

SYNCHRO QS4



**MEDICINE AND AESTHETICS**

**SYNCHRO QS4**

**Multicolored Tattoos Removal**

**Dermal and Epidermal  
Benign Pigmented Lesions**

**Wrinkles Reduction**

**Acne Scars**

**Hair Removal: Fine Vellus Hair**

**Maximum Results and Safety in Treating  
Multicolored Tattoos and Pigmented Lesions**

**DEKA Intelligent Technologies:  
Experts from the Start**



The Code of Excellence

## SYNCHRO QS4

### AGAINST ANY REGRETS!

The tattoos trend is gaining in popularity (especially in western countries) among adolescents and young adults. But the request for tattoo removal has increased regularly in recent years, becoming a relevant medical problem. The reasons are social and linked to the need to identity affirmation, reason that can change during the growing up.

In the past, various methods have been attempted, but are associated with high scarring risk and unsatisfactory results.

The advent of Q-Switched lasers has made tattoo removal easier and with great success, becoming today, the best solution for treating any kind of tattoo (professionals, amateur, cosmetic and traumatic). Q-Switched laser is also successfully used in treating benign pigmented lesions (ageing spot, freckles, Ota's Nevus, Ito or Hori's Nevus).

*"My patients are now asking for safety and non invasive treatment and DEKA has moved in this direction.*

*DEKA Synchro QS4 can achieve excellent results with negligible risk for the patient. Thanks to the 4 different wavelengths in one system I can choose whichever wavelength is more efficient for treating all commonly used pigment colors. The multiple spot dimensions allow the removal of deep and complex tattoos thanks to the homogeneity of the pulse. Synchro QS4 allows to successfully treat complex cases without the formation of hypopigmentation or atrophic tissue.*

*Each person reacts differently to the treatment due to different factors influencing its effectiveness: age, skin type, habits, where is situated the tattoo, and also the quantity of color, the possibility of stratification, the chemical composition and its depth. It is fundamental to have a laser tattoo removal system that gives you great option flexibility in total safety. The effective final result is the natural consequence of these perfect conditions."*

**Prof. Giovanni Cannarozzo, M.D.**

*Lasers in Dermatology,  
University of Rome, Tor Vergata, Italy*

# MEDICINE AND AESTHETICS

## SYNCHRO QS4



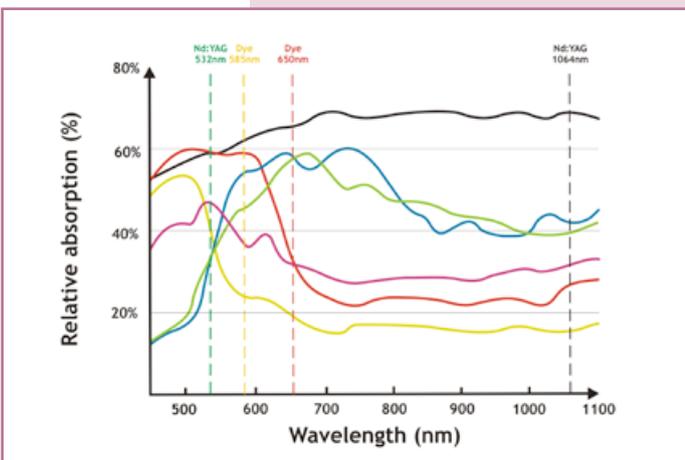
**SYNCHRO QS4: 4 WAVELENGTHS IN 1 SYSTEM. NO COLORS CAN HOLD UP!**

Synchro QS4 system is the new advanced Q-Switched Nd:YAG for treating tattoos, dermal and epidermal benign pigmented lesions that gives optimal results in complete safety and without side effects.

There are various types of tattoos and pigmented lesions depending on the color, depth and area. Therefore it is important to ensure the effectiveness and complete safety of the treatment by using specific wavelengths and fluences optimized for each type of pigment.

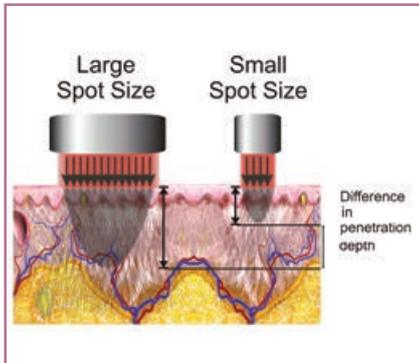
For effective multi-color tattoo removal Synchro QS4 uses the ultimate Q-Switched laser source generation that offers 4 different treatment wavelengths: 1064 nm, 532 nm, 585 nm and 650 nm. The pigment, or the color, of a tattoo will determine which selective wavelength is more effective at removing a tattoo. These wavelengths can be safely and effectively used for superior results.

