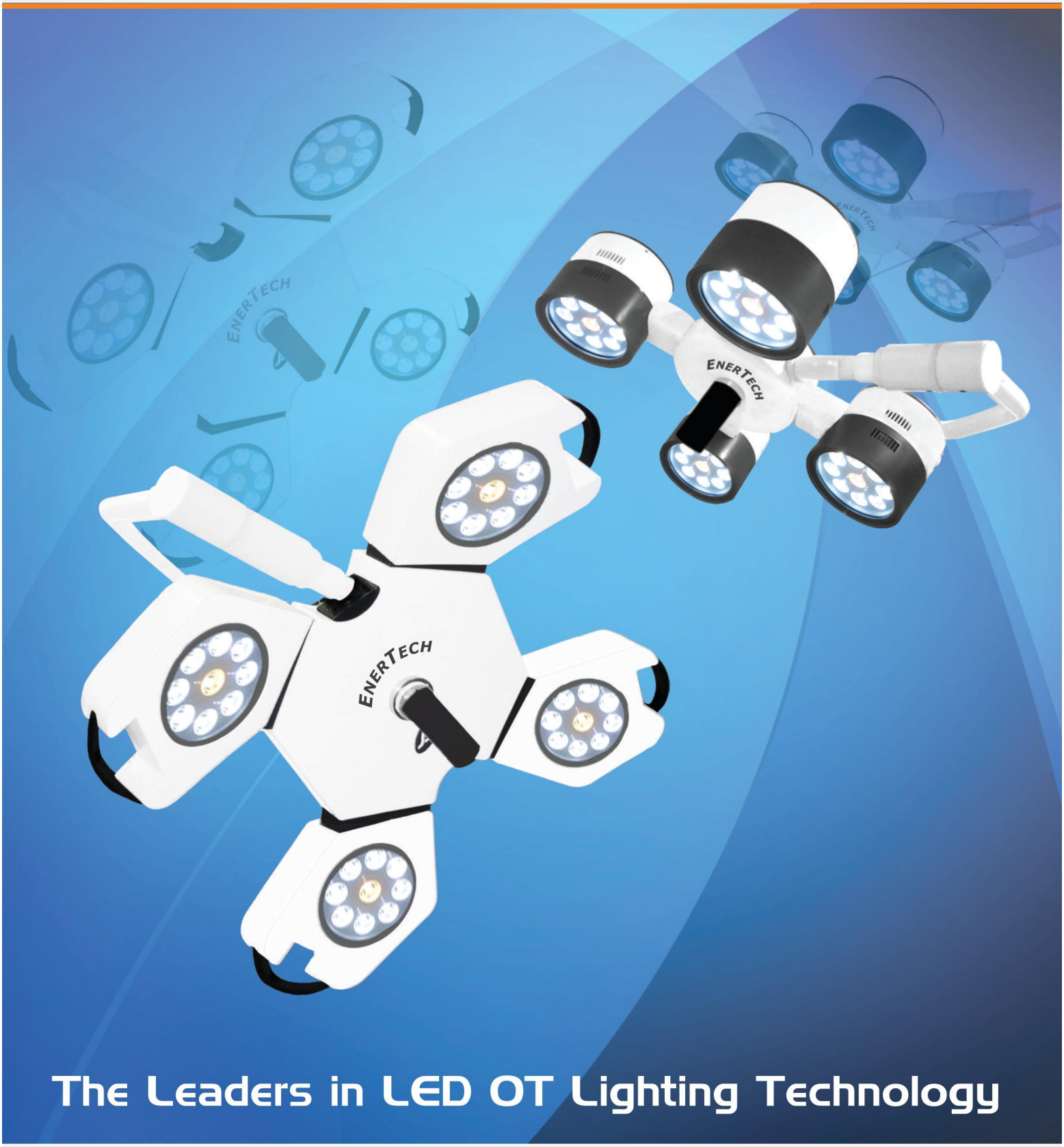
ENERTECH

LED OPERATION THEATRE LIGHTS



The Leaders in LED OT Lighting Technology

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COMPIMed

Company Profile

Enertech is the Largest and widest Manufacturing Company of Surgical Products like Electrosurgical Generators, Vessel Sealing System, complete Endoscopy sets and it is Serving the Medical Fraternity from more than last 25 years. Enertech Proudly announces its launch of next generation LED Operation Theater Lights. In the Enertech LED Operation Theatre Lights, you can enjoy all the benefits of latest LED Technology like Comfort, Cost Saving, Pure Light, very low heat, eco friendly design compatible with modern modular OT's in a uniquely effective package. The Other unique Feature of Enertech Lights is its Compact design with significantly high performance LEDs with very high efficiency and low energy loss, of the Second Generation.

