

*“Providing precise, individualized patient care can be challenging for ENT surgeons because of the broad spectrum of surgical situations that can arise during the procedure. With the combined modality of the CO<sub>2</sub> laser and the easy shift between free beam and fiber deliveries I can delicately address any clinical challenge while preserving healthy tissue, which is very important for the patient’s recovery and comfort”.*

- Prof. Marc Remacle, Centre Hospitalier de Luxembourg

### Risk Information

CO<sub>2</sub> lasers (10.6 μm wavelength) are intended solely for use by trained physicians. Incorrect treatment settings or misuse of the technology can present risk of serious injury to patient and operating personnel. The use of Lumenis CO<sub>2</sub> laser is contraindicated where a clinical procedure is limited by anesthesia requirements, site access, or other general operative considerations. Risks may include excessive thermal injury and infection. Read and understand the CO<sub>2</sub> systems and accessories operator manuals for a complete list of intended use, contraindications and risks.

### AcuPulse DUO Technical Specifications

AcuPulse DUO Models (part number GA-1000000)					
AcuPulse Models	30/40 30ST/40ST (ST=with SurgiTouch system); Specific configuration kit required		Memory Settings	Min. 100 + custom memory setting capacity	
Laser Type	CO <sub>2</sub> Laser, sealed-off, DC excited		Coolong	Self-contained, closed cycle	
Wavelength	10.6 micron, infrared		Air Management	Internal (low flow) or external (high flow) with bacteriologic filter; electronically controlled	
Mode Structure	TEM <sub>00</sub>		Electrical	100 -240 VAC, 9A (MAX), 50/60 Hz Single phase	
Laser Operating Modes	Continuous Wave (CW), Pulsar, SuperPulse (SP)		Dimensions	40 cm W x 40 cm D x 135 cm H; (15.8" W x 15.8" D x 53.6" H)	
CW Power	1 - 30 W / 1 - 40 W		Weight	53 kg (117 lbs)	
SuperPulse Average Power	0.5 - 10 W / 0.5 - 15 W (Timed: 0.2 - 10 W / 0.2 - 15 W)		Tissue Exposure Modes [Model: AcuPulse 40 (30)]		
Pulsar Average Power	1 - 25 W / 1 - 35 W				
Controls	<ul style="list-style-type: none"> <li>Multi-color touch panel - high resolution</li> <li>Footswitch, up to 10m</li> <li>Screen dimensions: 10.4"</li> </ul> Electronically controlled switching between fiber and free beam				
Aiming Beam	5 mW red diode laser, 635 nm, adjustable intensity, blink on/off, Diode off while lasing option.				
Beam Delivery	Lightweight, carbon fiber, 7-joint, spring balanced arm, 144 cm (56.7") reach, 360 deg. rotation, Flexible fiber using the Lumenis family of CO <sub>2</sub> fibers				
Laser Emission Indicators	<ul style="list-style-type: none"> <li>LED illuminated indication active port</li> <li>Aiming beam only emits from active port</li> <li>Yellow lamp: Standby /Ready / Lasing Indicator</li> <li>Audible Tone</li> </ul>				
	Continuous:	Power (W) 1.0 - 4.5 5.0-40 (30)	On Time (sec) NA	Off Time (sec) NA	Repeated (Counts) NA
	Single pulse	1.0 - 4.5 5.0-40 (30)	0.05-1.00 0.01-1.00	NA	NA
	Repeat pulse	1.0 - 4.5 5.0-40 (30)	0.05-1.00 0.01-1.00	0.01-1.00 0.01-1.00	2-10 2-10



EC REP  
**Lumenis (Germany) GmbH**  
 Heinrich-Hertz-Str 3 D-63303  
 Dreieich-Dreieichenhain  
 GERMANY  
 Tel: +49 (0) 6103 8335 0

**Lumenis Inc.**  
 2033 Gateway Place,  
 Suite 200  
 San Jose, CA 95110,  
 USA  
 Tel: +1 408-764-3000  
 Fax: +1 408-764-3999



# ACUPULSE™ DUO

## Surgical CO<sub>2</sub> Laser

The Versatility to Choose the Right Treatment for Your Patient

**AcuPulse DUO CO<sub>2</sub> laser**, is a unique combination of fiber and free beam energy delivery on a single device. With the ability to utilize the two valuable modalities on the same Laser console there is no need to compromise. The precision of the Digital AcuBlade alongside the flexibility of the fiber allows you to address surgical challenges and to treat valuable anatomy with extra delicacy, resulting in virtually char free margins and minimal thermal necrosis.

**AcuPulse DUO unique features:**

- › Seamless alternation between the FreeBeam and Fiber delivery modes
- › Three power and time exposure modes that enable customized energy delivery for optimal tissue management:
  - .....
  - CW - Steady, continuous beam of energy. Optimal when coagulation is desirable
  - .....
  - P - Constant frequency with variable pulse length yields the desired average power
  - .....
  - SP - Continuous series of short duration, high peak power pulses. Optimal for char free outcomes
  - .....
- › Advanced, electronically controlled air management system
- › Embedded procedure and assembly videos in the user interface
- › 99 memories can be integrated and saved on the system for varies users



**Otolaryngology  
(ENT)**

Benign and malignant lesions: Oral, Nasal, Pharynx, Larynx, Trachea and Ear.

Papillomatosis, Tonsillectomy, Bronchoscopy, Subglottic and Tracheal Stenosis, Stapedotomy, Cholesteatoma, Myringotomy



**Gynecology**

(including laparoscopy and robotic assisted surgery)

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



**Neurology**

(Neurological indications for treatment of the Central Nervous System are only for USA)

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



## The Articulated Arm with SurgiTouch Scanner: High Precision Level

The Digital AcuBlade Micromanipulator with SurgiTouch scanner, delivers laser energy inside a user defined geometric shape. The rapid motion of the scanner takes the energy delivery and the entire operation to high precision levels resulting in:

- › **Maximum control** over incision length, ablation area and treatment depth
- › **Minimal thermal spread** and high preservation of adjacent tissue
- › Selective 150 micron ablation, char free tissue interaction with clear margins
- › **Replicated tissue interaction**, customized to patient anatomy and the shape of the undesired tissue.
- › **The rapid scanning movement** may reduce the procedure time compared with conventional CO<sub>2</sub> laser microsurgery.

## FiberLase™: Redefining Access and Energy Delivery

The dependable and flexible CO<sub>2</sub> Laser fiber enables easy access to difficult to reach areas, providing you with more delicate treatment options. This hand-held fiber is easily adopted in the surgical sphere and demonstrates a short learning curve.

- › **Renewable fiber** tip for a smooth and cost effective operation
- › **Aiming beam** for accurate tissue targeting
- › **2m long** fiber for extended flexibility and great maneuvering
- › Compatible with flexible endoscopes and robotic tools
- › Available with designated surgical tools