



# Cyber Ho 100

*Holmium Laser System*





# Cyber Ho 100

## THE REVOLUTION IN HOLMIUM SURGERY

**Cyber Ho** Holmium laser (2.1  $\mu\text{m}$ ) meets the increasing demand of efficacy, flexibility with a unique multi-application laser platform able to perform both **Lithotripsy** and **HoLEP**.

**Cyber Ho 100** can reach up to **105 W** power and brings outstanding innovation by offering the exclusive **Vapor Tunnel™** and **MasterPULSE™** technology for advanced retropulsion control. This device further offers impressive settings regarding energy and frequency (up to **80 Hz**).

## General Overview

- ✓ BPH Treatment
- ✓ Effective Lithotripsy
- ✓ High Frequency Emission (up to 80 Hz)
- ✓ Minimized Retropulsion
- ✓ Reduced Depth of Penetration (0.3 - 0.4 mm)
- ✓ Soft Tissue Surgery
- ✓ High Versatility
- ✓ Quick ROI

Intuitive GUI



12" Touchscreen

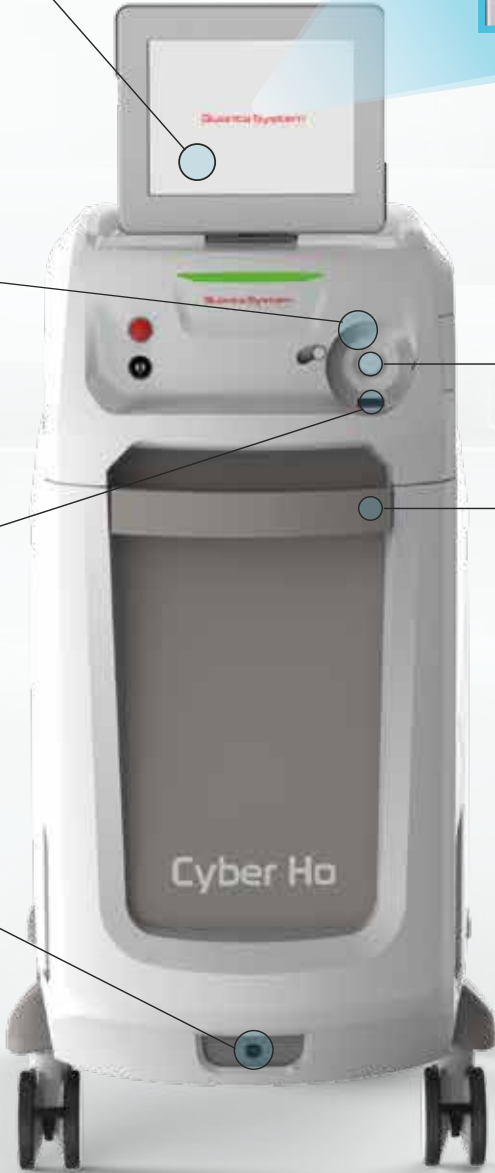
RFID Recognition System

Automatic Aperture Sensor

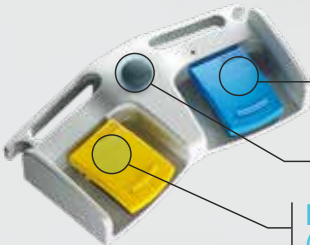
Frontal Footswitch Connection

Fiber Connection

Transportation Handle



DOUBLE FOOTSWITCH



Mode #2 (eg. coagulation)

Ready / Standby Switch

Mode #1 (eg. cutting)

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.

The large amount of 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.

Cyber Ho 100 offers full choice regarding settings selection, with superior surgical experience granted by the double footswitch, the intuitive and large modulation of pulse width and the dedicated modes for the different treatment steps.

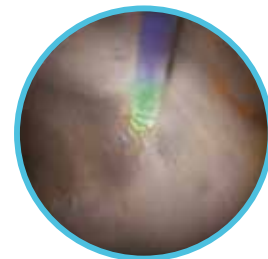
The endless combinations of settings and multiple tools allow the maximum treatment versatility, so that the surgeon can easily reach the desired outcome.



