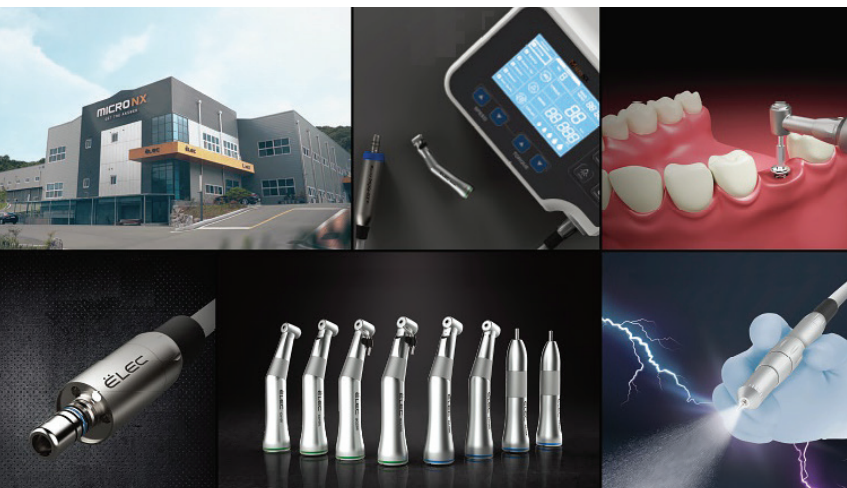# Dental electric motor company Micro-NX to launch handpiece line-up at IDS 2021

■ Micro-NX is a South Korean company that specialises in manufacturing dental electric motors, including motors for implant surgery procedures. Its electric motors are manufactured using a technology patented in China, Japan and the US. They are exported worldwide and are growing in popularity. At IDS 2021, Micro-NX will launch a new line of products, including contra-angle and straight handpieces available in gear ratios 1:1, 16:1 and 20:1.

The handpieces were developed with Micro-NX's own technology. In the South Korean market in particular, the company's electric motor, known as ELEC, boasts a unique market share.

"Not only is the torque strong but also the precision is high, so when removing prostheses, chair time is reduced by one-third," says Dr Jung-soo Kim, head of a dentist's office, who has been using the electric motor for more than ten years. "It is very useful for trimming margins with high torque at low speed and for precision preparations which can increase the completeness of prostheses." He also stressed that "the greatest advantage of ELEC is that it can be adjusted while checking the rotational speed directly, so that one can maintain constant rotational speed and torque of the handpiece".

Micro-NX is a B2B dental unit and implant manufacturer. It expects to expand its business with the launch of its new handpiece line. The company is concentrating on liaising with other manufacturers in order to provide products fitting their requirements.

"The electric motor is an essential part of the handpiece instrument, and we can meet our customers' expectations because, with our company, there is the advantage of being able to obtain both from a single source," said a Micro-NX spokesperson.

As a member of the Daegu Technopark, Micro-NX will be exhibiting its product portfolio at IDS 2021 (Hall 3.1, Booth L060/M060). More information about the company can be found at www.micronx.co.kr. ◄◄

HASS meets highest demands for aesthetic restorations

■ At IDS 2021, all-ceramic dental materials manufacturer HASS (Human-Aid System Supplier) will be presenting a wide range of glass-ceramic solutions for aesthetic restorations that meet the requirements of both chairside and laboratories.

In focus for IDS will be Amber Mill, which was named a WOW! Product in October 2020 by the Journal of Dental Technology, published by the National Association of Dental Laboratories in the US. Amber Mill is available in four shades: high, medium and low translucency, as well as medium opacity. It is a highly aesthetic and innovative nano-lithium disilicate CAD/CAM block with the following advantages:

1. Amber Mill demonstrates both opalescence and fluorescence of natural teeth.
2. It is possible to vary translucency with a single block of Amber Mill by modifying the heat treatment temperature according to the targeted translucency. This will enhance the work process efficiency and inventory management for CAD/CAM milling blocks.
3. The denser and more cross-linked crystal structure of Amber Mill results in superior physical properties.
4. Less chipping—the outstanding machinability of Amber Mill is evident from the edges of the milled restorations.

