

**ROCAMED**

# MH01 BROCHURE

Surgical  
Optical  
Fiber



Foot  
Pedal







# 30W HOLMIUM LASER

## MH01



Holmium Laser 30W is powerful and offers a wide range of different frequencies and energy.

The setup of frequency and energy is integrated in an intuitive and pre-programmed menu: for a fine and accurate treatment strategy and for stone or soft tissue with a very easy handling.

Ref.	Product Description
MH01	Rocamed Laser - Holmium Medical System

# 30W HOLMIUM LASER

## Characteristics

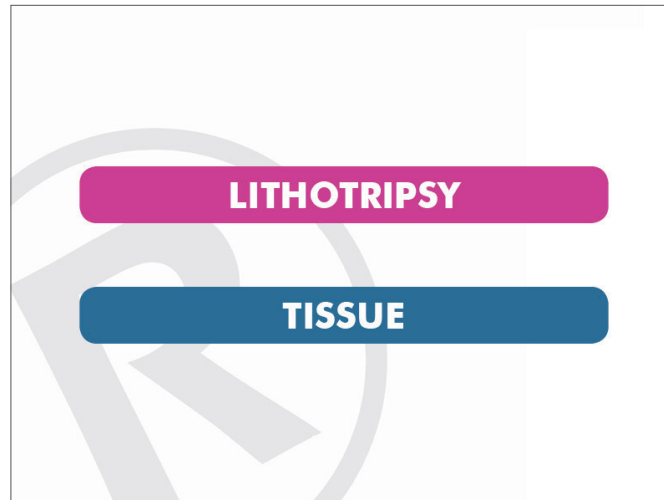


WaveLenght	Ho:YAG 2100 nm
Pulse energy :	0,2 - 4J
Pulse frequency :	3 - 25 Hz
Pulse duration :	150-850 $\mu$ s
Pulse width :	100-1500 micro sec (lamp)
Pulse lengh regulation :	Automatically
Identification of Fiber :	Fiber RFID with TAG devise
Average power :	up to 30W - Wavelength: 2100nm+/- 20nm
Electrical :	100-120 VAC : 50/60 HZ 16 A 200-240 VAC : 50/60 HZ 10 A
Dimension :	938 x 332 x 967     H x W x D 5(mm)
Weight :	60 kg



# 30W HOLMIUM LASER

Application Mode



Lithotripsy or Tissus Application mode



**TISSUE**

- Resection - Tumor - UTUC
- Section / Cutting
- Coagulation

**LITHOTRIPSY**

 CaOx Monohydrate	 Cystine	 Uric Acid
 CaOx Dihydrate	 Struvite / Infectious	<b>OTHER</b>

# 30W HOLMIUM LASER

## Lithotripsy Mode

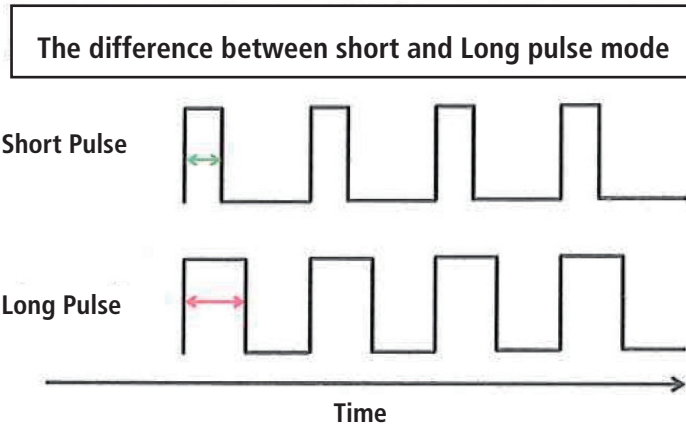


Figure 1\* - Comparing the traditional short-pulse mode with the new long-pulse mode, laser lithotripter settings are exactly the same pulse frequency, pulse energy, and the same power level, thus the same amount of energy is delivered.

