# VistaSystem – the full range for digital diagnostics

Everything you need for exceptional image quality - from a single source:





# Dürr Dental – digital competence for improved diagnostics

For over 50 years dentists, clinics and X-ray centres around the world have been using innovative products from Dürr Dental and benefiting from our expertise in X-ray systems. Nowadays the VistaSystem, our complete programme for digital diagnostics, is synonymous with outstanding image quality from a single source.

X-ray units, image-plate scanners and intraoral camera systems from Dürr Dental ensure the best diagnosis options thanks to unrivalled image sharpness, maximum user-friendliness and highest efficiency. In combination, these devices provide you

with the perfect system for any task. They also save valuable time when compared with conventional X-ray solutions. Furthermore, our powerful imaging software perfectly links up all of the components of VistaSystem.

Not content with providing outstanding products with award-winning designs, Dürr Dental also offers comprehensive services for your customised X-raying solution. Let us know what your requirements are – we will be glad to advise.

#### Putting digital diagnostics to the test - testimonials from satisfied dentists



#### Dr Trevor Morris, Australia

'We have been using the VistaScan for our intraoral X-ray images since 2005. This system provides the same flexibility and ease of use as traditional radiography. The processing time fits well with our treatment procedures, and the quality and durability of both the image plates and the device itself has reduced ongoing costs. Overall, we have been extremely happy with the performance.'



#### Dr Heda Dengel, Germany

'I am really impressed with the image quality and speed of VistaPano. It delivers OPG images in just seven seconds that clearly show the roots of the front teeth, bone levels, maxillary sinuses and even caries in molars. Because the images are so clear, there is normally no need for a secondary intraoral image – which means that the patient is exposed to less radiation and my work is made much, much easier.'

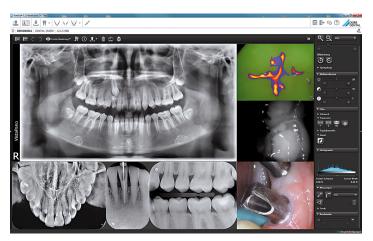


#### Dr Amit Patel, UK

'I have had the VistaScan since 2012 and have had a Dürr Dental camera since 2009. The kit saves us a huge amount of both time and money and, I must admit, the conversion of our systems from film to digital radiology was very easy.'

### VistaSoft the diagnostics centre for your surgery

#### Optimum diagnosis support via intuitive workflow





#### Modern, ergonomic design for high efficiency

Network capable, with intuitive operation: VistaSoft represents an especially efficient solution for creating, displaying and processing digital images. For further assistance with your diagnostics, the contrast and sharpness of the images can also be edited using powerful diagnostic filters. The software supports exports of DICOM data and various interfaces to all standard practice management and billing softwares. 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 intuative 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 screen

VistaSoft enables the reproduction of video, X-ray and 3D images simultaneously on the same screen. 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.

#### Key features:

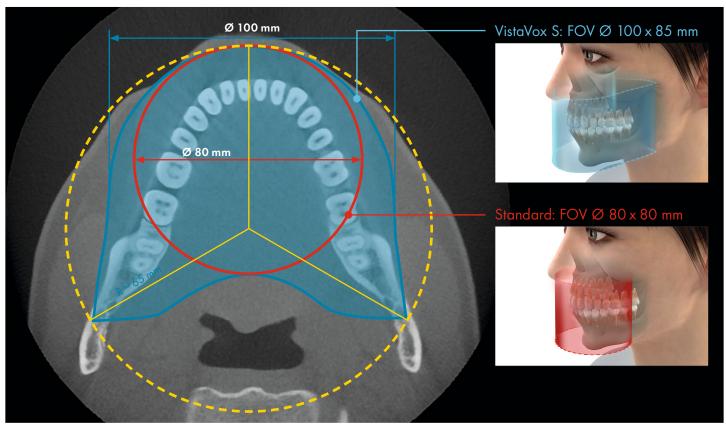
- Ergonomic design with simple, quick and well thought-out workflows for efficient operation
- Filter functions for diagnostic support e.g. endo, caries, perio, etc.
- Three different 3D views (Panoramic, TSA, MPR)
- Easy to draw the nerve channel into the image
- Easy measurements in the 3D volume
- Implant planning
- Start imaging with just one click
- Time savings thanks to the modern storage concept without any annoying pop-up prompts

