IRE-POLUS

“SMART” SYSTEMS:
A NEW GENERATION OF
THULIUM FIBER LASERS

UROLASE

UROLASE
PREMIUM

UROLASE

Thulium Fiber laser «Smart»

40 W

LITHOTRIPSY

UROLASE PREMIUM

LITHOTRIPSY

SOFT TISSUES

70 W

Special features

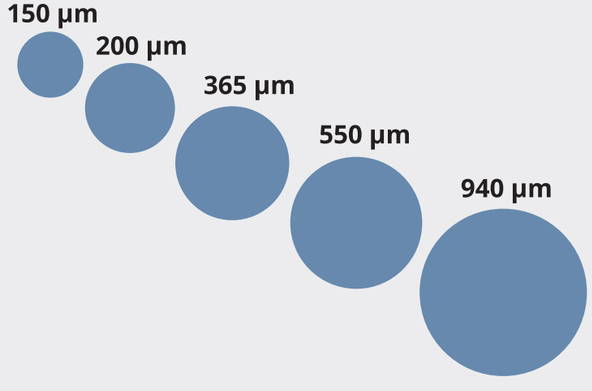
✓	**«MRP» mode**	– pulse setting to minimize retropulsion	✓
✓	**«Fine»** dusting	– ultra-fast fragmentation	✓
✓	**«Ultra»** fragmenation	– breaking into large fragments for extraction	✓
✗	**«Dissect»** enucleation mode	– thermo-mechanical dissection of tissues	✓
✗	**«Bloodless»** coagulation mode	– the most efficient coagulation mode	✓
✓	**Tissue sensor mode**	– tissue/stone detection	✓

IPG Surgical Fiber

Design options:

• Single use • Multiple use

Available diameters



ONE PUSH Connector

Technical features

Standard network connection

Air-cooling

Regular maintenance is not required

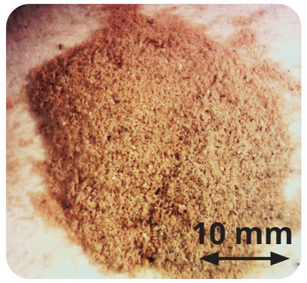
4 times more compact and lighter than Ho: YAG high and medium power lasers

LITHOTRIPSY

Modulated pulses

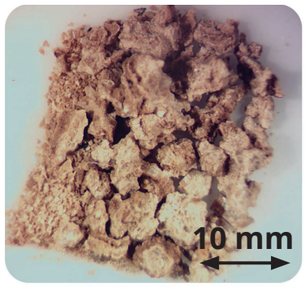
Modulated pulse settings of **Urolase+** and **Urolase+ Premium** laser devices allow lithotripsy in different modes: from crushing «into dust» to breaking into large fragments for lithoextraction and lithoevacuation.

1



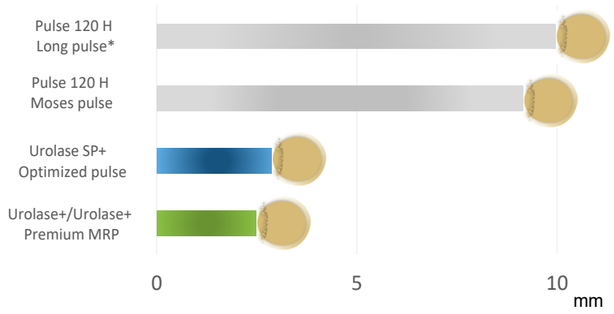
The new **«Fine» dusting** mode allows the surgeon to crush stones into fine dust at high speed.

