to lean manufacturing in producing reliable, durable products, we strive to make a positive impact on the environment.

Sustainability Key



Products are built to last, ensuring longevity

Products are British manufactured, durable, reliable and built to last, ensuring longevity.



Products have minimum energy requirements

Products have minimum energy requirements, contribute to reduced water consumption and reduce the need for consumables.



Products are recyclable

Products are recyclable.



Compostable and biodegradable packaging

Compostable and biodegradable bags are used for packaging and glassine bags for all our consumable products.



Lids reduce energy consumption

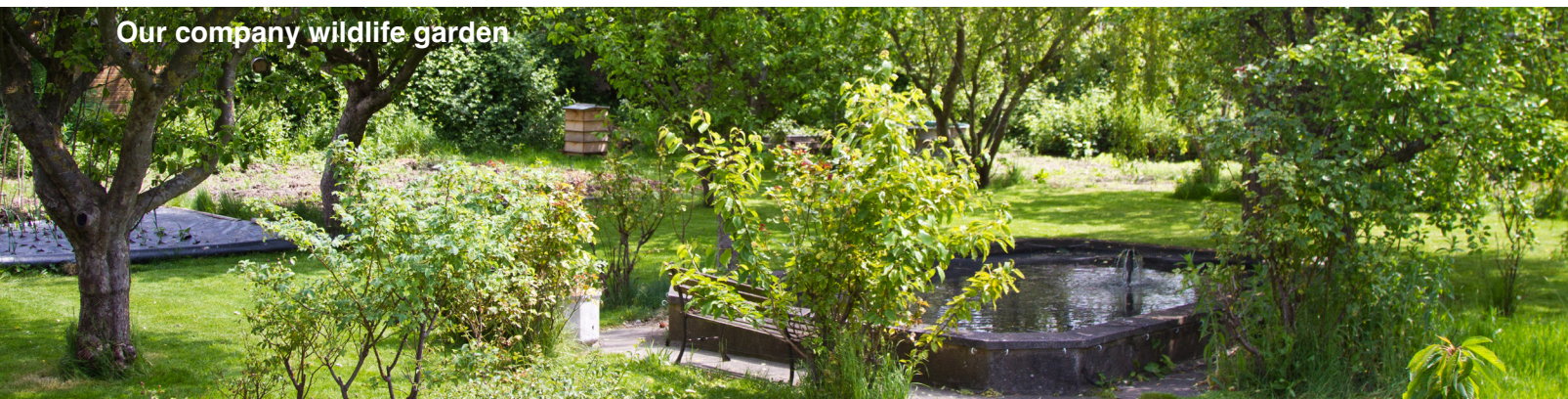
Accessory lids reduce energy consumption by 60%.



Bath Armor™ reduces energy consumption

Accessory Bath Armor™ reduces energy use by 70% and zero water consumption.

Our company wildlife garden



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For a full list of products and accessories, please go to our website: www.nickel-electro.com

NE1 Series Standard Analogue Water Baths

The NE1 series Clifton analogue thermostatic baths offer reliable, economical performance without compromising quality.

Comprising of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable painted outer case. Painted surfaces feature anti-bacterial finish with good chemical resistance. Side lifting handles.

Features a lockable temperature dial helping prevent accidental adjustments during experiments.



Product Code	NE1-2.5	NE1-4	NE1-8	NE1-14
Chamber Capacity	2.5 Litres	4 Litres	8 Litres	14 Litres
Temp. Range	Ambient + 5°C - 100°C			
Temp. Control	Analogue dial pointer, graduated in 5°C divisions			
Sensitivity/Uniformity	±0.5°C / ±0.5°C	±0.25°C / ±0.1°C		
Heater Power (220-240V)	250W	400W	800W	1000W
Voltage	230V 50-60Hz	120V or 230V models available 50-60Hz		
Drain Tap Fitted	✗		✓	
Dimensions				
External (mm)	270w x 190d x 240h	332w x 185d x 290h	332w x 270d x 290h	361w x 332d x 290h
Internal (mm)	230w x 130d x 150h	300w x 150d x 150h	300w x 240d x 150h	325w x 300d x 150h
Water Level Max. (mm)	130			
Water Level Min. (mm)	55			

Product Code	NE1-22	NE1-28	NE1-56
Chamber Capacity	22 Litres	28 Litres	56 Litres
Temp. Range	Ambient + 5°C - 100°C		
Temp. Control	Analogue dial pointer, graduated in 5°C divisions		
Sensitivity/Uniformity	±0.25°C / ±0.1°C		
Heater Power (220-240V)	1500W		2500W
Voltage	120V or 230V models available 50-60Hz		
Drain Tap Fitted	✓		
Dimensions			
External (mm)	538w x 332d x 290h		660w x 540d x 290h
Internal (mm)	500w x 300d x 150h	500w x 300d x 200h	620w x 500d x 200h
Water Level Max. (mm)	130	180	
Water Level Min. (mm)	55		

NE1D Educational Digital Water Baths

The NE1D series educational water baths are designed for school, college and university use and are built comprising of a high quality corrosion resistant stainless steel tank and with a bright clean finish housed in a durable paint finished outer case.

