

Imaging Quick Reference Guide



Dentsply Sirona Imaging Solutions

Changing the face of dentistry together

It starts here and now, guided by the three key principles that we centre everything we do around, clinical confidence, smart connectivity and exceptional experience. Because at Dentsply Sirona, we believe that every patient deserves the best care possible for a healthy, happy smile and every dentist and staff member deserve the best tools and support to make this a reality.

With over 125 years of curiosity and experience enabling us to develop premium imaging solutions for modern dentistry, we strive to simplify workflows, provide optimum support for an accurate diagnosis and ensure a more comfortable treatment for patients. To date we have delivered more than 100,000 dental X-ray units to practices around the world and hold a number of patents in the field of imaging solutions. Which is why we believe, in order to provide the best for our customers and their patients, we need to continue discovering new and better ways to improve the way that we approach dentistry. It all starts here.

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ABOUT DENTSPLY SIRONA

Extraoral Imaging: Fast, safe and precise

Digital imaging lays the foundation for dental diagnosis. Whether overlaid teeth, unexpected nerve canal curvature, hidden root canals or jaw joint anomalies – it's the "exterior view" of the tooth and jaw that makes it possible to reliably display and diagnose tooth and bone structures that cannot otherwise be examined.

Dentsply Sirona's extraoral X-ray devices are characterised by easy operation and safe patient positioning, ensuring efficient workflows. Their exceptional image quality allows for precise diagnosis and planning.

The advantages at a glance:

- Outstanding image quality thanks to innovative technologies
- Easy operation, safe and comfortable patient positioning
- Low dose for the benefit of the patient
- Flexible and future-proof thanks to numerous device variants and options for retrofitting
- Efficient work thanks to optimal software workflows

The Extraoral Imaging Family

Always the right choice

2D 3D

Axeos

The 2D/3D practice performer device with the largest field of view and excellent image quality for practices offering a broad range of treatments.

2D 3D

Orthophos S

The high-quality 2D/3D X-ray device with a comprehensive range of services for every practice.



2D 3D

Orthophos SL

The 2D/3D high-end device with exceptional image quality for practices that simply want more.





2D

Orthophos E

The reliable entry-level 2D device for a smooth start with digital imaging.

2D Units

2D/3D Hybrid Units

Orthophos E	Orthophos S	Orthophos S	Axeos
*	* *	* * *	* * * *
			
<p>Unit variants Ceph left</p> <p>Patient positioning Manual</p> <p>Panoramic technology CsI sensor</p>	<p>Unit variants Ceph left + right</p> <p>Upgrade Ceph left + right 3D ready</p> <p>Patient positioning Automatic</p> <p>Panoramic technology CsI Plus sensor and Autofocus</p>	<p>Unit variants Ceph left + right FoV Ø 5 x 5,5-Ø 11 x 10</p> <p>Upgrade Ceph left + right 3D Module FoV Ø 11 x 10</p> <p>Patient positioning Automatic</p> <p>Panoramic technology CsI sensor and Autofocus</p>	<p>Unit variants Ceph left + right FoV Ø 5 x 5,5-Ø 17 x 13</p> <p>Upgrade Ceph left + right</p> <p>Patient positioning Automatic</p> <p>Panoramic technology DCS sensor and Autofocus</p>

+ Autofocus + Occlusal bite block + + DCS +

+ DCS + Ambient Light + + FoV + Integrated Cabinet +

Axeos

2D/3D imaging system

Axeos - the 2D/3D specialist system with a large volume and high image quality for practices with a broad treatment offering. Developed together with dentists and clinicians, 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 design is also heavily focused on the optimisation of patient comfort. Axeos not only provides quality in performance and comfort, but also design, thanks to its integrated organisation system and ambient light.



Performance and functions

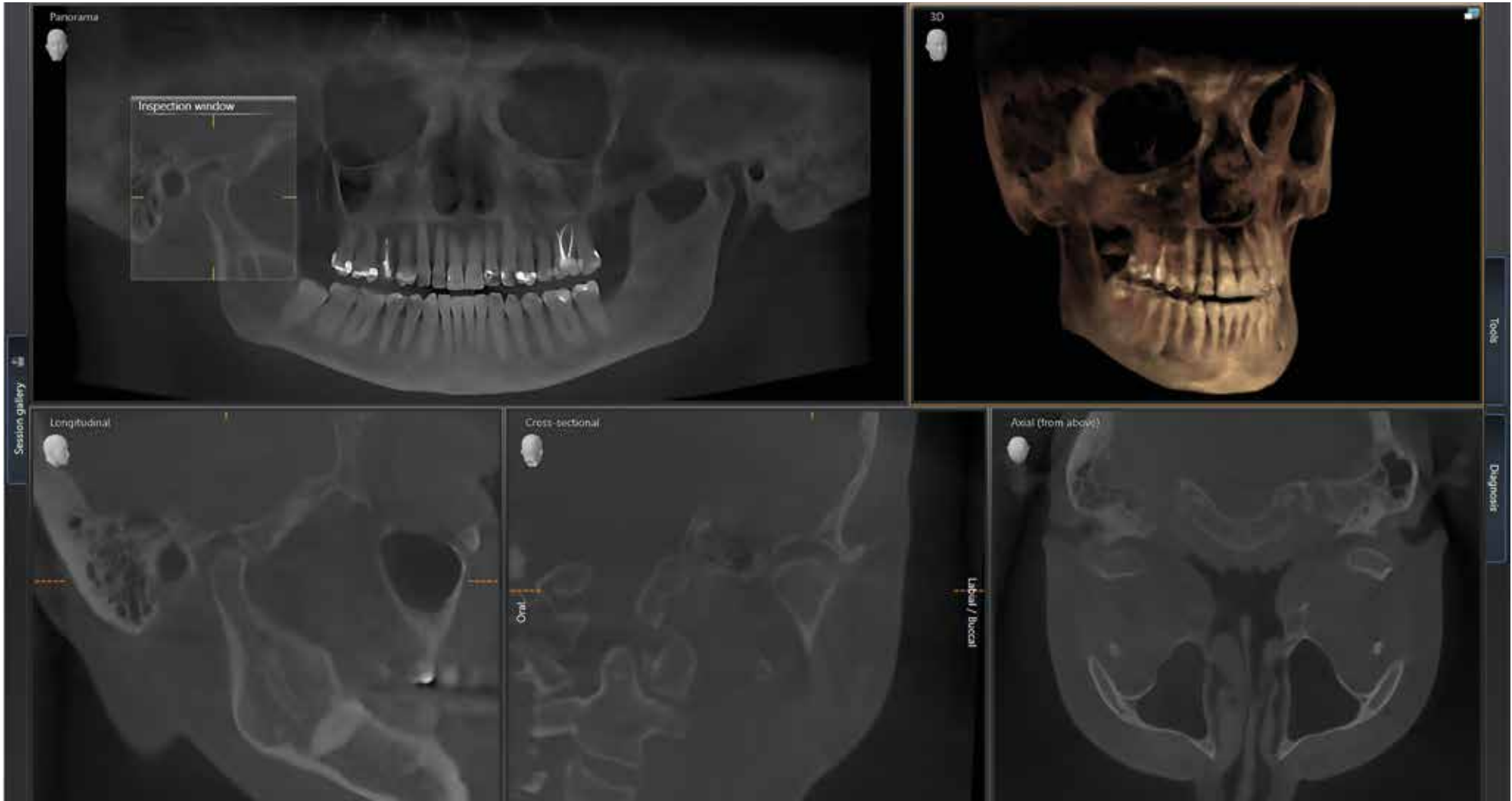
- 1 FoV Ø 5x5.5 to Ø 17x13**
 Numerous volume sizes ensure flexibility in everyday practice
- 2 DCS sensor with autofocus function**
 For excellent panoramic images with high sharpness
- 3 Autopositioning with patented autopositioner and EasyPad**
 Consistently optimally positioned images and easy reproducibility
- 4 Low Dose and HD function**
 3D images in the dose range of a 2D X-ray, and HD images with up to 80 µm resolution
- 5 Comprehensive panoramic and cephalometric programs**
 For bitewing, sinus or ceph images, a ceph arm is optionally available (left or right) and can be retrofitted at any time
- 6 Integration into the hospital network**
 Through Sidexis 4, connectivity to PACS, RIS, DICOM Worklist and DICOM Printers. X-ray images are according to the DICOM standard
- 7 Integrated organisation system 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



For more details on the product features of the Axeos, see the end of the chapter under Features, or in the reference work.

