



Dornier

THULIO

Experience Peak Performance



Why Thulio®



100 W High Power Advanced Thulium Laser with **RealPulse®** Technology



55% more control*¹ with **CAPTIVE®** MODE

Dornier's fragmenting mode offers virtually no retropulsion

* more control as a result of up to 55% less retropulsion compared to Ho:YAG

7X the **PEAK POWER****²

Driving an enhanced fragmenting experience

** compared to TFL

3X the **SPEED*****

300 Hz frequency and excellent fine dusting capabilities³

*** 300 Hz vs 100 Hz (Ho:YAG)

Our **most compact** 100 W laser for your stone and BPH treatment needs

Embrace Peak Performance



Ergonomic & user-friendly display

- Interact with easy-to-navigate interface supported by the large rotatable touchscreen
- Toggle between pre-selected settings effortlessly with dual footswitch and split-screen function

Powerful & compact laser

- Offers 100 W with the smallest footprint*
- Engineered lightweight and easy to move, with a standard wall plug

*among urology and stone / BPH treatment lasers with 100 W and above

Smart, dual footswitch

- Switch seamlessly from one pre-defined mode to another
- Adjust parameter settings easily with the footswitch





Dornier's **RealPulse®**

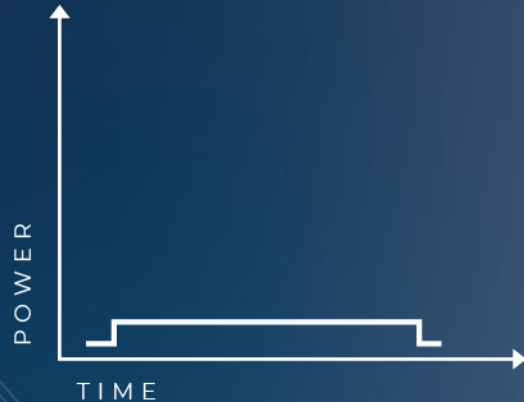
Our new Thulium laser technology



Thulium Laser Evolution

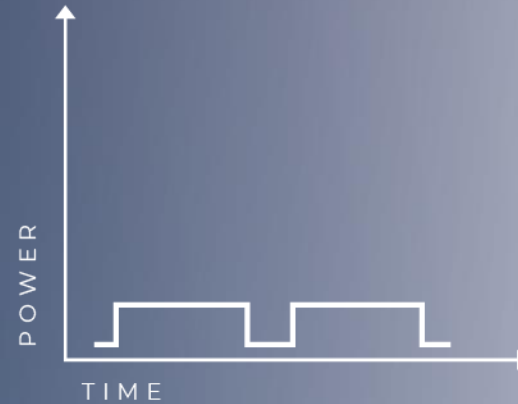


➤ Continuous Wave Tm:YAG



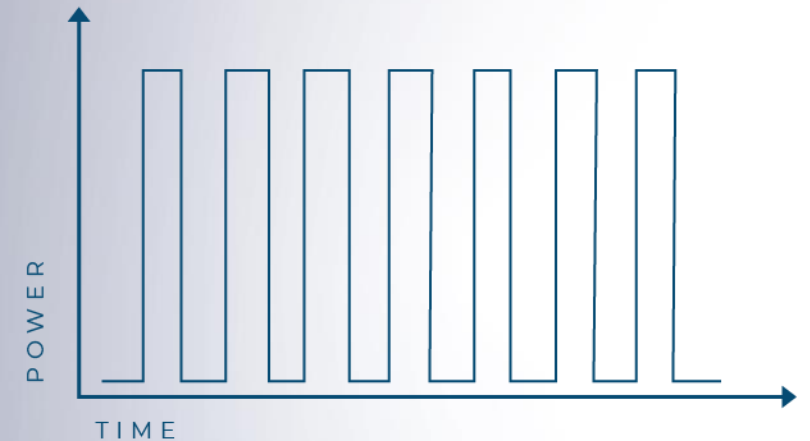
Continuous energy application enables cutting and coagulation performance.

➤ Pulsed Thulium Fiber



Low pulse energies and high frequencies lead to improved dusting performance.

➤ RealPulse® Tm:YAG Laser



Dornier Thulio's RealPulse® technology offers the highest peak power among other Thulium lasers used for stone and BPH management.²

Optimized for dusting, fragmenting and enucleation performance.

The Secret of RealPulse®



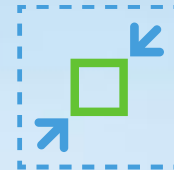
We reimagined Thulium laser technology by integrating the features we love most – peak performance, versatility in clinical application and smart design.

By combining a Tm:YAG crystal with our pulsed diode technology, RealPulse® was invented to offer the best of all worlds.



Reliable and precise

Experience targeted and controlled laser application with our forward-looking pulsed Tm:YAG technology.



Big in power, small in size

With our unique alignment and control of the diodes, we produced a powerful 100 W laser with drastically reduced size.

Developed in-house with our industry-established German engineering, Thulio offers an extensive range of settings (e.g. up to 300 Hz).



Dornier *MedTech*

One laser for your stone and BPH management needs

Full flexibility and choice, with a large variety of laser settings for your treatment needs

The Captive[®] Mode



Virtually no retropulsion for effective stone fragmentation



Captive[®] Fragmenting mode

Scientifically proven to provide up to 55% reduced retropulsion*¹ during fragmentation. The Dornier Captive[®] mode was developed to decrease the stone movement during application - potentially reducing correlating lithotripsy time.

