VistaVox S –
3D imaging from Dürr Dental

3D and 2D X-ray images with exceptional image quality

COMPRESSED AIR
SUCTION
IMAGING
DENTAL CARE
HYGIENE

DÜRR DENTAL
THE BEST, BY DESIGN

Taking diagnostics to the next level

VistaVox S combines diagnostic reliability with efficiency and lower radiation doses

Features:

- Ideal 3D imaging volume matched to the shape of the jaw
- Ø 50 x 50 mm volumes in 80 or 120 µm resolution
- 2D and 3D images from one unit
- Excellent image quality in 2D and 3D thanks to the high-resolution CsI sensor with a pixel size of 49.5 µm
- Reduced radiation dose thanks to the anatomically adapted volume
- Dose reduced by up to 62% in SQ mode
- Metal artefact reduction in 3D and 2D images
- 7" touchscreen for intuitive operation
- Modern, ergonomic image processing software VistaSoft

Ideal imaging volume, easy positioning, high image quality: The new VistaVox S represents a milestone in the field of 3D X-ray systems. Thanks to its unique technology, the 3D images generated with this system cover everything you need for a reliable diagnosis, well-founded treatment decisions and convincing patient communication. In addition, the S-Pan technology of the VistaVox S also enables pinpoint accurate OPG image acquisitions of the highest quality. Thanks to a high-resolution CsI sensor with a pixel size of just 49.5 µm, you can benefit from this exceptional image quality – both in 3D and in 2D. All of these things make VistaVox S not only a highly efficient solution for dentistry, but also a safe investment.

3D diagnostics: The key indications

With VistaVox S 3D images you can increase diagnostic reliability and enable accurate treatment planning. The key indications at a glance:

Tooth development	▪ Hyperplasia or dysplasia ▪ Retained or impacted teeth
Fractures	▪ Root or jaw fractures
Implant technology	▪ Augmentation/bone formation ▪ For planning ▪ In the event of complications
Endodontics	▪ Periapical examinations ▪ Complex anomalies of the root canal system ▪ Fractured root canal instruments within the root canal
Foreign bodies	▪ Suspected perforation, in particular pin perforation ▪ Localisation of foreign bodies in the mouth and jaw area
Salivary stones	▪ Localisation of salivary stones
Pathological changes	▪ Maxillary sinus area ▪ Jawbone ▪ Cysts, tumours, osteonecrosis

See what you need to see

VistaVox S offers an ideal 3D volume that is adapted to the shape of the jaw

Almost universal fit

The jaw-shaped field of view of the VistaVox S maps the diagnostically relevant range of a 130-mm volume and is therefore visibly larger than the most commonly used volume of Ø 80 x 80 mm. The advantage: Thanks to this changed volume shape, VistaVox S also completely covers the region of the rear molars – an essential requirement for diagnostics, e.g. for an impacted wisdom tooth.

The special feature of VistaVox S is that its imaging volume is based on the human anatomy, representing precisely the region you need covered for diagnostics in the dental region.

The ideal jaw-shaped volume is achieved with the aid of a special curved path with 540° rotation, for which the VistaVox S requires just 18 seconds. In conjunction with a tightly collimated fan beam and the highly sensitive CsI sensor, this path allows a particularly low radiation dose to be used. The VistaVox S reconstruction algorithms allow the 3D volume to be displayed in the shortest possible time.

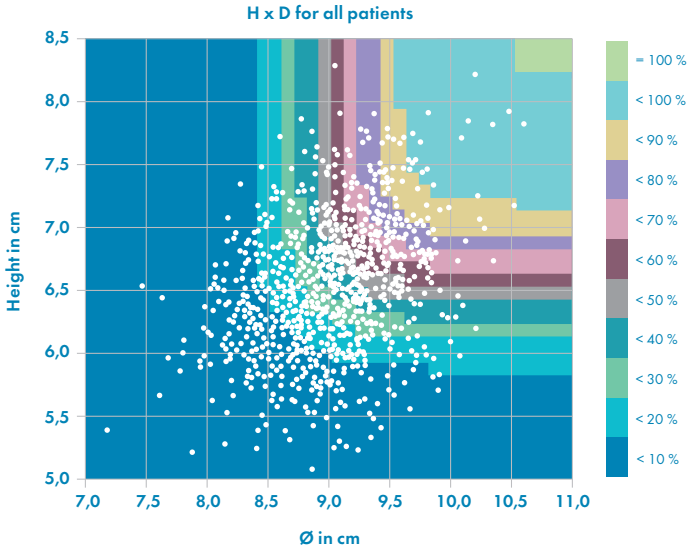
Additional volumes Ø 50 x 50 mm

In addition to jaw-shaped images, VistaVox S offers ten further Ø 50 x 50 mm volumes: five each for the upper jaw and for the lower jaws. These are used if the indication only requires imaging of a certain region of the jaw, e.g. for endodontical or implantological treatments. Depending on the required level of detail in the image, the volumes can be used with a resolution of either 80 or 120 µm.