Axeos

2D/3D imaging system



Orthophos SL

2D/3D imaging system

Orthophos SL – the high-end 2D/3D system with excellent image quality for practices with a flair for the latest technologies and those who simply want more. The integrated Direct Conversion Sensor (DCS) completely redefines the standard of panoramic imaging and delivers high sharpness. Its namesake, 'Sharp Layer' technology, ensures autofocused panoramic images even in anatomically difficult cases. The device features ease of use thanks to auto-positioning, intuitive touchpad operation and an individually adjustable ambient light for an exclusive look and feel.



Performance and functions

- 1 Direct Conversion Sensor (DCS)**
 For images with fine details and a high level of sharpness, even at a low dose
- 2 Sharp Layer Technology**
 For reliable, sharp images and the possibility for subsequent object focusing
- 3 Autopositioning with patented auto-positioner and touchpad**
 Consistently optimally positioned images and easy reproducibility
- 4 Low Dose and HD function**
 3D images in the dose range of a 2D X-ray, and HD images with up to 80 μm resolution
- 5 Comprehensive panoramic and cephalometric programs**
 For bitewing, sinus or ceph images, a ceph arm is optionally available (left or right) and can be retrofitted at any time



For more details on the product features of the Orthophos SL, see the end of the chapter under Features, or in the reference work.

Orthophos SL

2D/3D imaging system



Orthophos S

2D/3D imaging system

The high-quality 2D/3D X-ray device with a comprehensive range of functions for every practice. Whether used as a pure 2D device or including a 3D module - the Orthophos S is a reliable partner and optimised for everyday tasks in the practice. Its CsI Plus sensor with autofocus function ensures clear images, even in anatomically difficult cases, and the patented autopositioner automatically positions patients optimally and with ease. For use in orthodontics, the device is optionally available with ceph option. And because future-proofing is of the utmost importance at Dentsply Sirona, Orthophos S is 3D ready and can be ceph retrofitted at any time.



Performance and functions

- 1 2D CsI Plus sensor with autofocus function**
 For sharp, autofocused images even in anatomically difficult cases
- 2 Comprehensive 2D programs**
 E.g. for bitewing, sinus or jaw joint images
- 3 Coordinated volume sizes**
 From \varnothing 5 cm x 5.5 cm to \varnothing 11 cm x 10 cm with Low Dose and HD function
- 4 Patented auto-positioner for automatic positioning**
 Automatic patient positioning ensures high consistency and reproducibility
- 5 Ceph arm (left or right)**
 Can be ordered or retrofitted for ceph images at any time



For more details on the product features of the Orthophos S, see the end of the chapter under Features, or in the reference work.

Orthophos S

2D/3D imaging system



Orthophos E

2D imaging system

The entry-level 2D X-ray unit for a smooth transition into the world of digital imaging through reliable diagnostics, thanks to CsI sensor technology and straightforward user operation. Enrich your practice with a wide range of functionalities, such as zoom or adapting contrast and brightness, that are only possible through digital imaging.



Performance and functions

- 1 2D CsI sensor**
 Providing reliable image quality to support an accurate diagnosis
- 2 Important 2D programs**
 For basic diagnostics in 2D
- 3 Proven patient positioning**
 With motorised forehead and temple supports, automatic temple width measurement, light visors and sturdy handles.
- 4 Ceph arm (left only)**
 Can be ordered or retrofitted for ceph images at any time
- 5 MultiPad control panel**
 For clear and intuitive operation



For more details on the product features of the Orthophos E, see the end of the chapter under Features, or in the reference work.

Orthophos E

2D imaging system



The Extraoral Imaging Family: Performance, functions and features at a glance



Further details on the space dimensions of the devices can be found in the technical documents.

Performance features	Orthophos E	Orthophos S 2D	Orthophos S 3D	Orthophos SL 3D	Axeos
X-ray generator	60 - 90 kV, 3-16mA	60 - 90 kV, 3-16mA	60 - 90 kV, 3-16mA	60 - 90 kV, 3-16mA	60 - 90 kV, 3-16mA
Panoramic exposure time	P1: max 14.2 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: max 14.2 s P1 Quickshot: max 9.1 s
Radiation time Ceph	Standard 9.4 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 4.7 s
User interface	MultiPad	EasyPad	EasyPad	EasyPad	EasyPad
Patient positioning	manual	automatic (occlusal bite block)	automatic (occlusal bite block)	automatic (occlusal bite block)	automatic (occlusal bite block)
Panorama technology	Csl	Csl Plus	Csl Plus	DCS	DCS
Autofocus	-	yes	yes	yes	yes
Ceph arm (optional)	left	left or right	left or right	left or right	left or right
Ceph unit with 2 sensors	optional	yes	yes	yes	yes
Quickshot	-	yes	yes	yes	yes
Fields of View	-	upgradeable*	5x5.5 to 11x10	5x5.5 to 11x10	5x5.5 to 17x13
3D Low Dose	-	upgradeable	yes	yes	yes
HD mode	-	upgradeable	yes	yes	yes
Base	optional	optional	optional	optional	optional
Wheelchair accessible	yes	yes	yes	yes	yes
Remote control	optional	optional	optional	optional	optional
Ambient Light	-	-	-	yes (backlight)	yes (cabinet and backlight)

* 3D module available soon

Sensor technologies

The specific type of sensor chosen for an X-ray system has a significant influence on the quality of the images. X-ray systems from Dentsply Sirona score in the day-to-day practice with extremely clear images for high diagnostic reliability in the 2D and 3D imaging range.

The advantages of the Direct Conversion Sensor (DCS)*

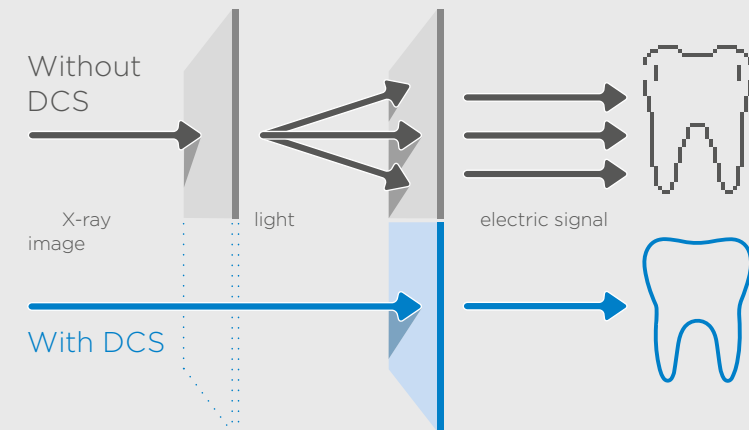
- Direct conversion of X-rays into electrical signals significantly minimises signal loss that occurs from conventional light conversion
- Improved yield of image information
- Significantly improved panoramic X-ray images through increased clarity and high-contrast images



DCS sensor versus conventional sensors: Part 1

In the field of two-dimensional imaging, the DCS sensor* stands for high image quality in terms of clarity and the appearance of fine anatomical structures. Conventional sensors first convert X-rays into light and then into electrical signals, causing signal loss. The DCS sensor does not require any intermediate light conversion steps and thus, achieves a higher yield of image information. The result is images with a high level of sharpness.

