

# 03

BIOTECHNOLOGY  
AND CERTIFICATE  
COMPANY

The World's  
Most Advanced  
and Versatile Laser  
and CPL light  
platform that  
does it all...



biotec italia  
Medical

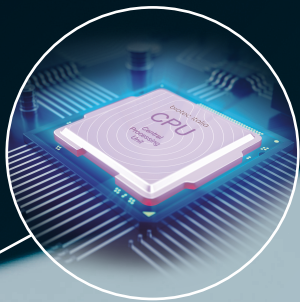


THE VERSATILE LASER PLATFORM  
THAT OFFERS TREATMENTS FOR NUMEROUS  
AESTHETIC/MEDICAL APPLICATIONS.

**xlase**  
PLUS

biotec italia  
**xlase**  
PLUS

Versatile laser platform  
for multiple medical and  
aesthetic specialities.



**UNIQUE  
TECHNOLOGICAL  
INNOVATIONS**

Biotec Italia platforms introduce a new concept based on the latest hardware and software design. Our research and development team develops next generation hardware solutions for the high-tech and high-performance medical industries, allowing constant system update to eliminate the problem of technology obsolescence.

Maximum power and performance, always guaranteed.

**Blending of technologies is  
the key to an amazing increase in the quality  
of the medical and aesthetic results.**

## XLASE PLUS

The simple and affordable way to a wide variety of cosmetic and aesthetic procedures with less risks and superior outcomes.

Laser technology has been used for an increasing number of medical and aesthetic procedures.

The new **Xlase Plus** is a versatile platform that offers treatments for multiple applications without investing in multiple laser systems.

Its modular design provides multiple distinct medical and cosmetic solutions all built into one compact unit. With Xlase Plus the different technologies may be purchased and incorporated in the unit at different times, offering versatility and ease to our customers.

**Xlase Plus** grants ultimate flexibility to treat a wide variety of patient-requested procedures. The system's modular applicators are designed to offer effective and reliable results with minimal patient discomfort and downtime. No single device will do more than **Xlase Plus**.

The device includes the CPL (Calibrated Pulsed Light) hair removal system, the popular YAG laser, the 810nm Diode laser applicator, the Q-switched YAG laser and the Erbium YAG laser.

- Numerous aesthetic/medical applications;
- High output energy for greater efficacy;
- Expandable and upgradable;
- High patient and clinical satisfaction;
- Easily transportable from room to room.

### MAIN FEATURES

- Several distinct laser technologies.
- Only system in the world combining laser diode and flash lamp pumping laser technologies.
- Numerous aesthetic/medical applications including the use on patients with toe nail fungus.
- High output energy for faster and more satisfying results.
- Never obsolete: expandable and upgradeable.
- High patient and clinical staff satisfaction.
- Easily transportable.
- Customized to fit your practice.
- Affordable with a high return on investment.

# Diode Laser 810nm and AlexPro



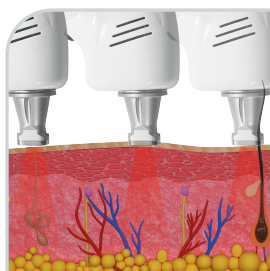
The request for hair removal on large body areas is constantly growing, but the technologies currently in use have shown several limits: excessive time required to achieve permanent hair reduction, lack in safety and difficulty in treating multiple skin types.

The Xlase Plus diode laser represents the safest and most effective solution to treat unwanted hair: equipped with the state of the art optical technology, the diode module can reach up to 4000W of power and is considered the best choice for permanent hair removal.

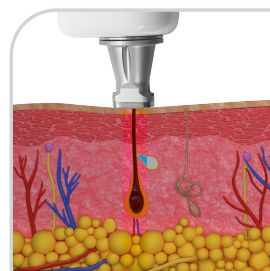
Available in a single wavelength at 810nm, or double at 808 and 760nm (AlexPro laser module) which combines all the characteristics of alexandrite laser with the advantages of diode technology, Xlase Plus can treat all types of skin and most hair color, being able to perform fast hair removal treatments with maximum comfort in even the darkest skin.



The interchangeable PLUG-IN sapphire optics measure 12mm<sup>2</sup> and 23mm<sup>2</sup> and guarantee fast procedures while protecting the surface of the skin through contact cooling.