Painted surfaces feature anti-bacterial finish with good chemical resistance. Educational water baths are fitted with side lifting handles for ease of transportation.



Product Code	NE1D-4	NE1D-8	NE1D-14	NE1D-22
Chamber Capacity	4 Litres	8 Litres	14 Litres	22 Litres
Temp. Range	Ambient + 5°C - 99°C			
Temp. Control	Digital, LED display showing actual or set temperature, resolution 1°C			
Sensitivity/Uniformity	±0.2°C / ±0.1°C			
Heater Power (220-240V)	400W	800W	1000W	1500W
Voltage	120V or 230V models available 50-60Hz			
Drain Tap Fitted	✗	✓		
Dimensions				
External (mm)	332w x 185d x 290h	332w x 270d x 290h	361w x 332d x 290h	538w x 332d x 290h
Internal (mm)	300w x 150d x 150h	300w x 240d x 150h	325w x 300d x 150h	500w x 300d x 150h
Water Level Max. (mm)	130			
Water Level Min. (mm)	55			

NE2D Advanced Digital Water Baths

The NE2D advanced digital water bath provides a stable temperature environment ideal for meeting quality control requirements, featuring digital PID temperature control for precision. Controls feature auto alarm setting, illuminated on/off switch, heater and over temperature indications.

The advanced digital water bath comprises of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable paint finished outer case. Side lifting handles.



Product Code	NE2-4D	NE2-8D	NE2-10D	NE2-14D
Chamber Capacity	4 Litres	8 Litres	10 Litres	14 Litres
Temp. Range	Ambient + 5°C - 100°C			
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C			
Temp. Alarm	Over temperature alarm is automatically set 4°C above set point			
Sensitivity/Uniformity	±0.2°C / ±0.1°C			
Heater Power (220-240V)	400W	800W		1000W
Voltage	120V or 230V models available 50-60Hz			
Drain Tap Fitted	✗	✓	✗	✓
Dimensions				
External (mm)	332w x 185d x 290h	332w x 270d x 290h	332w x 270d x 290h	361w x 332d x 290h
Internal (mm)	300w x 150d x 150h	300w x 240d x 150h	300w x 240d x 200h	325w x 300d x 150h
Water Level Max. (mm)	130			
Water Level Min. (mm)	55			

Product Code	NE2-22D	NE2-28D	NE2-56D
Chamber Capacity	22 Litres	28 Litres	56 Litres
Temp. Range	Ambient + 5°C - 100°C		
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C		
Temp. Alarm	Over temperature alarm is automatically set 4°C above set point		
Sensitivity/Uniformity	±0.2°C / ±0.1°C		
Heater Power (220-240V)	1500W		2500W
Voltage	120V or 230V models available 50-60Hz		
Drain Tap Fitted	✓		
Dimensions			
External (mm)	538w x 332d x 290h		660w x 540d x 290h
Internal (mm)	500w x 300d x 150h	500w x 300d x 200h	620w x 500d x 200h
Water Level Max. (mm)	130	180	
Water Level Min. (mm)	55		

NE3DT Pro Digital Water Baths

The NE3DT pro digital water baths feature precision temperature control with an option to enable a run back or delay start timer, the latter useful for pre-conditioning water temperature before use. Controls feature auto alarm setting, illuminated on/off switch, heater and over temperature indications.



Product Code	NE3-4DT	NE3-8DT	NE3-14DT
Chamber Capacity	4 Litres	8 Litres	14 Litres
Temp. Range	Ambient + 5°C - 100°C		
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C		
Temp. Alarm	Over temperature alarm is automatically set 4°C above set point		
Temp. Control and run back timer	Indicator and end message variable, 00:01 to 99:59 [hh:mm], activates at set temperature.		
Temp. Control and delay start timer	Heating commences at a set time in future Within 24 hours, useful for pre-conditioning water bath ready for use.		
Sensitivity/Uniformity	±0.2°C / ±0.1°C		
Heater Power (220-240V)	400W	800W	1000W
Voltage	120V or 230V models available 50-60Hz		
Drain Tap Fitted	✗		✓
Lid Fitted		✓	
Dimensions			
External (mm)	332w x 185d x 290h	332w x 270d x 290h	361w x 332d x 290h
Internal (mm)	300w x 150d x 150h	300w x 240d x 150h	325w x 300d x 150h
Water Level Max. (mm)	130		
Water Level Min. (mm)	55		

Product Code	NE3-28DT	NE3-56DT
Chamber Capacity	28 Litres	56 Litres
Temp. Range	Ambient + 5°C - 100°C	
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C	
Temp. Alarm	Over temperature alarm is automatically set 4°C above set point	
Temp. Control and run back timer	Indicator and end message variable, 00:01 to 99:59 [hh:mm], activates at set temperature.	
Temp. Control and delay start timer	Heating commences at a set time in future Within 24 hours, useful for pre-conditioning water bath ready for use.	
Sensitivity/Uniformity	±0.2°C / ±0.1°C	
Heater Power (220-240V)	1500W	2500W
Voltage	120V or 230V models available 50-60Hz	
Drain Tap Fitted		✓
Lid Fitted	✓	✗
Dimensions		
External (mm)	538w x 332d x 290h	660w x 540d x 290h
Internal (mm)	500w x 300d x 200h	620w x 500d x 200h
Water Level Max. (mm)	180	
Water Level Min. (mm)	55	

NE2D ShallowBaths™

Clifton digital ShallowBaths™ are perfect for heating small height samples such as micro tubes, micro plates and bottles. ShallowBaths™ require less water and less process chemicals, so are therefore economical to use. Controls feature auto alarm setting, illuminated on/off switch, heater and over temperature indications.

