

Taking care of people, our masterpieces

Cyber TM family

Thulium Surgical Laser System
150W / 200W





CYBER TM *family*

THULIUM SURGICAL LASER SYSTEM 150W / 200W

Cyber TM represents the family of Thulium:YAG laser manufactured by Quanta System and dedicated to applications practiced in open, laparoscopic or endoscopic surgery to perform excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissues.

Cyber TM emits at a wavelength of 2 μ m that is strongly absorbed by water which is highly present in all tissues. For this reason the speed of cutting and vaporization remains relatively constant during the procedures, regardless of tissue vascularization.

The laser beam penetrates only a fraction of a millimeter in the tissue, providing the surgeon with a high degree of control and reducing substantially the risk of inadvertent injury.

Cyber TM, a laser scalpel, is fast, accurate and safe in the hands of surgeon.



BENEFITS FOR THE SURGEON

PRECISION: You will be able to see what you are treating and observe the effect of your work in real time. Observable surgical effects - “what you see is what you get” - with no occurrence of unseen deep tissue effects.

VERSATILITY: The ability to vaporize, resect or ablate tissue as needed. These features in the treatment of BPH allow to choose the surgical technique (enucleation, resection or vaporization) best suited to the size and morphology of the treated prostate.

HIGH SAFETY LEVEL: By allowing the visualization of the treatment area and precise control of the laser delivery, along with a great hemostasis, Cyber TM provides a high level of safety. The high coefficient of absorption in water and the limited coagulation depth reduce the chance of unexpected tissue damage.

CLEAR SURGICAL FIELD: The consistent power delivery of the Cyber TM’s continuous wave mode creates even and clean vaporization or cutting effect which keeps the surgical field clear of bubbles, blood or debris that can impair the surgeon’s vision.

USER FRIENDLINESS: The Cyber TM laser is easy to use with a short learning curve. The double footswitch allows one to use two power outputs dedicated to the ablation/vaporization action and to the coagulation effect.

BPH - Benign Prostatic Hyperplasia

Using the Cyber TM for the BPH procedures, the surgeon can choose to perform:

- **Enucleation**
- **Vapo - Resection**
- **Vapo - Enucleation**
- **Vaporization**

ENUCLEATION (ThuLEP)

The enucleation technique involves the “detachment” of the prostatic obstructive lobes using the endoscopic instrument for the mechanical action, the laser beam to cut/ablate the resistant tissue components or for a quick hemostatic action.

VAPO-ENUCLEATION (ThuVEP)

The Vapo-Enucleation technique uses mainly the laser cutting/vaporization effect instead of the mechanical action. The use of this technique decreases the irritative phenomena and gives advantages in patients with coagulative problems. This technique has a shorter learning curve.

VAPO-RESECTION (ThuVARP)

This technique involves the reduction of obstructive lobes into small pieces (removable endoscopically without the aid of a Morcellator) via laser resection.

VAPORIZATION (ThuVAP)

This procedure involves the reduction of prostate lobes by laser vaporization of obstructive tissue. Thanks to the characteristics of laser vaporization, with Cyber TM you can use optical fibers with side firing or with frontal emission (reusable). Acting on the water component contained in the tissue, vaporization remains constant throughout the procedure, allowing an homogeneous low-depth coagulation (also when using the 200W), a key factor for the reduction of dysuria and other postoperative problems.



BENEFITS TO THE PATIENT

Thanks to the special characteristics of wavelength interaction with the tissue, Cyber TM provides a highly efficient cutting action with an effective coagulative effect.

For patients treated for BPH, deeper coagulation may be a key factor influencing increased dysuria rates and other post-procedural complications. Thulium laser has a very low value of coagulation depth (0.1-0.2 mm) providing great hemostatic effects and extremely limited thermal issues.

These features allow to have a laser procedure with shorter hospital stay, minimal post-operative catheterization time and quick return to a good quality of life.

ABLATION / VAPORIZATION OF TARGETED TISSUE LIMITING THE DAMAGE ON SURROUNDING AREAS

LOWERING THE RISKS INVOLVED IN HEMOSTATIC PROBLEMS

REDUCTION OF THE CATHETERIZATION TIME

In most patients the catheter can be removed within 12 hours after surgery

REDUCTION OF HOSPITALIZATION TIME

In many cases patient discharge occurs within 24 hours after surgery

MINOR RISKS FOR PATIENTS WITH CLOTTING PROBLEMS

Due to its higher hemostatic characteristics the Cyber TM laser system allows greater safety in the treatment of patients undergoing anticoagulation or antiplatelet drug therapy

APPLICATIONS

INTENDED USE

The Cyber TM family and its accessories are intended for use in surgical procedures using open, laparoscopic and endoscopic incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissue in use in medical specialties including: Urology, Gastroenterology, Thoracic and Pulmonary, Gynecology, ENT, Dermatology, Plastic Surgery, General Surgery and Neurology.

