

Axeos Orthophos





Axeos Orthophos

Every dental practice is individual and unique. And every clinic has special requirements and goals. This is why Dentsply Sirona teams around the world have a clear view of how to support these wishes and needs.

Each of our extraoral X-ray units are flexibly adapted to the needs of the practice. They are tailored to support diagnosis, planning and treatment right from the start and are future-oriented and sustainable until the end. They simplify your work with: excellent image quality, intuitive operation, a modular structure and, of course, a clear, homogeneous and intelligent design.

Axeos and Orthophos offer flexibility for adaptation into your practice workflow now and into the future.

The values that make up each Dentsply Sirona X-ray system:

Clinical Confidence

High quality and sustainable solutions designed to provide exceptional images to support greater diagnostics, treatment planning and clinical accuracy.

Smart Connectivity

Smoothly integrated workflows, thanks to state-of-the-art digitalisation, numerous planning applications and seamless workflow automation.

Exceptional Experience

Individual, innovative design and ease of use support the practice team to work more efficiently, to implement consistency and provide exceptional patient experience.





See more with 3D

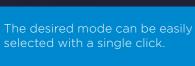
Additional possibilities for your practice

3D images are invaluable in a variety of clinical tasks, e. g. impacted teeth, unexpected canals, hidden roots or orthodontic surgery.

This makes the difference:

- **Excellent image quality**
- **Easy diagnostics**
- Intuitive use

Examine a precise area with a FoV of \emptyset 5 cm x 5.5 cm or evaluate the complete dentition including temporomandibular joints with Ø 17 cm x 13 cm.







Standard Definition (SD)



Low Dose (Low)



For local findings e.g. for endodontic issues or single implants



Capturing the lower and upper jaw dentition,



Shows the complete dentition, including



Captures the complete dentition including both temporomandibular joints and the cranial base, defined by nasion and sella.



High Definition Mode (HD)

All Dentsply Sirona 3D X-ray systems offer you the High Definition Mode (HD), in which up to 1,400 individual images are captured during a single rotation and converted into a 3D volume with up to 80 μ m. The advantage for you: low-noise images in high resolution.

MARS - Metal Artifact Reduction Software

Metal artifacts are often a challenge in 3D X-ray imaging. MARS automatically reduces metal artifacts, and can therefore help to facilitate a quality diagnosis. At Dentsply Sirona, MARS is a standard integration in all 3D solutions.

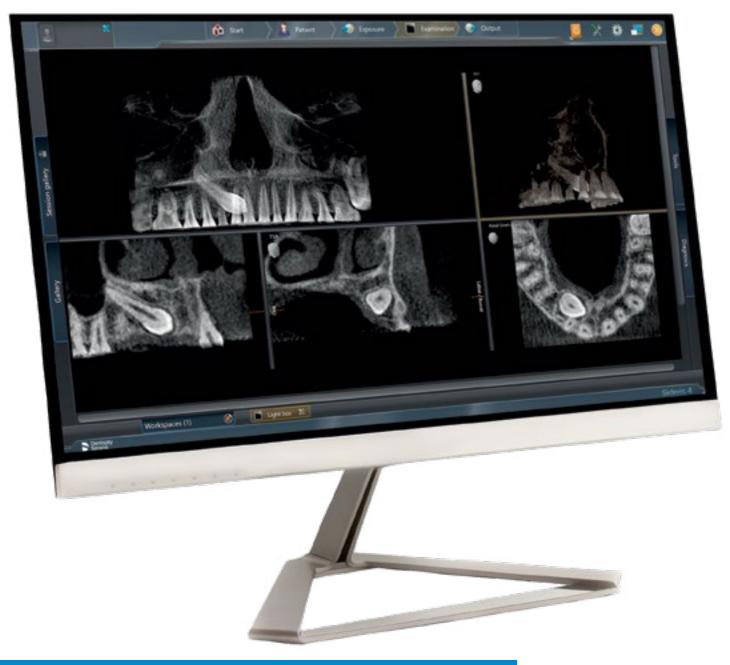




3D Image – 2D dose

Intelligent Low Dose

Thanks to the optimised Low Dose mode with a dedicated filter, the imaging of dense structures, such as bones, is possible at a greatly reduced dose. This makes Intelligent Low Dose an attractive and efficient option for many clinical situations. Whether in orthodontics or implantology - with Dentsply Sirona solutions you will find the optimum setting for every case.



