



Be an artist of the new era.

## SP Dynamis & SP Spectro

- Highest Performance Er:YAG and Nd:YAG Lasers
- Additional Surgical QCW Nd:YAG Laser
- Complete Inside-to-Out, Anti-Aging Treatments
- Full-Field and Fractional Scanning
- Novel TURBO and V-Smooth Technologies
- Easy-to-Use Treatment Parameter Management



**Fotona**  
choose perfection

The Highest Performance, Best Made Laser Systems in the World

# Next Generation Multi-App Laser Workstations

## • New Generation Resurfacing

Skin rejuvenation is a fast growing and competitive treatment segment. Meeting patient expectations has become a true artform. With advanced attributes and fully customizable settings, Fotona's SP Dynamis and SP Spectro systems offer true 3<sup>rd</sup> Generation Er:YAG laser skin resurfacing. Like using an artist's palette, you can precisely mix and match cold ablation and thermal effects to achieve perfect results.

## • Highest Performer in Popular Aesthetic Treatments

Nd:YAG certainly needs no introduction as the gold standard in hair removal, rejuvenation, acne and vascular treatments, and much more. S-11 Nd:YAG scanner compatibility further enhances these treatments in speed, safety and

efficiency, especially in large areas. With an extra Accelera Nd:YAG function you can now offer FRAC3® – the latest, exciting and novel approach in skin anti-aging and aesthetics.

## • Inside-to-Out Anti-Aging

Combine skin treatments with lucrative, minimally-invasive surgical treatments including laser lipolysis. The SP Dynamis and SP Spectro\* are equipped with a powerful surgical QCW Nd:YAG laser for fast and efficient procedures. Its wavelength is proven to show exceptional efficacy and significantly reduce recovery times in procedures. Unlike other laser workstations on the market, the SP Dynamis and SP Spectro allow you to provide patients with anti-aging treatments that are truly from the inside-to-out.



## Why an Er:YAG & Nd:YAG Laser Combination?

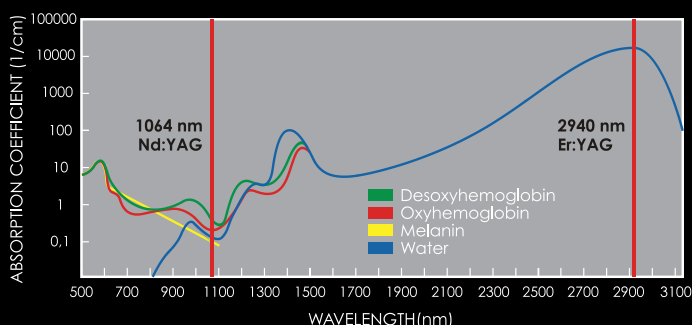
Advanced performance VSP Er:YAG lasers inherently ablate skin more efficiently. The energy is highly absorbed in water – the main target chromophore for skin resurfacing – and can thus vaporize skin with micron-precision with very little thermal conduction. This keeps undesired effects such as hypopigmentation and persistent erythema, as well as recovery time, to a minimum. The VSP Er:YAG laser in the SP Dynamis and SP Spectro systems can be accurately tuned to varying “cold” ablation and non-ablative thermal ratios. Full customizability allows you to precisely attain the clinical outcome your patients want.

The Nd:YAG laser perfectly complements the Er:YAG

laser's ablative action with its ability to penetrate deep into the skin to create thermal effects without damaging the skin surface. Its homogeneous absorption in the skin and low absorption in melanin allow it to be safely used in all skin types. Compared to conventional technologies, the VSP Nd:YAG pulses of the SP Dynamis and SP Spectro lasers create virtually instantaneous temperature increases, limited to the targeted structures only. No unnecessary energy is deposited into the skin.

### Principle Dynamis / Spectro indications:

- Mild to deep wrinkles
- Persistent, deep perioral and ocular wrinkles
- Body sculpting and persistent fatty deposits
- Acne, post-traumatic and surgical scarring
- Telangiectasia to varicose veins
- Unwanted hair
- Benign pigmented and vascular skin lesions
- Fine lines, wrinkles and sun-damaged skin
- Sagging skin and stretchmarks
- Hyperhidrosis



# An Added Dimension to Your Skin Treatment Workstation

## • A Winning Formula

Combining skin treatments, specifically skin tightening and fractional treatment of fine lines and wrinkles, with laser lipolysis is a winning formula. These two treatment areas constitute body shaping, currently the fastest growing aesthetic application in the medical aesthetics industry. The popularity of laser technology in these fields is driven by the demand for fast, yet efficient and effective treatments with a minimum of downtime and invasiveness.