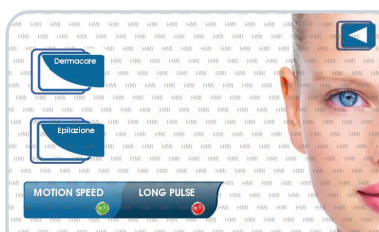
Motionspeed procedure combines simultaneous cooling with fast laser pulses increasing speed and comfort.



Long pulse procedure rises the target's therapeutic temperature during each pulse to treat even very deep follicles.

## USER INTERFACE

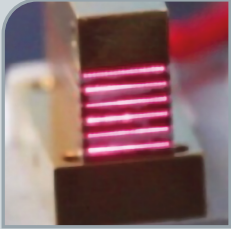
Intuitive presets for fast learning curve and easy treatment procedure.



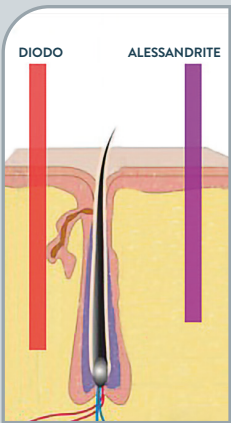
## DISTINCTIVE TECHNOLOGIES



Encapsulated stacks diode in fully closed chamber ensures high efficient laser source and prolongs laser module life.



Clamped laser bars technology guarantees high efficiency and long lifetime, up to 20millions pulses.



AlexPro, the double wavelengths 760/808nm diode, allows the operator to dose the emission of a single wavelength or both simultaneously, ensuring even more effective hair removal, from blond hair to darker black.

## MOTION SPEED 10.10.10

**Efficacy:** less chromophores dependent, allows delivery of laser energy more efficiently.

**Safety:** lower fluence is required since the target is reached by the gradual building up of energy.

**Decreased pain:** The unique Motion Speed technology at low pulse duration inhibits the transmission of pain sensation.

**Treatment time:** with a spot size of 10x10mm, at 10 pulses per second, large areas can be treated rapidly.

## SUPER BURST

This unique treatment mode allows for laser energy to be emitted in multiple bursts of high energy in short micro pulses; resulting in high efficiency and safety.

## LONG PULSE

Diode technology by Xlase Plus uses high-power technology that can be operated with user-select pulse duration, delivering high fluence.

This is combined with effective contact cooling and compression for high-performance even on the most difficult to treat hairs.

## Clinical results.

### INDICATIONS FOR USE FOR MEDICAL TREATMENT

- Vascular Lesions.

### INDICATIONS FOR USE FOR AESTHETIC TREATMENT

- Hair Removal.
- Skin Rejuvenation.



Before



6 months later / after 4 sessions



Before



1 year later / after 6 sessions

# SLP Nd:YAG

## 1064/532nm



The SLP Nd:YAG applicator emits light with a wavelength of 1064nm and 532nm; the light penetration into tissue reaches its maximum depth while its low absorption guarantees preservation of the surrounding tissues on all skin types. It combines a long and short pulse in a compact and technologically advanced applicator that offers a broad range of popular treatments for leg veins, vascular lesions, photo rejuvenation, hair removal and onychomycosis.

SLP Nd:YAG zoom applicator allows a wide variety of treatments from hair removal, fine vascular treatments to non ablative skin tightening. The selected treatment source is delivered from the handpiece into the skin, where it releases only the wavelengths absorbed by the target. The pulse intensity and duration are tightly controlled to ensure a selective target heating, while leaving the surrounding tissue unharmed.



The ideal focal distance is different with each lens. The wide choice of focus lens adjust the laser beam to a precise spot that enables accurate results.



In order to achieve high quality and precise vascular cauterization, the laser beam is directed to a focus lens that takes a designed shape of 2.5mm.



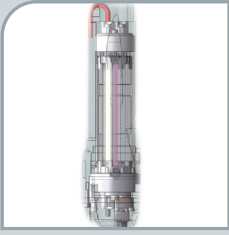
The proprietary technology Easy- Plug laser connector combines water-data signal-power signal, to allow easy switch from one laser to another.

## USER INTERFACE

Intuitive presets for fast learning curve and easy treatment procedure.



## DISTINCTIVE TECHNOLOGIES



The extra compact resonator ensures that the beam remains stable, doesn't grow with multiple reflections, contributing to minimum beam waste.