Localisation of displaced incisor, \emptyset 5cm x 5.5cm at 3 μ Sv

3D Low Dose is suitable for a variety of clinical situations.

Tooth position evaluation in 3D

at a low dose, especially for young, radiation-sensitive patients.

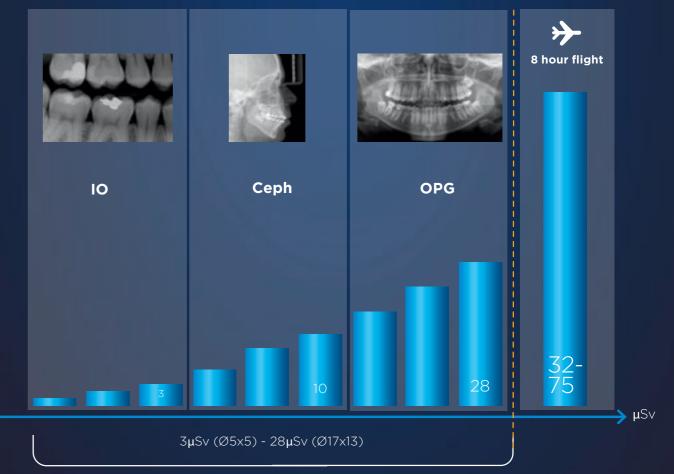
Post Implant placement check in 3D in the dose range of a 2D X-ray.

Sleep apnoea therapy with SICAT Air. Even with 3D Low

Dose images, the upper airways are automatically segmented.

In contrast to conventional low dose approaches, Dentsply Sirona Intelligent Low Dose not only lowers the mA but also applies a dedicated copper filter. This enables good visibility of dense structures (e.g. bone) despite the low dose.

With Dentsply Sirona Imaging Solutions you can be sure to obtain 3D information in the dose range of a 2D X-ray with just a single click.



Dosimetry of Orthophos SL CBCT Unit with Low-Dose Protocol

J. Waschkewitz and C. Buss et al., University Medical Center Hamburg-Eppendorf, measurement method according to Ludlow

For the best 2D results

Digital panoramic imaging

Digital imaging in 2D offers unbeatable benefits for every dental practice. DCS, Autofocus and other highlights for reliable, high-quality images.

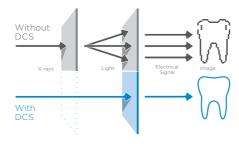
This makes the difference:

- **Excellent image quality**
- **Easy diagnostics**
- Intuitive use

DCS - Direct Conversion Sensor

The Direct Conversion Sensor (DCS) has revolutionised the standard of panoramic imaging. X-rays are converted directly into electrical signals. Thus, there is no signal loss due to light conversion, as is the case with conventional systems.

The result: images with a high level of sharpness and contrast – even at an extremely low radiation dose. For accurate diagnostic information to support targeted treatment.







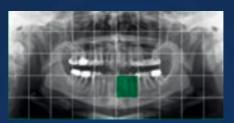
Autofocus

The right focus is crucial for excellent panoramic radiographs.

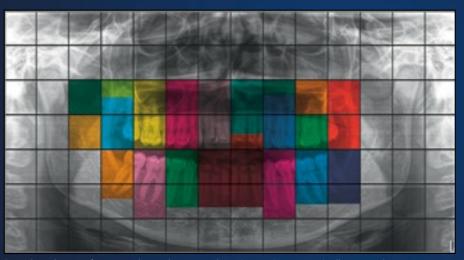
And with the autofocus function you will automatically receive an image with the best possible sharpness in focus.

Dentsply Sirona Imaging Solutions take several thousand individual images in one cycle and automatically identify the areas where the jaw is optimally positioned. Without any additional manual steps, these images are then displayed in a final sharp image.