Comprising of a high quality corrosion resistant stainless steel tank, with a bright clean finish housed in a durable painted outer case. Painted surfaces feature anti-bacterial finish with a good chemical resistance.

Personal, small footprint water bath, providing a stable temperature environment for life science preparations.



Product Code	NE2-2D	NE2-5D	NE2-9D
Chamber Capacity	2 Litres	5 Litres	9 Litres
Temp. Range	Ambient + 5°C - 99°C		
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C		
Temp. Alarm	Over temperature alarm is automatically set 4°C above set point		
Sensitivity/Uniformity	±0.2°C / ±0.1°C		
Heater Power (220-240V)	200W	800W	
Voltage	120V or 230V models available 50-60Hz		
Dimensions			
External (mm)	332w x 185d x 135h	361w x 332d x 135h	535w x 332d x 135h
Internal (mm)	300w x 150d x 65h	325w x 300d x 65h	500w x 300d x 65h
Water Level Max. (mm)	40		
Water Level Min. (mm)	20		

TripleBaths™

Triplebath™ features three independently controlled unstirred water baths in one unit. Analogue and digital options available in either 2 litre or 4 litre combinations. Typically suitable for classroom use performing PCR routines in shallow temperature controlled water, each tank can be set to a different temperature for denaturing, annealing and elongation – reducing solvent and consumables.

Comprising of high quality corrosion resistant stainless steel tanks, with a bright clean finish housed in a durable paint finished outer case. Painted surfaces feature anti-bacterial finish with good chemical resistance. 4 litre chambers are fitted with side lifting handles for ease of transportation.

Each chamber comes complete with a removable “low” height stainless steel perforated shelf.



Product Code	NE1-2/2/2	NE1-4/4/4	NE1D-2/2/2	NE1D-4/4/4
Chamber Capacity	2 Litres each	4 Litres each	2 Litres each	4 Litres each
Temp. Range	Ambient + 5°C - 99°C			
Temp. Control	Analogue dial pointer, graduated in 5°C divisions		Digital, LED display, resolution 1°C	
Sensitivity/Uniformity	±0.5°C / ±0.5°C		±0.25°C / ±0.1°C	
Heater Power (220-240V)	3 x 200W	3 x 400W	3 x 200W	3 x 400W
Voltage	230V / 50-60Hz			
Dimensions				
External (mm)	535w x 332d x 135h	535w x 332d x 290h	535w x 332d x 135h	535w x 332d x 290h
Internal (mm)	150w x 300d x 65h (x3)	150w x 300d x 150h (x3)	150w x 300d x 65h (x3)	150w x 300d x 150h (x3)
Water Level Max. (mm)	30	130	30	130
Water Level Min. (mm)	10	55	10	55

NE4-D Classic Stirred Digital Baths

Clifton stirred water baths feature a digital PID temperature controller and are designed for immersion of flasks, bottles and racks in an accurate temperature environment throughout the water bath.

Clifton stirred baths are constructed using durable stainless steel, painted surfaces are powder coated with tough anti-bacterial finish with good chemical resistance. Easy to use controls that wipe clean also have an anti-bacterial finish. Immersed components are corrosion resistant.



Product Code	NE4-8D	NE4-14D	NE4-22D	NE4-28D
Chamber Capacity	8 Litres	14 Litres	22 Litres	28 Litres
Temp. Range	Ambient + 5°C - 99°C			
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C			
Temp. Alarm	Under/over temperature alarm is automatically set 4°C above and 4°C below set point			
Sensitivity/Uniformity	±0.05°C / ±0.01°C			
Timer	Variable, 00:01 to 99:59 hh:mm			
Heater Power (220-240V)	1250W			
Voltage	120V or 230V models available 50-60Hz			
Drain Outlet	✗			✓
Dimensions				
External (mm)	271w x 332d x 170h	361w x 332d x 170h	537w x 322d x 170h	537w x 332d x 290h
Internal (mm)	129w x 300d x 150h	219w x 298d x 150h	395w x 298d x 150h	395w x 298d x 200h
Water Level Max. (mm)	130			180

Product Code	NE4-38D	NE4-56D
Chamber Capacity	38 Litres	56 Litres
Temp. Range	Ambient + 5°C - 99°C	
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C	
Temp. Alarm	Under/over temperature alarm is automatically set 4°C above and 4°C below set point	
Sensitivity/Uniformity	±0.05°C / ±0.01°C	±0.2°C / ±0.02°C
Timer	Variable, 00:01 to 99:59 hh:mm	
Heater Power (220-240V)	1250W	2000W
Voltage	120V or 230V models available 50-60Hz	230V / 50-60Hz
Drain Outlet	✓	
Dimensions		
External (mm)	715w x 330d x 235h	660w x 540d x 290h
Internal (mm)	570w x 295d x 200h	490w x 500d x 200h
Water Level Max. (mm)	195	180

NE4-SB Universal Heated Thermostirrer

Clifton NE4-SB features a digital PID temperature controller which provides even water circulation and temperature stability. Designed to be fully compatible and easy to fit onto an array of tanks and vessels (rectangular or circular) with a diameter 30cm or more.