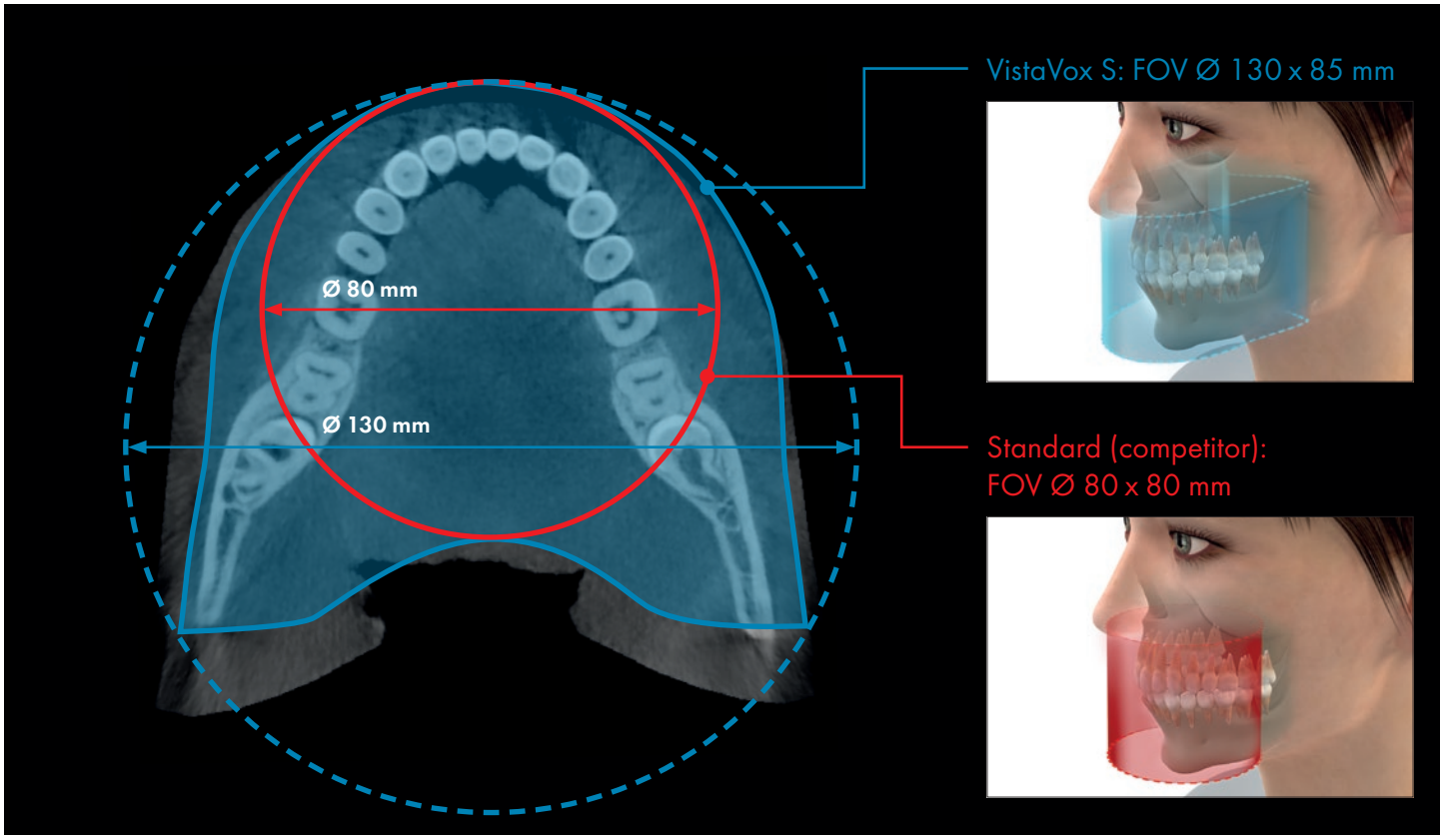
SQ mode

The SQ (Standard Quality) mode offers a further option for reducing the radiation dose. In this setting, the dose is reduced by 62% in comparison to HQ (Highest Quality) mode. SQ mode can be used e.g. for implant planning, determination of the apical bone supply, for investigation of the sinuses or for the localisation of impacted or excess teeth. SQ mode can be used in all programs.

