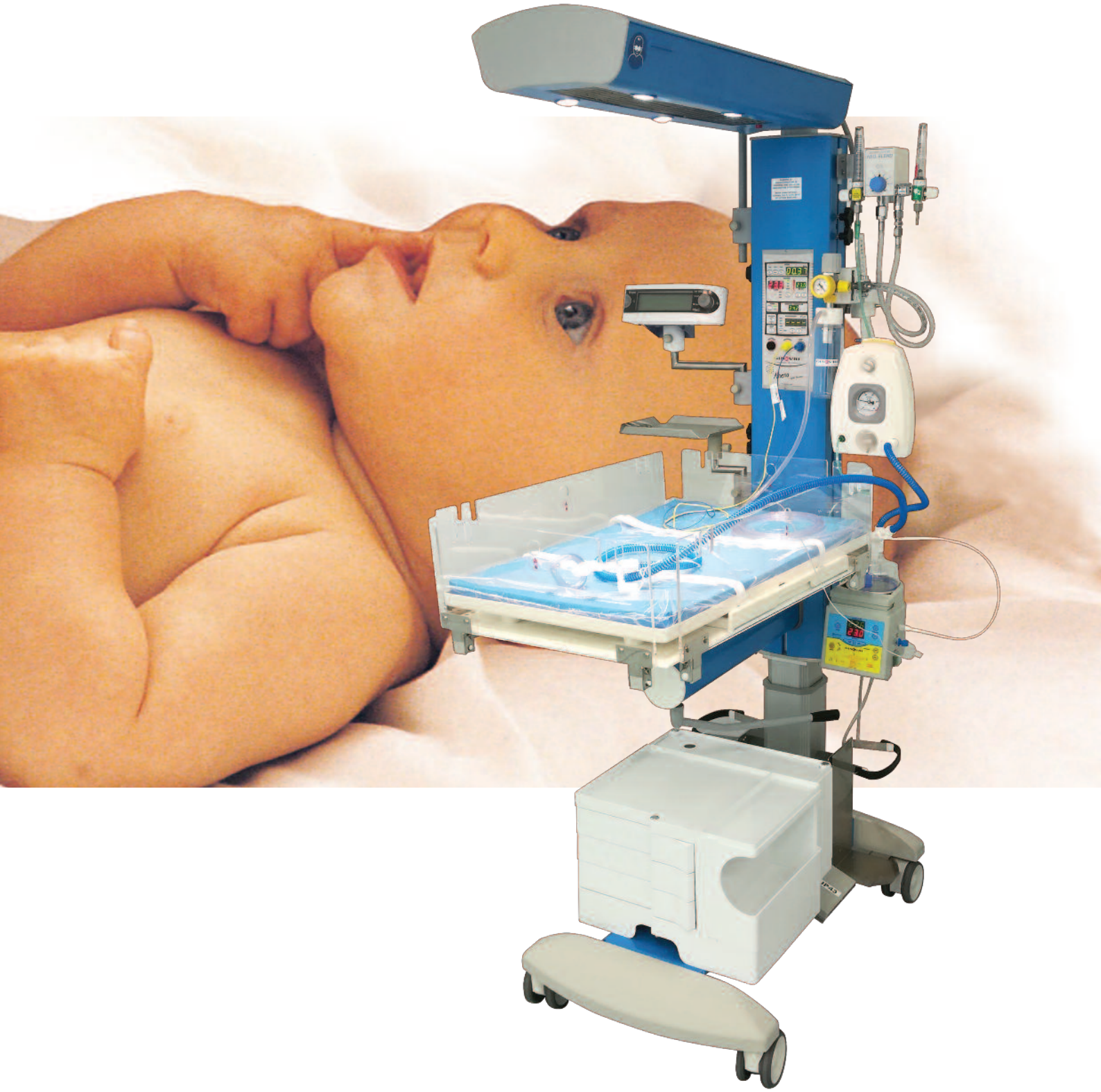
ALHENA

Infant Warmer



GINEVRI

neo-tech for life

ALHENA
Infant Warmer

A basic requirement for therapy and treatment of newborns, and in particular Low Birth Weight newborns, is to have a temperature controlled environment. To achieve this goal there are currently many methods which require the use of various devices, among which the most common, other than incubators, are the Infant Warmers. That is to say, open incubators with infrared radiant heating.

