



UROLASE  
MAX

**Laser platform  
for urology**

**All in one**





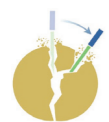
### 1 «Tissue Sensor»

A soft and hard tissue detection system designed to maximize safety during lithotripsy.



### 2 New generation of thulium fiber laser

The most powerful generation of the Thulium fiber laser for urology, covering the entire spectrum of hospital manipulations: both soft tissue surgery and lithotripsy.



#### Lithotripsy:

- «MRP» mode - minimizes retro-pulsion
- «Fine» dusting - ultra-fast fragmentation into micro-fragments
- «Ultra» fragmentation - breaking into large fragments for extraction



#### Soft tissue:

- «Dissect» enucleation mode - thermo-mechanical dissection of tissues
- «Bloodless» coagulation mode - the most efficient coagulation mode
- «Clean pulse» mode - vapoenucleation without carbonization



### 3 «One Push» connector

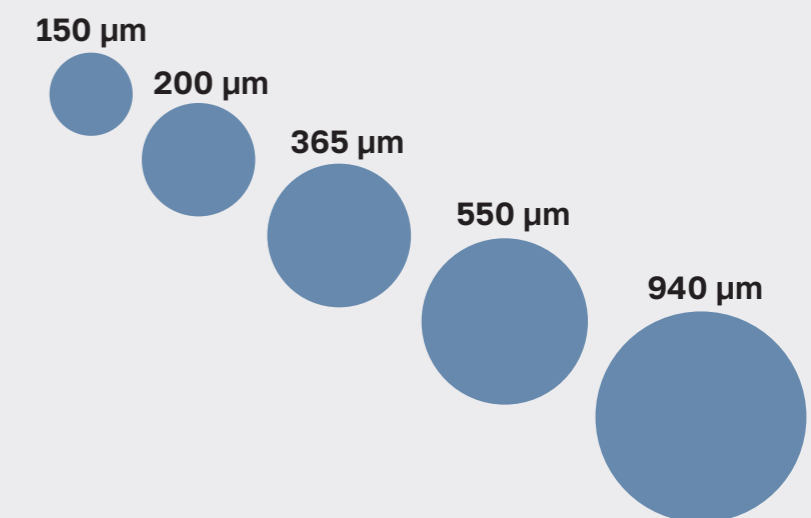
The «One Push» instant fiber connector with automatic shutter is designed to prevent contamination and ease of connection.

## IRE SURGICAL FIBER

#### Design options:

- Single use
- Multiple use

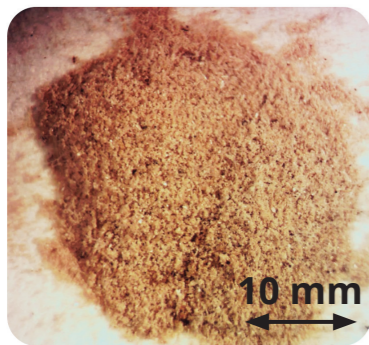
#### Available diameters:



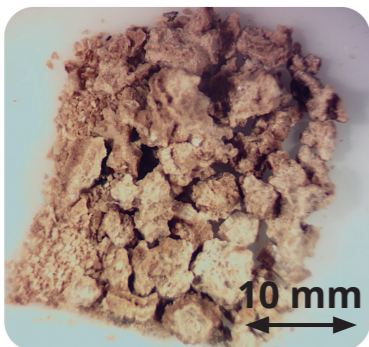
## Modulated pulses

The modulated pulse settings and high power characteristics of the **Urolase MAX** laser system bring lithotripsy to a qualitatively new level of efficiency, different from all urological lasers.

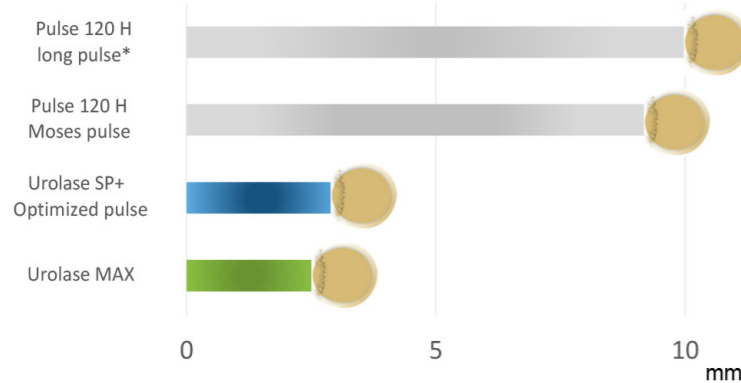
**1** The new «**Fine**» **dusting** mode allows the surgeon to crush stones into fine dust at a high speed.



