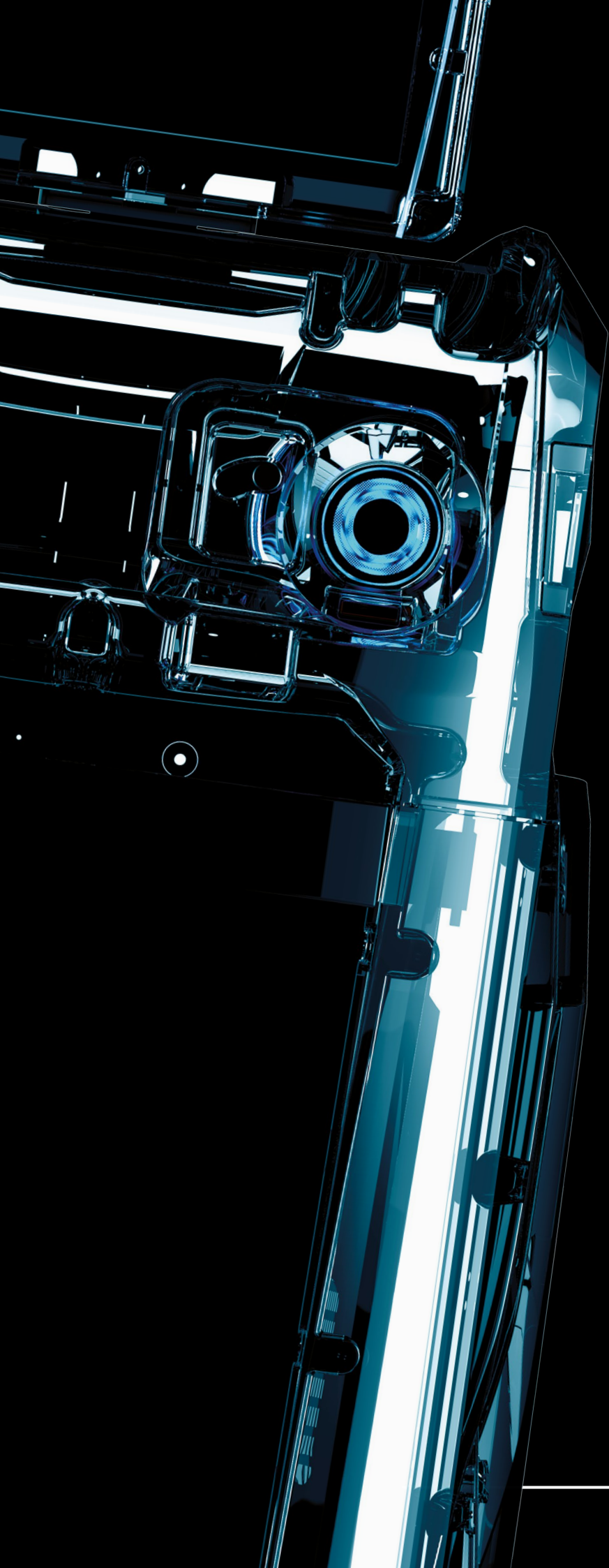


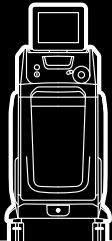
Quanta System

LASER IN OUR DNA



# Litho 60

HOLMIUM LASER





# Litho 60

## THE REVOLUTION IN LITHOTRIPSY

The **Litho 60** Holmium laser (2.1  $\mu\text{m}$ ) meets the increasing demand for efficacy and flexibility and cost-effectiveness as a unique multi-application laser platform able to perform both **Lithotripsy** and **HoLEP**.

The **Litho 60** brings outstanding innovation by offering the exclusive **Vapor Tunnel™**, **Virtual Basket™** and **MasterPULSE** technologies.

This device further offers impressive settings for energy and frequency (up to **60 Hz**).