In addition, the company is showcasing other members of its CAD/CAM line: the Amber Mill Hhybrid ceramic block and the Zirtooth multilayered zirconia disk; the glass-ceramic ingots Amber Press and Amber Press Master that are suitable for hydrofluoric acid veneering material; and Amber LiSi-POZ, an innovative and differentiated product utilising the technique of lithium disilicate ingot pressing on a zirconia framework. Dental professionals can also try out Amber Vest, an ultra-fine phosphate-bound investment for press ceramics, and COCO Lux, a lighting device for dental photography with mobile phones.

At IDS, the HASS booth O069 can be found in Hall 11.2. Special gifts will be available on-site. More information about the company can be found at www.hassbio.com. ◄◄

Diagnocat AI—a personal assistant in diagnostics and treatment for every dental team

■ Despite the development of technologies for the prevention and treatment of dental disease, more than 3.5 billion people suffer from oral disease. Untreated dental caries in permanent teeth is the most common, and severe periodontal disease affects almost 10% of the global population.

The solution is to recognise that dentistry today has become so technologically complex that the quality of treatment is no longer in the hands of one single doctor. The dental team consists of the dentists themselves, hygienists, treatment managers and other specialists under one roof or in different practices. This treatment team uses many different tools, in addition to the medical information system, to interact with one another: messengers, e-mails, task managers, etc. It is evident that most of these standard services are not customisable for the needs of dentistry, that they are inconvenient, that they do not comply with personal data laws and that they are ultimately ineffective. As a result, diagnostics and planning are incomplete, comprehensive treatment appears disjointed, and it is difficult to determine and take into account the position of individual doctors.

How can artificial intelligence solve these problems, to make diagnosis more accurate and optimise treatment?

The innovative Diagnocat dental software employs artificial intelligence (AI) to create a platform for effective collaboration between dentists, managers and patients.

The Diagnocat service consists of four main components:

1. AI that analyses all types of dental images, including intra-oral radiographs, panoramic radiographs and CBCT scans, and assists the dentist in diagnosis and treatment planning;
2. a cloud to store and share any dental images, including STL files and dental photographs;
3. a task manager for real-time communication, assignment of tasks and notification of teammates of status changes online; and
4. a clear report for a patient so that he or she can easily understand that treatment is necessary.

How can Diagnocat be practically applied in a clinic?

The possibilities of the service can be illustrated using a clinical example. A 44-year-old female patient complained about her smile because she was dissatisfied with the appearance of her teeth regarding their colour and size and had decayed and missing teeth. At the initial consultation with a general dental practitioner, images using the digital smile design protocol and CBCT were taken. Integration with most dental imaging equipment manufacturers allows dentists to automatically create patient accounts and upload images. The doctor discussed her dental health with the patient using a photographic protocol and a Diagnocat radiographic report (CBCT analysis). The treating physician analysed the automatically created panoramic reformat, the slices of each tooth and the findings generated by the AI.

Diagnocat identifies the most common dental pathologies with an accuracy of over 90%. If necessary, the dental professional comments on the findings and corrects and completes the diagnosis. He or she can then send

Before

After

the AI report in PDF format to the patient or provide a hard copy.

The treatment coordinator uses the report to familiarise himself or herself with the clinical case and adds other necessary specialists to the personal Diagnocat account. The task planner allows the user to set a deadline and track the progress of the treatment.

The HIPAA- and GDPR-compliant messenger allows doctors to discuss the case in real time and comment on dental images—both from a desktop computer and from a mobile phone. The notification system sends e-mails to users when new images are uploaded to the patient's account, when messages are received and for other important events.

In the process of dental rehabilitation, a prosthodontist, oral surgeon and orthodontist were involved. Throughout the entire treatment period of 13 months, these doctors used Diagnocat continuously. No additional software products, except for a management information system, were required.

Diagnocat perfectly complements any management information system and can be integrated into it for information exchange and for automated filling of a tooth chart. Diagnocat is an indispensable tool for dentists working remotely and/or dealing with complex dental rehabilitation. More information can be found at www.diagnocat.com. During IDS, Diagnocat will be exhibiting at booth R047 in Hall 10.2. ◄◄