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# Bilisphere 360

Multidirectional Intensive Phototherapy Device





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Novos offers a high quality treatment and reliable device which makes you experience the high advantages of a multidirectional intensive phototherapy in most cases of severe jaundice.

## **Bilisphere 360 is exactly what you need for the treatment of high bilirubin levels causing severe jaundice for newborns**

Jaundice management is critical for preterm and term newborns suffering from hyperbilirubinemia. Novos offers caregivers a multidirectional intensive phototherapy treatment with super LED technology. Bilisphere 360 enables you to get the fastest total serum bilirubin breakdown and eliminates the need for risky blood exchange. Clinical studies proves that usage of Bilisphere 360 may decreases bilirubin level up to a rate of 0,84 mg/dl/hour and this rapid decline is important in cases that have a high risk of encephalopathy. Comparison of intensive light-emitting diode and intensive compact fluorescent phototherapy in non-hemolytic jaundice. (The Turkish Journal of Pediatrics 2013; 55 : 29-34 Şahin Takcı, Şule Yiğit, Gülperi Bayram, Ayşe Korkmaz, Murat Yurdakök Division of Neonatology, Department of Pediatrics, Hacettepe University Faculty of Medicine, Ankara, Turkey)

## **Fragile newborns need an ideal environment and Bilisphere 360 makes it possible with patented smart software system Novosoft and Thermoelevation feature pioneered by Novos Medical Systems**

Newborns should use majority of their energy for development in their first days of life. Temperature increase or decrease, loss of body water and stressful environment impedes their development. Bilisphere 360 aims to create an ideal intensive phototherapy environment for newborns. Novosoft controls silent fan groups for venting out the hot air generated by the heat emitted from electronical components and activates the Thermoelevation feature which elevates the upper part and disperse the heat, this guarantees acceptable cabin temperature levels for baby.



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## Easy patient monitoring with a touch screen

According to the newborn care guidelines, infant skin temperature should be measured during phototherapy treatment. Bilisphere 360 enables monitoring of baby's skin temperature continuously and clearly on LCD touch screen.

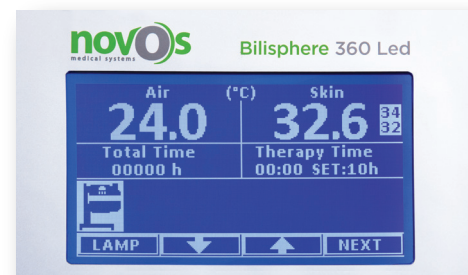
Monitoring of treatment and lamp usage times on LCD touch screen allows caregivers to follow-up the treatment efficiently.



## User friendly menu and easy operation

Ease of use is one of the important points for the NICU staff. User friendly menu in Bilisphere 360 gives you the comfort and speed. During operation of the device, it is easy to set all necessary parameters at a touch of button.

Upper and lower lamps can be operated together or separately for different kind of patients' needs.



## Less workload for NICU staff

Treatment time of each patient is definitely shorter with Bilisphere 360 than any other phototherapy device. Short treatment time means less workload for caregivers per patient. Intensive phototherapy system Bilisphere 360 shortens hospital stay and provides early baby mother contact with early discharges.

Sliding out infant bed unit allows caregivers and nursing staff easy access to the infant.

Red colored side windows protect other patients and caregivers from the blue light's adverse effect.



## Easy to clean

Caregivers benefits from manual elevation system which elevates upper part just by using up & down arrow buttons for cleaning and disinfection of the device interior.

Hammock exchange is an easy process in Bilisphere 360 by means of sliding out bed unit.

Detachable bed components like side bars, baby cot with drain hole and hammock allow users to do easy cleaning





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## Safety and comfort for the baby

Excellent design of bed unit ensures safety and comfort for newborns.