The New generation LED OT Lights improves the Vision drastically on one hand. And on the other hand its cool light provides the optimum condition and ease to operate during surgery which revolutionizes the work of surgeon.

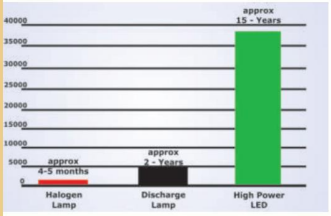
Enertech has been providing the widest range of Operation Theatre Lights, to satisfy every type of customers in terms of Cost, performance and luxury. In all, its cost-effective price leads the way in the International market and endeavours to become the "Hidden Champion" among the global manufactures of LED operating Theatre lights.

The Chairman and MD of Enertech - Mr. Chetan Shah receiving rare and prestigious honorary award from Dr. Shankar Dayal Sharma - President of India, at Raj Bhavan, Governor's palace, for excellent contribution to India in the field of Research Development and manufacturing.

Certificates

Enertech : The Leaders In LED Lighting Technology

Advantages of LED OT Lights over Halogen OT Lights



Long Life :

With the traditional Life of at-least 100 operational hours of Halogen, an Enertech LED provides almost 200 times longer life. No frequent replacement would be required thereby :

1] Reduces the cost of maintenance.

2] Periodic bulb replacement expenses.

3] Low downtime.

4] Shadow less operation due to no unexpected bulb failure during surgery.

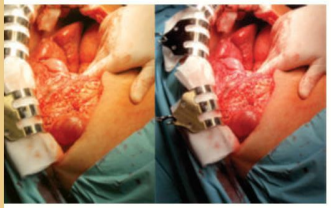
Cost Effective :

The Advance Technology LED light requires low in fact no servicing expenses. The long Lasting LED ends the requirement of replacing the bulbs periodically.

Power bills reduced to less than 20%

Cool & Infrared-Free Lights :

Halogen Lights causes an increase in the field temperature of around 7-8° C, while Enertech LED's result in only 1-2° C increase. The Cooler light in the head area of the surgeon allows for fatigue-free operation and prevents tissue from drying out in the OT field. Reduced heat, particularly in the area of the surgeon's head, provides a more comfortable environment with the potential to improve surgical team performance or efficiency, which results in improvement of outcomes.



Pure Light Quality :

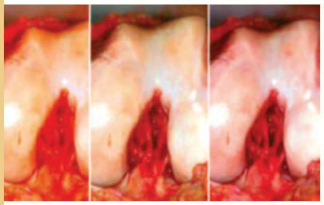
The illumination is nearest to day light and evenly spread across the surgical site to create a stunningly uniform working area and avoid distractions. LEDs provide homogenous light field. There is consistency in the light across it's focused area with no hot spots or drop offs. Its pure light improves the differentiation and contrast between tissue of similar colour, hence making layer differentiation and surgical movement clear and easier.

Safety :

No harmful emission of IR or UV rays. More safe for surgeons as well as patients.

Protects The Environment :

Enertech LEDs consume one-fifth less energy as compared to traditional halogen while producing the same intensity of light. Estimated CO_2 reduction results in at-least 1.25 tones per year per operation theatre. Enertech LEDs are also safe recycle.



