

# Quantino<sup>®</sup>

The Next Generation Thulium Fiber Laser



## Bringing innovation to life

Biorad Medisys dedicates itself to creating devices that define a new era of healthcare solutions to deliver quality par excellence with cutting edge- technology. Our scientifically driven, meticulously designed devices deliver outstanding results in India & abroad.

With our belief in science for people, we continue our legacy providing premium quality products and equipment from orthopedics, urology, neurology, intervention radiology and gastroenterology.





50+  
Countries



600+  
Employees



5000  
Hospitals



1000  
Business Partners



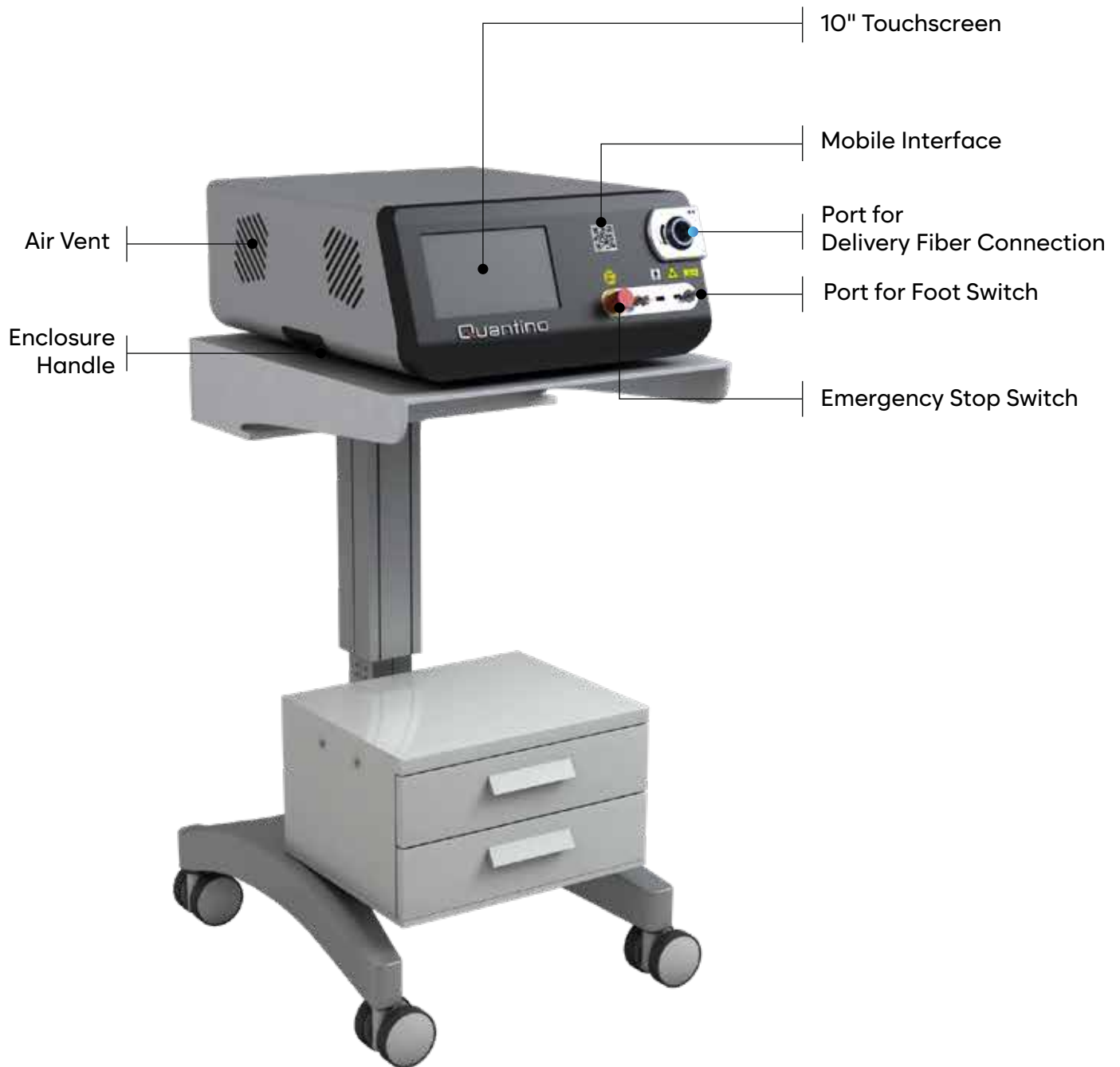
- Quantino is a next-gen Thulium Fiber Laser (TFL) System
- Next Generation TFL technology uses advanced Optics for delivering high power density for Lithotripsy & Soft tissue management.
- In-vitro studies show that TFL outperforms Holmium: YAG laser both with regard to stone ablation rate and reduced stone retropulsion during lithotripsy\*

