

MAQUET
GETINGE GROUP

VOLISTA
TAILORED TO YOUR NEEDS





VOLISTA TAILORED TO YOUR NEEDS MAQUET – THE GOLD STANDARD



The assurance of quality: MAQUET is a world-leading supplier of medical equipment for operating, hybrid and induction rooms, intensive care units and patient transport. In its Surgical Workplaces, Cardiovascular and Critical Care divisions, MAQUET always gives top priority to the needs of healthcare staff and patients in the development of its products. For safety, efficiency and cost reduction, MAQUET provides solutions to the issues facing hospitals.

Drawing on its expertise in surgical lights, ceiling service units and multimedia solutions, MAQUET focuses on quality and innovation to provide optimal solutions for patients and healthcare staff.

MAQUET surgical lights have developed a worldwide reputation for their design and innovation. With VOLISTA, MAQUET goes one step further by offering surgeons a modular system for adapting lighting to their needs. In conjunction with the new TRIOP interchangeable suspension arm system, VOLISTA offers revolutionary new organisational possibilities for operating suites. It forms a key part of a tangible response to improving how technical facilities are managed.

MAQUET – The Gold Standard.



*VOLISTA:
a choice
between
three colour
temperatures:
3900, 4500 or
5100 K.*

VOLISTA AUTHENTIC VISION

Surgeons performing open surgery need to see clearly in order to operate in even the most difficult conditions. A reliable tool that contributes to a safe interpretation of the patient's condition is thus essential. VOLISTA's unique design fulfils this need by providing constant illumination and natural colours.

Safe interpretation of tissue condition

VOLISTA uses only white LEDs, offering totally faithful colour rendering with no coloured cast shadows. The colour temperature can be varied using an innovative, patented cold filter system, offering three levels: 3900 K, 4500 K and 5100 K.

By offering true, authentic and reliable colour temperature variation, VOLISTA is the only light to guarantee constant rendering.



« *The colours rendered are faithful, natural and constant.* »

See into cavities as clearly as on the surface, without needing to readjust the lighthouse

The permanently focused light field offers ideal vision at all levels, even in the deepest cavities. No readjustment is needed, reducing the time spent handling and repositioning lights during surgical procedures. With VOLISTA, surgeons can concentrate exclusively on their patients.

A homogeneous illuminated area, adjustable to suit the surgical site

Divergent light beams, perfectly superimposed at the surgical site, ensure that the light field remains circular even if certain LEDs are masked: the field cannot be deformed. The optical system also enables the diameter of the light field to be electronically adjusted to the desired area.

Anticipate extreme situations

To deal with any complications, VOLISTA's Boost function offers reserve illumination capacity up to 150,000 lux.

Choices backed by impartial scientific data

"Light color variations in the illuminated field were noticed when using luminaires that contain differently colored LEDs, either as separate LED units or as differently colored chips in one LED unit".

Knulst AJ, et al. LEUKOS, 2009.

"The use of LED OR lights that contain differently colored LEDs introduced colored shadows on the surgical field".

Knulst AJ, et al. Surgical Innovation, 2009.

"One problem that arises assessing RGB-type white LED sources is that, although the CRI value may appear acceptable, the appearance of very saturated colours can be very poor (e.g. dark reds appear brown)".

Cordero EM, et al. Color. Technol., 2011.

UNBEATABLE VISUAL COMFORT FOR TOTAL SAFETY



Always constant

The patented FSP (Flux Stability Program) system perfectly stabilises the illumination, avoiding variations in light output level by compensating, in particular, for the loss of illumination inherent to LED technology. FSP is the only current system that guarantees constant illumination throughout a surgical procedure.



Move freely

The AIM system, available on VOLISTA, automatically compensates for the drop in illumination from the surgeon's head by increasing the light output level of the LEDs that are not masked. This function offers total freedom of movement without any drop in illumination.



Protect your eyes

The LMD (Luminance Management Device) system regulates the illumination reaching the surgeon's eyes. This optical innovation maintains optimum visual acuity and avoids difficulties in adapting to excessive variations in luminosity. Surgeons are assured of equivalent light levels when they look at dark cavities or light tissue.



Ensure total patient safety...

