

*Taking care of people, our masterpieces*

# Litho

Surgical Laser System



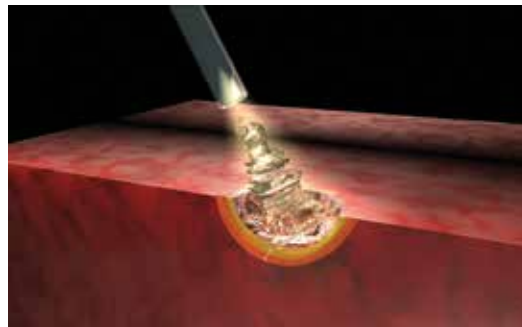


## LITHO

### 30W - 35W HOLMIUM:YAG FOR LITHOTRIPSY

**Litho** surgical unit is based on Holmium (Ho:YAG) laser with emission at two micron (2100nm) wavelength. This wavelength is highly absorbed by water and biological tissue. The **Litho** automatically adjusts the correct pulse duration depending on the operating mode and sets the values of energy and repetition rate. When it is operating in a short pulse emission mode, it is highly effective in the fragmentation of calculi and the hard tissue ablation. In long pulse emission, it is highly effective in cutting soft tissue providing excellent hemostasis and coagulation with minimal damages of surrounding tissue, due to its low penetration depth. Because of the high radiation absorption by water, the application in a hydrous solution environment is highly safe.

*Depth of Coagulation 0.3 - 0.4 mm*



## APPLICATIONS

Litho laser system is an ideal tool for surgeons who want to get the best results in performing:

- LITHOTRIPSY
- GENERAL SURGERY
- URETHROTOMY, URETEROTOMY
- TRANSURETHRAL INCISION OF PROSTATE (TUIP)
- TUMOR EXCISION



## DUSTING EFFECT, AN ADDED VALUE

Quanta System introduces a new application setting: the Lithotripsy DUSTING EFFECT. This preset Application can be found on the main application menu beside Lithotripsy HARD STONE, Ablation and Coagulation.

The setting is intended for calculi, especially the renal ones, where the dusting effect lithotripsy technique could eliminate the need for basket extraction and that way reducing the total time of the procedure.

The employment of extended pulses and the broad regulation possibilities (concerning laser intensity and frequency) allow to adapt the treatment to calculus dimension and properties, strongly reducing repulsion effects.

## TECHNICAL FEATURES

The Litho laser system has state-of-the-art technical specifications, which represent a gold standard in surgical market:

**Pulse energy:** it is possible to set up to 5 J per pulse. The pulse energy is related to the fragmentation efficacy. It is ideal for hard stone treatments.

**Repetition rate:** the maximum repetition rate is 30 Hz. By using the high repetition rate and low pulse energy, a fine fragmentation is secured. The DUSTING effect function assures the effective dusting even at high repetition rates.

**Pulse duration:** the unit provides a broad range of pulse durations. Due to this feature, the system could select the most suitable modality of preset parameters on the application menu (HARD STONE-DUSTING-ABLATION-COAGULATION).

The maximum effectiveness in ablation and fragmentation is assured also when using flexible ureteroscopes.

- up to **35 W** Power Output
- up to **5 J** Energy per Pulse
- up to **30 Hz** - Repetition Rate
- **95-1500 µs** - Pulse Duration
- **RFID Fiber Recognition System**
- **Touchscreen** Display
- **Double Footswitch**
- Frontal Footswitch Connection

## OPERATIVE MODE

- Ablation
- Coagulation
- **Lithotripsy - Dusting Effect**
- **Lithotripsy - Hard Stone**

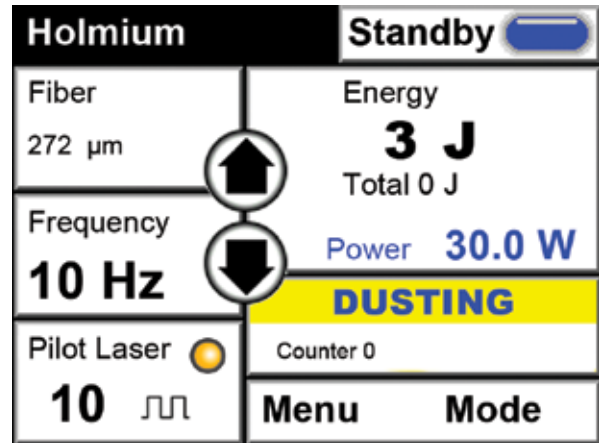
## RFID

Through the RFID fiber recognition system, the connected fibers are automatically detected. The laser immediately sets up the adequate working parameters.