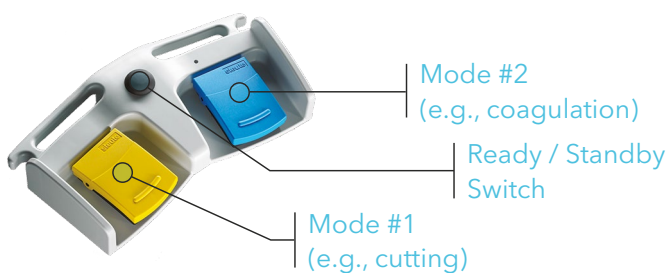
## General Overview

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- ✓ Effective Lithotripsy
- ✓ High-Frequency Emission (up to 60 Hz)
- ✓ Minimized Retropulsion
- ✓ BPH Treatment
- ✓ Advanced Pulse Modulation
- ✓ Reduced Depth of Penetration (0.3-0.4 mm)
- ✓ Soft Tissue Surgery
- ✓ High Versatility
- ✓ Quick ROI



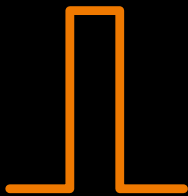
## Double Footswitch



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 setting readjustments.



# Fragmentation



**SHORT PULSE  
(HIGH ENERGY)**



## HIGH PULSE ENERGY

Up to 5 J for a wide pulse energy range



## TREAT THE HARDEST STONES TOO

Greater pulse energy allows you to break harder stones.



## COLLECTION BASKET NEEDED

Retrieve stone pieces upon fragmentation.

# Dusting Effect



## LIMITED RETROPULSION

Easy ablation with no need to chase the stone



## NO NEED FOR A BASKET

The resulting fine dust obviates the need for a retrieval phase.



## LONG PULSE WIDTH

Up to 1100  $\mu$ s, for smooth Long Pulse Dusting



## EXTREME FREQUENCY

Up to 60 Hz, for enhanced speed in Dusting action



**HIGH  
FREQUENCY**

# Vapor Tunnel™

Consisting of a **Single Specific Long Pulse**, this emission mode allows limited retropulsion and fine stone ablation. The Vapor Tunnel™ is designed to use the minimum peak power in accordance with selected output settings.

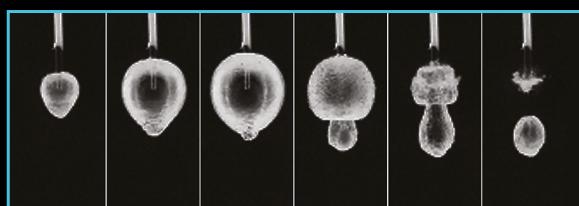


Bubble Dynamics of Vapor Tunnel™

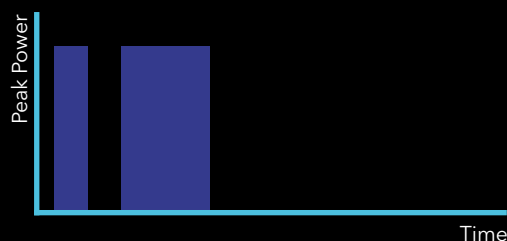


# Virtual Basket™

The double pulse modulation used with the Virtual Basket™ emission mode allows limited stone movements and fine lithotripsy. With the Virtual Basket™, 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™



