



PANORAMIC AND CEPHALOMETRIC X-RAYS

# PRO▶VECTA®

AN ALL AROUND PERFECT PICTURE.  
The perfect combination of image  
quality, efficiency and design.

**AIR**  
**TECHNIQUES** equipped for life®

# Air Techniques – experts in digital imaging

ProVecta X-Ray Family: Extraoral and intraoral X-rays from a single source



For over 50 years, dentists and large group practices have trusted Air Techniques as a provider of innovative products. Your practice will benefit from our experience with X-ray imaging and development of dental imaging software with filters for diagnosis support.

ProVecta X-ray systems from Air Techniques sets the new standard in sharpness and clarity for extraoral and intraoral images. By combining the ProVecta S-Pan panoramic and cephalometric X-rays with our ProVecta HD intraoral X-ray and the ScanX family of image plate scanners, you are perfectly equipped to provide the highest level of treatment to your patients. ProVecta Integrated X Ray systems from Air Techniques maximizes your efficiency while providing an enhanced patient experience for your practice. ProVecta X-ray systems are compatible with most 3rd party software, giving you the flexibility you need.



# ProVecta S-Pan

Revolutionary S-Pan Technology Delivers  
Unparalleled image quality and ease of use



The ProVecta S-Pan from Air Techniques sets a new standard in extraoral image quality. The 2D panoramic X-ray unit features an innovative onboard 7 inch touch

## Keys to Panoramic Perfection

- S-Pan technology for simpler diagnosis and unmatched image quality.
- CsI sensor for better image quality and reduced dose.
- Slim design, small footprint.
- Extremely fast: OPG image from 7 seconds.
- 7" touch display for intuitive handling.
- Easy face-to-face positioning, 3 positioning lasers.

screen display, allowing the operator more flexibility and simplifies workflow. The ProVecta S-Pan utilizes two high performance proprietary technologies to create images with unparalleled sharpness. First is the cesium iodide coated Flat Panel Sensor, which produces high resolution images without increasing radiation exposure to the patient. Second, Air Technique's exclusive S-Pan technology uses a proprietary algorithm that utilizes a patient's unique anatomy to maximize image quality and clarity. The quick scan mode enables you to scan a complete OPG image of an adult in only 7 seconds with an extremely low dose of radiation.

# ProVecta S-Pan – truly perfect imaging

High-speed scanning with low X-ray dose

## All functions at your fingertips

The innovative 7" touchscreen allows access to all functions of the S-Pan while positioning the patient.

## Always the right image size

With an image height of 150 mm, the ProVecta S-Pan displays an extended diagnosable jaw area and the paranasal sinus area in one scan. The S-Pan features a pediatric mode that reduces the radiation dose while providing same high quality images.

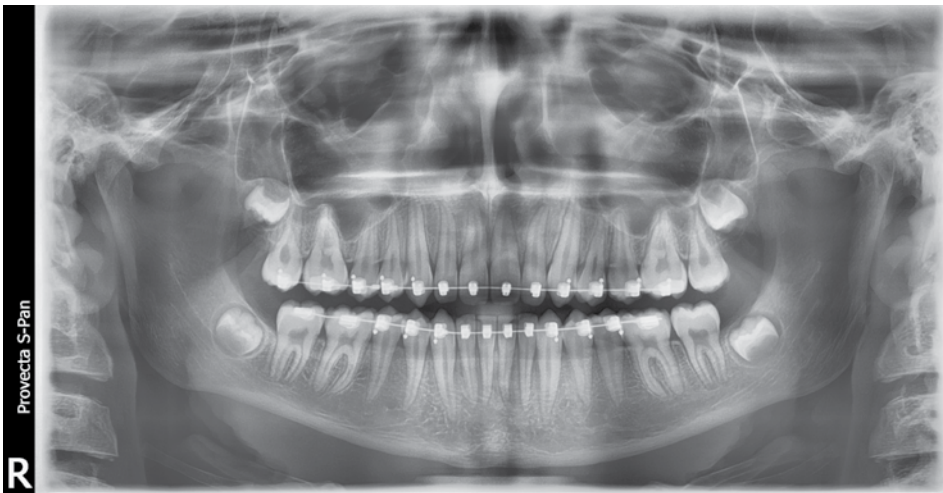
## Panoramic X-ray programs

With a total of 17 X-ray programs, you are well equipped for every diagnosis. In addition to the standard panoramic program, ProVecta S-Pan offers:

