



Springs of Well-being

In 1998 **Deka** was the first company to launch a long pulse Nd:YAG (LP Nd:YAG) laser system for hair removal on the world market. Since then it has developed a complete and diversified line of products that use this laser source for a multitude of applications both in dermatology and cosmetic medicine. The use of a 1064nm wavelength for treating vascular lesions of the face and legs, skin rejuvenation and hair removal, even in dark phototypes, is now universally recognised and demonstrated by international scientific literature.

In 2001 **Deka** created the first pulsed light system with a patented technology called **@PL (U-shape Pulsed Light)** which has subsequently developed in various models distributed and marketed all over the world as the Photosilk Plus and Photolight platforms. **Deka's** pulsed light systems have a built-in power meter for verifying efficacious and correct operation of the handpieces at all times during the lamp's lifecycle. Without this instrument, other pulsed light system producers can only guarantee the lamp flash but not the correct energy emitted.

Deka on the other hand, guarantees effective treatment for 60,000 shots as well as allowing for continued use of the handpiece beyond the guarantee period, thus enabling correct operation of the lamp whenever required, thanks to the built-in power meter.



Synchro HP



Thanks to the experience acquired over the years and ongoing research for innovative technology, **Deka** is now launching its new family of products. In this line **Synchro HP** is the version offering the most advanced technical characteristics.

Synchro HP is the only platform in the world to offer three different laser sources in one product, as well as nine **@PL** pulsed light handpieces with amazing avant-garde features. No other equivalent systems are capable of supplying such a complete and versatile instrument for the modern medical centre. With its modern and innovative line, **Synchro HP's** ergonomic design is proof of the painstaking care that **Deka** has taken in developing this project right down to its finest detail.



WITH THE LONG PULSE Nd:YAG LASER MODULE

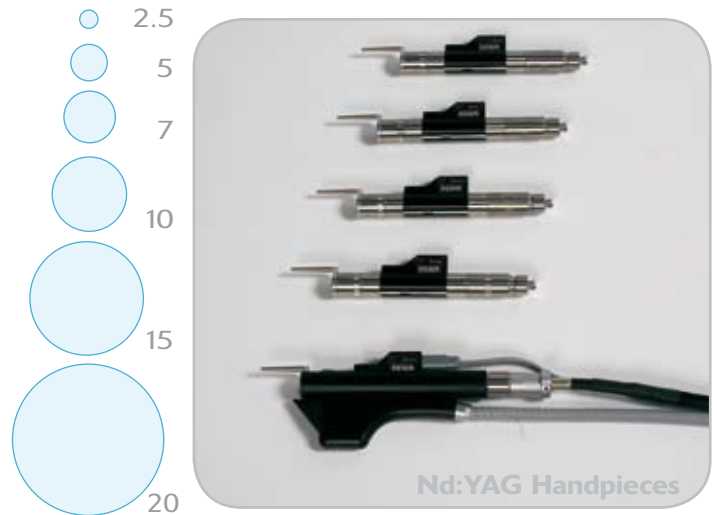
Never before has such a powerful and versatile instrument guaranteed such user-friendliness, safety, and reliability during use.

POWERFUL:

The fluence supplied can reach 1500 J/cm² (with an optional handpiece with a diameter of 1.5mm). The maximum peak power exceeds 27.000 Watt which allows for more effective treatment of even fine, fair hairs and small blood vessels. This is the most powerful system on the market today.

USER-FRIENDLY:

Synchro HP with the LP Nd:YAG laser module comes with a wide range of interchangeable, quick-release handpieces with electronic spot recognition. Every spot size has been optimized thanks to the use of a specific handpiece which allows for ensuring a uniform "top hat" spot fluence, regardless of the diameter selected. As an alternative to the traditional pedal control, the handpieces are fitted with a finger switch for controlling laser emission. The colour Touch Screen user-interface allows for intuitive management of the operating software that provides a step by step guide for selecting the most suitable clinical protocol pre-set in the system.



VERSATILE:

The various pulse lengths (from 0.3ms to 300ms), the numerous handpieces with spot diameters ranging from 1.5 mm to 20 mm (the largest on the market today), and the possibility of managing pulses with a peak power from 500W to over 27.000W (thanks to the exclusive *dual-switch technology*), allows for amplifying the **Synchro HP's** traditional field of clinical indications in hair removal, treatment of vascular lesions, and non-ablative photo-rejuvenation.

