



NICKEL-ELECTRO Ltd.

Manufacturers of laboratory, medical and clinical equipment.

Oldmixon Crescent, Weston-super-Mare,
North Somerset, BS24 9BL, United Kingdom.

Tel: +44 (0)1934 626691
Fax: +44 (0)1934 630300

Email: clifton@nickel-electro.co.uk
www.nickel-electro.co.uk

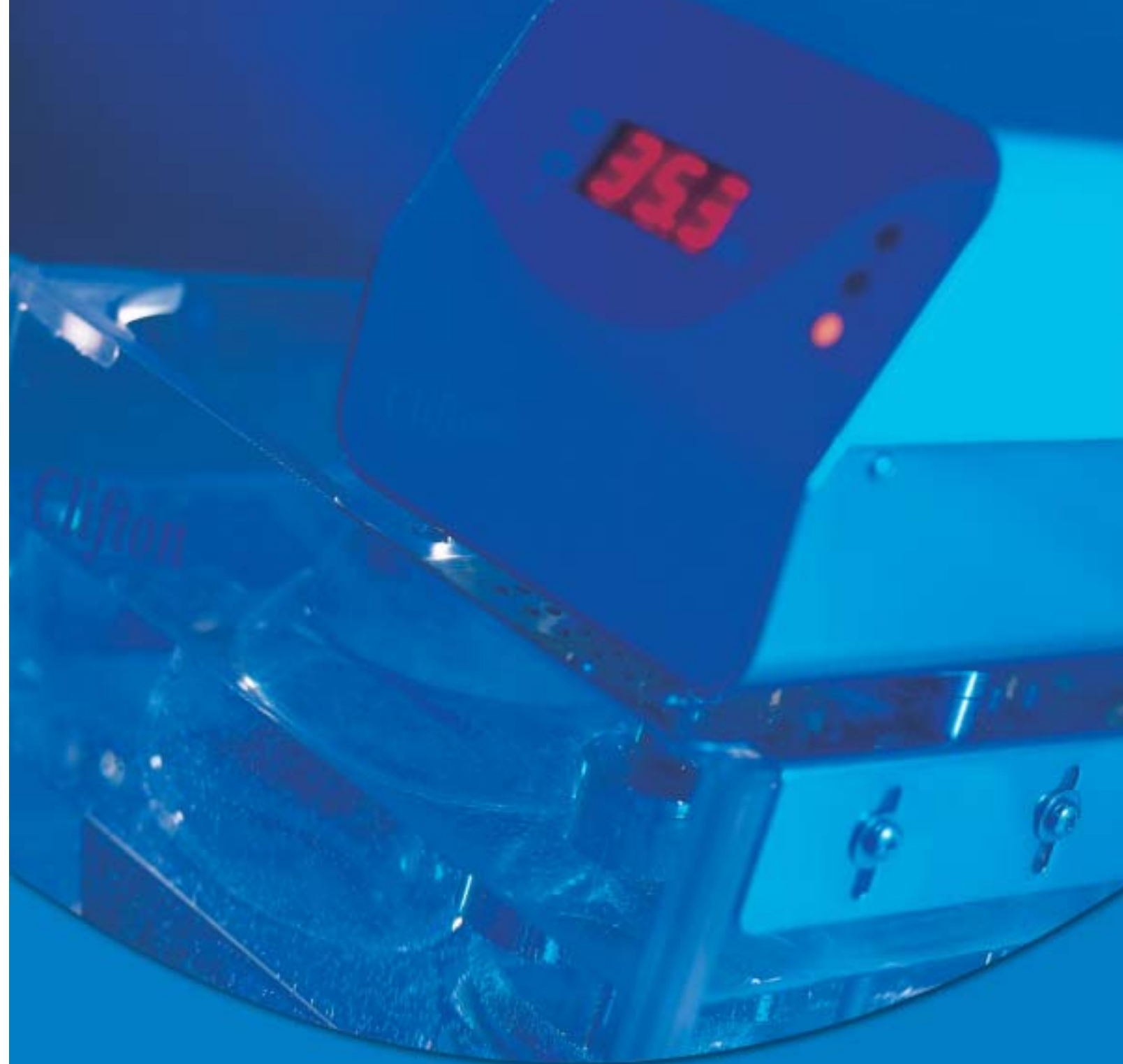
Your local dealer is:



THE *Clifton* RANGE



NICKEL-ELECTRO Ltd.