### See what you want to see

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

Ideal imaging volume, adapted to the jaw arch; easy positioning with high image quality: the new VistaVox S represents a milestone in the field of 3D X-ray systems. The unique technology of the VistaVox produces 3D images including everything you need for a reliable diagnosis, well-founded treatment decisions and convincing patient communication. The S-Pan technology of the VistaVox S generates pinpoint accurate OPG images in renowned Dürr Dental quality. All this makes the VistaVox S not only a highly efficient solution for dental practices, but also a secure investment.





In order to visualise the FoV of the VistaVox S in the axial view (in blue), the conventional standard volume of  $\varnothing$  80 x 80 mm (in red) has been marked for comparison purposes. The jaw-shaped volume measuring  $\varnothing$  100 x 85 mm even displays the diagnostic range of a  $\varnothing$  130 volume. Thanks to its special shape, the VistaVox restricts imaging to the regions with diagnostic relevance.



#### Key features:

- Ideal 3D imaging volume matched to the shape of the jaw
- Excellent 2D and 3D images with just one unit
- Easy face-to-face positioning with one positioning light for 3D imaging and three positioning lights for 2D imaging
- Reduced radiation dose thanks to the anatomically adapted volume
- Dose reduced by up to 62% in SQ mode
- Reduced dose height for image capture in children preventing unnecessary exposure of the eyes
- Metal artefact reduction in 3D and 2D images
- 7" touchscreen for intuitive operation
- Modern, ergonomic VistaSoft image processing software

# The VistaPano S – an all-round perfect picture

#### Digital panoramic X-ray device with S-Pan technology

Thanks to modern CsI sensor technology and the error-forgiving S-Pan technology, VistaPano S consistently delivers excellent image sharpness. Furthermore, in Quick Scan mode the device enables complete OPG imaging in just seven seconds – and this with a particularly low dose of radiation.



Simple and efficient patient positioning.



Image acquired in standard panoramic mode.

#### Also with a Ceph module

The new VistaPano S Ceph provides an efficient X-ray solution for orthodontics and more. In addition to 2D panoramic images, it quickly creates Ceph images (4.1 sec.) with outstanding image quality and low exposure to radiation.



Lateral cephalometric image of head.





# VistaIntra – perfect in function and design





#### Key features:

- Modern, sleek design for simple and precise positioning
- Hand grip for easy and ergonomic adjustment
- Superior quality thanks to a 0.4 mm focal spot and consistent radiation emission
- Suitable for all image receptors thanks to widely adjustable mA and kV values
- Simple operating concept
- DAP (dose area product) displayed after exposure
- Available in 3 arm lengths

#### DC technology for minimised radiation dosage

The modern DC technology of the VistaIntra ensures highly repeatable accuracy of the radiation dose and therefore reliably high image quality. It also reduces the patient dose by more than 25% in comparison to conventional AC generators, thereby ensuring greater safety for your patients and employees.