The pre-aligned beam exhibits a homogeneous top hat profile integrated in a temperature regulated housing for optimum performance.



The beam shaping lens converts gaussian beam spot profile to top hat beam spot with equal and homogenous energy distribution within spot size.

## ADVANTAGES

The SLP Nd:YAG laser is homogeneously absorbed in the three main chromophores targeted in surgical and aesthetic laser treatments, melanin, blood and water. This makes it an ideal laser source for those who seek versatility for their practice by combining surgery and non-ablative aesthetics.

For decades the deeply penetrating 1064nm Nd:YAG wavelength has been accepted as safe, effective and suitable for all skin types.

## EFFECTIVE AESTHETIC

With its exceptional pulse control and unique double frequency technology, is the gold standard for non-surgical aesthetic laser procedures such as onychomycosis, acne and vascular treatments, permanent hair reduction, skin rejuvenation and more.

## LASER HYPERHIDROSIS

Laser axillary hyperhidrosis treatment is another safe, effective, and non invasive laser procedure, used to disable axillary sweat glands by irradiating the glandular tissue.

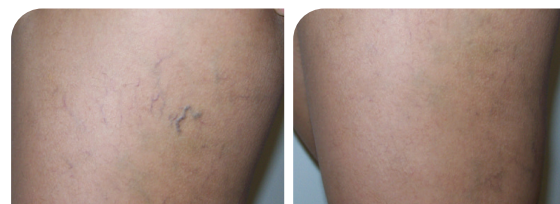
## Clinical results.

### INDICATIONS FOR USE FOR MEDICAL TREATMENT

- Vascular Lesions.
- Hyperhidrosis.
- Onychomycosis.
- Acne.

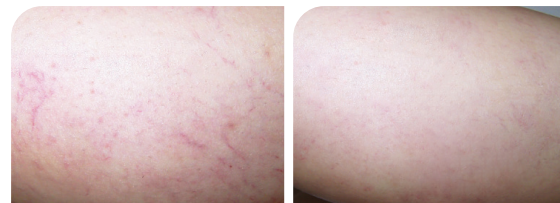
### INDICATIONS FOR USE FOR AESTHETIC TREATMENT

- Non Ablative Skin Rejuvenation.
- Hair Removal.



Before

90 days later / after 1 session



Before

60 days later / after 1 session

# NPP QS Nd:YAG

## 1064/532nm

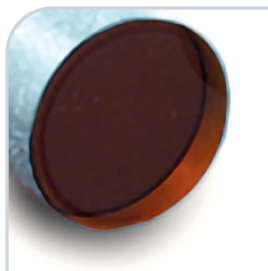


The NPP (Near Pico Pulse) QS Nd:YAG applicator is the ideal choice for the treatment of pigmented lesions, such as sun-damaged skin and age spots, and for the removal of unwanted tattoos. The specific wavelength 1064/532nm is optimal for bright colored tattoos and solar lentigines, it is also used for vascular lesions, including facial and leg veins, telangiectasias and angiomas.

It combines high peak power and short pulse duration resulting from the innovative OptoH Q-Switched crystal with unique **dual-rod resonator** technology, to get stable high energy laser output. The giant laser pulse has only 900ps pulse width which produces the mega-watt level high peak power, even with larger spot sizes.



High-precision refractive optical elements enable uniform energy distribution, cause less energy scattering and prevent central heat build-up.



OptoH Q-Switch crystal is a unique resonator technology to get stable, high energy laser output to produce a giant laser pulse with 6-10ns pulse width.



KTP 532 or frequency doubled Nd:YAG laser crystal produces a visible green laser with wavelength of 532nm, ideal to treat superficial skin lesions.

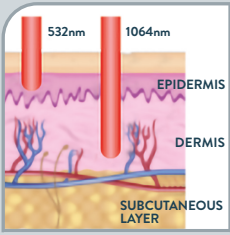
## USER INTERFACE

Intuitive presets for fast learning curve and easy treatment procedure.





## DISTINCTIVE TECHNOLOGIES



Qswitched Nd:YAG dual frequencies 1064/532nm is ideal for treating dark and colored tattoos, dermal pigmented and vascular lesions.



Short pulse duration with high peak energy are directed onto the tattoo, creating a photo-acoustic effect within the pigment.