## 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.



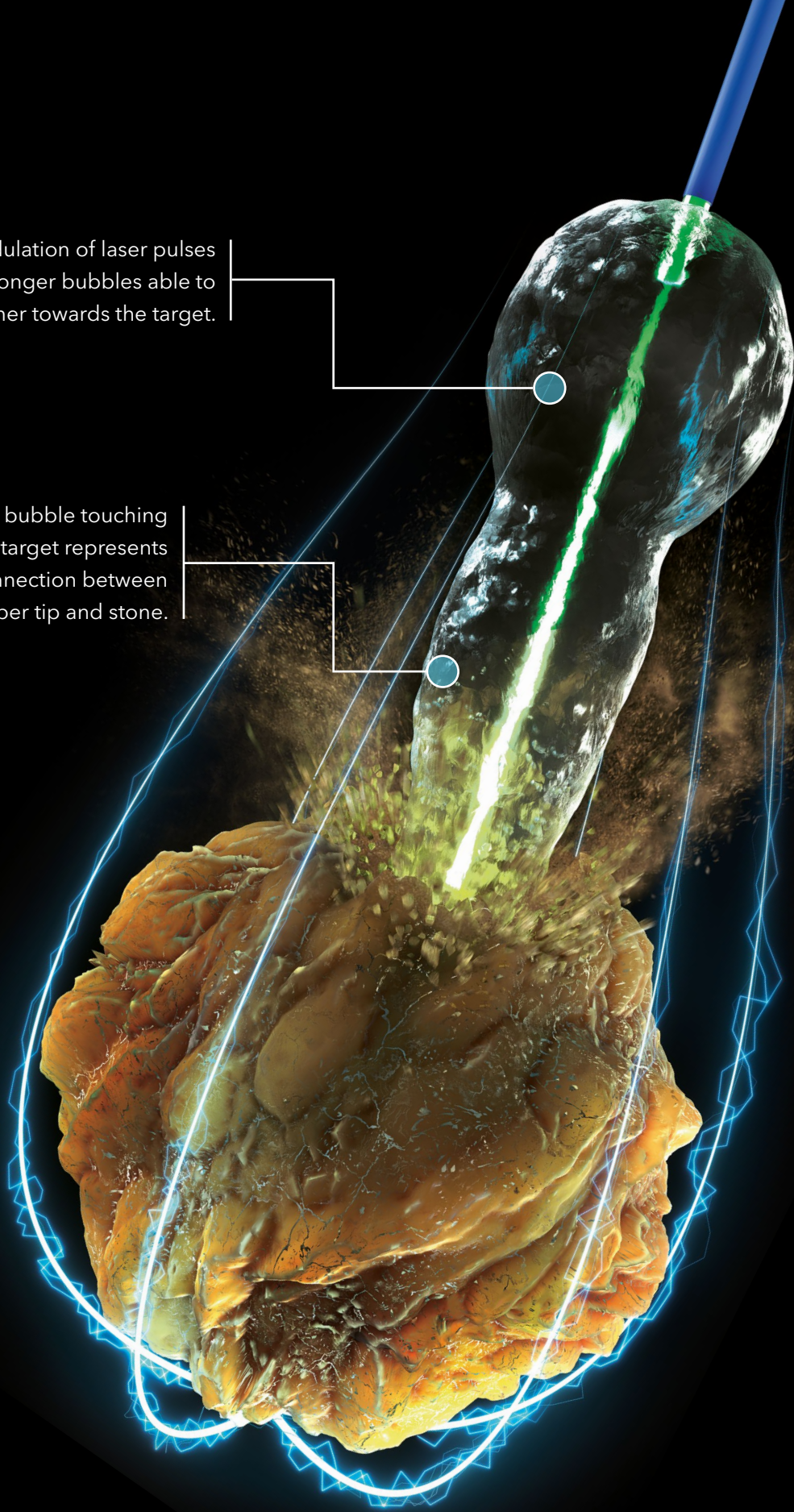
### TIME SAVING

A limited stone movement limits the time-consuming fiber repositioning.



Specific modulation of laser pulses generates longer bubbles able to extend further towards the target.

This long bubble touching the target represents a direct connection between fiber tip and stone.