WATER BATHS

STIRRED BATHS

CIRCULATING BATHS

DEEP CHAMBER BATH

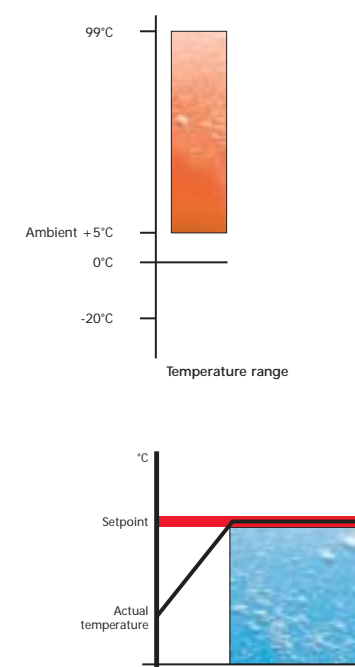
IMMERSION COOLER

STIRRED BATHS

NE4-T series, thermostat control

Stirred Clifton water baths are designed for immersion of flasks/bottles/racks in a highly stable temperature environment throughout the water bath. Available in a wide range of sizes suiting a variety of applications.

This entry level thermostatically controlled analogue Thermostirrer is housed in a durable corrosion resistant stainless steel body. Immersed components are corrosion resistant. The Thermostirrer features a safety cut-out float switch, illuminated on/off switch, heater and mains indications. The Thermostirrer is supplied with a stainless steel mounting bridge to fit the selected tank. Each bath consists of a 304 spec stainless steel tank contained within a sturdy outer case with chemical resistant paint finish and is complete with a stainless steel shelf, designed for good temperature stability.



Features Include:

- Sensitivity: $\pm 0.2^{\circ}\text{C}$
- Uniformity: $\pm 0.05^{\circ}\text{C}$
- Temperature range: ambient $+5^{\circ}\text{C}$ - 99°C ★
- Thermostatic control - *easy to use*
- Totally unobstructed, crevice free, stainless steel tank
- Powerful stirring within tank - *for stable temperature control*
- Stainless steel tank - *corrosion resistant and easy to clean*
- Sturdy construction - *powder coated for a chemical resistant exterior*
- Safety cut-out float switch - *low liquid level protection*
- Removable sturdy stainless steel shelf
- Lids optional extra - *recommended above 60°C*



Cat No	NE4-8T	NE4-14T	NE4-22T	NE4-28T
Capacity, litres	8l	14l	22l	28l
Working dims	129w x 332d x 150h mm	219w x 298d x 150h mm	395w x 298d x 150h mm	395w x 298d x 200h mm
Overall dims	271w x 332d x 170h mm	361w x 332d x 170h mm	537w x 332d x 170h mm	537w x 332d x 240h mm
Heater, Watts	1250W	1250W	1250W	1250W
Voltage	230V	230V	230V	230V

● The Thermostirrer is available separately as NE4-T which can be mounted on a suitable vessel using accessory NE4-MB mount bracket.

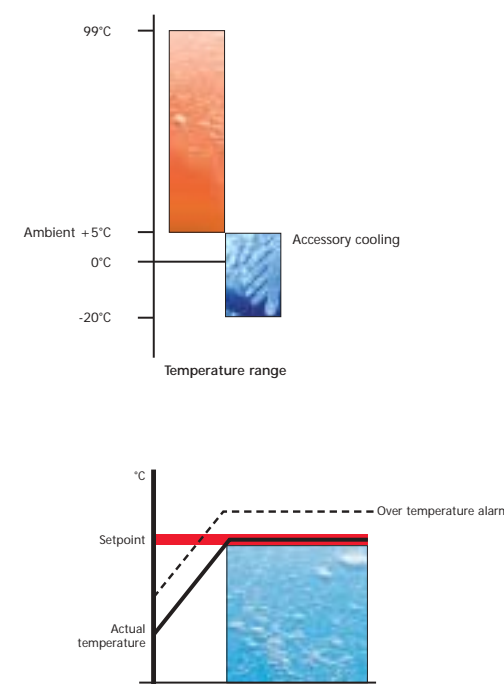
★ Above 60°C it is recommended that to achieve optimum performance the bath should be covered with SL4 lid or polypropylene spheres - see accessories page 9

STIRRED BATHS

NE4-D series, digital thermostatic control

Stirred Clifton water baths are designed for immersion of flasks/bottles/racks in a highly stable temperature environment throughout the water bath. Available in a wide range of sizes suiting a variety of applications.