However, in short-pulse mode, the energy delivered by the single laser pulse occurs during a certain period of time (green double arrow), while in long-pulse mode that same amount of energy is distributed over a longer period of time (red double arrow)

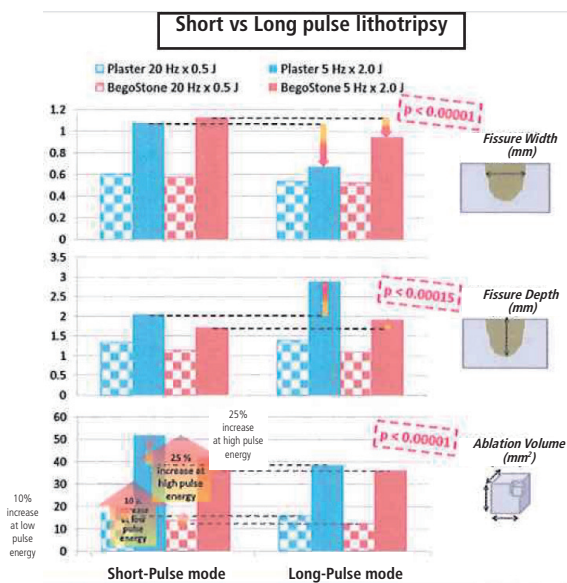


Figure 3\* - Initial experiments showed that long-pulse mode produces significant narrower fissures, particularly if using LoFr-HiPE and regardless of stone material. In relation to fissure depth there is an inversion of the pattern seen before with fissure width, with long-pulse mode producing deeper fissures, specially with softer stone material. Concerning ablation volume, short-pulse mode remains the more efficient lithotripter setting, with a 9.9% and 25.2% increase at low and high pulse energy settings, respectively. All these results are statistically extremely significant.

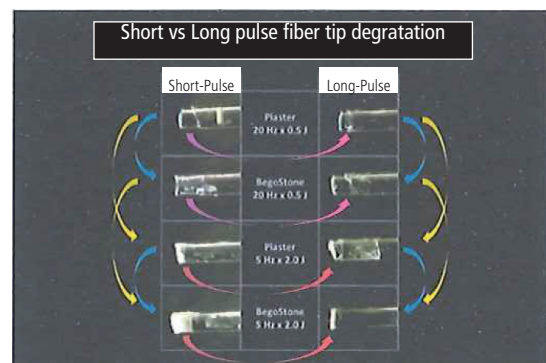


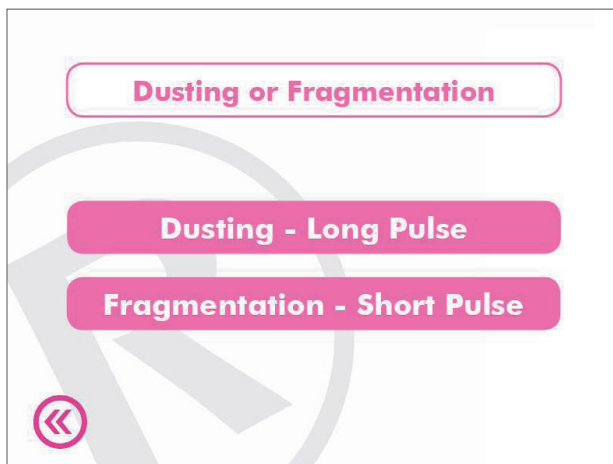
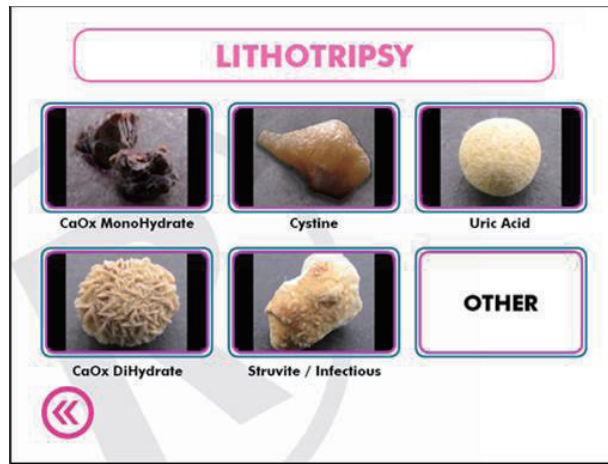
Figure 4\* - Experiments revealed more fiber tip degradation with harder stone material (blue arrows), as well as with higher pulse energy settings (yellow arrows), regardless of pulse mode. Nevertheless, comparing long and short pulse settings, long-pulse mode seems to spare the cladding and the fiber tip, showing less cladding degradation (pink arrows) as well as less fiber tip opacification (red arrows)