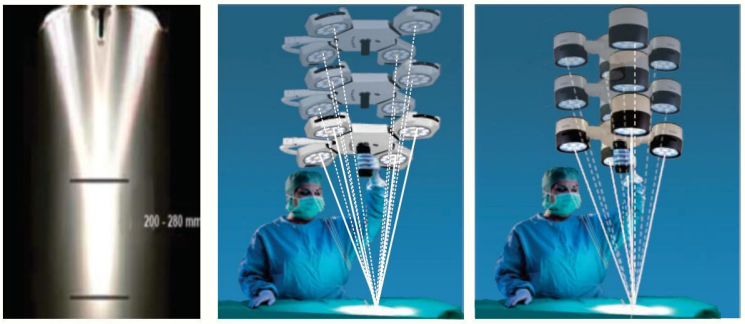
Variable Colour Temperature (Available in Varicol Series) :

The colour temperature can be varied in multiple steps from 3800K to 5600K in steps of 200K. A very wide range of possible 10 options is provided. Light with a higher colour temperature improves the ability to concentrate, which allows the surgeons to have optimum visual conditions depending on the extent of perfusion of the surgical site. A better contrast can also be achieved by changing the light color temperature in accordance with the tissue type and structure of the OT Light field.

Unique Features of Enertech LED OT Lights

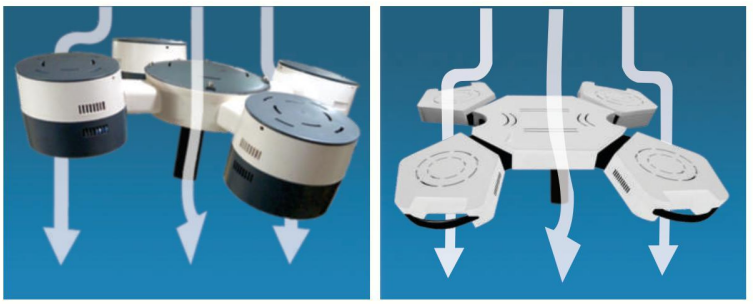
Auto Focus :

Due to high Focus Co-efficient of LEDs, the beam formation takes place at exactly 1 meter distance. Hence manual adjustment is eliminated; focus can be attained from any convenient angle by simple adjustment of distance of dome from site.



Laminar Air Flow Compatibility And Compact Design :

The open design of the Enertech lights reduces the Surface area that impedes the flow of air from the air supply ceilings, resulting in a less turbulent flow underneath the light and thus controlling the contamination in the operating room. The shape of Enertech's DOME assures the visual comfort and is particularly suitable for Laminar Flows. Lastly its compact design makes the Enertech LED light specifically small, flat and streamlined which in turn gives it's distinctive and justifiably futuristic appearance.



Shadow Free Illumination :

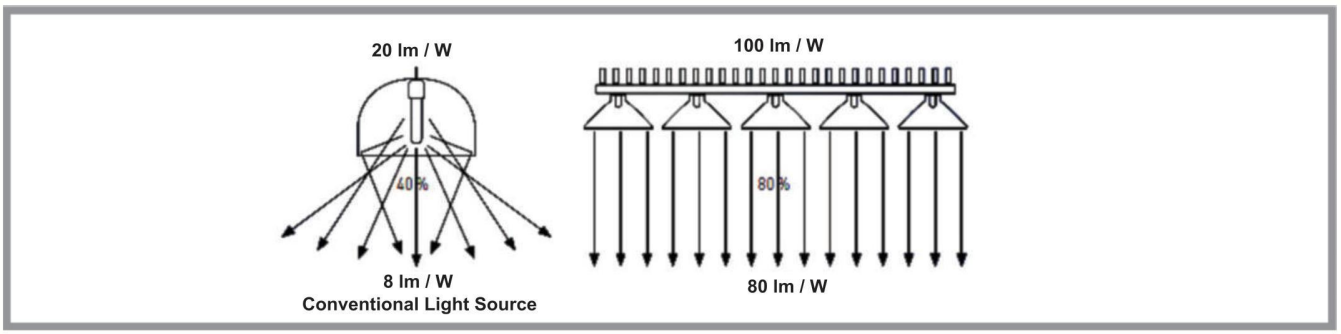
Shadow exist in surgey, created by surgeon position, surgical team movement, equipment or the depth of a wound. The key is to minimize shadow so a surgeon always has the clearest possible view of the surgical site. Enertech LED light ensures the relation between light body and light field diameter to perform an optimum illumination of the OT field in terms of area and depth. The Enertech reflectors are designed to construct a number of light beams to dissolve the shadows.

