

Technology meets Anatomy



Handwritten notes in Latin script, likely describing anatomical observations or surgical techniques.



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LEONARDO® Universal and ingenious



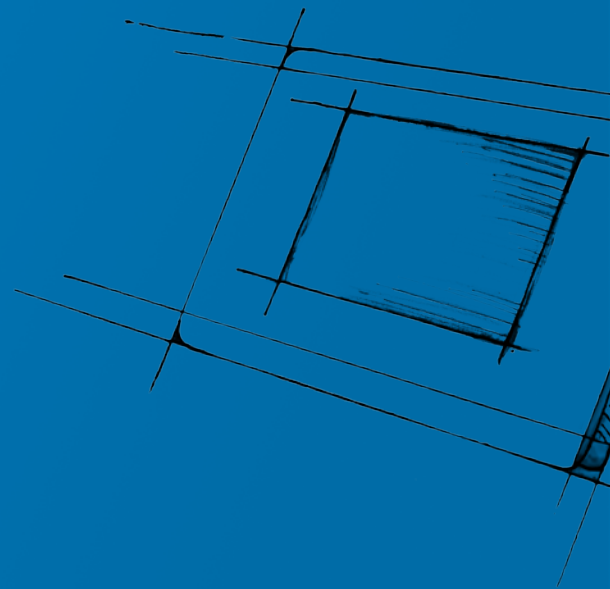
- Cutting
- Vaporization
- Tissue shrinking
- Coagulation
- Dual wavelength laser
individually selected
or blended

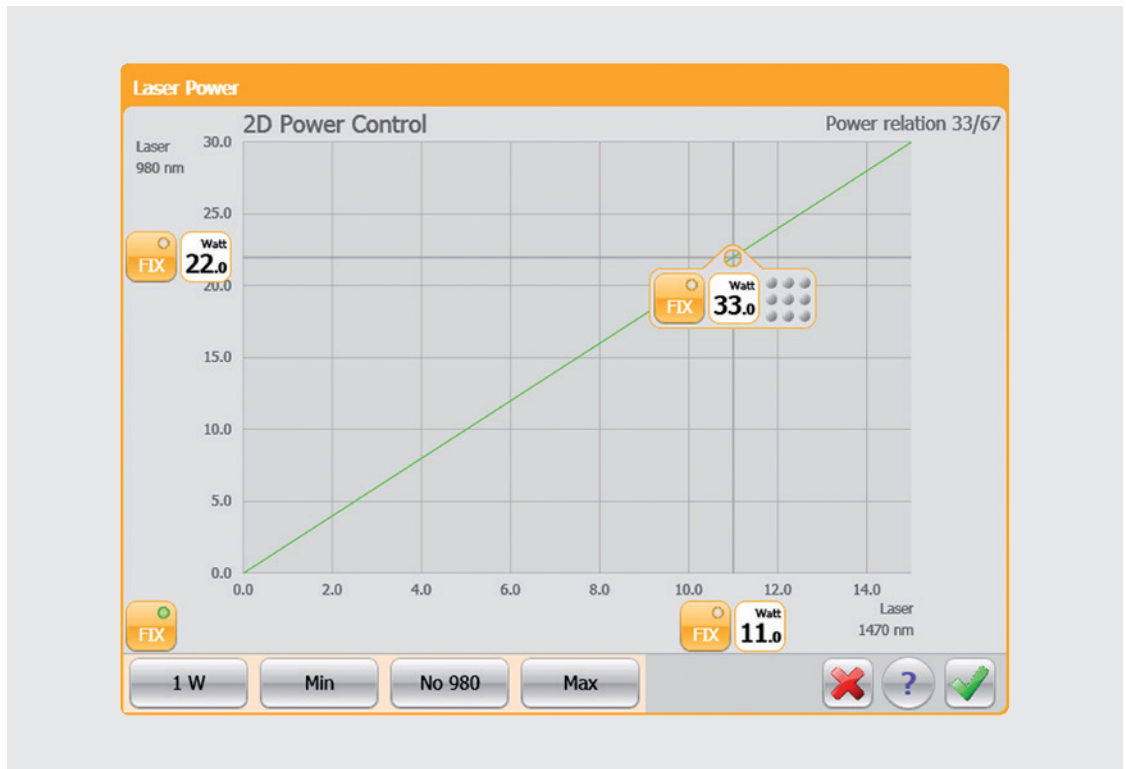


A whole new world of therapeutic applications and clinical results

biolitec® presents the LEONARDO® Laser - the most versatile and universal medical laser in the market today. This highly compact diode laser features the combination of two wavelengths, 980 nm and 1470 nm offering a variety of tissue interactions. Each wavelength can be individually selected or **blended** together to offer the perfect desired tissue effects such as incision, excision, vaporization, hemostasis and coagulation of soft tissue with contact or non-contact delivery options for open and endoscopic procedures. For the first time the clinicians can perform laser surgery selectively, with settings individually tailored to the tissue type and the desired tissue effects and thus corresponding to the therapeutic needs.