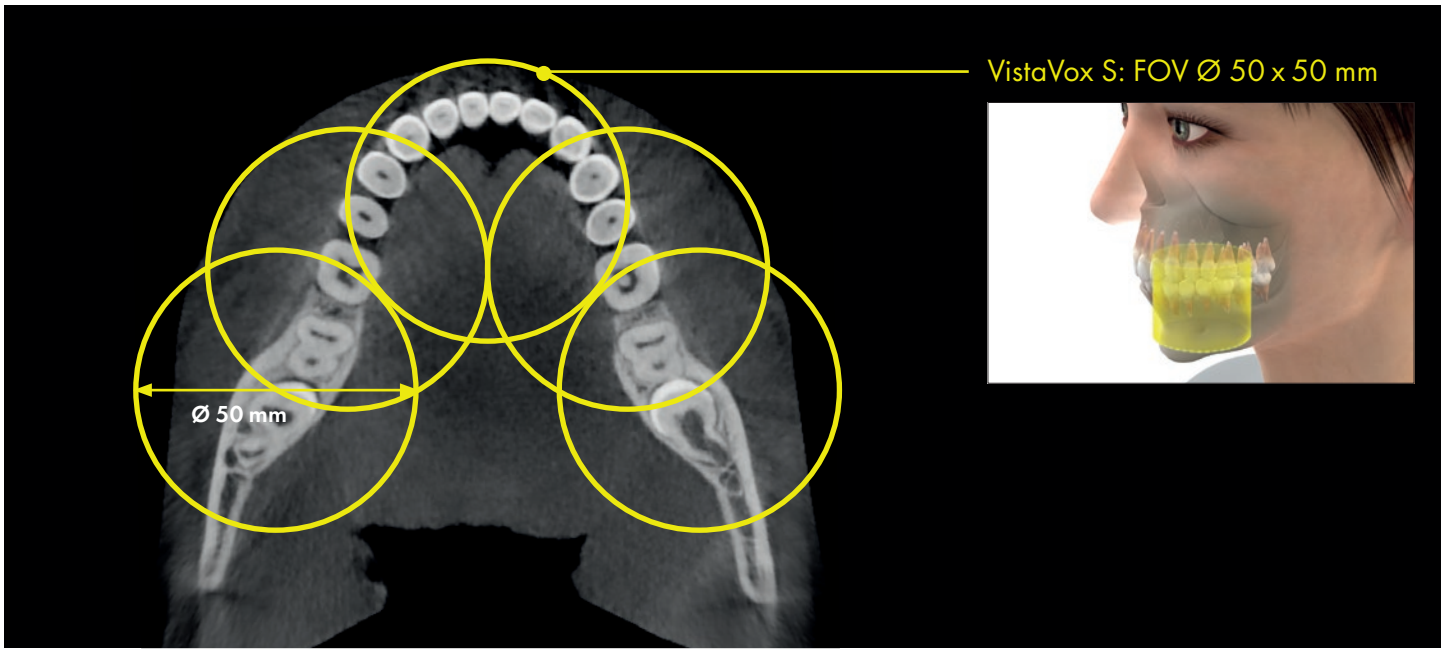
1,020 patients were examined in a study from Dr Johannes Krause. The study shows that a volume with a height of 85 mm and diameter of 110 mm is required for 100% coverage of the dental region. With a volume of e.g. Ø 80 x 80 mm, this means that only around 1.4% of all patients can be covered in full. By contrast, the adapted, jaw-shaped volume of the VistaVox S covers the dental region of all patients.*



*Source and graphic bottom right: Dissertation conclusions, Dr Johannes Krause, 'Investigations into the required field of view for imaging 3D diagnostics in dental medicine', 1 January 2013



In order to visualise the FoV of VistaVox S (blue) in the axial view, the conventional standard volume of Ø 80 x 80 mm (red) has also been marked for comparison purposes. The jaw-shaped volume displays the region of a Ø 130 volume that is relevant for diagnostics.



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2D images with exceptional image quality

VistaVox S offers not only excellent value for money, but will also help you and your surgery team to increase your flexibility. In addition to CBCT images, you can also use VistaVox S to generate brilliant OPG images, which set new standards in the sharpness of extraoral images. Thanks to this versatility, the new VistaVox S will really add value to your surgery. The unit also raises the bar in terms of efficiency. It enables the scan of a complete OPG image in a very short time of just seven seconds with an exceptionally low radiation dose. This will save you valuable time – not only in comparison to conventional X-ray solutions.