Featuring a low-level float device, which ensures heating is switched off if the liquid falls below the recommended level.



Product Code	NE4-SB
Max. Tank Capacity	60 Litres
Temp. Range	Ambient + 5°C - 99°C
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C
Temp. Alarm	Under/over temperature alarm is automatically set 4°C above and 4°C below set point
Sensitivity	±0.05°C
Timer	Visual indicator and audible end message - variable 00:01 to 99:59 hh:mm
Heater Power (220-240V)	2000W
Voltage	230V / 50-60Hz
Dimensions	
External (mm)	122w x 240d x 335h
Tank Mounting (mm)	Double clamp fitting accommodates tank max wall thickness 40mm
Tank Water Levels (mm)	Example : with overall tank depth 150mm / max water level 130mm / min 80mm

NE1B Analogue Boiling Baths

This range of boiling baths has been enhanced to include drain tap and clear lift off lid. Designed for applications that require continuous boiling. This bath has the flexibility where the control can be regulated from a gentle simmer to a vigorous boil.

Comprising of a stainless steel tank housed in a durable paint finished outer case. Painted surfaces feature a tough anti-bacterial finish with good chemical resistance. Complete with a removable stainless steel perforated false base. The bath, which is simmer-statically controlled, is ideally suited to prolonged periods of boiling.

Fitted with a sheathed immersion element. With the heater directly immersed in water it provides rapid boiling. A standard feature is a constant level device, which maintains a fixed level of liquid thereby eliminating the need to regularly top up the bath.



Product Code	NE1B-14	NE1B-18W	NE1B-28
Chamber Capacity	14 Litres	18 Litres	28 Litres
Temp. Range	Simmer to boiling at 100°C		
Temp. Control	Featuring an energy regulator which controls the amount of boiling from a gentle simmer to vigorous boil		
Heater Power (220-240V)	2500W		
Voltage	230V models available 50-60Hz		
Water Level Alarm	Features low liquid level float device, heating automatically suspended		
Raise and Lower Sterilising Tray	✗	✓	✗
Clear Lift Off Lid Fitted	✓		
Drain Tap Fitted	✓		
Constant Level Device	✓	✗	✓
Dimensions			
External (mm)	362w x 332d x 290h		538w x 332d x 290h
Internal (mm)	325w x 300d x 150h	325w x 300d x 200h	500w x 300d x 200h



Raise and Lower Sterilising Tray

Comes as standard with NE1B-18W. Provides a safe method of lifting sterilised items from boiling water. Excess hot water drains away.

NE1BD Digital Boiling Baths

This range of boiling baths has been enhanced to include drain tap and clear lift off lid. Designed for applications that require continuous boiling. This bath has the flexibility where the control can be regulated from a gentle simmer to a vigorous boil.

Comprising of a stainless steel tank housed in a durable paint finished outer case. Painted surfaces feature a tough anti-bacterial finish with good chemical resistance. Complete with a removable stainless steel perforated false base.

The digital bath is fitted with a sheathed immersion element. With the heater directly immersed in water it provides rapid boiling. A standard feature is a constant level device, which maintains a fixed level of liquid thereby eliminating the need to regularly top up the bath.



Product Code	NE1BD-14	NE1BD-18W	NE1BD-28
Chamber Capacity	14 Litres	18 Litres	28 Litres
Temp. Range	Simmer 80°C to boiling at 105°C		
Temp. Control	Digital, LED display showing actual or set, resolution 1°C		
Heater Power (220-240V)	2500W		
Voltage	230V models available 50-60Hz		
Water Level Alarm	Features low liquid level float device, heating automatically suspended		
Raise and Lower Sterilising Tray	×	✓	×
Clear Lift Off Lid Fitted	✓		
Drain Tap Fitted	✓		
Constant Level Device	✓	×	✓
Dimensions			
External (mm)	362w x 332d x 290h		538w x 332d x 290h
Internal (mm)	325w x 300d x 150h	325w x 300d x 200h	500w x 300d x 200h



Raise and Lower Sterilising Tray

Comes as standard with NE1BD-18W. Provides a safe method of lifting sterilised items from boiling water. Excess hot water drains away.

1000 Series Round Boiling Baths

Stainless steel round boiling baths. Both fitted with a sheathed immersion heater and constant water level device, with resettable thermal cut out for low water level condition. Supplied with a set of rings to vary the aperture diameter accommodating different sizes of vessels such as evaporating dishes, glassware and round bottom flasks heated by steam.

E-Range - The bath provides constant boiling water for gentle heating of samples.

ER-Range – Features a built-in energy regulator, which controls the amount of boiling in a bath from a gentle simmer to a vigorous boil.