This digital thermostatically controlled Thermostirrer is housed in a durable corrosion resistant stainless steel body. Immersed components are corrosion resistant. The Thermostirrer features a safety cut-out float switch, illuminated on/off switch, heater, mains and over-temperature indications. The Thermostirrer is supplied with a stainless steel mounting bridge to fit the selected tank. Each bath consists of a 304 spec stainless steel tank contained within a sturdy outer case with chemical resistant paint finish and is complete with a stainless steel shelf, all designed for good temperature stability.



Features Include:

- Sensitivity: $\pm 0.1^\circ\text{C}$
- Uniformity: $\pm 0.01^\circ\text{C}$
- Temperature range: ambient $+5^\circ\text{C}$ - 99°C ★
- Accessory cooling: ambient to -20°C ▲
- Digital thermostatic control
- Clear 3 digit display
- Display resolution: 0.1°C
- Precision control
- Totally unobstructed, crevice free, stainless steel tank
- Powerful stirring within tank
- excellent temperature control
- Stainless steel tank
- corrosion resistant and easy to clean
- Sturdy construction
- powder coated for a chemical resistant exterior
- Safety cut-out float switch
- low liquid level protection
- Removable stainless steel shelf supplied
- Lids optional extra
- recommended above 60°C or below ambient
- Over temperature
- audible and visual alarm preset



Cat No	NE4-8D	NE4-14D	NE4-22D	NE4-28D
Capacity, litres	8/	14/	22/	28/
Working dims	129w x 332d x 150h mm	219w x 298d x 150h mm	395w x 298d x 150h mm	395w x 298d x 200h mm
Overall dims	271w x 332d x 170h mm	361w x 332d x 170h mm	537w x 332d x 170h mm	537w x 332d x 240h mm
Heater, Watts	1250W	1250W	1250W	1250W
Over temp. alarm	+4°C, warning message, heater cut off, audible.	+4°C, warning message, heater cut off, audible.	+4°C, warning message, heater cut off, audible.	+4°C, warning message, heater cut off, audible.
Voltage	230V	230V	230V	230V

● The Thermostirrer is available separately as NE4-D which can be mounted on a suitable vessel using accessory NE4-MB mount bracket.

▲ For operation at temperatures below ambient an accessory cooling system DC1-300 is required - See page 14

★ Above 60°C or below room temperatures it is recommended that to achieve optimum performance the bath should be covered with SL4 lid or polypropylene spheres - see accessories page 9

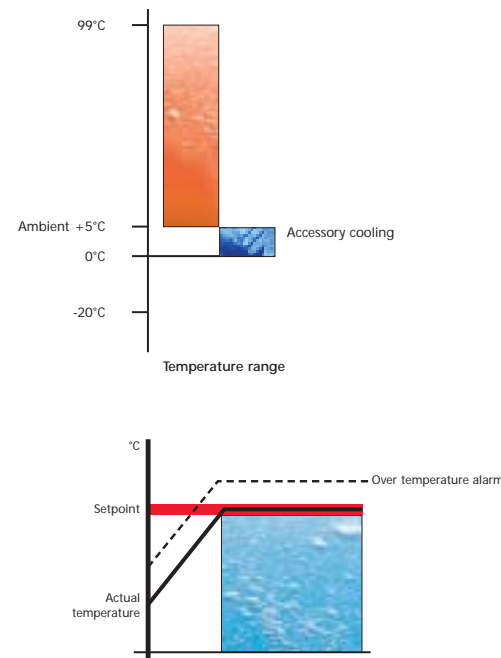
BATHS

NE4-D/CT series, digital thermostatic control - acrylic tank

Stirred Clifton water baths are designed for immersion of flasks/bottles/racks in a highly stable temperature environment throughout the water bath. Available in a wide range of sizes suiting a variety of applications.