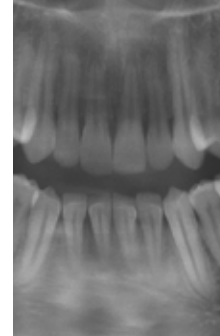
- Right, Left and Anterior only panoramic projections
- 4 child programs which reduces the dose by 45 – 56 % without loss of diagnostic information
- 5 programs for orthogonal/bitewing X-ray images
- 2 programs for mandibular X-ray images (functional diagnosis)
- 2 programs for sinus X-ray images to display paranasal sinuses



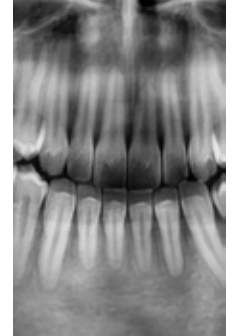
# S-Pan technology: Safe diagnosis due to extremely sharp images



1 layer clarity  
(competitor)



20 layer clarity  
(ProVecta S-Pan)



Other digital X-ray units create panoramic images along a preset shape which follows the jaw arch of an 'average' human in the axial plane. This shows a layer whose position can be considered as the unfolding of a flat sheet of paper that is placed upright around this shape. This is almost always a compromise.

Our exclusive S-Pan technology is completely different. Here, the image areas that match best with the actual anatomy are automatically selected from a large number of parallel layers.

Together, they result in a panoramic image which represents the actual anatomy of the patient. Deviations from the 'average dentition' are also taken into account as well as individual inclinations of the teeth. No compromises are necessary. The result is an image of unparalleled clarity. The practitioner can easily identify the structures that are of interest. As the reconstruction is oriented to the actual position of the teeth, false positioning is 'evened out' to a certain extent. This saves time for the practice and prevents the patient from exposure to additional X-ray images.



## Fits into all practices

The slim, delicate design of the ProVecta S-Pan offers many placement possibilities in your practice. Thanks to its elegant eye-catching design and compact style with dimensions of just 38" x 48" – 51" x 90" (W x H x D).



## Easy and efficient patient positioning

The three positioning laser lines mark the exact alignment of the Frankfort horizontal plane, mid-sagittal plane and right canine plane. The face-to-face positioning without mirror enables a direct visual contact between practitioner and patient, helping to put nervous patients at ease.

# ProVecta S-Pan Ceph – exemplary ergonomo

Quick cephalometric projections with low X-ray dose



Short scanning time, low X-ray dose, best image quality

At 4.1 seconds, one of the shortest scanning times available in linear ceph designs, the patient's exposure is reduced. Due to the modern high-sensitivity CsI sensors, an excellent image quality can be achieved despite the low dose.

## Optimum workflow

The ProVecta S-Pan Ceph comes with two high-end CsI sensors. This eliminates the tedious switching between the panoramic X-ray unit and the cephalometric arm. To start a cephalometric X-ray, you only need to set the program mode accordingly.



## Ceph X-ray programs

Besides the 17 panoramic programs available, 5 new programs for all cephalometric X-ray recordings are now also included:

- Head lateral L
- PA head
- SMV (submentovertex)
- Waters view
- Hand (Carpus)



Head lateral L



PA head



SMV (submentovertex)



Waters view



Hand (Carpus)