FUNCTION DCS SENSOR

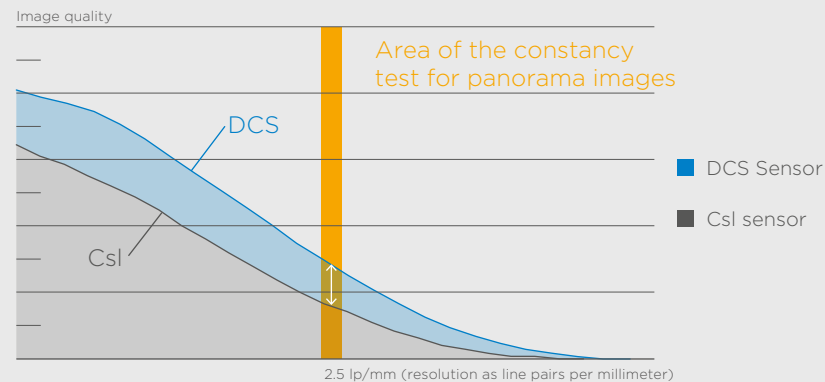


* Integrated in Axeos and Orthophos SL.

DCS sensor versus conventional sensors, Part 2

The image quality of a DCS image is better compared to conventional imaging. This can be objectively measured. When compared with typical resolution for panoramic images (2.5 lp/mm), the DCS sensor performs significantly better.

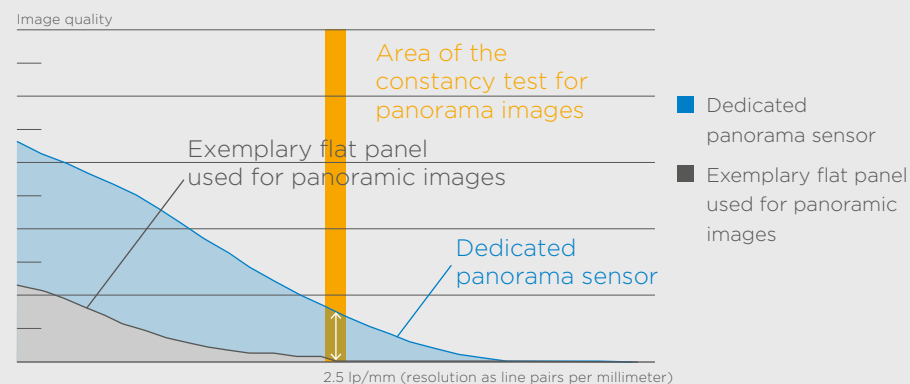
Schematic representation for illustration



Dedicated panoramic sensor versus panorama image taken from flatpanel sensors

Flatpanel sensors are designed to capture 3D images. For a 2D/3D hybrid device, some manufacturers forgo the dedicated 2D sensor for cost reasons. One possible consequence: The image quality is less than optimal on both the 2D and 3D side, striking a true compromise when it comes to the actual benefits.

Schematic representation for illustration



The right focus

Focus on the jaw is essential in order to obtain a panoramic image with high definition. There are several different possibilities for this:

1 Manual focus

- The device has a predefined solid sharp layer.
- The patient is manually positioned in the sharp layer.
- If the patient is poorly positioned or has severe anomalies (that is, portions of the dentition stick out past the sharp layer), the image will be blurred in some areas.

2 Manual autofocus

Manual autofocus 1

- The unit creates several sharp layers during a single pass and produces several panoramic images. The area of the jaw that was in the autofocus area in the individual images is always displayed in focus.
- The dentist will look at several images and then determine the areas of the X-ray that best represent the jaw.

Manual autofocus 2

- The device creates several sharp layers during a single pass and produces several panoramic images. The position of the jaw is determined based on the incisor light visor.
- Based on this, the device calculates a sharp overall image from the sharp sections of the individual images. Problem: The incisor light visor must be set on the patient manually. If the incisor light visor is not set correctly, the image will be blurred.

3 Autofocus/Sharp Layer technology

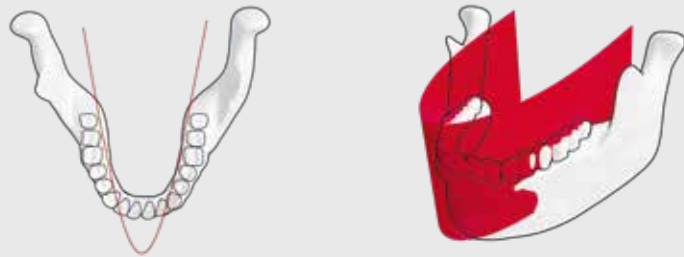
- The device optimally focuses all areas of the jaw. Fully automatic and without manual intermediate steps.
- The positioning of an incisor light visor or the pre-selection of the mandibular arch or tooth anomaly is not necessary.
- The result is an image in high clarity.

Manual focus

For manual focus devices, the patient must be manually positioned in the sharp layer to get a clear image.

Schematic representation for illustration

Jaw is not in the sharp layer



Jaw is not in the sharp layer



The result: The image has blurred areas



Jaw is optimally positioned in the sharp layer



The jaw of the patient is optimally positioned in the sharp layer



The result: An image with excellent sharpness



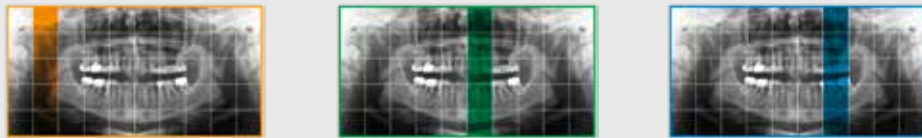
Manual autofocus

Manual autofocus devices require manual steps to get a sharp image. For this purpose, manufacturers use different methods:

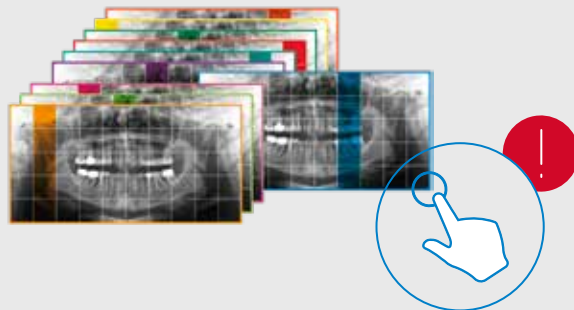
Schematic representation for illustration

Manual autofocus 1

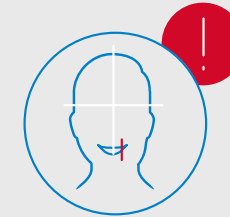
The device creates several sharp layers during a single pass and produces several panoramic images. The portion of the jaw that was in the autofocus area in the individual images is always displayed in focus.



Manual step: The dentist will look at several images and then determine the areas of the X-ray that best represent the jaw.



Manual autofocus 2



Manual step: Before the X-ray, the incisor light visor must be adjusted to locate the jaw.

The device creates several sharp layers during a single pass and produces several panoramic images. The position of the jaw is determined based on the incisor light visor.