The sturdy clear acrylic tank allows observation of samples, complete with stainless steel shelf all designed for good water circulation and water temperature stability.

Supplied with a stainless steel bridge to mount the thermostirrer to the tank.

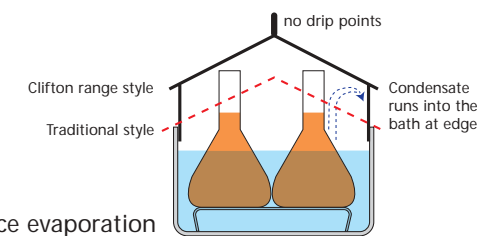


Cat No	NE4-8D/CT	NE4-14D/CT	NE4-22D/CT
Capacity, litres	8l	14l	22l
Working dims	130w x 303d x 150h mm	214w x 303d x 150h mm	385w x 303d x 150h mm
Overall dims	272w x 318d x 165h mm	370w x 318d x 165h mm	543w x 318d x 165h mm
Heater, Watts	1250W	1250W	1250W
Over temp. alarm	+4°C, warning message, heater cut off, audible.		+4°C, warning message, heater cut off, audible.
Voltage	230V	230V	230V

▲ For operation at temperatures below ambient an accessory cooling system DC1-300 is required - See page 14
 ★ Above 60°C or below room temperature it is recommended that to achieve optimum performance the bath should be covered with SL4 lid or polypropylene spheres - see accessories page 9

ACCESSORIES

NE4 series of stirred water baths



LIDS

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

- Stainless gable lids with a high profile allowing extended use of the bath area, right into edges of the tank
- Insulated handles

Cat. No.	Description
SL4-8	Gabled lid, stainless steel, for 8 litre baths
SL4-14	Gabled lid, stainless steel, for 14 litre baths
SL4-22	Gabled lid, stainless steel, for 22 and 28 litre baths

RAISED SHELVES

Allows immersion depth of samples to be varied.

RS4-14	Raised shelf, stainless steel, for 14 litre baths
RS4-22	Raised shelf, stainless steel, for 22/28 litre bath

RACKS

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

Max number of racks per bath			
Bath size	8 litre	14 litre	22/28litre
No. racks	1	2	5

MISCELLANEOUS

TC-1	Thermometer clip with bent stem spirit filled thermometer, lies flush with top edge of bath to prevent accidental damage. Scale: 0 -100°C in 2°C graduations.
DC1-300	Immersion cooler: operates to -20°C See page xx
BX0616	Draining syphon
NE4-MB	Mounting bracket allows controllers to be mounted on a suitable separate vessel. Max tank wall thickness 30mm.



SPHERES, POLYPROPYLENE

Provides a floating lid on water baths to minimise evaporation and allows easy immersion/removal of flasks etc. Number of packs required providing a single layer:

Bath size	No. of packs required
8/14 litre	1 Pack
22/28 litre	2 Packs

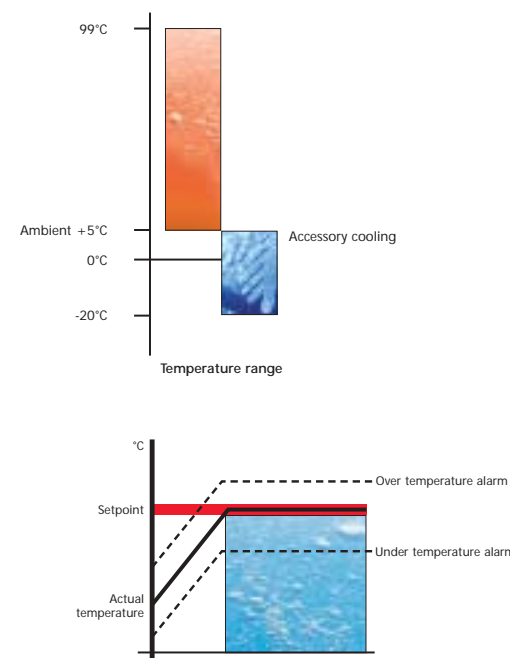
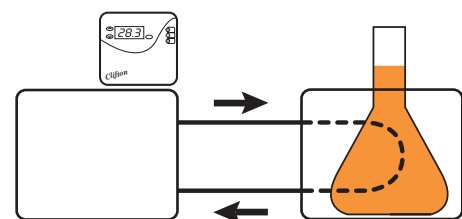
Cat. No.	Sphere dia	Pk qty
BP0368	20 mm	200

CIRCULATORS

NE4-P series, water Circulators

A range of water baths for external circulation of temperature controlled water in a closed circuit.