Multi Lens Sysyem :

Good Visibility and the homogeneous illumination at the surgical site are the key elements during the operation. Therefore Enertech has design its Multi Lens system based on the individual optical lens principle. Since each LED's has its own convergent lens, each creates its own light field. It distributes the emitted light volume uniformly in the Operating Room.

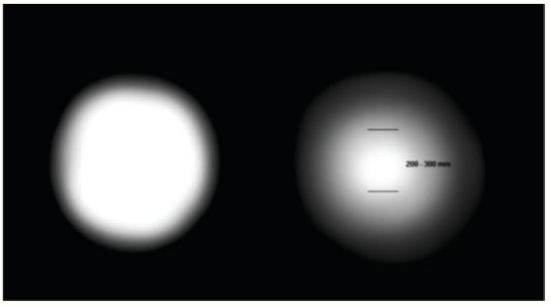
Unique Features of Enertech LED OT Lights

Efficient Focus of LEDs :



Beam Formation :

Enertech LED light produces high light intensity across the full illuminate area avoiding the variable contrast lighting and distractions, and offers uniform Vision for working area. Each Reflector generates homogenous lighting for surface. This creates an ideal depth of illumination, enabling the operator to work without the need to make the readjustment. Traditional Operating Theatre Lights create a high light intensity by squashing the light flux into the middle of the beam, creating a “Hot Spot”. This high contrast ‘Hot Spot’ gives a very bright centre, leaving the rest of the field relatively dim in-comparision.



Suturing Light For Convenient Post-Operative Procedure :

When the lights are turned off, a low intensity radiant beam is emitted so that suturing process can be carried out in great comfort and without time delay.

Remote Control & Sterilizable Handle :

Remote Control Adjust :

- On & Off Switch.
- Light Intensity :- Increase & Decrease
- Suturing Mode.

Sterilizable Handle

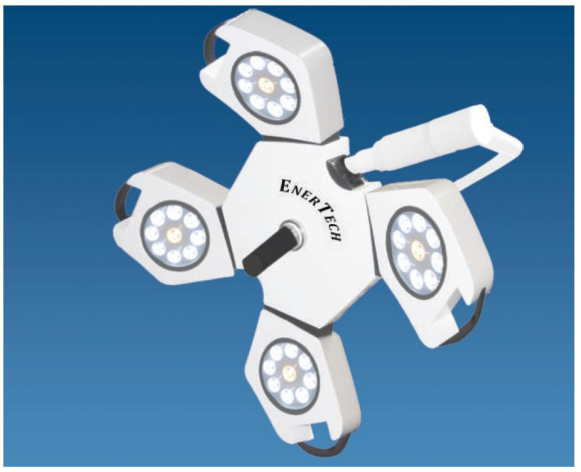
Euro Series

Euro Series

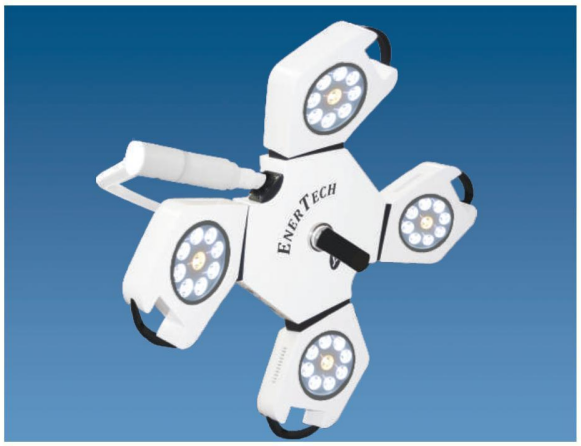
Euro Series - Technical Specification

Euro 160

Technical Data	Euro 160
Illumination Intensity	1,60,000 Lux
LED Service Life	50,000 hours
Colour Temperature	5500 K
Colour Rendering Index	95Ra
Temperature increase in surgeon's head area	< 2°C
Index Light Spot	210 - 280 mm
Brightness Adjustment	Nearly From 0% - 100%
Power	230VAC / 50 / 60 Hz



