

Maximum accuracy for ENT procedures

CO<sub>2</sub> laser for ENT procedures that require a high-end performance





## **Innovation**brought into clinical practice

INTERmedic brings to the otorhinolaryngology community the innovation of the  $CO_2$  laser **SILKLASE**<sup>TM</sup>: It's specific ENT software and accessories makes **SILKLASE**<sup>TM</sup> the laser of choice, the tool for those looking for an extreme precision and delicate performance.

**SILKLASE™** is the result of joint work between the greatest medical ENT experts together with INTERmedic's R&D department, added to more than 20 years of accumulated experience in  $CO_2$  lasers, resulting in a  $CO_2$  laser ready to satisfy the most demanding ENT professionals in meticulousness and precision.

#### Surgical innovations that matters

- Minimally invasive
- High precision
- Great respect for the surrounding tissue
- Personalized treatments



Adaptable to most micromanipulators



Optional fiber optic laser

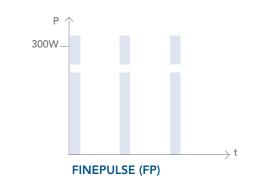
## Unparalleled delicacy and versatility

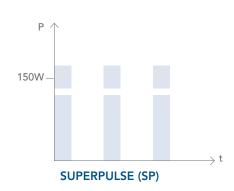
Designed for medical-surgical treatments that require great respect for the surrounding tissue, the **SILKLASE**<sup>™</sup> CO<sub>2</sub> system features refined technology for ENT and oral surgical applications. **SILKLASE**<sup>™</sup> provides great surgical precision and treatment control, resulting in increased treatment efficiency and less tissue damage.

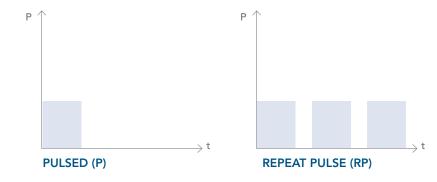
#### **Exceptional features**

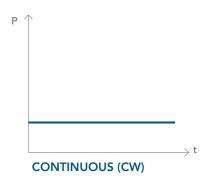
Thanks to the exclusive INTERmedic technology, **SILKLASE**™ offers many benefits through its various configurations:

- The exclusive MultiScan<sup>™</sup> scanner technology provides unparalleled delicacy and versatility.
- The innovative and wide variety of pulses (FP, SP, P, RP, CW) allow it to be adapted to different clinical applications
- The wide range of surgical accessories provide precision and control in minimally invasive treatments.









### MultiScan™ scanner

## Equipped with the most advanced technology is unique in terms of **precision and control**

**Refined practice** 

#### Highly versatile scanner

The **MultiScan™ scanner** is capable of generating up to 6 geometric figures in the tissue and controlling the depth at the same time. It is ideal for tonsil ablation through scanning, partial tonsillectomy and oral cavity treatments.

## A powerful combination of precision and rapidness allowing the control of:

- Depth of cut
- Depth of vaporization
- Percentage of surface treated
- Caloric effect of each point
- Dwell time

There are numerous benefits for both the doctor and the patient. These include absolute control of recovery time and postoperative care, given its excellent precision and ability to control the depth of penetration and the thermal effect. The aim is to obtain maximum effectiveness with visible results and minimum invasive surgery.



Adaptable to any type of surgery required by the patient

## Remote control for a smart and agnostic control of figures

Remote control allows user to control the size, rotation and type of figure desired without resorting to the screen of the laser (no need to look away operating microscope).

- Allows the user to control the main laser parameters without leaving the microscope view
- Extremely light
- Ergonomic
- Surgical touche buttons

It allows an extremely efficient intervention.



### Complete range of shapes for all ENT procedures

All the linear figures of the scanner (line, arc, semicircle and circumference) allow cutting in CW and also in Finepulse or Superpulse when fine incision with minimal necrotic band required.