## • Superior Clinical Safety and Efficacy

Nd:YAG lasers are the most widely used lasers in lipolysis and have the longest record of clinical safety and efficacy. The observed clinical advantages are attributed to their ability to optimally target laser energy into fatty tissue. The

1064 nm Nd:YAG wavelength affects the largest thermal volume in the subcutaneous fat tissue and is least likely to cause any injury in the neighboring dermis. Bleeding is kept minimal as the pulsed QCW Nd:YAG laser coagulates blood vessels extremely efficiently.

## • Keep Up with the Latest Popular Surgical Procedures

The Nd:YAG wavelength strikes a perfect balance in its absorption in various body chromophores, allowing it to be safely, effectively and efficiently used in many surgical procedures. Studies confirm that the Nd:YAG laser minimizes patient discomfort, increases success rates and shortens recovery times. To keep up with new procedures, Fotona offers an ever-increasing range of compatible surgical sets, eliminating the need to continuously reinvest.



Photo cases provided courtesy of Latinmed inc., D. Maletic MD, I. Luppino MD

## A Laser Workstation for Every Practice

Fotona offers one of the most extensive lines of laser systems in the industry; there is a laser system to suit every practice's needs and budget. For more information on the complete line of Dynamis and Spectro laser systems, visit [www.fotona.com](http://www.fotona.com) or contact your local Fotona representative.

### Dynamis line

Model	SP Dynamis		XS Dynamis	XP Dynamis
Laser type	Er:YAG	Nd:YAG	Er:YAG	Nd:YAG
Wavelength	2940 nm	1064 nm	2940 nm	1064 nm
Modalities	Full-field, Fractional, V-SMOOTH, TURBO	LP, FRAC3®, QCW, PIANO	Full-field, Fractional, V-SMOOTH, TURBO	LP, FRAC3®, QCW, PIANO
Energy / Power	3 J	80 W	3 J	80 W
Scanner	F-Runner, S-Runner	S-11	F-Runner, S-Runner	S-11

### Spectro line

Model	SP Spectro		XP Spectro
Laser type	Er:YAG	Nd:YAG	Nd:YAG
Wavelength	2940 nm	1064 nm	1064 nm
Modalities	Full-field, Fractional, V-SMOOTH, TURBO	LP, FRAC3® * QCW - optional	LP, FRAC3® * QCW - optional
Energy / Power	3 J	35 W	35 W
Scanner	F-Runner, S-Runner	S-11	S-11

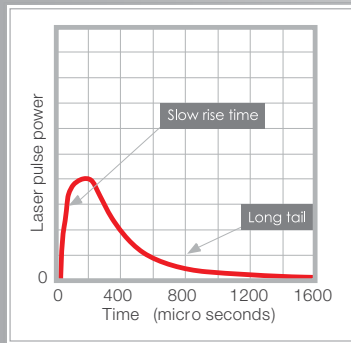
# Ultimate in Safety and Precision

## • Technologies that Offer Peace of Mind

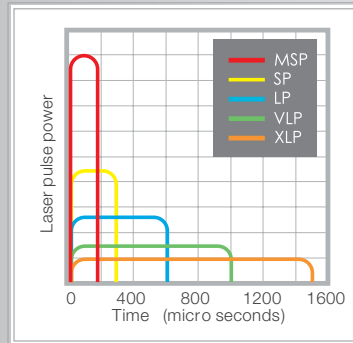
Proprietary Variable Square Pulse Technology creates controlled sequences of near square-shaped pulses to avoid unnecessary laser energy delivery into the skin and improve safety. Energy Feedback Control Technology checks and controls each individual pulse's energy level, ensuring that output energy is exactly matched for safe and effective treatment. These technologies give you the peace of mind that the parameters you selected are being safely and precisely delivered by the system throughout the entire treatment.