Features:

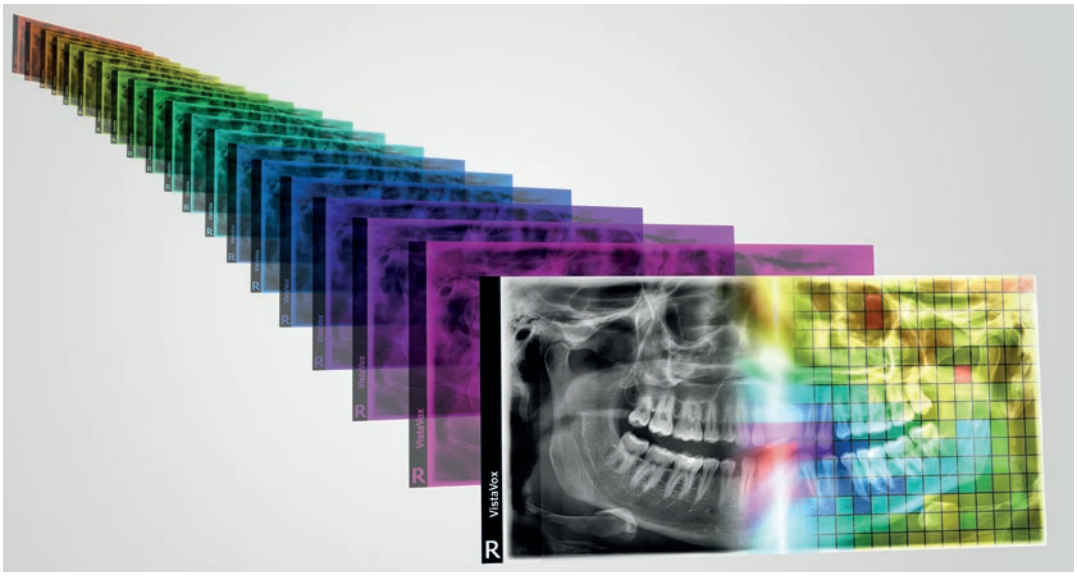
- S-Pan technology for easier diagnostics
- CsI sensor for improved image quality and reduced radiation exposure
- Extremely fast: OPG images in 7 seconds
- Tolerant of typical positioning errors – thanks to the S-Pan technology

Panorama X-ray programs

With a total of 17 X-ray programs, you are well equipped for every diagnostic requirement. In addition to the standard panorama program, VistaVox S also offers:

- Half-side recordings of right, left and front
- 4 child programs: An imaging mode with smaller exposure area; a 45-56% reduction in the dose without any loss of diagnostic information
- 5 programs for orthogonal X-ray images
- 2 programs for temporomandibular imaging (functional diagnosis)
- 2 programs for sinus X-ray images to display paranasal sinuses

Image taken with S-Pan technology



S-Pan technology: Extremely sharp images for even more reliable diagnostics

With S-Pan technology, the image regions that best correspond to the actual patient anatomy are automatically selected from a large number of parallel layers. These image parts are merged to form a panoramic image, which focuses on the actual anatomy of the patient. Deviations from the 'average dentition' are taken into account, as are individually-angled teeth. The result is an image of impressive clarity, in which you will be able to immediately and effortlessly locate all anatomically relevant structures. Since the reconstruction is aligned to the actual position of the bite, incorrect positioning is compensated for to a certain extent. This saves time for the surgery and prevents the patient from having to have repeated images taken.

The display: All of the functions at a glance

The innovative 7" touch-display of the VistaVox S guides the operator reliably and clearly through the necessary steps. Handling and navigation are exceptionally intuitive, ensuring smooth processes while taking X-rays.