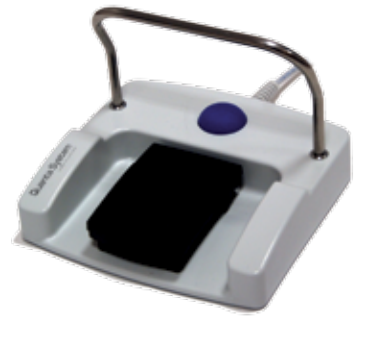
## SMART INTERFACE

Interactive interface with intuitive shortcut to the main function. Smart selection of output settings depending on the operative mode. Wide color touchscreen.



## DOUBLE FOOTSWITCH

The double footswitch with front connector allows the operator to control the Ready/Standby status directly from the footswitch without the need of assistance in operation by touchscreen.



## BENEFITS TO THE PRACTITIONER

- Fast treatments
- Stability of the stone target during laser emission
- Using high power with fibers of small diameter
- Reducing or eliminating the use of urology basket thanks to fine fragmentation effect

# LITHO *IN BRIEF*

*Output Power up to 35 W*

*High Peak Power*

*Variable Pulse Width*

*Large Dynamic Power Range*

*Green Aiming Beam*

*Small Footprint Device*

*Dusting Mode*

*Low Maintenance and Minimal Operating Costs*

*Easy to Install and to Operate*

*RFID Fiber Detection System*

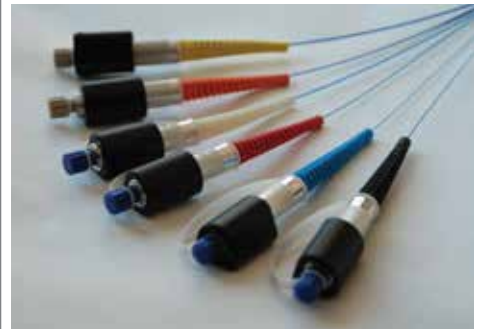
*Double Footswitch*

*Fast Warm Up*

*Intelligent Fiber Recognition*

## OPTIONALS & ACCESSORIES

- Sterile single use or reusable fibers with core diameter ranging from 200  $\mu\text{m}$  to 1000  $\mu\text{m}$ , 3m long
- Sterile single use core diameter 600  $\mu\text{m}$  side fiber, 3m long



- Adjustable Fiber Optic Stripper
- Special Sterilizable Fiber Optic Stripper
- Handpiece for Open Surgery Treatment
- Ceramic Scissors



## TECHNICAL SPECIFICATIONS

	Model 30 W	Model 35 W
Average power	30 W	35 W
Repetition rate	3 ÷ 25 Hz	3 ÷ 30 Hz
Energy per pulse	0,2 ÷ 4 J	0,2 - 5 J
Wavelength	2,1 µm	
Pulse duration	95 ÷ 1500 µs	
Beam delivery	Wide range of flexible silica fibers	
Recognition fiber	RFID System	
Activation	Double Footswitch	
Aiming beam	532 nm, (adjustable <5mW) - Class 3R	
Electrical requirements	230 Vac, single phase; 50/60 Hz; 10 A - 115 Vac, single phase; 50/60 Hz; 20 A	
Cooling	Air cooled (closed water-air cooling circuit)	
Operating temperature	10°C ÷ 30°C	
Dimensions	260 (W) x 840 (D) x 920 (H) mm <sup>3</sup>	
Weight	86 kg	
Laser Class	4 (IEC/EN 60825-1:2007)	

**VISIBLE AND INVISIBLE LASER RADIATION**

Avoid eye or skin exposure to direct or scattered radiation

Class 4 laser product

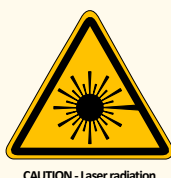
Maximum output laser radiation	30W
Pulse duration	95 ÷ 1500µs
Wavelengths	2,1µm
Aiming beam	Class 3R <5mW@532nm
Standard	IEC/EN 60825-1: 2007

**VISIBLE AND INVISIBLE LASER RADIATION**

Avoid eye or skin exposure to direct or scattered radiation

Class 4 laser product

Maximum output laser radiation	35W
Pulse duration	95 ÷ 1500µs
Wavelengths	2,1µm
Aiming beam	Class 3R <5mW@532nm
Standard	IEC/EN 60825-1: 2007



*Note: National local authorities may put restrictions to the parameters indicated in the above table, or may limit or remove certain intended uses. Specifications are subject to change without notice.*

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