This digital thermostatically controlled Thermocirculator is housed in a durable stainless steel case. Immersed components are corrosion resistant. The Thermocirculator features a safety cut-out float, illuminated mains, heater and over temperature indications. The Thermocirculator is supplied assembled to a stainless steel mounting bridge which features push-fit and lock fittings for inlet and outlet accessory hoses for external water circulation. Each bath consists of a 304 spec stainless steel tank contained within a sturdy outer case with chemical resistant paint finish and is complete with a stainless steel shelf providing good water temperature stability.



Features Include:

- Sensitivity $\pm 0.1^\circ\text{C}$
- Uniformity $\pm 0.01^\circ\text{C}$
- Temperature range: ambient $+5^\circ\text{C}$ - 99°C ★
- Accessory cooling: ambient to -20°C ▲
- Digital thermostatic control
- Clear 3 digit display
- Display resolution: 0.1°C
- Precision control
- Powerful circulation pump - closed loop
- Convenient push-fit and lock fittings - for secure external water circulation
- Sturdy construction
- Safety cut-out float switch - low liquid level protection
- Under temperature - audible and visual alarm preset
- Over temperature - audible and visual alarm preset



Cat No	NE4-8P	NE4-14P	NE4-22P	NE4-28P
Capacity, litres	8l	14l	22l	28l
Working, dims	129w x 332d x 150h mm	219w x 298d x 150h mm	395w x 298d x 150h mm	395w x 298d x 200h mm
Overall, dims	271w x 332d x 170h mm	361w x 332d x 170h mm	537w x 332d x 170h mm	537w x 332d x 240h mm
Heater, Watts	1250W	1250W	1250W	1250W
Over temp. alarm	+4°C, warning message, heater cut off, audible.	+4°C, warning message, heater cut off, audible.	+4°C, warning message, heater cut off, audible.	+4°C, warning message, heater cut off, audible.
Under temp. alarm	-4°C, warning message, heater cut off, audible.	-4°C, warning message, heater cut off, audible.	-4°C, warning message, heater cut off, audible.	-4°C, warning message, heater cut off, audible.
Pump capacity l/min	10	10	10	10
Pump pressure	1.5m head	1.5m head	1.5m head	1.5m head
Voltage	230V	230V	230V	230V

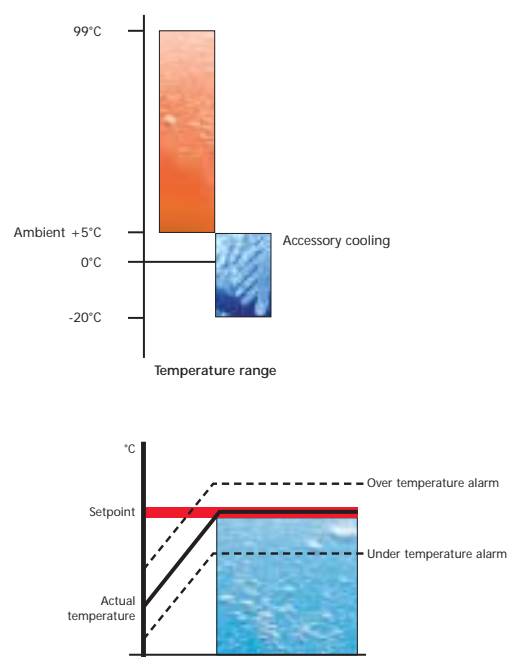
- The Thermostirrer is available separately as NE4-P which can be mounted on a suitable vessel using accessory NE4-MB mount bracket.
- ▲ For operation at temperatures below ambient an accessory cooling system DC1-300 is required - See page 14
- ★ Above 60°C or below room temperatures it is recommended that to achieve optimum performance the bath should be covered with lid or polypropylene spheres - see accessories page 13
- If using accessory racks please use SL4 lids

CIRCULATORS

NE4-HT series, water and oil Circulators

A range of water baths for external circulation of temperature controlled water and oils in a closed circuit.