Simple and efficient patient positioning

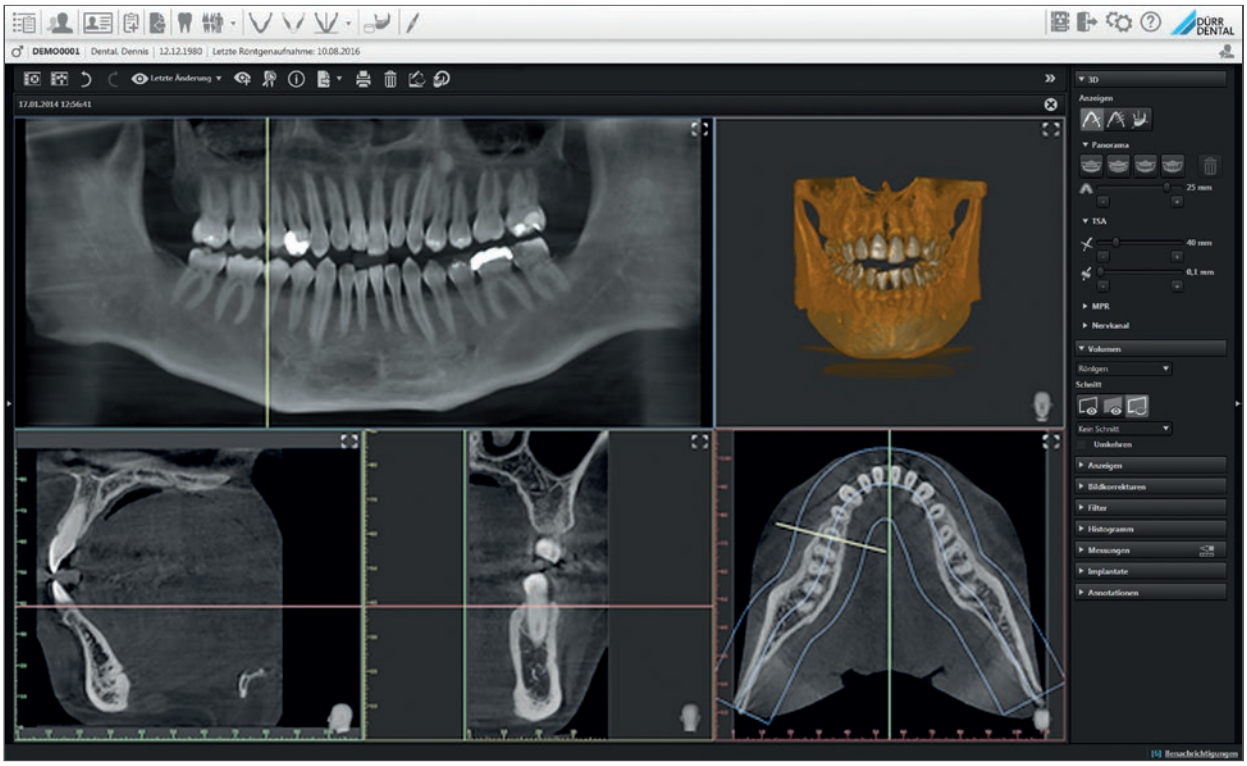
Three light lines (sagittal, frankfurt plane and canine) for 2D images and two light lines (sagittal and Frankfurt plane) for 3D images make positioning a pleasant, easy and efficient task.

Fits in every dental practice

The elegant design of the new VistaVox S allows it to be positioned in many different places in a dental surgery. Thanks to its compact design, it can be easily integrated into your practice rooms.

VistaSoft – the diagnostics centre for your surgery

Dürr Dental VistaSoft combines 3D and 2D X-ray images along with camera images and images imported from third-party hardware or from referring doctors.



Network capable, with intuitive operation: VistaSoft represents a particularly efficient solution for the acquisition, display and editing of digital images. For reliable diagnostics the contrast and sharpness of the images can also be edited with preset filters for further assistance with the diagnosis. The software supports exports of DICOM data and various interfaces to all standard practice management software packages. The new design of VistaSoft has been optimised for professional diagnostics so that it offers you the best-possible support. It is supplemented with extremely simple and fast user guidance – access all the functions you need on a daily basis with just a single mouse-click. This will make your work faster than ever before.