* compared to Ho:YAG



Thulio's Pre-set Application Modes



Empowering smooth procedures

Fragmenting mode



Breaks all types of stones efficiently

Dusting mode



Provides fine and fast dusting capabilities that disintegrate particles in 125 μm and smaller³

Enucleation mode



Thulio's RealPulse[®] technology enables anatomical endoscopic enucleation of the prostate

Soft Tissue mode



Achieves highest ranked coagulation performance^{**4} thanks to Tm:YAG specific water absorption

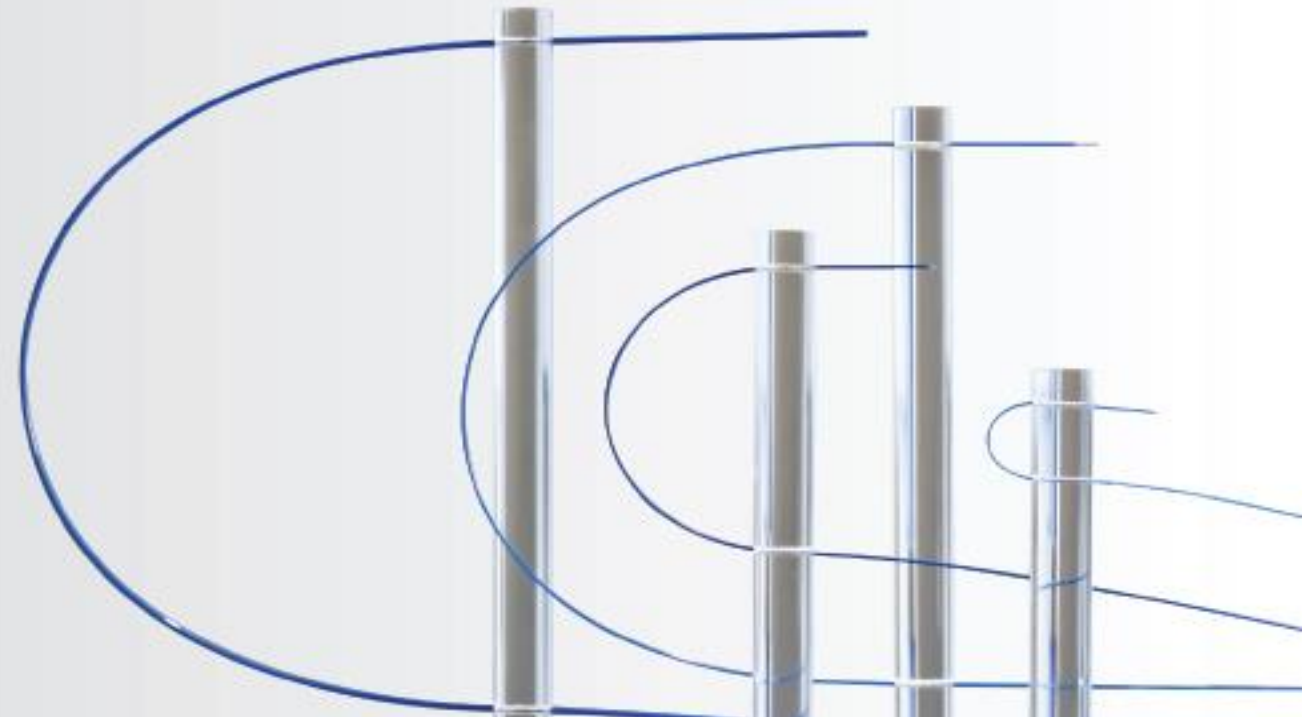
^{**} compared to Ho:YAG and TFL

Dornier Performance FlexFiber Collection



The Dornier Thulio's fiber portfolio is built for ideal energy transmission and performance:

- Single-use fibers to facilitate convenient handling and prevent cross-contamination
- Re-usable fibers designed for reliability and durability
- Sizes ranging from 270 slim μm to 1000 μm to suit your preferences and support you in every application





References:

¹ Petzold, R., Miernik, A., & Suarez-Ibarrola, R. (2021). Retropulsion force in laser lithotripsy—an in vitro study comparing a Holmium device to a novel pulsed solid-state Thulium laser. *World J Urol*, 39(9), 3651–3656. <https://doi.org/10.1007/s00345-021-03668-8>

² Data on file at Dornier MedTech

³ Petzold, R., Miernik, A., & Suarez-Ibarrola, R. (2021). In Vitro Dusting Performance of a New Solid State Thulium Laser Compared to Holmium Laser Lithotripsy. *J Endourol*, 35(2), 221–225. <https://doi.org/10.1089/end.2020.0525>

⁴ Yilmaz, M., Esser, J., Kraft, L. et al. Experimental ex-vivo performance study comparing a novel, pulsed thulium solid-state laser, chopped thulium fibre laser, low and high-power holmium:YAG laser for endoscopic enucleation of the prostate. *World J Urol* 40, 601–606 (2022). <https://doi.org/10.1007/s00345-021-03825-z>

The information contained in this material has been obtained directly from the Dornier Thulio® brochure DMT689-022023-REV B EN.