SAFE AND RELIABLE:

Thanks to the deep penetration of the 1064nm wavelength into the skin with minimum laser beam scattering in the tissues, **Synchro HP** with the LP Nd:YAG laser module is ideal for treating all skin phototypes, especially the darkest ones. The operating protocols in the system allow for ensuring treatment backed up by the constant know-how of the professionals who have validated and tested the same. Deka's experience in creating long pulse Nd:YAG laser sources is the guarantee of **Synchro HP's** reliability over time.



Synchro HP with the LP Nd:YAG laser module allows for performing hair removal treatment on all skin phototypes. Various types of vascular lesions of different origin (telangiectasias, haemangiomas, erythrosis, small PWS) can be treated on the face, trunk and legs. The effectiveness of the 1064nm wavelength has recently been demonstrated in non-ablative treatment of wrinkles, skin rejuvenation and folliculitis.

Apart from the LP Nd:YAG laser module, the **Synchro HP** system can also be fitted with two different handpieces, pulsed light or laser. A wide range of products is available for meeting the needs of the most demanding clientele.

AND THE @PL PULSED LIGHT HANDPIECES

Deka is a leading producer of pulsed light systems. The exclusive patented @PL (**U-shape Pulsed Light**) system offers handpieces with unique features regarding the lamp lifecycle, the extent of the treatment area, user friendliness and compactness of the handpiece, plus energy transferral efficacy from the source to the biological tissues with minimised lateral scattering.

The **Synchro HP** system offers a choice of @PL handpieces with a selection of three different emission spectra, thus enhancing the versatility of photo rejuvenation and hair removal treatment, and also allowing for treatment of darker phototypes. Thanks to the three different surfaces of the handpieces (2.1 cm², 4.6 cm² and 8.3 cm²) access is facilitated to all the body sites, further optimising the system performance. The cooling system integrated in the @PL handpieces also enhances patient safety and comfort.



@PL 500

500 ÷ 950nm
 46 mm x 18 mm (8.3 cm²)
 46 mm x 10 mm (4.6 cm²)
 21 mm x 10 mm (2.1 cm²)

- VASCULAR TREATMENTS
- SKIN REJUVENATION
- FAIR-PHOTOTYPE HAIR REMOVAL



@PL 550

550 ÷ 950nm
 46 mm x 18 mm (8.3 cm²)
 46 mm x 10 mm (4.6 cm²)
 21 mm x 10 mm (2.1 cm²)

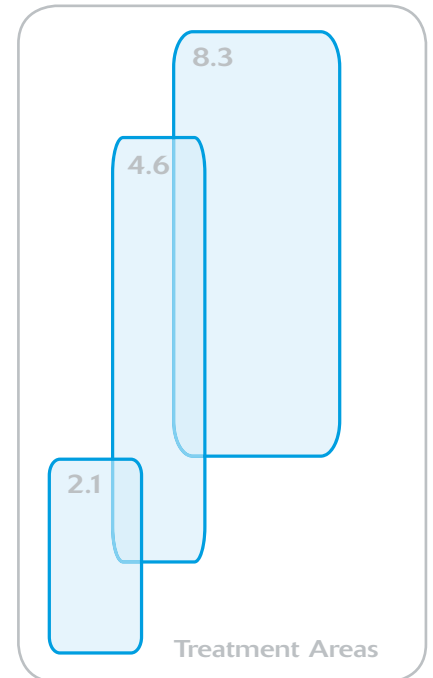
- PIGMENTED SURFACE LESIONS
- SKIN REJUVENATION
- HAIR REMOVAL



@PL 650

650 ÷ 950nm
 46 mm x 18 mm (8.3 cm²)
 46 mm x 10 mm (4.6 cm²)
 21 mm x 10 mm (2.1 cm²)

- SKIN REJUVENATION
- DARK-PHOTOTYPE HAIR REMOVAL



U-Shape PATENTED TECHNOLOGY

AND THE LASER HANDPIECES

The technological revolution has given rise to extreme miniaturisation of the laser sources and the **Synchro HP** system comes with a 1064nm Nd:YAG Q-Switched laser handpiece for treating tattoos and a 2940nm Er:YAG laser handpiece for eliminating wrinkles (*Skin Resurfacing*) and for performing dermatological treatments such as the removal of spots, nevi, acne scars, keratoses, etc.



Er-YAG 2940nm



Q-SWITCH Nd-YAG 1064nm

Spot dimension
2.5/4 mm



VASCULAR TREATMENTS

The wavelengths emitted by the different laser sources (LP Nd:YAG and @PL) enable treatment of different gauge vessels located at different depths in the derma. This allows for treating a wide range of lesions on the face, trunk, and in particular, on the legs (telangiectasias, haemangiomas, erythrosis, small PWS, etc.)