**2** The special «**Ultra**» **pulse** fragmentation mode instantly breaks down the densest stones into large fragments for subsequent lithoextraction.



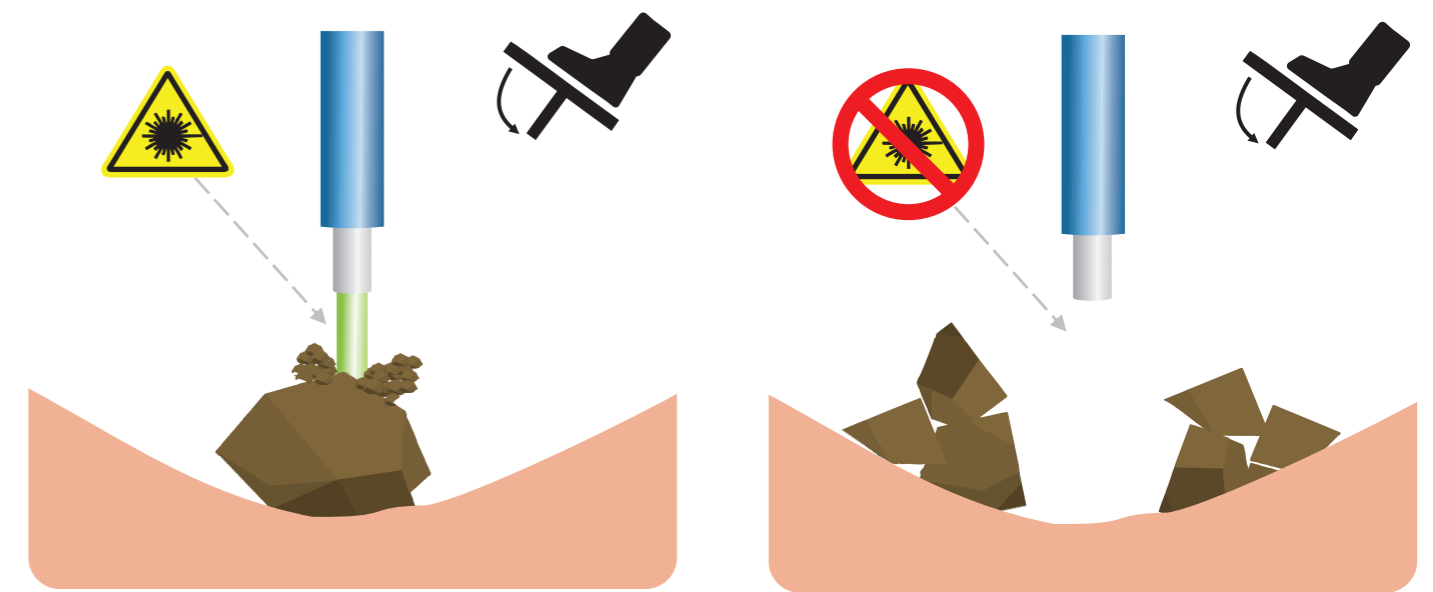
**3** **MRP\* mode** - minimal stone displacement during crushing, compared to holmium lasers and with standard pulses of UroLase series of thulium fiber lasers.



## Tissue Sensor – tissue/stone detection

**Tissue Sensor** is an innovative development of our company aimed at **absolute maximization of safety** during stone crushing.

This technology is designed to eliminate accidental exposure of soft tissues to laser radiation during lithotripsy.



The principle of the Tissue Sensor is that the laser detects which tissue (hard or soft) is in front of the surgical fiber tip.

Thus, during lithotripsy, the laser automatically stops radiation when it is pointed at the soft tissues, eliminating the risk of damage and perforation.

