SmartXIDE² TRIO

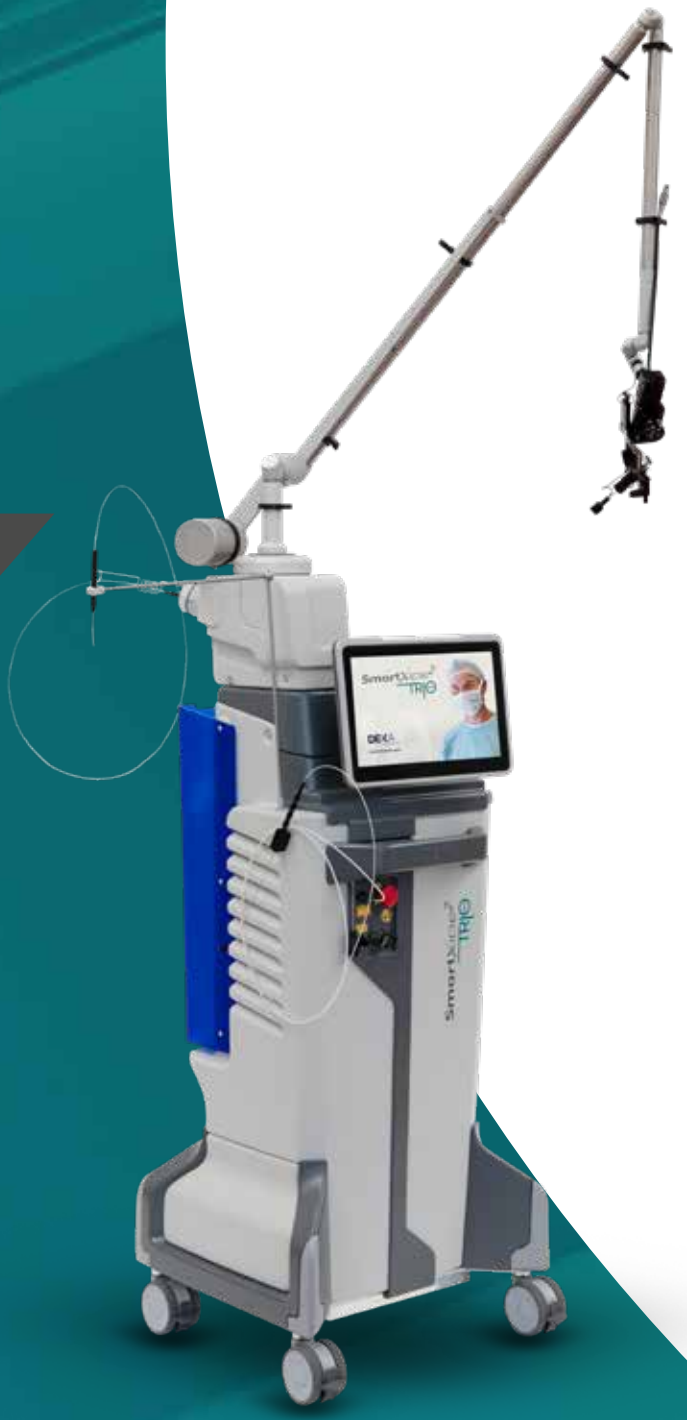
The only THREE IN ONE GYN Laser Platform

DEKA Surgical

SmartXIDE² TRIO

Unique, TRIO

The accuracy of scanner-assisted CO_2 laser
and the flexibility of CO_2 and diode lasers



DEKA Surgical

SmartXIDE2 TRIO

DEKA Surgical

CO_2 Laser

Articulated Arm

CO_2 Laser

Hollow Fibre

Diode Laser Module

Fibre

SmartXIDE² TRIO

CO_2 Laser Hollow Fibre

To get to the most difficult-to-reach areas.

Diode Laser

An additional wavelength (980 nm) to expand the range of available procedures.

CO_2 Laser Articulated Arm

The SmartXide² Trio RF-excited CO_2 Laser source offers high power and speed of action.
The newest PSD® (Pulse Shape Design) technology, utilizing both of these features, generates variable peak pulses with different structure, duration and power to adapt to the various clinical conditions. This makes the SmartXide² Trio CO_2 laser systems extremely versatile for the various surgical applications, especially for GYN surgery. U-PULSE ("Ultrapulsed" - Fig. B) and "Real CW" pulses are the most commonly used in this kind of surgery.

U-Pulse is the perfect pulse for GYN microsurgery because a massive energy is supplied in microseconds, ensuring a perfect ablation without tissue carbonisation.