# MasterPULSE

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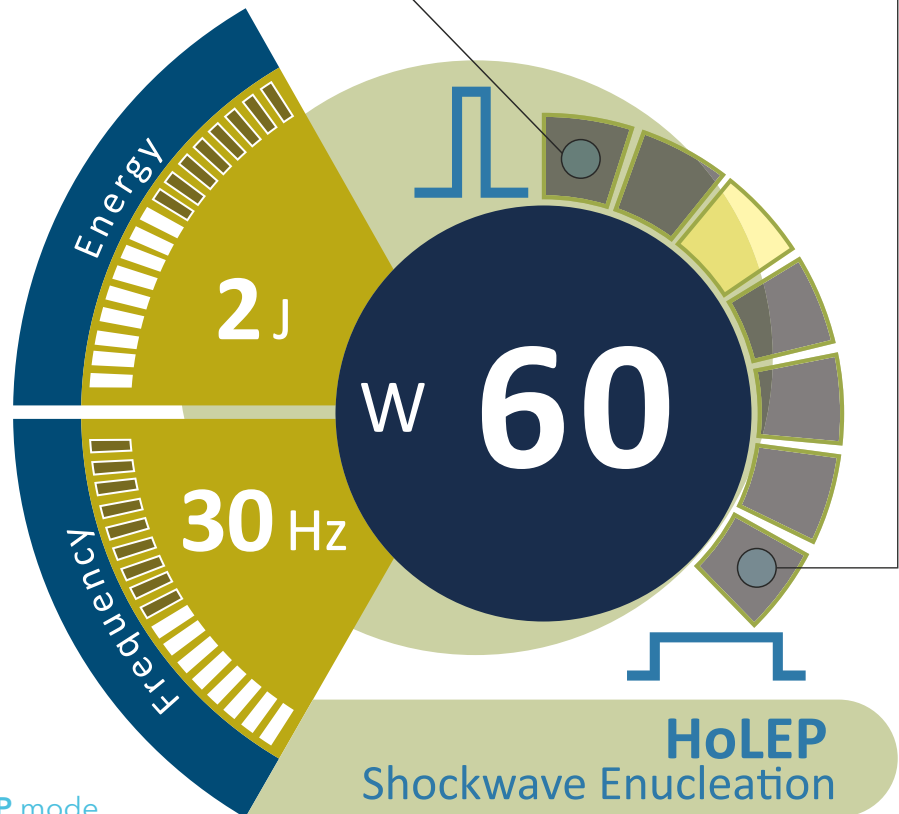


## CUTTING TUNING

Adjust cutting fashion based on your needs and the area of treatment.

SHOCKWAVE  
DISSECTION

PRECISE  
CUTTING



Example of HoLEP mode

## General Benefits

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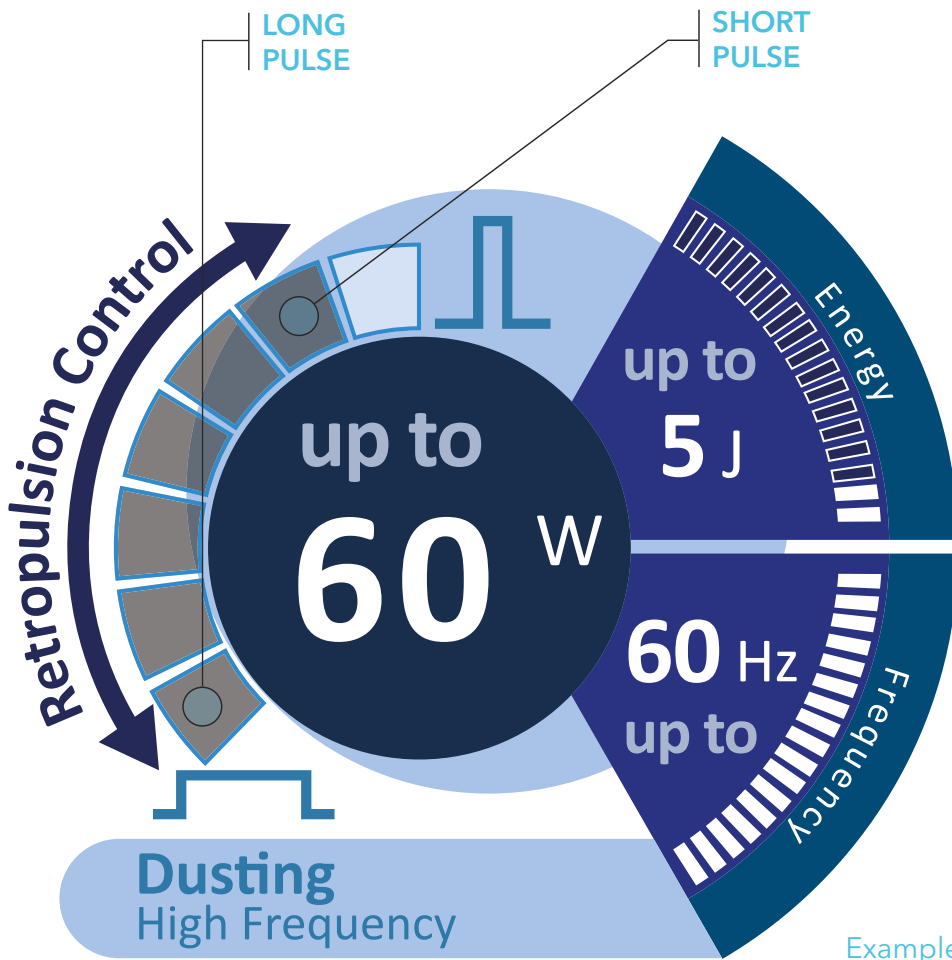
Reduce retropulsion and modify tissue cutting more easily: Instead of trying multiple different settings, start with your preferred settings and then adjust the MasterPulse to tune the effect of laser emission based on your visual feedback. Regulation of pulse width has never been so easy!