Euro 140



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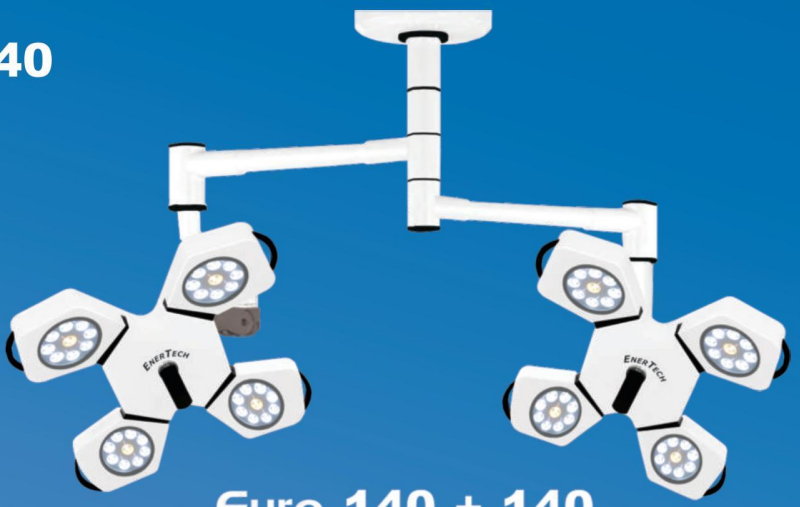
Euro Series - Ceiling Configurations

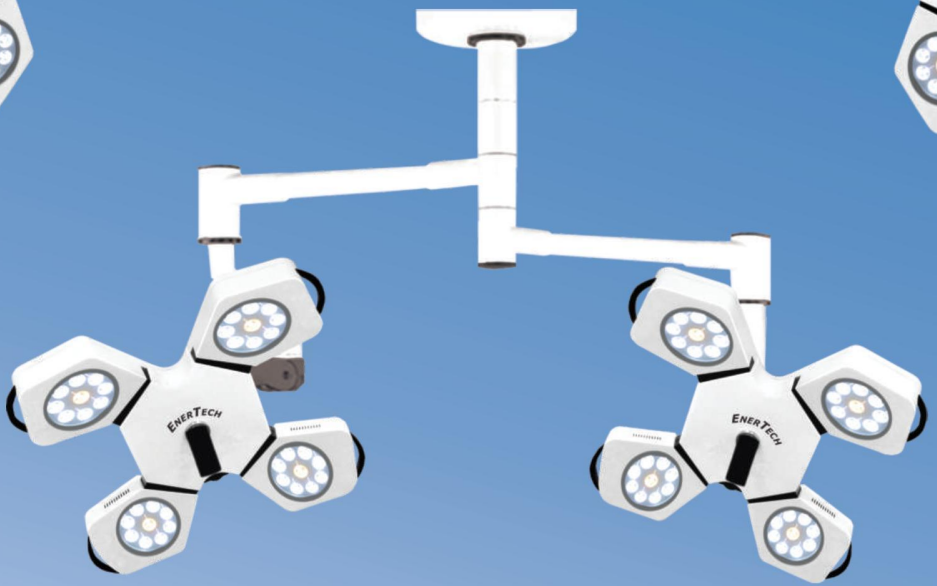
Euro Series Configurations

Euro 140



Euro 140 + 140

Euro 160 + 140



Euro 160 - Mobile

Euro 140 - Mobile

EcoPlus Series

EcoPlus Series

EcoPlus Series

EcoPlus 140

Technical Data	EcoPlus 140
Illumination Intensity	1,40,000 Lux
LED Service Life	50,000 hours
Colour Temperature	5500 K
Colour Rendering Index	95Ra
Temperature increase in surgeon's head area	< 2°C
Index Light Spot	210 - 280 mm
Brightness Adjustment	Nearly From 0% - 100%
Power	230VAC / 50 / 60 Hz

EcoPlus 100

Technical Data	EcoPlus 100
Illumination Intensity	1,00,000 Lux
LED Service Life	50,000 hours
Colour Temperature	5500 K
Colour Rendering Index	95Ra
Temperature increase in surgeon's head area	< 2°C
Index Light Spot	210 - 280 mm
Brightness Adjustment	Nearly From 0% - 100%
Power	230VAC / 50 / 60 Hz

