

PRODUCT PORTFOLIO

„LASER FOR SURGERY“

JENA SURGICAL
LASER AT YOUR SIDE

ABOUT US

ABOUT ASCLEPION

Asclepion Laser Technologies has been a leader in international medical laser technology since 1977. With its headquarter in Jena, the cradle of the optical industry, and the steady development of new technologies, Asclepion Laser Technologies has developed into an outstanding company in the optical industry. Today, more than 70 countries trust the 'Made in Germany' technology and the industry experience of Asclepion.

A PIONEER IN RESEARCH AND DEVELOPMENT

In addition to lasers for aesthetic medicine, Asclepion offers laser systems for general and precision microsurgery under the brand name 'JenaSurgical®' and can already look back on 30 years of experience in the surgical laser development field. In the 1980s and 90s, the first Nd:YAG and Ho:YAG lasers were developed, followed by devices based on CO₂ and diode lasers. Development on the subsequent JENLAS MED 100 began in 1987 – a Nd:YAG laser with a maximum of 100 watts. This was followed only a few years later by ERGOLAS, also known as the world's first surgical combination laser (Nd:YAG and Ho:YAG), and AXYON, also a 100 Watt Nd:YAG laser.

A CUSTOMER-DRIVEN CORPORATE PHILOSOPHY

Our customers and distributors are offered a variety of products and services to support them in all project phases and to also accompany them after their purchase. As a contact for all questions on the application and technology, JenaSurgical® has a highly specialised technical service department as well as the ACADEMY training centre at its disposal.



- 1990 JENLAS MED 100
- 1994 JENLAS MED 60
- 1996 ERGOLAS
- 1996 AXYON
- 1998 MultiPulse CO₂ Laser
- 2004 MultiStar CO₂ Laser
- 2012 MultiPulse Tm+1470
- 2012 MultiPulse HoPLUS 110 W
- 2013 QuadroStarPRO^{940/980}
- 2013 MultiPulse Ho 30 W
- 2014 SmartXide²
- 2016 MultiPulse HoPLUS 140 W
- 2016 MultiPulse Ho 35 W
- 2018 MultiPulse PRO CO₂ Laser
- 2019 MultiPulse HoPLUS 150 W (Single Phase)

