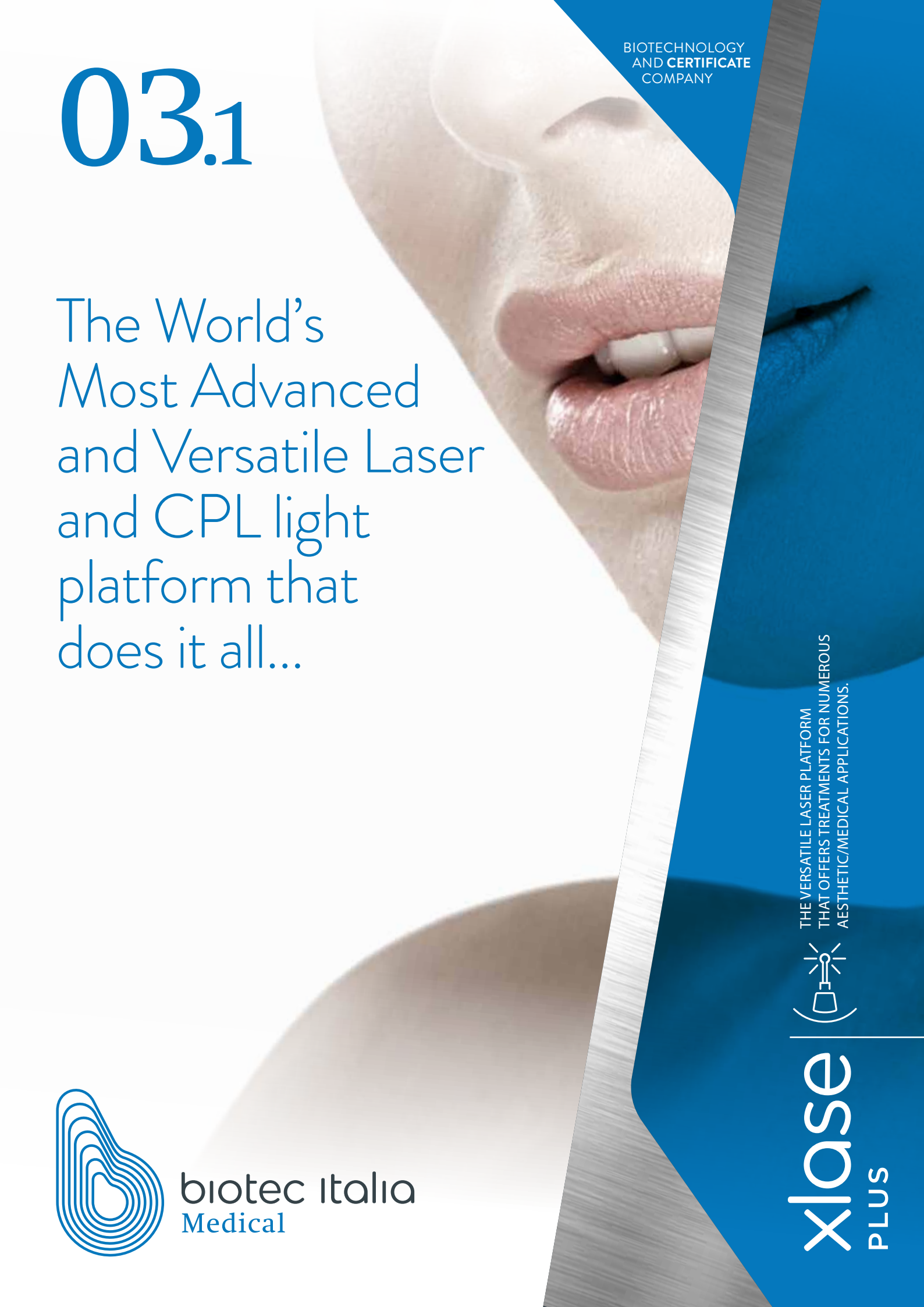
BIOTECHNOLOGY
AND **CERTIFICATE**
COMPANY

03.1

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



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

xlase PLUS

biotec italia
Medical

biotec italia

xlase PLUS

Modular laser platform.