Starting 5 o'clock incision



12 o'clock incision



Lateral lobe enucleation

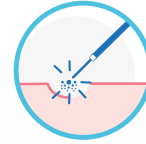


Delicate Areas Mode

Dedicated Coagulation Setting

### FAST CUTTING

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



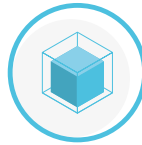
### RELIABILITY

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



### SIZE INDEPENDENT

HoLEP overcomes the limitations affecting other BPH techniques regarding prostate size



### EFFECTIVE HEMOSTASIS

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



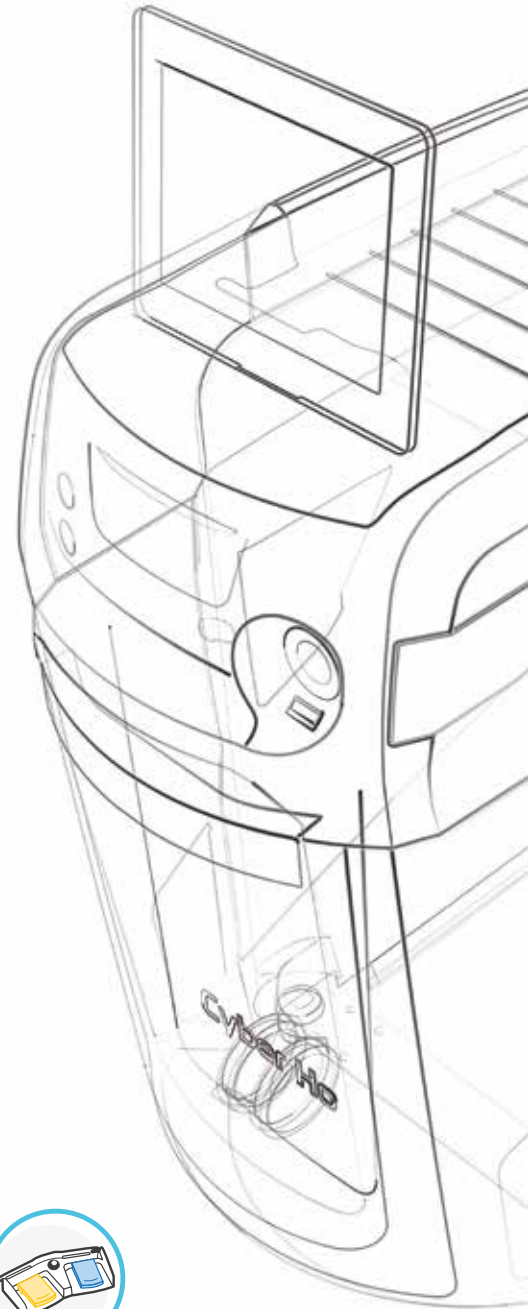