The device calculates a sharp overall X-ray from the sharp areas of the individual images. Problem: If the incisor light visor is not set correctly, the image will be blurred.

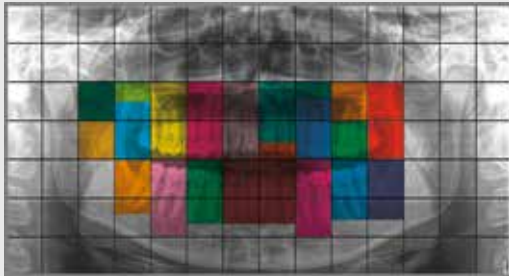


Autofocus with Axeos and Orthophos S

Axeos and Orthophos S devices automatically focus all areas of the jaw optimally. Fully automatic and without manual intermediate steps.



The autofocus in Axeos and Orthophos SL/S does not require any manual steps, such as selecting images or positioning an incisor light visor. The device optimally focuses all areas of the jaw automatically.



A sharp image is automatically calculated based on the results of the autofocus.



The result: Images in high sharpness



The patented occlusal bite block supports automatic patient positioning

The patented auto-positioner automatically determines the correct head tilt and positions patients quickly in the occlusal plane - without need for a second exposure. This saves time, supports patient safety by limiting exposures, and ensures razor-sharp images.

Positioning error comparison images



Incorrect patient positioning: Patient leaning forward



Incorrect patient positioning: Patient leaning backwards

Perfect positioning



Correct patient positioning with the auto-positioner: Always an ideal inclination for panoramic images

The advantages:

- **Optimal head positioning:** Device automatically stops at the correct position
- **Easy to use:** EasyPad control panel, simple button layout and clear symbols
- **Clearer images:** No blurring or need for image retakes
- **Efficient methods:** Short waiting times, no repeat images, simple operation

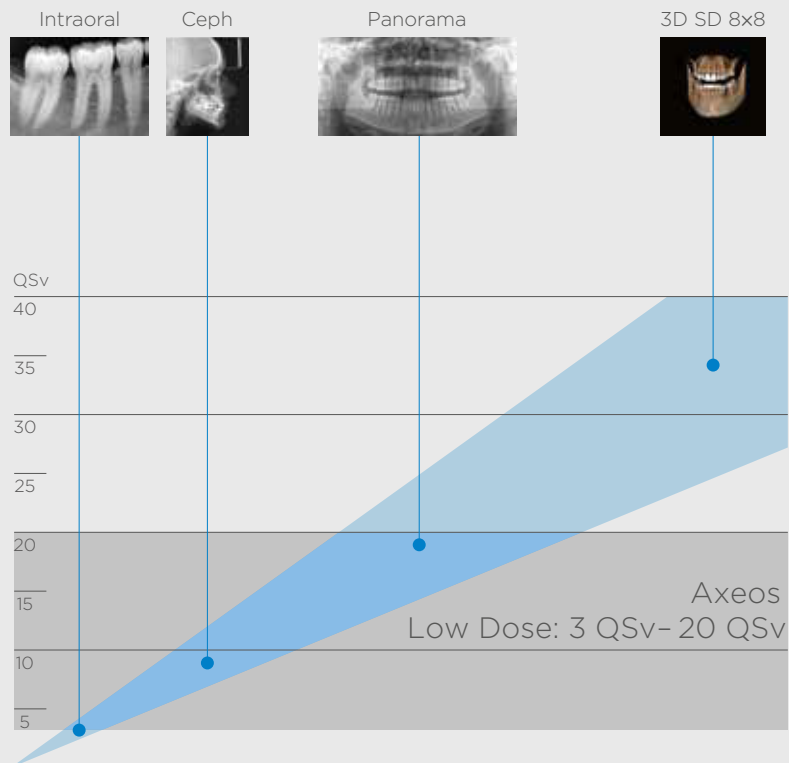


Positioning with the occlusal bite video tutorial:

https://www.youtube.com/watch?v=7zy2Bpm6c_U

Low Dose mode: CBCT images in the dose range of a 2D X-ray

Diagnosis based on CBCT images in the dose range of a 2D X-ray – this is made possible by the Axelos and Orthophos Low Dose mode. Its optimised pre-filtering allows the imaging of dense structures, such as bone, at a greatly reduced dose. In doing so, it provides simple and efficient use in a variety of clinical situations, such as orthodontics or implantology.



Advantages:

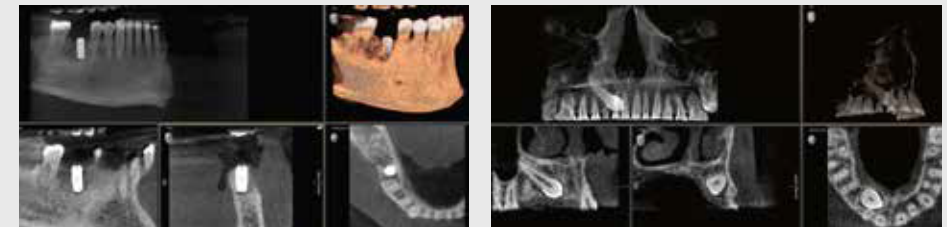
- **More flexibility thanks to case-based application:** Working according to the ALARA (As Low As Reasonably Achievable) principle by selecting the High Definition, Standard Definition or Low Dose imaging modes
- **Best Low Dose diagnostics:** 3D Low Dose provides the necessary information at a low dose for a variety of clinical situations
- **Gentle implant control:** 3D control images in the dose range of an intraoral X-ray
- **Sleep apnoea treatment with SICAT**
Air: Ideal visualisation thanks to 3D Low Dose

Axeos and Orthophos effective dose values (μSv): Low Dose

FoV	Patient 1	Patient 2	Patient 3	Patient 4
5×5	3	3	4	6
8×8	7	8	11	15
11×10	9	11	16	20
17×13*	13	15	21	28

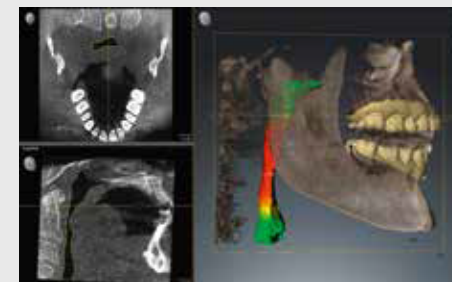
Source: Dr. med. John B. Ludlow Study (November 2014): "Dosimetry of Orthophos SL CBCT Unit with Low-Dose Protocol, effective dose in QSV of adult with full FoV, centred rotation"

* Source: J. Waschkevitcz and C. Buss et al., University Medical Centre Hamburg-Eppendorf, measurement method according to Ludlow



Low-dose image for implant control at 6 QsV

Low-dose image for localising a displaced tooth at 3 QsV



Low dose image for upper airway analysis at 20 QsV

High Definition Mode (HD): Fine Details for a Safe Diagnosis

Despite the high quality SD (Standard Definition) mode, it is sometimes desirable to increase the quality of an image even further. Users can enjoy High Definition (HD) mode, which provides higher resolution of the selected volume, thereby increasing the visibility of fine structures relevant, for example, in endodontic cases.

The advantages:

- **Increased resolution:** Up to 1400 frames, offering a low-noise 3D volume with high resolution up to 80 μm
- **Even in difficult cases:** low-noise, high-contrast images for increased precision
- **Simple use:** HD mode can be selected on the touch panel at any time.

Ø 5 cm x 5,5 cm



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

Ø 8 cm x 8 cm



Capturing the lower and upper jaw dentition, e.g. for planning multiple implants.

Ø 11 cm x 10 cm



Shows the complete dentition, including wisdom teeth.