mics and efficiency





# ProVecta S-Pan Ceph

## Low X-ray dose – high efficiency



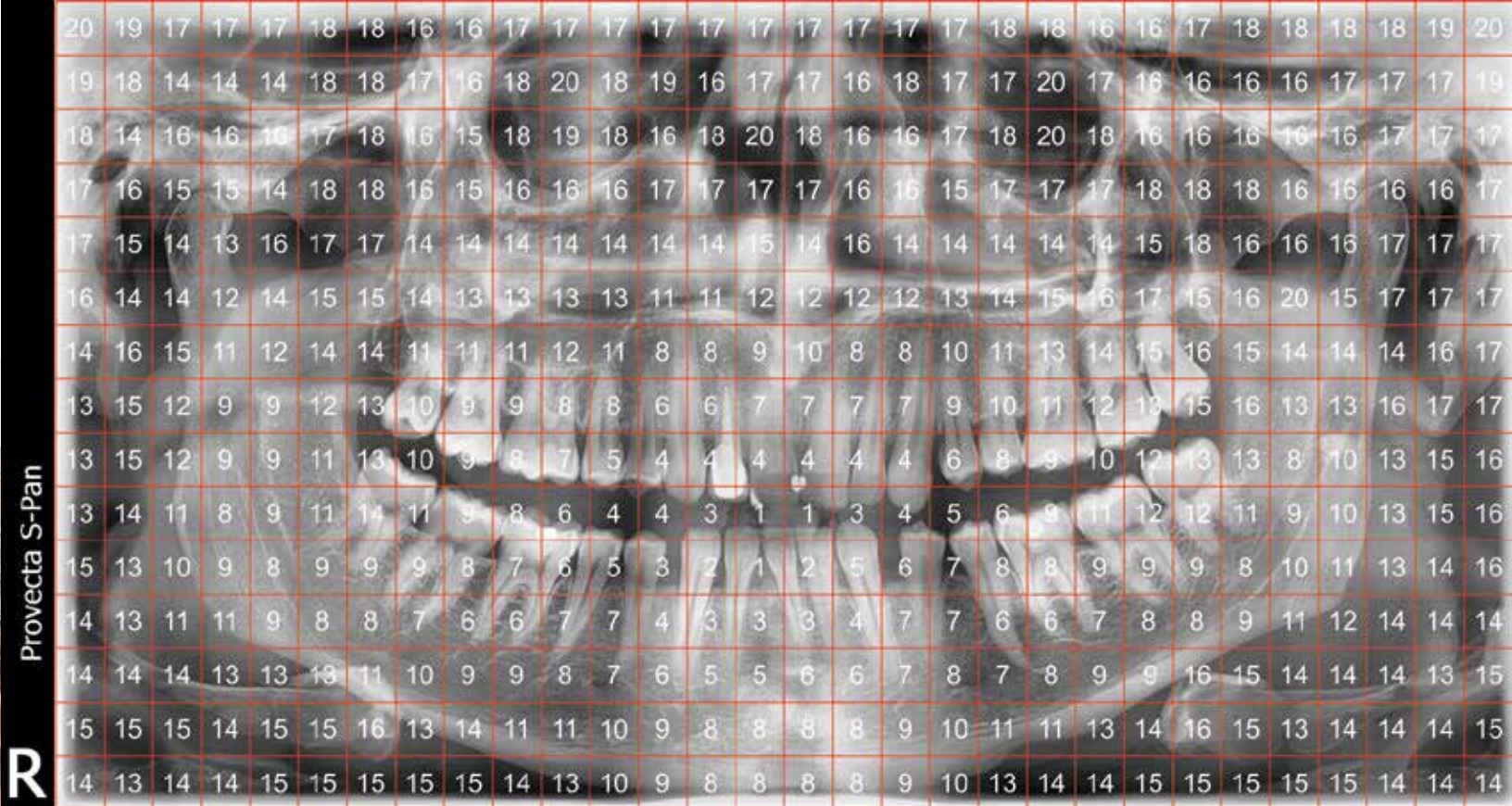
Quick cephalometric X-ray images with excellent image quality are achieved with the new ProVecta S-Pan Ceph and with the lowest possible dose. The reason for this is the extreme short scanning time of the line sensor – from only 4.1 seconds – which significantly reduces the risk of motion blur. For young patients undergoing orthodontic treatment, the combination of low X-ray dose and short scanning time presents a considerable advantage for the practice and the patient.

The two high-end Csl sensors – for panoramic X-ray and Ceph projection – already

integrated in the unit eliminate the time-consuming switching of the sensor, and thus the risk of damage. All this makes ProVecta S-Pan Ceph the ideal X-ray solution for your practice. In addition, the ProVecta S-Pan Ceph offers you all functions and advantages of the ProVecta S-Pan.

### Key Benefits:

- Very fast scan in 4.1 seconds (lat. head)
- Excellent image quality
- Low radiation dose
- No sensor change, 2 high-end Csl sensors are integrated



# HOW S-PAN TECHNOLOGY WORKS – AN ALGORITHM AS UNIQUE AS EACH PATIENT

The S-Pan technology, only available from Air Techniques, uses a unique algorithm to compile up to 20 separate images into one clear and sharp image in all areas of the dental anatomy. Unlike traditional 1 layer or 5 layer systems, the ProVecta S-Pan and ProVecta S-Pan Ceph acquire images that are specifically created for each individual patient.

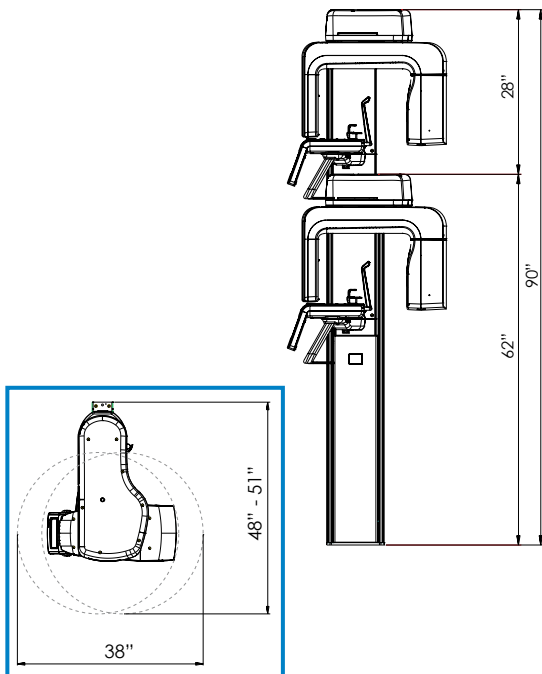
From a single exposure, the system acquires these 20 layers and slices them into 20,000 fragments. The best are selected and compiled to generate a single, exceptionally sharp panoramic image – automatically! The practitioner will not need to add any additional steps to the practice workflow.

