UltraPulse® DUO

For those who demand excellence
When it comes to superior precision and high-end performance, UltraPulse CO₂ laser is the ultimate solution. Now, Lumenis brings to you the UltraPulse DUO, a CO₂ laser system that caters to physicians and surgical centers who demand excellence from themselves and their laser system.

The UltraPulse DUO was meticulously developed with physicians and based on decades of accumulated experience and the Lumenis innovative approach, to meet a growing number of clinical challenges today.

The UltraPulse DUO system is designed to deliver CO₂ laser energy via an articulated arm or through a Lumenis CO₂ laser fiber. With UltraPulse DUO you don’t have to compromise – you can have the precision you desire as well as access to hard-to-reach anatomies.

The Lumenis UltraPulse DUO is the CO₂ laser system that allows surgeons to achieve the Master’s Touch.
How can UltraPulse DUO benefit your practice?

Seamlessly alternate between the CO₂ energy deliveries to ensure optimal patient care.

**Leave no disease behind**
With the vital combination of precision and flexibility, you can be prepared for any challenges during a procedure. The comprehensive set of tools enables a complete operation without the need for additional procedures and hospitalization.

**Smart tissue management**
High preservation of adjacent delicate tissue results in fewer adverse events, adhesions and quicker recovery time.

**Experience clear and char-free margins**
Better oncological outcomes as a result of better margin visibility. Clear and clean margins are a true value in pathology and a top goal in today’s operating room.

**Save on operating room costs**
Progress from the operating room to the outpatient environment saves costs, reduces the risks of general anesthesia, and enables periodic treatment of recurring conditions.
Combining unparalleled precision

UltraPulse DUO combines the unparalleled precision of the Digital AcuBlade™

Exclusively shaped for the articulated CO₂ laser arm, the Digital AcuBlade Micromanipulator with SurgiTouch scanner delivers laser energy inside a user-defined geometric shape. The rapid motion of the scanner, faster than a human hand can produce, takes the energy delivery and entire operation to its highest precision, resulting in:

**Maximum control** over incision length, ablation area, and treatment depth.

**Replicated tissue interaction**, customized to patient anatomy and the shape of the undesired tissue.

**Reduced operating time** compared to conventional CO₂ laser microsurgery.

“I’ve used lasers for 30 years, primarily CO₂ lasers. I find the Digital AcuBlade a game changer by providing precise control and automatic treatment of large areas on the vocal cords in shapes of lines and circles that conform to the anatomy in a much faster and precise technique than the one that can be achieved by a human hand controlling the micromanipulator.”

Mark Courey, M.D., Professor, University of California, San Francisco Otolaryngology – Head and Neck Surgery Director, Division of Laryngology
Combining unparalleled precision with flexibility.

The CO₂ laser fiber is highly durable and flexible. Accompanied by a collection of dedicated operational tools, the CO₂ fiber allows easy access to difficult-to-reach anatomy and provides a variety of delicate treatment options.

**Adjustable aiming beam**
that enables precise positioning to ensure the desired tissue is targeted.

**Renewable tip**
that can be cleaved and revived during use, facilitating smooth operation and cost effectiveness.

**60% greater energy transmission**
that enables safe and effective transfer of optimal levels of CO₂ energy (in comparison to other CO₂ fibers).

**30% longer fiber**
that provides extended steering capabilities and greater convenience in the operating sphere (in comparison to other CO₂ fibers).
Optimizing your surgical tool to the fullest.

UltraPulse DUO is an advanced computer-controlled, user-friendly CO₂ pulsed laser platform. It is based on a patented CO₂ laser tube providing up to 60 watts of power. It can generate a continuous series of short-period, high-peak-power pulses. During the high peak power, the laser energy is delivered very rapidly, resulting in vaporization of the targeted tissue without the creation of collateral injury.

The Lasing modes (UltraPulse and Continuous Wave) can be alternated according to the desired tissue interaction while the three exposure modes (Repeat, Single & Constant) will allow comprehensive timed-controlled energy delivery.
Opening a whole new sphere of care.

UltraPulse DUO is intended for use in surgical applications requiring the ablation, excision, incision and coagulation of soft tissue. A wide range of indications for use will ensure the laser system is fully utilized within the healthcare facility. A partial list of indications includes:

**Otolaryngology (ENT)**
- Benign and malignant lesions: Oral, Nasal, Pharynx, Larynx, Trachea and Ear.
- Papillomatosis, Tonsillectomy, Bronchoscopy, Subglottic and Tracheal Stenosis, Stapedotomy, Cholesteatoma, Myringotomy

**Gynecology**
- Endometriosis, Excision/lysis of adhesions, Uterine myomas and fibroids, Ovarian fibromas and follicle cysts. Uterosacral ligament ablation, Hysterectomy, Conization of the cervix

**Neurology**
- Posterior fossa tumors, Peripheral neurectomy.
- Benign and malignant tumors and cysts, acoustic neuromas, lipomas. Arteriovenous malformation, Pituitary gland tumors

The UltraPulse Technology yielded substantial clinical evidence throughout the years, which are published in leading reviewed journals. Please visit our website or contact your Lumenis representative for a comprehensive list of publications.
Achieve the master’s touch.

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<thead>
<tr>
<th>Laser Type</th>
<th>Sealed CO2 Laser, RF (radio frequency) excited</th>
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<tbody>
<tr>
<td>Wavelength</td>
<td>10.6 micron, (invisible, infrared, TEM00)</td>
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<tr>
<td>Delivery Modes</td>
<td>Free Beam (articulated arm) and Fiber</td>
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<tr>
<td>Power Modes</td>
<td>Continuous Wave (CW), UltraPulse (UP)</td>
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<table>
<thead>
<tr>
<th>Pulse Energy and Power Range</th>
<th>Power Range</th>
<th>Energy per UP Pulse and Available Power Range</th>
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<tbody>
<tr>
<td>System Voltage (VAC)</td>
<td>Arm/Fiber</td>
<td></td>
</tr>
<tr>
<td>200/208/220/230/240</td>
<td>1-60/1-40 W</td>
<td>2-225 mJ 1-60 W</td>
</tr>
<tr>
<td>100/110/115/120</td>
<td>1-60/1-40 W</td>
<td>2-175 mJ 1-60 W</td>
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Pulse Duration: Up to 2 ms

Timed-Exposure Modes: Single, Repeat and Constant

SurgiTouch Operating Functions:
- Application driven user interface for ENT, GYN, NEURO and General
- Utilizes highly focused scanned beam.
- User-selectable application oriented scan geometries
  - Scan shapes: straight or curved line for incision, circle for ablation
  - Scan size: range varies depending on procedure
- 1-9 Passes can be selected for depth level set up

Electrical:
- 100-120 VAC input power, 20A, 50/60Hz
- 200-240 VAC input power, 16A, 50/60 Hz

Aiming Beam:
- Red diode laser (635 nm)
- 6 settings (up to 5mW maximum)
- Electable for Continuous or blinking modes

Cooling:
- Self-contained, closed cycle

Gas Management:
- Electronically controlled with user controls

Purge air exiting fiber:
- From internal pump: 8-10 psi
- From external source set to 60 psi

Dimensions:
- Base footprint (W X D X H): 34 X 51 X 100 cm H* (13.6” X 20” X 40” H*)
- System height to top of folded arm: 195 cm (77 in)

Weight: 132 kg (291 lbs)

Certifications and approvals:
- Lumenis is ISO 13485:2012 certified, UltraPulse DUO is CE approved and FDA cleared.

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