- the assurance of clean air flow: the spacious design of the TRIOP suspension and the shape VOLISTA lighthead are conducive to maintaining laminar flow, essential in super-aseptic surgery,
- faultless hygiene guaranteed: the paints selected for the entire system have been tested and validated to minimise microbial adhesion,
- protecting the most sensitive patients: in addition to varying the colour temperature, the patented Cold Filter system provides total protection with no risk of drying out tissue, even for the most sensitive patients.

...in ideal working conditions

- illumination without infra-red radiation,
- light levels that adapt to the surgeon's position,
- original shape, designed for functionality,
- unique innovations to preserve visual acuity, enhance concentration and reduce discomfort for surgeons.



VOLISTA lightheads are designed for total compatibility with laminar flow systems.



The AIM (Automatic Illumination Management) function is exceptionally easy to use.



CUSTOMISE YOUR MULTI-DISCIPLINARY OPERATING THEATRE WITH THE TRIOP CONCEPT

Surgeons need a ceiling configuration that can be adapted to their speciality, and illumination features to satisfy all visual preferences. This is now a reality, thanks to the combination of two revolutionary concepts:

- TRIOP, a unique and adaptable suspension system,
- VOLISTA, a lighting system that offers unrivalled flexibility and comfort.



Configure your operating theatre in minutes

The C2OP (Connect to OPERate) system enables lightheads, cameras, single and double display mounts, and so on, to be exchanged in a matter of minutes. MAQUET gives surgical facilities the possibility of adapting to changing needs, refining surgical schedules and increasing the number of specialities in a single operating room. An operating theatre can offer a multitude of different configurations to suit all surgical specialities and adapt to the habits of each surgeon.

C2OP system: the heart of Innovation



Adapt your lighting

VOLISTA has a host of functions to adapt to your surgical needs:

- AIM (Automatic Illumination Management),
- boost mode,
- LMD (Luminance Management Device) mode,
- variable colour temperature,
- adjustable light field diameter,
- variable illumination from 20 to 100%,
- ambient light featuring special green LEDs for enhanced screen contrast,
- HD-compatible.





ALLEVIATING THE DAILY BURDEN ON SURGICAL TEAMS



Lightweight design for easy positioning.



Flexible articulations for smooth movements.



Streamlined design occupies less space above the operating table.

Adaptable, fluid manoeuvrability

- suspension arms with compressed air compensation offer an extremely light touch without compromising on stability,
- equipment can be moved without approaching the surgical site, for easier positioning by ancillary personnel,
- compensation arms feature a locking function to hold a specific position and guarantee absolutely zero drift,
- a unique rotation system for perfectly arranged equipment,
- hidden cables for unhampered movement around the operating suite.

« *Incredibly easy
to manoeuvre! At
last we can place
equipment exactly
where we need it.* »

360° collision-free rotation

- new ergonomic rotation system,
- less clutter above the operating table,
- a major technological breakthrough to cope with the influx of monitors and touch screens within the surgical area.

HD platform: a world of anticipation

- free the operating zone: HD video gives nursing staff and medical students a central view of operations,
- HD is a real help for the surgical team, improving the workflow by monitoring what the surgeon is doing and anticipating his or her needs.



Simple yet powerful controls

The new touch screen interface allows for easier adjustment and provides a simple and intuitive control panel on the wall-mounted unit. Featuring advanced settings for synchronisation, preventive maintenance and customisation, it ensures you are not bothered by secondary activities. Offering true auxiliary controls, it is an indispensable assistant for daily tasks.

MODULARITY, A LONG TERM SYSTEM

Because modular technical facilities face ever more stringent budget requirements, operating room needs must be managed more efficiently. The VOLISTA platform offers a tangible response to this issue.

Increasing operating theatre occupancy

The C2OP interface is an indispensable tool for multi-purpose rooms, offering a true change in mindsets and habits.

The performance of the operating suite is enhanced by:

- pooling of equipment,
- better use of resources,
- adaptability of rooms,
- greater anticipation of needs,
- more flexible management.

« C2OP opens new opportunities for organising operations, by enabling equipment which would have been fixed and devoted to one operating room to be pooled between several rooms »»





Intelligent management

- an intuitive touch-sensitive control keypad, designed with the hygiene requirements of operating suites in mind,
- assistance with preventive maintenance, including backup power supply testing, operating parameter storage and self-diagnostics,
- remote control and communication: the platform features an RS-232 interface that can be linked to various integration products such as MAQUET's TEGRIS system.