Product Code	1026ER	1026E
Chamber Capacity	3.24 Litres	
Temp. Range	Simmer to boiling at 100°C	Boiling at 100°C
Temp. Control	Featuring an energy regulator which controls the amount of boiling from a gentle simmer to vigorous boil	Constant boiling no control
Heater Indicator	This indicates ON = heating, off safety cut out has fired	
Heater Power (220-240V)	1000W	
Voltage	230V models 50-60Hz	
Dimensions		
External (mm)	200w x 130d	

Concentric Rings

By removing concentric rings, the hole sizes can be varied to accommodate different sizes of vessel.



- Centre Ring – Removed, aperture 30mm hole
- Ring 1 – Removed, aperture 42mm hole
- Ring 2 – Removed, aperture 58mm hole
- Ring 3 – Removed, aperture 77mm hole
- Ring 4 – Removed, aperture 103mm hole
- Ring 5 – Removed, aperture 128mm hole
- Ring 6 – Removed, aperture 153mm hole

1100 Series Rectangular Boiling Baths

Rectangular boiling baths available in a choice of aluminium or stainless steel are both electrically heated. The multi-place boiling bath regulates from a gentle simmer to a vigorous boil and is fitted with concentric ringed lid, to vary the hole size.

E-Range – The bath provides constant boiling water for gentle heating of samples.

ER-Range – Features a built-in energy regulator, which controls the amount of boiling in a bath from a gentle simmer to a vigorous boil.



Product Code	1101E	1101ER	1102E	1104E	1104ER	1105E	1105ER
Chamber Capacity	4.5 Litres		8.8 Litres			5 Litres	
Temp. Range	Boiling at 100°C	Simmer to boiling at 100°C	Boiling at 100°C		Simmer to boiling at 100°C	Boiling at 100°C	Simmer to boiling at 100°C
Temp. Control	Constant boiling no control	Energy regulator, from a gentle simmer to vigorous boil	Constant boiling no control		Energy regulator, from a gentle simmer to vigorous boil	Constant boiling no control	Energy regulator, from a gentle simmer to vigorous boil
Material	Stainless Steel					Aluminium	
Heater Indicator	This indicates ON = heating, safety cut out has fired						
Heater Power (220-240V)	1000W						
Lid Fitted	✔						
Voltage	230 models 50-60Hz						
Dimensions							
External (mm)	321w x 219d x 90h		425w x 321d x 90h			400w x 200d x 90h	
No. of holes and Diameter (mm)	6 holes x 80mm dia.		6 holes x 101 mm dia.	12 holes x 80mm dia.		6 holes x 80mm dia.	



Concentric Rings

By removing concentric rings, the hole sizes can be varied to accommodate different sizes of vessels simultaneously.

Centre Ring – Removed, aperture 30mm hole

Ring 1 – Removed, aperture 42mm hole

Ring 2 – Removed, aperture 58mm hole

Ring 3 – Removed, maximum 80mm hole

Ring 4 – Removed, maximum 101mm hole

1101E, 1104E and 1105E have 3 concentric ring sets, and centre ring.

1102E has 4 ring set and centre ring

Bath Armor™

Bath Armor™ also known as bath beads, are moisture and gas impermeable, with high thermal conductivity. Smooth and rounded beads that replace water.

Run costs represent an average saving of approximately 70% when compared to water.

- Bath can remain always on and ready to use when using bath beads.
- Bottles and tubes stay in place, removing the need for racks.
- Environmentally friendly.
- Made from recyclable material.
- Cleaning frequency reduced.
- No water borne contamination.
- Can be washed or sterilised (not by autoclave).
- Good thermal heat distribution.



Pack Size

Product Code	BA-2	BA-5	BA-12
Pack Size	2 Litres	4 Litres	12 Litres

Pack Required

Product Code	BA-2	BA-5	BA-12	Depth per Bath
2 Litre Water Baths	1 Pack			40 mm
2.5 Litre Water Baths		1 Pack		100 mm
4 Litre Water Baths		1 Pack		100 mm
5 Litre Water Baths		1 Pack		30 mm
8 Litre Water Baths			1 Pack	120 mm
9 Litre Water Baths			1 Pack	40 mm
10 Litre Water Baths			1 Pack	150 mm
14 Litre Water Baths			1 Pack	110 mm
22 Litre Water Baths			2 Packs	120 mm
28 Litre Water Baths			2 Packs	150 mm

Hints and Tips During Use

- Disinfect frequently.
- We recommend that lids are not used when using Bath Armor™
- Working temperature range is -80°C to 180°C.
- Cannot be autoclaved.

Compatiblity

Bath Armor™ is only compatible with the NE1, NE2D, and NE3DT models. We are unable to provide guidance or recommendations for use with other brands of water baths.

SW Ultrasonic Baths

These industrial strength ultrasonic baths are designed for demanding applications and suitable for continuous operation. The baths are also ideal for cleaning delicate or fragile components which may otherwise be damaged by mechanical cleaning.