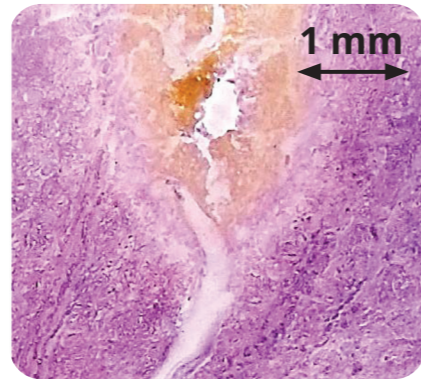
# Soft tissues

## Two types of enucleation in one device

The **Urolase MAX** laser device has two types of enucleation:

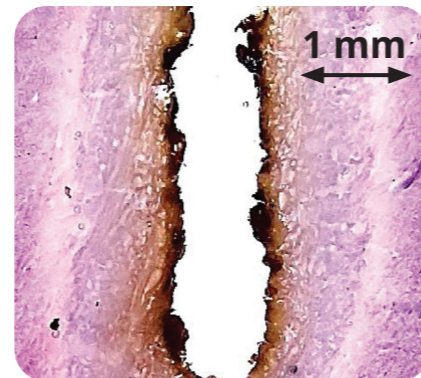
### 1 «Dissect» mode enucleation

- Adenomatous tissue dissection is the same as the HoLEP procedure
- Haemostatic properties are by far superior to those of HoLEP
- No carbonization



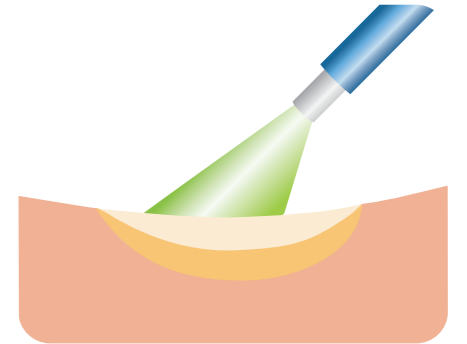
### 2 Classic thulium fiber enucleation – ThuFLEP

- Effective vaporization of soft tissues
- Precise work due to minimal depth of penetration
- No blood loss due to high level of hemostasis

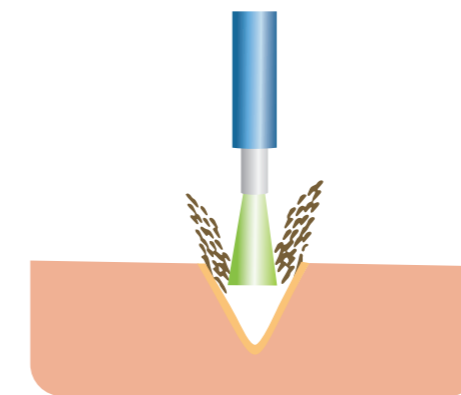


## «Bloodless» coagulation mode

The **Urolase MAX** has a unique pulse mode for coagulation. Due to the wide area of exposure, this mode allows effective coagulation of the postoperative zone from a short distance.



## «Clean pulse» - no carbonization



For vapo-enucleation and vaporization, the «**Clean pulse**» mode allows removal of soft tissue without carbonization and with an efficiency similar to continuous mode lasers.

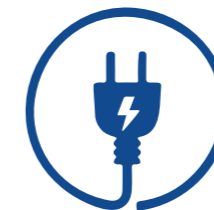
## Surgeon's assistant



The **Urolase MAX** is the first laser with a «surgeon's assistant» function, which is based on many years of analysis of the parameters used in various manipulations by leading surgeons around the world. The main purpose of this function is to ensure maximum safety during laser surgery.

## System

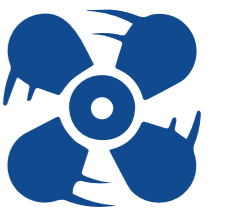
Standard network connection



Regular maintenance is not required



Air-cooling



Three times more compact and lighter than Ho: YAG lasers





# WORLD LEADER IN THE LASER INDUSTRY

VPG LaserOne LLC (formerly IRE-Polus LLC) is a Russian company established by an outstanding Soviet scientist, Valentin Pavlovich Gapontsev, the founder of the international scientific and technical IPG Photonics Corporation.

VPG LaserOne is a globally recognized leader in the field of fiber lasers and amplifiers, as well as devices and systems based on them. Drawing on deep expertise and decades of experience in laser equipment production, VPG LaserOne LLC designs and supplies medical laser devices and surgical fiber for a wide range of applications.

VPG LaserOne develops advanced medical laser devices through a full-cycle process that includes device engineering, development of clinical application protocols, in-vitro research in its proprietary laboratory and clinical trials conducted in collaboration with leading clinical centers.



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DATE OF  
ESTABLISHMENT  
**1992**



**15**  
CLINICAL CENTERS FOR  
IN-VITRO AND IN-VIVO  
STUDIES



**>1 million**  
PATIENTS TREATED WITH  
VPG LASERS IN 2024



**>2000**  
MEDICAL LASER SYSTEMS  
INSTALLED WORLDWIDE  
SINCE 2017