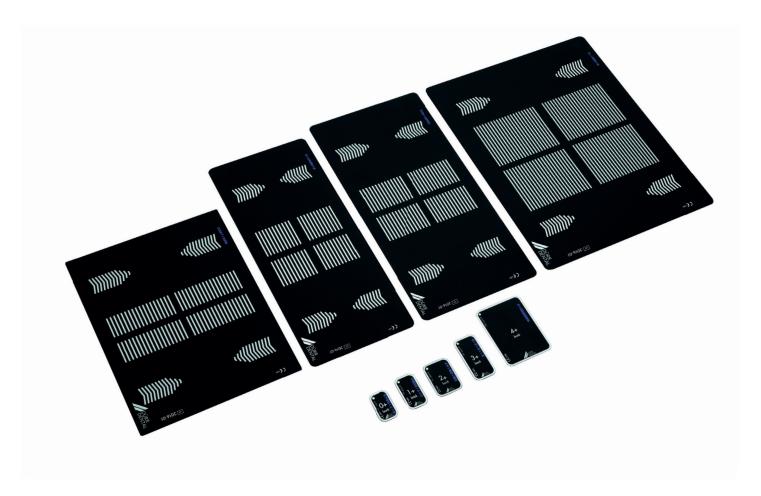
#### Fast, high-quality image results

Vistalntra leaves the factory pre-programmed with the exact radiation dose for every tooth region required for both image plates and sensors. It is ready for immediate use and delivers images with perfect exposure. Vistalntra is suitable for all image receptors including conventional film.

#### Easy operation, highly ergonomic

Thanks to the hand grip on the head of the X-ray unit, VistaIntra can be comfortably and precisely positioned. Selecting the required tooth area is also incredibly easy. The X-ray parameters can be finely adjusted where required; quick switching between two different radiation settings, e.g. for image plate and sensor, is also possible. Clear icons on the timer improve the workflow and reduce the risk of errors.

### Market-leading image plate technology - made in Germany



#### Quick and easy from film to plate

With Dürr Dental image plate technology, the switch from X-ray film to a digital workflow could not be easier. In addition, the thin, flexible and reusable image plate is easier to position, more pleasant in the mouth and can be reused immediately once the image has been read. The image is displayed on the monitor in the space of just a few seconds.

#### More details - increased diagnostic reliability

Dürr Dental image plate scanners make more details visible in comparison to X-ray film and other image plate systems, thus enabling more reliable diagnosis.

#### Better results with less effort

A comparative study by the School of Dentistry at Cardiff University (Wales) in 2009 demonstrated that the image quality achieved with image plates is significantly better than the quality of images generated with sensors. What's more, X-ray images taken with sensors often need to be repeated.

Image plates are better than sensors!

Source: A comparative study of image quality and radiation exposure for dental radiographs produced using a charge-coupled device and a phosphor plate system. School of Dentistry, Cardiff University. 2009.

### VistaScan Mini View and VistaScan Combi image plate scanners from Dürr Dental

#### VistaScan Mini View - the compact solution for high flexibility

The VistaScan Mini View enables effective digitisation of image plates thanks to features such as its large touchscreen and convenient user interface. Its compact size and integrated WiFi functions make it uniquely versatile.



Self-sufficient working without a PC.



ScanManager offers an efficient workflow for dental practices with multiple workstations.



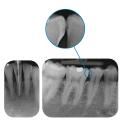


#### VistaScan Combi View versatility for all formats

The versatile VistaScan Combi View will optimise your workflow: up to four image plates can be read simultaneously in intraoral mode. It also digitises your entire dental practice in just one single device, whether you require intraoral or extraoral images, the VistaScan Combi View always delivers optimum image quality for reliable diagnostics.



Also suitable for extraoral formats.



Caries D1 lesions and endo instruments down to ISO 06 are reliably reproduced thanks to its PCS technology.



Occlusal film size and extraoral formats can also be processed with VistaScan.

#### Key features:

- Highest image quality thanks to an effective resolution of up to 22 LP/mm
- High-resolution touchscreen for ease of handling and optimum image preview
- Image plates can be read and erased in one step
- ScanManager for optimised workflow in surgeries with multiple workstations
- For all intraoral image formats
- Internal memory for maximum reliability
- Flexible PC connection via LAN/WiFi
- Optional stand-alone operating mode

# VistaCam iX HD – the innovative camera with interchangeable heads

#### For perfect diagnosis support in real HD image quality

The outstanding HD resolution of the VistaCam iX HD sets new standards for patient communication, caries diagnosis and documentation. Thanks to its autofocus function, the camera delivers images of the highest brilliance and sharpness. The slim head also enables easy access to the rear molars.

In combination with the intelligent interchangeable head mechanism, it reliably supports the camera system in the diagnosis and early detection of caries, as well as in plaque visualisation. At the same time, it makes your treatment recommendations easier for patients to understand.