### HIGH POWER

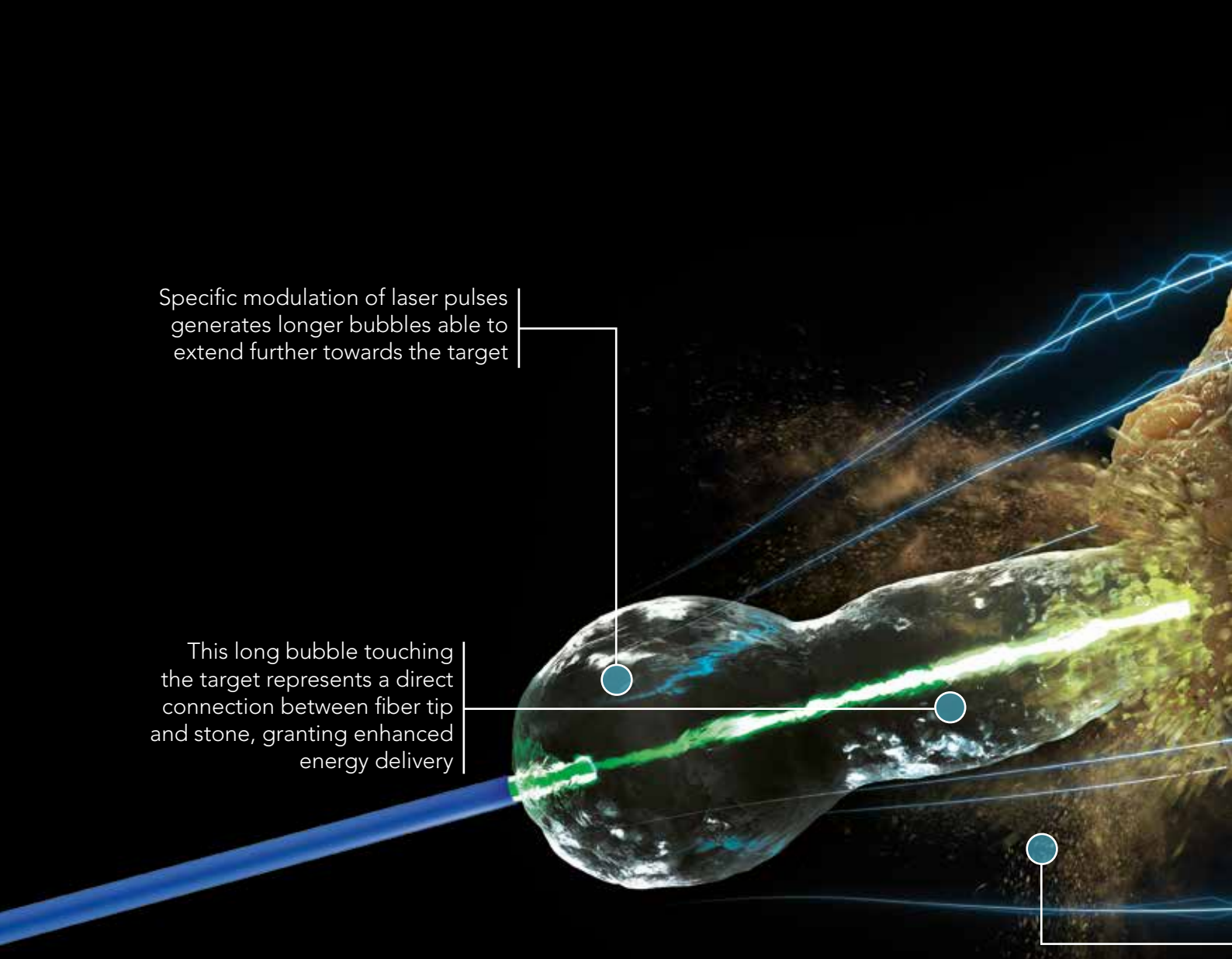
Up to 105 W output, for fast and quick incision, cutting down treatment time



### DOUBLE FOOTSWITCH

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





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, granting enhanced energy delivery



#### **MAGNETIC EFFECT**

The Vapor Tunnel effect allows stone ablation while holding the target in place, without inducing stone retropulsion



#### **EASIER TREATMENT**

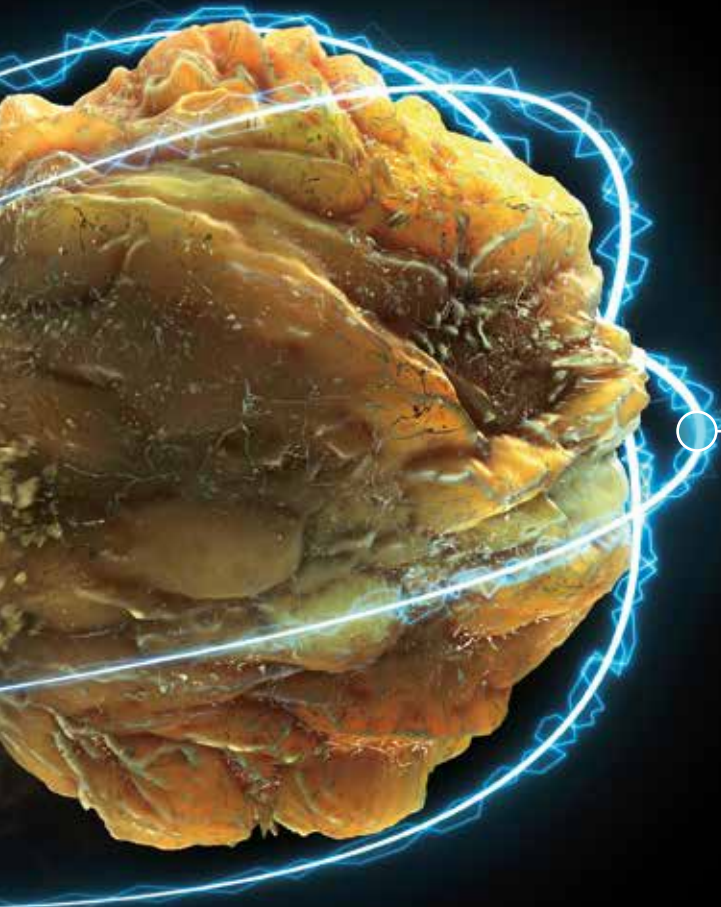
With a more stable target, lithotripsy treatment can proceed easily with fewer hassles



