

MAQUET

PowerLED 700 / 500
THE 2nd GENERATION IS HERE!

SURGICAL WORKPLACES



PowerLED
500

PowerLED
700



PowerLED: POINT & SHOOT MAQUET – THE GOLD STANDARD



A pledge to life: MAQUET is among the world's leading vendors of forward-looking medical technology for operating rooms and intensive care units. Whether Surgical Workplaces, Cardio Vascular or Critical Care – MAQUET always puts the needs of staff and patients in the foreground during product development work. And thus MAQUET satisfies the ever more exacting demands made on the modern hospital – demands for safety, efficiency and economy (operation costs).

Bringing expertise in surgical lighting, ceiling service units and multimedia solutions, MAQUET defines the highest standards, quality and innovation throughout the industry for the benefit of patients and the medical staff. MAQUET surgical

lights are known as the world's leader in design and innovation. Combined with the extensive line of ceiling pendants systems, MAQUET provides the most comprehensive solutions for various areas in the hospital.

Recently, advances in Light Emitting Diode (LED) technology have led MAQUET to adopt this innovation as the springboard to a new era of surgical lighting. With its modern appearance, the PowerLED system sets a new standard of illumination quality, safety, comfort and operational efficiency, while taking care to sustainable development.

MAQUET – The Gold Standard.

2nd GENERATION OF LED PowerLED



True Comfort

- 2nd generation of warmwhite LEDs
- "Always-in-focus" illumination with an exceptional depth of field and volume of light
- Efficient and consistent light patch
- Clear tissue visualisation: warmwhite LEDs cover the entire visible colour spectrum required for demanding surgeries
- Unparalleled heat management: prevents tissue desiccation

Flux Stability Program

- A patented LED luminous flux management
- Dynamic electronic control of illumination



AIM, AUTOMATIC ILLUMINATION MANAGEMENT PowerLED

AIM, for improved working conditions:

- First OR light with adaptive illuminance to surgeon's presence
- Consistent lighting of the surgical field
- Sensor driven management: masked areas around surgeon's head are reduced whereas remaining zones are boosted

Shadow-free illumination:

- Large illuminating surface: shadows created by obstructed areas are immediately diluted by diverging beams from illuminated areas
- The symmetric shape of the light head provides an ideal shadow control whatever the surgeon position, thanks to the overlapping beams technology





READY FOR TRUE HD APPLICATIONS PowerLED

PowerLED integrates a new platform perfectly designed for video applications:

- HD arm systems: modern multimedia signals, standard definition up to full high definition ones, can be easily routed through
- 2 Million pixels full HD video cameras: a resolution 5 times higher than conventional ones
- Realistic images and accurate color restitution for patient documentation, video conferences and training
- Reflections from stainless steel are invisible



FULLY LAMINAR FLOW COMPLIANT PowerLED

5 stars laminar flow compliant:

- Coolflow design
- Smooth surface
- Excellent heat dissipation
- No visible uprise of air observed towards the ceiling
- 24,5% turbulence degree. Far below the planned limit of 35% defined in the DIN standard 1946 part 4

Fully hygienic:

- Striking sleek lines without cutting edges
- Rounded curves and smooth surfaces for quick and easy cleaning
- Shock resistant coating



ALWAYS AVAILABLE PowerLED

Long service life

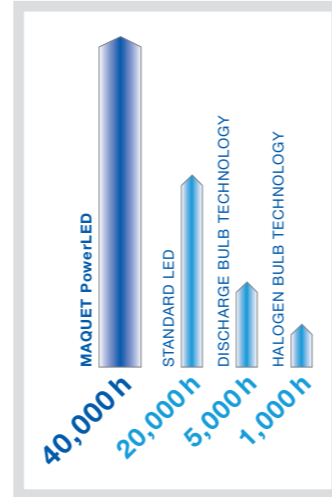
- 40 times longer than halogen bulbs
- Virtually no light source replacements, low maintenance required

Always operational when needed

- High number of LEDs
- Smart electronics
- 5 times less parts than conventional halogen systems
- A "solid-state" light: no moving parts

Low energy consumption

- Reduced energy consumption by 30%



CLEAN TECHNOLOGY LIGHT PowerLED



PowerLED complies with GETINGE's environmental policy. The overall objective is to minimise products impact on the environment by utilising resources efficiently in product development, manufacturing processes and in operation

PowerLED operating lights were designed with sustainability in mind, without compromising its performances and operational efficiency.

- Hazardous substances are dropped to a minimum
- 90% of PowerLED is made of aluminium: this material, indefinitely recyclable, reduces raw materials
- Reduced packaging: compact and efficient, it decreases the amount of used material and induced waste but also lowers CO₂ emissions due to a better shipment efficiency

- LED life expectancy is 40 times longer than halogen ones resulting in less energywaste over 15 years
- Low energy consumption
- Curved and smooth sleek surface, limiting dust deposition and cleaning procedure while minimizing use of detergents and cleaning solutions

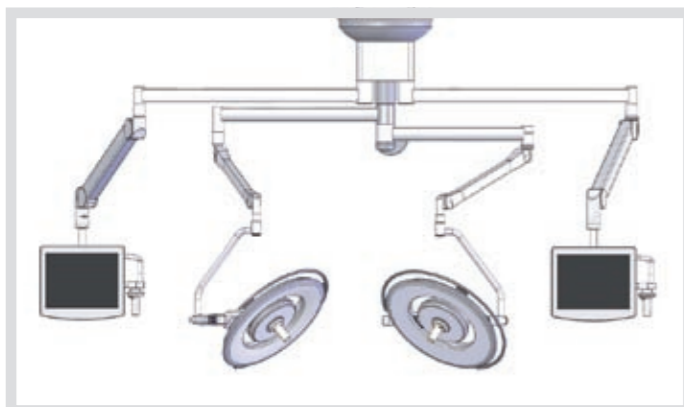
DESIGNED TO CATER FOR ALL NEEDS PowerLED



