«SMART» SYSTEMS:

a new generation of

Thulium fiber lasers

UROLASE

UROLASE
PREMIUM

UROLASE

Thulium Fiber

Lithotripsy

40 W

Special

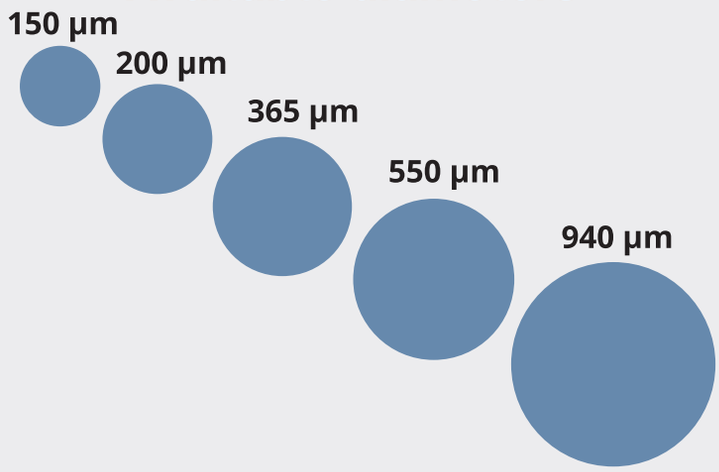
- ✓ **«MRP» mode** –
- ✓ **«Fine»** dusting –
- ✓ **«Ultra»** fragmenation –
- ✗ **«Dissect»** enucleation mode –
- ✗ **«Bloodless»** coagulation mode –
- ✓ **Tissue sensor mode** –

IRE Surgical Fiber

Design options:

• **Single use** • **Multiple use**

Available diameters



One Push Connector

UROLASE PREMIUM

laser «Smart»

Lithotripsy

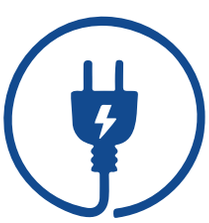
Soft tissues

features

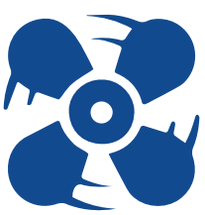
- pulse setting to minimize retropulsion
- ultra-fast fragmentation into micro-fragments
- breaking into large fragments for extraction
- thermo-mechanical dissection of tissues
- the most efficient coagulation mode
- tissue/stone detection

Technical features

Standard network connection



Air-cooling



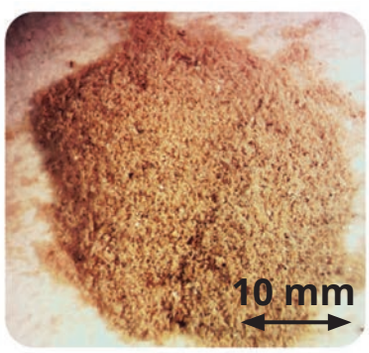
Regular maintenance is not required

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

Modulated pulses

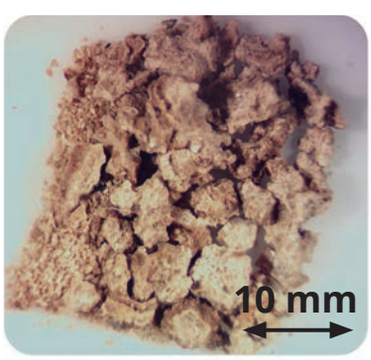
Modulated pulse settings of **Urolase+** and **Urolase+ Premium** laser devices allow lithotripsy in different modes: from crushing «into dust» to breaking into large fragments for lithoextraction and lithoevacuation.

1



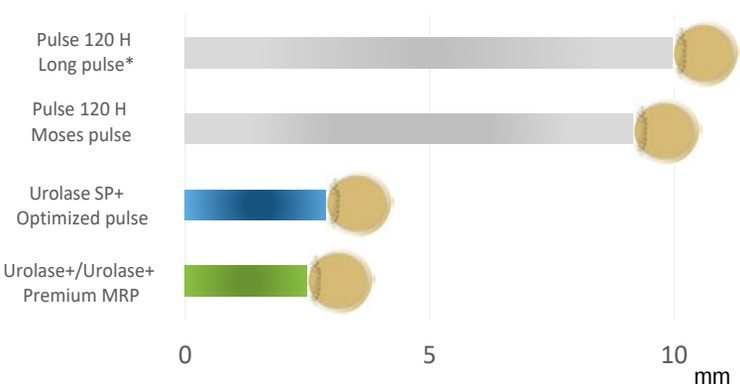
The new **«Fine» dusting** mode allows the surgeon to crush stones into fine dust at high speed.