Synchro QS4 emits different wavelengths: the fundamental 1064 nm and other wavelengths obtained with frequency conversion technology (532 nm) and through dye laser handpieces (585 nm and 650 nm - optionals).

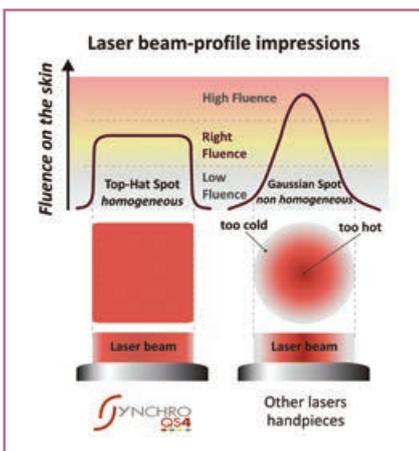


- 1064 nm Nd:YAG - black and dark colors (dark grey, green and blue)
- 532 nm Nd:YAG - red and similar (purple, orange, light brown)
- 650 nm Nd:YAG - green
- 585 nm Nd:YAG - sky blue

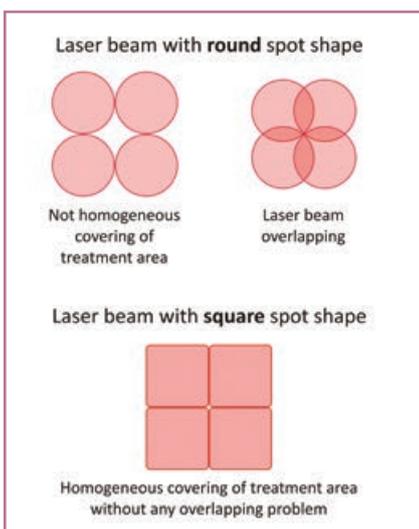
<b>Complete</b>	Synchro QS 4 can treat all benign pigmented lesions and multicolored tattoos.
<b>4 in 1</b>	4 complementary wavelengths included in 1 system.
<b>5</b>	Spot sizes available (2x2 mm - 2.5x2.5 mm - 4x4 mm - 5.5x5.5 mm - 6x6 mm).
<b>Top-Hat Technology</b>	Thanks to the Top-Hat Technology, fluence homogeneity is guaranteed on the whole spot area for an improved effectiveness and safety.
<b>Square Spot</b>	To avoid overlapping and maximize the effectiveness of the treatment.
<b>Autodiagnostic test</b>	For an effective control of the output energy.



Different penetration of spot sizes.



Maximum beam homogeneity of Synchro QS4 emission



Round spot shape vs. square spot.

### MAX POWER IN SINGLE SHORT PULSE

DEKA Synchro QS4 can release powerful pulse (Megawatt) in an ultra-short time (6 ns) producing a photoacoustic effect that breaks pigments up to the derma.

The fragmented pigment is then released and eliminated by the lymphatic draining system.

The short laser pulse is able to hit the target (colored pigment) safeguarding the surrounding tissues and making the procedure easiest and less risky (in respect of Selective Photothermolysis Principle (SPP)).

### FLEXIBILITY OF SPOT SIZE AND OPTIMIZED RELEASED ENERGY

DEKA Synchro QS4 has various different spot sizes (2x2 mm - 2.5x2.5 mm 4x4 mm 5.5x5.5 mm - 6x6 mm) that allow great treatment flexibility according to skin type, depth and skin pigment of the tattoo.

Increasing contact area affects the pigments in-depth while protecting the surrounding tissues.

Each spot also has its own focal lens that allows optimized energy delivery by maximizing the treatment effectiveness.

### MAXIMUM BEAM HOMOGENEITY: TOTAL CONTROL

Homogeneity in tattoo treatment is synonymous of SAFETY.

A homogeneous pulse is characterized by the same amount of energy in the whole contact area thus allowing a control maximum energy delivered and, consequently, a minimization of undesirable side effects due to an unequal dosage of energy.

### EXCLUSIVE SPOT SHAPE: MAXIMUM EFFICACY

Another important feature is the exclusive shape of Synchro QS4 spot. The square spot is actually the best one for reaching maximum efficacy in pigmented lesion and tattoo treatment because it allows to cover the whole area without overlapping and minimal untreated areas.

As a consequence the removal process is as uniform as possible.

## OUR GOAL: SAFETY RESULTS AND NO SIDE EFFECTS

It is estimated that 30% of the adult population want to have tattoo removal for several reasons. Nevertheless, it is uncommon to find a laser system and a methodology for treating effectively each type of tattoo, color and depth that does not damage the surrounding tissue or lead to scarring of the skin.