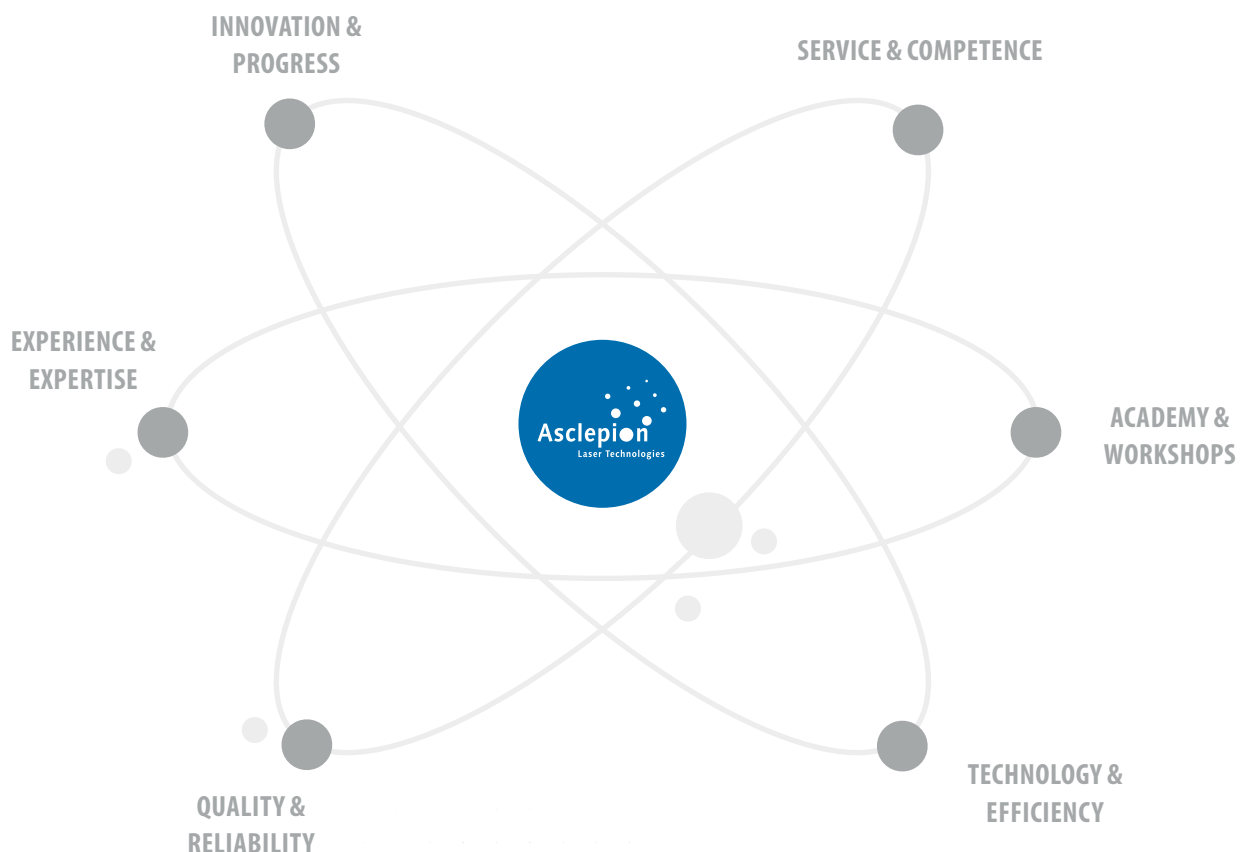


PHILOSOPHY

JENASURGICAL – YOUR COMPETENT PARTNER

First-class technology is JenaSurgical's greatest strength and, at the same time, the basis for the development of solutions that deliver the best results and the highest reliability in clinical use. The active collaboration with researchers from German universities and industries is an important source of innovation and progress. Surgical lasers are used for state-of-the-art

applications in urology, gynaecology, oncology and ENT medicine. In doing so, JenaSurgical® focuses on solutions that are developed with interdisciplinary competence on the basis of the company's in-house technology and offers not only holmium, thulium and diode lasers but also CO₂ lasers in its extensive product portfolio.



FORERUNNER OF TECHNOLOGICAL PROGRESS IN SURGERY WITH INNOVATION AND POWER

JenaSurgical® has many years of experience in the development and sale of laser systems for surgical applications and supports surgeons all over the world with laser systems that offer reliability, accuracy and precision.

PRECISION, SPEED AND DEPENDABILITY IN ONE DEVICE

Only a hummingbird flies with the highest precision, no heart beats faster and no one aims for a target more safely and accurately. If you look at its beak, you can see that it resembles a fibre, its heartbeat stands for the laser frequency, and its precision and dependability remind you of the durability and safety of our lasers.

CONTINUOUS INNOVATION AND IMPROVEMENT

are the requirements of a constantly evolving sector. The experience and expertise of the interdisciplinary JenaSurgical® team of doctors and engineers with the production capacities of the large companies make these requirements easier to achieve.

QUALITY AND RELIABILITY ARE OUR TOP PRIORITY

In addition to its extensive product portfolio, JenaSurgical® offers a fast and qualified service department – employees who are well trained and competent with a problem-solving aptitude. Customers can always rely on having a global support network with first-class technology and efficiency by their side to help them solve problems.

ACADEMY

The 'JenaSurgical ACADEMY' is an initiative of Asclepion, which offers international workshops for companies and physicians in-house or in accredited clinics under the guidance of experts.

Regularly organized events have been held with people from all over the world taking part. Experts use these events to present our high quality technologies. The contribution of both qualified speakers and practical exercises give the opportunity to find out more about our innovative systems.





PORTFOLIO

JenaSurgical® offers the widest range of laser sources worldwide, including holmium, thulium, CO₂ and diode lasers that fulfill the demands of various surgery fields. Particularly designed for surgery, our technologies

cover a wide range of applications: from laryngopharyngeal microsurgery, prostate enucleation, stone removal by lithotripsy to tumor excision, gynecological surgery as well as general surgery.





