

# LASER SURGERY MADE ACCESSIBLE



# LASER TECHNOLOGY

of the future in the hands  
of today's surgeon



## TECHNICAL SPECIFICATIONS

CLASSIFICATION	
Directive 93/42/CEE	Medical device class IIb, Rule 9
IEC 60825-1	Class 4
IEC 60601-1-1	Class 1
IEC 60529	IP20
DIMENSIONS (mm)	
CVINTALL TM 120 (L x W x H)	770 x 570 x 1200
WEIGHT (kg)	
CVINTALL TM 120	Max. 150
ELECTRIC SPECIFICATIONS	
Voltage	110 - 230 V (±10%) (Can be adapted to local requirements electric supply)
Max. Amperage	Max 16 A
Frequency	50 Hz (+2Hz/-3Hz)
Max Power	3200 W
LASER	
Active lasing material	Thulium
Wavelength	1940 +/- 3 nm
Laser beam quality	1.05 - 1.10 M <sup>2</sup>
Output power	5-120 W Max. CW / Modulated
Red pilot laser power	0.15 mW
ENVIRONMENTAL CONDITIONS	
Operating temperature	18 - 28 °C
Transportation and storage temperature	10 - 40 °C
Humidity	30-75 % at 25 °C (above dew point)
Other requirements	CVINTALL TM 120 laser device works indoor, away from direct sunlight. It must be kept away from shocks and vibrations.
OPERATING AND MAINTENANCE CONDITIONS	
Mean operating time	6 hours/day
Normal operating time	10 years

CVINTALL TM 120 can be used with a large variety of dedicated re-usable end-firing fibers, with core diameter of 272, 365, 400, 550, 600, 800 and 1000 microns. All necessary accessories are available: hand-pieces, protective glasses, fiber ceramic scissors, fiber strippers.

CVINTALL TM 120 LASER DEVICE IS SUITABLE FOR ALL SOFT TISSUE SURGERY IN OPEN, ENDOSCOPIC, LAPAROSCOPIC AND ROBOTIC PROCEDURES

CVINTALL TM 120 is fully compliant with the essential safety and performance requirements of the **Annex I of the Medical Devices Directive MDD 93/42/CEE.**



## CVINTALL TM 120

The newest and most versatile Thulium laser on the market. Not only for soft surgery, but for urinary stones fragmentation also

## ADVANTAGES

- Laser energy is high focused, very concentrated photonic energy.
- Cvintall TM 120 laser energy at 1940 nm is the best absorbed laser energy in water.
- Perfect vaporization
- Perfect incision
- Perfect excision of soft tissues
- Perfect and instant coagulation

## NO BLEEDING

## FAST RECOVERY

## AFFORDABILITY FOR ALL







## CVINTALL ENTERPRISES

**Cvintall Enterprises** is a high-tech innovative company dedicated to excellence in laser surgery devices. Our mission is to increase the access of patients and urologists to laser procedures by developing, manufacturing and marketing affordable Thulium laser surgical devices.

## CVINTALL TM 120 IS THE NEWEST AND MOST VERSATILE DEVICE ON THE MARKET BY:

- **Wavelength 1940 nm, power 5-120 W with 5W** increments
- Almost **perfect laser beam**
- **Ultimate technology:** Thulium fiber laser instead of obsolete Tm:YAG technology
- **Continuous wave (cw)** for soft tissues and **modulated wave** for urinary stones
- The only **Tm laser dedicated and approved** for lithotripsy
- **Friendly interface** - pre-set optimized operation modes and no more need for complicated settings
- **Revolutionary laser-to-fiber coupler** with exquisite laser energy transmission percentage
- Dedicated end-firing re-usable working fibers



### CVINTALL TM 120 surgical laser device is approved for all soft tissue surgery in:

- urology (prostate, bladder, urethra, ureters, kidneys);
- spinal surgery;
- neurosurgery;
- orthopedics;
- ENT;
- gynecology;
- gastroenterology;
- general surgery;
- pulmonary and cardio-thoracic surgery;
- dermatology
- reconstructive and cosmetic surgery

## BIOLOGICAL EFFECTS

CVINTALL TM 120 delivers laser energy at 1940 nm wavelength, best absorbed in water

### WATER ABSORPTION

The water absorption is **2.5 times higher than for Holmium laser, 10 times higher than green laser and 100 times higher than diode lasers.** As water is largely present in blood and soft tissues this energy is immediately absorbed.

