





## Litho 150

#### THE REVOLUTION IN HOLMIUM SURGERY

Litho 150 Holmium laser (2.1 µm) meets the increasing demand of efficacy, flexibility with a unique multi-application laser platform able to perform both Lithotripsy and HoLEP.

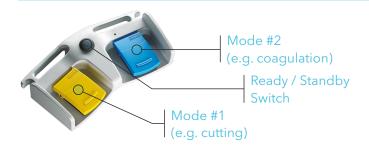
Litho 150 can reach up to 152 W power and brings outstanding innovation by offering the exclusive Vapor Tunnel™, Virtual Basket™ and MasterPULSE technologies. This device further offers impressive settings regarding energy and frequency (up to 100 Hz).

### General Overwiew

- ✓ BPH Treatment
- Effective Lithotripsy
- High Frequency Emission (up to 100 Hz)
- ✓ Minimized Retropulsion
- ✓ Advanced Pulse Modulation
- Reduced Depth of Penetration (0.3 0.4 mm)
- ✓ Soft Tissue Surgery
- High Versatility



### **Double Footswitch**



The double footswitch enables **immediate** switch from one emission mode to another, with **complete customization** of pedal-mode association. No bothersome interruptions are needed for settings readjustment.

### **BPH**

HoLEP (Holmium Laser Enucleation of the Prostate) is a proven technique for the treatment of BPH (Benign Prostatic Hyperplasia), with high effectiveness, safety and durability.

A significant body of scientific literature demonstrates its advantages in terms of efficacy and safety with respect to traditional treatments available for BPH. Recent studies and trials have validated the excellent outcomes achieved by this technique, with its success being reproduced in a diverse array of patients. HoLEP can be applied regardless of prostate size and in retreatment setting, with a low complication incidence and retreatment rate on long term follow-up.

Litho 150 offers wide choice regarding settings selection, with enhanced surgical experience accorded by the double footswitch, the intuitive and large modulation of pulse width and the dedicated modes for the different treatment steps.

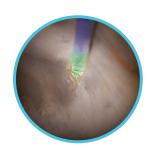
The different combinations of settings and multiple tools allow the maximum treatment versatility, so that the surgeon can easily reach the desired outcome. As an alternative, the surgeon may use the side fiber to perform a HoLAP procedure for small prostatic adenomas.



Starting 5 o'clock incision



12 o'clock incision



Lateral lobe enucleation



### PRECISE CUTTING

The limited depth of penetration, together with the fast ablation of the targeted tissue, results in precise cut without affecting surrounding tissues.



### **RELIABILITY**

Clinical outcomes of HoLEP have been widely investigated, with many clinical studies demonstrating its safety and effectiveness even in the long run.



### SIZE INDEPENDENT

Effectiveness of HoLEP was proven also for large glands.



### **EFFECTIVE HEMOSTASIS**

The Holmium radiation is highly absorbed by water, allowing quick coagulation of bleedings.



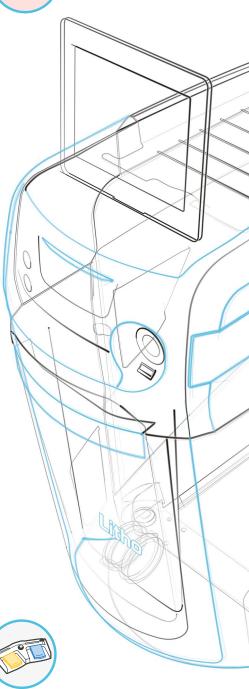
### HIGH POWER

Up to 152 W output, for fast and quick incision



### **DOUBLE FOOTSWITCH**

Quick switch from one emission mode to another (e.g. from cutting to coagulation emission)



### Vapor Tunnel™

Consisting of a Single Specific Long Pulse,

this emission mode allows limited retropulsion and fine stone ablation.

The Vapor Tunnel<sup>TM</sup> is designed to use the minimum peak power in accordance with selected output settings.