2



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

3

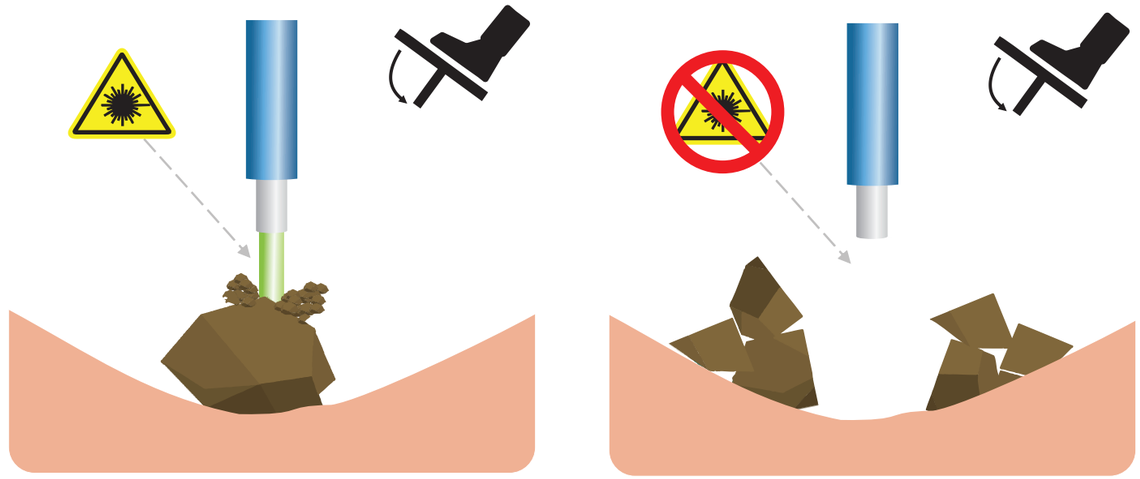


MRP* mode - minimal stone displacement during crushing, compared to holmium lasers and with standard pulses.

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.

*Ventimiglia E., et al. (2020) Effect on Temporal Pulse Shape on Urinary Stone Phantom Retropulsion Rate and Ablation Efficiency Using Holmium:YAG and Superpulse Thulium Fiber Lasers. BJU Int. 2020 Jul;126(1):159-167

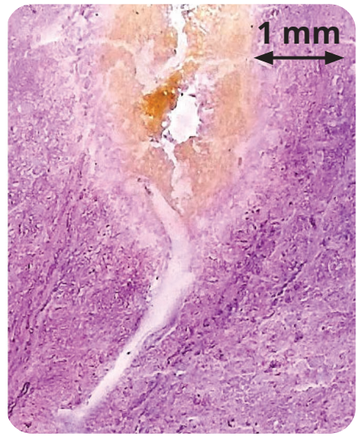
SOFT TISSUES

Two types of enucleation in one device

The **Urolase+ Premium** 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

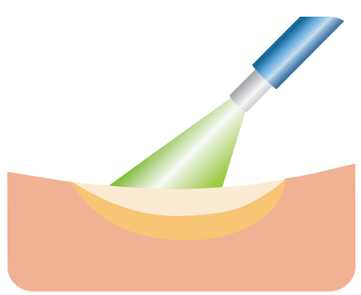


2 Classic thulium fiber enucleation – ThuFLEP

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

Coagulation Mode «Bloodless»

Urolase+ Premium has a unique pulse mode for coagulation. Due to its wide area of action, this mode allows effective coagulation of the postoperative area from a short distance.



ACCESSORIES

New wireless radiation activation pedal

In addition to the wireless connection, it is also possible to connect the pedal by wire, which is included in the kit.

Urolase Cart* Laser Trolley

Technical characteristics

	UROLASE	UROLASE PREMIUM		
Wavelength, µm	1,94		1,94	
Laser type	Tm fiber		Tm fiber	
Operating mode	Pulsed	CW	Pulsed	CW
Maximum power, W	40		70	
Energy in pulse, J	0.02...6	-	0.02...6	-
Frequency, Hz	2000	-	3500	-
Cooling system	Air		Air	
Power supply voltage, V	220±10 %		220±10 %	
Network frequency, Hz	50...60		50...60	
Power consumption, V*A not more than	1600		1600	
Dimensions L*W*H, mm	606 x 526 x 314		606 x 526 x 314	
Weight, kg	45		45	

*Urolase Cart is not included in the basic package of devices

IRE-POLUS

WORLD LEADER
IN LASER INDUSTRY

IRE-Polus is one of the leaders in the field of fiber lasers and amplifiers, as well as devices and systems based on them. Fiber lasers have the highest performance, reliability, and practicality at a lower cost of ownership than other types of lasers.

Relying on professionalism and many years of experience in laser equipment manufacturing, "IRE-Polus" Ltd. sells medical laser devices and surgical fibers for a wide range of applications.

During the development of new medical laser devices, IRE-Polus goes through all stages: not only the device manufacturing, but also creation of methods for its application, conducting both in-vitro researches in its own research laboratories, and clinical research together with the leading clinical centers.

IRE-POLUS LTD.
WWW.VPGLASER.COM

+971 50 764 2603
sales@vpglaser.com

FOUNDED IN
1991

15
CLINICAL CENTERS FOR IN VITRO AND IN VIVO STUDIES

>1 million
PATIENTS HAVE BEEN TREATED WITH IRE-POLUS LASERS IN 2024

>800
MEDICAL LASER SYSTEMS SHIPPED TO RUSSIA SINCE 2024