Orthophos SL/S streamlines the image acquisition. During patient positioning no adjustment of a canine light is needed. The best panoramic image is automatically displayed in the software and it is not necessary to manually select the sharpest images. This saves you and your practice team a lot of time every day.



Based on the autofocus results, a character-sharp image is automatically created.



The result: sharp images

When less is more

A multitude of possibilities for 2D dose reduction

At Dentsply Sirona, we have made it our mission to offer products that provide X-ray images of the highest image quality. When developing our imaging solutions we take into account the ALARA (As Low As Reasonably Achievable) principle, which applies worldwide. Therefore, our devices have been equipped with numerous functions that allow you to reduce dose on a patient-to-patient basis.

Quickshot

Quickshot reduces the exposure time and thus, the dose. This makes it a valuable feature for all practices, especially those working with a large number of paediatric patients.



Extraoral Bitewing

This allows for extraoral images to be created of both the posterior and anterior regions at a lower dose. The program also supports working with patients who have a gag reflex, which often makes capturing intraoral radiographs difficult.









At Dentsply Sirona, we don't just design individual units, we create solutions for your entire workflow.

Because when your hardware and software come together in effortless cohesion, you can concentrate on what's most important: your patient.

And with an optimised workflow you not only save valuable time but you also know that you are providing your patient with the best care possible due to the broad treatment range you can now offer them.

Always in sync with your practice

Sidexis 4 imaging software

Imaging processing software provides everything to detect, diagnose and discuss treatment planning.

This makes the difference:

- Intuitive workflow
- Treatment planning and patient communication
- Dynamic platform with numerous integration possibilities

Whether 2D or 3D - brilliant images are only truly at their best when managed in the right software. The modern and highly intuitive imaging software, Sidexis 4, supports an accurate and precise diagnosis. With its award-winning user interface, it promotes an intuitive and clear navigation, saving you valuable time. The platform provides treatment planning tools to bring patient communication to the next level.



Modern, intuitive design

Sidexis 4 offers a complete modern and clean look. Beyond the impressive aesthetics, the new software also boasts an intuitive operating approach and clear design. The Timeline function offers you an easy-to-navigate patient diagnosis and treatment history.

Compare

Sidexis 4 compares two
CBCT images or up to four
2D images simultaneously. For
example, you can navigate
through both volumes at the
same time, obtain crosscomparisons at a glance and
provide clear patient communication and case presentation.

Seamless 2D/3D

With Sidexis 4, you can view 2D and 3D data simultaneously and side by side without switching between programs. This saves you valuable time and cross-comparisons, providing you with increased confidence in your final diagnosis and treatment plan.



Mobile image visualisation with the Sidexis iX iPad app*

The Sidexis iX iPad App allows true mobility in the dental practice, with the ability to call up X-ray and patient data directly on the iPad. This provides the patient the opportunity to hold their X-rays in a digital format.

*iPad only app, not available for android tablets

3D imaging to go

you can use all the mobile and flexible advantages of the iPad.

Implant visualisation

clear and effective consultation tool for implantology treatment proposals the

Sidexis 4 database access for full use of the Sidexis 4 patient database with the possibility to download for offline access

Highly specialised for every type of expert

Treatment for orthodontics



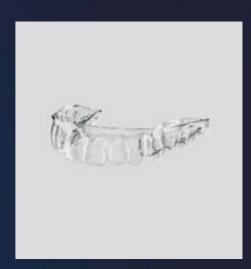
Versatility, dedicated low dose programs and high image quality are just a few of the characteristics that make each member of the Orthophos family and Axeos the perfect partner for your practice. In Orthodontics, they offer safe and efficient treatment using the ALARA principle - and support you in reaching an accurate diagnosis efficiently and with optimal clinical support. Clear case presentation helps improve overall patient communication and treatment acceptance.

