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Select the best dimension
for high-performance diagnostics

CASTELLINI
PASSION FOR DENTISTRY SINCE 1935

Built to fit perfectly into any surgery, the X-Radius Compact now extends its diagnostic capacity into the realm of 3D imaging.
This space-efficient digital imaging unit is now available in 2 different versions: as a high-performance 2D panoramic imager or as a latest generation device ensuring complete 3D and 2D capabilities.

Compact design for 3D and 2D imaging

Diagnostics has its place in every surgery

Whether you select the 2D panoramic imager or the new X-Radius Compact including 3D imaging capability, the design of the unit remains slim and essential, and is simple to install occupying little space in your surgery.

Limited Gold Edition

Where design and diagnostics go hand in hand

Created to add exclusive style to your surgery, the new X-Radius Compact Gold Edition, with its limited luxury design, will enhance the professional environment blending sophistication with medical proficiency.

Easy installation

With a minimal footprint, X-Radius Compact is also simple and inexpensive to install. Lightweight and easy to set up, calibration is also fast and full installation requires no more than a matter of hours before you are ready to run your first 3D or 2D examination.

Saves space and energy

Further to its space-efficient design, X-Radius Compact features an automatic stand-by function with immediate reactivation for reduced energy consumption.

Perfect positioning

Precision is attainable immediately thanks to a combination of the rigid support comprising 2 self-locking, lateral temple supports, a chin rest and bite, plus a fifth rigid support for the forehead on the 3D/2D version.
Accurate alignment is achieved also thanks to the 3 laser guides. 4 keys on the onboard panel (or via iPAD/iPhone APP) allow for servo-assisted adjustments. The metal grips also help the patient maintain the correct position during the scan.

① 3D/2D Version

② ③ 2D Version

Technologies made to assist your performance

Centred around a concept of ultimate user-friendliness, X-Radius Compact provides a selection of technologies devised to ensure maximum ease of use. Ranging from laser guides to a rigid 5-point head support system (4-point for the 2D version), everything is implemented to facilitate frequent usage and stress-free operation.

Scout previews

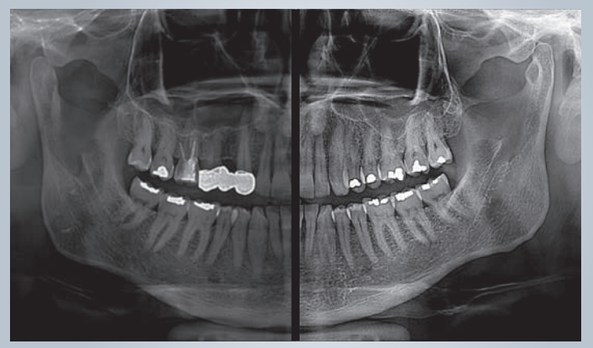
Two low-dosage 2D scout previews (one latero-lateral, the other antero-posterior) are possible prior to volumetric scans, ensuring the image is focused on the precise region of interest, thus enabling alignment adjustments to avoid omitting required areas.

Just press start to go

Once your patient is steady, you're ready to go. X-Radius Compact selects the optimal parameters based on each patient's personal morphology. 2D and 3D exposure settings are automatically adjusted according to patient type and the equipment programs itself to deliver a panoramic image with optimal focus.

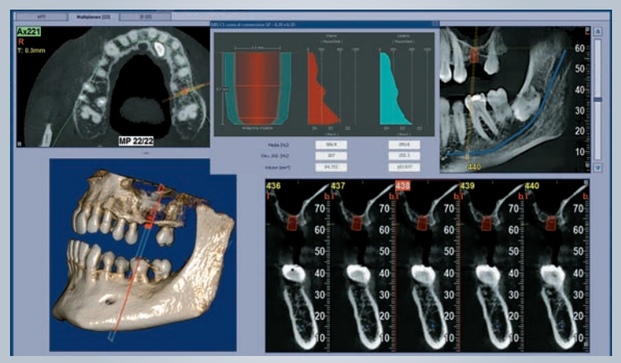
Virtual control panel

Available also as an application which can be downloaded to iPad, the virtual control panel takes you through an easy procedure to select both 3D and 2D examination type, illustrating correct patient positioning and allowing for servo-assisted adjustments.