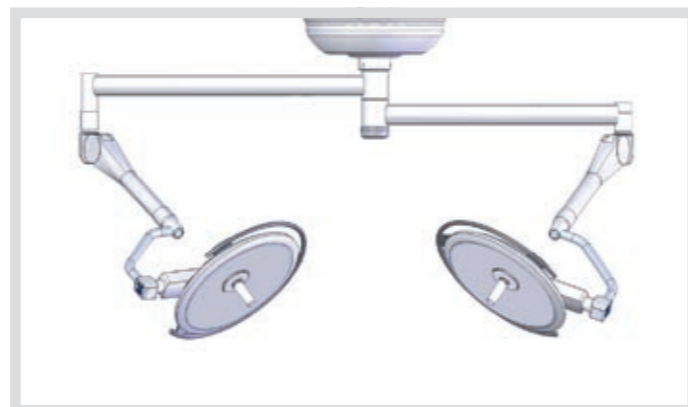
Dual PowerLED 700 configuration, double fork for excellent maneuverability.



Single PowerLED 700 configuration, single fork, ideal for low ceiling height.



Dual PowerLED 700 configuration with SATELITE MEDIA system.
A unique multimedia configuration for a flexible working space.



Dual PowerLED 500 configuration, single fork, ideal for low ceiling height rooms
(ideal for laminar flow installations).



Dual PowerLED 700 / 500 configuration with double flat screens.



PowerLED ROLITE. Always operational when needed: first aid, minor surgery, examination and treatment rooms (available with or without batteries).

TECHNICAL DATA PowerLED

Optical and photometric characteristics	PowerLED 700	PowerLED 500
Technology	LED	LED
Diameter of lighthouse (cm / inch)	74 / 29.1	58 / 22.8
Illumination (lux)	> 110,000	> 100,000
Field diameter* (cm / inch)	24 (+/- 10%) / 9.4 (+/- 10%)	24 (+/- 10%) / 9.4 (+/- 10%)
Depth of the volume of light L1 + L2 (cm / inch)	100 / 39.4	110 / 43.3
Colour Rendering Index (CRI) (Ra)	> 90	> 90
Colour temperature (K)	3,800 (+/- 15%)	3,800 (+/- 15%)
Radiant energy (average) (mW / m ² .lx)	< 4	< 4
FSP (Flux Stability Program)	Yes	Yes
AIM (Automatic Illumination Management)	Optional	N / A
Ambient light characteristics	PowerLED 700	PowerLED 500
Illumination (lux)	50 to 300	50 to 300
Illuminated field (cm / inch)	100 / 39.4	100 / 39.4
Electrical and mechanical characteristics	PowerLED 700	PowerLED 500
Power supply input voltage (V)	100 - 120 / 220 - 230	100 - 120 / 220 - 230
Lighthouse power consumption (W)	200	160
Frequency (Hz)	50 / 60	50 / 60
Video prewired	Only on PowerLED Video	Only on PowerLED Video
Illumination adjustment (%)	30 - 100	30 - 100
Service life (hrs)	> 40,000	> 40,000

Video Camera Range	Fixed focal	Zoom	Zoom HD
CCD sensor	1/4" CCD	1/4" CCD	1/3" Cmos
Signal system	NTSC or PAL	NTSC or PAL	1080i
Effective number of pixels	380,000 (NTSC) or 440,000 (PAL)	380,000 (NTSC) or 440,000 (PAL)	2,000,000
Horizontal resolution (at center) (LVT) - Standard NTSC or PAL	450	460 or 470	N/A
Aspect Ratio	4:3	4:3	16:9
S/N ratio (dB)	50	> 50	> 50
Lens (zoom range)	---	36x motorized zoom	10x motorized zoom
Focal length (mm / inch)	f= 25/1	f= 3.4 to 122.4 / 0.1 to 4.8	f= 5.1 to 51.0 / 0.2 to 2
Mini. working distance (mm / inch)	700 / 28	320 (wide end) to 1,500 (tele end) / 12.6 (wide end) to 59 (tele end)	10 (wide end) to 800 (tele end) / 0.4 (wide end) to 31.5 (tele end)
Aperture	F16	F1.6 to F4.5	F1.8 to F2.1
Antiflicker	---	Integrated	Integrated
Autofocus	---	Integrated	Integrated
Sensitivity (lx)	1.6 (F1.6, 50IRE)	1.4 (F1.6, 50IRE)	1.2 (F1.8, 50IRE)
Location of camera	Center of lighthouse in post for sterilizable handle	Center of lighthouse in post for sterilizable handle	Separate arm
Control box power supply	Integrated into the projector	100-230 V ; 50/60 Hz ; 50 VA	100-230 V ; 50/60 Hz ; 50 VA
White balance	Auto	Auto / manual	Auto / manual
Foot control	---	Optional	Optional
Control box	---	Wall mounted or mobile	Mobile
Video signal outputs	SD: 75 ohm / external BNC plug-composite	SD: 75 ohm / external BNC plug-composite	HD: Component YPbPr DVI-I HD-SDI SD: Y/C 75 ohm / external BNC plug-composite
Serial link interface	---	RS-232	RS-232

* Field diameter given for 10% of central illumination 1 m under the cupola.
All values measured according to IEC 60601-2-41.

MAQUET SA Quality System is certified according to :
ISO 9001 : 2000
NF en ISO 13485 : 2004
Directive 93/42/EEC (Medical Devices)



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