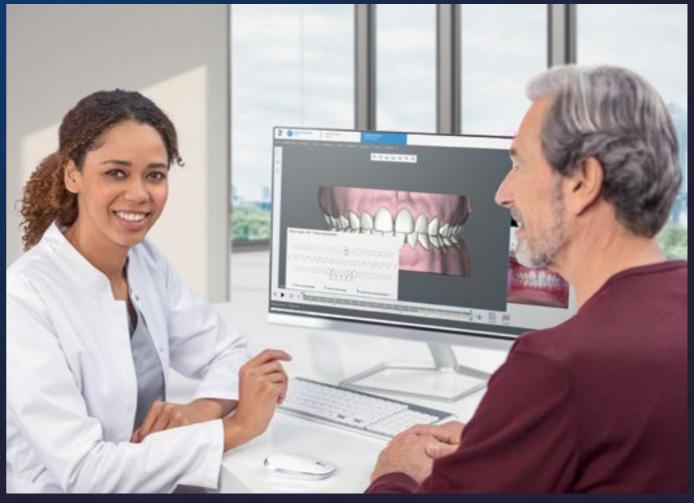


Axeos and Orthophos offering images perfectly suited for orthodontic treatment planning.

At Dentsply Sirona we don't just design individual units, but seamless solutions to support the entire workflow. With SureSmile, you have and Axeos can be used to plan a clear aligner solution available that allows you to reliably satisfy your patients' desire for a beautiful smile. Getting started is easy and with more than 20 years of experience in digital planning of orthodontic treatments, we can provide you the security of excellent initial setups and predictable, compelling

results. In conjunction with an optical scan, images captured with Orthophos S, Orthophos SL your treatment with SureSmile. providing the ultimate treatment





Highly specialised – for every type of expert

Treatment for implantology, sleep apnoea and endodontics

Implantology made easy

It is important that your implant is placed in an ideal position to ensure a successful prosthetic outcome. This will help to shorten implant procedures and reduce surgery time. Supported by CAD/CAM scan data and CBCT images from your Axeos or Orthophos 3D, in addition to the SICAT Implant 2.0 implant

planning software, you can design and produce surgical guides completely in-house, or outsourced to your local lab or centralised SICAT lab.



1 Scan: Digital intraoral impression for prosthetics – 3D X-ray images for surgical planning.



2 Plan: Prosthetically driven implant planning for either in-house or external production of the appropriate surgical guide.



3 Place: Minimally invasive implant placement using a surgical guide, facilitating a safe and straight-forward procedure.



4 Restore: Planning, milling and insertion of the abutment and crown, and capturing and assessing the control images.

Your extended practice services with sleep apnoea treatment

SICAT Air is the first all-digital 3D software solution for upper airway analysis and splint therapy of obstructive sleep apnoea. Offer upper airway analysis, treatment planning and the possibility of an OPTISLEEP protrusion guide all in a single session.

Visualisation of constrictions, a benefit of automatic segmentation of the upper airway in SICAT Air

Ordering the patient-specific OPTISLEEP protrusion guide with the help of the CEREC intraoral impression data in a purely digital workflow.



3D Endodontics

The Endo Layout in Sidexis 4 makes endodontic diagnostics easier than ever before. Additional views and slices help locate and measure multiple canals in complex cases.

Always well-connected

Smart connectivity for a smart practice

Sidexis 4 is characterised by numerous well-thought-out interfaces and connectivity of devices and software products. With our software, you can make full use of the digital potential of your practice while simplifying and accelerating virtual communication channels. In this way, you become the architect of your own practice environment.

This makes the difference:

Seamless workflow
 Holistic process
 Individually tailored





Simplicity meets efficiency

Operating and positioning aids

Correct patient positioning leads to high image quality to support an accurate diagnosis and facilitates an improved patient experience

This makes the difference:

- **Easy positioning**
- Intuitive use
- Short image capture time







- ▶ The EasyPad allows you to pivot and tilt the touch display and also provides intuitive program selection
- ▶ Motorised, adjustable headrest with automatic stop at the patient's proper patient positioning head and automatic opening at the end of image capture
- ▶ Unique autopositioner automatically determines the correct head tilt.
- ► Light lines for easy visibility of the
- ▶ The X-ray area can be easily adapted using the universal bite block, which allows for modification on an individual patient-to-patient basis

- The smart height adjustment allows the preparation of the X-ray unit before the patient arrives*
- Integrated swivel mirror supports
- ▶ Automatic spine compensation for better panoramic image quality in the anterior region
- ▶ Based on the automatic temple width measurement, the device rotation adjusts to each individual
- ▶ Ergonomic handles to support stable patient positioning





Optimised communication





Patented occlusal bite block for reproducible image quality.