Multi-application. Always evolving.



VIDEO TUTORIAL

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

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 fexibility 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 AlexPro, two in one, laser diode technology, CPL (Calibrated Pulsed Light), the popular YAG laser, the NPP QS Nd:YAG laser and the Er:YAG fractional 2940nm laser.

- Numerous 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 applications.
- 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.

The Solid State Laser Series

The Solid State Laser Series is a cutting-edge line of laser systems specifically designed for medical aesthetic applications. These lasers offer high precision, efficiency, and reliability, making them ideal for a wide range of cosmetic treatments such as skin resurfacing, hair removal, tattoo removal, and more. Leveraging solid-state technology, these lasers provide consistent performance and superior results in various aesthetic procedures.



KEY FEATURES

High Efficiency Pump Source

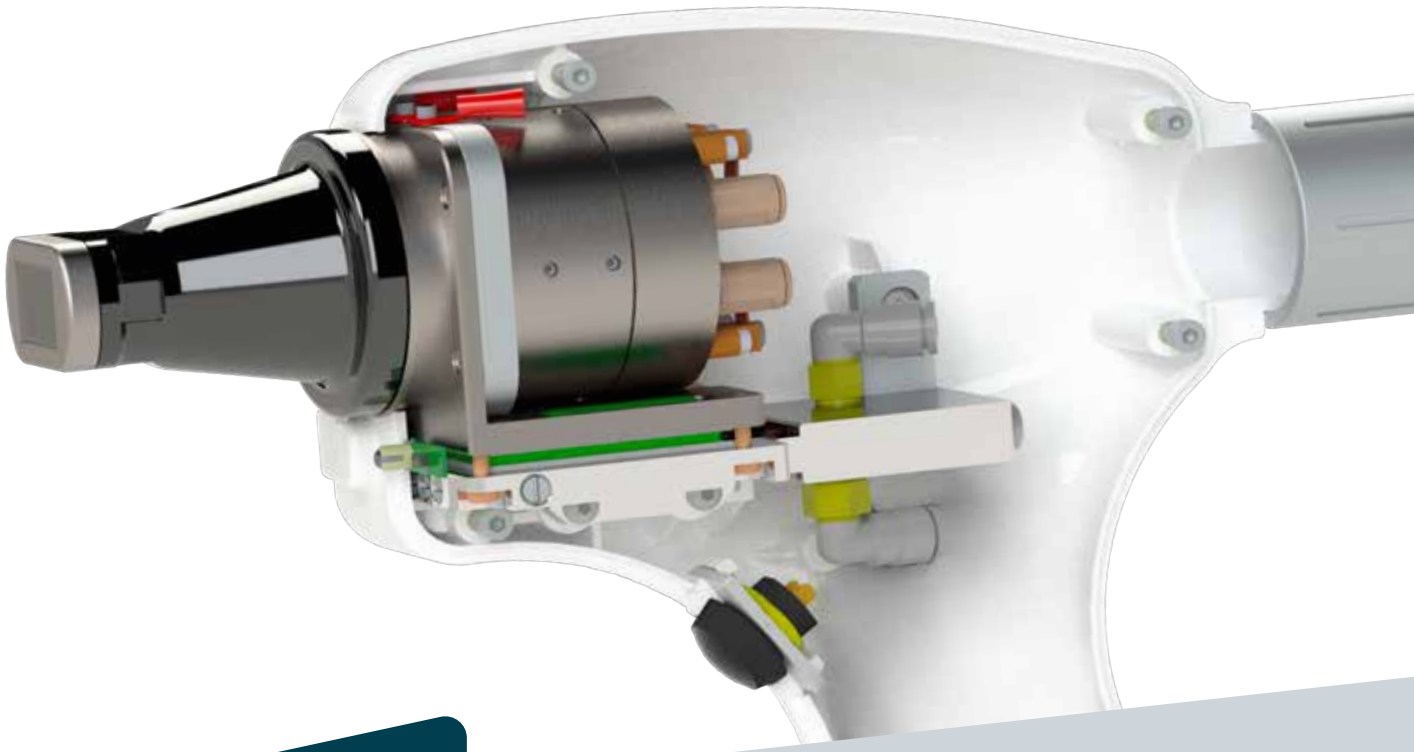
Pump Source: Exclusive designed flashlamp, engineered to meet omptimum high peak power.
Optical Cavity: Precision-engineered ceramic resonators for optimal beam quality and stability.
Q-Switching: Acousto-optic Q-Switch for generating high-intensity pulses.
Cooling System: Advanced cooling systems including water or air cooling to maintain optimal operating temperatures.
Long Lifespan: Extended operational life due to solid-state technology and efficient thermal management.
Robust Costruction: Designed with high-quality materials and components to withstand rigorous use.
Versatility: Availability of multiple wavelengths to suit different applications, such as Nd:YAG, Q-Switched Nd:YAG and Er:YAG.
Digital Controller: Microprocessor-based controllers for precise regulation of laser parameters.
User Interface: Intuitive touchscreens or control panels for easy operation and monitoring.