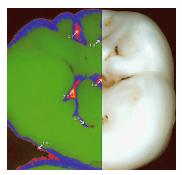
Cam image, Macro



Extraoral



Intraoral



Proof image

#### Photos and videos in HD

Cam

Pinpoint accurate HD images - regardless of whether you need intraoral, extraoral or macro images.

#### Intelligent interchangeable head mechanism

interchangeable head



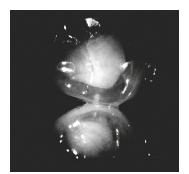


Proxi interchangeable head

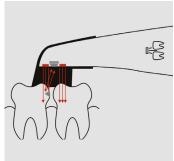
# As an illustration, here is a direct comparison between an image taken with a caries filter and an intraoral image. The caries findings can be reliably identified in greater detail in the image created with the Proof interchangeable head (left). In this example, the early-stage caries (blue) and deep enamel

caries (red) are easy to visualise.

Visualisation of carious areas







Caries lesions reflect the infrared light.

#### Early and gentle detection of proximal caries

The Proxi interchangeable head provides reliable assistance in the early detection of proximal caries to facilitate immediate treatment. In this way, VistaCam iX HD will make the diagnosis easier without subjecting your patient to a dose of X-ray radiation - which is an important advantage particularly for children and pregnant women. The images can be saved directly in the patient database, where they can be used to monitor treatment success and progress (e.g. remineralisation or spread of caries).

#### Key features:

- Brilliant HD image quality for images and videos
- Autofocus for intraoral, extraoral and macro images
- Software analysis for the detection of caries lesions for displaying plaque using a fluorescence method (Proof interchangeable head)
- Diagnostic assistance for proximal caries with no exposure to radiation thanks to the use of infrared technology (Proxi interchangeable head)





reddot design award



### The technology at a glance

VistaVox S			
X-ray HV generator		Magnification factor	
Voltage, current	50-99 kV, 4-16 mA	2D images	1.26
Rated power (W)	170	3D volume	
Tube		Child (mm)	Ø 100* × 70
Focal point (mm)	0.5 (IEC60336)	Adult (mm)	Ø 100* x 85
Total filtration (mm)	2.8 AL		*Displays the diagnostic range
Image detector		<u> </u>	of a Ø 130 volume.
Type	Csl CMOS photodiode array	Device dimensions	
Pixel size (µm)	49.5	Height (mm)	1406 - 2250
Active sensor surface area (mm)	135.8 x 36.4	Weight (kg)	180
Scanning times		Height adjustment range (mm)	844
•	0. 10	Width x depth (mm)	990 x 1130
Scanning times (sec.)	2 to 18	Installation	Wall mounting
Panorama programs		Electrical connections	
Panoramic image	17	Mains voltage (V)	200 - 240 AC
Image capture programs for children 4		Frequency (Hz)	50/60
		Rated power (kVA)	2.2

	VistaPano S	VistaPano S Ceph	
X-ray HV generator			
Voltage (kV) current (mA)	50 - 99, 4 -16	50 - 99, 4 -16	
Tube			
Focal point (mm)	0.5 (IEC60336)	0.5 (IEC60336)	
Total filtration (mm)	2.8 Al eq.	2.8 Al eq.	
Image detector			
Туре	Csl sensor	Csl sensor	Csl sensor
Pixel size (µm)	100	100	100
Active sensor surface area (mm)	6 x 150.4	6 x 150.4	5.9 x 230.4
Frame rate (fps)	300	300	200
Scanning times			
Scanning times (sec.)	2.5 to 13.5	4.1 to 12.9	
Panoramic programs (sec.)	Panoramic X-ray images of adults	Ceph programmes:	
	in Quick Scan mode: 7 sec.	Lateral head radiograph	in Quick Scan mode: 4.1
Magnification factor			
Magnification factor	1.3	1.3	1.14
Device dimensions			
Maximum height (mm)	2280	2280	
Weight (without/with foot, kg)	105/155	129/179	
Height adjustment range (mm)	700	700	
Width x depth x height (mm)	990 x 1220 x 2280	1940 x 1220 x 2280	
Installation	Wall or foot mounting	Wall or foot mounting	
Electrical connections			
Mains voltage (V)	200 - 240 AC	200 - 240 AC	
Frequency (Hz)	50/60	50/60	
Rated power (kVA)	2.2	2.2	