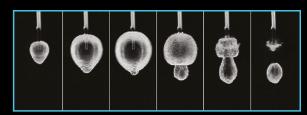
Bubble Dynamics of Vapor Tunnel™



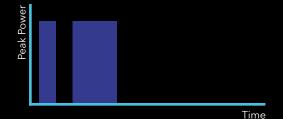
### Virtual Basket™

The double pulse modulation used with the Virtual Basket<sup>™</sup> emission mode allows limited stone movements and fine lithotripsy.

With the Virtual Basket<sup>™</sup>, a first pulse is used to generate the vapor bubble and a second pulse, emitted from the same fiber, propagates through the bubble to irradiate the target.



Bubble Dynamics of Virtual Basket  $^{\text{TM}}$ 



## Advantages of Virtual Basket™ & Vapor Tunnel™



### NO EXTRA COSTS

These modes do not need dedicated and more expensive fibers, bringing the aforementioned advantages without extra expenses.



#### **GREAT STABILITY**

Stone ablation and limited stone movement at the same time.



### **EASIER TREATMENT**

With a more stable target, lithotripsy treatment can proceed easily with fewer hassles.



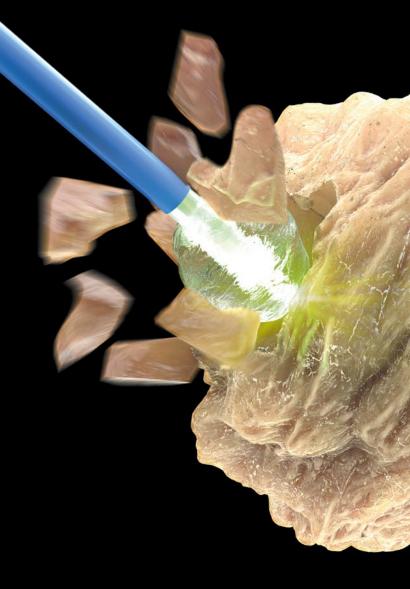
### TIME SAVING

Less stone movement limits the time-consuming fiber repositioning



# Fragmentation







### HIGH PULSE ENERGY

Up to 5 J, for wide pulse energy range



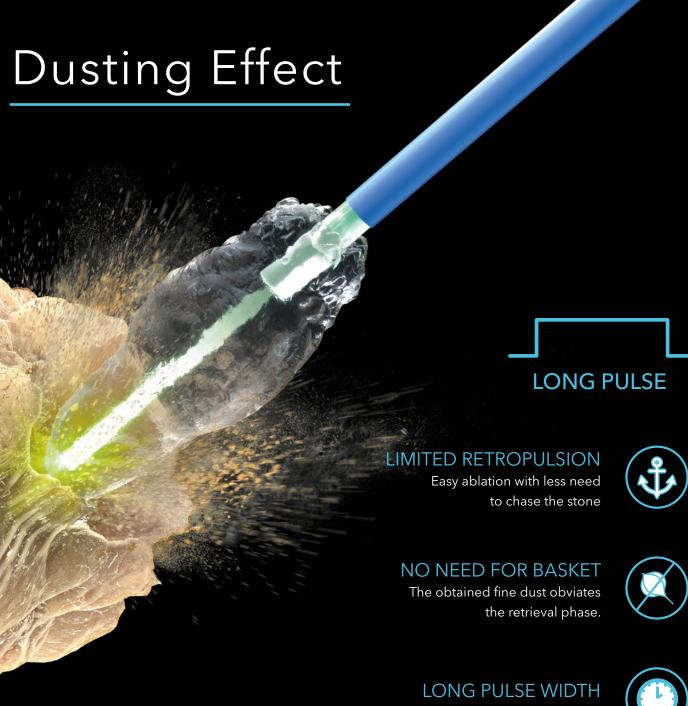
### TREAT EVEN THE HARDEST STONES

Greater pulse energy allows you to break harder stones.



### **COLLECTION BASKET NEEDED**

Retrieve stone pieces upon fragmentation.