## Overview

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- Effective Lithotripsy
- Precise Soft Tissue Surgery
- Minimized Retropulsion
- Disposable and Reusable Fibers
- Continuous and Pulsed Emission
- Efficient Thermal Management
- Compact, Light Weight and Portable
- No changes required in infrastructure

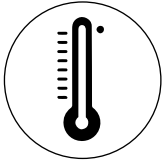
# Super Dust Technology



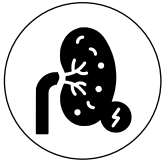
## Double Footswitch

The double footswitch enables immediate toggling between one emission mode & another, saving time with no needed settings readjustment.

# Advantages



**4x Lower Ablation Threshold**  
wavelength (1940 nm) matches  
high-temperature water  
absorption peak in the tissue



**Super Dusting** capability enabling  
Direct In- Scope Suction (DISS)



**Faster Stone Ablation-**  
High pulse rates upto 1000 Hz-  
variable laser pulse length



**Surgical Versatility-** Lithotripsy and  
soft tissue treatments with the  
same device



**Efficient Power Transmission**  
through smaller surgical fibers  
< 270  $\mu$ m single mode beam  
profile



**Compact, Lightweight, and  
Portable-** Air-cooled design  
enables easy moving in OT





The continuous advancement of technology has fueled the pursuit of laser technology that prioritizes both safety and effectiveness. This relentless quest has resulted in the development and refinement of Thulium Fiber Lasers (TFLs), pushing the boundaries of laser technology to new heights.

**Pulsed and Continuous:** Quantino exhibits the versatility to function in both pulsed and continuous emission modes. Its pulsed emission, characterized by higher peak power, facilitates effective stone lithotripsy and more aggressive tissue cutting. On the contrary, the continuous emission mode offers slightly deeper penetration and more controlled tissue interaction.

**Reusable Fiber:** Quantino TFL has been designed in order to enable compatibility with reusable fibers too, without the constraint of using disposable fibers only. This choice allows significant savings with respect to technologies compatible with disposable fibers only.

**Precise Aim and Lasing Operation:** A 520 nm green guide laser enables precision in the aiming and lasing operation



**Enhanced Display:** 10.1" display with a simple user interface

**In-built WiFi mobile interface** allows system controls on the mobile device with the last setting used on the system.

**USB output** for data management

**Reliability:** We are dedicated to delivering laser systems of the highest reliability. Our commitment to quality and precision drives every aspect of our manufacturing process. Our goal is to provide our customers with laser systems they can rely on for consistent and accurate operation

# Lithotripsy

The Next Gen Experience

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## Reduced Retropulsion:

The provision for low energy setting allows the production of finer particles during dusting and reduced stone retropulsion as the stone vibrates rather than recoils during ablation.



## Super Fine Dust:

The TFL technology has demonstrated its effectiveness as an exceptional dusting tool, showcasing remarkable capabilities in stone dusting. Through meticulous settings selection, it offers enhanced dusting abilities, particularly when dealing with soft stones.