Xlase Plus BREEZE: Integrated Skin Air Cooling System

Integrated with Laser Systems: Seamlessly integrates with various medical laser applicators for synchronized operation.
Precise Delivery: Directs a controlled stream of cooled air to the treatment area for effective skin cooling.

AlexPro: Cutting Edge Diode Laser

The AlexPro 4000W is a high-power laser system featuring 808nm and 760nm wavelengths, making it versatile for various medical and aesthetic applications.
The dual-wavelength configuration allows the use of either single wavelength or a sequential combination of both, providing flexibility depending on the treatment objectives.



KEY FEATURES

High-Power Laser

Single Wavelength Mode: Either 760nm or 808nm can be used individually depending on the specific needs of the treatment and the patient's skin and hair type.
Sequential Dual-Wavelength Mode: In this mode, the two wavelengths can be fired in sequence, maximizing the advantages of each wavelength. This allows deeper penetration with 808nm while still benefiting from the high melanin absorption of 760nm for enhanced treatment efficacy.
High Efficency: Utilizes high-power diode lasers that offer efficient and consistent performance.
Energy Conversion: Efficient conversion of electrical input to laser output, reducing energy consumption.
Cooling System: Advanced cryo cooling systems including chilled water to maintain optimal operating temperatures.
Long Lifespan: Extended operational life due to efficient thermal management and durable design.
Robust Costruction: Built with high-quality materials and components to withstand intensive use.
Digital Controller: Microprocessor-based controllers for precise regulation of laser parameters.
User Interface: Intuitive touchscreens or control panels for easy operation and monitoring.

Sapphire Contact Cooling System

Continuous Cooling: Maintains a consistent cooling effect throughout the procedure to enhance patient experience.
Increased Energy Tolerance: Allows the use of higher laser energy levels for more effective treatments while protecting the skin.

AlexPro Laser



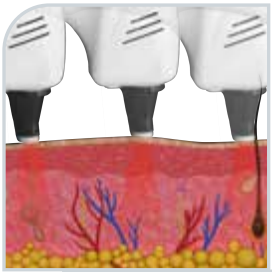
The request for hair removal on large body areas is constantly growing, but the technologies currently in use have shown several limits: excessive time required to achieve permanent hair reduction, lack in safety and difficulty in treating multiple skin types.

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

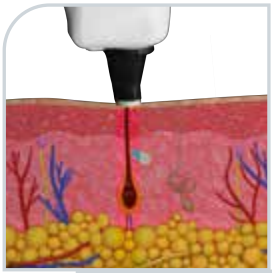
Featuring 808nm and 760nm wavelengths, the system provides a broader range of treatment options while benefiting from more efficient energy use and reduced heat loss, thanks to the direct electrical conversion. This results in faster treatments with high efficacy and safety.



The interchangeable PLUG-IN sapphire optics measure 81mm^2 and 150mm^2 and guarantee fast procedures while protecting the surface of the skin through contact cooling.



Motion speed 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.

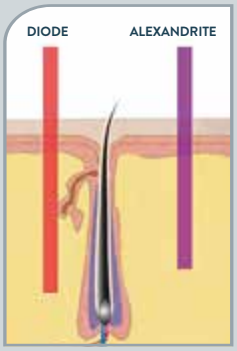
USER INTERFACE

Intuitive presets for fast learning curve and easy treatment procedure.