During the skin peeling procedure a carbon pigment provides a target for the laser beam to effectively heat and exfoliate the skin.

## ADVANTAGES

The QS Nd:YAG laser is the treatment of choice for tattoo removal as it can remove tattoo completely without leaving any scarring.

The absorption of high-power, laser pulses in the skin breaks up the tattoo pigments into smaller particles which are more readily absorbed by the body's immune system.

The deep penetration of the laser beam into the skin ensures that even the deepest pigments in professional tattoos are reached, while its low absorption in surrounding skin structures significantly reduces the risk of unwanted side effects, such as hypopigmentation.

## DUAL-ROD RESONATOR TECHNOLOGY

The NPP applicator utilizes a pumped double-rod Nd:YAG laser resonator.

The key feature of this system is the use of two rods. The laser, which is virtually free from thermal disruption, typical limit in other hand-held QSwitched laser, generates twice as much energy compare to a single-rod Nd:YAG laser and exhibits an increased stability and superior beam quality.

## Clinical results.

### INDICATIONS FOR USE FOR MEDICAL TREATMENT

- Benign Pigmented Lesions.
- Tattoos Removal.
- Skin Peeling.

### INDICATIONS FOR USE FOR AESTHETIC TREATMENT

- Vascular Lesions.



Before



30 days later / after 5 sessions



Before



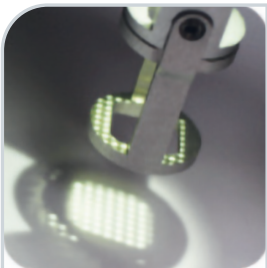
60 days later / after 1 session

# Er:YAG fractional 2940nm

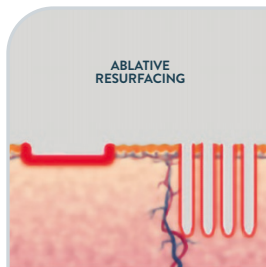


The Er:YAG fractional applicator works by removing microscopic layers of skin, producing outstanding results with minimal risk and adverse reactions. It treats both superficial and medium depth lines, including some scars, depending on the depth of the ablation and the amount of treatments performed.

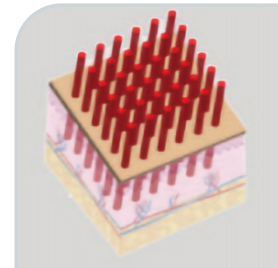
The Er:YAG fractional procedure produces thousands of deep, tiny columns in the skin. It works on old epidermal pigmented cells without affecting the surrounding tissue, thus reducing healing time (about 24 hours) and promoting the skin's natural regenerating process. It is a safe, non-invasive procedure that results in a fresh, healthy and young skin.



The fractional lens has low absorption offering the longest lifetime, excellent durability, and maximum focus stability.



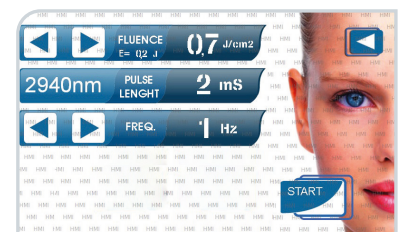
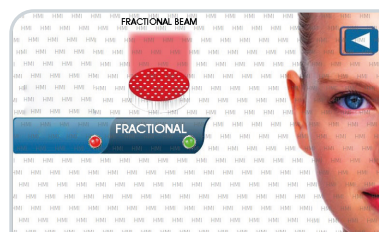
Ultra short pulsewidth, induces ablation of the epidermis with minimal thermal effects rejuvenating the superficial skin layers.



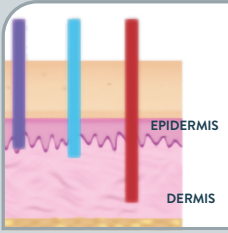
The fractional procedure creates an ablation thermal channel at the pixel area, without disturbing the surrounding tissue.

## USER INTERFACE

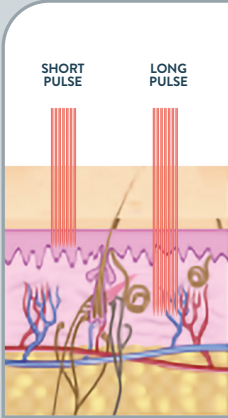
Intuitive presets for fast learning curve and easy treatment procedure.