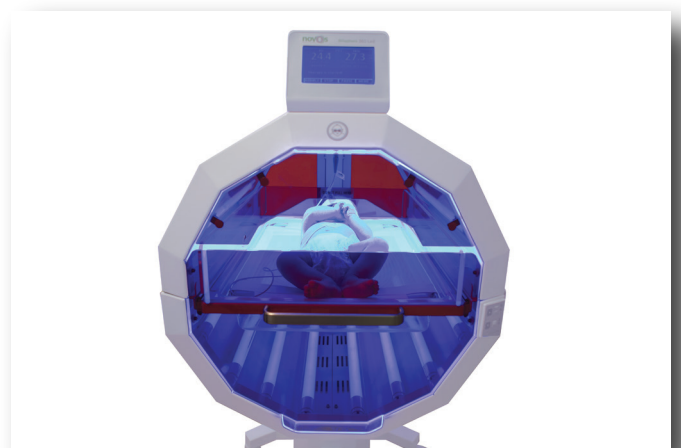


In order to maximize effective phototherapy area and blue light permeability Bilisphere 360 involves a specially designed soft hammock inside. It is comfortable to lay on hammock even for the tiniest ones.

In case of usage of a defective hammock, baby cot provides a safety layer for the newborn. Detachable side bars keeps the extremities of the newborn in the safe region.

## Low operating costs

Bilisphere 360, uses LED tubes that have 20.000 hours of lifetime. This lifetime value is 10 times longer than any conventional fluorescent lamp available in the market, which reduces lamp replacement cost extremely. Super LED tubes have very low energy consumptions compared to fluorescent alternatives.







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## Technical Specifications

### Dimensions

Width \_\_\_\_\_ 68.5 cm  
 Depth \_\_\_\_\_ 81.5 cm  
 Height \_\_\_\_\_ 146 cm–166 cm  
 Weight, approx. \_\_\_\_\_ 66 kg  
 Hammock Mattress \_\_\_\_\_ 58 cm x 38 cm

### Environmental Requirements

Operating Temperature Range \_\_\_\_\_ +20°C to +30°C  
 Storage Temperature Range \_\_\_\_\_ -20°C to +60°C  
 Operating Humidity Range \_\_\_\_\_ 5 % to 99 % RH, non-condensing  
 Storage Humidity Range \_\_\_\_\_ 0 % to 99 % RH, non-condensing

### Characteristics

Air Temp. Display \_\_\_\_\_ 0°C – 51°C  
 Skin Temp. Display \_\_\_\_\_ 0°C – 51°C  
 Noise Level \_\_\_\_\_ <55 dBA  
 Screen \_\_\_\_\_ 5.1 inches monochrome LCD touch screen  
 Lamp Life Time \_\_\_\_\_ 20.000 hours  
 Number of LED Tubes \_\_\_\_\_ 16 pcs Blue Light LED Tubes  
 Spectral Irradiance \_\_\_\_\_ >100 µW/cm<sup>2</sup>/nm  
 Wavelength Interval \_\_\_\_\_ 440 nm – 460 nm  
 IV Pole Weight Limit \_\_\_\_\_ 2 kg  
 Monitor Tray Weight Limit \_\_\_\_\_ 6 kg  
 Supply Voltage \_\_\_\_\_ 220 VAC (±10%), 50–60 HZ

### Alarms

High Skin Temp. Alarm \_\_\_\_\_ Set between 33–39°C with 1°C increments  
 Low Skin Temp. Alarm \_\_\_\_\_ Set between 31–37°C with 1°C increments  
 High Air Temperature \_\_\_\_\_ >37°C  
 Low Air Temperature \_\_\_\_\_ <30°C  
 Skin Probe Disconnection \_\_\_\_\_  
 Therapy Ended Alarm \_\_\_\_\_  
 Lamp Usage Time \_\_\_\_\_

### Consumables

Additional Hammock \_\_\_\_\_  
 Eye Protection Mask Small \_\_\_\_\_  
 Eye Protection Mask Medium \_\_\_\_\_  
 Eye Protection Mask Large \_\_\_\_\_

### Proven quality and 100 % customer satisfaction

Having a very strict quality policy brought us 100 percent customer satisfaction. Novos will continue to design and manufacture high quality products for newborn care; all you have to do is just focusing on your patients.

- NOVOS Medical reserves the right to make changes without notice in design, specifications and models
- The quality management system at NOVOS Medical Systems is certified according to ISO 13485 and product is certified in accordance with Medical Device Directive (93/42/EEC)