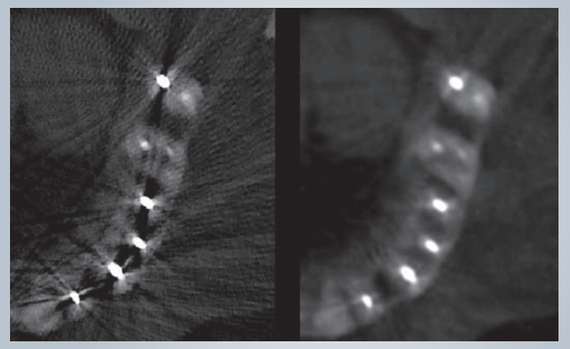
Instant panoramic

The intuitive, instant focus system provides excellent results for 2D panoramic scans by automatically selecting the optimal focus. 2D image yield is further optimised thanks to special image enhancement filters.



Implant planning

Ideal for implant simulation, the iRYS software suite is user-friendly, includes a library of implant models and enables in-depth assessment of bone density and the surrounding anatomic structures. Used to evaluate, measure and adjust parameters including the insertion axis, the resulting implant procedures are based entirely on accurate assessments.

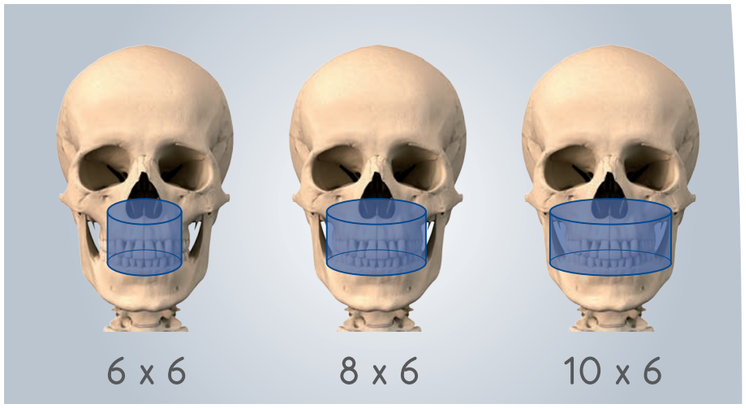


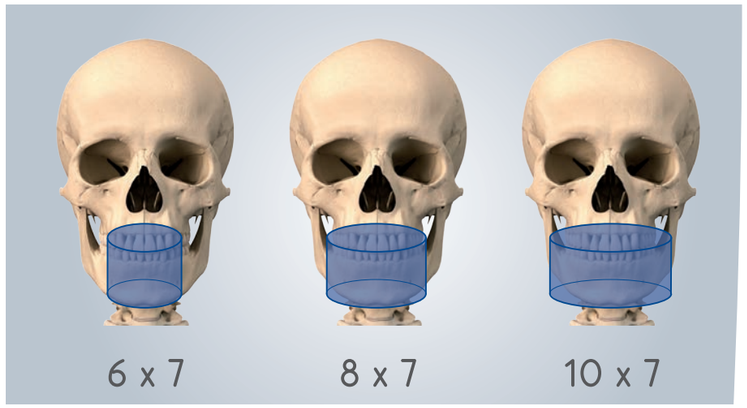
Metal Artefact Reduction

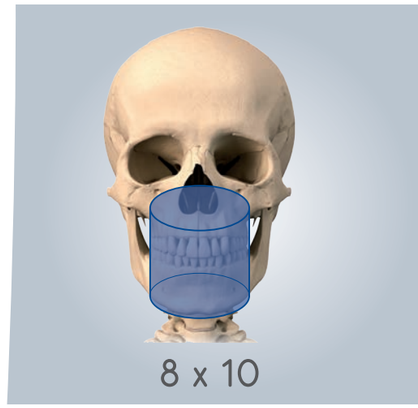
Quality of 3D imaging is improved thanks to the MAR function, which removes traces of metal artefacts causing shadows and steaks from volumetric scans.