Up to 1100 µs, for smooth Long Pulse Dusting



### **EXTREME FREQUENCY**

Up to 100 Hz, for enhanced speed in Dusting action



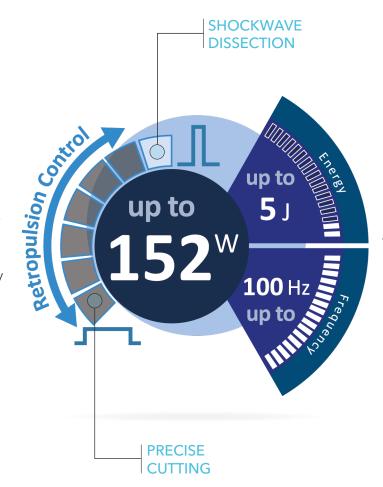


## MasterPulse



## REDUCED STONE INSTABILITY

Lower the stone instability step by step, by progressively increasing pulse width.





### **CUTTING TUNING**

Adjust the fashion in which you cut based on your needs and the area of treatment.

### **General Benefits**

Reduce retropulsion and modify tissue cutting more easily: instead of trying multiple different settings, start with your preferred settings and then adjust the MasterPulse to tune the effect of laser emission based on your visual feedback. Regulation of pulse width has never been so easy!



#### **GREATER FLEXIBILITY**

7 levels of pulse width offer a greater flexibility compared to the traditional 3 levels offered by the other holmium devices.



## CUTTING DOWN TREATMENT TIME

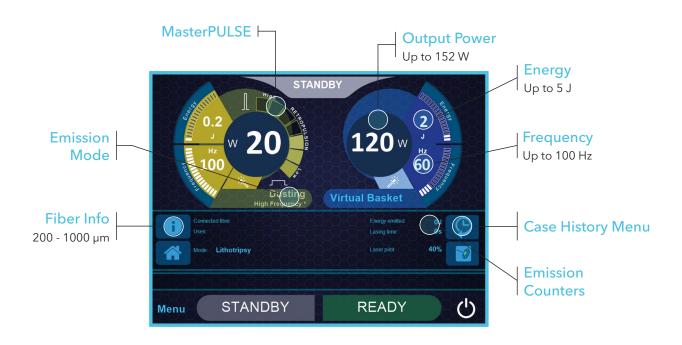
Obtain the desired effect quickly, without getting frustrated with the standard adjustment of energy and frequency parameters.



#### **EASE OF TREATMENT**

Experience a more intuitive and different way to adjust laser settings, simply based on your visual feedback.

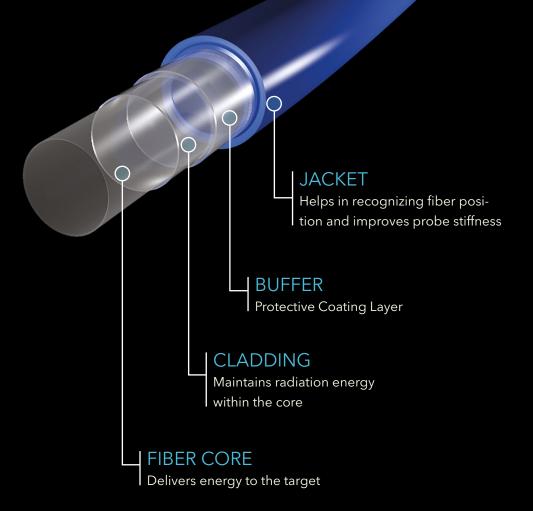
# User-friendly Software





# Fibers

The Litho 150 device can be operated with a large range of fibers, depending on the application, flexibility and settings required.





### STANDARD FIBERS

For general use in stone and soft tissue treatments



## BALL-TIP FIBERS

Dramatically simplify the insertion into deflected scopes.



### SIDE FIBERS

Allows side ablation of soft tissue





### AVAILABLE DIAMETERS

200, 272, 365, 550, 600, 800 and 1000 μm



### **REUSABILITY**

All fibers are available both as disposable and reusable (except ball-tip and side fibers)



### **CLEANING**

Reusable fibers can be sterilized by Sterrad\* and steam sterilization. Sterrad is a registered trademark of ASP Global

Manufacturing GmbH.