## • Optimal Balance for First-Class Results

*Ablation* and *thermal effects* are two distinct physical mechanisms through which pulsed Er:YAG lasers affect the skin. Each pulse's clearly defined and controlled parameters define the ablation and coagulation ratio in the treatment. First-class clinical results require an optimal balance of ablation depth and thermal coagulation. To maximize clinical results and minimize downtime, VSP Technology offers precisely controlled and adjustable ablation and coagulation ratios.



Standard laser technology



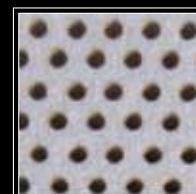
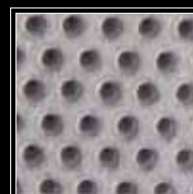
Fotona VSP technology

VSP Technology's square pulses avoid the slow rise of laser power and even longer fall of conventional, less advanced laser technology. This avoids unnecessary laser energy delivery into the skin, maximizing safety.

## High-Definition Fractional Treatments with TURBO Mode and FS-01 Handpiece

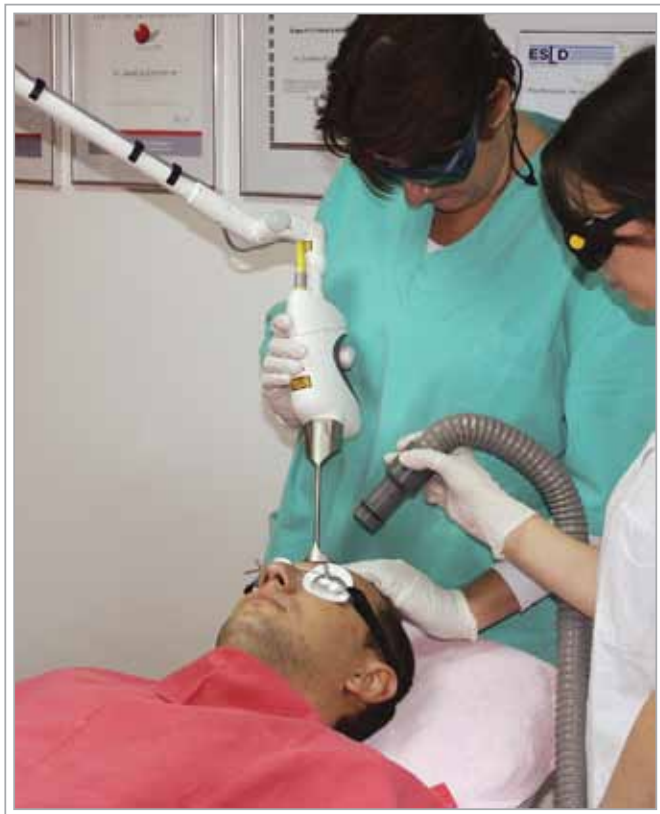
TURBO mode is another unique technology feature. "Turbo" sequences of identical pulses emitted within the same treatment spot on the skin enhance ablation depth and create more accurately and sharply defined microchannels than with single pulses of equivalent fluence. TURBO Technology will allow you to adopt and capitalize on a true "less is more" strategy, by getting the most out of even the most conservative treatment settings.

The FS-01 high-speed fractional handpiece ablates precise micrometric channels over just a fraction of the entire resurfacing area. This initiates a wound healing response which stimulates fibroblasts to produce new collagen and elastin, resulting in tighter, younger skin. The FS-01 produces 81 identical microchannel spots in a single laser shot, making it Fotona's fastest ever fractional handpiece and considerably shortening treatment times. The diffractive optics technology enables the laser shot to produce extremely sharp and precise microchannels with unmatched control of both the spot size and depth of penetration, creating an optimal relationship between safe microablation and coagulation.



TURBO mode microchannel contours (right) are distinctly sharper and more well-defined than those of equivalent energy single pulses (left).

# Unprecedented Full-Field Ablation Options



## • More Control than Ever Before

Full-field ablation has been the mainstay for master artists in skin resurfacing for many years. It remains the most efficient and effective to achieve dramatic results. Now S-Runner computer-controlled scanning offers you unrivalled accuracy and control in treatments.

