

# MULTIPULSE PRO DUO

BORN TO SIMPLIFY



**JENA SURGICAL**  
LASER AT YOUR SIDE

# CO<sub>2</sub> LASER SURGERY

## POWER, AUTOMATION & MICROMETRICAL PRECISION FOR MICROSURGICAL EXCELLENCE

**JenaSurgical** introduces the **MultiPulse PRO DUO**. It reaches up to 60 W maximum power in continuous mode. It is scientifically known that the 10,600 nm wavelength is mostly absorbed by water; this characteristic makes it particularly suitable for soft tissue surgery. Therefore, CO<sub>2</sub> laser surgery as with the **MultiPulse PRO DUO** is recognized as being minimally invasive and highly effective, as proven by numerous scientific articles regarding surgery and microsurgery with this type of laser in various disciplines.

The use with the scanning unit is indicated for layer-by-layer char-free ablation, enhancing the safety of the treatment with more uniform, accurate and controllable impacts such as ablative and fractional skin resurfacing. Therefore, the **MultiPulse PRO DUO** is designed to be used for ENT microsurgery, gynaecological surgery as well as general surgery. It supports the surgeon daily and contributes to the success of surgery, with significant positive effects on the postoperative recovery time and the patient's quality of life.

Suitable for all photoablation treatments, the family facilitates the work of a surgeon thanks to the synergy of the following technologies: the Smart Pulse with PSD® (Pulse Shape Design) Technology, the EasySpot Hybrid Micromanipulator and the HiScan Surgical, that allows the operator to choose the most suitable scanning setting for microsurgical procedures. The scanner features ESLA technology (Electronic Scanned Laser Ablation) for complete control of the density, type and scanning speed, ablation depth and coagulation percentage when cutting. The U-Pulse technology is the ideal pulse for ENT laser microsurgery, i.e. it offers the highest peak power with the shortest pulse duration in order to minimize the thermal effect on the tissue. And with the **MultiPulse PRO DUO**, the surgeon gets to experience the revolutionary Hollow Guide Fiber, a waveguide that allows easy delivery of laser energy to the target tissue and that is the ideal choice for hard to reach areas.

The **MultiPulse PRO DUO** enables surgery with intuitive technology and revolutionary equipment. A professional expertise combined

with scanner assisted robotized systems can improve performance for all photoablative treatments.

# FEATURES

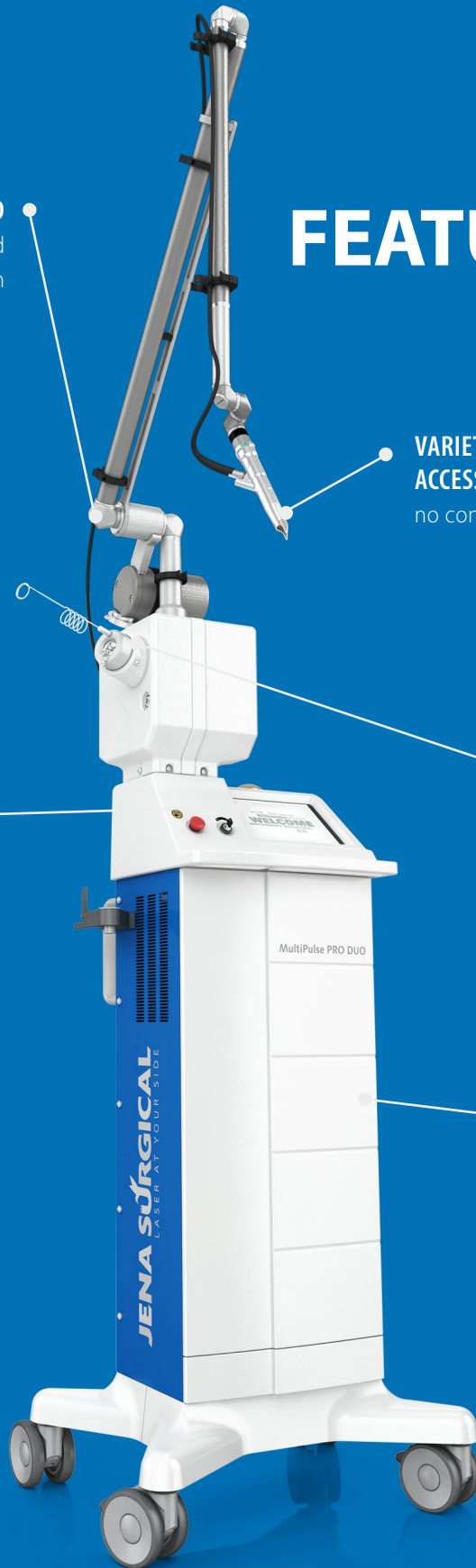
**WEIGHT-BALANCED**  
articulated  
mirror arm

