

AGILE AND ACCURATE



SmartXide²

**CO₂ + DIODE LASER MICROSURGERY:
THE ONLY WORKSTATION
COMBINING CO₂ AND DIODE
FOR MINI-INVASIVE APPLICATIONS.**



Main Application Fields

ENT MICROSURGERY & SURGERY |
GYNECOLOGICAL COLPOSCOPY & LAPAROSCOPY |
NEUROSURGERY | GENERAL SURGERY

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JenaSurgical introduces the **SmartXide²** - a 10,600 nm **carbon dioxide (CO₂) laser** device with a maximum power of 80 W. It is recognized as being minimally invasive, highly effective and scientifically proven with regards to surgery and microsurgery. All **SmartXide²** models can be fitted (optionally) with a diode laser source.

Application fields

ENT MICROSURGERY & SURGERY | GYNECOLOGICAL COLPOSCOPY & LAPAROSCOPY | NEUROSURGERY | GENERAL SURGERY

Automated cutting and ablating techniques make **SmartXide²** a powerful ally for surgeons.

- Diode and CO₂ RF laser source with **PSD®(Pulse Shape Design) Technology**
The CO₂ RF laser source with PSD® allows complete pulses modulation, going from continuous emission (cw) to pulsed emission with extreme characteristics (U-Pulse).
- High precision scanning systems (HiScan Surgical and EndoScan)
The **SmartXide²** can be equipped with different scanning units that can be connected to the articulated arm and that provide high performance in specific fields. The scanning units are the **“HiScan Surgical”** for microsurgery applications and the **“Endoscan”** for endoscopic surgical and microsurgical applications.
- Micromanipulator with exclusive Hybrid Technology
The micromanipulator **EasySpot with Hybrid technology** is for perfect focusing of the CO₂ laser beam and joystick control of all major scanner functions. It is thus possible to manually set the ablation area shape, size, rotation and to change between Scan-ON/Scan-OFF modes, without having to look up from the operating microscope.



SmartXide² Accessories

HiScan Surgical

One of the most precise instrument for ensuring a well- defined, uniform and controlled laser ablation.



Max. Scanning Area
Dwell Time
Selectable Ablation Depth
Scanning Modes
Scanning Shapes

6.3 mm @ 400 mm EFL
From 100 us to 45 ms
From 0.2 to 2 mm
Power Mode and Depth Mode
Line, arc of a circle up to complete the circle, spiral, hexagon (with normal and interlaced scan mode), ellipsoid motion on a circular surface
Continuous Wave (cw) - Ultimate Pulse (UP)
ENT, Gynecology, Neurosurgery

Emission Mode
Application Fields

Micromanipulator EasySpot Hybrid

One of the best optical system that ensures a perfect focusing match between the guide beam and the CO₂ laser. It is adaptable to the most common surgical microscopes and colposcopes.



Optical Technology
Spot Size
Operative Field @ 400 mm EFL
Joystick Controls

Hybrid - Holographic and mirrors
Min 140 µm - Max 4.5 mm
Min 20 x 18 mm - Max 55 x 40 mm
Rotation and ablation shape dimension, Scan-ON/Scan-OFF, centering fine tuning
ENT, Gynecology, Neurosurgery

Application Fields

EndoScan

The scanner system for laparoscopic gynaecological surgery and general surgery.



Optical Technology
Dwell Time
Scanning Shapes
Emission Modes
Application Fields

5mm @ 300 mm EFL; 6.3 mm @ 400 mm
From 100 µs to 1000 µs
Point (CutMode), Circle, Clover
Continuous Wave (cw) - Ultimate Pulse (UP)
ENT, Gynecology, General Surgery

SmartXide ² CO ₂ Laser	
Model	C60/C60H - C80/C80H
Laser Source	CO ₂ RF-PSD
Wavelength	10,600 nm
Emission Shape	TEM ₀₀
Emission Mode	Continuous Wave (cw) - Smart Pulse (SP) - DEKA Pulse (DP) - High Pulse (HP) - Ultimate Pulse (UP)
Power	cw: 0.5 W to 70 W (C80/C80H); to 60 W (C60/C60H) UP: 0.5 W to 80 W (C80/C80H); from 0.5 W to 60 W (C60/C60H) SP: 0.1 W to 15 W (C80/C80H and C60/C60H) DP: 0.2 W to 15 W (C80/C80H and C60/C60H) HP: 0.1 W to 15 W (C80/C80H); up to 8 W (C60/C60H)
Emission Time	From 0.01 to 0.9 sec
Delay Emission Time	From 0.3 to 5 sec
Beam Delivery	Articulated arm with 7 mirrors and counterweight
Aiming Beam	Laser Diode @ 635 nm - 4 mW - Adjustable intensity from 2 % to 100 % - Aiming light OFF and OFF while lasering (DOWL)
User database Lines	About 150 factory-stored protocols, upgradable by USB. Possibility of storing unlimited number of custom user protocols
Control Panel	10.4" LCD color touchscreen
Electrical Requirements	From 100 to 120 VAC - 50/60 Hz. From 220 to 230 VAC - 50 Hz - 16 A
Dimensions and Weight	162 (H) x 56 (D) x 59 (W) cm - 95 kg for C60 and C80 192 (H) x 56 (D) x 59 (W) cm - 100 kg for C60H and C80H

SmartXide ² Diode Laser	
Wavelength	940 or 980 nm
CW Power	30 - 50 W
Operating Modes	Continuous Wave (cw) - Pulsed Wave (pw)
Exposure Modes	Continuous, single pulse, burst or repeated burst
Emission Time in pw (Ton)	5 ms to 2000 ms
Delay Emission Time in pw (Toff)	5 ms to 2000 ms
Burst pulses in pw	2 to 50
Delay between bursts	0.5 to 5 sec
Beam Delivery	Bare Fiber 200 µm Bare Fiber 300 µm Bare Fiber 400 µm Bare Fiber 500 µm Bare Fiber 600 µm

SmartXIDE²

Find more info about
SmartXide²



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JENA SURGICAL
LASER AT YOUR SIDE

The flexibility and user-friendliness of the Diode laser combined with the speed and precision of the CO₂ laser makes the SmartXide² a unique system worldwide.

Applications

ENT

Transoral laser microsurgery (e.g. surgical oncology and phonosurgery)
Middle ear surgery
Endonasal surgery

GYNECOLOGY

Colposcopy (e.g. dysplasia of lower genital tract)
Gynecological laparoscopy (e.g. endometriosis and infertility surgery)

NEUROSURGERY

(e.g. acoustic neuromas and meningiomas)

GENERAL SURGERY



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