2



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

3



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

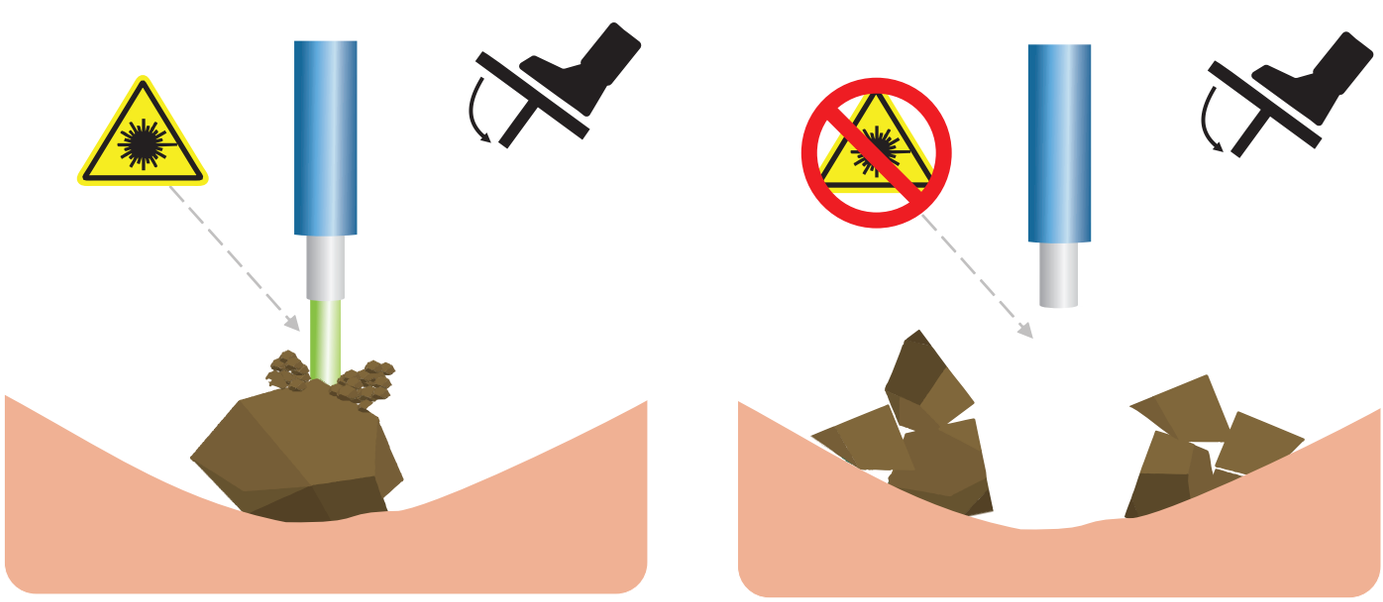
*Ventimiglia E., et al. (2020) Effect on Temporal Pulse Shape on Urinary Stone Phantom Retropulsion Rate and Ablation Efficiency Using Holmium:YAG and Superpulse Thulium Fiber Lasers. BJU Int. 2020 Jul;126(1):159-167

otripsy

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.

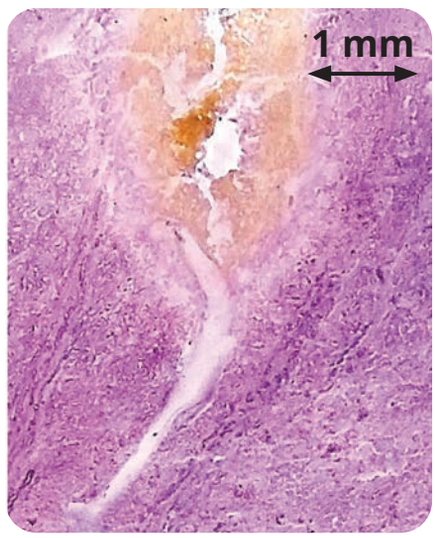
Soft tissues

Two types of enucleation in one device

The **Urolase+ 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

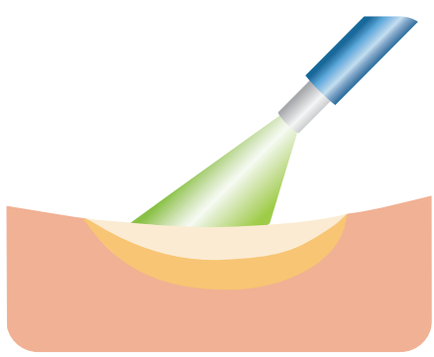


2 Classic thulium fiber enucleation – ThuFLEP

- 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

2 in 1

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

WORLD LEADER
IN THE LASER INDUSTRY

VPG LaserOne LLC (formerly IRE-Polus LLC) is a vertically integrated 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.

VPG LASERONE LLC
www.vpgmeds.com

+971 50 764 2603
sales@vpglaser.com

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