**VARIETY OF  
ACCESSORIES**  
no consumables

**INNOVATIVE  
HOLLOW FIBER**

**INTUITIVE  
USER INTERFACE**  
numerous treatment  
modes

**POWER**  
up to 60 W



**PSD® TECHNOLOGY**  
for optimal  
pulse

# FLEXIBLE TECHNOLOGY

## WAVEGUIDE – THE HOLLOW FIBER

**JenaSurgical** introduces the **MultiPulse PRO DUO** – the innovative platform that combines the standard 7 mirror articulated arm with the innovative Hollow Fiber. **MultiPulse PRO DUO** offers real innovation with its revolutionary Hollow Fiber, it opens up completely new treatment possibilities such as minimally invasive ENT procedures, which call for maximum precision and flexibility in technologies.

The Hollow Fiber can be used with handpieces of different shapes, depending on the surgeon's needs. The suitable, flexible lightguide handpieces are intended for procedures in ENT, gynecology and general surgery.

The waveguide is manufactured by Laser Engineering and has been cleared by FDA with K112166. It is supplied in 2m length and two diameters and can be used also with various handpieces having different lengths and shapes manufactured by TTI Medical and cleared by FDA with K952006.

## MALLEABLE HANDPIECES

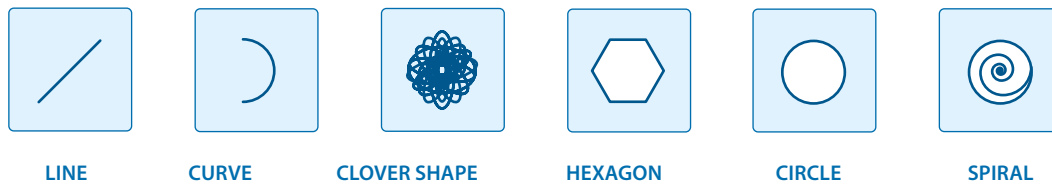


### ADVANTAGES FOR THE SURGEON

The **MultiPulse PRO DUO** simplifies microsurgery for safer and comfortable treatments and methods, operating with different scanning shapes and modes. A practical and intuitive touchscreen simplifies the setting of the correct parameters based on required applications.

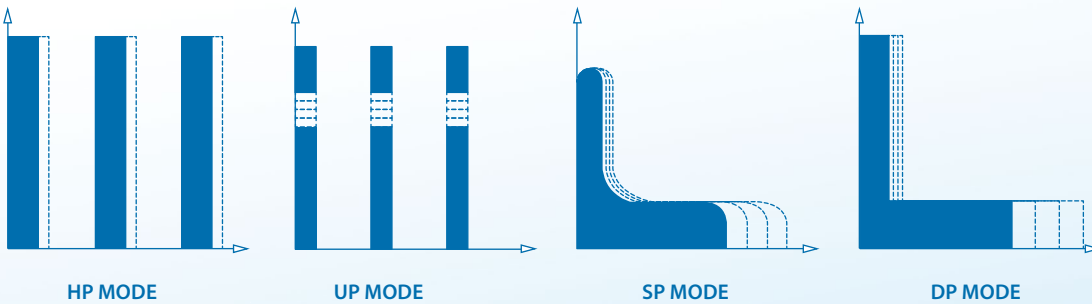
### SCANNING SHAPES FULLY CUSTOMIZED

Providing the surgeon with cutting or ablation patterns, i.e. line, curve, circle, spiral, hexagon or clover shape of variable length and controlled depth.



**DPulse mode** - The operator can directly act on the cutting depth and the percentage of coagulation.

**Power mode** - The operator can directly act on the emission power and dwell time of the laser beam on a scanning point.



# ACCESSORIES

## HANDPIECES, OPTICS AND TIPS

A **wide range of handpieces** is available for the **MultiPulse PRO DUO**, with different spot sizes and high performance in specific fields of application. Additionally, different scanning units enable treatments that are tailored to the individual patient.

## OPTICS



**FOCUS 1.5"**  
Ø 0.125 mm\*



**FOCUS 2"**  
Ø 0.155 mm\*



**FOCUS 4"**  
Ø 0.267 mm\*



**FOCUS 7"**  
Ø 0.489 mm\*



**FOCUS ∞**  
Ø 1.5 mm\*  
Ø 2 mm\*\*

\* Spot size @ 63% of output power \*\* Spot size @ 83% of output power

SPACER & HANDPIECE



**HANDPIECE BODY**  
standard

**LONG SPACER**  
for 1.5" and 2"



**SHORT SPACER**  
for 4", 7" and collimated (∞)



**STRAIGHT TIP**  
with backstop



**STRAIGHT TIP**  
standard



**120° TIP**  
without Handpiece



TIP



**90° TIP**  
with handpiece 5"  
(spot size Ø 0.325 mm)

# ACCESSORIES

The **MultiPulse PRO DUO** can be equipped with two different **scanning units** that can be connected to the articulated arm to provide high performance in specific fields.