#### **TIME SAVING**

Less stone retropulsion prevents the time-consuming fiber repositioning, whereas enhanced energy transmission increases the ablation rate

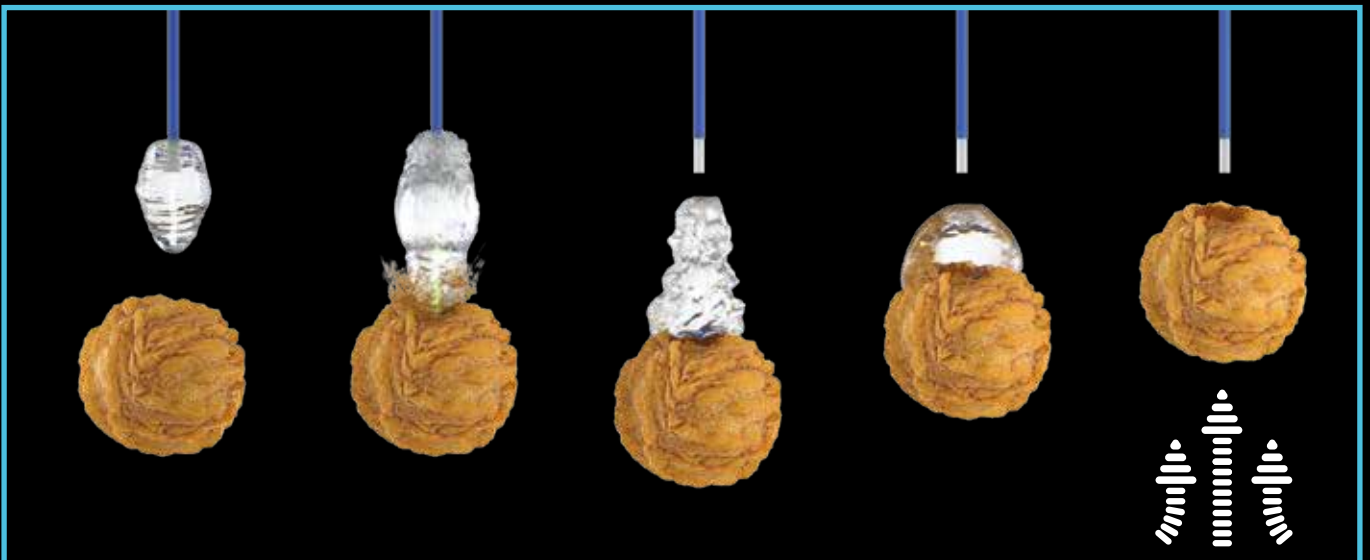
# Vapor Tunnel™



As the pulse ends, the bubble collapses. The stone is dragged backwards together with the collapsing bubble (acting as a **virtual stone basket**)

Effective and fast ablation results from the enhanced transmission of pulse energy