These are most often used in delivery rooms and in intensive therapy center. This system, which allows fast and easy access to the patient to the newborn, is the most used and efficient method for maintaining both the baby's body and the bed at an ideal temperature. The infrared heating system makes it possible to minimize heat dispersion, thus ensuring the maximum comfort for the baby and the stabilization of the micro-climate environment surrounding the Baby. If you add to that its quietness, these apparatus become the most adapted and safe for the little patient's optimum health. The Alhena Series of Infant Warmers are considered the best for the "adept to work" personnel because they allow a more direct control of the temperature, observation and also free access to the baby to carry out, in the most efficient way, reanimation, oxygen therapy, and the execution of medical procedures which call for more than one person to be working at the same time. The Alhena Plus created by GINEVRI, respecting the current standards, supplies other services which make it a true and complete newborn therapy centre, optimizing and facilitating the medical personnel and nurses to carry out various procedures necessary for the treatment of newborns.

Among the most important design characteristics and functions of the Alhena Plus there are some unique features respect to other models available on the market. The Presence of a Phototherapy System created with Power LED technology (6 LED with wavelength centered around 455 nm), which make the efficient treatment of jaundiced newborns possible, is 5 to 6 times more powerful than that based on fluorescent tubes lamps. The Observation Light is also provided using 4 white Daylight Power LED which make it possible to observe the baby without any alteration of the baby's natural skin color. An advanced Electronic Control Panel allows to simultaneously access to all the functions using user friendly procedures thus insuring the maximum ease of use. Below are listed the different modes available:

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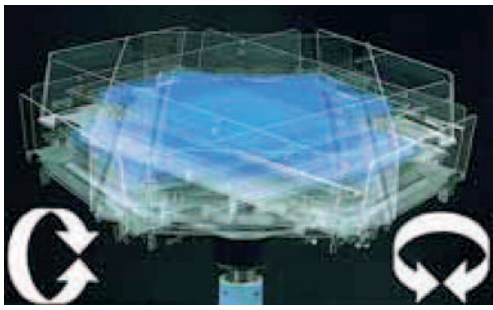
Infant Warmer

Automatic Mode: the heating level is controlled by a microprocessor which uses a sensor of the patient's skin temperature to create and maintain the temperature level set by the medical personnel.
Manual Mode: the heating level is directly set by the operator. Pre-Heating Mode: the heating level is automatically set at 30% of the maximum heating and the alarms are silenced. Monitoring of the patient's body temperature uses a "skin" temperature sensor dedicated to reading the peripheral temperature. This sensor can also be very useful in case of twins. The baby's abdominal and peripheral temperatures along with the set temperature (in Automatic Mode) or the heating percentage set (in Manual Mode) are displayed on the dedicated digital display. A complete set of alarms give the maximum safety of operation: the devices are supplied with both visual and acoustic alarms for High and Low Skin Temperature, Malfunctioning and/or Disconnection of the skin probe and Power Failure. The Apgar timer allows monitoring of the Apgar index by means of a digital timer and an acoustic signal interval of 1, 3 and 5 minutes from activation. The Aquagel heating mattress (optional), can distribute warmth to the newborn, being directly connected and servo-controlled by the Infant Warmer's control panel. The strict and exact control of the heating guarantees the absence of high contact temperatures. The maneuverability of the patient bed, adjustable in 360° using a round tilting system equipped with sidewalls, individually capable of being folded and eventually removed, confirm the distinctive characteristics of GINEVRI neonatal therapy centers.
On request, the apparatus' height can be electronically adjusted using a footpedal control (optional).
This adjustment does not change the distance between the bed and the overhead fixture (80cm), keeping the heat intensity and phototherapy irradiation constant.
X-Ray cassette is integrated and it is located below patient tray.
In addition, there is also a model available without phototherapy: the Infant Warmer Alhena.