## • Discover the Other Side of Ablation

Combined with SP Dynamis' and SP Spectro's supporting technologies, S-Runner scanning offers an extraordinarily wide variety of treatment options. In the ablative range, treatments can extend from Light Peels to Deep Peels. In the thermal regime, options range from Non-ablative Thermal with exclusive V-Smooth Technology to Medium Thermal supported by TURBO technology.

## • More Intense Deep Collagen Remodeling

V-Smooth Technology sets the SP Dynamis and SP Spectro in a class apart from other resurfacing technologies available today. Their extreme skin-coverage speeds at longer pulse duration times provide more effective and controlled skin coagulation. V-Smooth treatments induce more intense deep collagen remodeling; ideal for patients who want drastic rejuvenation effects but are not inclined towards aggressive ablative treatments.

## S-Runner

### Computer-Controlled Full-Field Scanning

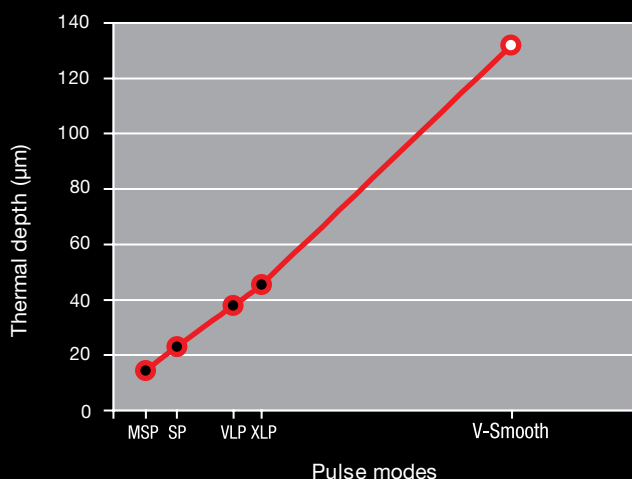
- 4x4 cm maximum scan area
- 4 mm spot size
- 0% to 30% overlap
- Up to 470  $\mu\text{m}$  ablation depth per scan
- Fully adjustable scan pattern
- OPTimal, PaRtial and SEquential scanning
- TURBO mode and V-Smooth compatible
- Ergonomic and functional design

## V-Smooth Technology

### New Long Pulse for High-Speed Coagulation

V-Smooth, or Variable Smooth, is a novel modality for high thermal, minimally ablative skin rejuvenation treatments that induce collagen remodeling. V-Smooth is based on specially-developed scanning speed enhancing solutions unique to S-Runner. V-Smooth Technology ensures complete accuracy and unparalleled simplicity by targeting

and irradiating individual spots for an optimal time, and returning to the same spots at computer-controlled intervals to optimally deliver the treatment. Besides optimizing accuracy and efficacy, patient safety and comfort are thus maintained. Its featured 100 ms to 500 ms variable pulse duration range extends the variable coagulation depth range, to enable you to fine-tune treatments. V-Smooth even allows for ablative and deep thermal effects within a single scan.



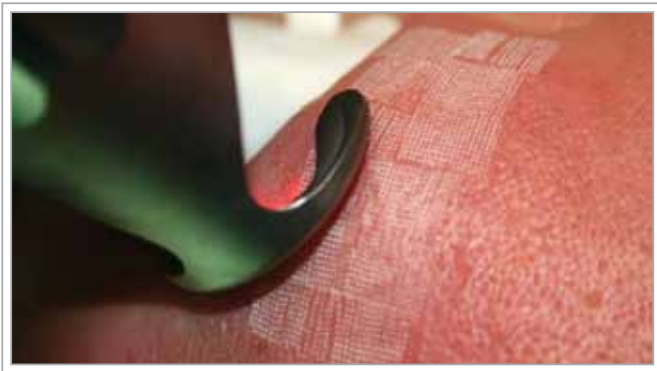
The maximum thermal depth using 100 ms V-Smooth (white) compared to conventional pulse duration modes (dark).

# Fractional Scanning Accelerates Recovery



## • Maximum Results within Patient Downtime Limits

The art of skin rejuvenation is balancing treatment intensity with acceptable patient downtime. F-Runner fractional scanning, combined with the treatment control features of the Dynamis and Spectro systems, allow you to set that perfect balance. The F-Runner ablates micron-diameter channels over just a fraction of the entire resurfacing area. This initiates a wound healing response which stimulates fibroblasts to produce new collagen and elastin. The surrounding and intact skin tissue further promotes rapid healing.