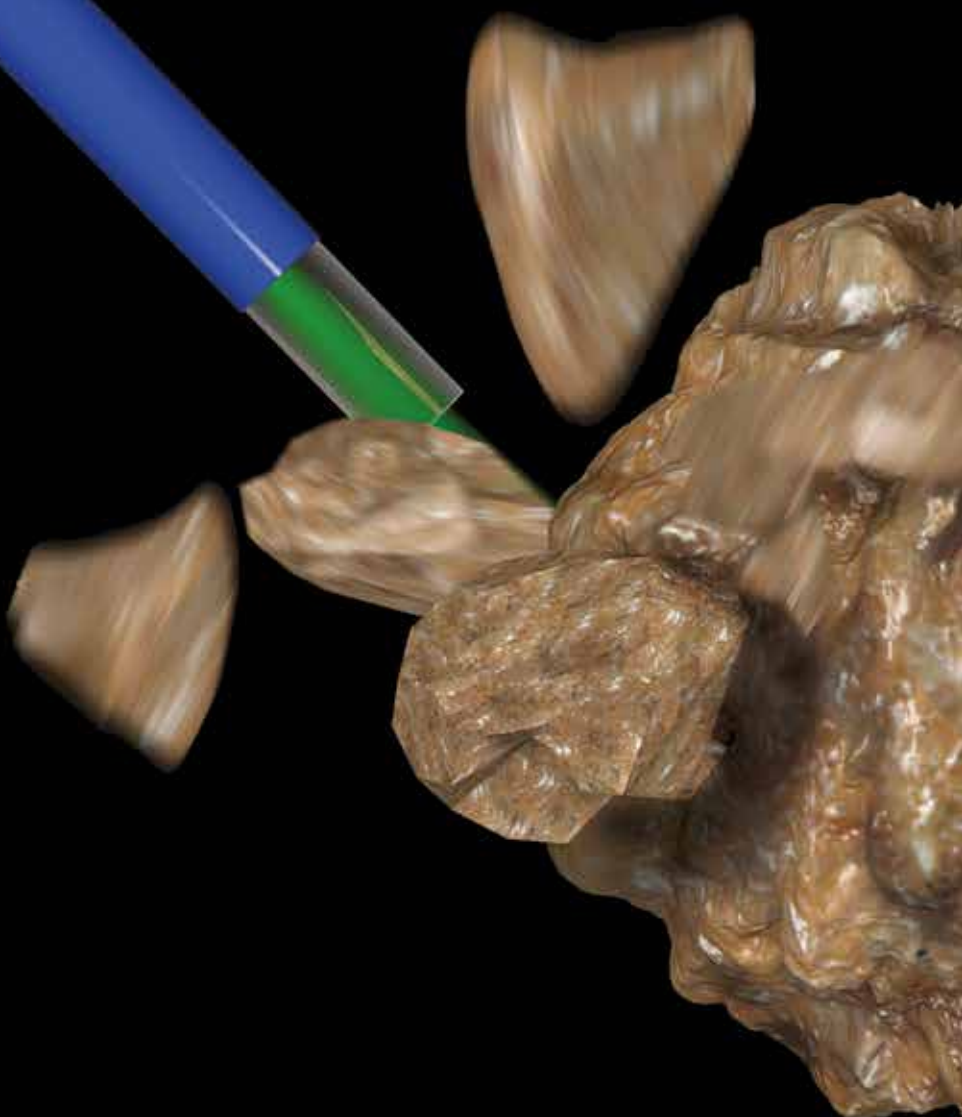
## How the *Virtual Basket* works



# Fragmentation



**SHORT PULSE  
(HIGH ENERGY)**



## **THE HIGHEST PULSE ENERGY**

5 J allows the best pulse energy in its class



## **TREAT ALSO THE HARDEST STONES**

Greater pulse energy allows to break harder stones



## **COLLECTION BASKET NEEDED**

Retrieve stone pieces upon fragmentation



# Dusting Effect



LONG PULSE



HIGH  
FREQUENCY

## LIMITED RETROPULSION

Easy ablation with no need to fetch the stone



## NO NEED FOR BASKET

The obtained fine dust obviates the retrieval phase



## EXTREME FREQUENCY

Up to 80 Hz, for the best *High Frequency Dusting* in its class

