

Manufacturer News

Fotona

Fotona to Showcase New Laser Features and Accessories at IDS

Continuous science-based improvements are furthering the applicability and scope of Er:YAG and Nd:YAG laser systems, which are the gold standard systems of laser dentistry and dermatology. Lasers in the Fotona AT-HT family provide both of these laser types. At the IDS tradeshow Fotona will launch a new range of flexible fiber tips for the AT-HT system family. These specialized tips enable more effective root canal therapies by allowing the dentist to reach deep into the root canal to deliver laser energy where it is needed. The



Root Canal therapy with the Fotona Flexible Fiber Tip. Courtesy of Dr Simonovic.

dual wavelengths available in AT-HT laser systems allow for the combined elimination of the smear layer with Er:YAG and the disinfection of the root canal with Nd:YAG, the only such solution on the market. Lasers in the AT family support the widest range of parameters in the industry: Nd:YAG pulsewidths from 100 μ s to 650 μ s and power ranges from 20 mJ to 10 J, Er:YAG pulsewidths from 50 μ s with 1,000 μ s and power ranges from 20 mJ to 1.5 J. Both lasers are equipped with Fotona's VSP technology for perfect pulse shape control. In effect, the worlds fastest Er:YAG laser for hard tissue drilling has broadened its operating range with the finest low pulse, high repetition rate capability for delicate soft tissue surgery and a flexible fiber tip to enhance root canal therapy. While the Nd:YAG laser

has gained the ability to deliver long 650 μ s pulses to enhance its coagulation capabilities. These expanded parameter ranges allow laser dentists to execute the finest and fastest treatments in the most demanding dentistry and dermatology applications. Fotona's best-in-class lasers are complemented by wireless foot-switch technology, which allows that practitioner to assume a comfortable position while working, regardless of space constraints or other environmental factors. Fotona's user interface has a comfort mode, that allows easy, simple access to the most commonly used functionality, as well as an advanced interface, that gives the practitioner total control. To find out more about Fotona systems and technologies visit us online at www.fotona.com.

Fotona d.d.

Stegne 7, 1210 Ljubljana, Slovenien

E-mail: info@fotona.com

Web: www.fotona.com

Booth at IDS: Hall 10.2, M050

Sirona

SIROLaser delivers excellent results in connection with ceramic restorations

If bleeding occurs during impression-taking and treatment, this can have a serious impact on the quality of ceramic restorations. The CEREC user Dr Helmut Goette deploys the SIROLaser to overcome this problem. In this article he describes his therapy approach with reference to a typical case. Today, lasers are widely used in endodontics, periodontics and dental surgery. Sirona's compact and powerful SIROLaser now plays an indispensable role in my CEREC treatment procedures. I use it for haemostasis purposes and to define the preparation margins. It is essential to prevent bleeding at all stages of the CEREC procedure. The contamination of the anti-reflective powder with blood during impressiontaking is especially critical. The data can be flawed, resulting in incorrect height readings and inaccurate dimensions of the proximal box. To achieve an absolutely clean environment I apply a rubber dam and use the SIROLaser to arrest any bleeding. Bleeding is especially problematical during adhesive bonding. Blood and saliva contamination can

destroy the etched microretentive enamel and dentine surfaces. Proper adhesive bonding is then impossible, and treatment failure is the consequence. A combination of the SIROLaser and a rubber dam effectively rule out such contamination.

Case study: haemostasis prior to impression-taking

A 38 year-old male patient came to my dental practice complaining of bite oversensitivity in tooth 25. The oral examination revealed an extended glass ionomer filling with a replacement palatal cusp and a missing mesial contact point. I recommended a replacement filling, as glass ionomer is not indicated for cusp replacement and this was the cause of the oversensitivity. The tooth was vital. An X-ray did not reveal any signs of periapical periodontitis. After the defective filling had been removed copious bleeding occurred in the mesial proximal box. With the aid of the SIROLaser I arrested this bleeding and then exposed and defined the preparation margin. For this purpose I selected the "Periodontology" program preset (2.5 W and 75 Hz). In addition I prepared a distal box, and defined an additional preparation margin with the aid of the SIROLaser. The outcome was a clear and dry representation of the operation site for the preparation. The CEREC optical impression yielded a clearly defined 3-D model. The automatic detection

function had no trouble in marking the preparation margins. Thanks to the rubber dam, the optical impression and the adhesive bonding of the restoration were performed under absolutely dry conditions. I chose CEREC Blocs (shade: S2-M) for the restoration. Adhesive bonding was performed by means of Syntac-Heliobond (Ivoclar Vivadent) in combination with Tetric EvoCeram (Ivoclar Vivadent), shade A2. The restoration was inserted with the aid of an ultrasonic handpiece. Haemostasis remained effective throughout the treatment process. As a result repeated laser therapy was not required prior to adhesive bonding.

To sum up

I have used the SIROLaser for CEREC treatment with great success since its introduction around three years ago. It is ideal for haemostasis during impression-taking and treatment, as well as for gum contouring and for the correction of the preparation margin.

