## Urolase PRO Laser System for Urology



#### **NEW PRODUCT**





### Applications

- Thulium fiber laser enucleation of prostate (ThuFLEP)
- Thulium fiber laser vaporization of prostate
- ▶ Incision of the stricture
- Ablation and resection of superficial tumors
- En-bloc resection of bladder tumor
- Upper Tract Urothelial Carcinoma vaporization



#### Features

- $\blacktriangleright$  Combination of two operative wavelengths: 1,94  $\mu m$  and 1,55  $\mu m$
- One operating tool for both wavelengths
- Max output Power is 120 W at wavelength 1,94 μm and 15 W at wavelength 1,55 μm
- > Independent control for each operating emission channel
- Standard operating modes
- Compact and reliable design, light weight
- ► Low residual tissue carbonization for a clean and clearly visible surgical field
- Minimal invasive surgery

- ➤ Ability to always perform the histological exam of enucleated tissue samples
- Shorter treatment time and hospital stay as well as faster functional recovery with a clear improvement in quality of life
- Green pilot laser: provides the best visibility for blood
  saturated ti ssue
- ► Low rate of recurrences
- > 200 μm minimal fiber core diameter
- ► Air-cooling

#### www.vpglaser.com

The Power to Transform®

Urolase PRO- is a versatile and multi-disciplinary system, recommended for a wide range of applications in UROLOGY.

Urolase PRO meets international quality standards for minimal invasive laser surgery.

#### **ADVANTAGES:**

#### HIGH EFFICIENCY

- Emission with unique wavelength 1,94 µm has the same local maximum as water absorption spectrum
- Additional emission with wavelength 1,55 µm is for coagulation

#### HIGH PERFORMANCE

- A wide range of adjustment of the pulse duration and frequency
- High reliability and almost unlimited lifetime of laser sources
- Visibility of green pilot laser's spot is very clear on blood – saturated tissue
- Same fiber is used for both emissions excluding the need to pull out an operating tool to switch between emissions
- No need in regular maintenance

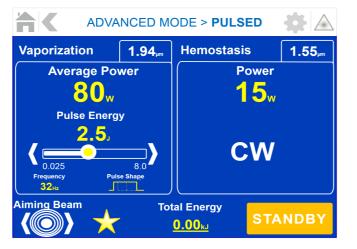
#### USABILITY

- Ability to save user modes
- Intuitive operation with large color graphical user interface
- Touch-screen

#### **EXPOSURE ACCURACY**

- Light and compact laser system that can be easily integrated into endoscope rack
- Small penetration depth of emission into soft tissue guarantees maximal precision
- Fits well with endoscopic impact control technology

#### Intuitive interface



ADVANCED MODE > CW					
Vaporization	<b>1.94</b> µm	Hemostasis 1.55,		,m	
Power 120w		Power 1			
CW		CW			
Aiming Beam	Tot	tal Energy <u>0.00<sub>k</sub>,</u>	STANDB	Y	

#### Thulium fiber laser enucleation prostate (ThuFLEP)

Before



After



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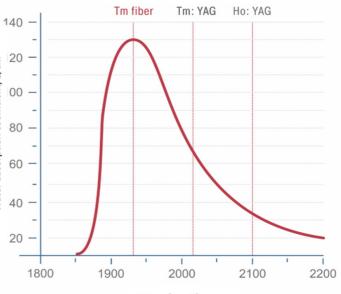
TECHNICAL CHARACTERISTICS			
Wavelength, μm	1.94		1.56
Mode	Pulsed	CW	CW
Max Output Power, W	120	120	15
Pulse Energy, J	0.025 8	-	-
Fiber diameter, μm	2001000		
Frequency, Hz	1 2000		
Cooling	Air		
Voltage and Supply Current, V	220±10		
Supply frequency, Hz	50 60		
Input power, V*A, not more than	1800		
Dimensions, mm	286x460x545		
Weight, kg	38		
References			

1) Enikeev D, et al. (2018) A Randomized Trial Comparing The Learning Curve of 3 Endoscopic Enucleation Techniques (HoLEP, ThuFLEP, and MEP) for BPH Using Mentoring Approach-Initial Results. Urology;121: 51–7.

2) Sorokin N, et al. (2018) PDD-guided thulium fiber laser en-bloc enucleation of bladder tumor. European Urology Supplements;17: e1967. 3) Gu M, et al. (2018) Comparison of Vela and holmium laser enucleation of the prostate: a retrospective clinical trial with a 12-month follow-up. Int Urol Nephrol; 50: 819–23. 4) Enikeev D, et al. (2018) Monopolar versus laser (ThuFLEP, Ho:YAG) endoscopic enucleation of the prostate: A single-center experience. J. Urol;199: e835- e836. 5) Enikeev D, et al. (2018) Impact of endoscopic enucleation of the prostate with thulium fiber laser on the erectile function. BMC Urol;18: 87.



The water absorption level of the 1.94  $\mu m$ wavelength is a 4,5 times higher than Ho:YAG and 2 times higher than Tm:YAG, which makes tissue cutting more effective and precise.



Wavelength, µm



# 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.





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



PATIENTS HAVE BEEN TREATED WITH IPG LASERS IN 2024



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