EcoPlus Series - Ceiling Configurations

EcoPlus Series Configuration

EcoPlus 100

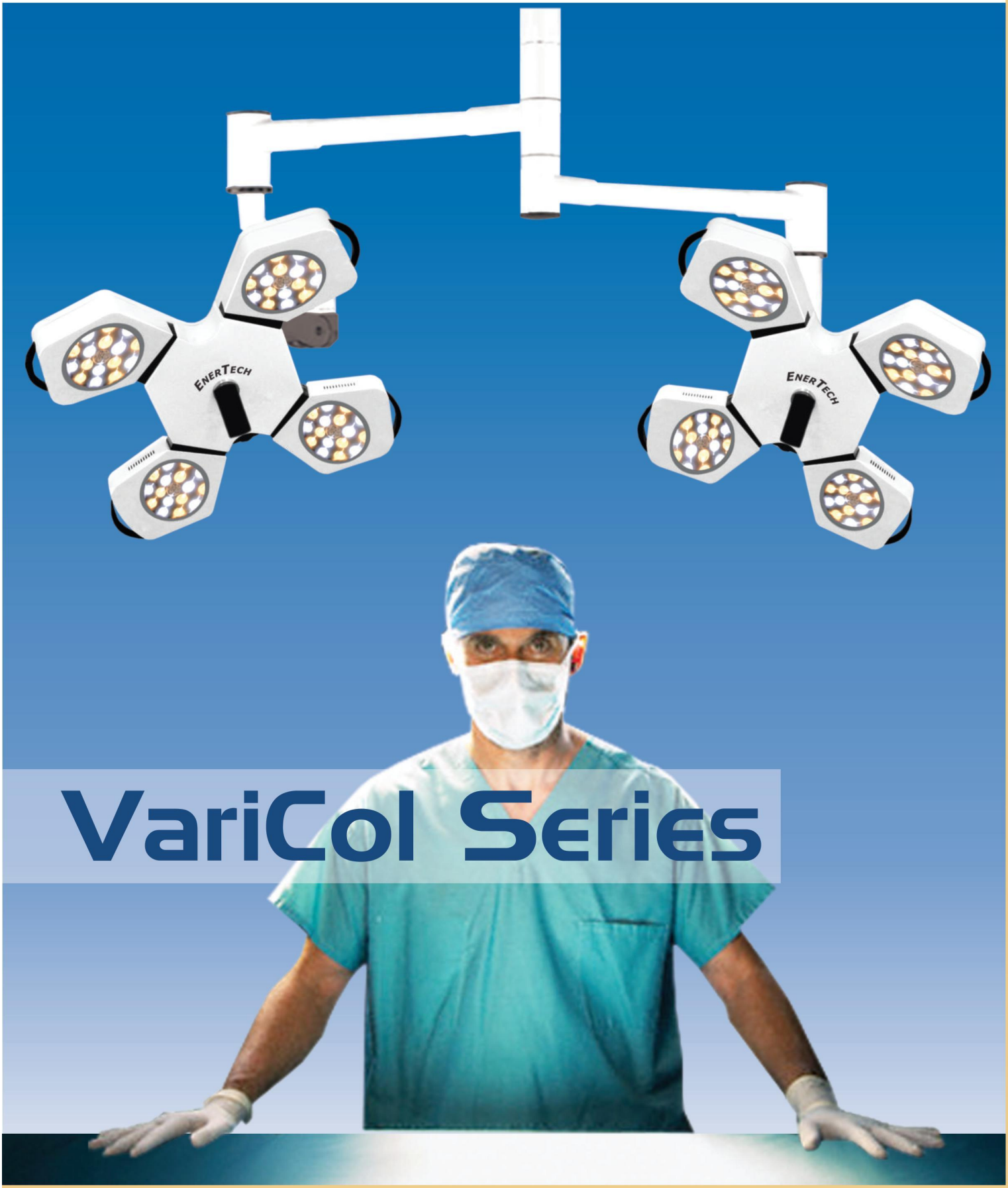
EcoPlus 100 + 100

EcoPlus 140 + 100

EcoPlus 140 - Mobile

EcoPlus 100 - Mobile

VariCol Series



VariCol Series

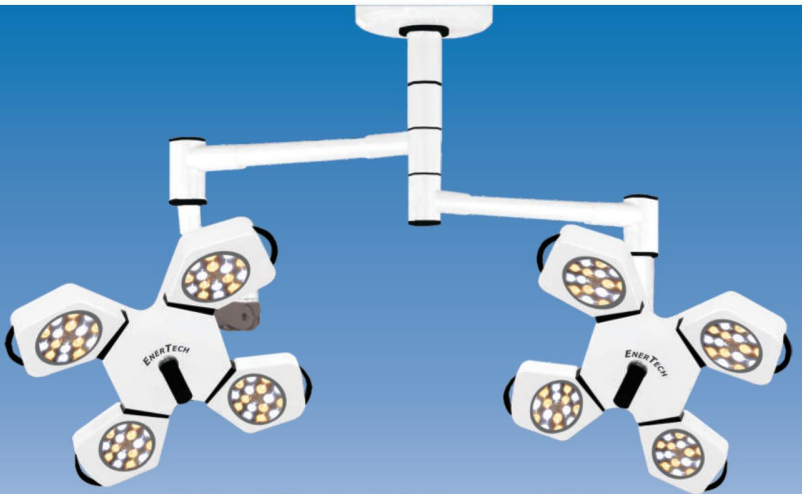
VariCol 160

Technical Data	VariCol 160
Illumination Intensity	1,60,000 Lux
LED Service Life	50,000 hours
Colour Temperature	3800 K - 5600 K Variable
Colour Rendering Index	max 95Ra (Variable)
Temperature increase in surgeon's head area	< 2°C