CO_2 laser sources produce greater energy above the ablation threshold (red colour) compared to continuous-supply excited CO_2 lasers, and at comparable pulse length.

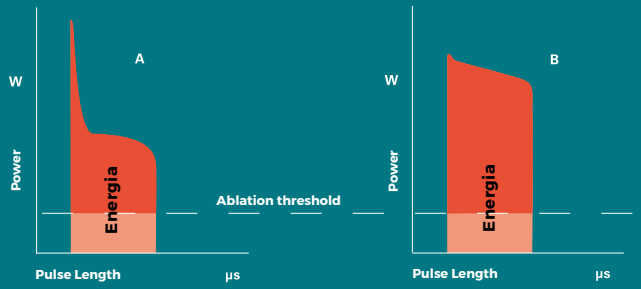
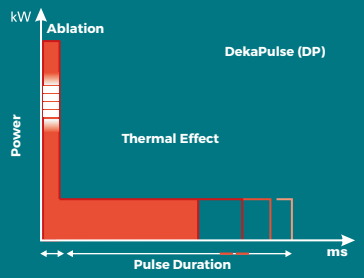


Fig. A: Single-impulse continuous-supply excited laser CO_2 (Superpulse emission).
Fig. B: Single-impulse radiofrequency excited laser CO_2 (Ultrapulse emission). Radiofrequency-excited



The D-Pulse or DEKA-Pulse is specific for the treatment of the vaginal mucosa and ensures maximum effectiveness with the penetration depth control and the control of the thermal effect.

SmartXide² TRIO — DEKA Surgical

connectable with:

- Electronic scanning systems, for extremely precise, safe and reproducible treatments
- High Precision micromanipulators
- Dedicated handpieces with various focal lengths and integrated smoke suction channel

COLPOSCAN: the gold standard in colposcopic surgery

Easy Plug

- Fast connections and internal wiring.

Easy Control

5 functions controlled by the exclusive microswitch joystick:

- **Rotation** of the scanning figures (step by step and fast).
- **Scan size** regulation.
- **Scan-ON/Scan-OFF**.
- **Scan shape** modification.
- By pressing the joystick you can open the **set up menu** and **center** the **laser beam on 4 axes**.

With Easy Control all the system functions are managed while continuing to observe the area to be treated through the colposcope.

Easy Field

- **Mechanical regulation of the working area** to precisely confine the laser beam inside the operating field.

µ-Integrated Scan

- **Ultra fast** laser beam (10 illionths of a second).
- **High precision scanning shape,** for tissue cutting and ablation.

Easy Focus

- Zoom with **full HOLO technology** (holographic lens and high-reflectance mirrors).
- Single-ring **focus/defocus** system with **focal point saving.**
- Perfect **correspondence between the guide light and the CO_2 laser.**

The Greatest Range of Scanning Shapes for Surgery:

• Line • Filled circle • Filled hexagon
• Double interpolated ellipse

3D Ablation (Depth Control), Fast Ablation (High Speed), Turbo Cut (Scanning Controlled Excision and Conization)

This accessory, which combines scanning system and micromanipulator, broadens Smartxide² Trio applications to include scan-aided colposcopic microsurgery. The features of this compact system, compatible with all colposcopes, make this instrument the gold standard for extremely precise, safe, repeatable and fast-moving treatments.

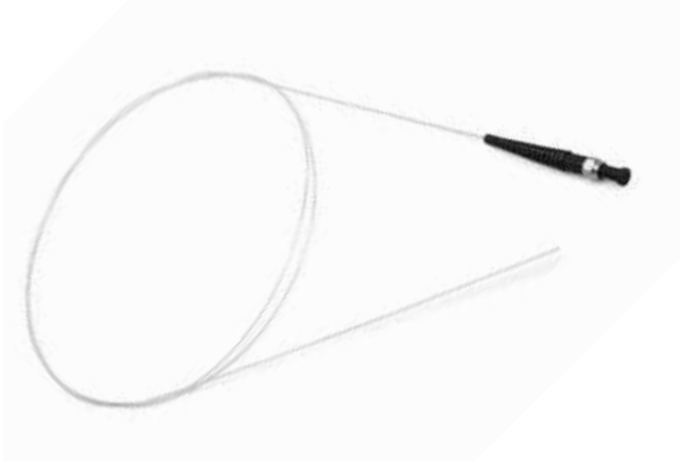
µScan Surgical

Miniaturised scanning system used with handpieces for either free-hand and laparoscopic surgery such as Endometriosis vaporization treatment.