## • Unrivalled Accuracy and Uniformity

F-Runner fractional scan treatments increase general skin thickness and turgor to provide a healthy look and feel to the skin. They provide excellent patient comfort with faster healing times, and can be tuned to produce subtle to dramatic results. Large-area procedures will dramatically benefit from the unrivalled accuracy and uniformity that only computer-controlled scanning can ensure.

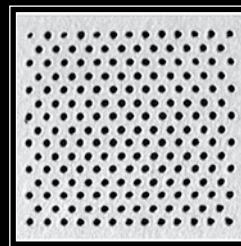
## F-Runner

### Computer-Controlled Fractional Scanning

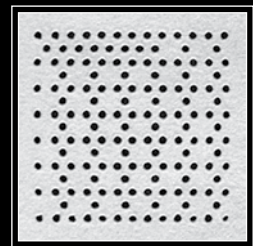
- Sharp fractional treatments
- 250 µm microspot size
- <5 µm to 1100 µm micro-channel depths
- Adjustable scanning field coverage
- 168 mm<sup>2</sup> maximum scan area
- CRYstal and NATural scanning
- TURBO technology compatible
- Ergonomic and functional design



Computer-controlled scanning in combination with ergonomically-adjusted and functional design provide levels of procedure accuracy and uniformity unattainable by any other technological means.



A. Completed, full size F-Runner scan



B. OPTimal scanning regime with F-Runner in progress



C. Rectangular, shape-adjusted, scan area one hour after F-Runner treatment.



D. Rectangular, shape-adjusted, scan area 20 hours after F-Runner treatment.

To further expand the fractional options available for skin rejuvenation, all Dynamis and Spectro systems are compatible with Fotona's range of Titanium Pixel Screen Technology handpieces. Visit [www.fotona.com](http://www.fotona.com) for more information or contact your Fotona representative.

# A Revolution in Non-Ablative Rejuvenation



Before



After

Patients report that their skin feels more elastic, bouncy and generally younger after FRAC3® treatments. For many practitioners such treatments are ideal offerings to help patients feel great before an important social event.

The SP Dynamis and SP Spectro include an Accelera Nd:YAG laser that generates extremely short pulses to provide FRAC3® skin rejuvenation and many other popular non-ablative aesthetic treatments, such as hair removal and vascular treatments.

A revolution in skin rejuvenation and anti-aging—FRAC3® produces a unique, self-induced skin rejuvenation effect as it seeks out minuscule, age-related skin imperfections in the skin. Thanks to its three-dimensional treatment pattern, more surrounding tissue remains unaffected to provide faster healing than in conventional fractional treatments.

The SP Dynamis also features new treatment possibilities with Fotona's Nd:YAG PIANO modality. This new super-long PIANO pulse is much longer than the thermal relaxation

time of the epidermis or any other skin structures. As a result, it does not cause high initial temperature peaks in the epidermis. It is therefore preferable to use super-long PIANO pulses that achieve approximately the same overall heat shock effect on the dermis, while sparing the epidermis from the unnecessary thermal damage.

The PIANO modality is perfectly indicated for treatments where overall homogeneous, bulk heating of the dermis is desired: skin collagen remodeling, PIANO skin tightening, wound healing and scar prevention. It also improves the end result in treatments that combine the non-ablative Nd:YAG laser skin remodeling with the Er:YAG laser fractional skin resurfacing.

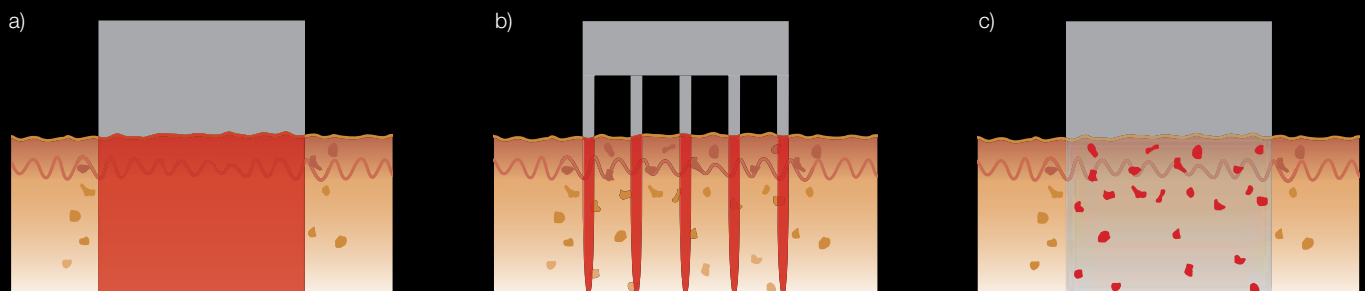
## Ultra-Short Pulses Stimulate Collagen Formation

