

MultiPulse Ho	
Laser Source	Ho:YAG
Wavelength	2,100 nm
Emission Mode	Pulsed Wave (PW)
Power	35W with fibers $\geq 272 \mu\text{m}$ 30 W with fibers $\geq 200 \mu\text{m}$
Energy/Pulse	0.5-8.0 J
Repetition Rate	3 - 30 Hz
Pulse Duration	120-1900 $\mu\text{s}$
Operating Temperature Range	10° - 25° C
Rel. Humidity	30% - 75% (no condensation)
Cooling	Air Water
Beam Delivery	Wide Range of Flexible Optical Fiber
Aiming Beam	Laser Diode @532 nm <5 mW, adjustable
Control Panel	7" LCD TFT touchscreen display
Accessories	Fiber handpieces and diverse cannulas Bare Fibers (reusable and single use): HO 200; HO 272; HO 365; HO 400; HO 550; HO 600; HO 800; HO 1000.
Electrical Requirements	115 VAC, 50/60 Hz, 16A 230VAC, 50 Hz, 10A
Dimensions and Weight	45 (H) x 50 (D) x 50 (W) cm - 53 Kg

INSPIRED BY  
**LIGHT**

## MultiPulse Ho

**HOLMIUM:YAG LASER  
FAST AND SAFE WORKSTATION.  
THE GOLD STANDARD  
FOR LITHOTRIPSY.**



**Main Application Fields**  
UROLOGY | GENERAL SURGERY | ENT



**JENA SURGICAL**  
LASER AT YOUR SIDE

## MultiPulse Ho

Find more info about  
MultiPulse Ho



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**JENA SURGICAL**  
LASER AT YOUR SIDE

Find out how surgical applications are faster, more performing and safer with our laser devices.

### Applications

#### UROLOGY

Urinary lithotripsy | Urethrotomy

#### GENERAL SURGERY

Common bile duct stones

#### ENT

Sialolithiasis



This brochure is not intended for the market of USA.

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## MultiPulse Ho

### MultiPulse Ho

# INSPIRED BY LIGHT

**MultiPulse Ho** is a **surgical holmium laser** dedicated to **endourology** with a max power of **35 W**, where competitors are still offering 30 W! **MultiPulse Ho** is the go-to device for **endosurgical laser lithotripsy** for the treatment of urinary tract stones, common bile duct stones and salivary stones (sialolithiasis).

#### UROLOGY - applications

#### Urinary lithotripsy | Urethrotomy

#### Laser Lithotripsy

The **MultiPulse Ho** holmium laser is a perfect lithotripter optimized for pulverization and fragmentation of ureteral, bladder and kidney stones. Effective for the treatment of all types and chemical stones composition, it today represents the optimal solution even for those particularly difficult to reach. Moreover its **higher power of 35 W** allows this system to manage large calculi with **efficient and faster** surgeries.

The **pulsed laser emission**, with a **2100 nm wavelength** highly absorbed by water, transmits **energy** as **shock waves** that produce a **cavitation** effect in the surrounding liquid, causing stone **pulverization** or **fragmentation**, without invasive surgical procedures.

**Lithotripsy** with **MultiPulse Ho** is an excellent alternative to the traditional ESWL (Extracorporeal Shockwave Lithotripsy), as it involves less risk of complications and a higher degree of efficiency and safety, regardless of the stones type to be treated. Compared to other surgical procedures, it features the undeniable advantage of minimizing both bleeding and movement of the stones (retropulsion) during surgery.

The wide range of multiple combinations of frequency and energy enables the urologist to choose the right setting for any treatment. **High frequency and low energy** are used for fast and rough **fragmentation** while **high energy and low frequency** settings allows stones **pulverization** in so small particles that can be expelled with minimal discomfort for the patient.



USER FRIENDLY



## MultiPulse Ho

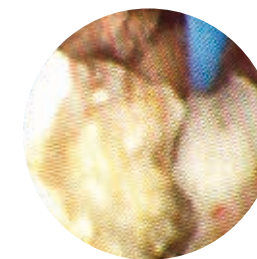
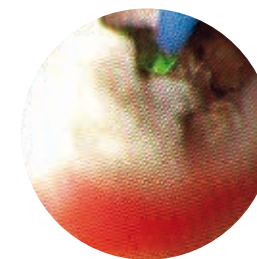
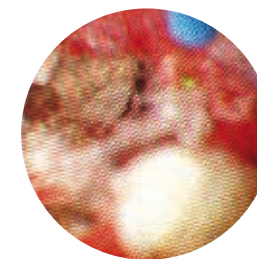
#### Advantages for the surgeon

- Specific for ureteral and kidney stones fragmentation/pulverization
- Effective for all types of stones
- High success rate
- Low percentage of complications
- High peak power and wide power range
- Short learning curve
- Easy to install and operate

#### Advantages for the patient

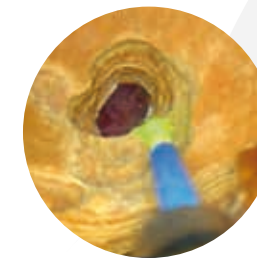
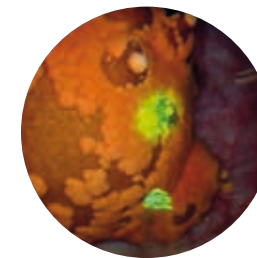
- Minimally invasive surgery
- Immediate relief from symptoms and short recovery time
- Minimal side effects

### Clinical Cases



Retrograde intrarenal surgery for staghorn calculus occurring in the renal pelvis, with branches extending into the medium and inferior calyces. RIRS was performed with flexible ureterorenoscopy and using **MultiPulse Ho** Ho:YAG laser with 200 micron fiber.

*[Courtesy of Prof. M. S. Minervini, M.D. - Head of Urological Division - Hospital of Sondrio, Italy]*



Bladder stone treatment (pulverization and fragmentation) with Holmium Laser **MultiPulse Ho**.

*[Courtesy of S. Piesche, MD - Clinic of Urology and Urological Oncology, Sana Klinikum Hof - Germany]*

#### Urethral Stricture

Treatment of urethral stricture, resulting from spongiofibrosis due to different causes such as inflammation or trauma, can now be quickly and effectively treated with holmium laser urethrotomy using MultiPulse Ho. This minimally invasive and safe procedure is suitable for short urethral strictures as well as for more significant strictures or for the treatment of urethral atresia. The laser ablates damaged tissue with a clean cut, free of bleeding and without penetrating too deeply. This reduces the risk of lateral thermal damage, complications, recurrences or the formation of post-surgery fibrosis, resulting in complete restoration of normal urinary flow.

The **MultiPulse Ho** system is also an excellent tool for ablation procedures, incision and coagulation of soft tissue, providing maximum operating control and minimal damage to adjacent areas. It offers a wide set of applications in surgery for tumors in the bladder, urethra, ureter and kidney.