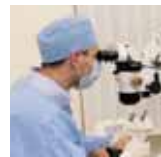


Smart *US-20 D*

CO₂ Laser



The evolution of laser technology in dentistry

Smartlaserline

The **Smart US20 D** CO₂ laser offers the practitioner the ultimate in soft tissue therapies and treatments in all areas of General Dentistry, Maxillofacial Surgery, Periodontics, Endodontics, and Implantology. Through its innovative design, its technical capabilities, and its versatile user programs, this laser has become the “workhorse” in the dental practice. The **Smart US20 D** is the only CO₂ laser that incorporates all facilities for absolute accuracy in micro-surgical applications coupled with total efficiency in the speed of energy transmission, resulting in optimal clinical conditions and prognoses for post-operative recovery. The benefits and safety of the CO₂ 10,600 nm wavelength have

been documented in research over many years. The high absorption rate in water always guarantees absolute safety and a patient friendly therapy. Due to its minimal absorption depth of 1/10 mm, underlying or surrounding tissue structures cannot be damaged or compromised. Most surgical procedures can be performed with less anesthetics and perfect coagulation, resulting in less pain and swelling. Its bacteria reducing properties have been well documented. The added benefits of an optimal and predictable recovery gives the practitioner and patient security and assurance. The **Smart US20 D** CO₂ laser adds previously unknown problem solving skills to the dental practice.



ERGONOMICS

The special design of the **Smart US20 D** always allows the practitioner to feel completely at ease when using the laser. The positioning of the controls and the panel, the shape of the handpieces, each detail is the result of years of collaboration with hundreds of experts. The exclusive LCD color Touch Screen increases and perfects user friendliness. All laser settings for individual therapies are alphabetically pre-programmed with the possibility of changing them fast and easily, whenever necessary. Different handpieces for use in Periodontics, endodontics, and implantology make all options for treatment available.



USER-FRIENDLINESS

The **Smart US20 D** represents state-of-the-art technology in CO₂ lasers for dental use. With average power of up to 25 Watts in the CW mode; peak power of up to 320 Watts in the **PW-UltraSpeed** mode with repetitions rate up to 100 Hz; perfectly designed handpieces, which are easy to change and replace; all pre-programmed options on the Touch Screen display

make this laser the perfect tool to assist the dentist in all very demanding surgical procedures.

The **Smart US20 D** CO₂ laser can easily be moved. It is totally self-contained; no water or air connections are necessary. In perfecting user-friendliness, **DEKA** has put twenty years of experience at your disposal.



SR-Technology :

A TECHNICAL EVOLUTION

“Sapphire Resonator” Technology has changed the emission of CO₂ laser energy completely. Formerly, strong CO₂ carbonization of the tissue surface could obstruct visual control, which is especially bothersome in microsurgical procedures and implantological applications. **SR-Technology** eliminates the unwanted side effects and provides

for laser emission free of carbonization (in the **PW-UltraSpeed** mode) on the tissue, giving the practitioner at all times a clear view without obstruction. Hemostasis and coagulation effects are not reduced or diminished; all known CO₂ laser benefits remain fully intact.

HANDPIECES

Light, stylized handpieces facilitate easy access to all parts of the oral cavity. A specially design 50 mm, 120° angle, handpiece allows for very fine incisions, as is desirable in oral surgery and implantology.

Special adapters accommodate probes for perio and endo use. All handpieces can be used to vaporize tissue as part of different therapies and are easily changeable during laser therapy, if needed.



ACCESSORIES AND OPTIONS

STRAIGHT HANDPIECE WITH INSERT FOR:

- 120°/50mm Surgical adapter
- 105° Perio and endo adapter
- 90° Surgical adapter
- Straight surgical adapter

- Perio and Endo Tips
- Technical and Clinical Manuals
- Protective Eye Wear
- Laser Warning Signs



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TECHNICAL DATA

Type of laser	CO ₂
Wavelength	10.600 nm
Power to tissue	from 0.2 W to 25 W
Frequency	from 5 Hz to 100 Hz
Pulse length	from 200 µs up to 80 ms
Peak power	320 W (UltraSpeed mode)
Transmission system	Titanium articulated arm
Electronic control	Microprocessor
Control panel	Color LCD Touch Screen
Power supply	230 Vac / 1.8 A (max) / 50 - 60 Hz
Pilot beam	Laser diode 3 mW @ 635+670 nm
Dimensions	112 cm (44") H, 23 cm (9") L, 36 cm (14") D, 30 kg (66 lbs)

MAIN APPLICATIONS


- MAXILLOFACIAL SURGERY
- GENERAL DENTISTRY
- CONSERVATIVE DENTISTRY
- PERIODONTICS
- ENDODONTICS
- IMPLANTOLOGY

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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 strict quality assurance system certified by  according to the ISO 9001 and ISO 13485 standards.



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