## DISTINCTIVE TECHNOLOGIES



Single or multiple stack/pulses can be adjusted to achieve precise, uniform ablative columns to depths of between 25 and 1,500 $\mu$ m.



Short pulse duration in laser ablation allows heat to diffuse into the tissue. When laser ablation is faster than thermal diffusion, heat cannot diffuse into the tissue.

## ADVANTAGES

The Er:YAG fractional laser is widely recognized as the golden standard for laser surgery and skin resurfacing. It has the highest absorption coefficient in skin of all the infrared lasers, allowing extremely precise, micron layer by layer ablation of the epidermis.

### SHORT PULSE: COLD TISSUE ABLATION

With a short pulsewidth, Er:YAG fractional laser induces minimal thermal effects to underlying tissue, offering effective skin rejuvenation treatments with higher comfort levels and shorter recovery times.

### LONG PULSE: ABLATION AND COAGULATION

With long pulse duration, more heat is absorbed in the skin increasing collateral thermal effect. These thermal effects produce collagen contraction and new collagen stimulation in the dermis.

## Clinical results.

### INDICATIONS FOR USE FOR MEDICAL TREATMENT

- Benign Pigmented Lesions.
- Acne Scarring.

### INDICATIONS FOR USE FOR AESTHETIC TREATMENT

- Skin Rejuvenation.



Before

90 days later / after 1 session



Before

1 month later / after 1 session

# CPL Calibrated Pulsed Light



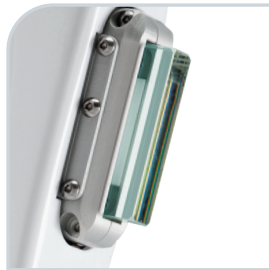
Superior by design, the Xlase Plus Calibrated Pulsed Light (CPL) applicator offers several innovative and advanced technology enhancements. Compared to the other IPL systems available on the market, the CPL system has proven to be among the most powerful and effective. It is simple and efficient to operate.

The unique platinum-coated reflective cavity generates maximum energy density with true energy fluence up to  $30\text{J}/\text{cm}^2$  at a very high speed, giving up to 3 shots per second.

The CPL applicator provides a range of different available wavelengths. Through the selection of sapphire crystal filters, the operator can choose the ideal wavelengths to effectively treat a wide number of skin conditions. These special cut-off filters are used to block out wavelengths of light below the filter number selected and allow only those wavelengths of light above the filter number to pass through.



50X10mm treatment window and up to 3 pulses per second eliminate skipped spots and ensure full coverage rate.



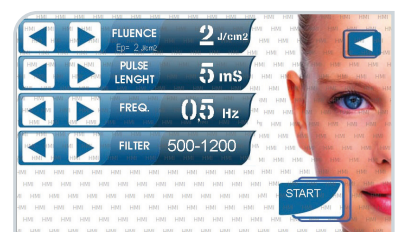
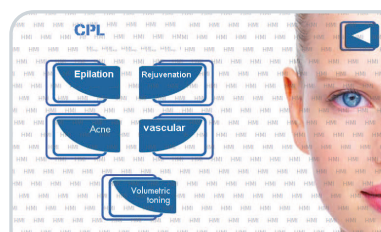
Integrated contact cooling technology cools the skin, minimizing the risk of burns, which in turn allows the use of higher fluences.



3 lightguides easily changeable to treat numerous skin conditions with a single, versatile handpiece. The sapphire lightguides are able to target treatment area precisely and selectively.

## USER INTERFACE

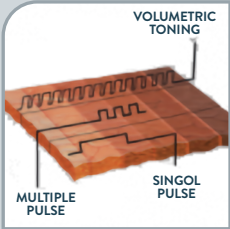
Intuitive presets for fast learning curve and easy treatment procedure.



