

MAQUET
GETINGE GROUP

PowerLED
THE 2ND GENERATION IS HERE!





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 white LED
- "Always-in-focus" illumination with an exceptional depth of field and volume of light
- Efficient and consistent light patch
- Clear tissue visualization: optimized white LEDs cover the entire visible color spectrum required for demanding surgeries
- Unparalleled heat management



Flux Stability Program

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





AIM, AUTOMATIC ILLUMINATION MANAGEMENT PowerLED

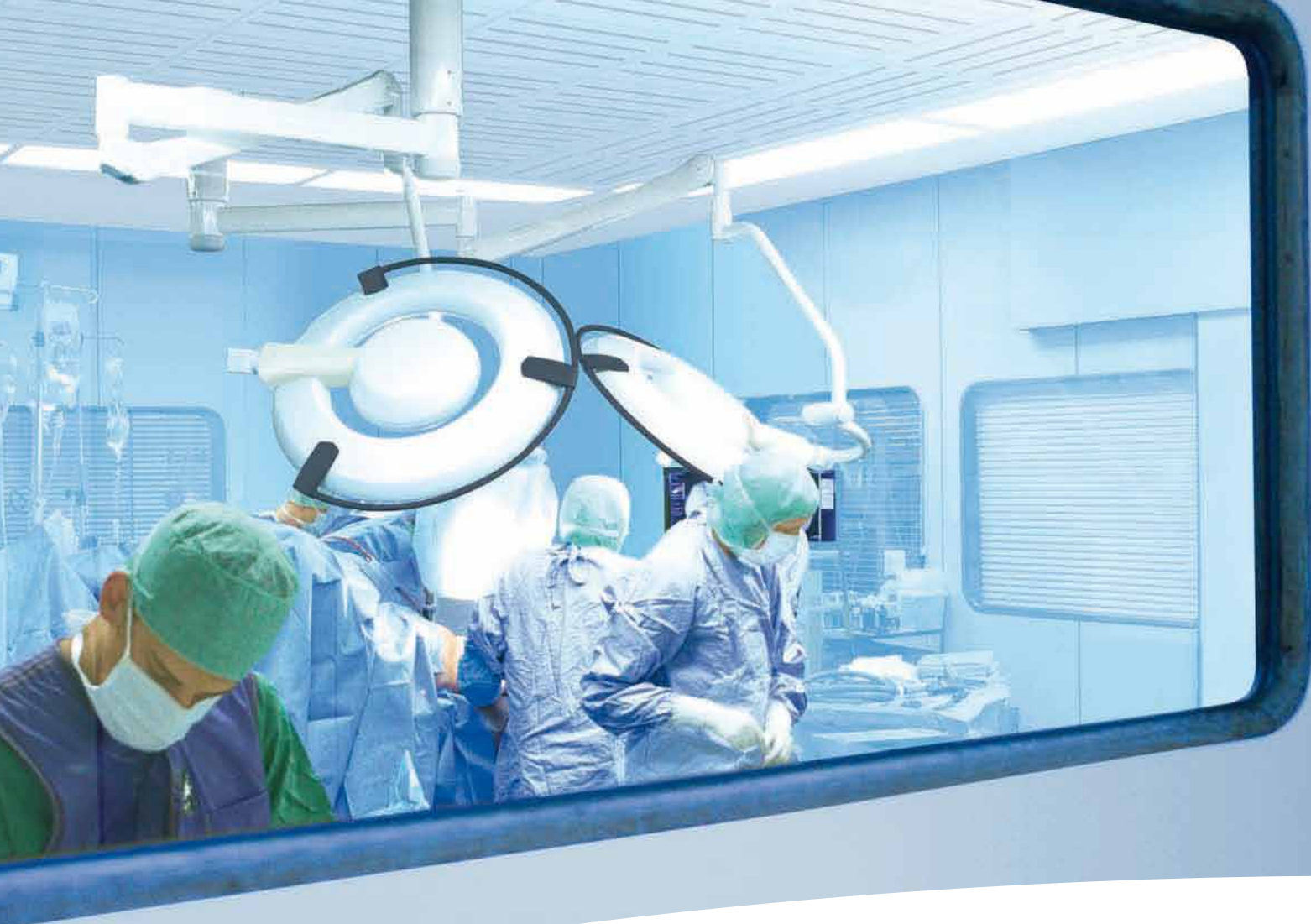
AIM, for improved working conditions:

- First OR light with adaptive illuminance to surgeon's presence
- Safe and consistent lighting of the surgical field
- Sensor driven management: masked areas around surgeon's head are reduced whereas remaining zones are boosted
- 100% freedom of movement
- Less heat on surgeon's head

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





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 37.5% 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

LAMINAR
FLOW



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
- ORCHIDE HD, a 2 million pixels full HD video camera: 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



ALWAYS AVAILABLE PowerLED

Long service life

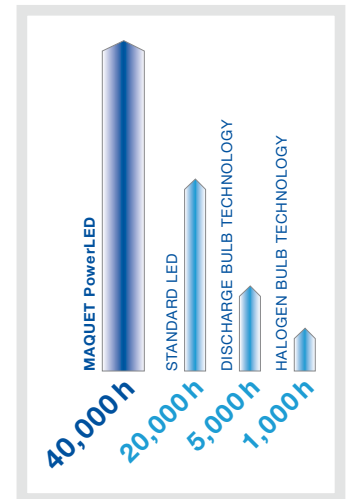
- 40 times longer than halogen bulbs
- Virtually no light source replacements, low maintenance required

Always operational when needed

- High number of LED
- 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 minimize products impact on the environment by utilizing 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 energy waste 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 TO ALL NEEDS

PowerLED



Single PowerLED 300 configuration, double fork.