* available with Axeos.

Progressive, puristic and safe

Designed to inspire

A clever product design combines the processes of daily work with the requirements of the patient, including highest hygiene and safety standards.

This makes the difference:

- Unique design with ambient light
- High infection prevention standards
- Intuitive and efficient operation

Premium materials and production processes have elevated the level of disinfection possible due to the durability and chemicals that can be used to clean the unit without causing erosion:

- ▶ Smooth, easy-to-wipe surfaces
- ▶ Removable, autoclavable components allow for easy and efficient cleaning processes and enhanced hygiene practices
- ▶ Single-use bite tabs help to eliminate crosscontamination risks due to their one-time use
- ▶ What's more, automated and remote functions facilitate limited direct patient contact





Orthophos SL/S: 3D ready, patented occlusal bite block, EasyPad, jewellery tray, ergonomic handles.

with a selection of 35 colours.

Dentsply Sirona develops solutions that combine functionality and aesthetics. Focusing on the essentials, the devices are both puristic and clean in their design.



Axeos and Orthophos integrate easily into any room concept and are accessible without barriers. Each model fits into the other's footprint and is individually configurable. And because we want to ensure that the patient is as comfortable as possible, we have developed Orthophos SL and Axeos with focus not only on the ergonomic and clinical elements, but with additional aesthetic elements to help increase patient relaxation while in the unit - which is why we have added an integrated light concept, creating a more tranquil device atmosphere.



Integrated cabinet on the right and left side of Axeos.

reddot award 2015



reddot winner 2020

Which Dentsply Sirona Imaging Solution is right for you?

Everyone is different. Every patient, every practice, every team. Which is why we adapt our products to fit to your needs and not the other way around. For a truly individual experience.



Axeos

The practice builder solution

Axeos - the 2D/3D specialist system with a large volume and high image quality for practices with a broad treatment offering. Developed together with general dentists and specialists. Axeos provides the fullest range of functions out of all of the Dentsply Sirona extraoral X-ray systems. In addition to excellent image quality and tailor-made 3D volume sizes, the device is built around patient comfort. Axeos not only provides quality in performance and comfort, but also with its award winning design, thanks to the integrated bite block accessory cabinet and ambient light.

Clinical Confidence

Field of View Ø 5x5.5 to Ø 17x13 cm 3D low dose and HD function

Numerous volume sizes ensure flexibility in everyday practice. Examine a precise area or evaluate the complete dentition including TMJs.

3D images in the dose range of 2D X-rays and HD images up to 80 μm resolution.

Unique 2D DCS sensor with autofocus function and cephalometric programs

For great panoramic images with high sharpness and an optional right or left cephalometric arm, which can be retrofitted at any time.

Smart Connectivity

Sidexis 4

Intuitive patient communication and treatment planning as well as integrated workflows for orthodontics, implantology, sleep apnoea and endodontics.

Integration into large clinic and DSO networks

Through connectivity to PACS, RIS, DICOM Worklist and DICOM Printers. X-ray images according to the DICOM standard.

Open interfaces

Sidexis 4 is compatible with over 200 practice management software packages. The possibility to import DICOM, STL and CEREC data or export DICOM data allows for high flexibility.

Exceptional Experience

Autopositioning with the auto-positioner and EasyPad

For optimally positioned images and easy reproducibility.

Integrated cabinet with **Ambient Light**

For bite block accessories, illuminated from the inside and within reach of the operator. The Ambient Light with 35 colour options creates a pleasant atmosphere for the patient.