The ability to choose a wavelength mix opens a whole new world of therapeutic applications and improves both the treatment outcomes for the patients and **extends** the clinicians experience and expertise. The LEONARDO® Laser is designed to work in perfect combination with a broad spectrum of special medical fibers and application kits developed by biolitec® and its companies. biolitec® is one of the **world's most** technologically advanced suppliers of fiberoptic products. The biolitec® treatment methods are routinely performed and validated in highly respected medical centers worldwide and are the number one choice for treating a wide variety of diseases and medical conditions.





2D Power Control

LEONARDO®'s intuitive 2D Power Control enables the user to choose a combination of different wavelengths and power settings with a simple touch of the screen.

New Fiber Connector

The new fiber connector facilitates to plug the fiber into the laser. It is equipped with an electronic signature for increased patient safety. It prevents usage beyond the product's lifetime and hazards caused by inserting unsuitable fibers to the laser.

Advantages

Versatile and universal

- Broad spectrum of minimally invasive therapeutic laser applications

User-Friendly

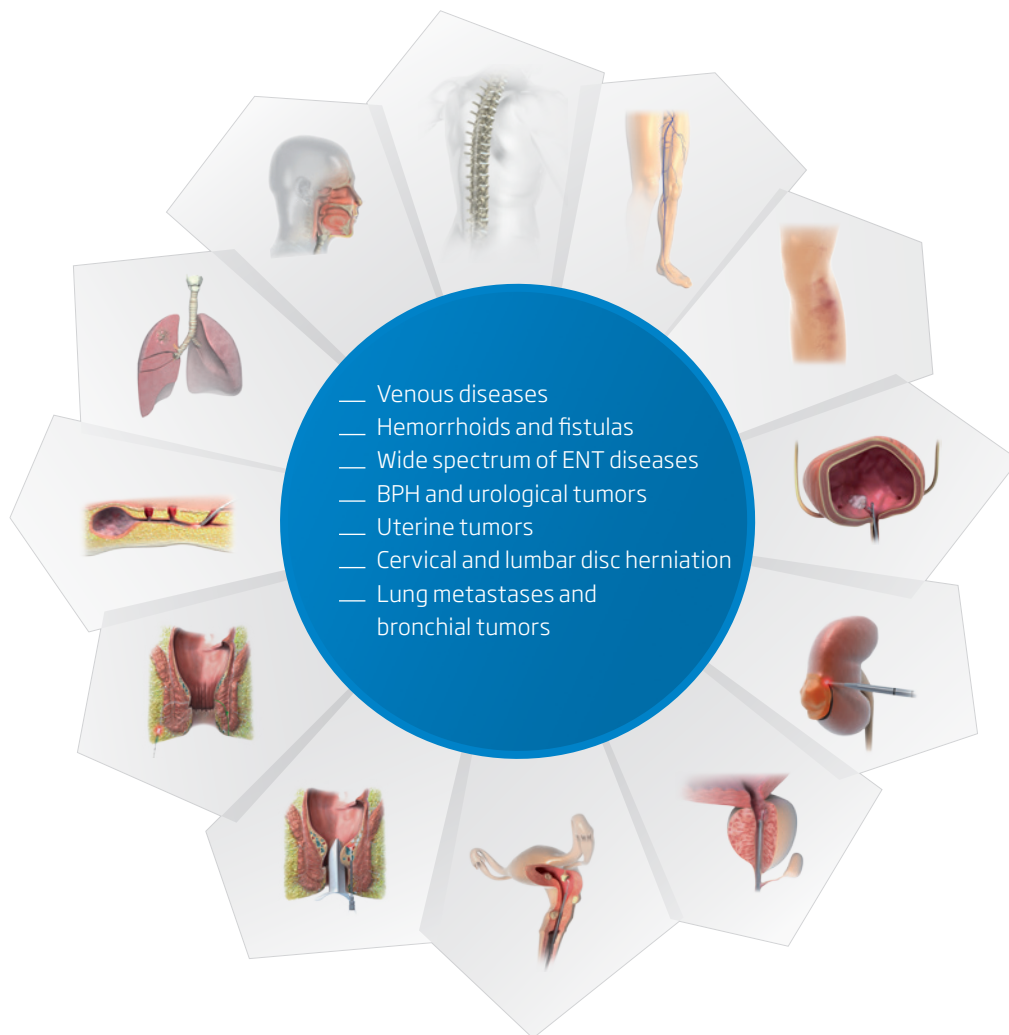
- Intuitive use with touch screen and fast set-up
- Selection between pre-set modes or individualized settings
- Choice between green or red aiming beam

Economic

- Two wavelength in one compact and space-saving laser system
- Multidisciplinary use
- Low-maintenance and reliable laser diodes



Special medical fibers and application kits available for minimally invasive laser therapies of:





LEONARDO®

LEONARDO® DUAL 45

VISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR INDIRECT RADIATION

CLASS 4 LASER PRODUCT
Diode-Laser 980 +/- 30 nm CW 30 W (Max.)
Diode-Laser 1470 +/- 30 nm CW 15 W (Max.)
EN 60825-1:2008 EN 60601-2-22:2007