DISTINTICTIVE TECHNOLOGIES



The AlexPro system is equipped with two wavelengths (760 nm and 808 nm), allowing the operator to choose between using a single wavelength or both wavelengths in sequence. This feature ensures optimal effectiveness for hair removal, as it enables precise targeting of hair follicles based on the needs of the treatment.



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



Clamped laser bars technology provides superior thermal management and serviceability compared to soldered laser bars, making them preferable for high-power applications where efficient cooling and longevity are critical and guarantees long lifetime, up to 20 million pulses.

MOTION SPEED

The motion speed feature allows the laser handpiece to be moved continuously across the skin in a sweeping motion while still delivering pulses at a high repetition rate. This ensures that no areas are missed while also avoiding overlap that could cause excessive heating or discomfort.

Efficacy: less chromophore-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.

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

Short treatment time: with a spot size of 81mm2 and 150mm2, at 10 pulses per second, large areas can be treated rapidly.

LONG PULSE

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

Clinical results.

INDICATIONS FOR USE

ALEX PRO LASER

Indicated for the treatment of hair removal with static and dynamic modes. Intended for permanent reduction in hair regrowth, defined as a long term, stable reduction,in the number of hairs re- growing when measured at 6, 9, and 12 months after the completion of a treatment regime.

- Treatment of Pseudofolliculitis barbae (PFB);
- Use on all skin types (Fitzpatrick I - VI).



The clinical cases are a courtesy of Dr. Ferrari and Dr. Capponi (Studio Associato Medica).

SLP Nd:Yag Laser



The SLP Nd:YAG applicator emits light with a wavelength of 1064nm; 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, hair removal and telangiectasia.

SLP Nd:YAG zoom applicator allows a wide variety of treatments from hair removal, fine vascular non-ablative treatments. 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 unaffected.



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 of the “Easy-Plug” laser connector allows to easily switch from one handpiece to another and combines water-data and signal-power communications.

USER INTERFACE

Intuitive presets for fast learning curve and easy treatment procedure.





DISTINTICTIVE TECHNOLOGIES



The highly compact resonator ensures that the beam remains stable and is not scattered 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 BREEZE air cooling system delivers controlled cooling to the treatment area, minimizing discomfort, reducing thermal damage to the skin, and improving the overall effectiveness of various laser procedures.

ADVANTAGES

The SLP solid-state Nd:YAG laser with short (microsecond) and long (millisecond) pulse durations provides significant versatility for treating a wide range of skin conditions.
It can be used for everything from superficial vascular lesions and pigmented spots to deeper hair removal, skin tightening, and vascular treatments.

The ability to adjust pulse duration depending on the treatment needed allows practitioners to customize treatments for their patients, ensuring both safety and efficacy across multiple skin types and conditions.

The SLP Nd:YAG laser is homogeneously absorbed in melanin and blood, the two chromophores targeted in surgical and aesthetic laser treatments.
This makes it an ideal laser source for those who seek versatility for their practice in non-ablative aesthetics.
For decades, the deeply penetrating 1064nm Nd:YAG wavelength has been accepted as safe, effective and suitable for all skin types.

SKIN TIGHTENING

Non-ablative skin tightening with short high-frequency pulses is a highly effective, minimally invasive treatment that stimulates collagen production in the skin without damaging the surface layer.
The 1064 nm laser wavelength penetrates deeply into the skin, targeting the dermal layers where collagen production occurs, making it an excellent choice for non-ablative skin tightening treatments.

Clinical results.

INDICATIONS FOR USE

SLP ND:YAG LASER

Indicated for permanent reduction in hair regrowth, defined as a long term, stable reduction in the number of hairs re-growing when measured at 6, 9, and 12 months after the completion of a treatment regime. (Skin Types Fitzpatrick I-VI),
photocoagulation and hemostasis of benign pigmented and benign vascular lesions, treatment of benign pigmented lesions, such as but not limited to warts, telangiectasia, leg veins and spider veins.