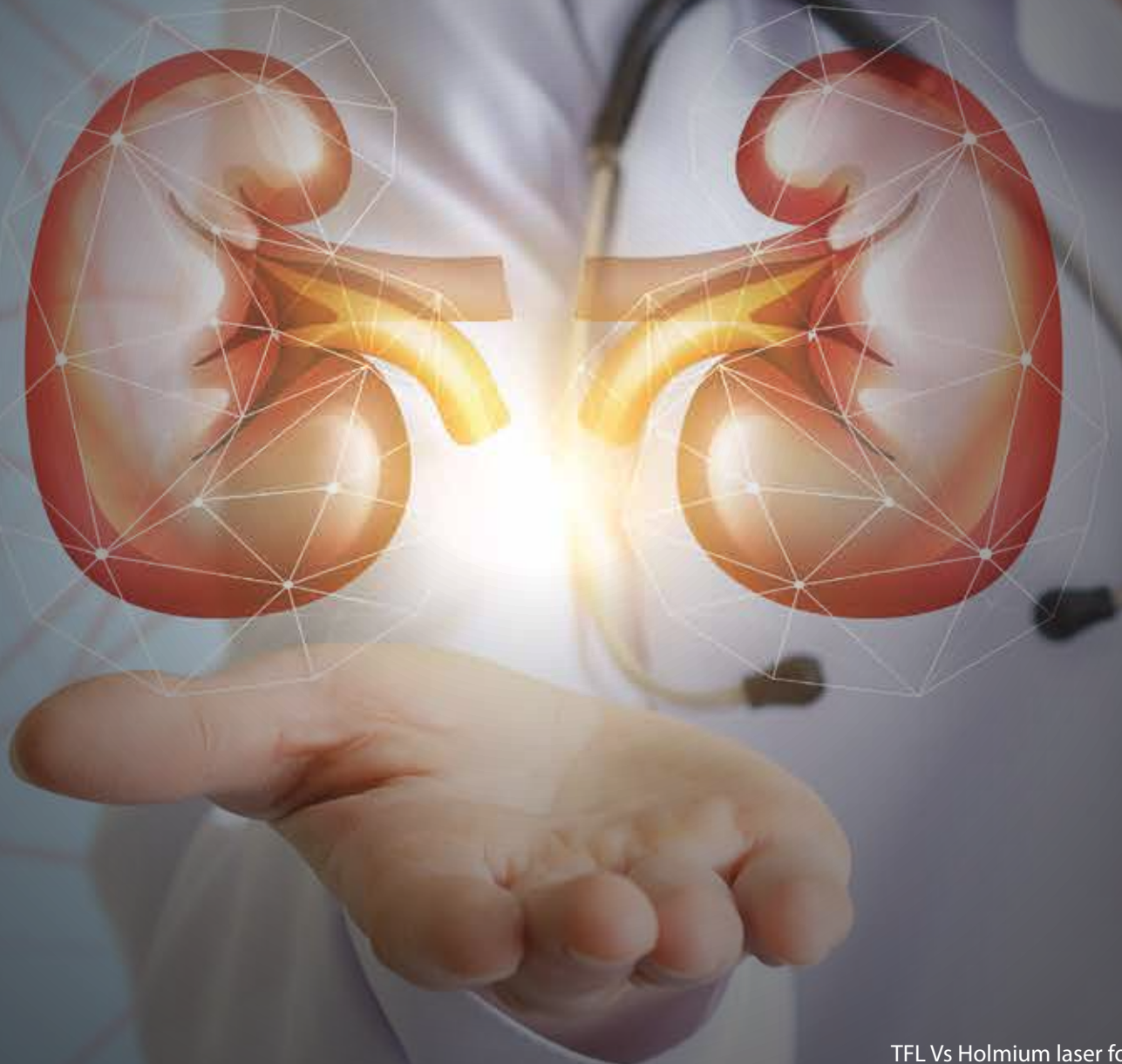


## Superior Beam technology:

Quantino (TFL) can deliver high-power ablative energy through small, more flexible fibers, thus occupying less space in the instrument's working channel while delivering a high-power output, which allows better irrigation as well as larger deflection angles compared to Ho:YAG 2\*\*

\*\*<https://www.sciencedirect.com/science/article/pii/S2214388223000164#:~:text=Conclusion,slightly%20better%20stone%2Dfree%20rates>.





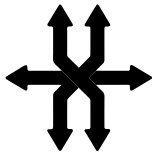
TFL Vs Holmium laser for  
ureteric stone management  
Scan below



# BPH

Precision in soft tissue surgery

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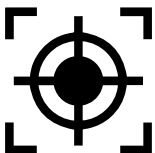
## **Versatility:**

TFL offers the flexibility to adjust settings and parameters, allowing customization based on the specific needs of each patient.



