

LASEMAR<sup>®</sup>1000

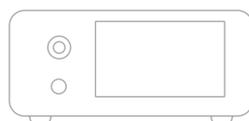
1000

Available also in version LASEmaR<sup>®</sup> 940 and in version LASEmaR<sup>®</sup> 1064.

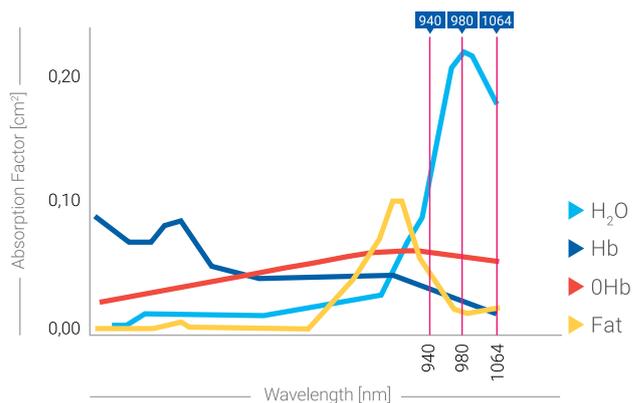
**VERSATILE LASER  
FOR THE SURGICAL THEATRE**

ENT | GENERAL SURGERY | GYNAECOLOGY | OPHTHALMOLOGY  
VASCULAR SURGERY | PLDD | MEDICAL THERAPY | ONYCHOMYCOSIS

LASEmaR<sup>®</sup> 1000, LASEmaR<sup>®</sup> 940 and LASEmaR<sup>®</sup> 1064 for an in-depth use,  
they are the ideal lasers for wide-ranging selective surgery and high power laser therapy.



LASEmaR® 1000, LASEmaR® 940 and LASEmaR® 1064 are ideal lasers for wide-ranging selective surgery and high power laser therapy. All LASEmaR® release infrared laser emission through optical fibers of different in core diameter (between 100 and 1000 µm), usable with the majority of endoscopes. These features make the LASEmaR® ideal for minimally invasive procedures with quicker healing and more aesthetic and functional cicatrisation. LASEmaR® are portable, easy to use, do not need any maintenance and are free from consumption costs.



## TECHNICAL ADVANTAGES

- ▶ **Multifunctionality:** changing its handpieces and preset protocols, the laser is immediately usable for all the different treatments.
- ▶ **EPC - Effective Pulse Control,** maximization of the concept of selective photocoagulation.
- ▶ **Absolute portability** thanks to the smart trolley.
- ▶ **Software** - all the treatments are preselected and adjustable thanks to the easy and intuitive software.
- ▶ **Security** - the software permits to set the target parameters, warning the operator of its achievement with different voiced feedbacks, without the necessity of diverting the attention from the patient.
- ▶ **Self diagnosis** - principal circuits are continuously supervised from a security system, which informs the operator of the eventual anomalies and whenever it is necessary, it stops automatically the emission.
- ▶ **Ordinary maintenance** is not necessary and there is no need of consumption materials.
- ▶ **Working capacity** of different hours per day without any problem of overheating.

## CLINICAL ADVANTAGES

- ▶ Mini-invasive surgery precision.
- ▶ Vaporisation of tissues with minimal carbonisation.
- ▶ Visible and tactile feedback from the optical fiber.
- ▶ Quickly modular aiming beam for an excellent vision in all the operating environments.
- ▶ High haemostasis enabling optimal visualisation of the operating field.

## APPLICATIONS

LASEmaR® 1000 is indicated for surgical applications requiring the vaporization, incision, excision, ablation, cutting, haemostasis and coagulation of soft tissue in conjunction with endoscopic equipments for medical specialists including: Urology, Thoracic Surgery, Plastic Surgery and Dermatology, Aesthetics, General Surgery, Ophthalmology, Orthopaedics, Podiatry, Arthroscopy, Spinal Surgery, Gynaecology, Pulmonary Surgery, Neurosurgery, Gastroenterology and Radiology, Endovascular coagulation, Oral Surgery, Dental procedures and Laser Assisted Lipolysis.

### ENT

LASEmaR® 1000 / LASEmaR® 940 in otorhinolaryngoiatric field assures an excellent vaporization and a cut/clot of very high precision. Laser beam on the surgical field is transmitted in two ways depending on the type of application:

- ▶ By avoiding any contact, on the hyperchromic tissues preserving the surrounding healthy tissues.
- ▶ In contact, through optical fibers, particularly efficient in endoscopic surgery (turbinectomies, cordectomy etc.)

### SURGERY



### ENT SURGERY



## GENERAL SURGERY

LASEmaR® 1000 can selectively coagulate tissues at microscopic level reducing post-op inflammation and regular pain. If the laser operates in pulsed emission mode, it is able to vaporize superficial lesions without any anaesthesia or stitching.

Its wavelength has an advantage in surgery: a high water absorption power (10 times higher than an 808 nm laser and 4 times higher than a 1064 nm laser) for an enhanced penetration and vaporization of soft tissues (mainly constituted by water).