This digital thermostatically controlled Thermocirculator is housed in a durable stainless steel case. Immersed components are corrosion resistant. The Thermocirculator features a safety cut-out float, illuminated mains, heater and alarm indications. The Thermocirculator is supplied assembled to a stainless steel mounting bridge which features push-fit and lock fittings for inlet and outlet accessory hoses for external water and oil circulation. Each bath consists of a 304 spec stainless steel tank contained within a sturdy outer case with chemical resistant paint finish and is complete with a stainless steel shelf providing good temperature stability.



Cat No	NE4-8HT	NE4-14HT	NE4-22HT
Capacity, litres	8l	14l	22l
Working, dims	129w x 332d x 150h mm	219w x 298d x 150h mm	395w x 298d x 150h mm
Overall, dims	271w x 332d x 170h mm	361w x 332d x 170h mm	537w x 332d x 170h mm
Heater, Watts	1250W	1250W	1250W
Over temp. alarm	+4°C, warning message, heater cut off, audible.	+4°C, warning message, heater cut off, audible.	+4°C, warning message, heater cut off, audible.
Under temp. alarm	-4°C, warning message, heater cut off, audible.	-4°C, warning message, heater cut off, audible.	-4°C, warning message, heater cut off, audible.
Pump capacity l/min	10	10	10
Pump pressure	1.5m head	1.5m head	1.5m head
Voltage	230V	230V	230V

- The Thermostirrer is available separately as NE4-HT which can be mounted on a suitable vessel using accessory NE4-MB mount bracket.
- ▲ For operation at temperatures below ambient an accessory cooling system DC1-300 is required - See page 14
- ★ Above 60°C or below room temperature it is recommended that to achieve optimum performance the bath should be covered with a lid or polypropylene spheres - see accessories page 13
- If using accessory racks please use SL4 lids

Features Include:

- Sensitivity $\pm 0.1^\circ\text{C}$
- Uniformity $\pm 0.01^\circ\text{C}$
- Temperature range: ambient $+5^\circ\text{C}$ - 130°C ★
- Accessory cooling: ambient to -20°C ▲
- Digital thermostatic control
- Clear 3 digit display
- Display resolution: 0.1°C (-20°C - 99°C)
- Precision control
- Powerful circulation pump - closed loop
- Convenient push-fit and lock fittings - for secure external water circulation
- Stainless steel tank
- Sturdy construction
- Safety cut-out float switch - low liquid level protection
- Under temperature - audible and visual alarm preset
- Over temperature - audible and visual alarm preset
- Adjustable over temperature safety device

ACCESSORIES

NE4 series of circulating water baths

LIDS

Cat. No.	Description
SL4-8	Gabled lid, stainless steel, for 8 litre baths
SL4-14	Gabled lid, stainless steel, for 14 litre baths
SL4-22	Gabled lid, stainless steel, for 22 and 28 litre baths

LIDS

Cat. No.	Description
LD4-8	Flat Lid, stainless steel, 8 litre baths
LD4-14	Flat Lid, stainless steel, 14 litre baths
LD4-22	Flat Lid, stainless steel, 22/28 litre baths

RAISED SHELVES

Allows immersion depth of samples to be varied.

RS4-14	Raised shelf, stainless steel, for 14 litre baths
RS4-22	Raised shelf, stainless steel, for 22/28 litre bath

RACKS

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 1.5m/microtubes
6873	Test tube rack, stainless steel, 18 holes x 19mm dia
6900	Test tube rack, stainless steel, 12 holes x 32mm dia

Max number of racks per bath

Bath size	8 litre	14 litre	22/28litre
No. racks	1	2	5

INSULATED HOSES

HS-1	Push fit and lock insulated hose 1m length x 6mm dia
HS-2	Push fit and lock insulated hose 2m length x 6mm dia

MISCELLANEOUS

TC-1	Thermometer clip with bent stem spirit filled thermometer, lies flush with top edge of bath to prevent accidental damage. Scale: 0 -100°C in 2°C graduations.
DC1-300	Immersion cooler: operates to -20°C See page 14
BX0616	Draining syphon
NE4-MB	Mounting bracket allows controllers to be mounted on a suitable separate vessel. Max tank wall thickness 30mm.