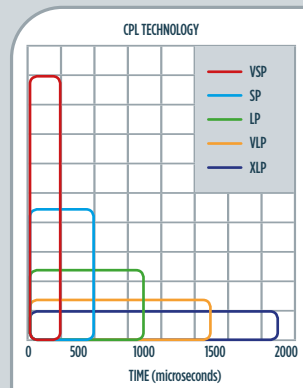
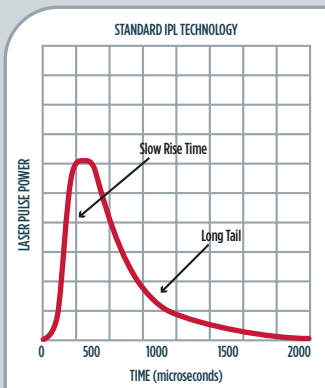
## DISTINCTIVE TECHNOLOGIES



Six sapphire filters provide superior light wavelength selectivity, effectively treating a variety of skin conditions.



Volumetric toning: the most effective solution for treating skin discoloration and rejuvenation through rapid pulse configurations (15 pulses per second).



## ADVANTAGES

Based on Xenon flash lamp emission with chilled water cooling system and square pulse technology, the CPL applicator uses a broad spectrum of light while lasers emit a single wavelength.

The CPL applicator produces a flat spectrum of light from 410nm to 1200nm.

## SUPERIOR SELECTIVITY

Different filters are used to filter out lower and higher wavelengths to effectively treat a broad spectrum of vascular and pigmented lesions, including photoaging skin treatments and hair removal. Treatments are gentle offering gradual results with minimal patient downtime and risk of side effects.

## SQUARE-SHAPED PULSE EMISSION

Square-shaped pulses avoid the slow rise, and even longer drop-off in pulse power associated with standard light technologies, and ensure ultimate performance and patient comfort during all treatments.

This uniform pulse creates a much more efficient heating process, so lower fluencies can be used to achieve the same clinical result.

## Clinical results.

### INDICATIONS FOR USE FOR MEDICAL TREATMENT

- Benign Pigmented Lesions.
- Benign Vascular Lesions.
- Microvascular Lesions.
- Acne.

### INDICATIONS FOR USE FOR AESTHETIC TREATMENT

- Skin Aging.



Before



60 days later / after 1 session



Before



6 months later / after 5 sessions

biotec italia

**xlose**  
PLUS

# Modular laser platform.

Multi-application.  
Always evolving.

- Diode Laser 810 and Alex Pro 760/808nm
- SLP Nd:YAG 1064/532nm
- NPP QS Nd:YAG 1064/532nm
- Er:YAG fractional 2940nm
- CPL (Calibrated Pulsed Light)



VIDEO  
TUTORIAL



The design of the machine may slightly differ from the image,  
while keeping the described functions unchanged.

biotec italia  
**xlase**  
PLUS

## The portable version

XLASE PLUS is available in a more compact version intended for doctors and professionals who require greater transportability. The use of the latest generation of electronics and mechanics has made it possible to reduce the overall dimensions without compromising efficiency and reliability. The solid cart with its exclusive design and the trolley case complete the offer for maximum mobility in total safety.



# xlase PLUS

## TECHNICAL DATA

SUPPLY VOLTAGE	230 VAC 50/60Hz
POWER	2000W (Max)
CLASS AND TYPE	I BF
DIMENSIONS XLASE STANDING	340x1000x670 mm
WEIGHT XLASE STANDING	61 Kg
FUSES	2x 10A 400V

## DIODE - ALEX PRO

LASER TYPE	HIGH POWER DIODE
CLASS	IV
WAVELENGTH	810nm - 760/808nm
PULSE WIDTH	<100ms CONTINUOUS PULSES
REPETITION RATE	FROM 1 TO 10Hz
FLUENCE TO TISSUE	UP TO 56J/cm <sup>2</sup>
SPOT SIZE	10x10 (100mm <sup>2</sup> ) - 10x15 (150mm <sup>2</sup> ) INTERCHANGEABLE PRISM
MAX POWER	2800W - 4000W
SKIN COOLING	WATER COLD SAPPHIRE
LASER EMISSION CONTROL	FOOTSWITCH & HANDPIECE SWITCH

## SLP Nd:YAG

LASER TYPE	Nd:YAG
CLASS	IV
WAVELENGTH	1064nm (532nm WITH KTP LENS)
ENERGY DENSITY	UP TO 22J
PULSE DURATION	FROM 250µs to 50ms
SPOT SIZE	2,5 / 4 / 5 / 6 / 7 / 10mm
REPETITION RATE	FROM 1 TO 10Hz
AIMING BEAM	DIODE LASER, 1mW @ 635nm - CLASS II
EMISSION CONTROL	FOOTSWITCH & HANDPIECE SWITCH

