



## **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](mailto:clifton@nickel-electro.co.uk)**  
**[www.nickel-electro.co.uk](http://www.nickel-electro.co.uk)**

Your local dealer is:



THE *Clifton* RANGE



**NICKEL-ELECTRO Ltd.**

# FLOW COOLER

This Flow Through Cooler provides a constant pumped flow of temperature-controlled liquids to an external source.

Economical solution for cooling applications where previously running tap water may have been used which can be expensive and prone to temperature variation. The Flow Cooler also provides an alternative for counter cooling Thermo circulating water baths.

A float switch monitors the water level and when below a safe working volume the cooler automatically switches off, which prevents the system running dry.

Fitted with easy fit fluid connections to inlet and outlet ports, with temperature display and controls on same face for convenience allowing it to be positioned under laboratory furniture. Designed with this in mind being a compact size and easily mobile on casters which can be locked when sited.

All immersed components are corrosion resistant for long working life. Quick reliable selection and attainment of desired operating temperature using PID control with Smart technology constantly tuning the Flow Cooler liquid temperature and its load. Featuring single point temperature control or process control with two temperatures and a time setting, all values clearly visible on LED display.

Cat No	NE6-FC
Temperature range	-10°C - 35°C
Temperature stability	±0.2°C
Temperature resolution	1°C
Cooling capacity W	
+20°C	480 W
+5°C	250 W
-10°C	100 W
Pump pressure	10 bar
Pump flow	2 L/min
Fluid connections	10mm tails
Noise level	55dBa @ 1m
Overall, dims	330w x 315d x 525h mm
Voltage	230V



### Investing in the Future

We recognise the importance of investing in new technology, and have an ongoing programme of investment in the latest manufacturing and information systems.

### High Standards of Workmanship

We believe in combining cutting edge technology with traditional skills and values. We constantly strive for higher quality and aim to be a world-class manufacturer.

### A Wide Range of Products For A Wide Range of Markets

We produce laboratory, medical and clinical equipment for a variety of market sectors. These include hospitals, secondary and higher education, the food and dairy industry, veterinarians, pharmaceutical companies, industrial and quality control laboratories.

### A World-wide Reputation

Upholding the traditions of high quality British products, Nickel-Electro exports across the globe, with major markets in Europe, the Middle East, Africa and Australasia.

### 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.

Our entire Clifton range carries a comprehensive 3-year warranty.

### 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.



Certificate No. Q09820



INVESTOR IN PEOPLE

### 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.



## Welcome To 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.

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

We carry out all manufacturing processes in our own factory to ensure that the highest standards of quality control are strictly adhered to and that lead times are closely monitored. This ensures a flexible and fast response to changing demands.

Our commitment to all round high standards of product excellence and quality is demonstrated by our accreditation to ISO9002 since 1991.

# ACCESSORIES

Cat. No.	Description
LB-2.5	2.5 litre - Lab Bath 4590 - Heat transfer fluid
LB-5.0	5.0 litre - Lab Bath 4590 - Heat transfer fluid
CC-1	Coil for external fluid circulation
HS-3	Hose 2m length

# BATHS ACCESSORIES

## NE7 series ChilloBaths

### LIDS

Cat. No.	Description
SL4-8	Gabled lid, stainless steel, for 8 litre bath
SL4-22	Gabled lid, stainless steel, for 22 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	22litre
No. racks	1	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

BX0688	Drain Tap
--------	-----------

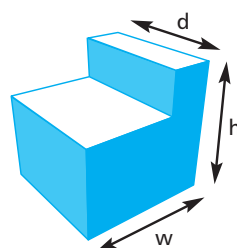
### SPHERES, POLYPROPYLENE

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 litre	1 Pack
22 litre	2 Packs

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

### Key to Dimensions

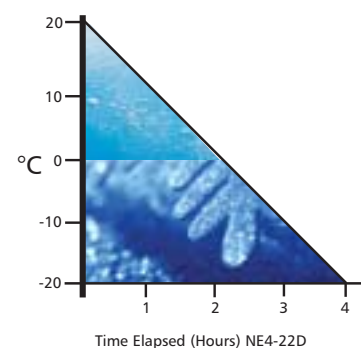


# COOLER IMMERSION

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 a 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

# WATER BATHS

CHILLOBATHS

FLOW THROUGH COOLER

IMMERSION COOLER

# CIRCULATORS

## NE7 series ChilloBaths

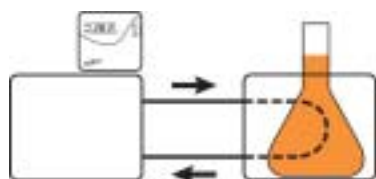
This Chiller Circulator range of water baths are specially designed for circulating temperature controlled liquids maintaining temperature in analytical equipment, heat removal or immersion of samples.

The ChilloBath consists of a stainless steel tank fitted above a cooling system with a Thermocirculator immersed into tank. All immersed components are corrosion resistant. The Thermocirculator features a safety cutout float switch - low liquid level protection, an adjustable over temperature safety device, heater, timer and alarm indications, PID temperature control and timer.

The Circulator features an advanced PID temperature controller which can be used in either of the following ways, single point temperature control and process control with two temperatures and a time setting.

The Thermocirculator is supplied assembled to a stainless steel mounting bridge which features 'push-fit and lock fittings' for secure external liquid circulation. The bath consists of a 304 spec stainless steel tank and heat exchange coil for optimal cooling with a stainless steel shelf all giving good temperature stability.

Supplied with flat lift-off lid with insulated handle which can be substituted with accessory SL4 Gable Lid for immersion of taller samples in the bath.



Cat. No.	NE7-8	NE7-22
Capacity, litres	8l	22l
Temperature range	-20 - 130°C	-20 - 130°C
Working volume litres	6	18
Temperature sensitivity	±0.1°C @0°C	±0.1°C @0°C
Temperature uniformity	±0.01°C @0°C	±0.01°C @0°C
Effective bath opening	129w x 298d mm	390w x 298d mm
Overall, dims	451w x 332d x 805h mm	537w x 332d x 805h mm
Working, dims	129w x 298d x 150h mm	395w x 298d x 150h mm
<i>Cooling capacity W</i>		
+20°C	1000	1000
0°C	640	640
-10°C	440	440
-20°C	279	279
Refrigerant	R134a	R134a
Drain, Fitted	Yes	Yes
Over temp. alarm	+4°C warning message, heater cut off, indication	+4°C warning message, heater cut off, indication
Under temp. alarm	-4°C with indication	-4°C with indication
Pump capacity l/min	10	10
Pump pressure	1.5m head	1.5m head
Heater, Watts	1250	1250
Voltage	230V	230V

- ★ It is recommended that to achieve optimum performance the bath should be covered.
- See page 6 for accessories.
- Push-fit and lock fittings suitable for 6mm O/D tubing.

### Features Include:

- Sensitivity ±0.1°C
- Uniformity ±0.01°C
- Temperature range: -20 - 130°C ★
- Digital PID 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
- Refrigeration condenser easily cleaned - access door - maintains working performance

