

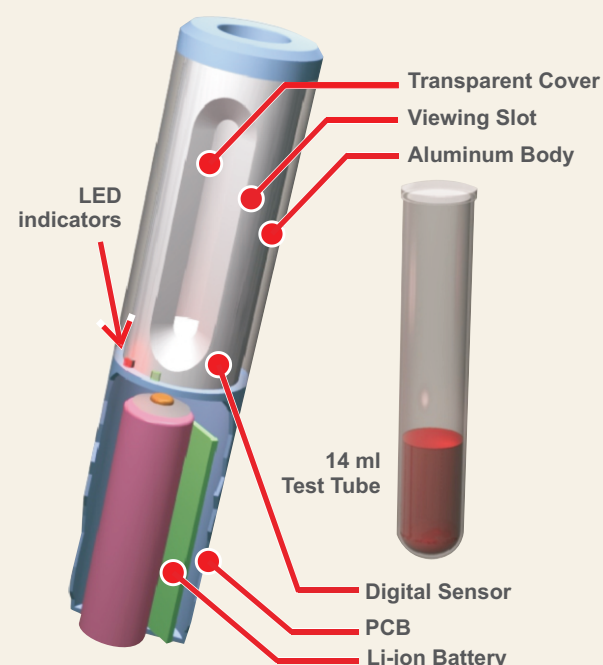
# Mobile Nest

Portable Test Tube Warmer

## MN 430

### CONCEPT

Human oocytes are extremely sensitive towards temperature and modest fluctuations in temperature can cause irreversible disruption of the meiotic spindle, with possible chromosome dispersal. Oocytes subjected to such thermal shocks if used for fertilization can form embryos which can have high proportion of chromosomal abnormalities and this may contribute to the high rates of pre-clinical and spontaneous abortion. Therefore, temperature control is of paramount importance and should not be compromised in any way right from Ovum pick up (OPU) till Embryo transfer (ET).



### DESIGN

This is a handheld device with Li-ion rechargeable battery. It is equipped with heating element, Digital sensor, microcontroller, non-volatile memory and LED indicators. When placed on base station, it gets connected electrically by its terminals. These terminals help base station and the mobile device communicates with each other and also charge the battery. The mobile nest when in mobile mode continuously monitors the temperature with a 14 bit accuracy, corrects it several times a second. This yields a rock steady temperature profile even in varying surroundings. The mobile nest continues to log for the power consumption index and temperature abnormalities. These are downloaded to the base station when the nest is docked. With monitoring and reporting features the user can be assured about the mobile nest working accurately at every step. A transparent window facilitates easy viewing of the follicular fluid.

### HOW SAFE ARE PREHEATED TUBES?

The Falcon Tubes (2001) pre heated by regular Test Tube Warmer lose their temperature in less than 15 seconds the moment it is out of the heating block and the tube reaches near to the room temperature, thus increasing the risk of thermal shock to the oocytes during aspiration. Mobile Nest is Portable Test Tube Warmer with it's own Internal rechargeable Battery which gives immense mobility and at the same time maintains precise temperature.



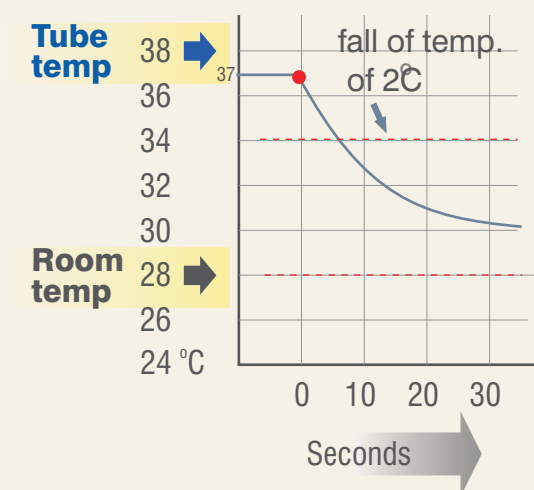
Preheated Tube  
loses temp. very fast



Take Gametes and  
Embryos anywhere

### INTELLIGENT CONTROL SYSTEM

State of the art microcontroller with optomagnetic encoder provides intelligent control system. Digital programming via microprocessor control for various parameters including temperature and power status. The parameters are displayed on four line LCD display.



### UNIQUE PORTABILITY

This Tubenest has been designed keeping in mind its portable nature. The rechargeable battery is capable of running for 30 minutes at a stretch before it indicates low battery level. The unique locking mechanism for tube allows Embryologist to pour the aspirated follicular fluid into petridish for oocyte scanning very easily. Easy grip design allows convenient handling and battery time facilitates free movement in the LAB and OT.

### OPERATING SECURITY

To ensure maximum oocyte survival without quality compromise, this unit has various safety features. The Nest Tube has RED LED INDICATOR which flashes when battery is weak. When the Nest is replaced in the Base Station it checks the log and indicates any overshoots. Moreover the Nest has a safety over temperature cut out.