Ø 17 cm x 13 cm



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

Schematic representation.



Space dimensions

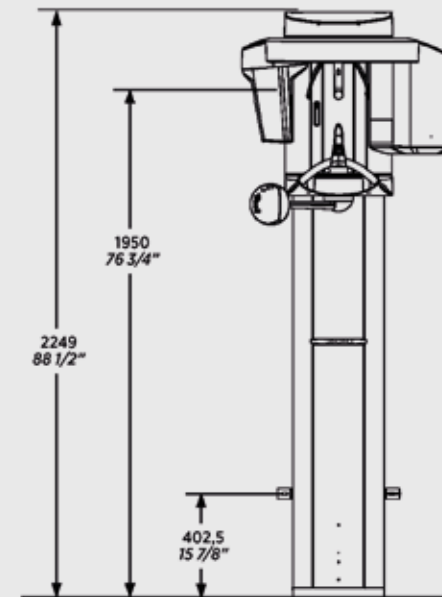
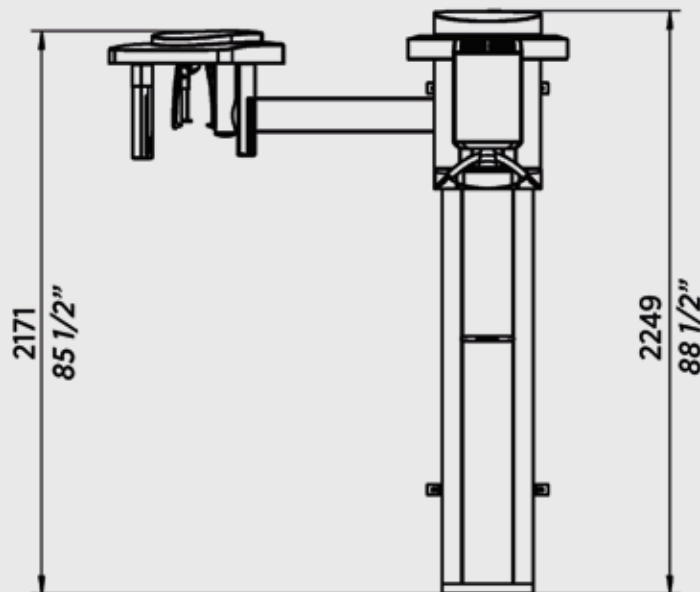
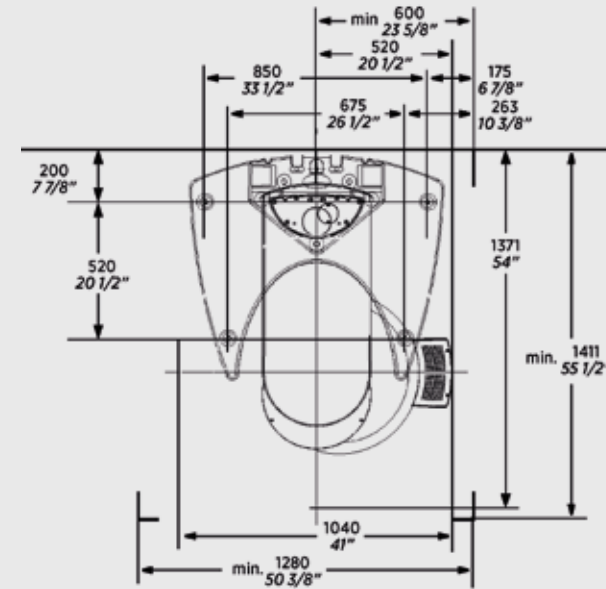
Recommended space dimensions:

- **Axeos/Orthophos:** Space required is 1,280 mm x 1,411 mm
- **Axeos/Orthophos with ceph arm:** Space required is 2,155 mm x 1,411 mm

Minimum space dimensions:

- **Axeos/Orthophos:** Space required is 1,040 mm x 1,371 mm
- **Axeos/Orthophos with ceph arm:** Space required: 1,955 mm x 1,371 mm

You can find all other dimensions in the corresponding installation requirements.



Intraoral Imaging: The Complete System for exceptional Image Quality

With intraoral imaging, the right application and a reliable system make all the difference. The intraoral X-ray family from Dentsply Sirona produces high-quality, premium images. The sophisticated interaction of hardware, positioning holders and software guarantees absolute flexibility and an efficient workflow for every requirement. With its versatility and configurability, the product portfolio meets every need for an individual solution.

When choosing the Dentsply Sirona intraoral X-ray family, dentists focus on safety and robust quality: For outstanding image quality, optimal diagnostic confidence and maximum patient comfort.

The advantages at a glance:

- Sharp and high-resolution images
- Complete portfolio of X-ray generators, sensors and holder systems
- Modular system, configurable as needed: Various sizes of sensors, USB installation, flexible X-ray generator installation options

* The product offering may vary from country to country.

The Intraoral Imaging Family

A strong team for impressive results: The interplay of perfectly matched products and simple software integration ensures smooth, efficient workflows that meet practical requirements and provide imaging at an extremely high level.



Heliodent Plus

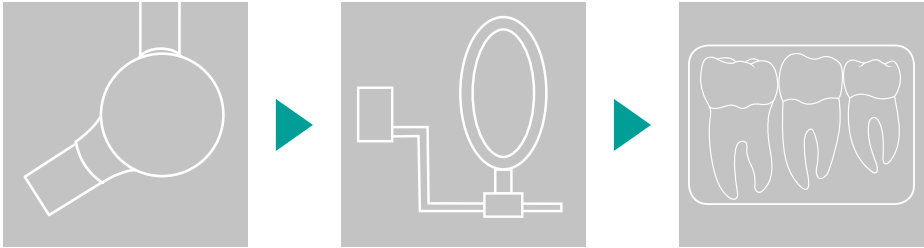
The reliable and flexible intraoral X-ray generator for safe and quick diagnostics

Xios XG Supreme AE

The configurable sensor systems for digital images in HD quality

Intraoral Holder Systems

The ultimate support for precise imaging (for intraoral sensors, imaging plates or X-ray film)



Heliodent Plus

The right partner for every practice: Whether in conjunction with sensors, imaging plates or film – the Heliodent Plus is the right partner for precise, safe and quick X-ray diagnosis. Thanks to numerous installation options, the unit has the ability to effortlessly adapt to all practice conditions and needs. It can be operated intuitively and thanks to its robust quality and a sturdy arm, product longevity and security of investment are ensured.



Performance and functions

- 1 Reliably sharp images**
 Images in consistently high quality
- 2 Intuitive use**
 Safe operation thanks to the clear user interface
- 3 Flexible and modular**
 Installation variants for different requirements, spaces and workflows
- 4 Remote operation**
 Optional remote function for operating control outside of the X-ray room
- 5 Long-lasting and durable**
 High-quality workmanship and a stable support arm create a reliable addition to your practice for every day use



For more details on the product features of the Heliodent Plus, see the end of the chapter under Features, or in the reference work.

Intraoral X-ray generator Heliodent Plus



The advantages at a glance:

- Safe and intuitive to use
- Flexible with different model variants
- Can also be operated outside of the X-ray room using remote functions
- Durability due to robust quality

Installation variants, suitable for every need:



Wall model



Remote control



Remote timer



Manual release



Heliodent Plus device model on the treatment centre



Heliodent Plus with mobile stand



Heliodent Plus ceiling model



Ceiling combination with LEDview Plus



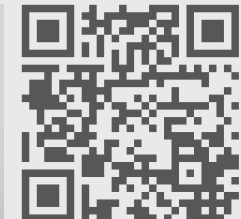
20 cm tube, standard



30 cm round tube extension



30 cm angular tube extension



Configure your Heliodent Plus now at <http://www.heliodent-configurator.com/en>

Xios XG Supreme AE

The high image resolution of the Xios XG Supreme intraoral sensor and the special cesium iodide (CsI) layer supports excellent image quality. The sensor has a theoretical resolution of 33 lp/mm and supports you in your diagnosis. In addition, software features such as the dynamic sharpening slider allow for individual image optimisation for different applications at just the click of a button.