Easy image comparisons on the lightbox

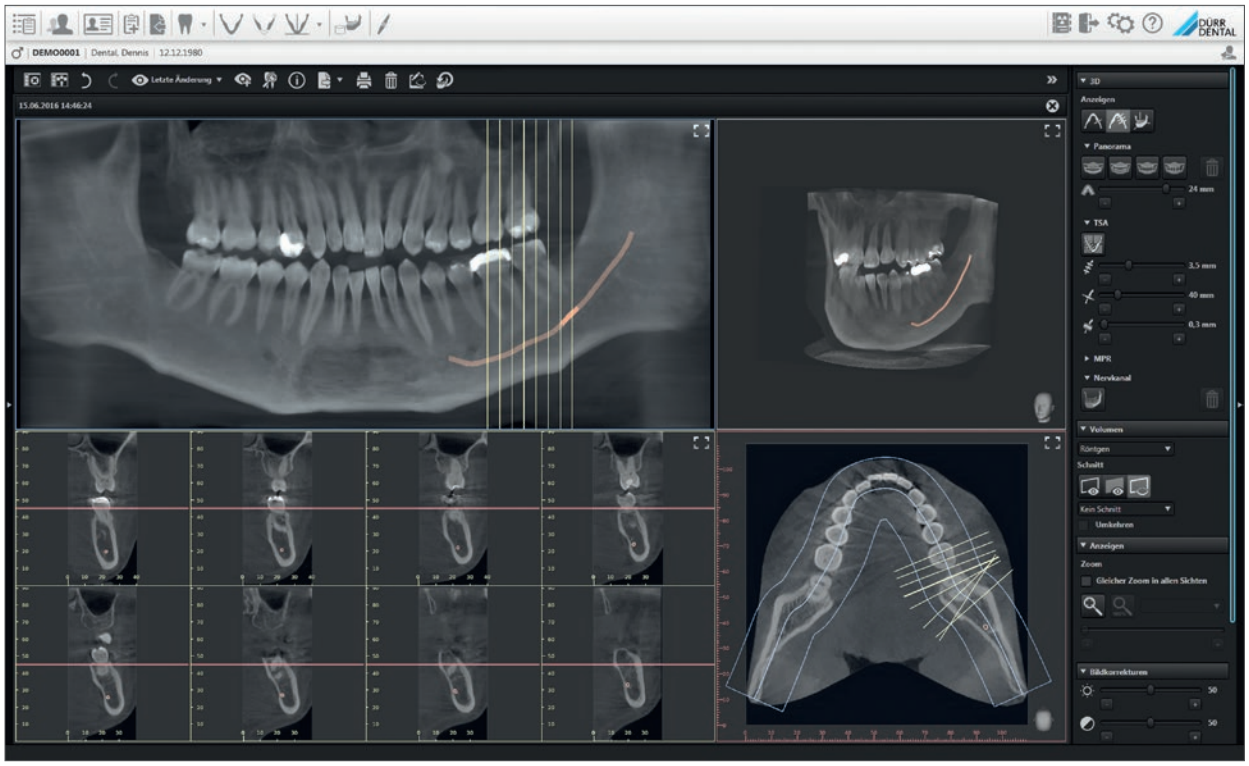
VistaSoft enables the reproduction of video, X-ray and 3D images on a shared light table. This allows you to consult images from different sources in your diagnostics. All 3D views can be rotated and tilted for optimum alignment. With the aid of a 'navigation head', which always displays the current position, orientation is very simple in the different views.
All notes created in each layer can be quickly located with the aid of a list: With just one click, the view will jump to the corresponding layer, dispensing with the need for laborious searches. The visualisation of implants is also an important function for implantology – and an essential part of patient communication.

Automated panoramic reconstruction is just one click away

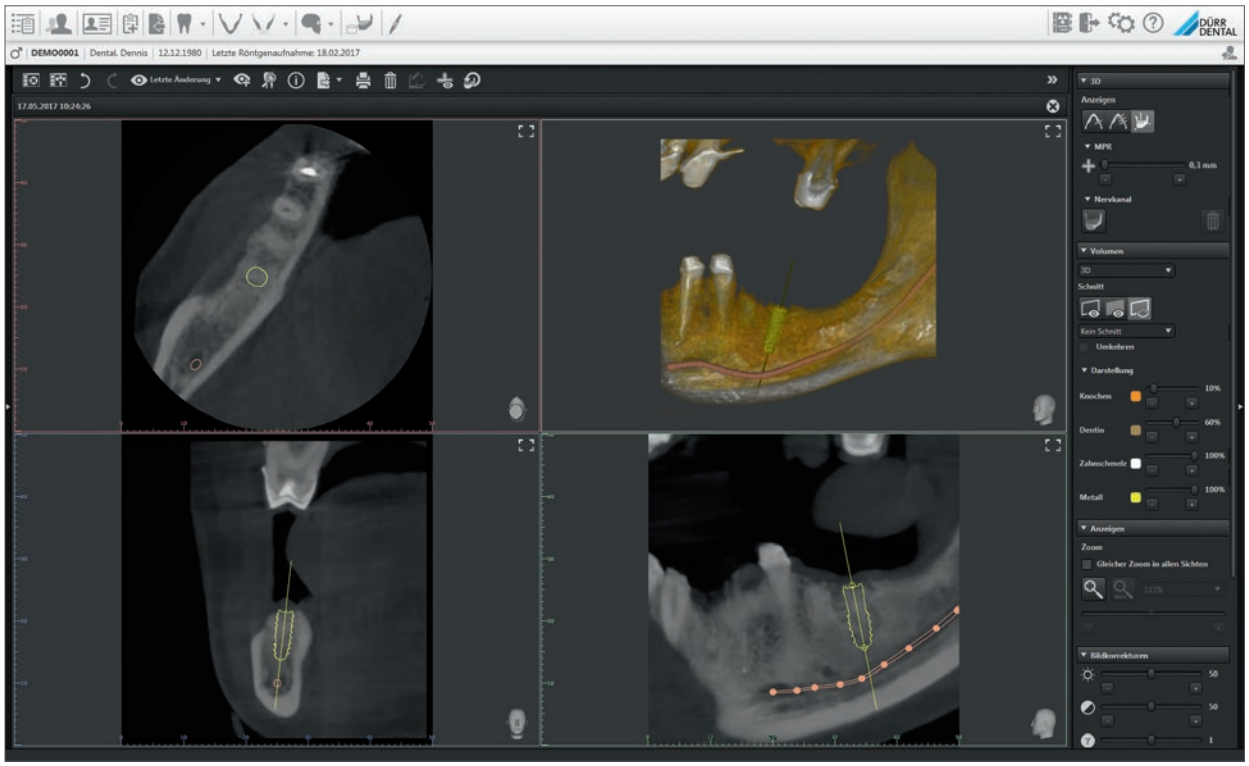
The rendered OPG view makes it easier to navigate in the 3D volume. The panoramic curve required for this is automatically positioned by VistaSoft. A slider is used to select the required layer thickness.
A further plus point: VistaSoft is compatible with all current X-ray, scanner and camera systems from Dürr Dental. Thanks to the optional 'Imaging App', the image data can be called up at any time and in any place via an iPad.