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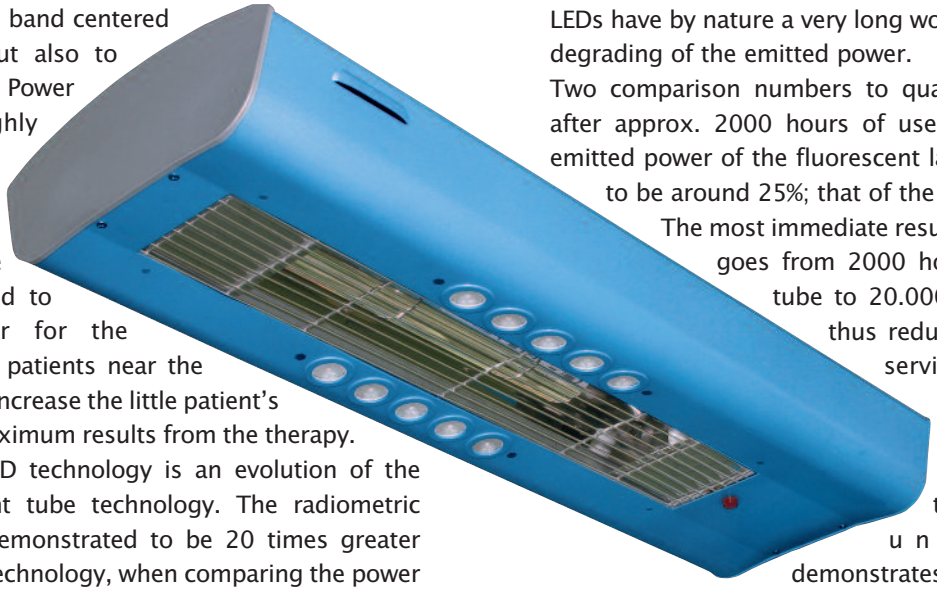
Power LED Technology

The new series of GINEVRI products for the treatment of jaundice has been equipped with the new Power LED technology, the newest frontier in the field of treatment of hyper–bilirubin in newborns.

The treatment calls for exposure of the patient's skin to a source of light which emits in the therapeutic band between the wavelengths of 425 and 475 nm.

The characteristics which make Power LED technology the best for this application are due not only to the fact that the energy emitted comes only in the specific wavelength band centered around 455nm, but also to the fact that the Power LEDs are highly directional.



This makes possible to irradiate only the treatment area, and to avoid any bother for the operators or other patients near the lamp, as well as to increase the little patient's comfort getting maximum results from the therapy.

The new Power LED technology is an evolution of the existing fluorescent tube technology. The radiometric power has been demonstrated to be 20 times greater respect to the old technology, when comparing the power consumption, because the consumption of only one fluorescent tube is equal to the consumption of 6 Power LEDs. The result is an enormous improvement in the apparatus' efficiency which can be translated into an increase of the overall emitted therapeutic power of approximately 4 times than that of the old technology generation.

This means a significant reduction in the exposure time necessary for the therapy to obtain the same treatment level, with consequent benefits for both the patient and the medical personnel.

Another advantage of the innovative Power LED technology regards the useful lifespan of the lamps and their reliability.

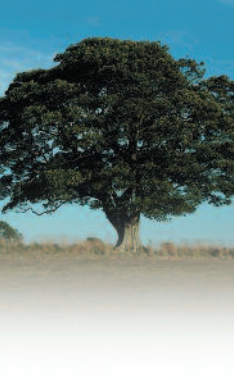
LEDs have by nature a very long working life and very low degrading of the emitted power.

Two comparison numbers to quantify this aspect are: after approx. 2000 hours of use the reduction in the emitted power of the fluorescent lamps has been shown to be around 25%; that of the LEDs is approx. 8%.

The most immediate result is that the useful life goes from 2000 hours for a fluorescent tube to 20.000 hours for the LEDs, thus reducing by one third the service callouts and the accompanying costs.