The multi-function key enables precise centering inside the Laparoscope and the ability to either activate or deactivate the scanner for vaporization or cut functions (Scan-ON/Scan-OFF function).

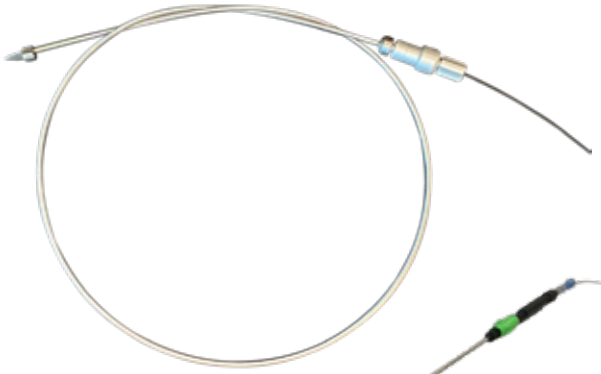
Flexible Delivery

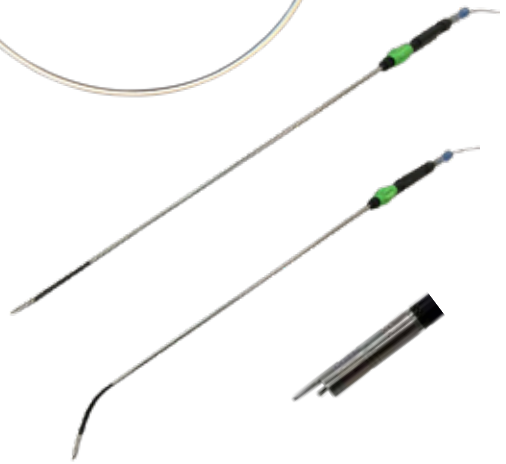
SmartXide^2 TRIO offers the possibility to operate in areas usually difficult to reach with traditional techniques thanks to both CO_2 and the Diode laser flexible delivery systems.
The cutting precision of the CO_2 hollow fiber laser and the greater coagulative properties of the Diode lasers are now available in one platform, to meet all surgical needs.



CO_2 Hollow Fibre

CO_2 hollow fibre can be used with handpieces of various shapes and lengths, and with either spatula or flat tips, and malleable. Whatever the surgeon's preferences/needs, for open, Laparoscopic and Robotic Surgery.





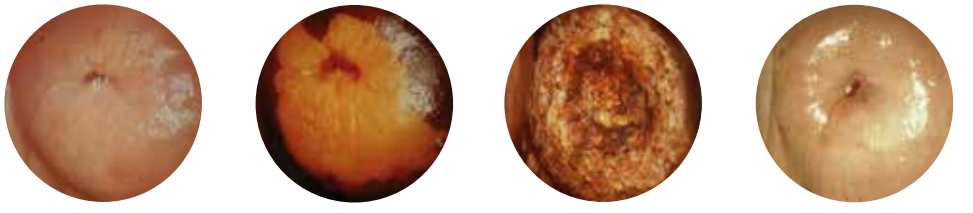
Spatula or flat tips

High Power Diode Laser

The diode laser and fibre delivery system allows the surgeon to operate easily, even in the hardest conditions

The use of diode lasers is well known in the surgical environmnet to be easy to use. 980 nm Diode laser represent a great combination between coagulation and cut to complete the whole application range, like hysteroscopy procedures.
Moreover, the flexibility of fibre optics allows users to easily reach diffcut areas too.
The diode laser system can also be integrated into the SmartXide² TRIO at anytime, as part of an optional upgrade kit to the system.
A broad selection of fibre core diameters is available, from 200 µm to 600 µm single-use or up to 10 times reusable (to reduce operating cost).

Clinical Cases



Vaporization for LSIL

Conization for HSIL

Courtesy of: ***Prof. C. Penna M.D., M. G. Fallani M.D.,***
Department of Gynaecology and Obstetrics Colposcopy and
Laser Therapy Office - Careggi University Hospital, Florence - Italy.

Treatment of Endometriosis

Courtesy of: ***Maurizio Rosati M.D.,***
Director of the Operating Unit of Gynaecology and Obstetrics
Spirito Santo Hospital, Pescara - Italy.

The Experience of Professionals

"The use of the CO_2 laser coupled to the micromanipulator with microspot and scanner, combines speed, ease of use and minimally invasiveness. Checking the depth of ablation and damage thermal increase safety and efficacy in full treatments respect for patients. CO_2 laser systems with scanner technology are the gold standard in outpatient surgery low genital tract."