Before



90 days later / after 1 session



Before



60 days later / after 1 session

The clinical cases are a courtesy of Dr. Ferrari and Dr. Capponi (Studio Associato Medica).

NPP QS Nd:YAG Laser



The NPP QS Nd:YAG applicator offers precise targeting of melanin and tattoo ink with minimal impact on surrounding skin, ensuring effective results with reduced risk of side effects.

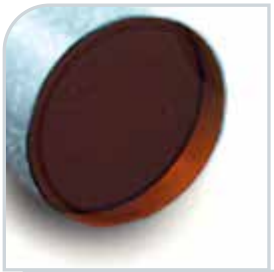
The system combines high peak power and short pulse duration through the use of an innovative Q-Switched crystal paired with unique resonator technology. This advanced design enables the production of a stable, high-energy laser output, ensuring efficient and precise treatments. The combination of short pulses and high peak power is ideal for various applications, such as tattoo removal, pigmentation treatments, and skin rejuvenation, where precision and controlled energy delivery are crucial for optimal results.



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



Different focal lenses can significantly impact the outcome of the treatment by affecting the spot size, energy density, and penetration depth of the laser beam.



The OptoH Q-Switch crystal is designed to deliver stable, high-energy laser output, capable of generating a giant laser pulse with a pulse width ranging from sub-nanosecond to 6 nanoseconds



The versatility and effectiveness of KTP crystal, enable precise, safe, and efficient treatments. It is ideal to treat superficial skin lesions.

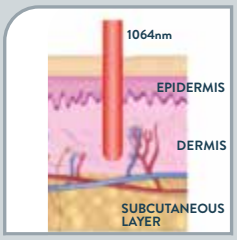
USER INTERFACE

Intuitive presets for fast learning curve and easy treatment procedure.





DISTINTICTIVE TECHNOLOGIES



NPP laser is highly effective for tattoo removal, pigmentation correction, and skin rejuvenation. Its reduced thermal damage ensures minimal downtime, and treatment versatility.



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



The BREEZE air cooling system delivers controlled cooling to the treatment area, minimizing discomfort, reducing thermal damage to the skin, and improving the overall effectiveness of various laser procedures.

ADVANTAGES

The NPP (Near Pico Pulse) Q-Switched Nd:YAG laser combines the benefits of Q-switched technology with pulse durations approaching those of picosecond lasers. This results in more effective, precise treatments with less downtime and fewer side effects.

Key advantages of using the NPP Q-Switched Nd laser:

Shorter Pulse Duration (Near Pico):
With a near-pico pulse duration, the laser can deliver energy to the target tissue in extremely short bursts, similar to picosecond lasers but within the nanosecond range.

Benefit:
The shorter pulse duration means less thermal damage to the surrounding tissue, which minimizes side effects like redness, swelling, and the risk of hyperpigmentation.
It is especially useful for treating pigmented lesions and tattoos with precision and minimal tissue disruption.

Carbon Peel:
Skin rejuvenation using a progressive lens and carbon stick is a non-invasive laser treatment that effectively improves skin texture, reduces fine lines, and minimizes pores.
This procedure combines the progressive lens technology with a carbon stick (also known as carbon laser facial or Hollywood peel), enhancing the treatment's precision and efficacy.

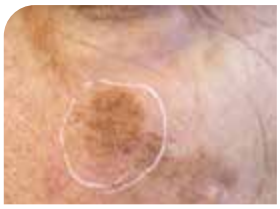
Clinical results.

INDICATIONS FOR USE

NPP QS ND:YAG LASER
Indicated for removal of dark tattoos and treatment of benign pigmented lesions.


Before


30 days later / after 5 sessions


Before


30 days later / after 1 session

The clinical cases are a courtesy of Dr. Ferrari and Dr. Capponi (Studio Associato Medica).