## EASE OF TREATMENT

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





Example of **Lithotripsy** mode



**REDUCED STONE INSTABILITY**  
 Lower the stone instability step by step, by progressively increasing pulse width.



**CUTTING DOWN TREATMENT TIME**  
 Obtain the desired effect quickly, without losing time with the standard adjustment of energy and frequency parameters.



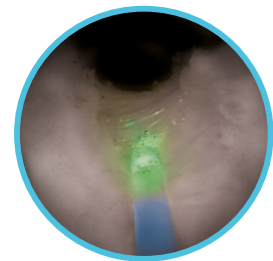
**GREATER FLEXIBILITY**  
 7 levels of pulse width offer a greater flexibility compared to the traditional 3 levels offered by the other Holmium devices.

# BPH

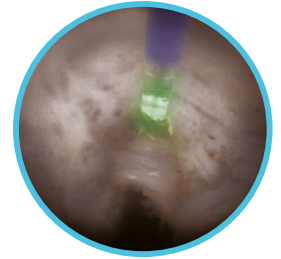
The large amount of literature demonstrates the efficacy and safety advantages of HoLEP (Holmium Laser Enucleation of the Prostate) with respect to traditional treatments available for BPH (Benign Prostatic Hyperplasia). Recent studies and trials have validated the excellent outcomes achieved by this technique, with its success being reproduced in a diverse array of patients.

Clinical evidences proved a 50 - 60 W Holmium output to work perfectly for an effective and gentle enucleation. HoLEP provides excellent results in terms of long-term effectiveness, safety, hemostasis and fast recovery.

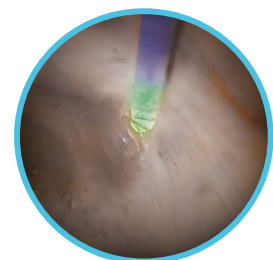
- ✓ Precise cutting
- ✓ User preset saving
- ✓ Guided selection of settings
- ✓ Double footswitch