With three different sensor sizes, the Xios XG Supreme AE demonstrates high flexibility for individual imaging solutions in every dental practice. And if the sensor cable should ever be damaged, replacing it is quick, easy and low cost.



Performance and functions

- 1 Excellent image quality**
33 lp/mm theoretical resolution and a pixel size of 15 µm
- 2 Dynamic sharpening slider**
Adjust the sharpness of your image in Sidexis to support your diagnostic needs
- 3 Modular system**
Versatile choices in sensor size and cable length
- 4 Immediately available recordings**
Low-noise, high-contrast and high-resolution images without waiting time
- 5 Easy cable change**
Cost-effective and fast, directly in the practice

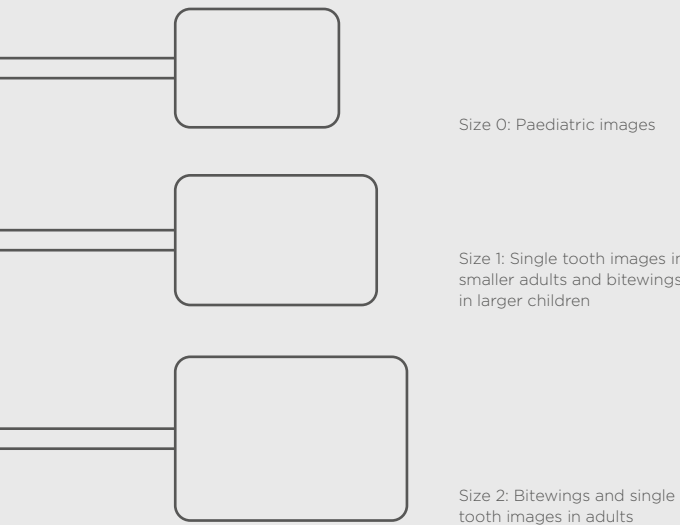


Tips & tricks for the right sensor positioning? Tutorials at:

<https://www.youtube.com/playlist?list=PL804B3E02E3335696>

Product variants Xios XG Supreme AE

3 different sensor sizes



Easy to use USB interface



Xios AE USB interface (USB 3)

Easy cable replacement

If the cable is damaged, you no longer need to worry about long interruptions in your workflow, you now have the ability to change it easily in your office.

The advantages at a glance:

- Save time and money with easy cable exchanges in-office
- High investment security
- More flexibility
- Multiple cable lengths



The dynamic sharpening slider

Available in Sidexis for images captured with Xios XG Supreme AE

The advantages at a glance:

- Individual image optimisation and storage via software
- Optional customisation of sharpness, brightness, and contrast
- One-time configuration for diagnostic general dentistry
- Predefined filters for: General Dentistry, Endodontics, Restorative, Periodontics

Examples of filter variants:



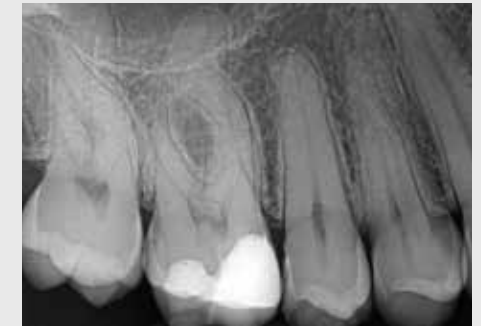
0%

50%

100%



Diagnostic preset: General Dentistry



Diagnostic preset: Endodontics



Diagnostic preset: Restorative



Diagnostic preset: Periodontics

Intraoral Holder Systems

Images with the highest quality and sharpness, that are always reproducible and optimise patient comfort.

Dentsply Sirona holder systems meet all of these requirements – regardless of whether you work with intraoral sensors, imaging plates or X-ray film.



The advantages at a glance:

- 1 Distortion-free images in brilliant quality
- 2 Ergonomic holder systems provide a comfortable patient experience
- 3 Easy and efficient handling
- 4 Reliable positioning and reproducibility



Excellent image quality

Thanks to optimal sensor positioning using a holder system



Typical positioning error

If no holder system is used



Typical positioning error

If no holder system is used



For more details on Intraoral Retainer Systems, see the end of the chapter Features and the reference work.

For Paralleling Techniques

Holders for Dentsply Sirona Sensors



Xios XG Aimright sensor holder

The Aimright sensor holder for Xios sensors makes sensor positioning intuitive and easy. The key-lock principle allows only the correct combination of ring and arm for front, bite wing and posterior tooth images.

- Easy Assembly: The patented design allows for only the correct ring and arm combination
- Lightweight construction: Ergonomic and easy to position
- Maximum patient comfort: No additional contact with the patient's mouth surface

Universal holder for Digital Sensors



Rinn. XCP-DS Fit. and XCP-ORA®

The Rinn® XCP-ORA®, a ring-and-arm X-ray holder system, provides a simple positioning option that limits the number of parts needed. Instead of different rings and arms for front, molar and bite wing images, only two components are required. In conjunction with the Rinn®-XCP-DS-FIT® universal holder system, you get true flexibility with its ability to adapt to any sensor.

- Flexible – adapts to any sensor (manufacturer-independent) sizes 1 and 2
- Simplified positioning with fewer parts: The patented ring-and-arm holder system
- Cost-effective thanks to autoclavability

For Bisecting the Angle Techniques

Universal Holder for Film and Phosphor Plates



Rinn® Snap-A-Ray® Xtra

Developed on the model of the proven Rinn® Snap-A-Ray® X-ray holder. The Snap-A-Ray® Xtra X-ray holder for film and imaging plates provides more efficiency and comfort in front and side teeth in half-angle technique.

- Secure hold: The padded holder securely holds film and imaging plates, and without scratching the surface
- The soft bite piece supports patient comfort
- Cost-effective application thanks to long service life and autoclavability



Rinn® Snap-A-Ray® DS Endo

The Rinn® Snap-A-Ray® DS Endo sensor holder enables effortless half-angle technique for front teeth and molars - a truly practical new X-ray holder!

- Suitable for all common sensor types
- Safe and comfortable for the patient
- Autoclavable

Universal holder for Sensors



Rinn® Snap-A-Ray® DS

The Rinn® Snap-A-Ray® DS Universal Sensor Holder provides effortless half-angled technique for anterior teeth and molars - a truly practical X-ray holder!

- Suitable for all common sensor types
- Safe and comfortable for the patient
- Autoclavable

Optimum workflow – made easy

Intelligent imaging software doesn't just give you efficient and intuitive access to images. It also supports treatments and makes it possible to offer a wider range of services. For more than imaging - diagnosis and treatment planning made easy.