\* EAU POSTER - MADRID 2015  
 Peter Kronenberg & Olivier Traxer. Hopital Tenon - Paris - France  
 Long-pulse versus Short-pulse - Laser lithotripsy performance



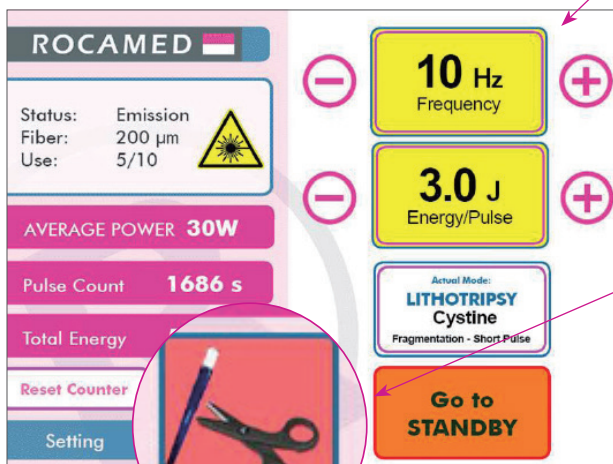
# 30W HOLMIUM LASER

## Lithotripsy Application Mode



**Vaporization**  
with Long Pulse

**Fragmentation**  
with Short Pulse



**Pre Setting\***  
registered by type of Stone selected

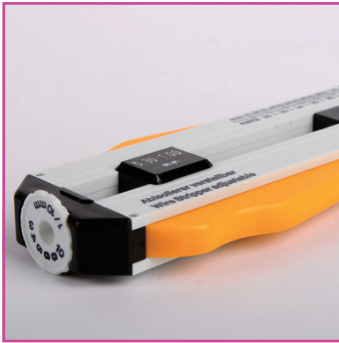
\* August 2014 - World Journal of Urology  
Peter Kronenberg & Olivier Traxer  
Update on lasers in urology 2014:  
current assessment on holmium:yttrium-  
aluminum-garnet (Ho:YAG) laser lithotripter  
settings and laser fibers

**Cutting Fiber Alarm**  
warns Surgeons for 10s  
Allowing a better Fiber Performances



# 30W HOLMIUM LASER

## Accessories



### Accessoires

MH30STP	Fiberstripper 0.3 - 1.0 mm
MH30SCF	Ceramic scissor for fibers
MH30SGO	Safety goggles DI1400-33,,L3;905-1400DIRL5
MH30UMR	User Manual Rocamed MH01
MH30OBS	Optical Blast Shield for Holmium-external access
MH30BHC	Bottle For Hydraulic circuit filling - 0,8 litre with CPC
MH30FSC	1-pedal foot control with B7 button
MH30PKG	Carton Package for LITHO-Asset





# 30W HOLMIUM LASER

## Fibers



### ⇒ Single Use Sterile Surgical Optical Fiber

References	µm	Fiber Type	Identification	Units / box
MF200ST	200	Single Use	RFID	5
MF272ST	272			
MF365ST	365			
MF550ST	550			
MF800ST	800			

### ⇒ Reusable Sterile Surgical Optical Fiber

References	µm	Fiber Type	Identification	Units / box
MF200RST	200	10x ReUsable	RFID	5
MF272RST	272			
MF365RST	365			
MF550RST	550			
MF800RST	800			





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Products Specifications are subject to change without notice.

Please consult product label and insert for any indications, contraindications, hazards, warnings, cautions and directions for use.  
For the latest information, always check the "Instructions for Use" that comes packaged with the product.

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