The baths are available from 1 to 30 litres capacity and feature eco and dynamic sonic modes. Eco offers quieter gentler ultrasonic activity whilst dynamic running provides vigorous cleaning. **Complete with lid and basket.**



Product Code	SW1H	SW3H	SW6H
Chamber Capacity	1 Litres	3 Litres	6 Litres
Temp. Range	30°C - 80°C in 5°C increments		
Temp. Control	Analogue dial pointer		
Timer	Time setting OFF, 1, 2, 3, 4, 5, 10, 15, 20, 25, 30 minutes or continuous up to 6 hours		
Voltage	120V or 230V models available 50-60Hz		
Ultrasonic Effective Power	30W	80W	150W
Ultrasonic Peak Power / Frequency	240W / 37kHz	320W / 37kHz	600W / 37kHz
Heater Power (220-240V)	60W	200W	400W
Drain Tap Fitted	✗		✔
Dimensions			
External (mm)	235w x 135d x 190h	305w x 190d x 230h	370w x 200d x 275h
Internal (mm)	190w x 85d x 60h	220w x 120d x 100h	275w x 125d x 150h
Basket Internal (mm)	155w x 70d x 35h	195w x 105d x 50h	255w x 105d x 95h

Product Code	SW12H	SW30H
Chamber Capacity	12 Litres	30 Litres
Temp. Range	30°C - 80°C in 5°C increments	
Temp. Control	Analogue dial pointer	
Timer	Time setting OFF, 1, 2, 3, 4, 5, 10, 15, 20, 25, 30 minutes or continuous up to 6 hours	
Voltage	120V or 230V models available 50-60Hz	
Ultrasonic Effective Power	200W	300W
Ultrasonic Peak Power / Frequency	800W / 37kHz	1200W / 37kHz
Heater Power (220-240V)	800W	1200W
Drain Tap Fitted	✔	
Dimensions		
External (mm)	380w x 290d x 330h	575w x 355d x 330h
Internal (mm)	300w x 215d x 200h	475w x 270d x 200h
Basket Internal (mm)	250w x 195d x 135h	450w x 255d x 135h

HP1 Analogue Hotplates

Analogue hotplates feature a generous working area, thermostatically controlled, with an illuminated on/off switch, heater and hot warning indicator.

Featuring a hob surface, which is solid aluminium, 12mm thick for excellent thermal properties and uniform heat distribution over its working area. This overlaps the body to ensure that no spillages enter the controls.

Painted surfaces and the control panel have an antibacterial protection which is chemical resistant and is wipe clean. Hob temperature can be adjusted using the control dial.



Product Code	HP1-1	HP1-2	HP1-3
Temp. Range	Ambient +10° - 320°C		
Temp. Control	Analogue dial pointer		
Sensitivity	±10°C at 150°C		
Hob Max. Load	8kg at maximum 300°C		
Retort Points	Single M10 fixing point, rear hotplate	Double M10 fixing points, rear hotplate	
Heater Power (220-240V)	1000W	2000W	2400W
Voltage	230V		
Dimensions			
External (mm)	325w x 260d x 200h	477w x 325d x 200h	706w x 325d x 200h
Hob Dimensions (mm)	305w x 240d	457w x 305d	686w x 305d

HP1D Digital Hotplates

Digital hotplate features a precision PID control providing accurate temperature setting and control, for refined hotplate sensitivity. Temperature and time settings are retained in memory, even after power off.

Featuring a hob surface, which is solid aluminium, 12mm thick for excellent thermal properties and uniform heat distribution over its working area. This overlaps the body to ensure that no spillages enter the controls.



Product Code	HP1-1D	HP1-2D	HP1-3D
Temp. Range	Ambient +10° - 350°C		
Temp. Control	PID Digital, LED display, resolution 1°C		
Temp. Alarm	Over temperature alarm is automatically set 10°C above set point		
Sensitivity/Uniformity	±0.5°C at 60°C / ±0.5°C at 60°C		
Timer	Variable, 00:01 to 99:59 (hh:mm)		
Hob Max. Load	8kg at maximum 300°C		
Retort Points	Single M10 fixing point, rear hotplate	Double M10 fixing points, rear hotplate	
Heater Power (220-240V)	1000W	2000W	2400W
Voltage	230V		
Dimensions			
External (mm)	325w x 260d x 200h	477w x 325d x 200h	706w x 325d x 200h
Hob Dimensions (mm)	305w x 240d	457w x 305d	686w x 305d

NE9S Digital Lab Ovens

Clifton lab ovens feature intuitive easy to use controls with a bold illuminated LED display, offering precise temperature control from ambient +5°C to 300°C with timer functions.

These lab ovens can run at set temperature immediately, use run back timer or enable a delay start feature.

Can be configured for gravity convection or with variable fan speed providing forced air circulation within the chamber.



Product Code	NE9-15S	NE9-32S	NE9-56S
Chamber Capacity	15 Litres	32 Litres	56 Litres
Temp. Range	Ambient +5° - 300°C		
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C		
Temp. Alarm	Over temperature alarm is automatically set 5°C above set point		
Temp. Sensor	pt100 with control diagnostics at power up		
Temp. Fluctuation	±0.4°C at 150°C		
Shelves Fitted & Max.	1 wire / 3 max		2 wire / 5 max
Heater Power (220-240V)	1050W	1100W	2150W
Voltage	230V 50-60Hz		
Dimensions			
External (mm)	520w x 390d x 600h	600w x 460d x 680h	600w x 605d x 720h
Internal (mm)	320w x 180d x 240h	400w x 250d x 320h	400w x 400d x 360h

