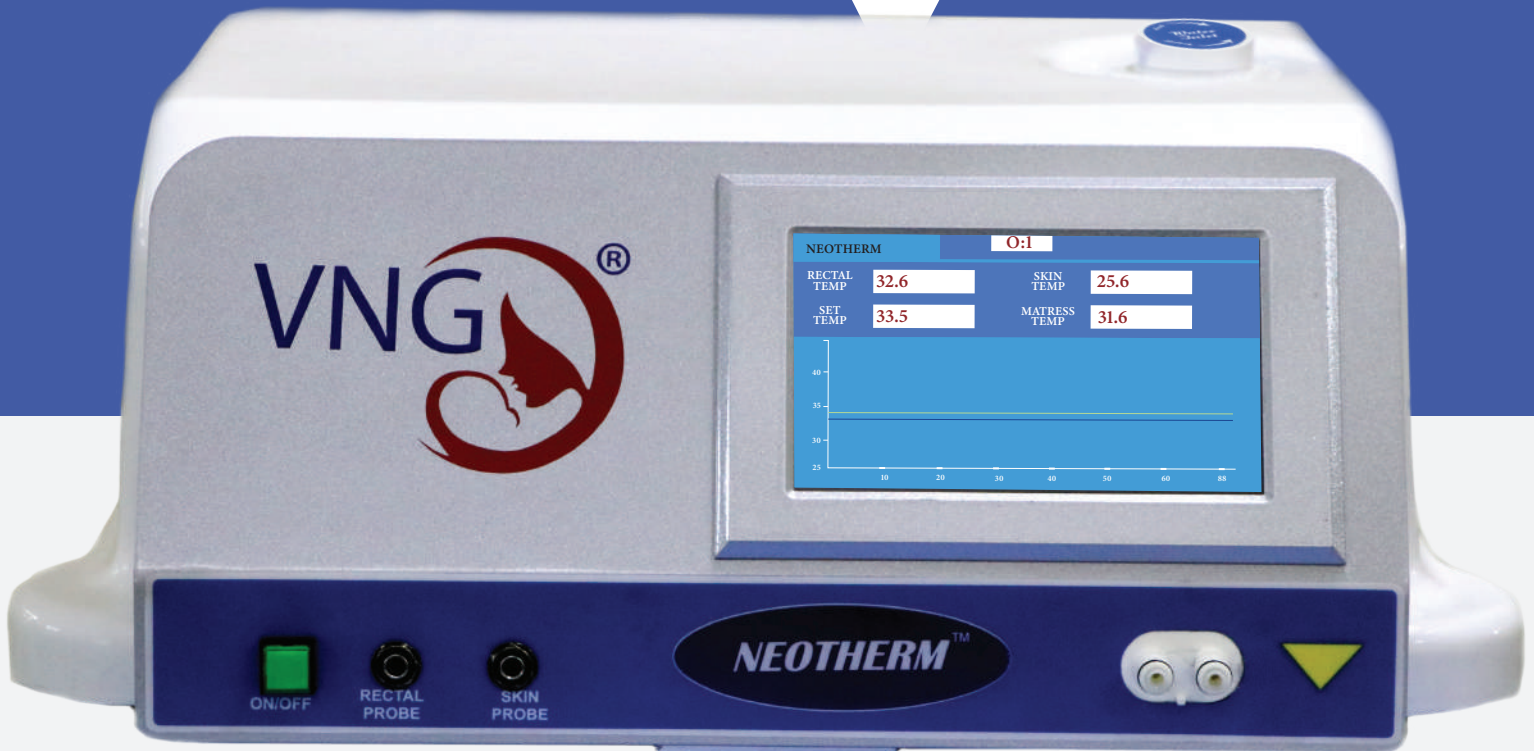
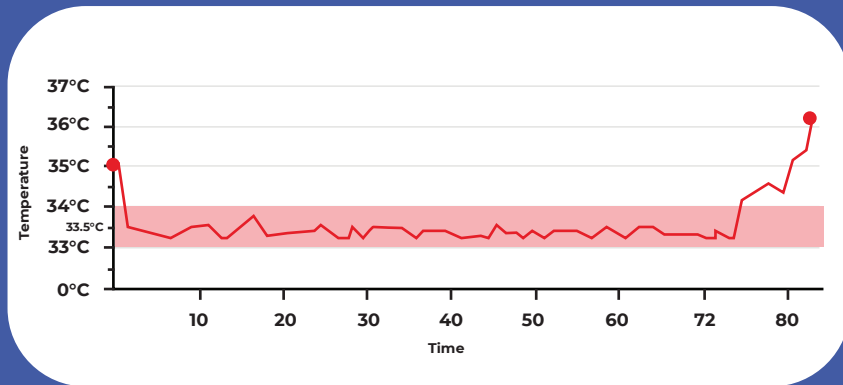