Line



Possibility of 360° rotation for all geometric shapes



Arc 90°



Semicircle







Circle





## Maximum control and optimal preservation of tissues

The CO<sub>2</sub> laser emits at 10,600nm infrared light beam, which is highly absorbed by water. The high absorption of this laser radiation by water provokes intra and extracellular vaporitzation, which makes it an ideal tool for cutting, coagulating and vaporizing soft tissues.

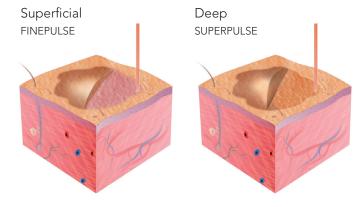
#### Versatility and absolute precision

The great cutting, **coagulation and vaporization** capacity of **SILKLASE<sup>TM</sup>** make
this laser an extremely versatile tool, with
a multitude of surgical possibilities in the
fields otorhinolaryngology, general surgery,
neurosurgery and dermatology, among others.

This type of laser is very suitable for the removal of hemangiomas, polyps and tumors in the throat, pharynx and nose area. Due to the low thermal collateral effect, the surrounding tissue is not affected, which leads to faster re-epithelialization.

Postoperative treatments can be minimized due to the low risk of edema.

The delivery of heat to the tissue and the depth of penetration can be controlled to ensure maximum effectiveness and the best clinical results, while limiting the side effects and recovery time.

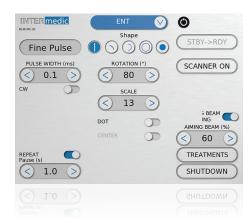


**VAPORIZATION** 



## Maximum development for an optimal performance







Customizable treatments and patients database. Easy acces to repeating procedures.

#### Specifically designed interface for ENT

- Using the "scale" command, the size of the figure can be adjusted from approximately 5mm to one point (the maximum size of the figure varies depending on the focal length).
- With the rotation knob, the line, the arc and the semicircle can be rotated from 0 to 360° in steps of 10°.
- Using the "repeat" control, you can set the pause time between shots. Whether select zero, the movement will be of a continuous swing while depressing the pedal.
- Possibility of cutting in continuous mode, with little carbonization due to the reduced "time of permanence" of CO<sub>2</sub> in the tissue (by the rapid movement of the figure) or in Superpulse or Finepulse mode for cutting or vaporization with virtually no carbonization.

 The parameters that require more frequent adjustment (type of figure, size and rotation) are controlled by a remote control. This allows the surgeon to adapt the geometry of the figure to his needs without having to stop looking through the operating microscope.



Screen with autoclavable pen, allows the user to work autonomously guaranteeing an aseptic environment.

### One laser, endless applications

Incision, excision, vaporisation of soft tissue and ablation with virtually no carbonisation

#### SILKLASE™ENT APPLICATIONS

The vast cutting, coagulation and vaporization capacity of SILKLASE™ ENT makes this laser an extremely versatile tool, with numerous surgical possibilities in the areas of ear, nose and throat (ENT) and general surgery.

#### Transoral laser microsurgery (TOLMS) in larynx

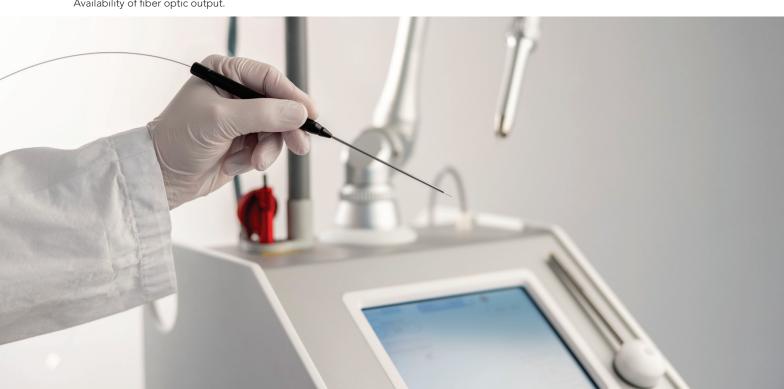
- Papillomatosis
- Cordectomy
- Nodules and polyps of the vocal chords
- Malignant lesions of the larynx (carcinoma, sarcoma, adenocarcinomas...)