Smart height adjustment

Allows the height of the unit to be adjusted to the individual patient even before the patient enters the X-ray room, facilitating a more efficient workflow and reduced waiting times.







Orthophos SL

The power performer solution

The 2D/3D high-end system with excellent image quality for practices with a flair for technology and those who simply want more. The integrated Direct Conversion Sensor (DCS) defines the standard for panoramic imaging and delivers a high level of sharpness. This "Sharp Layer" technology ensures autofocused panoramic images even in anatomically difficult cases. Orthophos SL offers optimum user comfort through auto-positioning, intuitive operation via the EasyPad and an individually adjustable Ambient Light for an exclusive look & feel.

Clinical Confidence

3D low dose and HD function

3D images in the dose range of 2D X-rays and HD images up to 80 μ m resolution.

Fields of View ø 5x5.5 to ø 11x10

cm Numerous volume sizes ensure flexibility in everyday practice. Examine a precise area or evaluate the complete dentition including wisdom teeth.

Unique 2D DCS sensor with autofocus function and cephalometric programs

For great panoramic images with high sharpness and an optional right or left cephalometric arm, which can be retrofitted at any time.

Smart Connectivity

Sidexis 4

Intuitive patient communication and treatment planning as well as integrated workflows for orthodontics, implantology, sleep apnoea and endodontics.

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Exceptional Experience

Autopositioning with the occlusal bite block and EasyPad

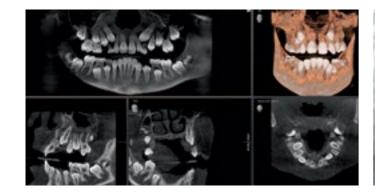
For optimally positioned images and easy reproducibility.

Ambient Light

With 35 color options, creates a pleasant atmosphere for the patient.

Safe and proven patient positioning

With the motorised temple and forehead supports, automatic temple width measurement, light localisers and stable handles.







Orthophos S

The all-round solution

The high-quality 2D/3D X-ray system with a comprehensive performance spectrum for every practice. Whether used solely as a pure 2D device or with the integration of a 3D module – the Orthophos S is a reliable partner and optimised for daily tasks in the practice. Its CsI Plus sensor with autofocus function ensures sharp images even in anatomically difficult cases. The patented occlusal bite block supports easy and reproducible patient positioning. For use in orthodontics, the Orthophos S is optionally available with a cephalometric arm.

Clinical Confidence

3D low dose and HD function

3D images in the dose range of 2D X-rays and HD images up to 80 μ m resolution.

Fields of View ø 5x5.5 to ø 11x10cm

Numerous volume sizes ensure flexibility in everyday practice. Examine a precise area or evaluate the complete dentition including wisdom teeth.

2D Csl Plus sensor with Autofocus function

For sharp, autofocused images even in anatomically difficult cases.

Smart Connectivity

Sidexis 4

Intuitive patient communication and treatment planning as well as integrated workflows for orthodontics, implantology, sleep apnoea and endodontics.

Integration into large clinic and DSO networks

Through connectivity to PACS, RIS, DICOM Worklist and DICOM Printers. X-ray images according to the DICOM standard.

Open interfaces

Sidexis 4 is compatible with over 200 practice management software packages. The possibility to import DICOM, STL and CEREC data or export DICOM data allows for high flexibility.

Exceptional Experience

Patented occlusal bite block for automatic positioning

Maximum consistency and reproducibility with automatic patient positioning.

Safe and proven patient positioning

With the motorised temple and forehead supports, automatic temple width measurement, light localisers and stable handles.







Orthophos E

The 2D digital entry solution

Orthophos E - the solid 2D X-ray system for practices going digital or needing a standard 2D imaging solution. This entry-level device allows a smooth transition into the world of digital imaging. Reliable diagnostics are ensured due to the CsI sensor technology and quality is achieved through easy operation.

Clinical Confidence

2D Csl Sensor

Consistently good image quality.

Important 2D programs

such as standard panoramic program, child and bitewing programs.

Smart Connectivity

Sidexis 4

Intuitive patient communication and treatment planning platform.

