

Smartfile

Compact Nd:YAG Laser



The evolution of laser technology in dentistry

Smart:lasersline

SmartFile is the laser system that finally unites two vital and indispensable features for your daily practice: efficiency and user-friendliness.

Despite being a flash induced laser system, SmartFile's size has been reduced to a minimum, never before obtained by any other company in this field. It only weighs 13 kg, with overall dimensions similar to the small laser systems used in dentistry.

Deka's technology constantly evolves and discovers new ways of applying Nd:YAG lasers in dentistry, while SmartFile's efficiency and resistance is still guaranteed.

Thanks to Deka's very own innovative **U+CP** technology (**Ultra Compressing Pulse**), the laser pulses maintain their maximum peak power, irrespective of duration, energy, and frequency. Peak power is an important requirement, fundamental for maintaining the

same type of interaction and effect on the biological tissue. This way, the **U+CP** technology ensures an obvious and necessary repeatability of the laser-assisted actions for applications in dentistry. The laser pulses react the same way even at a microscopic level, ensuring the best clinical results.

SmartFile reveals all its advantages above in the following:

- Vaporization and coagulation of soft tissue with the benefit of perfect hemostasis, improving the taking of impressions, reduction in the use of anesthetics, and the total elimination of electrocauters.
 - Conditioning of the enamel, cement, and dentine with deep contamination resulting in simultaneous sealing of the tubuli, for durable and efficient desensitization. Most endodontic and periodontal therapies can be completed in a single session.
- The ergonomics, user-friendliness, and safety are key factors that have allowed Deka to provide the best possible therapeutic solution with optimal clinical results.

ERGONOMICS

The special design and dimensions make **SmartFile** an avant-garde system, easy to use and transport. The colour Touch-Screen control panel manages all the functions necessary for therapeutic treatment in a practical and intuitive manner. The position of the patients and the professionals, their most frequent actions and movements have been monitored and studied in an ongoing manner in the aim of eliminating even the most minute cause of discomfort, as well as integrating all the suggestions and valid ideas arising from extensive experience in this sector.





USER-FRIENDLINESS

SmartFile represents state-of-the-art Nd:YAG laser technology for application in dentistry. Average power up to 10 watt, frequency up to 200 Hz, various pulse lengths, tissue cooling system incorporated in the machine, the exclusive **CTC** system (Computerized Temperature Control)

and more than twenty different programs that will guide you in your choice of the most suitable clinical protocol for various applications.

Deka puts twenty year's of experience at your disposal.



U+CP AND CTC SYSTEM: A TECHNICAL EVOLUTION

Computerised Temperature Control equals safety. **Smarty-A** laser devices offer much more than a strict adherence to the 93/42/EEC standard concerning medical devices. It is capable of evaluating the temperature of the operating field

based on output, exposition time, and the type and dimension of the tooth undergoing treatment. Every application is performed with the highest possible safety parameters. **Ultra Compressing Pulse** equals efficiency. The first laser system with constant peak power.

HANDPIECES

Light stylized handpieces with flexible and resistant light-wave conductors ensure precision and safety for optimal clinical performance. The versatile completeness of **SmartFile** opens a wide range of applications, enhancing the

proven clinical benefits of Nd:YAG lasers with the precision of contact optical fibers. Exclusive tips with double cannulas allow for choosing the cooling system (water/air) most suited for the individual treatment.



ACCESSORIES AND OPTIONS

- Adjustable handpiece, handpiece with cooling option, kit of 16 tips with and without cooling option, disposable tips
- Flexible optical fibres with a diameter of up to 600 µm
- Technical and clinical manuals in English.
- Fully independent system that requires no air or water connections.
- Transportable case with trolley.



Deka. All rights reserved - In the aim of improving its products the company reserves the right to change the technical features without prior notice.



TECHNICAL DATA

Type of laser	Nd:YAG
Wavelength	1064 nm
Energy on tissue	up to 250 mJ
Power	up to 10 W
Frequency	up to 200 Hz
Pulse length	from 50 to 550 µs
Peak power	up to 1500 W
Transmission system	Optical fibres: 200, 300 and 600 µm
Electronic control	Microprocessor
Control panel	Colour LCD Touch Screen
Power supply	230 Vac / 5 A (max) / 50 - 60 Hz
Aiming beam	Laser diode 3.5 mW @ 635±670 nm
Dimensions	21 cm (8") H, 37 cm (15") W, 42 cm (16") D 13 kg (29 lbs)

MAIN APPLICATIONS


- ENDODONTICS
- PERIODONTICS
- SOFT TISSUE SURGERY
- CONSERVATIVE DENTISTRY
- PROSTHETICS



VISIBLE AND INVISIBLE LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED RADIATION
 CLASS 4 LASER PRODUCT
 Max. Nd:YAG laser energy: 250mJ
 Max. pulse length @ 1064 nm: 700µs
 Max. pilot laser power @ 635±670 nm: 1mW
 Classified by EN 60825-1 (2003-02)

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.



DEKA M.E.L.A. s.r.l.
 Via Baldanzese, 17 - 50041 Calenzano (FI) - Italy
 Tel. +39 055 8874942 - Fax +39 055 8832884
info@dekalaser.com