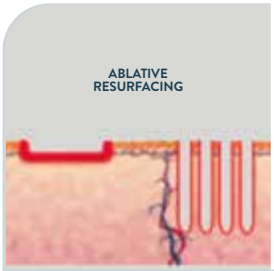
Er:Yag Laser



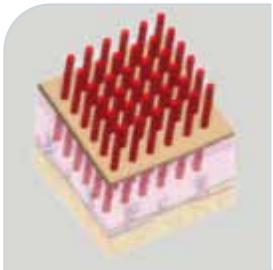
The Er:YAG laser is widely used in dermatology and aesthetics due to its precision, effectiveness, and versatility in treating various skin conditions.
The laser operates at a 2940nm wavelength and provides highly precise, controlled ablation with minimal thermal damage, making it a versatile tool for both ablative and non-ablative treatments.
Its safety profile, particularly for darker skin types and sensitive areas, combined with its effectiveness in collagen stimulation and skin resurfacing, makes it an excellent choice for treating a variety of skin conditions, from wrinkles and scars to pigmentation and skin laxity.
The shorter recovery times and lower risk of side effects compared to other ablative lasers (like CO) further add to its appeal for patients seeking non-invasive or minimally invasive rejuvenation.



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



The large 6mm laser beam delivers more aggressive treatments, which are often necessary for deep wrinkles, severe scars, or major sun damage.



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

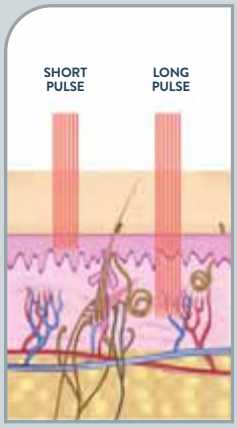
USER INTERFACE

Intuitive presets for fast learning curve and easy treatment procedure.





DISTINTICTIVE TECHNOLOGIES



Shorter pulse durations are typically used for superficial treatments, such as epidermal ablation or laser peels, where precise tissue removal is needed.
Longer pulse durations are used for non-ablative treatments where deeper collagen stimulation or skin tightening is desired.



The BREEZE air cooling system delivers controlled cooling to the treatment area, minimizing discomfort, reducing thermal damage to the skin, and improving the overall effectiveness of various laser procedures.

ADVANTAGES

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

SHORT PULSE

With a short pulse width, Er:YAG fractional laser induces minimal thermal effects to underlying tissue, offering effective skin rejuvenation treatments with higher comfort levels and shorter recovery times. Short pulses are ideal for superficial ablation of the epidermis, making them effective for treating fine lines, wrinkles, superficial scars, and pigmented lesions.

LONG PULSE

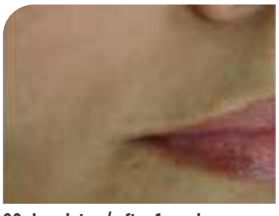
With long pulse duration, more heat is absorbed by the skin increasing thermal effect.
Longer pulse durations deliver laser energy over a more extended period, allowing deeper penetration of heat into the tissue. While the ablation is less aggressive than with shorter pulses, the longer duration induces thermal effects in the deeper skin layers, such as collagen stimulation and skin tightening.

Clinical results.

INDICATIONS FOR USE

ER:YAG LASER
Indicated for procedure requiring resurfacing of soft tissue with fractionated handpiece.


Before


90 days later / after 1 session


Before


1 month later / after 1 session

The clinical cases are a courtesy of Dr. Ferrari and Dr. Capponi (Studio Associato Medica).

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 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 skins 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 ensures to avoid skipping any area and full coverage rate.



Integrated contact cooling technology effectively cools the skin, allowing to use higher fluence.



CPL High repetition rate refers to the ability of the device to deliver multiple pulses of light in rapid succession. This feature enhances the overall effectiveness, safety, and patient experience.

USER INTERFACE

Intuitive presets for fast learning curve and easy treatment procedure.