SPHERES, POLYPROPYLENE

Provides a floating lid on water baths to minimise evaporation and allows easy immersion/removal of flasks etc (maximum temperature 100°C). Number of packs required providing a single layer:

Bath size	No. of packs required
8/14 litre	1 Pack
22/28 litre	2 Packs

Cat. No.	Sphere dia	Pk qty
BP0368	20 mm	200

DEEP CHAMBER

This deep chamber bath is suitable for Gerber testing and Plasma thawing applications where tall water volumes are required.

The digital thermostatically controlled Thermostirrer is housed in a durable corrosion resistant stainless steel body. Immersed components are corrosion resistant. The Thermostirrer features a safety cut-out float switch, illuminated on/off switch, heater, mains and over-temperature indications. The Thermostirrer is supplied with a stainless steel mounting bridge to fit the selected tank. The chamber consists of a 304 spec stainless steel tank contained within a sturdy painted outer case and is complete with a stainless steel shelf, all designed for good temperature stability.

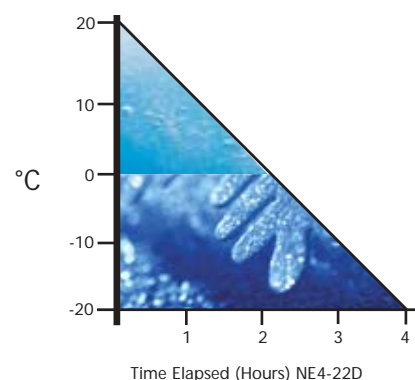


Cat No	NE4-25D
Capacity, litres	25l
Internal dims	389w x 235d x 330h mm
Overall dims	440w x 265d x 370h mm
Heater, Watts	1250W
Over temp. alarm	+4°C, warning message, heater cut off, audible.
Sensitivity	±0.1°C
Uniformity	±0.1°C
Voltage	230V

ACCESSORIES	
6880	12 hole stainless steel Butyrometer rack max. 3 racks per bath
ET0564	Thermometer
SA01293	Plasma bag clips - pair max. 4 pair per bath

IMMERSION COOLER

This refrigeration cooler has no temperature control, as it is designed to be used in conjunction with a stirred or circulating water bath, where its immersion coil is specially designed to fit into rear access hole behind the Thermostirrer without sacrificing the working area. The immersion cooler runs continuously with the bath providing temperature control.



Features Include:

- Stainless steel immersion coil - corrosion resistant
- Replaces wasteful use of cold water cooling
- CFC free gas
- Quiet in operation
- Bench top model
- Flexible hose



Cat No	DC1-300
Length of hose	900mm
Diameter cooling coil	65mm
Overall dims	350w x 420d x 250h mm
Cooling capacity W	
+20°C	1000 W
+5°C	560 W
0°C	480 W
-10°C	330 W
-20°C	215 W
Refrigerant	R134a
Voltage	230V

Service Support

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.

In the UK, on-site repair work can also be undertaken depending on the nature of the problem. For more complex, time consuming repairs, loan units are often available. A full technical service is available to distributors and end-users of our equipment.

Dealer Training

We are keen to ensure that new and existing dealers are fully aware of our products and we can arrange for regular training at our premises or off-site.

Environmental Policy

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

- being fully aware of all environmental legislation
- following a policy of re-use, recycling and waste minimisation
- designing products with minimum energy requirements.

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.

Quality System

Our products are designed, developed and manufactured in a tightly controlled ISO9002 environment and all products are CE compliant.



Certificate No. Q09820

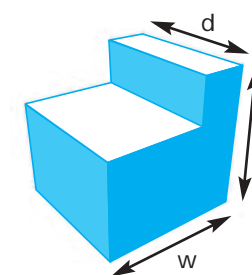
Our entire range carries a comprehensive 3-year warranty.

Whilst budget constraints are recognised, product quality will never be compromised by the need to be competitive.

Payment Process

We are able to process payments electronically and accept most major debit/credit cards.

Key to Dimensions



INVESTOR IN PEOPLE