The following table summarizes the LED's technical data and unequivocally demonstrates the clear superiority of the new LED technology which is destined to supersede the fluorescent tube, making it outdated.

MODEL	Lamp with 6 power LEDs	Lamp with 4 Fluorescent tubes
Radiometric Power (at 80 cm from source, $\mu W/cm^2$)	1500	280
Irradiance between 420 e 480 nm (at 80 cm, $\mu W/cm^2/nm$)	30	5.5
Power consumption (W) (Watts)	22	80
Mean life (hours)	over 20. 000 hours	2000
Directivity (Illumination angle)	30°	180°



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Accessories

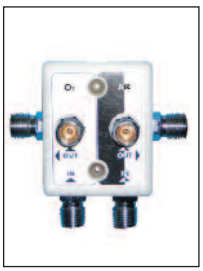
Distribution Air/O_2 Console

Alhena can be equipped with a multifunctional console for re-animation, oxygen therapy, or suction. The DISTRIBUTION AIR/O_2 CONSOLE (optional PN 11055A70) allows connection of optional modules and is provided with:
- two separate inlets for air and oxygen;
- two oxygen outlets;
- two air outlets.

Air and oxygen can be provided either by cylinders or the hospital distribution system. The Venturi suction unit and the oxygen therapy assembly can be connected to the console. The OXYGEN THERAPY ASSEMBLY (optional PN 7737) is made up of a flow meter and a humidification bottle. The VENTURI SUCTION UNIT (optional PN 7623) performs suction activated by the oxygen or air flow provided by cylinders or other sources. The vacuum level can be adjusted by using the related knob and read on the Vacuum-meter. The suction unit can be easily disassembled and sterilized.

Oxygen therapy assembly (PN 7737)

Venturi suction unit (PN 7623)



Distribution Air/O_2 console (PN 11055A70)

Baby Start

The BABY START is a light and compact resuscitator, suitable for delivery rooms, postpartum, special units for the care of newborns and the Neonatal Intensive Care Unit. It is a simple and effective way to resuscitate babies asphyxiated by mask or endotracheal tube. The resuscitation is performed in positive pressure mode with manual control and free expiration. The mixture flows into the lungs at adjustable pressures, with possibility to adjust also the end-expiratory pressure (PEEP) in function of the choice of the operator. The BABY START works connected to a source of air, oxygen or mixture of both withdrawn from a mixer or a blender. The incorporated safety valve PIP Max prevents the danger of excessive inspiratory pressures.

Baby Start (PN 7236)

Other devices

Manual resuscitator (PN 781)

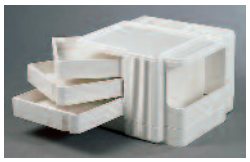
Themo Pad servo controlled mattress 70X47 cm (PN 12452A70)

Baby bundle 100x8 cm (PN 10828A70)
Baby bundle 80x5 cm (PN 10829A70)

Pivoting shelf 20X20 cm distance cm 9 (PN 5740)
Pivoting shelf 20X20 cm distance cm 18 (PN 5740B70)
Pivoting shelf 21X25 cm distance cm 9 (PN 10848A70)

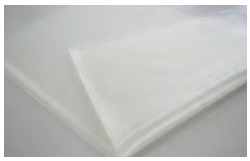
Radiometer RM400 (PN 1749)

Baby head immobiliser (PN 7647)

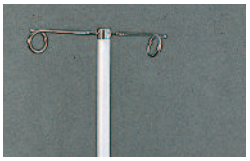


Drawers set (PN 7628)

Humidifier WETTY (PN 8049)

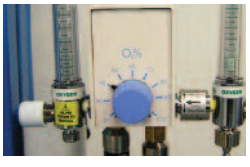


Aquagel mattress 70X47 cm (PN 11282B73)

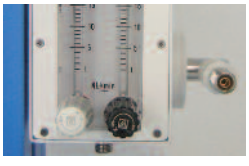


I.V. pole (PN 12036A70)

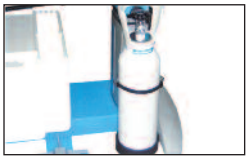
Extra Light - 40000 lumen



Air/O_2 Blender (PN 12368A70)
It allows having a settable percentage O_2 on two outputs with different flow rates: 3 l/min or 15 l/min



AIR O_2/ MIXER (PN 12432A70)
It allows setting flow rate and percentage of O_2 by adjusting the inputs according to the corresponding table. It is possible to have an output with only Air, O_2 or both and the other one with Vacuos.