Sidexis 4

Efficient findings and diagnosis in 2D, 3D or intraoral images, as well as STL files

SICAT Endo

Complete 3D solution for the planning and implementation of endodontic treatments

SICAT Air

3D analysis and splint treatment for obstructive sleep apnoea

SICAT Implant 2.0

Modern and intuitive implant planning

SICAT Function

Visualisation of jaw movements, including planning and implementation of CMD therapy tracks



Sidexis 4

Optimal workflow with a clear structure

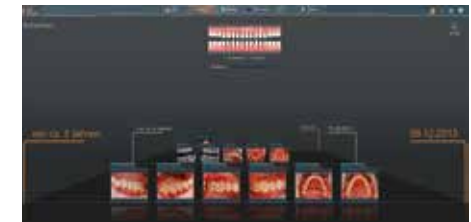
Sidexis 4 is the software for a clear diagnosis. With a modern and intuitive design, it efficiently structures the practice workflow and serves as the media storage for further planning and analysis.

Key features

- 1 **The digital light box**
 - Seamlessly displays 2D and 3D images, as well as intraoral camera images and STL files, simultaneously within a single workspace.
 - Allows cross-comparisons, e.g. of intraoral images with CBCTs
 - Facilitates diagnosis and treatment considerably
- 2 **Timeline**
 - Quick overview of the entire patient history
 - Clear and modern design for easy patient communication
- 3 **Compare function**
 - Intuitive workspace for image comparisons
 - Easy navigation and analysis of multiple images simultaneously



Compare Function



Timeline

SICAT Implant 2.0

Modern and intuitive implant planning

SICAT Implant 2.0 guides you effectively and easily through the implantology workflow – whether you are a beginner or an experienced implantologist.

Seamless integration between software and hardware gives you a user experience and an effective partner for your workflow – supporting true precision and accuracy during the implant planning process.

This helps the user anticipate possible complications and provides certainty and safety during the procedure.

With the ability to merge CEREC or STL scans with Dentsply Sirona 3D imaging data, implant plans can easily be forwarded for designing surgical guides to support minimally invasive surgery and predictable results.

The advantages at a glance:

- 1 **Clear and precise planning with a straightforward design and relevant functions**
- 2 **Surgical safety and certainty with all clinical information right at your fingertips and the ability to send your plan for surgical guide design**
- 3 **Higher patient treatment acceptance supported by clear visuals and easy treatment consultation**
- 4 **Implant placement in minimal steps thanks to a truly efficient and seamless workflow**



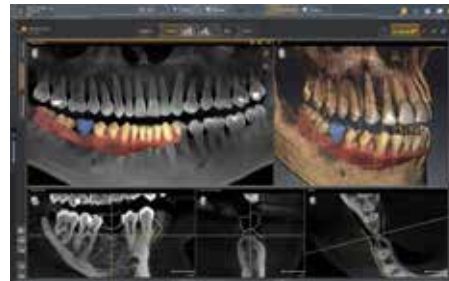
The easy way to implant

Step by step implantology with SICAT Implant 2.0

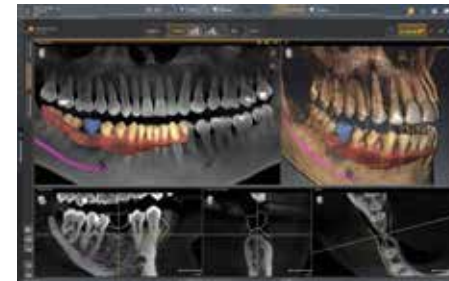
To save time, grow your business and provide your patients with the best possible care, you have all the support you need with Dentsply Sirona implantology. At each step of the workflow, from data capturing, planning, and guided surgery, to the final restorative solution, Dentsply Sirona gives you the possibility to customise what fits your needs best. Whether that is an entirely in-house solution or the preference to outsource particular steps of the workflow. For better, safer and faster implant treatment.



1 Preparation: Scan and diagnose



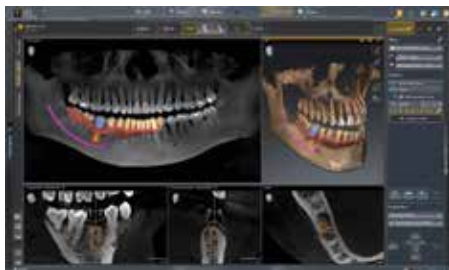
2 Merge imaging and CAD/CAM data



3 Map the nerve canal



4 Select the implant



5 Position the implant



6 Print a planning summary



7 Order a surgical guide or export plan for guide design

SICAT Endo

The complete solution in endodontics

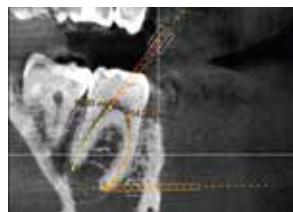
The integrated and effective 3D solution for the planning of endodontic treatments also supports clinical implementation. The user-friendly software provides diagnostic certainty for optimised treatment planning.

SICAT Endo is optimised for Xios XG Supreme sensor images, Dentsply Sirona 3D X-ray units and CEREC.

Guided implementation of digital planning



Step 1: The required X-ray images are followed by diagnostics and treatment planning in SICAT Endo.



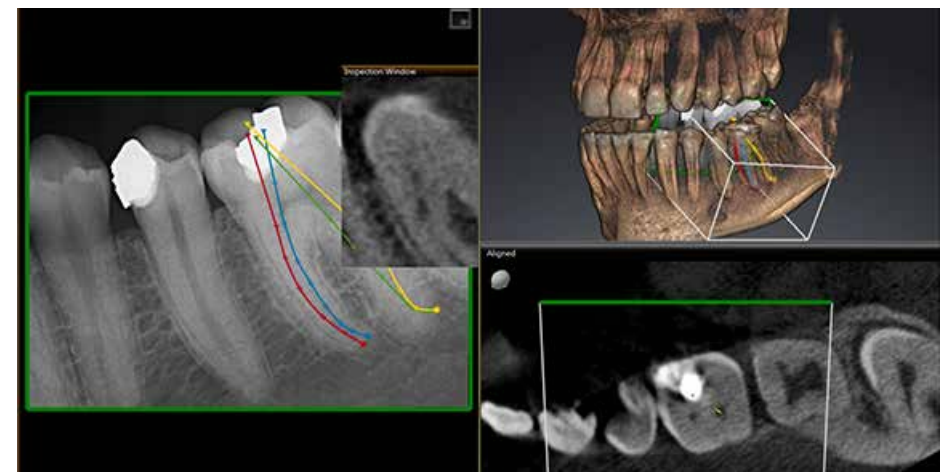
Step 2: Uncomplicated, safe root canal identification for minimally invasive access.



Step 3: For calcified canals, the easy-to-order ACCESSGUIDE (1st generation) guides the implementation of digital planning.

The advantages at a glance:

- 1 Easily identify the canals in 2D/3D:**
 - Improved 3D visualisation of root canals and automatic working length measurements, including 360° rotation around the root canal
- 2 Fusion of intraoral X-ray images:**
 - Simplified diagnostics
 - Simultaneous navigation in 2D and 3D
- 3 Integrated optical impressions:**
 - Precise representation of the occlusal reference points
 - Preparation for ordering the SICAT ACCESSGUIDE for guided access to root canal entrances



SureSmile® Aligner

Your Clear Aligner Solution by Dentsply Sirona

At Dentsply Sirona we don't just design individual units, but seamless solutions to support the entire workflow. Which is why you can now use the images captured with your Orthophos S, Orthophos SL and Axeos devices to plan your treatment with SureSmile. In conjunction with an optical scan, they are validated for use in the SureSmile Aligner and SureSmile Ortho software, providing the ultimate treatment offering.



Superior treatment planning

SureSmile Aligners are created in a sophisticated process. Our Digital Lab will propose a treatment plan that will match each patient's natural anatomy. Facial photos are superimposed with the 3D model in order to plan the final tooth position to be in line with the natural facial features of your patient. X-ray data will be registered with the 3D model, smile photo and the patient's natural head position. A sophisticated quality management system ensures that all our plans meet the highest standards. The result? Outstanding initial proposals that keep modifications to a minimum.