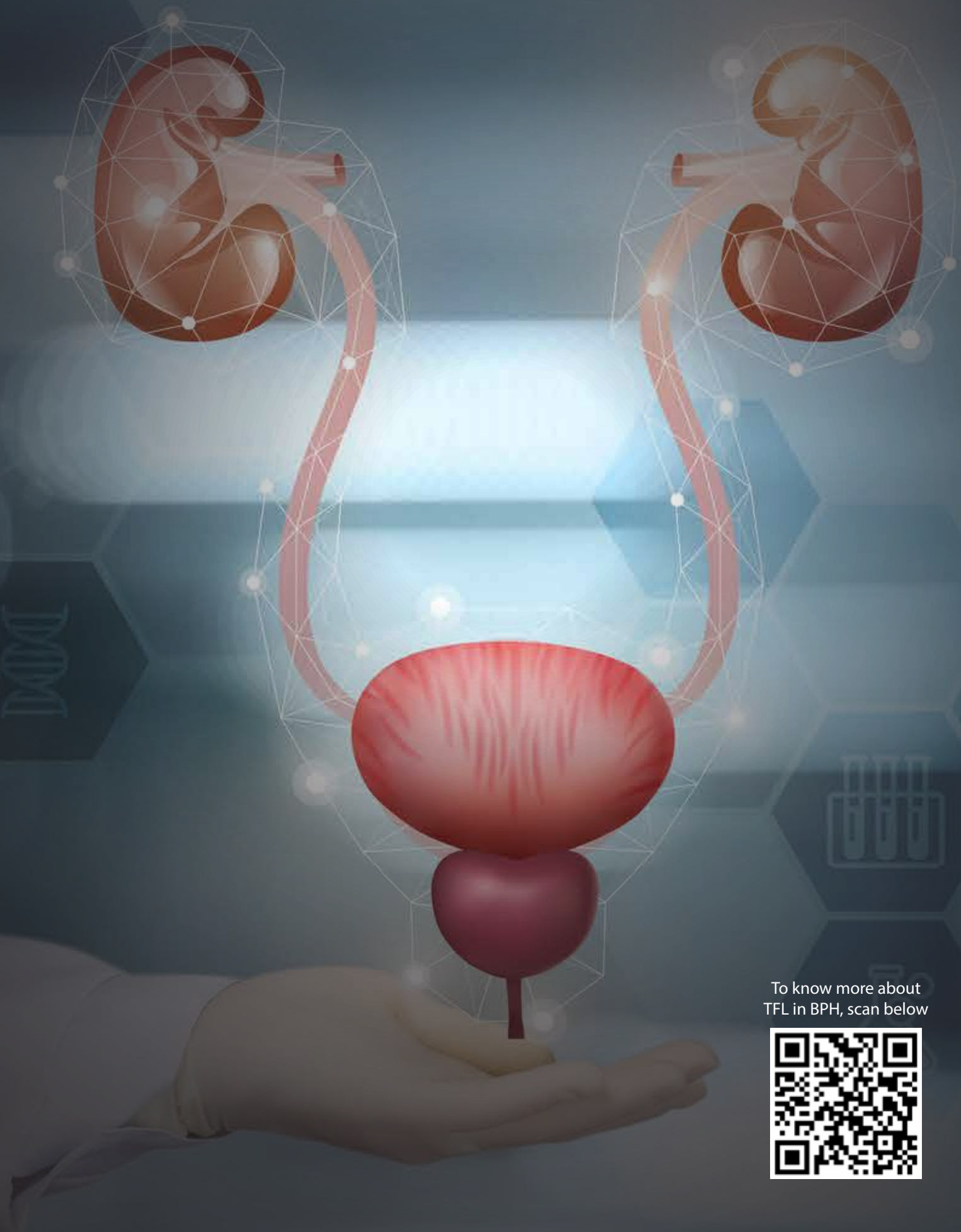
## **Enhanced Hemostasis:**

TFL's coagulation capabilities help control bleeding during the procedure, reducing the risk of complications.



## **Precision:**

TFL enables precise targeting and ablation of excess prostate tissue, minimizing damage to surrounding healthy tissue.



To know more about  
TFL in BPH, scan below



# Wider Applications of Quantino®



## Urology

Urinary Lithotripsy  
and BPH



## Gastroenterology

Biliary/ Bile duct calculi,  
gastric ulcers, hemostasis  
of bleeding lesions



## Gynecology

Intrauterine treatment of  
submucosal fibroids, soft tissue  
excision procedures



## ENT

Tonsillectomy,  
Endonasal/  
sinus surgery



## Thoracic & Pulmonary

Laryngeal lesions. Airway  
obstructions including  
carcinoma



## General Surgery

Biopsy, Hemorrhoids



# Technical Specs

## Electrical Specifications

|                        |               |
|------------------------|---------------|
| Input AC Voltage Range | 90 - 240 V AC |
| Input Ac Current       | Up to 8.5 A   |
| Input Ac Frequency     | 50 Hz - 60 Hz |

## Optical Specifications

|                                |                         |
|--------------------------------|-------------------------|
| Mode of Operation              | Pulsed, Continuous (CW) |
| Central Wavelength             | 1940 $\pm$ 20 nm        |
| Width Emission Spectrum (FWHM) | < 1 nm                  |
| Maximum Power                  | 75 W                    |
| Pulse energy                   | 0.025 - 6 J             |
| Pulse length                   | 0.25 -50 ms             |
| Repetition Rate                | 1-1000 Hz               |
| Long-term Stability            | < 1.0 %                 |
| Beam Quality                   | $M^2 < 1.2$             |
| Laser Safety Class             | IV                      |
| Aiming Beam                    | 520 nm (Green)          |

Disclaimer: The specifications in this brochure are subject to change without prior intimation

TFL in 1 to 2 cm stone size  
Scan below







Manufactured by:

**bioradmedisys**<sup>™</sup>  
science for people

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