NEOTHERM™

A FULL BODY COOLING BLANKET FOR NEONATES



HYPOTHERMIA THERAPY

There is one established treatment that can minimize permanent brain damage from hypoxic-ischemic encephalopathy (HIE). However, it must be given very shortly after birth/the oxygen-depriving incident in order to be effective (ideally within six hours.) This treatment is known as hypothermia therapy, but it has many other names. Such as "therapeutic hypothermia," "cooling therapy," and "neonatal cooling." Hypothermia therapy involves cooling the baby down to a temperature below homeostasis to allow the brain to recover from a hypoxic-ischemic injury. Typically, the target temperature is about 33.5 degrees Celsius (92.3 Fahrenheit)

NEO COOLING

It is a closed-loop control system-consists of a mattress that is wrapped around the baby's trunk and legs. The device is fully automated and requires no further input after initiation. The baby temp is cooled to 33.5 degrees within 25 minutes. This temperature is maintained for 72 hours and a fully automated rewarming phase starts. The re-warming occurs to 37 degrees Celsius at 0.002 to 0.5 degree/hour.

INSTRUCTIONS FOR USE

A rectal probe is inserted into the patient (approximately 3 to 5cm) and the temperature is fed back to the Neotherm™. Using a thermoelectric cooling module the temperature of the cooling fluid is controlled by varying the amount and direction of electrical current. This increases and decreases the fluid temperature by small amounts. The fluid is then passed round the infant using a mattress or a wrap and returned to the Neotherm™. The thermal properties of the fluid make it extremely efficient at heat transfer and the Neotherm™ uses surprisingly little energy to maintain a constant temperature.

MERITS

- It induce cooling rapidly to desired core temperature.
- It maintains the core temperature within the target range.
- It allows re-warming in a slow and controlled manner.
- It requires minimal nursing input.
- It does not interfere with access to the baby.
- Smooth, linear re-warming.
- Compatible with reusable accessories.

ALARMS

Simple alarms in the Neotherm™ ensure that users and nursing staff are drawn to the device only when there is a problem.

These alarms include:

- Low Fluid
- Temperature Out of range.

MODES OF OPERATION

Servo-Controlled Rectal Temperature

The Neotherm™ Neo maintains the temperature that Neonatologist has set via the rectal temperature probe. Rate of change can also be set to allow even re-warming and cooling.

ACCESSORIES

The Neotherm™ has a complete range of accessories: Mattresses and Wraps with lining sheets for contact with the baby, rectal and skin probe, surface water Connecting Hoses. The Neotherm™ does not need a special USB to download traces and requires no specialist software to analyze the data (Note: data is recorded as a CSV file and compatible with standard spreadsheet software).



FEATURES

- Large color screen is easy to see across the room.
- Bench-top mountable for space saving Small / Lightweight portable device.
- Restarts from same settings in event of power failure.
- USB output
- Optional use of skin probes



SPECIFICATION

Dimensions	L460mm, H 220mm, W 530mm
Weight	23 kg
Electricity consumption	1.5 A/230VAC, Max 345W
Noise output	54-54.5dB (Mean value 1m distance)
Fluid capacity	500 ml (inner tank), 500 ml (Fill up Set)
Fluid active Ingredients	Water
Minimum Fluid Temperature	12°C
Maximum Fluid Temperature	39°C
Maximum Patient Weight	1-10kg

STANDARD ACCESSORIES

Includes	Quantity	Usage
Power Cable	1	Reusable
Rectal Probe	2	Reusable
Skin Probe	2	Reusable
Mattress Connecting Hoses	1	Reusable
Disposable sheets	(10)	Non-Reusable
Mattress with ties	1	Reusable
Trolley (optional)	1	-