SCANORA 3Dx, the in-office CBCT system for head and neck imaging

SOREDEX, the imaging system provider from Finland, has introduced an in-office CBCT system for head and neck imaging requiring a large field of view (FOV), SCANORA 3Dx. The system is intended for a wide range of applications, from treatment planning for a single dental implant with a small FOV up to whole skull imaging with an extra-large FOV. The system is ideal for otorhinolaryngological, oral and maxillofacial, and cranial examinations in imaging centres, otorhinolaryngology offices, and total care oral and maxillofacial clinics and hospitals.

SCANORA 3Dx is a member of the SCANORA CBCT product family. Compared with its predecessors, SCANORA 3Dx has a larger flat panel detector that enables a wider range of imaging FOVs to be used. The same smooth workflow with easily understood control panel and motorised patient positioning characterise this accurate instrument. The optional dental panoramic sensor is available as before.

In the unit, eight user-selectable FOVs are now available. The FOV can be freely selected for any region of interest in the skull area, which makes
the system suitable for multiple imaging tasks. All the FOVs (H × D) have their typical applications. The smallest cylindrical FOV (50 × 50 mm) with the highest resolution of 0.1 mm voxel (volume element) size is intended for localised problems, such as detailed imaging of single-tooth endodontic structures or the ossicular chain of the middle ear. Two medium-sized FOVs are available for imaging, for instance, both temporal bones in one volume. The most suitable FOV for sinus and otorhinolaryngology imaging is the 140 × 165 mm with 0.2 mm voxel size. The largest FOV (240 × 165 mm) with 0.5 mm voxel size is intended for whole skull examinations, for instance follow-up of facial surgery operations. The voxel volume is isotropic, which ensures that measurements in any direction are accurate.

Owing to the wide adjustment ranges of parameters, the overall radiation dose for specific diagnostic indications can be optimised by selecting the smallest FOV for each task and adjusting the mA and resolution settings accordingly.

SCANORA 3Dx makes use of the latest imaging technology. The 3-D detector is a large amorphous silicon flat panel for acquiring high-resolution projection images. The SARA (SOREDEX Advanced Reconstruction Algorithm) reconstruction method produces 3-D volumes from these projection images.

Accurate patient positioning is achieved with improved laser lights and scout image programs. The seated patient platform ensures perfect stabilisation.

SOREDEX designs, develops, manufactures and markets quality X-ray imaging systems, with an emphasis on innovative digital solutions. Based on 35 years of experience of imaging excellence, the company offers reliable and easy-to-use systems of true diagnostic value that help clinicians focus on patient care. SOREDEX stands for innovation and value in X-ray technology.