Ready to perform high-resolution imaging in 3D or 2D mode

Thanks to the new 3D/2D model, obtaining the best available diagnostic data is a simple procedure with the new X-Radius Compact. Instant focusing and image enhancement filters ensure excellent panoramic images, whereas for high-precision, high-resolution diagnostics, CBCT technology enables the best 3D data achieved from volumetric scans with a FOV of up to 10x10 cm.







Multiple FOV settings for selective 3D examinations

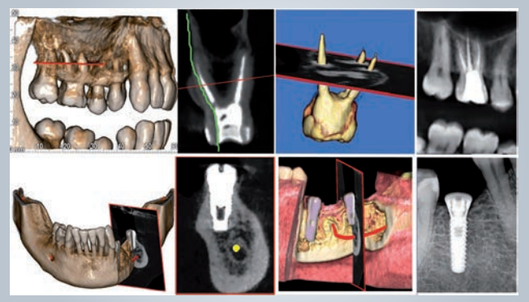
High-resolution (80µm) data achieved in a single scan covers entire adult dentition with a 10x10 cm FOV. However, by choosing smaller FOV settings (up to 8 different sizes are available), dental surgeons can reduce exposure to regions of interest when scanning implant sites or child dentition.

Complete adult dentition with 10x10 cm FOV

• Full volumetric details of both arches including third molars enables improved treatment planning and outstanding accuracy.

Complete child dentition with 8x7 cm FOV

• Low-dose 3D examination of both arches including maxillary sinuses. Reduced collimation avoids unnecessary exposure of sensitive organs.
Ideal for full orthodontic assessment and studies of dysmorphic teeth.



Localised scans with multiple FOV settings

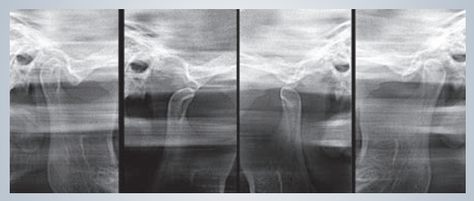
• Upper or lower arch scans, as well as highly localised examinations to focus on specific areas are achieved with fast scans, limiting exposure and ensuring high-resolution details with an HD protocol perfect for:
  • endodontic assessments
  • post-operative implant surgery follow-up

Superb detail and precision 3D diagnostics

The excellence of clinical detail and the flexibility of multiple FOV settings are the keys to enhancing the dental surgeon's diagnostic capacity. Obtaining data of complete adult dentition in a single 3D scan produces a wealth of accurate diagnostic information that traditional 2D images cannot always provide.

High-resolution, low-dosage

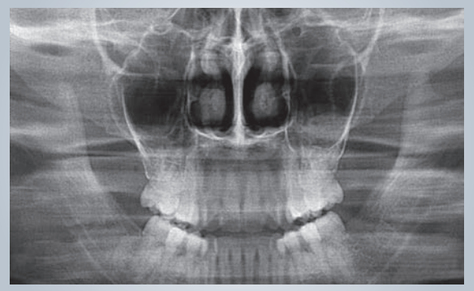
Being able to adapt the area exposed by variable collimation, dosage is kept to a strict minimum without interfering with image quality.
All volumetric scans conducted with X-Radius Compact generate high-resolution data with 80µm voxel size.