### RESULTS

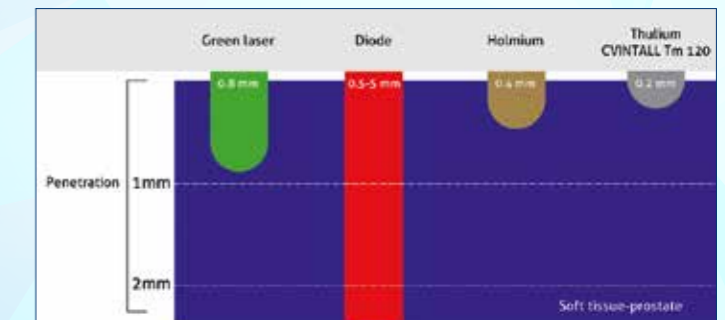
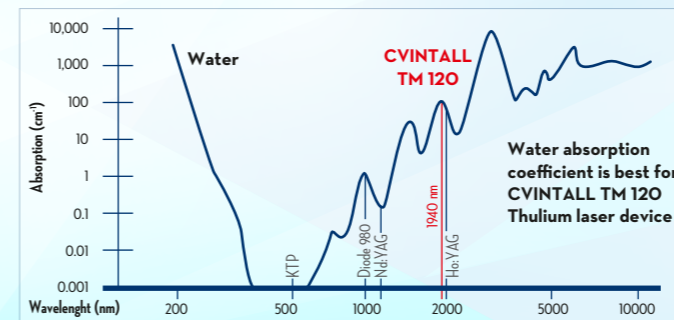
- **Instant and perfect coagulation**
- **Perfect vaporization / cutting / incision / excision of soft tissues** with no deep necrosis.

### PENETRATION

As seen in the picture, **the tissue penetration is just 0.2 mm for the Thulium laser compared to 0.4 mm for Holmium laser, 0.8 mm for Green laser an 5 mm for diode laser.** Therefore, operating with Thulium laser means you get what you see.

### ADVANTAGES

The major risk with deep necrosis is to develop catastrophic fistulae in post-operative days, **such as prostate - rectum fistula. This risk virtually does not exist with CVINTALL TM 120 Thulium laser device.**



## UROLOGY

While operating with CVINTALL TM 120 laser device **there is no blood in the surgical field.** The continuous wave of the **SOFT TISSUE MODE** ensures the surgical field is free from gas bubbles, while in Holmium laser pulsed beam the vision is severely impaired by gas bubbles.

### First and only Thulium laser device approved for urinary stones fragmentation.

When modulated into trains of pulses Thulium laser beam yield a superior fragmentation rate compared even to Holmium laser. CVINTALL TM 120 combines the well-known features of Thulium laser continuous wave (cw) for soft tissue surgery and a **LITHO MODE** with pre-set modulated beam into trains of pulses, optimized for urinary stones fragmentation.

- **Shorter hospital stay** (catheter removed in 24-48 hours).
- **Bloodless surgery**
- **No open surgery for very large prostates**
- **Procedure of choice for patients with anticoagulant therapy.**

- **ThuVAP / ThuVARP / ThuLEP**
- **Bladder neck incision**
- **Bladder tumor en-block resection / vaporization**
- **Urethral strictures incision**
- **Partial nephrectomy**
- **Urinary stones fragmentation**