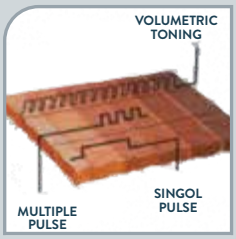




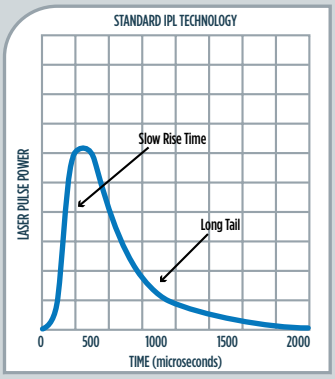
DISTINTICTIVE TECHNOLOGIES

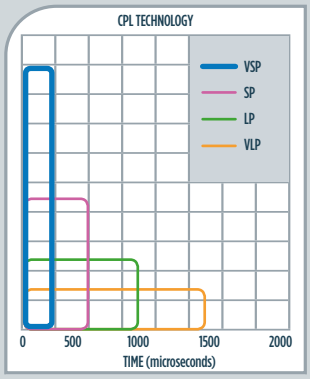


Sapphire filters with double coating offer enhanced performance by providing superior wavelength selectivity. This precision is key to effectively targeting specific skin conditions.



Rapid pulse configurations allow for precise targeting of melanin and collagen production, delivering multiple short, controlled bursts of energy to treat a variety of skin conditions.





ADVANTAGES

Based on Xenon flash lamp emission with cooling system and high performance 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 500nm to 1200nm.

SELECTIVE FILTERING

Different filters are used to filter out lower and higher wavelengths (e.g., 400-600 nm). Lower wavelenghts are more effectively absorbed by melanin and are ideal for targeting pigmented lesions, while higher wavelengths (e.g., 600-1200 nm) are better absorbed by hemoglobin in blood vessels, making them suitable for treating vascular lesions. Precise targeting of either melanin or hemoglobin allows the treatment of various conditions, such as age spots, sun spots, rosacea, spider veins, and vascular birthmarks. This improves the treatment's efficacy while minimizing the risk to surrounding tissues.

SQUARE PULSE TECHNOLOGY

High performance 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 fluences can be used to achieve the same clinical result.

Clinical results.

INDICATIONS FOR USE

CPL (Calibrated Pulsed Light)
Indicated for use Fitzpatrick skin types I - IV.
Indicated for permanent reduction in hair regrowth, defined as a long term, stable reduction in the number of hairs re-growing when measured at 6, 9, and 12 months after the completion of a treatment regime.
Photocoagulation of benign vascular lesions, photo thermolysis of blood vessels, treatment of benign pigmented lesions.



Before | 60 days later / after 1 session

Before | 6 months later / after 5 sessions

The clinical cases are a courtesy of Dr. Ferrari and Dr. Capponi (Studio Associato Medica).

xlase
PLUS

TECHNICAL DATA

SUPPLY VOLTAGE	115-240 VAC 50/60Hz
POWER	2000W (Max)
CLASS AND TYPE	I BF

ALEX PRO

LASER TYPE	HIGH POWER DIODE
CLASS	IV
WAVELENGHT	760/808nm
PULSE WIDTH	UP TO 120ms
REPETITION RATE	UP TO 10Hz
FLUENCE TO TISSUE	UP TO 40J/cm²

SLP ND:YAG

LASER TYPE	ND:YAG
CLASS	IV
WAVELENGHT	1064nm
PULSE DURATION	UP TO 60ms
REPETITION RATE	UP TO 10Hz
MAX FLUENCY	UP TO 700J/cm²

NPP QS ND:YAG

LASER TYPE	ND:YAG
CLASS	IV
WAVELENGHT	1064nm
PULSE DURATION	UP TO 6ns
PULSE REPETITION RATE	UP TO 5Hz
MAX FLUENCY	UP TO 20.4J/cm²

ER:YAG

LASER TYPE	ER:YAG
CLASS	IV
WAVELENGHT	2940nm
PULSE DURATION	UP TO 2.4ms
REPETITION RATE	UP TO 1Hz

CPL (CALIBRATED PULSED LIGHT)

SOURCE	XENON LAMP
SPECTRUM OF EMISSION	500-1200nm; 520-1200nm; 550-1200nm 595-1200nm; 650-1200nm;
PULSE DURATION	UP TO 60ms
MAX FLUENCY	UP TO 25J/cm²
REPETITION RATE	UP TO 0.5Hz

APPLICATORS



ALEX PRO | SLP ND:YAG | ER:YAG | QS ND:YAG | CPL

BT.MED.XLASE PLUS.BREEZE AIR COOLING REL 1. 31/03/2025

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