VistaSoft – further advantages and potential applications:

- Three different 3D views (Panoramic, TSA, MPR)
- Easy to draw the nerve channel into the image
- Easy measurements in the 3D volume
- Implant planning
- Export of 3D DICOM data



With VistaSoft you can comfortably display the mandibular canal and check its correct course via the transversal layer images (TSA view).

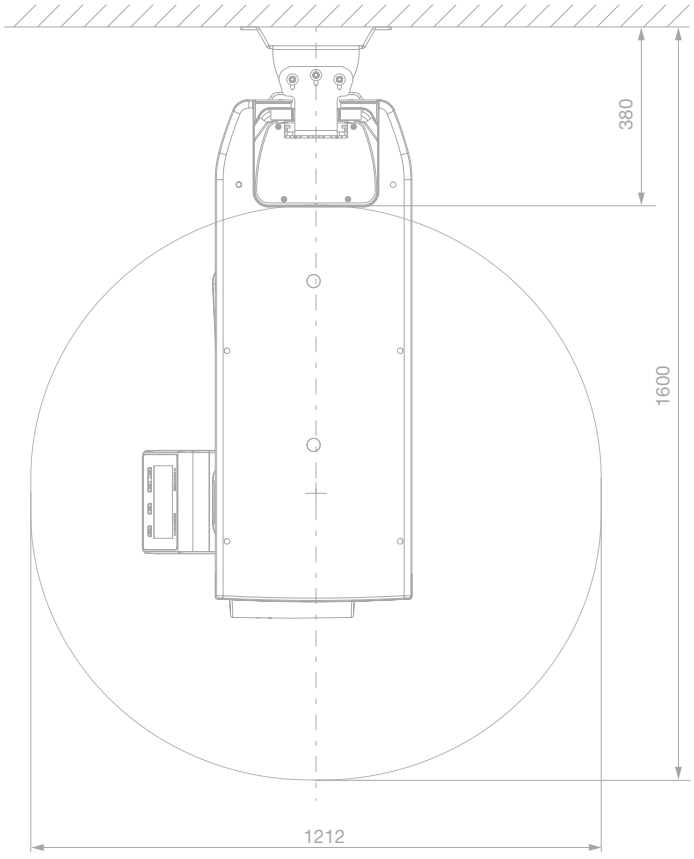


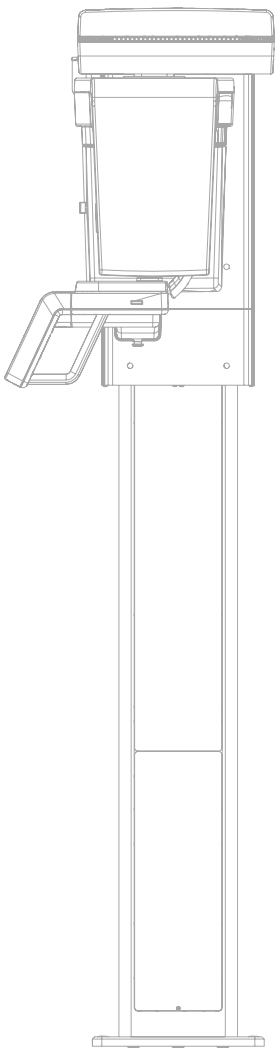
Implant planning with a 5 x 5 volume image. Shown here in the MPR view.