Minimally invasive skin rejuvenation is proven to be the safest and most effective in the Accelera Nd:YAG ultra-short pulsewidth range. These pulses have been shown to selectively heat small skin imperfections and inhomogeneities of a <math><50\ \mu\text{m}</math> size range throughout the skin tissue, effectively forming FRAC3®'s distinct three-dimensional pattern of fractional islands of thermally affected skin.

Thermal skin images and ultra-structural analysis show a decrease in overall collagen fiber diameter in the papillary

dermis, consistent with new collagen formation, as well as improvements in erythema, pore size, skin texture and tone that improve the overall skin quality.

As a fractional technique, FRAC3® has a distinct advantage over conventional two-dimensional fractional treatments in that not all of the targeted skin tissue is uniformly thermally affected or even removed. FRAC3® is non-ablative and leaves the maximum of healthy tissue to promote rapid healing and minimal patient downtime.



Laser induced damage islands as healing centers:

a) standard uniform laser treatment; b) standard two-dimensional fractional treatment; c) novel self induced three-dimensional FRAC3 laser treatment

## Global Leader for over 45 Years

Since 1964 Fotona has set industry standards of excellence in laser systems for medicine, communications, industry, and defense. Our laser systems are the result of over 45 years of experience and expertise in producing high-tech products for these respective fields. Consequently Fotona is a globally recognized leader and pioneer in the innovation, development and manufacture of laser systems.

## High Technology - Made in Europe

As one of the top manufacturers of medical laser systems, our commitment to state-of-the-art, in-house production sets us apart from the competition, which typically outsources the production process. Fotona's in-house manufacturing and stringent testing of all components, in compliance with applicable international standards, ensures that our systems are of the highest quality, reliability and durability. When you choose Fotona, you choose the highest performance, best-made laser systems in the world.

## Best Training and Support

To get the most out of your Dynamis or Spectro laser system, our practitioner workshops, coorganized with the Laser and Health Academy, provide hands-on demonstrations of our lasers from international clinical experts.

### Dynamis Line International Recognition

20<sup>th</sup> EADV 2011, Portugal

Jasmina Kozarev MD: "The use of fractional Er:YAG laser for hair growth in the treatment of androgenetic alopecia"

Warsaw Aesthetic Congress 2011, Poland

Leonardo Marini MD: "New „Piano“ therapy with Nd:YAG laser"

IMCAS 2011, France

Woraphong Manuskiatti MD: "Workshop: SP Dynamis: Nd:YAG + Er:YAG, Photo-Rejuvenation"

Journal of the Laser and Health Academy Vol. 2011

Matjaz Lukac et al.: "New Skin Treatment Possibilities with PIANO Mode on an Nd:YAG Laser"

Tomaz Bevec and Matjaz Lukac: "Fractional FRAC3® and TwinLight™ Laser Skin Treatments"

Leonardo Marini MD: "TwinLight rejuvenation technique (Nd:YAG+Er:YAG) vs Er:YAG resurfacing alone: a comparative study"

Rungsima Wanitphakdeedecha MD: "Treatment of Onychomycosis with a Long-Pulsed Nd:YAG Laser"

The European Aesthetic Guide, issue Spring 2011

Ilya Petrou MD: "SP Dynamis Offers All-in-One Laser System"

## The Highest Performance, Best Made Laser Systems in the World.

### In-House Technology



Since 1964



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Fotona is certified to: ISO 9001:2008, EN ISO 13485:2003, MDD 93/42/EEC, ANNEX II.3, ISO 13485:2003 (CMD CAS), GMP according to FDA regulations