Dr Helmut Goette

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Sirona Dental Systems GmbH

Fabrikstraße 31, 64625 Bensheim

Germany

E-mail: contact@sirona.de

Web: www.sirona.de

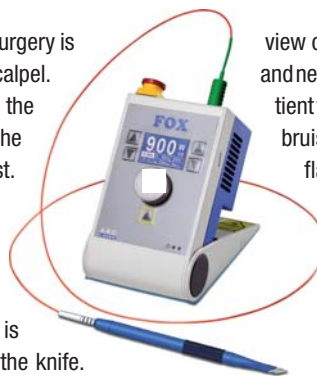
Booth at IDS: Hall 10.2, Aisle N/O/P, Stand 10

A.R.C. Laser

The new JAZZ—The cutting and coagulation scalpel

The revolution in medicine started by introducing the first battery driven small diode laser "FOX". Now we do it again. A Sapphire scalpel is attached to the FOX to cut and coagulate at the same time. Less bleeding at the wound, less necrosis compared to the direct laser beam cutting. The tactile

feeling of the surgeon during surgery is the same like with a standard scalpel. The laser is transmitted thru the sapphire crystal and exits the sapphire where it is the sharpest. Right at the edge. The temperatures are above 65 °C at the edges to allow coagulation, but no tissue removal or carbonization (<100 °C) The cut is achieved by the mechanic of the knife. The wound stays clear and no blood will distract the



view of the surgeon. The result is a clean and nearly blood free cut into tissue. The patient will benefit from a fast healing and no bruising or swelling of the wound. Inflammation is reduced.

A.R.C. Laser GmbH
 Bessemerstraße 14
 90411 Nuremberg, Germany
 E-Mail: info@arclaser.de
 Web: www.arclaser.de
Booth at IDS: Hall 10.2, L055

KaVo

World market leader in innovation

KaVo Dental GmbH is one of the world's leading suppliers of products for dentists and dental technicians. The company celebrates its 100th anniversary in 2009 and looks back with pride on 100 years of history. Over its 100 years, KaVo has set new standards again and again, has been in the forefront of new trends and has developed into a respected supplier of all types of high-quality equipment and instruments for dentists and dental technicians. Since its establishment in 1909 KaVo has been a leader in the dental market. Since its founding last century KaVo has made its mark on dentistry with numerous significant innovations and the development of innovative tech-



nology. The company has evolved into a full-service supplier and a provider of complete solutions for the dental practice and laboratory.

High-quality and reliable products

KaVo supplies a complete range of products and technologies designed to make the varied and complex work of dentists and dental technicians more efficient and easier. The company consistently focuses on the economic factors for the user and continuous improvement of work processes. KaVo supplies modern treatment units, turbines, handpieces and contra-angle handpieces along with innovative X-ray, diagnostic, laser and CAD/CAM technology designed to meet the requirements of contemporary dentistry. KaVo is also the first choice for dental laboratories for CAD/CAM, laboratory handpiece installations, articulators and all

types of laboratory equipment. With its consistent brand philosophy and 100 years of experience, the well-respected company intends to maintain its leading position in the dental market for the next century and successfully face the challenges of the dynamic dental market. The market leader with its head office in Biberach/Riß has more than 3,300 highly motivated employees worldwide at the production facilities in Biberach/Riß (parent plant in Germany), Warthausen (Germany), Nervi (Italy), Des Plaines (USA), Joinville (Brazil) and in its various international marketing companies. Since the spring of 2004, KaVo has been a subsidiary of the US Danaher Corporation and plays a key role in its dental division.

KaVo Dental GmbH
 Bismarckring 39
 88400 Biberach/Riß, Germany
 E-mail: info@kavo.com
 Web: www.kavo.com
Booth at IDS: Hall 10.1, H010-K029

elexxion

Quick, effective and low-pain—the new diode laser Elexxion claros nano

The medical technology company elexxion AG, located in Radolfzell, is a specialist in the development, production and distribution of dental laser systems. Elexxion plans to include the introduction of its innovative diode laser claros nano at this year's IDS. The patented DPL pulse technology of claros nano simplifies treatments both for dentists and their patients. In the smallest space elexxion has combined the ultra-short pulse duration of 16 µs with safety and easy handling. The pauses this creates give the tissue time to recover from the thermal impact and thus minimise the heat damage to the tissue. The interaction of high pulse

power and short pulses enables the physicians to work more quickly and precisely. The patient benefits especially from the gentle, effective and conservative incision. Briefly: from a painless treatment. Simultaneously, the patented pulse engi-



The little nano can be installed at the workplace with very little effort.

neering prevents the tissue from carbonising and, hence, shortens the healing time. The Elexxion claros nano can be used for a wide variety of appli-

cations in soft tissue. It is also suitable for surgical interventions such as biopsies, frenectomies, removal of fibromas as well as for cosmetic applications, root canal decontamination and periodontosis treatments. With optional applicators laser bleaching is also possible. Despite this large spectrum of applications, in the eyes of many dentists the laser is still a luxury instrument. The new reasonably priced product line claros nano should help dentists lose this prejudice. The claros nano, like all the other products made by elexxion, is available immediately in Germany and Austria exclusively through the sales partner Pluradent.

elexxion AG
 Schützenstraße 84
 78315 Radolfzell, Germany
 E-Mail: info@elexxion.com
 Web: www.elexxion.de
Booth at IDS: Hall 4.2, J041