Index Light Spot	210 - 280 mm
Brightness Adjustment	Nearly From 0% - 100%
Power	230VAC / 50 / 60 Hz

VariCol 130

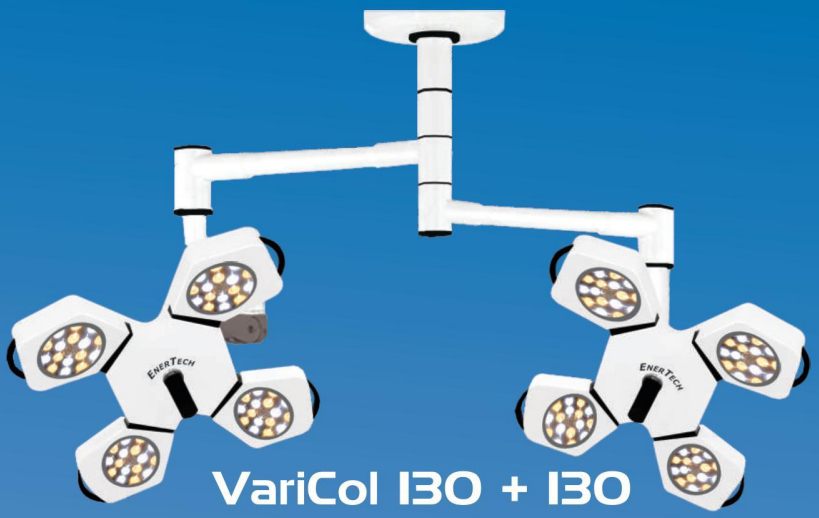
Technical Data	VariCol 130
Illumination Intensity	1,30,000 Lux
LED Service Life	50,000 hours
Colour Temperature	3800 K - 5600 K Variable
Colour Rendering Index	max 95Ra (Variable)
Temperature increase in surgeon's head area	< 2°C
Index Light Spot	210 - 280 mm
Brightness Adjustment	Nearly From 0% - 100%
Power	230VAC / 50 / 60 Hz