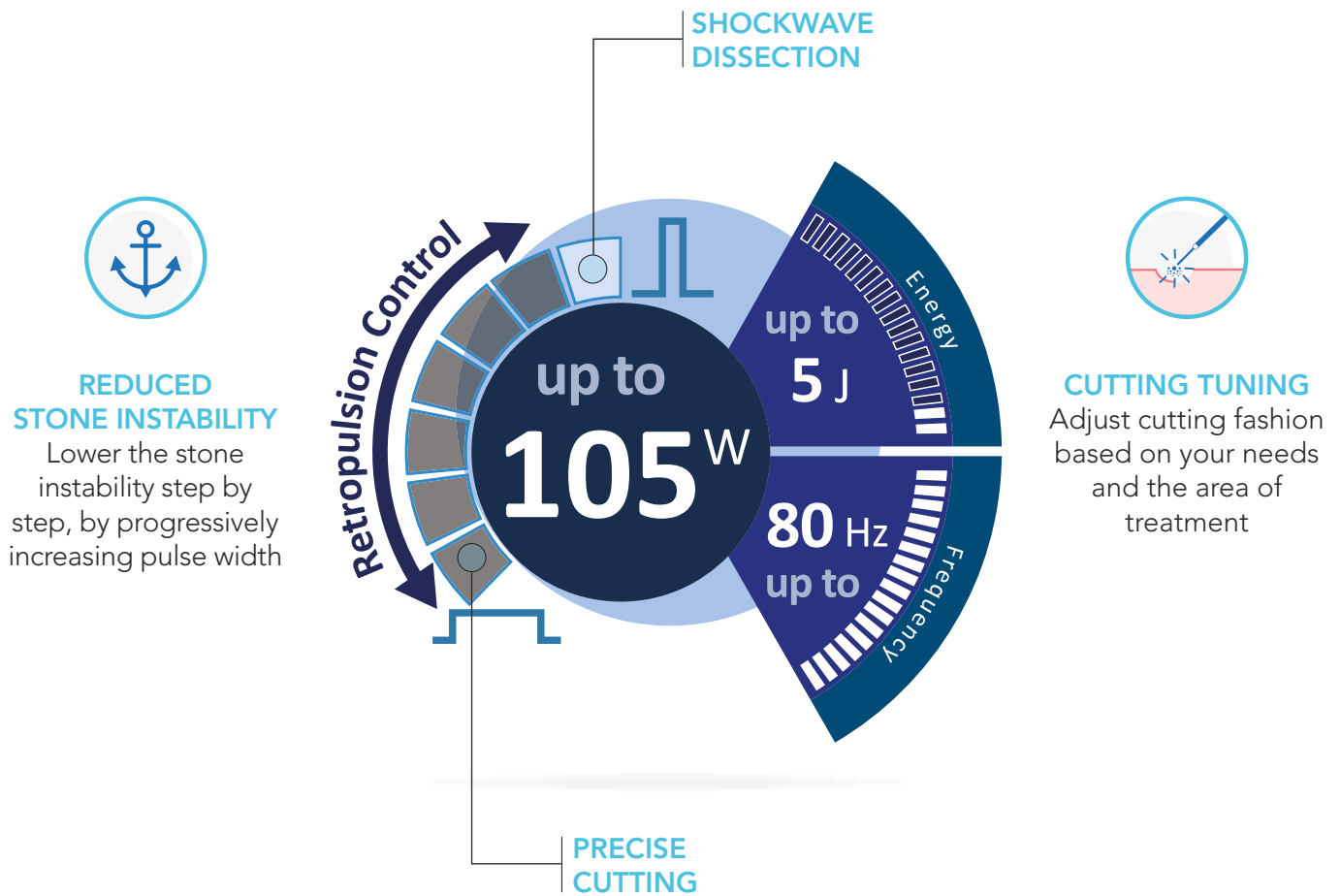


## LONG PULSE WIDTH

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



# MasterPULSE™



## General Benefits

Reducing retropulsion and modifying tissue cutting get easier: instead of trying multiple different settings, start with your preferred ones 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 with respect to the traditional 3 levels offered by the other holmium devices



### CUTTING DOWN TREATMENT TIME

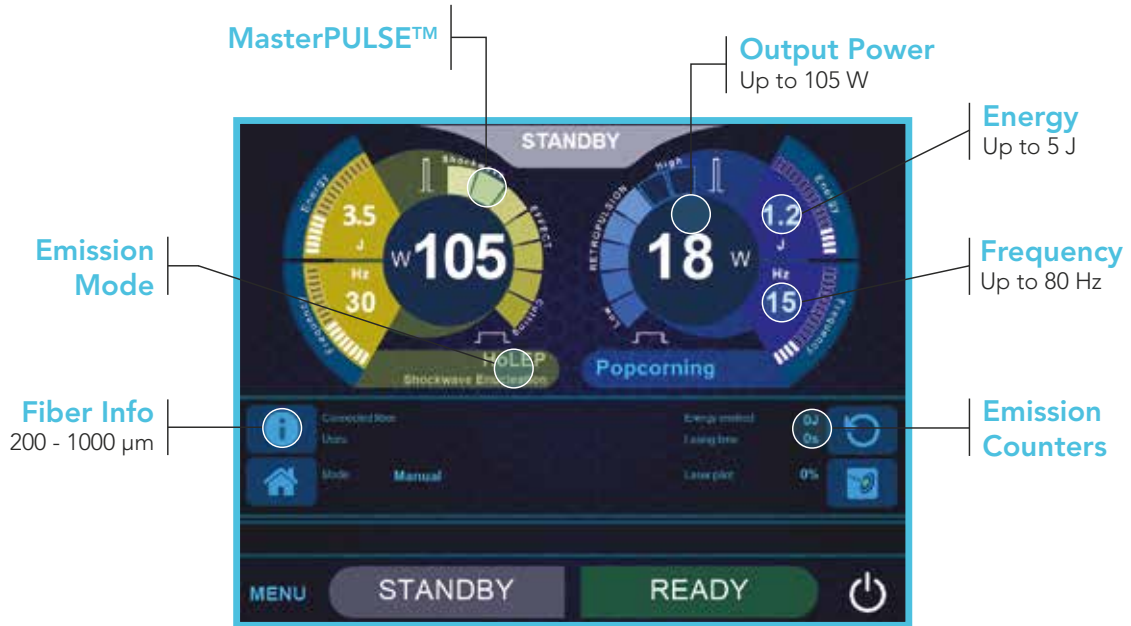
Obtain the desired effect quickly, without getting mad with the standard adjustment of energy and frequency parameters