Product Code	NE9-112S	NE9-240S
Chamber Capacity	112 Litres	240 Litres
Temp. Range	Ambient +5° - 300°C	
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C	
Temp. Alarm	Over temperature alarm is automatically set 5°C above set point	
Temp. Sensor	pt100 with control diagnostics at power up	
Temp. Fluctuation	±0.4°C at 150°C	
Shelves Fitted & Max.	2 wire / 8 max	3 wire / 10 max
Heater Power (220-240V)	2150W	3200W
Voltage	230V 50/60Hz	230V 50/60Hz blue power plug 2P+E
Dimensions		
External (mm)	600w x 660d x 980h	800w x 720d x 1160h
Internal (mm)	400w x 450d x 620h	600w x 510d x 800h

NE8S Digital Lab Incubators

Easy to use controls with a bold illuminated LED display, offering precise temperature control from ambient +5°C to 100°C with timer function. Ideal for microbiology.

These digital scientific incubators can run at set temperature immediately, use run back timer or enable a delay start feature. Can be configured for gravity convection or with variable fan speed providing forced air circulation within the chamber.



Product Code	NE8-15S	NE8-32S	NE8-56S
Chamber Capacity	15 Litres	32 Litres	56 Litres
Temp. Range	Ambient +5° - 100°C		
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C		
Temp. Alarm	Over temperature alarm is automatically set 5°C above set point		
Temp. Sensor	pt100 with control diagnostics at power up		
Temp. Fluctuation	±0.2°C at 37°C		
Shelves Fitted & Max.	1 wire / 3 max		2 wire / 5 max
Heater Power (220-240V)	450W		
Voltage	230V 50-60Hz		
Dimensions			
External (mm)	520w x 390d x 600h	600w x 460d x 680h	600w x 605d x 720h
Internal (mm)	320w x 180d x 240h	400w x 250d x 320h	400w x 400d x 360h

Product Code	NE8-112S	NE8-240S
Chamber Capacity	112 Litres	240 Litres
Temp. Range	Ambient +5° - 100°C	
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 0.1°C	
Temp. Alarm	Over temperature alarm is automatically set 5°C above set point	
Temp. Sensor	pt100 with control diagnostics at power up	
Temp. Fluctuation	±0.2°C at 37°C	
Shelves Fitted & Max.	2 wire / 8 max	3 wire / 10 max
Heater Power (220-240V)	1100W	1100W
Voltage	230V 50/60Hz	
Dimensions		
External (mm)	600w x 660d x 980h	800w x 720d x 1160h
Internal (mm)	400w x 450d x 620h	600w x 510d x 800h

NE1M-25 Mini Incubator

The Mini Incubator is a compact, durable model ideal for sample incubation in education or laboratory settings. The 25 litre chamber is manufactured from high quality corrosion resistant stainless steel within a steel body, with antibacterial paint finish.

The PID temperature controller is secured behind a lockable polycarbonate clear door, to prevent unauthorised adjustment and allows full view of the chamber. Supplied with 2 stainless steel removable perforated shelves, which can be repositioned across 4 fixed shelf positions, to accommodate different sample sizes and configurations. Additional shelves available to purchase. The chamber is designed to take multiple petri dishes and 1 litre bottles.

The heaters are concealed behind the inner chamber walls ensuring uniform and stable gravity convection.



Product Code	NE1M-25
Chamber Capacity	25 Litres
Temp. Range	Ambient +5° - 60°C
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 1°C
Temp. Sensor	TC K probe with control diagnostics at power up
Temp. Fluctuation	±0.2°C at 37°C
Temp. Variation	±0.5°C at 37°C
Temp. Heat Up	10 minutes to 37°C
Temperature Door Open Recovery 37°C	5 Minutes
Chamber Convection	Gravity Convection
Temp. Alarm	Over temperature alarm automatically set 5°C above set temperature
Door	Single clear polycarbonate door, lockable
Shelves / Max.	2 Perforated / 4 Max
Shelving Locations	4 Fixed Positions
Shelf Max. Load	10kg
Heater Power	260W
Voltage	230V 50/60Hz
Dimensions	
External (mm)	451w x 377d x 467h
Internal (mm)	400w x 250d x 320h
Feet/Castors	Fixed rubber feet



Door Features

Controls are behind a lockable door, to prevent unauthorised adjustment and allows full view of the chamber.

NE1V Oven/Incubator

The Oven/Incubator provides a stable temperature environment for general purpose applications and features a digital PID controller for precision. The controls feature an auto alarm and the insulated chamber ensures low energy consumption.

Manufactured from high quality corrosion resistant stainless steel within a steel body with anti-bacterial paint finish.