Open interfaces

Sidexis 4 is compatible with over 200 practice management software packages. The possibility to import DICOM, STL and CEREC data or export DICOM data allows for high flexibility.

Exceptional Experience

Safe and proven patient positioning

with the motorised forehead and temple supports and automatic temple width measurement.

MultiPad control panel

For easy operation.





Axeos & Orthophos: Technical properties overview

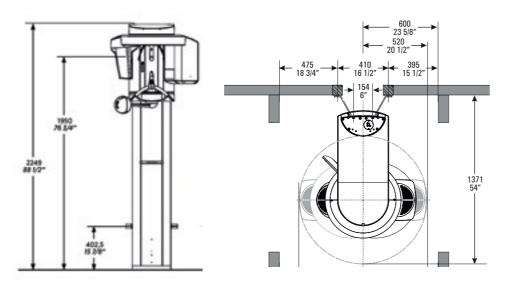
Performance features	Axeos	Orthophos SL 3D	Orthophos S 3D	Orthophos S 2D	Orthophos E 2D
X-ray generator	60-90 kV, 3-16 mA	60-90 kV, 3-16 mA	60-90 kV, 3-16 mA	60-90 kV, 3-16 mA	60-90 kV, 3-16 mA
Panoramic exposure time	P1: max. 14.2 s P1 Quickshot: max. 9.1 s	P1: max. 14.2 s P1 Quickshot: max. 9.1 s	P1: max. 14.2 s P1 Quickshot: max. 9.1 s	P1: max. 14.2 s P1 Quickshot: max. 9.1 s	P1 14.2 s max.
Ceph exposure time	Standard 9.4 s Quickshot 4.7 s	Standard 9.4 s Quickshot 4.7 s	Standard 9.4 s Quickshot 4.7 s	Standard 9.4 s Quickshot 4.7 s	Standard 9.4 s Quickshot: NA
User interface	New EasyPad	EasyPad	EasyPad	EasyPad	MultiPad
Patient positioning	automatic (occlusal bite block)	automatic (occlusal bite block)	automatic (occlusal bite block)	automatic (occlusal bite block)	manual
Smart height adjustment	yes	-	-	-	-
Panorama technology	DCS	DCS	Csl Plus	Csl Plus	Csl
Autofocus	yes	yes	yes	yes	-
Ceph arm (optional)	left or right	left or right	left or right	left or right	-
Ceph unit with 2 sensors	yes	yes	yes	yes	-
Quickshot	yes	yes	yes	yes	-
lmage volume (dxh)	5 x 5.5 to 17 x 13 cm	5 x 5.5 to 11 x 10 cm	5 x 5.5 to 8 x 8 cm 5 x 5.5 to 11 x 10 cm	3D ready	-
3D Low Dose	yes	yes	yes	3D ready	-
HD mode	yes	yes	yes	3D ready	-
Base	optional	optional	optional	optional	optional
Wheelchair accessible	yes	yes	yes	yes	yes
Remote operation	optional	optional	optional	optional	optional
Ambient Light	yes (cabinet and backlight)	yes (backlight)	-	-	-

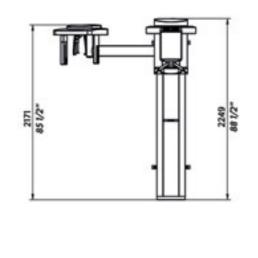


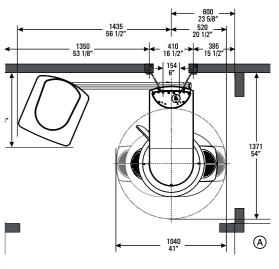
Base (optional).



Remote operation with display of the exposure parameters (optional).







Recommended room dimensions:

- Orthophos/Axeos: space required 1,280 mm x 1,411 mm
- Orthophos/Axeos with ceph side arm: space required 2,155 mm x 1,411 mm

Minimum room dimensions:

- Orthophos/Axeos: space required 1,040 mm x 1,371 mm
- \bullet Orthophos/Axeos with ceph side arm: space required 1,955 mm x 1,371 mm

You can find all further measurements in the respective installation requirements.