All sections of this image are as sharp as possible because they include individual anatomical feature data, and the patient's position. This means that important diagnostic information is sharply displayed, including the mandibular canal and bone structure.

# Figures, data and facts at a glance

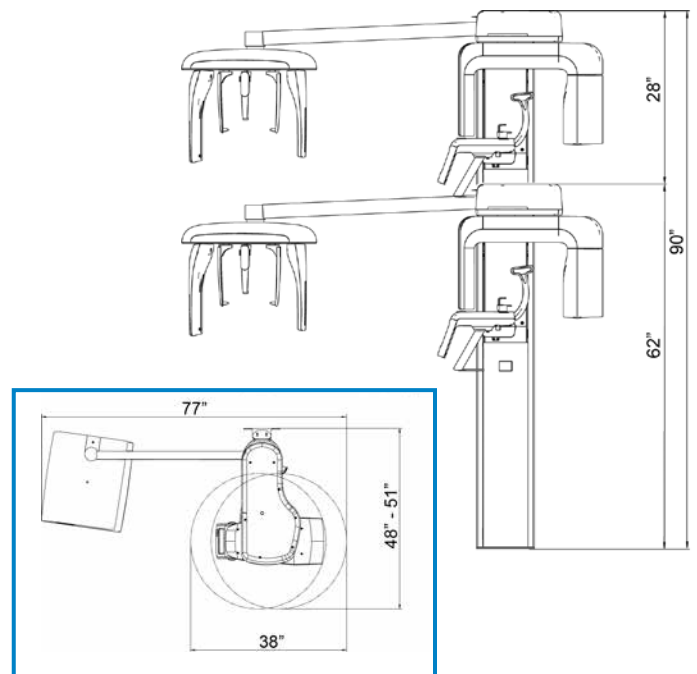
## PRO▶VECTA® S-Pan

<b>X-ray HV Generator</b>	
Tube Voltage, current	50–99 kV, 4–16 mA
<b>Tubes</b>	
Focal spot size	0.5 mm (IEC60336)
Total filtration	2.8 mm AL
<b>Image Detector</b>	
Model	Csl Sensor
Pixel size	100 µm
Active sensor surface	6 x 150.4 mm
Frame rate	300 fps
<b>Scan Times</b>	
Scan times	From 2.5 to 13.5 secs.
Panorama program scan time	Panoramic X-rays of adults in quick scan mode: 7 sec.
<b>Magnification Factor</b>	
Magnification factor	1.3
<b>Device Dimensions</b>	
Maximum height	90"
Weight (without/with foot)	231/342 lbs
Height adjustment range	28"
Dimensions including rotation	
Width x depth x height	38" x 48" – 51" x 90"
Installation	Wall mount (pedestal optional)
<b>Electrical Connection</b>	
Mains voltage	200–240 VAC
Frequency	50/60 Hz
Rated power	2.2 kVA



## PRO▶VECTA® S-Pan Ceph

<b>X-ray HV Generator</b>	
Tube Voltage, current	60–99 kV, 4–16 mA
<b>Tubes</b>	
Focal spot size	0.5 mm (IEC60336)
Total filtration	2.8 mm AL
<b>Image Detector</b>	
Model	Csl Sensor
Pixel size	100 µm
Active sensor surface	5.9 x 230.4 mm
Frame rate	200 fps
<b>Scan Times</b>	
Scan times	From 4.1 to 12.9 secs.
Scanning times	Lateral head radiograph in quick scan mode: 4.1 sec.
Ceph program	
<b>Magnification Factor</b>	
Magnification factor	1.14
<b>Device Dimensions</b>	
Maximum height	90"
Weight (without/with foot)	284/394 lbs
Height adjustment range	28"
Dimensions including rotation	
Width x depth x height	77" x 48" – 51" x 90"
Installation	Wall mount (pedestal optional)
<b>Electrical Connection</b>	
Mains voltage	200–240 VAC
Frequency	50/60 Hz
Rated power	2.2 kVA





[airtechniques.com](http://airtechniques.com)

# DIGITAL IMAGING WITHOUT LIMITS FROM AIR TECHNIQUES



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