### EASE OF TREATMENT

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

# User-friendly Software



## GUIDED SELECTION

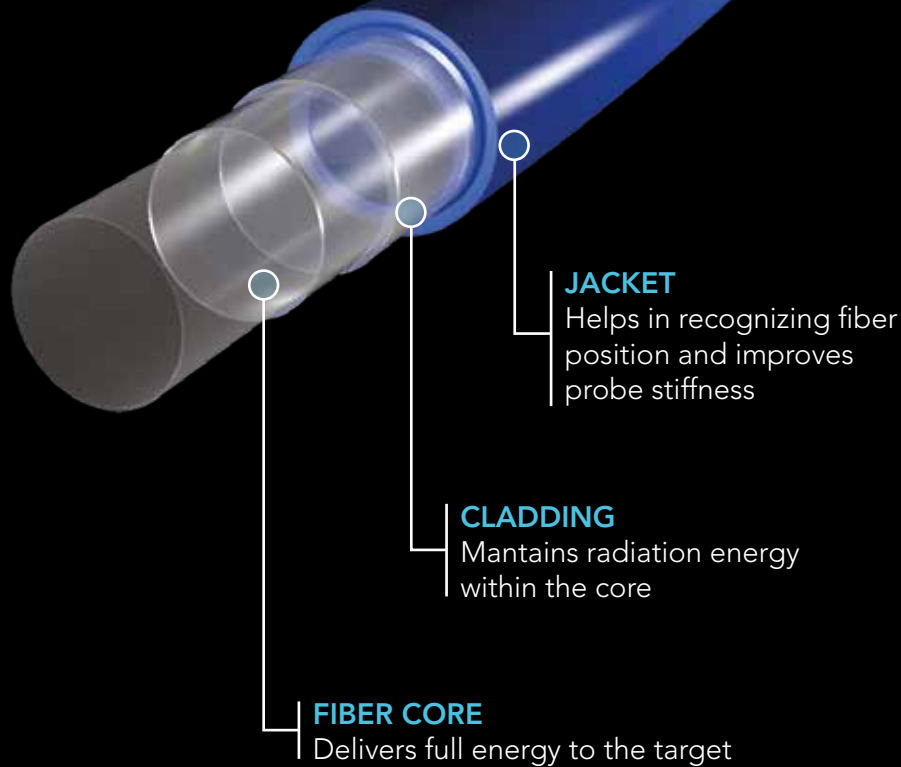
- BPH
- Lithotripsy
- Soft Tissues

## SAVE AND LOAD OF SETTINGS



# Fibers

**Cyber Ho** 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 already bent scopes



## PERFORMANCE FIBERS

Designed to deliver great power even with small fibers



## GASTRO FIBERS

Specifically designed for the fragmentation of gallstones



### FIBER RECOGNITION

Cyber Ho automatically adjusts emission settings based on the connected fiber diameter