PRODUCTS

MULTIPULSE HOPLUS

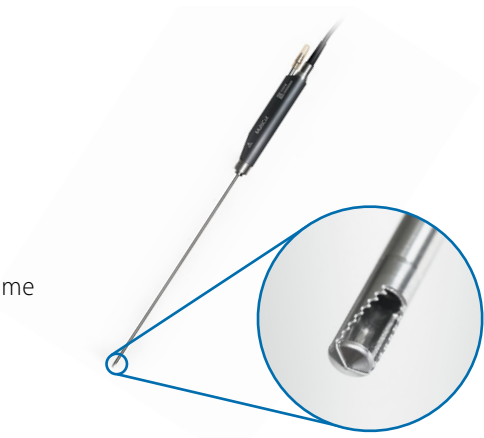
POWER IN YOUR HANDS

The MultiPulse HoPLUS is a high-performance holmium laser system which is characterised by high level of flexibility and efficiency. Ideal for both, surgical treatment of benign prostatic hyperplasia (BPH) and endoscopic treatments for lithotripsy it is highly recommended for long-lasting procedures requiring high power thanks to its laser source reaching 150 W.



FEATURES

- High power laser
- High pulse repetition rate
- High versatility in endourology
- Fast vaporization and cutting with excellent haemostasis
- Ability to perform the histopathological examination of enucleated tissue samples at any time
- Morcellator as an optional accessory



UROLOGY – APPLICATIONS

The MultiPulse HoPLUS offers a wide range of applications, from the treatment of strictures (urethrotomy) to bladder neck incisions. The holmium laser is universally recognised as the

standard in endoscopic lithotripsy for stone fragmentation and pulverisation, regardless of its composition and anatomical location (also for gallstones and sialolithiasis).

SPECIFICATIONS

- Laser source: Ho:YAG
- Wavelength: 2,100 nm
- Power: Max. 150 W
- Frequency: Max. 100 Hz
- Pulse energy: max. 6 J
- Different device configurations possible

MULTIPULSE HO

INSPIRED BY LIGHT

The MultiPulse Ho is a surgical holmium laser for endourology with a maximum power of 35 watts. The MultiPulse Ho is the go-to device for endosurgical laser lithotripsy for the treatment of ureter stones and common bile duct stones.



FEATURES

- Especially for ureteral and kidney stone fragmentation/pulverisation
- Effective in eliminating numerous types of stones
- High success rate and a low risk of complications
- High peak power and a broad power range

UROLOGY – APPLICATIONS

The MultiPulse Ho is a perfect lithotripter optimised for the pulverisation and fragmentation of ureteral, bladder and kidney stones. Lithotripsy with the MultiPulse Ho is thus an excellent alternative to traditional ESWL (extra-

corporeal shock wave lithotripsy) as there is a lower risk of complications as well as a higher level of efficiency and safety, regardless of the type of stone to be treated.

SPECIFICATIONS

- Laser source: Ho:YAG
- Wavelength: 2,100 nm
- Power: Max. 35 W
- Frequency: Max. 30 Hz
- Pulse energy: max. 8 J

PRODUCTS

SMARTXIDE²

AGILE AND ACCURATE

JenaSurgical® introduces the SmartXide² – a 10,600 nm CO₂ laser with a maximum power of 80 watts. These are regarded as a minimally invasive, efficient and scientifically recognised surgical tool.

All SmartXide² can optionally be equipped with a diode. The flexibility and simple operation of the diode laser with the speed and precision of the CO₂ laser makes the SmartXide² a unique system all over the world.

FEATURES

- Extensive range of accessories: HiScan Surgical Scanner, Hybrid EasySpot Micromanipulator, EndoScan Scanner, wide range of surgical handpieces
- Diode and CO₂ RF laser source with PSD® technology: The CO₂ RF laser source with PSD® allows the pulse to be adjusted – from CW to pulsed emission with Ultimate Pulse.

APPLICATIONS

The SmartXide² is a versatile and powerful partner for the surgeon thanks to the automated cutting and ablation techniques. In addition to ENT and microsurgery, the SmartXide² is also used in gynaecology, such as gynaecolog-

ical colposcopy or laparoscopy. The SmartXide² is also a scientifically recognised tool in neurosurgery (e.g. acoustic neuroma, meningioma) and general surgery.

SPECIFICATIONS

- | | |
|--|-------------------------------------|
| • Laser source: CO ₂ RF-PSD | • Frequency: Max. 30 Hz |
| • Wavelength: 10,600 nm | • Emission mode: CW, Smart Pulse, |
| • Power: Max. 80 W | D Pulse, High Pulse, Ultimate Pulse |



MULTIPULSE PRO

BORN TO SIMPLIFY

JenaSurgical® introduces the MultiPulse PRO series – a range of surgical CO₂ lasers with 60 Watt or 40 Watt maximum power during continuous operation. CO₂ lasers such as the MultiPulse PRO are known as a minimally invasive, efficient and scientifically recognised surgical tool.