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



Dual PowerLED 500 configuration, single fork, ideal for low ceiling height rooms.



Dual PowerLED 700 configuration, double fork for excellent maneuverability.



Dual PowerLED 700/500 configuration with double flat screens, ORCHIDE HD camera integrated in the PowerLED 700 lighthead.



A SATELITE-based multimedia configuration: PowerLED 300, single flat screen and ORCHIDE HD camera.



Dual PowerLED 700/300 with single flat screen and ORCHIDE HD camera. A unique multimedia configuration, thanks to SATELITE system.



Wall-mounted PowerLED 300 configuration.



PowerLED ROLITE & ROLITE CLASSIC. Always operational when needed (available with or without batteries).

TECHNICAL DATA

PowerLED

Optical and photometric characteristics	PowerLED 700	PowerLED 500	PowerLED 300
Technology	LED	LED	LED
Diameter of lighthouse (cm / inches)	74 / 29.1	58 / 22.8	45 / 17.7
Illumination (lx)	110,000	110,000	110,000
Boost (lx)	140,000	140,000	140,000
Field diameter 1 m / 39.4 inches (cm / inches)	26 / 10.2	24 / 9.4	17 / 6.7
Depth of Illumination at 20% (cm / inches)	120 / 47.2	120 / 47.2	100 / 39.4
Depth of Illumination at 60% (cm / inches)	50 / 19.7	70 / 27.6	60 / 23.6
Color Rendering Index (CRI) (Ra)	95	95	95
Color temperature (K)	3,800	3,800	3,800
Radiant energy (average) (mW/m ² .lx)	3.6	3.6	3.6
Flux Stability Program (FSP)	Yes	Yes	Yes
Automatic Illumination Management (AIM)	Optional	N/A	N/A

Ambient light characteristics	PowerLED 700	PowerLED 500	PowerLED 300
Illumination (lx)	500	500	500

Electrical and mechanical characteristics	PowerLED 700	PowerLED 500	PowerLED 300
Power supply input voltage (V)	100–120 / 220–230	100–120 / 220–230	100–120 / 220–230
Lighthouse power consumption (W)	160	110	70
Frequency (Hz)	50 / 60	50 / 60	50 / 60
SD Video prewired	Only on PowerLED Video	Only on PowerLED Video	N/A
HD Video prewired	Only on PowerLED HD with AIM	Only on PowerLED HD	N/A
Illumination adjustment (%)	30–100	30–100	30–100

Video camera range	ORCHIS	ORCHIDE HD
CCD sensor	1/4 inch CCD	1/3 inch Cmos
Signal system	NTSC or PAL	1080i
Effective number of pixels	380,000 (NTSC) or 440,000 (PAL)	2,000,000
Horizontal resolution (at center) (LVT) -Standard NTSC or PAL	460 or 470	N/A
Aspect Ratio	4:3	16:9
S/N ratio (dB)	50	50
Lens (zoom range)	36x motorized zoom	120x motorized zoom
Focal length (mm / inch)	f=3.4 to 122.4 / 0.1 to 4.8	f=5.1 to 51.0 / 0.2 to 2
Minimum working distance (mm / inches)	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	F1.6 to F4.5	F1.8 to F2.1
Antiflicker	Built-in	Built-in
Autofocus	Built-in	Built-in
Freeze	Built-in	Built-in
Contrast Enhancement	Built-in	Built-in
Sensitivity (lx)	1.4 (F1.6, 50 IRE)	12 (F1.8, 50 IRE)
Location of camera	Center of the lighthouse / Separate arm	Center of the lighthouse / Separate arm
Control box power supply	100–230 V; 50/60 Hz; 50 VA	100–230 V; 50/60 Hz; 50 VA
White balance	Auto / manual	Auto / manual
Foot control	Optional	Optional
Control box	Mobile	Mobile
Video signal outputs	SD: -Composite (2x) -SDI (2x)	HD: -Component YPbPr (2x) -DVI-D (1x) -HD-SDI (2x) SD: -Y/C (1x) -Composite (1x)
Serial link interface	RS-232 / RS-485	RS-232 / RS-485

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GETINGE GROUP is a leading global provider of products and systems that contribute to quality enhancement and cost efficiency within healthcare and life sciences. We operate under the three brands of ArjoHuntleigh, GETINGE and MAQUET. ArjoHuntleigh focuses on patient mobility and wound management solutions. GETINGE provides solutions for infection control within healthcare and contamination prevention within life sciences. MAQUET specializes in solutions, therapies and products for surgical interventions, interventional cardiology and intensive care.

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