Starting 5 o'clock incision



12 o'clock incision



Lateral lobe enucleation



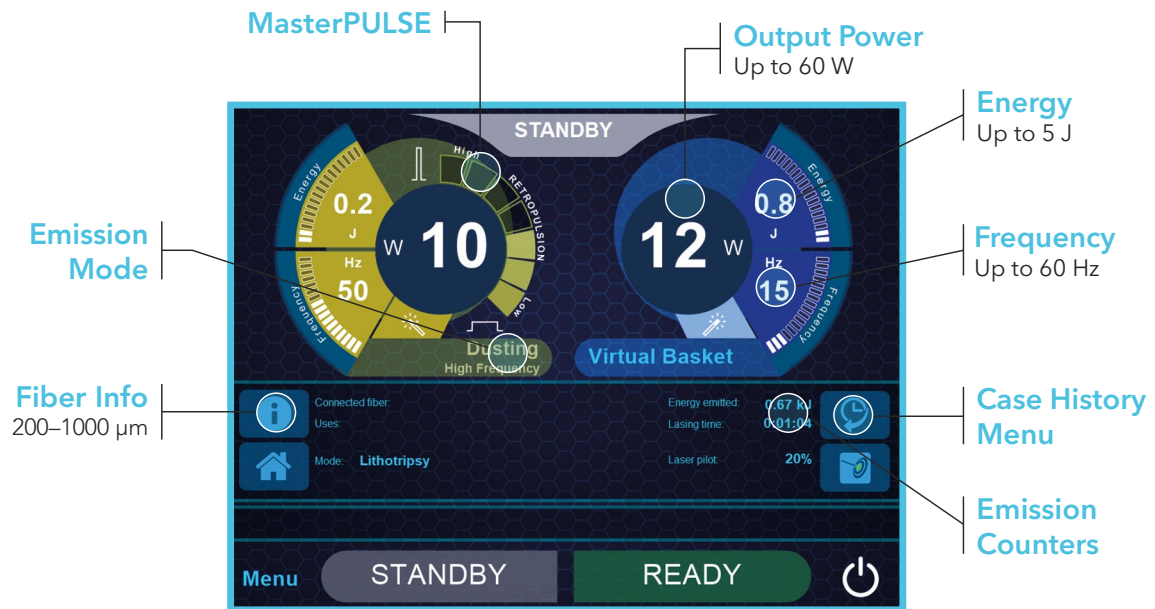
Quick switch from one emission mode to another (eg. from cutting to coagulation emission)



