Patented by Telstar, the new automated lighting system embedded into operating theatre ceilings allows adjustment of different light sources to any working surgical space in real-time

Telstar incorporates a double light beam to the lighting system FlexInLight, designed for laminar flow operating theatres

- The system relies on artificial vision. The surgeon decides and acts directly to determine the exact position where the light beam must be projected at all times using a pointing device as a remote control.

- FlexInLight, which replaces conventional surgical lamps, eliminates any obstacles, whilst assuring a greater level of asepsis in the critical zone around the patient.

A new version of the automatic surgical lighting system integrating a double light beam technology has been developed by Telstar. Designed to be embedded into the laminar flow ceilings in operating theatres, FlexInLight Double Spot Light allows the projection of double light beam onto working surgical space and provides lighting precision to two points at once allowing the surgeon to operate simultaneously in two different zones.

Incorporating motorized spot lights integrated into laminar flow ceilings, the new spot-light system provides a double light source to any point on command of the user in a precise manner within a surgical working open space, without physical obstructions. The system relies on artificial vision. Using a pointing device as a remote control, the surgeon can decide and act directly to determine the exact position where the light beam must be projected at all times, a process that is significantly quicker and more accurate than that available from conventional lighting systems.

Embedded into the laminar flow ceilings, this sophisticated system replaces conventional surgical lamps to provide an open space within the working area, removing obstructions in the laminar flow ventilation process, which is one of the main drawbacks caused by the presence of traditional lamps. This is a main feature
that contributes to reduce the prevalence of surgery infections and to provide an environment with low level of turbulence and minimum level of contamination.

Designed particularly for operating theatres that require a high level of bacteriological safety, such as major surgery operating theatres, this new lighting system ensures the asepsis within the working area, offering the maximum degree of protection against possible post-surgical infections produced by microorganisms in the air inside the operating theatres, caused or generated by exposed instruments, equipment and lamps in the air flow.

**Technical features: superior lighting precision**

Technically this versatile lighting system assures the two basic conditions for optimum lighting quality within the visual space of the surgeons during the operation: zenith lighting and shadow-avoiding lighting. FlexInLight is composed of a total of six-eights motorized lighting units installed in a laminar flow ceiling, with
the capability of orientating the lighting units towards any point within their working enclosure. The system can be fully configured to the requirements of the medical team providing a light intensity exceeding 100,000 lux (the maximum output currently provided by conventional lamps). In addition an advanced automated control system enables the new system to control both the vertical angle of the light to provide appropriate lighting level to the operating zone, and orientation of the light, to suppress shadows, thus providing an optimum lighting environment. The system as a whole offers greater precision and light projection positioning for each light unit with a resolution margin of error of ± 1cm. The number of light units and their distribution within the ceiling ensure both the light output and the air flow laminarity.

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