Technology meets Anatomy

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:

- Venous diseases
- Hemorrhoids and fistulas
- Wide spectrum of ENT diseases
- BPH and urological tumors
- Uterine tumors
- Cervical and lumbar disc herniation
- Lung metastases and bronchial tumors
<table>
<thead>
<tr>
<th>Model</th>
<th>LEONARDO® DUAL 45</th>
<th>LEONARDO® DUAL 100</th>
<th>LEONARDO® DUAL 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF</td>
<td>SL980+1470nm45W</td>
<td>SL980+1470nm100W</td>
<td>SL980+1470nm200W</td>
</tr>
<tr>
<td>Wavelength</td>
<td>980 nm and 1470 nm</td>
<td>980 nm and 1470 nm</td>
<td>980 nm and 1470 nm</td>
</tr>
<tr>
<td>Power max.</td>
<td>45 Watt (1470 nm / 15 Watt + 980 nm / 30 Watt) separately adjustable</td>
<td>100 Watt (1470 nm / 15 Watt + 980 nm / 85 Watt) separately adjustable</td>
<td>200 Watt (1470 nm / 40 Watt + 980 nm / 160 Watt) separately adjustable</td>
</tr>
<tr>
<td>Fiber diameter</td>
<td>≥ 360 μm</td>
<td>≥ 360 μm</td>
<td>≥ 360 μm</td>
</tr>
<tr>
<td>Aiming beam</td>
<td>532 nm and 635 nm, green 1 mW, red 4 mW, user controlled intensity</td>
<td>532 nm and 635 nm, green 1 mW, red 4 mW, user controlled intensity</td>
<td>532 nm and 635 nm, green 1 mW, red 4 mW, user controlled intensity</td>
</tr>
<tr>
<td>Treatment mode</td>
<td>CW, Pulse Mode, ELVeS® Signal, ELVeS® Segment, Derma Mode</td>
<td>CW, Pulse Mode, ELVeS® Signal, ELVeS® Segment, Derma Mode</td>
<td>CW, Pulse Mode, ELVeS® Signal, ELVeS® Segment, Derma Mode</td>
</tr>
<tr>
<td>Pulse duration / break</td>
<td>0.01 – 60 sec / 0.01 – 60 sec</td>
<td>0.01 – 60 sec / 0.01 – 60 sec</td>
<td>0.01 – 60 sec / 0.01 – 60 sec</td>
</tr>
<tr>
<td>Power supply</td>
<td>110 – 240 VAC, 50 / 60 Hz, 450 VA</td>
<td>110 – 240 VAC, 50 / 60 Hz, 850 VA</td>
<td>110 – 240 VAC, 50 / 60 Hz, 850 VA</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>approx. 28 cm x 37 cm x 9 cm</td>
<td>approx. 28 cm x 37 cm x 9 cm</td>
<td>approx. 20 cm x 37 cm x 26 cm</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 8.5 kg</td>
<td>approx. 8.5 kg</td>
<td>approx. 15 kg</td>
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</tbody>
</table>

LEONARDO®

INVISIBLE 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.)

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)
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.