The MultiPulse PRO offers the surgeon the right accessory to suit all of his or her needs. Various handpieces and scanners enable individual treatment tailored to the patient.

FEATURES

- Extensive range of accessories: HiScan Surgical Scanner, Hybrid EasySpot Micromanipulator, EndoScan Scanner, wide range of surgical handpieces
- Modifiable scan forms: various cutting and ablation patterns
- Control the ablation depth, scan speed and degree of coagulation
- Special protocols for ENT and gynaecology

APPLICATIONS

Thanks to the scanner-assisted, robot-assisted MultiPulse PRO, the laser system is not only used in transoral laser microsurgery such as oncological surgery and phonosurgery, but also in endonasal

surgery. The CO₂ laser is also a common tool in gynaecological colposcopy (e.g. dysplasia of the lower genital tract) and general surgery.

SPECIFICATIONS

- Laser source: CO₂ RF-PSD
- Wavelength: 10,600 nm
- Power: Max. 60 W
- Emission mode: CW, Ultimated Pulse, Smart Pulse, D Pulse, High Pulse



PRODUCTS

MULTIPULSE TM+1470

PERFORMANCE FROM THE START

The MultiPulse Tm+1470 is the only laser system that combines a 1,940 nm thulium laser of the latest generation with a 1,470 nm Raman laser (maximum power 120 watts + 30 watts). A 1,470 nm Raman laser is integrated into the MultiPulse Tm+1470 to attain a significant coagulation effect. Its wavelength can then be combined with that of thulium in the same fibre.

FEATURES

- Unique combination of two wavelengths: 1,940 nm and 1,470 nm
- Low residual tissue carbonization for a clean and clearly visible surgical field
- Pedal control for perfect wavelength modulation without turning away from the operating field and without changing the fibre
- Possibility to perform a histopathological examination



UROLOGY / GENERAL SURGERY – APPLICATIONS

The MultiPulse Tm+1470 is a versatile and multidisciplinary system recommended for a wide range of applications in urology and general surgery. This laser system is used for prostate enucleation (BPH

treatment) with the ThuLEP technique. It is also a recognised tool in urethrotomy, the excision of urethral, bladder and urethral tumours, and partial nephrectomy in open and laparoscopic surgery.

The thulium laser is a surgical instrument for tissue resectioning, for example during open, laparoscopic and endoscopic surgery, including

incision, excision, resection, ablation, vaporisation, coagulation and haemostasis.

SPECIFICATIONS

- | | |
|---|------------------------------------|
| • Laser source: Tm:YAG / Raman module | • Power: up to 120 W (at 1,940 nm) |
| • Wavelength: 1,940 nm + 1,470 nm (simultaneously, via fibre) | – up to 30 W (at 1,470 nm) |
| | • Frequency: CW up to 1,000 Hz |

QUADROSTAR PRO

SMART AND RELIABLE AT ONCE

The QuadroStarPRO is a table-top diode laser system with a compact, ergonomic design designed for phlebology and endovascular laser treatments, but its versatility also makes it ideal for many other endosurgical applications.

The diode, which is available in two different versions with different wavelengths (980 or 940 nm), can be used in continuous wave and pulsed mode. It allows fast and safe cuts and resections with excellent coagulation and haemostasis.



FEATURES

- Ergonomic, compact and lightweight table-top device
- Extensive range of accessories, available in different wavelengths: 940 or 980 nm
- Large selection of flexible quartz/quartz fibres for beam control
- Safe, gentle and fast surgical interventions with excellent clinical results

APPLICATIONS

The QuadroStarPRO is suitable for a variety of surgical applications which necessitate cutting, coagulation, resectioning and haemostasis. The endovenous laser therapy (EVLT) is one of the

most recommended methods for the treatment of varicose veins due to its efficiency and limited side effects. The QuadroStarPRO is also used in endonasal surgery.

SPECIFICATIONS

- | | |
|-----------------------------|---------------------------|
| • Laser source: Diode | • Power: 30 W |
| • Wavelength: 940 or 980 nm | • Frequency: up to 100 Hz |



JENA SURGICAL

LASER AT YOUR SIDE

MADE IN GERMANY
ALWAYS THE LATEST PRODUCT INFORMATION



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