Temporomandibular joints
• Open & Closed mouth • Sagittal & Coronal

Bitewing Dentition
• Orthogonal • Right, Left & Frontal

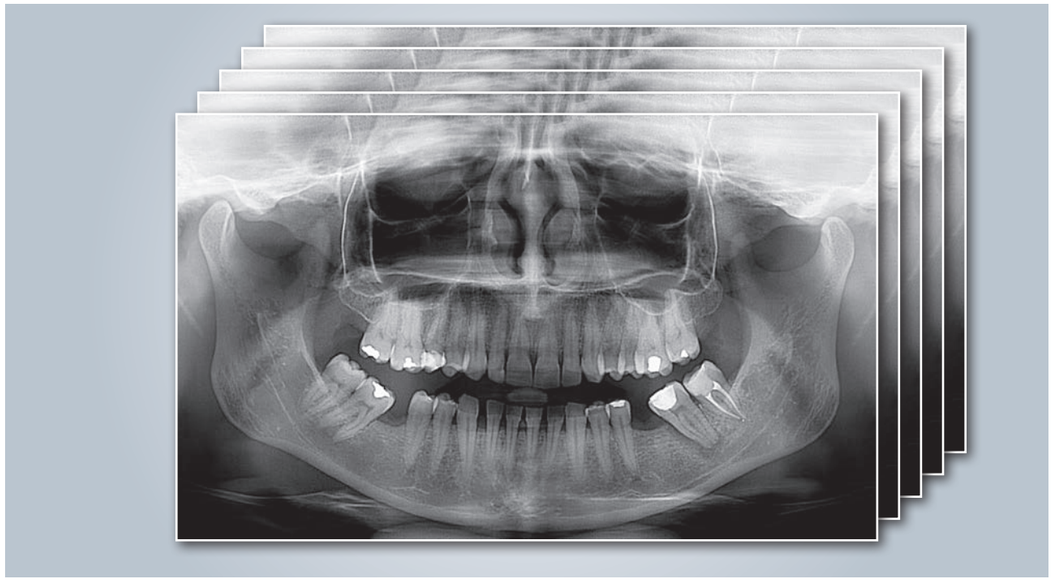
Standard child panoramic imaging
• Rapid • Low dosage



Maxillary sinuses
• Frontal • Lateral

Obtaining immediate results saves time

Equipment which adapts to each diagnostic scenario and ensures accurate results in line with each of your specific needs is a sure way of economising on time.
The dedicated software features optimised filters to enhance image quality, the high signal-noise ratio vastly improves the clarity of clinical details and the automatically set parameters bring about the best possible images for clinical diagnosis.



Standard adult panoramic imaging
• Complete • Partial • Multilayer • Rapid

Ample choice of diagnostic capabilities

Up to 22 programmes will satisfy 2D diagnostic requirements in the dental surgery. X-Radius Compact provides a comprehensive range of examination types also covering bitewing dentition with improved orthogonality, temporomandibular joints and maxillary sinuses. Thanks to variable, vertical collimation, significantly reducing exposure is possible for localised diagnostics or when examining child dentition.

Low dosage

A higher-speed scanning function is available to ensure children are exposed to inferior dosage. This can also be used for fast, post-therapy scans to assess treatment outcome. Vertical, variable collimation also effectively reduces dosage.

Dynamic focus

X-Radius Compact registers 5 different image sets with a single scan, so that you can select the best focal range to suit the requirements of the treatment plan. Alternatively you may allow the software to make the best choice for you thanks to the optimal focus function, thus saving time.

Image management across a unique platform

Thanks to an open platform, image management and data sharing is easy and highly practical. Imaging software covering intra-oral and extra-oral applications with an intuitive interface allows dentists to transfer data to third-party systems via DICOM protocols and other methods. Acquired images can also be transferred to compatible management software with a standard TWAIN protocol.

Remote control

Available both for WINDOWS and as iPad application, the virtual control panel enables remote control of the equipment and onscreen visualisation of the 2D images acquired.