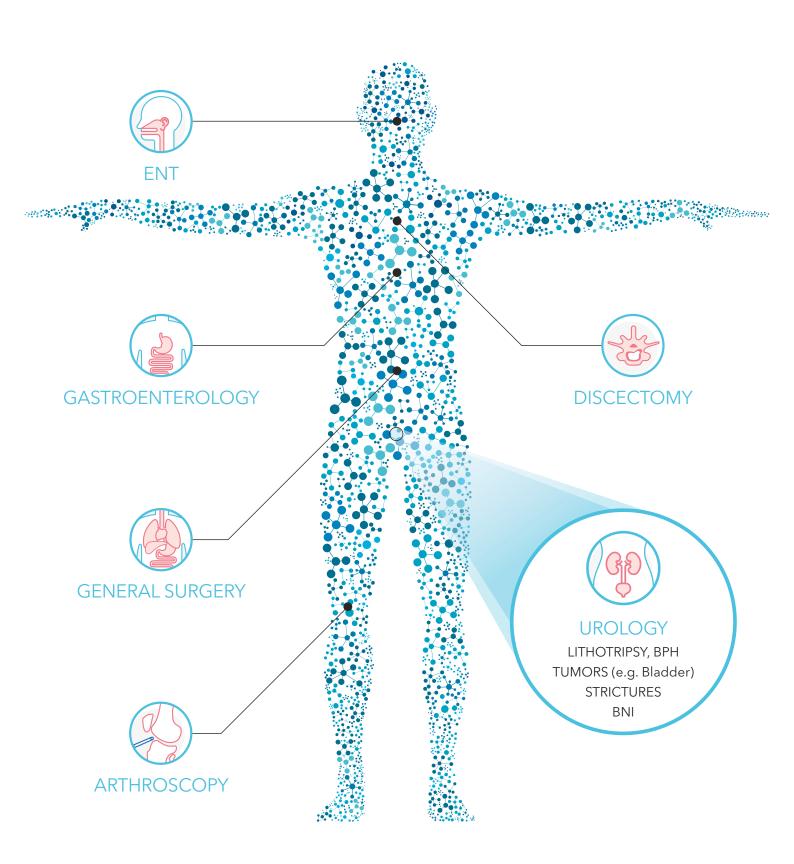


### STERILIZATION TRAY

A dedicated tray for sterilization of fibers and tools

# **Applications**

**Litho 150** can be used to perform lithotripsy and incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissue in various medical specialties, including:



# Technical Specifications

Wavelength	2.1 μm
Average power	Up to 152 W
Repetition rate	Up to 100 Hz
Energy per pulse	Up to 5 J
Pulse duration	50 - 1100 μs
Beam delivery	Wide range of flexible silica fibers
Aiming beam	532 nm (adjustable <5 mW) - Class 3R
Fiber recognition	RFID System
Activation	Double footswitch
Electrical requirements	220-230 Vac; 50/60 Hz; 7.36 kVA - 208 Vac; 50/60 Hz; 7.36 kVA
Cooling	Internal chiller
Operating temperature	10°C - 30°C
Laser class	4 (IEC 60825-1)
Dimensions and weight	52 cm (W) x 120 cm (D) x 123 cm (H) (monitor closed), 260 kg

#### VISIBLE AND INVISIBLE LASER RADIATION

Avoid eye skin exposure to direct or scattered radiation

Laser product: Class 4 Aiming beam: Class 3R



**Rx Only** 

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

Quanta System products are manufactured according to the International standards and have been cleared by the most important International notified bodies.

The Company is UNI EN ISO 9001:2015 and EN ISO 13485:2016 certified. Quanta System S.p.A. was founded in 1985 and belongs to the El. En. Group (a public company listed in the Star segment of the Italian Stock Exchange) since January 2004.

The company, divided into three business units (medical, scientific and industrial) is specialized in manufacturing of laser and optoelectronic devices.





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