Product Code	NE1V-32	NE1V-56
Chamber Capacity	32 Litres	56 Litres
Temp. Range	Ambient +5° - 250°C	
Temp. Control	PID Digital, LED display showing actual or set temperature, resolution 1°C	
Temp. Sensor	pt100 with diagnostics check on power up	
Temp. Fluctuation	±0.3°C at 37°C	
Temp. Variation	±1.0°C at 37°C	
Temp. Fluctuation	±0.5°C at 150°C	
Temp. Variation	±2.0°C at 150°C	
Temp. Heat Up to 150°C	30 minutes	40 minutes
Timer	Run back Timer 00:01 to 99:59 (hh:mm) at set temperature	
Temperature Door Open Recovery 150°C	16 Minutes	
Over Temp. Limiter	Class 1	
Shelves Supplied / Max.	1 wire / 2 max	2 wire / 4 max
Shelving Locations	Available 80mm spacing	
Heater Power	1050W	
Voltage	230V 50/60Hz	
Energy use at 37°C	0.02 kw/h	
Energy use at 150°C	0.23kw/h	
Dimensions		
External (mm)	740w x 460d x 560h	740w x 610d x 600h
Internal (mm)	400w x 270d x 320h	400w x 390d x 360h

NE5 Analogue Shaking Baths


Shaking water bath, featuring analogue temperature and shaking speed control, available with a broad range of accessory trays, flask clips and racks ensures flexibility for routine and specialised incubations.

The shaker trolley is stable in use, with a removable perforated shelf, unlike many traditional shaker baths where the whole shaker carriage has to be removed for loading and unloading.

Clifton shaking baths features a useful stainless steel recessed tray for standing flasks on prior to and after immersion.

Accessory clips and racks mount onto a perforated shelf fitted to a reciprocating stainless steel trolley. Flasks and test tube racks can be easily loaded and removed by lifting out the shelf, and the trolley is easily removed for cleaning. A perforated tray is supplied as standard.



Product Code	NE5-28
Chamber Capacity	28 Litres
Temp. Range	Ambient +5° - 99°C
Temp. Alarm	Adjustable over temperature device
Temp. Control	Analogue dial pointer, graduated in 10°C divisions
Sensitivity	±0.2°C at 45°C
Uniformity	±0.1°C at 45°C
Heater Power (220-240V)	1000W
Voltage	230V 50-60Hz
Linear Shaking Control	Shaking control variable 0 to 400 strokes / 0 to 200rpm
Stroke Length	Variable up to 40mm stroke
Stroke Display	Analogue
Drain Outlet	
Dimensions	
External (mm)	715w x 332d x 290h
Internal (mm)	500w x 298d x 200h
Perforated Shelf/Trolley Size (mm)	389w x 270d
Water Level Maximum (mm)	120
Water Level Minimum (mm)	50

NE5D Digital Shaking Baths

The Clifton NE5-D series of shaking water baths, feature precision PID control, allowing observation of set and actual temperature simultaneously. A broad range of accessory flask clips and racks ensures flexibility for routine and specialised work.

NE5-28DT has a built in timer, settings variable, 00:01 to 99:59 [hh:mm] which activates at set temperature. Settings retained even after turning the unit off.



Accessory clips and racks mount onto a perforated shelf fitted to a reciprocating stainless steel trolley. Flasks and test tube racks can be easily loaded and removed by lifting out the shelf, and the trolley is easily removed for cleaning. A perforated tray is supplied as standard.



Product Code	NE5-10D	NE5-28D	NE5-28DT
Chamber Capacity	10 Litres	28 Litres	
Temp. Range	Ambient +5° - 100°C		
Temp. Alarm	Under/over temperature alarm automatically set 4°C above and 4°C below set point		
Temp. Control	PID Digital, LED display showing actual and set temperature, resolution 0.1°C		
Sensitivity	±0.1°C at 45°C		
Uniformity	±0.1°C at 45°C		
Heater Power (220-240V)	800W	1000W	
Timer	✗		Indicator and end message
Voltage	230V 50-60Hz		
Linear Shaking Control	Shaking control variable 0 to 400 strokes / 0 to 200rpm		
Stroke Length	Fixed 20mm stroke	Variable up to 40mm stroke	
Stroke Display	Analogue		
Drain Outlet	✗	✓	
Dimensions			
External (mm)	449w x 332d x 290h	715w x 332d x 290h	
Internal (mm)	242w x 300d x 200h	500w x 298d x 200h	
Perforated Shelf/Trolley Size (mm)	175w x 270d	389w x 270d	
Water Level Maximum (mm)	120		
Water Level Minimum (mm)	50		

CM-1 Cyclone Vortex Mixer

For rapid and efficient mixing the cyclone is far superior to hand shaking. The cyclone creates a vortex in the tube, which gives the highly effective mixing action.

Contamination from stirring rods and stoppers is eliminated and different samples may be subjected to the same degree of mixing, thus improving repeatability of results.

Fitted with an automatic press-start operation providing instant action the moment the tube is pressed into the rubber cap. This feature is particularly useful where repetitive mixing is undertaken.

Offers variable speed control, with the advantages of controlled mixing over a wide speed range 200 to 2800 rpm on a 7mm orbit. This allows for very slow gentle mixing which is necessary in many applications, particularly where damage to cell structure must be avoided.



Product Code	CM-1
Mixing Capacity	Accepts vessels and tubes upto 25mm diameter
Mixing Orbit	7 mm
Speed	200 - 2800 rpm
Voltage	230V 50/60Hz
Packed Weight	4 kg
Dimensions	
External (mm)	150w x 175d x 150h
Packed (cm)	36 x 19 x 26

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T: +44 (0) 1934 626691

W: www.nickel-electro.com

E: clifton@nickel-electro.co.uk

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