Delicate Areas Mode

Dedicated Coagulation Setting

# User-Friendly Software



## GUIDED SELECTION

- BPH
- Lithotripsy
- Soft Tissues

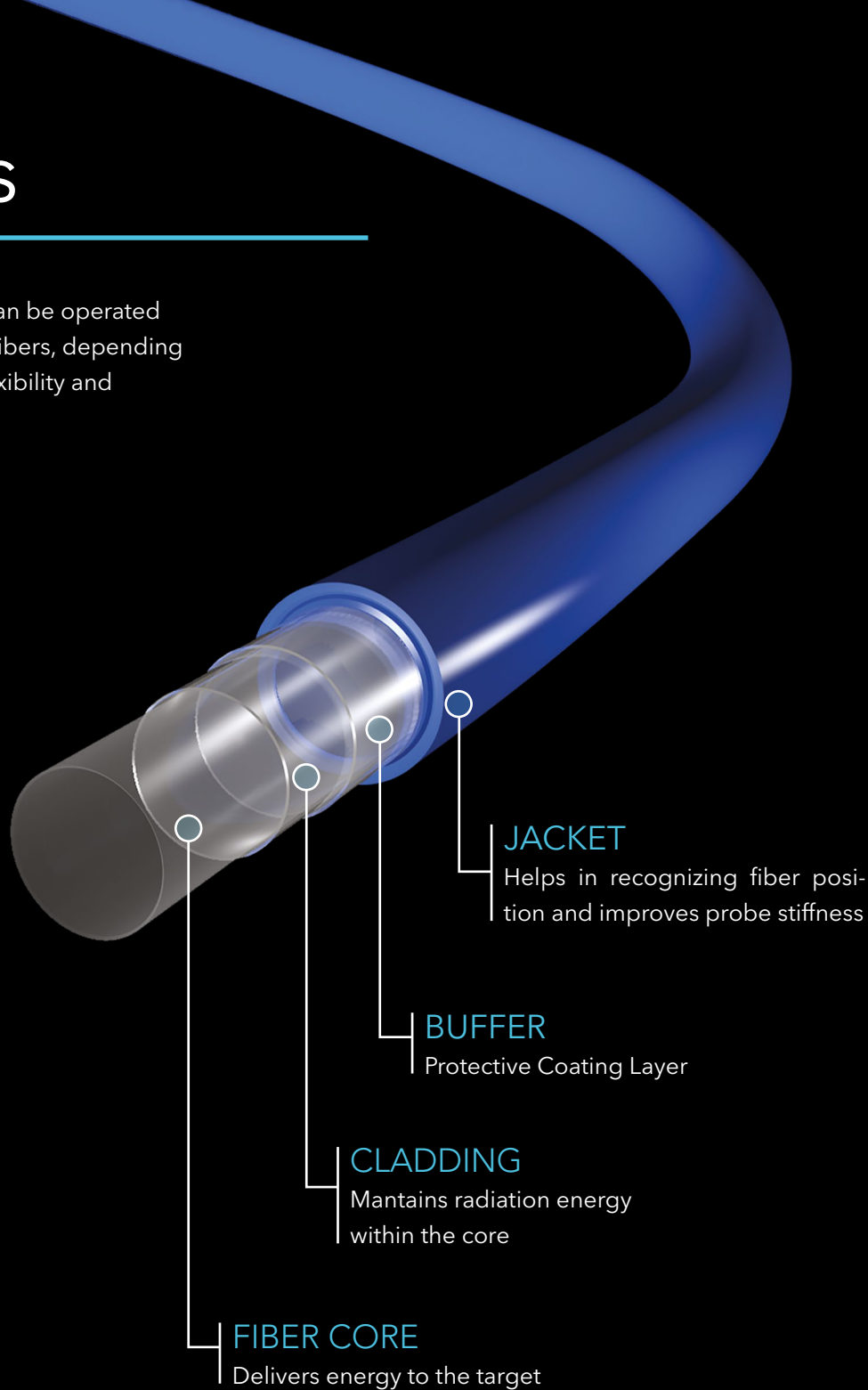
## SAVE / LOAD PRESETS





# Fibers

The **Litho 60** 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

Strongly simplify the insertion in deflected scopes



## SIDE FIBERS

Allow side ablation of soft tissue



### FIBER RECOGNITION

The Litho 60 automatically adjusts emission settings based on the connected fiber's diameter.



#### AVAILABLE DIAMETERS

200, 272, 365, 550, 600, 800 and 1000  $\mu\text{m}$



#### REUSABILITY

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



#### CLEANING

Reusable fibers can be sterilized by Sterrad<sup>®</sup> and steam sterilization.