Figures, data and facts at a glance

VistaVox S	
X-ray HV generator	
Voltage, current	50-99 kV, 4-16 mA
Rated power	170 W
Tube	
Focal point	0.5 mm (IEC60336)
Total filtration	2.8 mm AL
Image detector	
Type	CsI CMOS photodiode array
Pixel size	49.5 µm
Active sensor surface	135.8 x 36.4 mm
Scanning times	
Scanning times	From 2 to 18 secs.
Panoramic programs	
Panoramic image	17
Image capture programs for children	4

Magnification factor	
2D images	1.26
3D volumes	
	Ø 130 x 85 mm diagnostic Ø 130 x 70 mm diagnostic Ø 50 x 50 mm
Device dimensions	
Height	1406 mm - 2250 mm
Weight	180 kg
Height adjustment range	844 mm
Width x depth	990 x 1130 mm
Installation	Wall mounting
Electrical connections	
Mains voltage	200 – 240 V AC
Frequency	50/60 Hz
Rated power	2.2 kVA

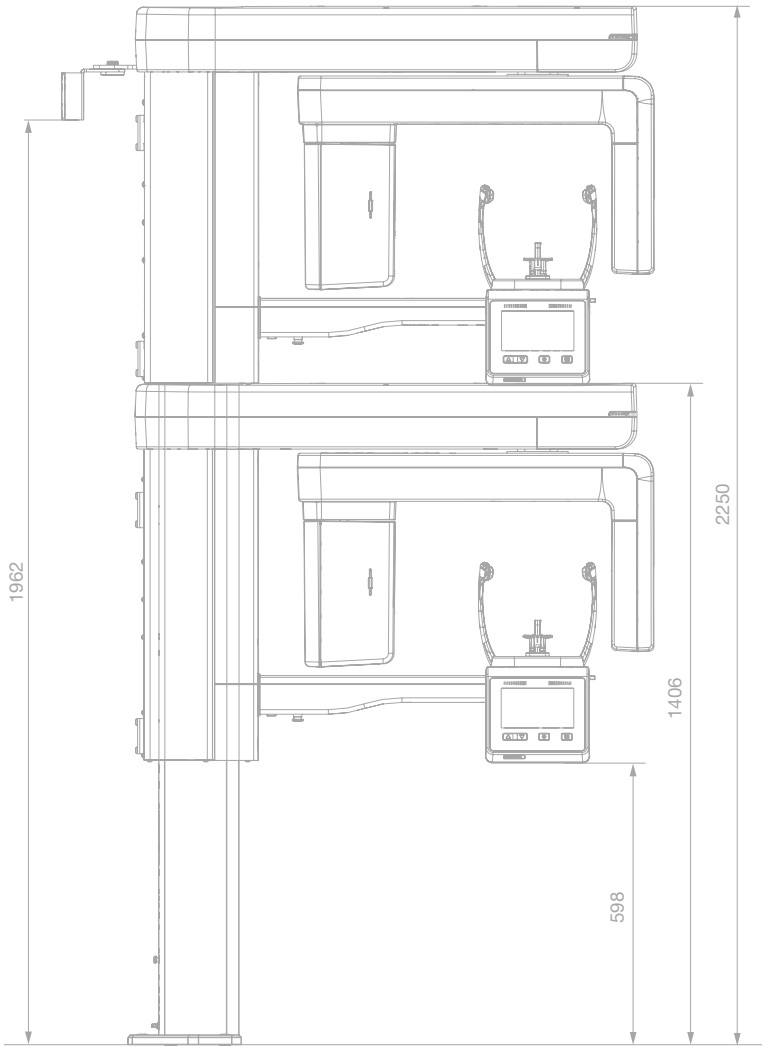




The Dürr Dental Imaging App gives you instant, easy access to your image data on an iPad.

Made
in
Germany

VistaVox S is manufactured using state-of-the-art technology at our facility in Gechingen in the Black Forest, Germany. This ensures the high quality and reliability of the device.



The VistaSystem from Dürr Dental

Everything for safe diagnosis – from a single source

VistaScan

VistaIntra

VistaPano

VistaVox

VistaCam

VistaRay

VistaSoft

Accessories

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