Customer focused workflow

The workflow with SureSmile can be smoothly integrated into any practice. The software is browser-based and does not require local installation. Furthermore, the SureSmile Digital Lab accepts data from all common intraoral scanners. On our award-winning eLearning platform SureSmileU you can find all sorts of step-by-step guides, videos, and job aids. For you and your staff that means ongoing support during the practice integration. The flexible pricing of the aligner packages is designed to meet your practice and patient's needs.

The advantages at a glance:

1

Clinician Control

- Robust treatment planning tools enable doctor controlled simulations, and alternative treatment scenarios in real-time.

2

2D/3D Registration

- 3D model and smile photo registered to the patient's natural head position for optimal smile design; supports more biologically achievable outcomes for efficient treatment.

3

High Quality CAD Models

- The precision of SureSmile CAD (Computer Aided Design) models support better aligner tracking, greater patient comfort, and enables faster treatment times.



Brimming with clinical excellence, yet almost invisible

The aligners are made by experts using the latest technology and proven materials. Precise processing of the data and a thorough quality control system ensure outstanding fit, excellent durability, and a virtually invisible treatment. With SureSmile Aligner you can choose different trim line designs, individualise attachments, conceal gaps with automated pontics and even treat mild to moderate class II or III cases.

SICAT Air

3D solution for the treatment of obstructive sleep apnoea (OSA)

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:

The advantages at a glance:

- 1 Direct visualisation of airway constrictions
- 2 High patient treatment proposal due to clear visualisation of the clinical situation and treatment proposal
- 3 Integration of CEREC for a fully digital workflow

Step by step: Treatment of obstructive sleep apnoea with SICAT Air



1 3D imaging



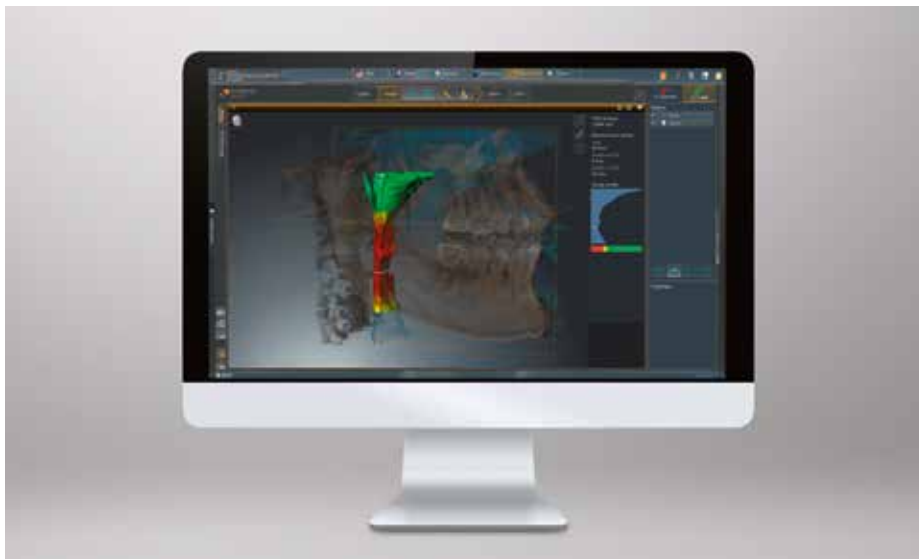
2 Optical scan



3 Definition of therapy position



4 Direct online ordering of the SICAT OPTISLEEP treatment splint



SICAT Function

Treatment of craniomandibular dysfunctions (CMD)

SICAT Function is the first integrated digital 3D solution to visualise real patient-individual movement of the lower jaw within the 3D volume. The anatomic traces of the temporomandibular joint can be displayed in the volume.



The advantages at a glance:

- 1 Direct visualisation of anatomically correct jaw movement
- 2 Integration with CEREC for a fully digital workflow
- 3 All in one chairside session
- 4 High patient acceptance

Step by step: TMJD Therapy with SICAT Function



- 1 Scan & Diagnose



- 2 Record the real jaw motion



- 3 TMD diagnosis in four dimensions



- 4 Order the therapeutic appliance online

Computer Requirements

Requirements for one image acquisition computer

Specification for only one computer needed to allow device integration in your practice.

	Axeos	Orthophos S 3D / Orthophos SL 3D	Orthophos S 2D	Orthophos E
Operating system	Windows 10 (64 bit)	Windows 8.1 Professional (64 bit) Windows 10 (64 bit)	Windows 8.1 Professional (64 bit) Windows 10 (64 bit)	See requirements for Sidexis 4 2D workstation
RAM	16 GB	16 GB	16 GB	
CPU	≥ 2.3 GHz QuadCore Processor 64 bit with SSE3 support (Intel i73xx or comparable)	≥ 2.3 GHz QuadCore Processor 64 bit with SSE3 support (Intel i73xx or comparable)	SL*: ≥ 2.3 GHz QuadCore Processor 64 bit with SSE3 support (Intel i73xx or comparable) S: ≥ Intel i3 3rd Generation or comparable RAM 16 GB	
Hard drive	≥ 2 TB	≥ 1 TB	≥ 1 TB	
Graphic	DirectX 11-graphic adapter (min. 4 GB RAM)	Windows 8.1 Professional (64 bit) Windows 10 (64 bit)	SL*: DirectX 10-graphic card (1 GB RAM dedicated) or Intel Onboard Graphics with latest graphic card driver S: DirectX 9.0 graphic card (512 MB RAM dedicated) or Intel Onboard Graphics with the latest graphic card driver	
Screen resolution	Minimum 1280 x 1024 pixels Recommended 1600 x 1200 pixels			

* Panorama editor.

Requirements for Sidexis 4

Specification for one server and an unlimited number of workstations.

	Sidexis 4 Server	Min. for 2D Workstation	Min. for 3D Workstation
Operation system*	Windows Server 2008 R2 Windows Server 2012 R2 Windows Server 2016 Windows Server 2019	Windows 8.1 Pro (64 bit) Windows 10 Pro (64 bit)	Windows 8.1 Pro (64 bit) Windows 10 Pro (64 bit)
CPU	≥ 2.3 GHz QuadCore Processor with 64 bit (x64)	≥ 2 GHz DualCore	≥ 2.3 GHz QuadCore Processor with 64 bit (x64)
RAM	≥ 8 GB	≥ 4 GB	≥ 8 GB
Graphics card**	≥ 1 GB	≥ 512 MB	≥ 1 GB
DirectX	DirectX 10 with WDDM 1.0 or higher driver	DirectX 9.0c	DirectX 10 with WDDM 1.0 or higher driver

* For 64-bit operating systems, installation under Boot Camp is also approved.

** To ensure that the interaction with the volume rendered in 3D is reliably "jerk-free", graphic cards with at least the following passmarks are required. GPU benchmark values recommended: NVIDIA: Passmark > 1000; AMD: Passmark > 1500; Onboard: > 540.

Further information at www.sidexis.com/systemrequirements
System requirements for the hardware used may vary.

About Dentsply Sirona Imaging

Experience makes it clear: Thousands of imaging units and software solutions have already been installed in practices around the world. Through high “Made in Germany” quality standards, true reliability and ease of use, users are provided with a dynamic partner in their practice.

The great feeling you get when you know you have made the right decision: The combination of advanced product innovation and genuine pioneering spirit produce solutions that are not only able to support you in your practice workflow each and every day, but that are also able to evolve with you and the demands of tomorrow.