The image spectrum of Axeos and the Orthophos Family

Panoramic image







P2 without ascending rami*



P10 paediatric panoramic, beam field reduced in height and length

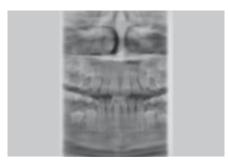
Standard exposure

Constant magnification 1.25

With artefact reduction

Image section selectable*:

left, right, upper jaw*, lower jaw*, Individual quadrants*



P12 thick slice in anterior tooth region

Image section selectable*:

Upper jaw, lower jaw

Bitewing

BW1







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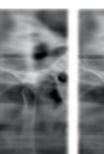


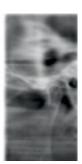
Right, left

TMJ

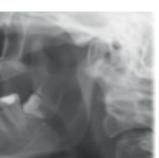










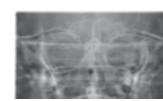


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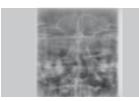
Adjustable beam angle:

With open and closed occlusion, with a slice position*

Sinus

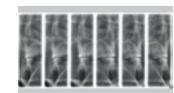






S3 simple jaw cavities linear*

Multislice in posterior tooth region

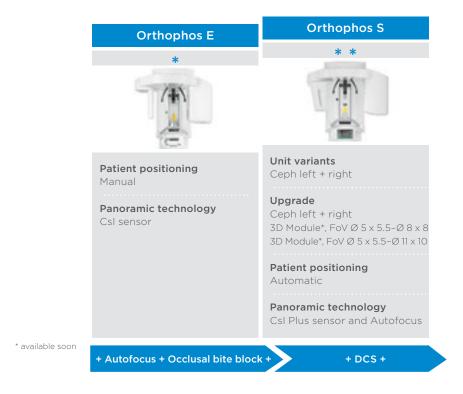


MS 1 - only with in Orthophos E

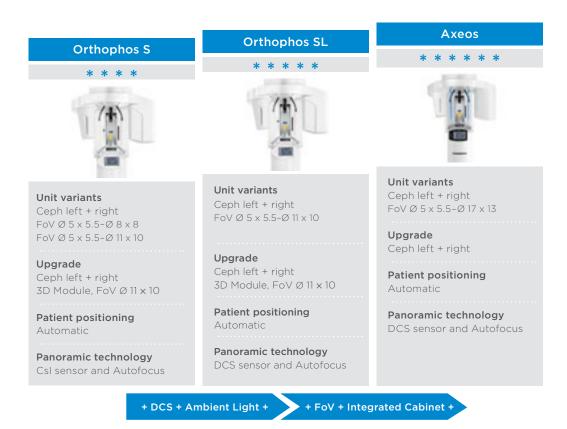
Programs	Orthophos E	Orthophos SL/S and Axeos	
Standard panoramic image	P1, P10	P1, P2, P10	
Image detail left side or right side	P1L, P1R	P1, P1A, P1C P2, P2A, P2C P10, P10A, P10C BW1	
Image detail individual quadrants	-	P1, P1A, P1C P2, P2A, P2C P10, P10A, P10C	
Image detail upper or lower jaw	-	P1, P1A, P1C P2, P2A, P2C P10, P10A, P10C, P12	
Constant magnification	P1C	P1C, P2C, P10C	
Artifact-reduced	P1A	P1A, P2A, P10A	
Thick layer front	P12	P12	
Sinus	S1	S1, S3	
Multislice of premolars	MS1	-	
Temporomandibular Joint	TM1.1, TM1.2	TM1.1, TM1.2, TM3	
Bitewing image	BW1	BW1, BW2	
Ceph (optional)	-	C1, C2, C3, C3F, C4	

^{*} Not included in Orthophos E

2D Units



2D/3D Hybrid Units



Clinical Procedures

Preventive Restorative Orthodontics Endodontics Implants Prosthetics

Platform Technologies

CAD/CAM Imaging Treatment Centres Instruments