Prof. Carlo Penna M.D.
Department of Gynecology and Obstetrics, Colposcopy Unit and Laser Therapy, Careggi Hospital, Florence, Italy

"Smartxide² CO_2 laser wavelength is ideal to treat extremely delicately and precisely all the soft tissues. It doesn't requiring contact, it allows to intervene even in areas typically difficult to reach with other methods used in video laparoscopy. In advanced DEKA systems, use of the Ultrapulsed high energy mode per pulse, added to the movement of the beam by the scanner, guarantees safety and minimally invasive, in particular on pathologies that are difficult to solve such as endometriosis or in general infertility therapy. For these reasons the Smartxide² laser system is an indispensable tool for the laparoscopist gynecologist."

Maurizio Rosati M.D.
Equipe di UOC, Ginecologia e Ostetricia,
Ospedale Spirito Santo, Pescara, Italia

Technical Sheet

www.dekalaser.com

Laser CO_2

Type of Laser	CO_2 RF - PSD®
Wavelength	10.6 µm
Laser Emission Mode	TEM_{00}
Emission Modes	CW - SP - DP - HP - UP
Cw Power	From 0.5 to 60 W
Sp Power	From 0.1 to 15 W
Dp Power	From 0.2 to 15 W
Hp Power	From 0.1 to 15 W
Up Power	From 0.5 to 60 W
Exposure Time	From 0.01 to 0.9 seconds
Delay Time	From 0.1 to 5 seconds
Transmission System	7-mirror articulated arm with counterweight or flexible hollow fibre
Guide Light	High Quality Diode @ 635 nm - 4 mW Intensity can be regulated, from 2% to 100%, Diode function OFF during emission (DOWL).
User Database	About 150 pre-set, protocols, updatable with USB / unlimited saving of user parameters / possibility of saving customisable protocols.
Control Panel	10,4" LCD colour touchscreen
Accessories*	High Power Diode laser @ 980 nm - Max. power 50 W. Colposcan. µSurgical scanning system. Broad range of surgical handpieces.
Power Supply	From 220 to 230 Vac - 50 Hz / 1600 VA
Size and Weight	cm 167 (A) x 59 (L) x 56 (P) - 100 Kg (with closed articulated arm)

CO_2 Hollow Fibre

Length	200 cm
Diameter	500 µm (internal) - 1 mm (external)
Power	40 W (Max)
Emission Modes	CW - SP - DP - HP - UP
Accessories	Handpieces of various shapes and, lengths, hard and soft
Insufflation Air	Can be used with filtered internal system air and with hospital air.

Integrated High Power Diode Laser

Wavelength	980 nm
CW Power	50 W
Emission Modes	CW and PW
Exposure Modes	Continuous, single impulse, burst or repeated burst
Emission Time in PW (Ton)	From 5 to 2000 ms
Emission Delay Time in PW (Toff)	From 5 to 2000 ms
Burst impulses in PW	From 2 to 50
Delay Between Bursts	Da 0,5 a 5 secondi.
Transmission system	200 µm, 300 µm, 400 µm, 500 µm and 600 µm fibre optics, single-use or resterilisable up to 10 times, with chips, SMA 905 connector.

MicroScan Surgical

Scannining Area (max@400mm)	6.3 mm x 6.3 mm
Dwell Time	From 100 µs to 45 ms
Scanning Shapes	Ellipsoid, Filled Circle, Hexagon, Hexagon DOT
Emission Modes	CW - UP

Colposcan

Max Scanning Area	4.7 mm x 4.7 mm @ 300mm Focal
Dwell Time	From 100 µs to 45 ms
Scannining Modes	Power Mode and Depth Mode
Scanning Shapes	Line, Ellipsoid, Filled Circle, Hexagon
Emission Modes	CW - UP

This brochure is not intended for the US market.

ATTENTION - Visible and invisible laser radiation. Avoid exposing eyes and skin to direct or diffuse radiation.
Class 4 laser appliance

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DEKA Innate Ability

A spin-off of the El.En. Group, DEKA is a world-class leader in the design and manufacture of lasers and light sources for applications in the medical field. DEKA markets its devices in more than 80 countries throughout an extensive network of international distributors as well as direct offices in Italy, France, Japan and the USA. Excellence is the hallmark of DEKA's experience and recognition garnered in the sphere of R&D in over thirty years of activity. Quality, innovation and technological excellence place DEKA and its products in a unique and distinguished position in the global arena. DEKA manufactures laser devices in compliance with the specifications of Directive 93/42/EEC and its quality assurance system is in accordance with the ISO 9001 and ISO 13485 standards.

INNATE ABILITY

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