XRADIUS
COMPACT 2D
COMPACT 3D/2D

Technical specifications

2D IMAGING
Type Adult and child panoramic*, QuickPAN, MultiPAN, Bitewing dentition*, PA and LL (right and left) maxillary sinuses, Temporomandibular Joint (2 x LL +2 x PA) open and closed mouth
Dimension PAN standard 15 cm x 28 cm
Image file size max 7.5 MB
Image resolution 5 to 7 lpmm
Enlargement 1.2 - 1.3
Exposure time 3-12 s

3D IMAGING
Type Complete study of the 2 dental arches in a single scan for adult and child with reduced collimation; study of maxillary region with maxillary sinuses; localised study of region of interest.
FOV Dimension 10x10cm, 10x7cm, 10x6cm, 8x10cm, 8x7cm, 8x6cm, 6x7cm, 6x6cm
Image file size typical 720 MB
Voxel size 80 µm - 160 µm

ERGONOMICS
Patient Alignment 3 Laser Guides
Easy access for patients in wheelchair
Adjustments 2-speed height drive

X-RAY GENERATOR
Type of generator Constant potential (DC) - high frequency
Anode voltage 2D: 60 kV - 85 kV (step 1kV)
3D/2D: 90 kV (pulsed mode)
Anodic current 4 mA - 15 mA
Focal spot 2D Version: 0.5 mm (IEC 60336)
3D/2D Version: 0.6 mm (IEC 60336)
Inherent filtration 2D Version: > 2.5 mm Al eq. (a 85 kV)
3D/2D Version: 6 mm Al eq. (a 90 kV)
Exposure control Automatic.
MRT (Morphology Recognition Technology)
Maximum continuous anode input power 42W (1:20 at 85kV/10mA)

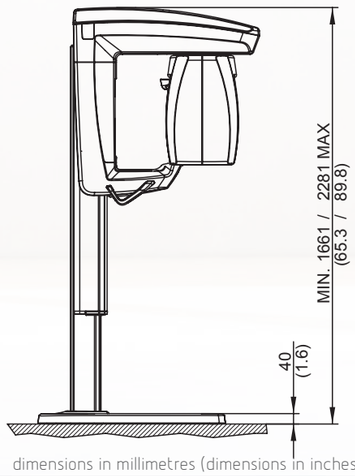
SENSOR TECHNOLOGY
2D version CMOS (CSI) - 14 bit (16383 grey levels)
3D/2D version Amorphous Silicon (CSI) - 16 bit (65535 grey levels)

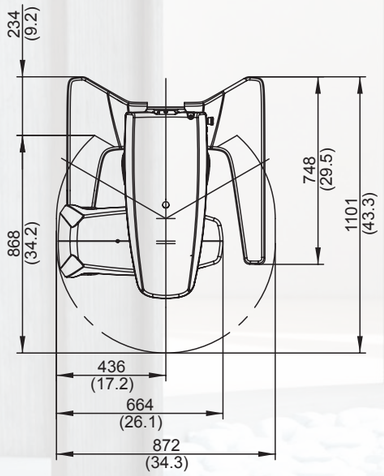
POWER SUPPLY
Voltage/Frequency
240 - 115 Vac, ± 10% single phase I 50 / 60 Hz ± 2 Hz
Maximum current temporary peak absorption
12A at 240V - 20A at 115V
Current consumption in standby mode
maximum 0.5 A (240V) - 1 A (115V)
Note Automatic voltage and frequency adaptation

DIMENSIONS
Minimum available work space requirement
872 mm (L) x 1101 mm (D)
Packaging dimensions (L)x(P)x(H) in mm
Supplied in 2 boxes: Box 1: 930x690x960
Box 2: 1860x355x350
Weight 2D Version: 80 kg (185lb)
3D/2D Version: 90 kg (199lb)
Adjustable height 2 speeds motorised
Note Self-supporting base available

CONNECTIVITY
Connections LAN / Ethernet
Software iRYS
Supported protocols DICOM 3.0, TWAIN, VDDS
DICOM nodes IHE certification (Print, Storage Commitment, WorkList MPPS, Query Retrieve)

*Vertical collimation on 3D/2D version only





dimensions in millimetres (dimensions in inches)