Video within reach

The suspension system is a true HD platform that can carry all types of signal, such as 3G-SDI, and offers:

- a wide range of communication and teaching features, with 2D or 3D HD video,
- access to patient files, X-ray, MRI and CT scan imagery, videos and so on, directly from the operating site.



Built for future enhancements

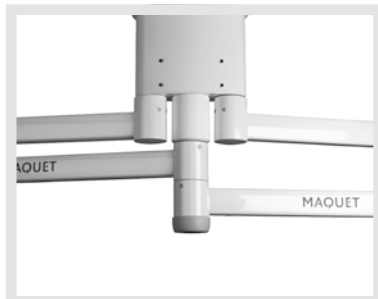
- up to 75% less downtime than with conventional operating suite upgrades,
- safe continuation of activity,
- open TRIOP architecture, ready for future needs
- C2OP concept allows equipment to be easily added or removed,
- simplified purchasing procedures: equipment can be replaced individually, thereby controlling costs.

THE SURGICAL LIGHT MEETING ALL SPECIALITIES

SUSPENSION ARMS



TRIOP



SATELITE



VOLISTA Basic suspension

LIGHTHEADS



VOLISTA 400



VOLISTA 600

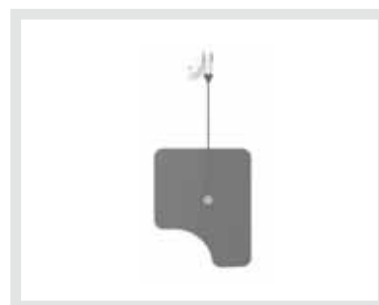
EQUIPMENTS



ORCHIDE



ORCHIDE 3D



X-RAY SHIELD



Single flat screen (Basic or Premium)



Double flat screen

PERFORMANCE THAT DOESN'T COST THE EARTH

MAQUET is actively committed to a sustainable development policy

Our aim is to implement processes and use technologies that have a low impact on the environment and ecosystems. To respect and preserve the environment, VOLISTA and TRIOP are made from aluminium, an indefinitely recyclable material, thereby reducing the use of raw materials.

The compact packaging reduces materials used and generates less waste. Likewise, transport is optimised to reduce CO₂ emissions.

The low power consumption of LEDs and their long service life result in significant energy savings.



VOLISTA and TRIOP, protecting the environment.

VOLISTA TECHNICAL DATA

Optical and photometric specifications	VOLISTA 600	VOLISTA 400
Illumination* (lx)	130,000	120,000
Boost function (lx)	150,000	NA
Field diameter** (cm/inch)	20 - 25 / 7.9" - 9.8"	
Depth of the volume of light L1+L2 at 20% (cm/inch)	110 / 43.3"	
Depth of the volume of light L1+L2 at 60% (cm/inch)	50 / 19.7"	
Colour temperature (K)	3,900	
Adjustable colour temperature (K)	3,900 - 4,500 - 5,100	
Colour rendering index (CRI) (Ra)	95	
Irradiance* (W/m ²)	< 500	
HD prewired	Yes	
AIM (Automatic Illumination Management) mode	Optional	
LMD (Luminance Management Device) mode	Optional	
Service life (h)	> 50,000	
Power lighthouse consumption* (W)	90	60

* In standard mode, light level values may vary by 10%.

** Field diameter given for 10% of central illumination 1 m under the cupola.

All values measured according to IEC 60601-2-41.

MAQUET S.A.S. Quality System is certified according to:
ISO 9001: 2008
NF EN ISO 13485: 2004
NF EN ISO 14001: 2004



label
observeurdudesign13

MAQUET

GETINGE GROUP

MAQUET S.A.S.
Parc de Limère
Avenue de la Pomme de Pin
CS 10008 Ardon
45074 Orléans cedex 2, France
Téléphone : +33 2 38 25 88 88
Fax : +33 2 38 25 88 00
info@maquet-sa.fr
www.maquet.com

The GETINGE GROUP is a leading global provider of equipment and systems that contribute to quality enhancement and cost efficiency within healthcare and life sciences. Equipment, services and technologies are supplied under the brands ArjoHuntleigh for patient hygiene, patient handling and wound care, GETINGE for infection control and prevention within healthcare and life science and MAQUET for surgical workplaces, cardiopulmonary and critical care.