## PERCUTANEOUS LASER DISC DECOMPRESSION (PLDD)

PLDD is a conservative, minimally invasive surgical procedure approved by FDA which uses LASEmaR® 1000 laser energy to absorb the water contained in the herniated nucleolus polposus. This reduces the pressure within a herniated disc (lumbar and cervical disc), relieving symptoms by decompressing the spinal nerve.

### MRI OF A PATIENT WITH L4-L5 EXTRUDED HERNIA: Before - after



## VASCULAR SURGERY

The LASEmaR® 1000 wavelength selective on haemoglobin and water makes LASEmaR® 1000 a perfect tool for the procedures of photocoarctation of varices with thick and hypertrophic wall.

## OCULOPLASTIC SURGERY (DCR) AND RELATED SPECIALTIES

LASEmaR® 1000 is indicated for Dacryocystorhinostomy (DCR) and enables surgeons to perform minimally invasive procedures in as little as 10 minutes. Patients tolerate the procedure very well and are usually able to return to all normal activities the next day.

## HIGH LEVEL LASER THERAPY

Patients suffering from post-traumatic pains or general phlogosis have an almost immediate positive reaction from the use of infrared laser with high emission power. The beneficial effects are: anti-inflammatory, analgesic, regenerative of connective tissue, biostimulant of lymphstream and of the phagocytosis. It is also possible to treat easily (just selecting the correspondent program) different indications: sores, ulcers, haematomas, contractures, distortions, osteoarthritis, epycondylitis and tendonitis and scar disorders as keloids and hypertrophies.

## LATERAL EPICONDYLITIS



## VASCULAR LESIONS

With LASEmaR® 1000 it is possible to achieve burn-free coagulation and excellent haemostasis thanks to the high haemoglobin absorption.

## ONYCHOMYCOSIS

LASEmaR® 1000 generates a photo-thermolitic effect on mycosis, which means a combined effect by laser light and high temperature that eliminates fungi from nail. On average 4/5 sittings (one sitting every three weeks) are necessary in order to solve the problem.

## ACCESSORIES



### SURGICAL HANDPIECE

For contact applications in combination with optical fibers.



### CANNULA FOR ENT AND ENDOSCOPIC SURGERY

Different forms and lengths.



### OPTICAL FIBERS

Different calibres (from 100 to 1000 micron), lengths and tips (radial, ball, sphere, conic, flat) are available.

- 1- sterile for single use and
- 2- not sterile for multiple use



### HANDPIECE ZOOM VARIABLE FOCAL FOR TRANSDERMAL APPLICATIONS

For transdermal contactless applications (variable spot from 0,5 to 2mm).



### SCANNemaR

Rotating scanner with electronically-controlled ellipsoid movement. Applications: vulnology, cleansing, photodynamic debridement of wounds and sores.



### MULTI-THERAPY HANDPIECE

For photobiomodulation, High Level Laser Therapy, inhibition of keloids, PDT-ICG Hair Removal. Quasi contact mode. Spot 40 mm.



### MULTI-THERAPY FLAT HANDPIECE

Flat wave for same applications as Multitherapy Handpiece. It allows to be always focused from 0 to 30 cm distance. Available in 3 spot sizes: 5, 10, 20 mm.

### PLDD KIT

Optical fiber 300 micron - specific PLDD tip. Fiber locker, spinal needle.

### ENDOVENOUS THERAPY KIT

With various lengths (needle introduction, guide wire insertion, placement catheter with calibration marking through cannula equipped with hemostasis valve, laser fiber lock).



LASEmaR® 1000  
is available in  
SILVER, BLACK and GOLD.



## LASEmaR® 1000 - TECHNICAL FEATURES

Wavelength (nm)	940 nm - 980 nm - 1064 nm
Laser	High Power Diode (GaAs)
Preselected programmes	Advanced software with experienced protocols to be manually customized
Pulse duration (Ton - Toff)	Adjustable from 1 to 9000 msec - steps 1 ms
Number of pulses per sequence (single and pulsed mode)	Adjustable from 1 to 100 - step one
Interval between pulse sequence (pulsed mode)	Adjustable 1 ms ÷ 10 sec
Operation mode	Single pulse mode, Pulsed mode, Continuous mode
Cooling system	Air cooling system combined with Peltier's Cells
Aiming beam	Red - 635 nm
Electrical power	110 - 230 V 50/60 Hz
Absorbed power	300 VA peak (adapted to domestic electric standard)
In compliance with	93/42/CEE IEC 60601-1 IEC 60601-1-2 IEC 60601-2-22 IEC 60825-1
Weight and dimensions	8,5 kg – 30,5 x 35 x 15,5 cm
Production	Made in Italy



For more information about applications and accessories of LASEmaR® 1000, scan the QR - code with your tablet or smartphone.

**EUFOTON**  
medical lasers

**Eufoton Srl**  
Via Flavia 23/1 - 34148 Trieste - Italy  
Ph. +39 040 9899082 - Fax +39 040 9890555  
www.eufoton.com - info@eufoton.com

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Before and after photographs used in this brochure are courtesy of G. Bastianelli MD, O. Marangoni MD, G.P. Tassi MD.