	Vista
Input power	AC 100 - 240 V 10 %, 50/60 Hz
Power consumption (W)	500
Tube voltage (kVp)	60 - 70
Tube current (mA)	4 - 7
Tube length (mm)	200 (300 optional)
Radiation field limiting (mm)	Ø 60/30 x 40 (20 x 30 optional)

ntra DC	
Exposure time (sec.)	0.04 - 2
Focal point (mm)	0.4 (IEC 336)
Total filtration (mm)	Min. 2.0 Al
Weight (kg)	24.4 / 26.4 / 28.4
Height (mm)	1730
Max. working length (mm)	1810 / 1960 / 2260

VistaScan Mini View	
Display	4.3" Touch, 800 x 480 Pixel, 16.7 million colours
Plate sizes	0 to 4
Effective resolution (LP/mm, dpi)	22, 1100
Theoretical resolution (LP/mm, dpi)	40, 2000
Weight (kg)	approx 7
Dimensions (H x W x D mm)	275 x 226 x 243
Stand-by functions	Yes
Interfaces	LAN, WiFi

VistaScan Combi View	
Display	4.3" touchscreen, 800x480 pixels, 16.7 million colours
Plate sizes	0 to 4
Intraoral formats (cm)	2 x 3 / 2 x 4 / 3 x 4 / 2.7 x 5.4 / 5.7 x 7.5
Panoramic formats (cm)	12.7 x 30.5 / 15 x 30
Ceph formats (cm)	18 x 24 / 20 x 24 with VistaScan Omni View: 24 x 30
Effective resolution (LP/mm, dpi)	22, 1100
Theoretical resolution (LP/mm, dpi)	40, 2000
Grey scale (bit)	16 (65,536)
Weight (kg) / installation	24 / table-mounted; wall-mounting optional
Dimensions (H x W x D mm)	720 x 380 x 380
Interfaces	LAN, WiFi

VistaCam iX HD	
Connections	USB 2.0 (USB 3.0 compatible)
Multi-user application	Plug & play
Activation	Via button located on handpiece (optionally at top or bottom as desired)
Handpiece weight (g)	70
Handpiece length (mm)	200
Cable length (m)	2.5 m (optional extension by 3 m via active cradle with USB hub)
Power supply	USB (5 V)
Sensor	High performance CMOS Sensor
Drivers	Uses standard Windows drivers, NO additional drivers needed
Resolution (pixels)	1280 (H) x 1024 (V)
Illumination	2 LEDs each for Proof (405 nm, purple), Proxi (850 nm, infrared)
Optical system	Multiple lenses with protective glass

System requirements VistaSoft	
СРИ	≥ Intel Core i3
RAM (GB)	≥ 4
Operating system	≥ Windows 7, 32 bit
Hard disk	Workstation (without database) ≥50 GB Database memory depends on the number of images at the surgery (camera image: approx. 1 MB, X-ray image: approx. 2-10 MB)
Drive	DVD ROM
Data backup	Daily data backup
Interface	USB ≥ 2.0, Ethernet ≥ 100 Mbit
Graphics card	Resolution min. $\geq 1.280 \times 1.024$ colour depth 32 bit, 16.7 million colours
Diagnostic monitor	In accordance with the German X-ray Ordinance
Compatibility	VistaConnect, Imagebridge, DBSWIN, VistaEasy

### The VistaSystem from Dürr Dental

Everything for safe diagnosis - from a single source



VistaScan



Vistalntra



**VistaPano** 



VistaVox



**VistaCam** 



VistaRay



VistaSoft



Accessories



P007-763-02/LOD-dd.de/0.5/03/H12 Subject to technical changes