VariCol 160



VariCol 160 + 160

VariCol Series Configuration



VariCol 130 + 130

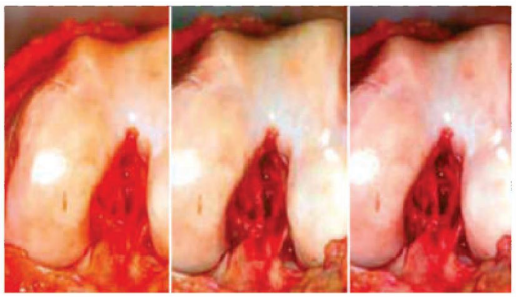
VariCol 130

VariCol 160 - Mobile

VariCol 160 + 130

VariCol 130 - Mobile

VariCol Series - Variable Colour Temperature



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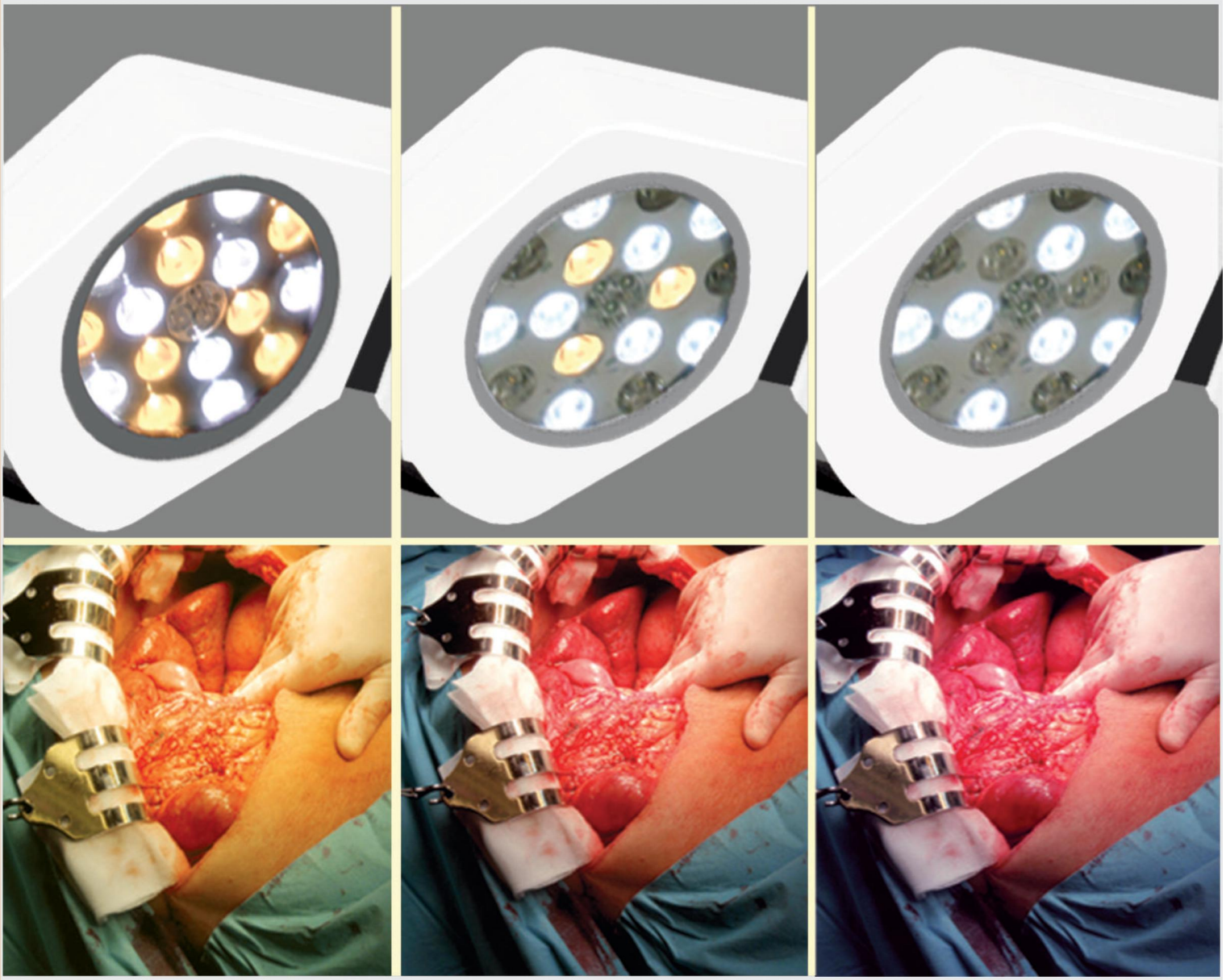
Variable Colour Temperature



ENERTECH

Enertech Other Range of Products

The Leaders in LED OT Lighting Technology