*Sterrad is a registered trademark of ASP Global Manufacturing GmbH.*



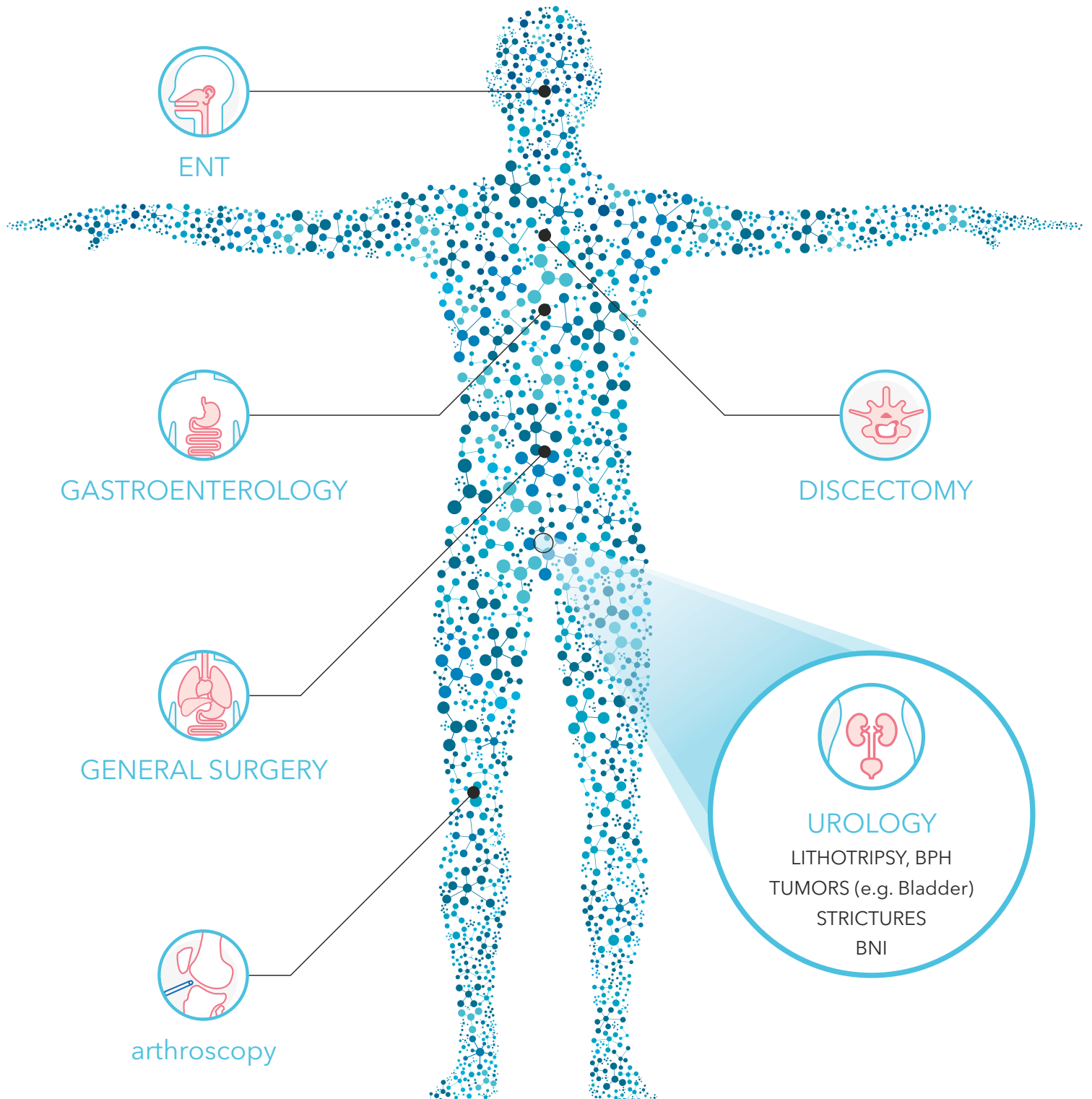
#### STERILIZATION TRAY

A dedicated tray for sterilization of fibers and tools

# Applications

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The **Litho 60** 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

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<b>Wavelength</b>	2.1 $\mu\text{m}$
<b>Average power</b>	Up to 60 W
<b>Repetition rate</b>	Up to 60 Hz
<b>Energy per pulse</b>	Up to 5 J
<b>Pulse duration</b>	50-1100 $\mu\text{s}$
<b>Beam delivery</b>	Wide range of flexible silica fibers
<b>Aiming beam</b>	532 nm (adjustable <5 mW) - Class 3R
<b>Fiber recognition</b>	RFID System
<b>Activation</b>	Double footswitch
<b>Electrical requirements</b>	200 - 230 Vac; 50/60 Hz; 5kVA, single phase
<b>Cooling</b>	Internal chiller
<b>Operating temperature</b>	10°C-30°C
<b>Laser class</b>	4 (IEC 60825-1)
<b>Dimensions and weight</b>	52 cm (W) x 120 cm (D) x 123 cm (H) (monitor closed) - 200 kg

This brochure is intended for the U.S. market.

**VISIBLE AND INVISIBLE LASER RADIATION**

Avoid eye skin exposure to direct or scattered radiation

Laser product: Class 4

Aiming beam: Class 3R



CAUTION - Laser radiation

**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 EI. 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 opto-electronic devices.

**Quanta System**  
LASER IN OUR DNA

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