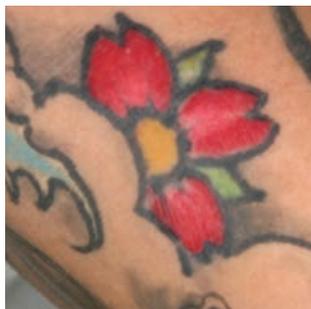
Synchro QS4 was designed by DEKA to respond to new market needs that require safe and controlled devices thus providing effective results.

Our goal is to provide to our clients an optimize device for tattoo removal or benign pigmented lesions, in total safety, minimizing the risk of causing scarring or depigmentation, and ensuring the appropriate energy in a controlled and uniform way.



**Traumatic Tattoo Removal**

*Courtesy of: P. Campolmi, M.D. - G. Cannarozzo, M.D. Florence - Italy*



**Red Tattoo Removal (allergic reaction)**

*Courtesy of: P. Campolmi, M.D. - G. Cannarozzo, M.D. Florence - Italy*



**Pigmented Lesion Removal**

*Courtesy of: P. Campolmi, M.D. - G. Cannarozzo, M.D. Florence - Italy*



**Tattoo Removal**

*Courtesy of: P. Campolmi, M.D. - G. Cannarozzo, M.D. Florence - Italy*



**Pigmented Lesion Removal**

*Courtesy of: G. Cannarozzo, M.D. Florence - M. Sannino, M.D. Naples - Italy*



**Tattoo Removal**

*Courtesy of: P. Campolmi, M.D. - G. Cannarozzo, M.D. Florence - Italy*

## TECHNICAL DATA

<b>Laser</b>	Q-Switched Nd:YAG
<b>Wavelengths</b>	<ul style="list-style-type: none"> <li>• 1064 nm</li> <li>• 532 nm</li> <li>• 585 nm (Optional handpiece)</li> <li>• 650 nm (Optional handpiece)</li> </ul>
<b>Pulse Duration</b>	6 ns
<b>Max Energy @ 1064 nm</b>	1.6 J
<b>Max Repetition Rate @ 532/1064 nm</b>	10 Hz
<b>Square Spot Sizes 1064 / 532 nm</b>	2.0 x 2.0 mm 2.5 x 2.5 mm 4.0 x 4.0 mm 5.5 x 5.5 mm 6.0 x 6.0 mm
<b>Square Spot Sizes 585 / 650 nm</b>	2.5 x 2.5 mm
<b>Electrical Requirements</b>	100-115V (50/60Hz) 220-230V (50Hz) 1.6 kVA
<b>Dimensions* and Weight</b>	132(H) x 48(W) x 80(D) cm - 90 kg

\*With folded articulated arm.



This brochure is not intended for the market of USA.

**MULTICOLORED TATTOOS REMOVAL - DERMAL AND EPIDERMAL BENIGN  
PIGMENTED LESIONS - WRINKLES REDUCTION - ACNE SCARS  
HAIR REMOVAL: FINE VELLUS HAIR**

CE  
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VISIBLE AND INVISIBLE LASER RADIATION  
AVOIDE EYE OR SKIN EXPOSURE TO  
DIRECT OR SCATTERED RADIATION  
CLASS 4 LASER PRODUCT  
Max. laser energy/power @ 1064nm: 2J/20W  
Max. laser energy/power @ 532nm: 600mJ/6W  
Max. pulse length: 22ns  
Max. pilot laser power @ 532nm: 500mW: 1mW  
Classified by IEC 60825-1 (2007-03)



VISIBLE LASER RADIATION  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR SCATTERED RADIATION  
CLASS 4 LASER PRODUCT  
Max. laser energy/power @ 585nm: 340mJ/680mW  
Max. pulse length: 12ns  
Classified by IEC 60825-1 (2007-03)

VISIBLE LASER RADIATION  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR SCATTERED RADIATION  
CLASS 4 LASER PRODUCT  
Max. laser energy/power @ 650nm: 240mJ/240mW  
Max. pulse length: 12ns  
Classified by IEC 60825-1 (2007-03)

**SYNCHRO**  
QS4

**DEKA**



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Dealer stamp

**El.En.**  
El. En. Group

[www.dekalaser.com](http://www.dekalaser.com)

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**DEKA The Code of Excellence**  
A spin-off of the El.En. Group, DEKA is a world-class leader in the design and manufacture of lasers and light sources for applications in the medical field. DEKA markets its devices in more than 80 countries throughout an extensive network of international distributors as well as direct offices in Italy, France, Germany, Japan and USA. Excellence is the hallmark of DEKA's experience and recognition garnered in the sphere of R&D in over thirty years of activity. Quality, innovation and technological excellence place DEKA and its products in a unique and distinguished position in the global arena. DEKA manufactures laser devices in compliance with the specifications of Directive 93/42/EEC and its quality assurance system, certified by is in accordance with the ISO 9001 and ISO 13485 standards.