UROLOGY

BPH | (ThuVAP - ThuVARP - ThuLEP - ThuVEP)

Tumors of the Upper Urinary Tract - Bladder Tumors - Strictures
Partial Nephrectomy

MULTIDISCIPLINARY APPLICATIONS

Thoracic Surgery - ENT - Neurology - General Surgery

CYBER™ IN BRIEF

Power Output - 150W / 200W

High precision action without affecting the surrounding tissue

Minimal post-operative catheterization time

Reduction of hospitalization time and return to a normal quality of life

Minimal blood loss also for high-risk patients
(ex. anticoagulant therapy)

Multidisciplinary system for minimally invasive surgery

Double footswitch with Ready/Standby switch element

Transparent color of safety goggles

Conservation of Antegrade Ejaculation:

*“Thulium laser enucleation of the prostate is an efficient technique, which is performed with a safe energy source. ThuLEP represents a simple new shift in the endoscopic management of BPH and can be used to treat prostates of any size. This technique improves the scores of questionnaires that are used to assess urinary symptoms and their effect on the QoL in patients. Antegrade ejaculation is mainly conserved in patients who undergo ThuLEP, with good effects on erectile function.”**

* Asian Journal of Andrology (2015)17,1-5

Sexual outcome of patients undergoing Thulium laser enucleation of the prostate for benign prostatic hyperplasia



12" wide color touch screen

Interactive interface with intuitive shortcut to the main function

Smart selection of output settings depending on the operative mode

Save/Load preset for customization of output parameters

The new double footswitch allows the surgeon to control:



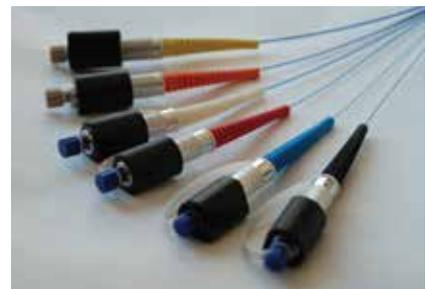
● **Black Button**
Ready/Standby functions

● **Blue Pedal**
Coagulation

● **Yellow Pedal**
Vaporization/Ablation action

OPTIONALS & ACCESSORIES

- Optical fibers with frontal emission
Sterile - Single Use or Reusable
Core diameter from 200 μm to 1000μm
3m long
- Optical fibers with lateral emission
Sterile - Single Use
600μm core diameter
3m long



- Adjustable Stripper for Optical Fibers
- Special Sterilizable Stripper for Optical Fibers
- Ceramic Scissors



TECHNICAL SPECIFICATIONS

Wavelength	2010 nm
Laser Class	4 (IEC/EN 60825-1:2007)
Power	Up to 200 W depending on each local clearance
Power setting	Up to 200 W in 1, 2, 5 W increment steps
Treatment mode	Continuous wave or pulsed (min 5 ms - up to 100 Hz)
Beam delivery	Wide range of flexible silica frontal and side-firing fibers
Aiming beam	Red (650nm) or green (532nm) on choice, (adjustable <5 mW) - Class 3R
Electrical requirements	230/208 Vac, single phase; 50/60 Hz; 16/18A
Cooling	Air cooled (closed water-air cooling circuit)
Noise level	Less than 58 dBA
Operating temperature	10°C - 30°C
Humidity	30% - 90% - Non condensing
Dimensions	21.6 in/55 cm (W) x 29.5 in/75 cm (D) x 43.3 in/110 cm (H)
Weight	440 lbs. 200 kg



Only for 208 Vac Version



Only for 230 Vac Version



Note: National local authorities may put restrictions to the parameters indicated in the above table, or may limit or remove certain intended uses. Specifications are subject to change without notice.

Quanta System products are manufactured according to the International standards and have been cleared by the most important International notified bodies. The Company is EN ISO 9001:2008 and EN ISO 13485:2012 certified. Quanta System S.p.A. was founded in 1985 and belongs to the EI. En. Group (a public company listed in the Star segment of the Italian Stock Exchange) since January 2004. The company, divided into three business units (medical, scientific and industrial) is specialized in manufacturing of laser and opto-electronic devices.