VISIBLE LASER RADIATION
AVOID EYE EXPOSURE TO DIRECT RADIATION

CLASS 3R LASER PRODUCT
Diode-Laser 635 +/- 10 nm CW 4 mW (Max.) (Aiming)
Diode-Laser 532 +/- 10 nm CW 1 mW (Max.) (Aiming)
EN 60825-1:2008 EN 60601-2-22:2007



CE 1984

CeramOptec GmbH
Siemensstr. 44, D-53121 Bonn

Model	LEONARDO® DUAL 45
REF	SL980+1470nm45W
Wavelength	980 nm and 1470 nm
Power max.	45 Watt (1470 nm/15 Watt + 980 nm/30 Watt) separately adjustable
Fiber diameter	≥ 360 µm
Aiming beam	532 nm and 635 nm, green 1 mW, red 4 mW, user controlled intensity
Treatment mode	CW, Pulse Mode, ELVeS® Signal, ELVeS® Segment, Derma Mode
Pulse duration/-break	0.01 – 60 sec / 0.01 – 60 sec
Power supply	110 - 240 VAC, 50 / 60 Hz, 450 VA
Dimensions (H × W × D)	approx. 28 cm × 37 cm × 9 cm
Weight	approx. 8.5 kg

LEONARDO® DUAL 200

VISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR INDIRECT RADIATION

CLASS 4 LASER PRODUCT
Diode-Laser 980 +/- 30 nm CW 160 W (Max.)
Diode-Laser 1470 +/- 30 nm CW 40 W (Max.)
EN 60825-1:2008 EN 60601-2-22:2007

VISIBLE LASER RADIATION
AVOID EYE EXPOSURE TO DIRECT RADIATION

CLASS 3R LASER PRODUCT
Diode-Laser 635 +/- 10 nm CW 4 mW (Max.) (Aiming)
Diode-Laser 532 +/- 10 nm CW 1 mW (Max.) (Aiming)
EN 60825-1:2008 EN 60601-2-22:2007



CE 1984

CeramOptec GmbH
Siemensstr. 44, D-53121 Bonn

Model	LEONARDO® DUAL 100
REF	SL980+1470nm100W
Wavelength	980 nm and 1470 nm
Power max.	100 Watt (1470 nm/15 Watt + 980 nm/85 Watt) separately adjustable
Fiber diameter	≥ 360 µm
Aiming beam	532 nm and 635 nm, green 1 mW, red 4 mW, user controlled intensity
Treatment mode	CW, Pulse Mode, ELVeS® Signal, ELVeS® Segment, Derma Mode
Pulse duration/-break	0.01 – 60 sec / 0.01 – 60 sec
Power supply	110 - 240 VAC, 50 / 60 Hz, 850 VA
Dimensions (H × W × D)	approx. 28 cm × 37 cm × 9 cm
Weight	approx. 8.5 kg

Model	LEONARDO® DUAL 200
REF	SL980+1470nm200W
Wavelength	980 nm and 1470 nm
Power max.	200 Watt (1470 nm/40 Watt + 980 nm/160 Watt) separately adjustable
Fiber diameter	≥ 360 µm
Aiming beam	532 nm and 635 nm, green 1 mW, red 4 mW, user controlled intensity
Treatment mode	CW, Pulse Mode, ELVeS® Signal, ELVeS® Segment, Derma Mode
Pulse duration/-break	0.01 – 60 sec / 0.01 – 60 sec
Power supply	110 - 240 VAC, 50 / 60 Hz, 850 VA
Dimensions (H × W × D)	approx. 20 cm × 37 cm × 26 cm
Weight	approx. 15 kg

Why did we name our laser LEONARDO®?



Leonardo was born in Vinci, near Florence, in 1452. He showed early interest in many different subjects and a precocious talent for drawing. During his career he worked for many illustrious men of his age: the Medici family in Florence, Ludovico il Moro and Francesco Sforza in Milan, Louis XII and Francis I of France and many others. Along with his profession, he applied himself in countless different fields. He studied natural sciences firsthand, discovering new (at that time) phenomena in geology, astronomy, botany, hydraulics, etc. He was a prolific inventor: he produced projects, prototypes and concepts for many applications as the parachute, a surface-supplied diving suit, different artillery pieces, warships, a tank, a rudimentary helicopter, a bicycle and many

more. Leonardo da Vinci was also hired as an engineer, mainly for hydraulic and military structures and applications.

His contribution to human anatomy is of the highest importance: at his time anatomy and natural sciences in general were approached in a purely theoretical fashion, by studying the texts of the ancient authors. Da Vinci on the contrary studied the human body through the dissection of corpses (a forbidden practice in that period) and produced illustrations of the different apparatuses, which have been used in anatomy texts until recent times. Due to this extraordinary eclecticism, **Leonardo da Vinci is universally regarded as the epitome of the universal genius.**

biolitec® worldwide

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