Cylinder support kit Lt.3(PN 11849B70)
Cylinder support kit Lt.5 (PN 11849A70)
O_2 cylinder Lt. 3 (PN 7753)
Air cylinder Lt. 3 (PN 7436)
O_2 cylinder Lt.5 (PN 3300)
Air cylinder Lt.5 (PN 7630)

Consumables

Phototherapy masks 50 pcs (PN 1645)

Gel reflect stickers 38mm
24 Pcs (PN 565)
Gel reflect stickers 26mm
24 Pcs (PN 11814A73)

Skin probes Blue
6 Pcs (PN 11730A73)
Peripheric Skin probes Yellow
6 Pcs (PN 11730G73)

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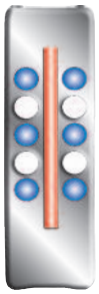
Technical details

Blue Power Led

Daylight Led

Halogen Lamps

Heating element



MODEL	Alhena	Alhena Plus
CE Mark (Medical Device)	Yes	Yes
Type	Infant Warmer	Infant Warmer
Heating	Quartz heating tube 1 x 450W	Quartz heating tube 1 x 450W
Temperature Controls	Automatic, Manual, Pre-heating	Automatic, Manual, Pre-heating
Set Temperature Indicator, °C	Digital, 23-38	Digital, 23-38
Indicator of Temperature taken from the patient, °C	Digital, 18-45	Digital, 18-45
Type of Phototherapy	-	Power Leds
Radiation for bilirubin from 425 to 475 nm, µW/cm²/nm at 80cm	-	32
Phototherapy Lamp	NO	6 Blue Power Leds
Power LED use lifetime (hours)	-	20.000
Therapy Time Counter	YES (electronic)	YES (electronic)
Area of Phototherapy illumination, cm² (in²) at 80cm	70x40 (27x16)	70x40 (27x16)
Illumination Lamp	4 Halogen lamps, each 20W	4 Daylight White LEDs
Cooling Fan	YES	YES
Electronic Control Panel	YES	YES
Overhead Fixture, L x W x H, cm (in)	82 x 28 x 11 (32 x 11 x 4,3)	82 x 28 x 11 (32 x 11 x 4,3)
Height from the ground of the Overhead Fixture, cm (in)	177-197 (69-78)	177-197 (69-78)
Footprint, m² (ft²)	0.4 (4.3)	0.4 (4.3)
Wheel Diameter, cm (in)	10 (3.9) with brakes	10 (3.9) with brakes
Bed Dimensions, cm (in)	70x47 (27x18.5)	70x47 (27x18.5)
Heat Controlled Mattress	Optional	Optional
Bed height from Overhead fixture, cm (in)	80 (31.5)	80 (31.5)
Bed height from the ground, cm (in) (Fix model)	104 (40.9)	104 (40.9)
Bed height from the ground, cm (in) (Height-Adjustable)	100-120 (39-47)	100-120 (39-47)
Max Dimension, cm (in)		
(Fix model)	58x112x193 (22.5x44x76)	58x112x193 (22.5x44x76)
(Height-Adjustable model)	58x112x208 (22.5x44x81.7)	58x112x208 (22.5x44x81.7)
Bed Inclination	15° on 360°	15° on 360°
Height of folding side walls, cm (in)	20 (7.9)	20 (7.9)
Weight, kg (lb)	60 (132)	60 (132)
Alarms	Acoustic and visual	Acoustic and visual
Power Supply	230 Vac, 50-60 Hz	230 Vac, 50-60 Hz
Power Consumption	850W	850W

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Quality System
ISO 9001:2016
ISO 13485:2015

CE

Authorized Distributor

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