#### AVAILABLE DIAMETERS

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



#### REUSABILITY

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



#### CLEANING

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

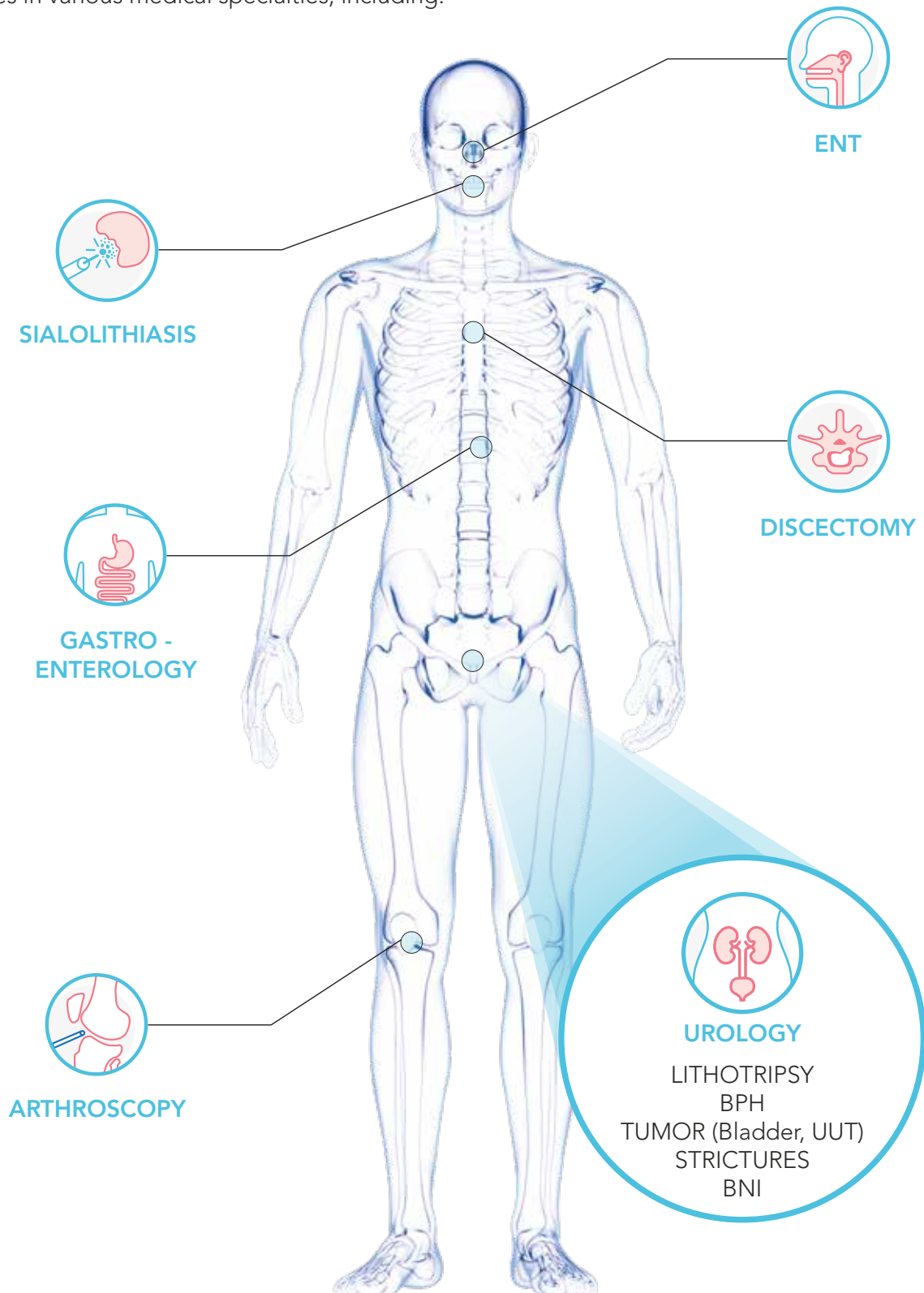


#### STERILIZATION TRAY

A dedicated tray for sterilization of fibers and tools

# Applications

**Cyber Ho 100** can be used to perform incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissue and in lithotripsy of stones in various medical specialties, including:



# Technical Specifications

<b>Wavelength</b>	2,1 $\mu\text{m}$
<b>Average power</b>	Up to 105 W
<b>Repetition rate</b>	Up to 80 Hz
<b>Energy per pulse</b>	Up to 5 J
<b>Pulse duration</b>	50 $\div$ 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>	230 Vac; 50/60 Hz; 6.2 kVA - 208 Vac; 50/60 Hz; 6.2 kVA
<b>Cooling</b>	Internal chiller
<b>Operating temperature</b>	10°C $\div$ 30°C
<b>Laser class</b>	4 (IEC/EN 60825-1:2014)
<b>Dimensions and weight</b>	52 cm (W) x 120 cm (D) x 123 cm (H) (monitor closed), 230 kg

**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

*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.*

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 opto-electronic devices.