## HISCAN SURGICAL

### HISCAN SURGICAL

The **HiScan Surgical** scanner is used for surgical applications. Simple and intuitive functions guarantee speed of action and perfect compatibility with the majority of colposcopes and microscopes.

**Scanning Shapes** | Point, line, circular curves, spiral, clover, hexagon, filled circle

**Emission Mode** | Continuous Wave (CW) – Ultimate Pulse (UP)

**Scanning Area** | 6.3 mm x 6.3 mm (max. @ 400 mm)

**Scanning Modes** | Power mode, DPulse mode

**Application Fields** | ENT, Gynecology

**Ablation Depth** | 200 – 2,000  $\mu\text{m}$

**Dwell Time** | 0.1 – 45 ms





## ENDOSCAN



The **EndoScan** scanner system is for ENT, laparoscopic gynecological surgery and general surgery.

Contin. Wave (CW) - Ultimate Pulse (UP)		<b>Emission Modes</b>
ENT, Gynecology, General Surgery		<b>Application Fields</b>
Cut mode (Point), circle, clover		<b>Scanning Shapes</b>
(max. @ 400 mm) 6.3 mm x 6.3 mm		<b>Scanning Area</b>
0.1 – 1 ms with circle		<b>Dwell Time</b>

## EASYSLOT HYBRID MICROMANIPULATOR

The **MultiPulse PRO Family** can be equipped with the **EasySpot Hybrid Micromanipulator**, which reduces the laser beam spot to microscopic dimensions, making it a suitable tool for operating on narrow surgical fields.

It is an innovative micromanipulator for microsurgery, combining holographic lenses and mirrors in a unique way - hybrid technology and laser optics at the highest level.

**Operative Field** | Min 20 x 18 mm - Max 55 x 40 mm (@ 400 mm EFL)

**Spot Size** | Min 140  $\mu\text{m}$  (200 mm EFL) - Max 250  $\mu\text{m}$  (400 mm EFL)

**Optical Technology** | Focal Length: from 200 mm to 400 mm

**Application Fields** | ENT, Gynecology



ENDOSCAN

EASYSLOT HYBRID

# APPLICATIONS

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## ALL-ROUNDER FOR ALL CLINICAL SPECIALTIES

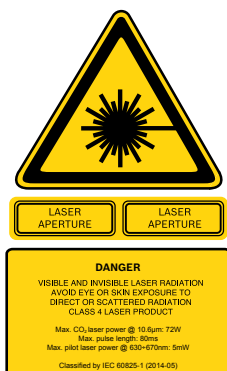
The MultiPulse PRO DUO CO<sub>2</sub> laser is indicated for incision, excision, ablation, vaporization, and coagulation of body soft tissues in many medical specialties including aesthetic (Dermatology and Plastic Surgery), Podiatry, Otolaryngology (ENT), Gynaecology, Neurosurgery, Orthopaedics, General and Thoracic Surgery (including open and endoscopic), Dental and Oral surgery and Genitourinary Surgery.

The CO<sub>2</sub> laser (wavelength of 10,600 nm) is the laser of choice in most medical fields, thanks to its optical property of being absorbed mainly by water. It has excellent tissue cutting properties with very little lateral tissue damage.

MultiPulse PRO DUO

# TECHNICAL SPECIFICATIONS

MultiPulse PRO DUO	
Laser Source	CO <sub>2</sub> RF-PSD
Wavelength	10,600 nm
Emission Mode	Continuous Wave (CW) – Ultimate Pulse (UP) – Smart Pulse (SP) – Deep Pulse (DP) – High Pulse (HP)
Power	0.1 – 60 W
Emission Time	0.01 – 0.9 s
Delay Emission Time	0.1 s – 5 s
Beam Delivery	Articulated arm with 7 mirrors and counterweight Hollow Fiber: max. 40 W
Aiming Beam	Laser Diode @ 635 nm - 4 mW
Control Panel	LCD color touch screen
Accessories	Handpieces: 1.5", 2", 4", 5", 7", 8" Other: Scanners and Micromanipulators Hollow Fiber
Electrical Requirements	100-230 V~ 50/60 Hz 1,200 VA (max)
Dimensions and Weight	174 (H) x 59 (D) x 66 (W)cm, 75 kg



**JENA SURGICAL**  
LASER AT YOUR SIDE

JenaSurgical is the brand of the surgical business unit of Asclepion Laser Technologies. Specifications are subject to change without notice.



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PRODUCT INFORMATION



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