## NPP QS Nd:YAG

LASER TYPE	Cr:YAG + Nd:YAG + Ce:YAG
CLASS	IV
WAVELENGTH	1064nm (532nm WITH KTP LENS)
PULSE DURATION	FROM 900ps TO 5ns
SPOT SIZE	4 / 5 / 6mm
PULSE REPETITION RATE	FROM 1 TO 6Hz
ENERGY DENSITY	UP TO 4J
AIMING BEAM	DIODE LASER, 1mW @ 635nm - CLASS II
LASER EMISSION CONTROL	FOOTSWITCH & HANDPIECE SWITCH

## Er:YAG FRACTIONAL

LASER TYPE	Er:YAG
CLASS	IV
WAVELENGTH	2940nm
PULSE DURATION	0,5ms - 1ms - 1,5ms - 2ms
ENERGY	UP TO 2J
REPETITION RATE	FROM 1 TO 4Hz
SPOT SIZE	6mm (Ablativo) - 9X9mm (Fractional)
NUMBER OF STACKS	FROM 1 UP TO 6
LASER EMISSION CONTROL	FOOTSWITCH & HANDPIECE SWITCH

## CPL (CALIBRATED PULSED LIGHT)

SOURCE	XENON LAMP
SPECTRUM OF EMISSION	550-1200nm; 550-950nm; 650-950nm 410-1200nm; 695-1200nm; 755-1200nm
PULSE DURATION	FROM 1 TO 50ms
ENERGY	UP TO 36J/cm <sup>2</sup>
REPETITION RATE	UP TO 3Hz
TREATMENT AREA	50mmx10mm (5cm <sup>2</sup> )
CHANGEABLE LIGHTGUIDES	15mmx15mm - 6mmx15mm - 6mmØ
EMISSION CONTROL	FOOTSWITCH & HANDPIECE SWITCH

## APPLICATORS



DIODO E  
ALEX PRO

SLP Nd:YAG

Er:YAG FRACTIONAL

NPP QS Nd:YAG

CPL

## A SOLID COMPANY

With over 25 years of experience, Biotec Italia is a well-recognized developer and manufacturer of lasers, electronic, mechanical and pneumatic based technologies for the medical and aesthetic industry. Located in Vicenza, northern Italy, and with a branch in London, the United Kingdom. Biotec Italia exports in over 50 countries worldwide and offers customers an international services and sales network.

## 100% MADE IN ITALY

The entire production process is completely Italian, from design to assembly and quality testing. Biotec Italia guarantees the technological excellence of its devices and has highly trained specialists and collaborates with Opinion Leaders in the aesthetic and scientific field to be always aligned with the expectations and evolution of the market. Biotec Italia combines expertise, punctuality and reliability in the services made available, and offers individual support for the maximum satisfaction of its clients, in order to achieve the best desired result.

## FROM THE IDEA TO THE FINISHED PRODUCT

With a dedicated R&D department, several registered patents and combining Italian competence and creativity in the design and assembly processes, Biotec Italia pushes the ongoing change that generates progress. The intellectual assets of the company are the key for innovative technologies and advanced production methods for a wide variety of medical and aesthetic applications.

## CERTIFICATIONS AND QUALITY STANDARDS

To ensure the excellence of its manufacturing processes, Biotec Italia has a quality system certified by the Notified Body Bureau Veritas in accordance with ISO 9001 and ISO 13485. Biotec Italia guarantees that its devices meet applicable safety requirements and quality standards. Biotec Italia has the "CE mark" in its medical devices issued by Bureau Veritas. Customers can be assured that they are purchasing a device that is safe and complies with applicable regulations.



biotec italia  
Medical

**BIOTEC ITALIA S.R.L.**  
ITALY\_36031 DUEVILLE (VICENZA)  
VIALE DELLA REPUBBLICA 20  
T +39 0444 59 16 83  
F +39 0444 36 10 32

W [BIOTECITALIA.COM](http://BIOTECITALIA.COM)  
E [INFO@BIOTECITALIA.COM](mailto:INFO@BIOTECITALIA.COM)

YouTube Instagram Facebook LinkedIn



BIOTEC ITALIA  
MEDICAL  
E UN'A  
DIVISIONE DI  
biotec italia