#### Otorhinolaryngology

- Bronchoscopy
- Cholesteatoma
- Stapedotomy
- Turbinectomy
- Subglottic and tracheal stenosis
- Tonsillotomy
- Cysts
- Fibroids
- LAUP

Availability of fiber optic output.



## **Exceptional** compatibility and adaptability



#### MultiScan™

**MultiScan™ scanner** is attachable to most micromanipulators available in the market.



100 mm focal applicator for cutting with high hemostasis and long field depth.



#### Other possibilities of SILKLASE™

#### Kamami handpieces

- Possibility of attaching Kamami zoom handpieces (cut / coagulate / vaporize) with straight inserts or backstop.
- Equipped with air insufflation intake and smoke evacuation. Spot size variable from 0,2 mm to 4 mm.



#### Zoom micromanipulator

- MicroSpot micromanipulator is the best solution for ENT and Neurosurgery where minimum therapeutic CO<sub>2</sub> laser spot sizes are required.
- Silklase™ ENT can be supplied with its own micromanipulator or easily adapted to an existing one.
- Spot sizes as low as 125 microns.
- Availability of zoom to adjust spot size.
- 250-550mm working distance.



# Silklase™ is a CO<sub>2</sub> laser intended for use in a wide variety of surgical applications.

Silkase™ ensures a complete profitability as it can be used by all clinic services like listed bellow:



## **Technical specifications**

#### CO, LASER

Laser type: CO<sub>2</sub> laser generator

Wavelength: 10600 nm

Operating modes: Continuous, Pulsed, Superpulse, Finepulse

Power range in CW: 1 to 30W (1 to 40W in option)

Medium power range in Finepulse mode: 0 to 6W (0 to 8W)

Medium power range in Superpulse mode: 0 to 12W (0 to 16W)

Power range in Pulse mode (pulsed): 0 to 27W (0 to 35W)

Light beam: Red diode laser <10mW (635-650nm). Adjustable

brightness

Transmission system: 7-elbow articulated arm

Optical fiber (hollow guide): On request (under development)

**Power Supply:** 220-240 W, 50/60 Hz 700W **Dimensions**: 32 x 42 x 128 (with arm folded)

Weight: 50 Kg

#### **HAND PIECES**

• Handpiece with high hemostasis

**Scanner figures:** Line, 90° arc, semicircle (arc of 180°), circumference, circle (vaporizes the inside of the figure) and point.

**Size of the figures:** Adjustable from 0.5 to 5 mm approx.

(depending micromanipulator focal length)

Cutting depth: Adjustable from 50µm to 1mm approx

Remote control: Allows the modification of the most important

parameters common from the micromanipulator

Database: User can record in an internal memory different

parameters for different surgeries

Autoclavable pencil: Allows the change of parameters on the screen

no loss of sterility

#### **OPTIONAL ACCESSORIES**

- Kamami Set: Handpiece equipped with variable spot for cutting, vaporization and coagulation. With straight inserts and backtop interchangeable. Equipped with an air insufflation channel and a gas evacuation channel
- MicroSpot micromanipulator: Focus distance 250 to 550 mm.
   Adaptable to almost all surgical microscopes in the market
- Fiber set hollow-guide with its focuser

### AVAILABLE EXTENSIONS FOR OTHER SPECIALTIES

- Gynecology (software and accessories)
- Adapter for colposcope
- Dermatology and plastic surgery set (software and accessories)
- Laparoscopy equipment
- Oculoplasty set



### Worldwide reference in laser and health solutions

INTERmedic has vast experience in the development and manufacturing of high-tech laser, radiofrequency and ultrasound solutions for medical applications as well as a firm and steady commitment to innovation and the pursuit of the most advanced medical therapies for improving people's health and quality of life. Hospitals, clinics, medical doctors and distributors all over the world put their trust in our medical platforms thanks to their efficiency, security and versatility.





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