NON-ABLATIVE SKIN REJUVENATION

The deep heat action produced by the LP Nd:YAG and @PL sources induces a stimulation of the connective tissue, leading to an aesthetic improvement of the skin texture.

ABLATIVE SKIN REJUVENATION

For those requiring a more effective action on more pronounced wrinkles it is possible to use the special Er:YAG laser handpiece that is capable of removing the superficial skin layers.

PIGMENTED LESIONS

The use of the **Synchro HP** system with @PL and Er:YAG handpieces allows for effective and rapid treatment of all pigmented lesions at an epidermal level, without any distinction in size or density.

HAIR REMOVAL

With **Synchro HP** it is possible to treat all skin phototypes and hairs of any size and colour (except white ones). In the configuration with the LP Nd:YAG laser module, the high fluence, spot size (up to 20 mm in diameter, making it the largest spot on the market today!), and elevated repetition rate (up to 10 pulses per second) allow for carrying out every type of treatment quickly and easily. For patients with fair phototypes it is also possible to use a @PL source (maximum area 8.3 cm²) ensuring an even faster procedure, especially indicated for larger areas (like legs, thighs, back, etc.). Only **Synchro HP** offers safe and rapid hair removal.

TATTOOS

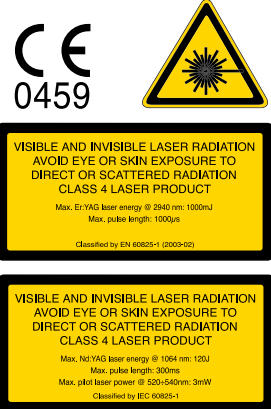
The **Synchro HP** Nd:YAG Q-switched handpiece is an invaluable device for removing dark tattoos (black and blue).







Synchro HP

TECHNICAL DATA

Module	Nd:YAG long pulse laser source
Wavelength	1064 nm
Pulse energy	120 J (max.)
Fluence	700 J/cm ² (max.) {1500 J/cm ² (max.) with optional handpiece with a 1.5 mm diameter}
Peak power	27,000 W (max.) - 500 W (min.) (Dual-Switch Technology)
Frequency	Single pulse - 8 Hz (max.)
Pulse length	from 0.3 ms to 300 ms
Spot diameter	1.5 (optional), 2.5, 5, 7, 10, 15, 20 mm Automatic spot recognition system
Electronic control	Microprocessor
Control panel	Colour touch screen LCD
Laser emission control	Foot switch and/or finger switch
Beam guide	Green laser, 3mW@532 nm
Power supply	230 Vac/28 A (max.)/50-60Hz
Dimensions and weight	115 cm (H), 53 cm (L), 106 cm (W), 170 Kg




Module	 Handpiece
Emission spectrum	 500-950 nm  550-950 nm  650-950 nm
Treatment area	46 mm x 18 mm (8.3 cm ²) 46 mm x 10 mm (4.6 cm ²) 21 mm x 10 mm (2.1 cm ²)
Pulse duration	3 - 40 ms (1 - 3 impulses)
Delay between pulses	10 - 100 ms
Repetition period	1 - 6 s
Fluence	2.5 ÷ 18 J/cm ² (8.3 cm ²) 4 ÷ 32 J/cm ² (4.6 cm ²) 4 ÷ 32 J/cm ² (2.1 cm ²)
Skin cooling	integrated
Pulses guaranteed	60,000

Module	Er:YAG laser source	Nd:YAG Q-Switched laser source
Wavelength	2940 nm	1064 nm
Spot diameter	2.5 / 4 mm	2.5 / 4 mm
Pulse length	Short: 600 µs Long: 1000 µs	15 ns
Fluence	2.4 - 15 J/cm ²	4 - 41 J/cm ²
Frequency	5 - 10Hz	3 - 10Hz
Length of pulse burst	-	2 ms
Pulse energy	up to 1 J	up to 2 J

www.dekalaser.com

DEKA THE SCIENCE OF WELL-BEING

Deka is the medical division of the El.En.Group, Italian leader in the production of laser equipment. Founded in 1981 it operates in more than 40 countries throughout the world. The Group's activity covers the majority of industrial applications and laser sources with powers up to 6 kW. Deka produces laser equipment in compliance with the specifications of Medical Device Directive 93/42/EEC and adopts a quality assurance system certified by  according to the ISO 9001 and ISO 13485 standards.



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