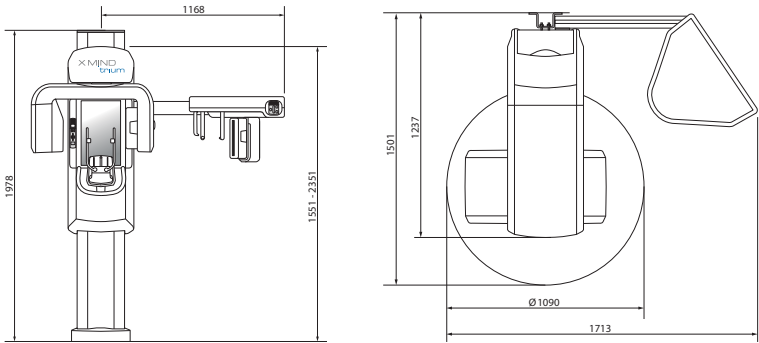


TECHNICAL SPECIFICATIONS

X MIND
trium



	PANORAMIC	CBCT	CEPHALOMETRIC
	X-RAY SOURCE		
Tube type	High frequency DC generator		
Total filtration	2.8 mmAl / 85 kV	7.0 mmAl / 90 kV	2.8 mmAl / 85 kV
Operation mode	Continuous	Pulsed	Continuous
Tube voltage	60 - 85 kVp	90 kVp	60 - 85 kVp
Anodic current	4 - 10 mA	4 - 12 mA	4 - 10 mA
Focal point	0.5 mm	0.5 mm	0.5 mm
	DETECTOR		
Type	CMOS	Flat Panel CMOS	CMOS
FOV and format	260 x 148 mm	ø 40 x 40 mm, ø 60 x 60 mm, ø 80 x 80 mm, ø 110 x 80 mm	200 x 220 mm, 200 x 180 mm, 240 x 220 mm, 240 x 180 mm
Pixel size/Voxel size	Pixel: 100 µm	Voxel: 75 µm	Pixel: 100 µm
	ACQUISITION		
Technique	180° single scan	360 ° single scan	Single scan
Exposure time	16.8 sec	4 - 12 sec	9 sec
Scanning time	16.8 sec - 25 sec	18 - 27 sec	14 sec
Programs	Standard, child, improved orthogonality panoramic, bitewings, maxillary sinus, TMJ	Semi-arch, arch, full arch, sinus, ear	Frontal PA, Frontal AP, option: Carpus
Reconstruction time	3 sec	29 sec	4 sec
	IMAGE FORMAT		
	JPEG, BMP, PNG, TIFF	DICOM 3.0, STL	JPEG, BMP, PNG, TIFF
	MECHANICAL DATA		
Max footprint dimensions	L 150 x W 110 cm		L 150 x W 172 cm
Height	Max: 235 cm		
Weight	170 kg (PAN)	185 kg (PAN-CBCT)	215 kg (PAN-CEPH)
	IEC		
Class and Type	Class I, Type B		
	WORKSTATION (included with CBCT)		
CPU	Intel Xeon 2 GHz		
Hard Disk	1 TB		
Graphic Processor	NVIDIA (CUDA environment GPU family)		
RAM Memory	8 GB		
Network card	Dedicated GB NIC for X-Mind trium connection		
Operating System	Windows 7 professional 64 bits		

X-Mind® trium, 3-in-1 extraoral imaging system (CBCT 3D, Panoramic and Cephalometric). This medical device is a class IIb device according to the applicable European Directive in force. It includes CE marking. Notified body: DNV – CE 0434. This medical device for dental care is reserved for healthcare personnel; it is not covered by health insurance providers. This equipment was designed and manufactured in accordance with an EN ISO 13485-certified quality assurance system. Please read the user guide carefully. Manufacturer: DE GOTZEN (Italy). Date of manufacture: November 2016.

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F0379 / January 24, 2017

I AM DEMANDING

X MIND trium

3D technology that facilitates osseointegration with instant volume measurement and bone density assessment

I AM DEMANDING

The evolution of dental technology is such that we can now perform procedures which were unimaginable 10 years ago.

For example, in the field of implantology, the success rate for implant placements has progressed notably due to pre-implant procedures.

Although the implant is the key element in this revolution, it is essential to also have a high quality bone support. **X-MIND TRIUM™** identifies this support and makes it possible to measure the volume immediately and assess the bone density. As dental gaps are sometimes old and associated with bone loss, a graft is often necessary to reconstruct the support which will receive the implant.

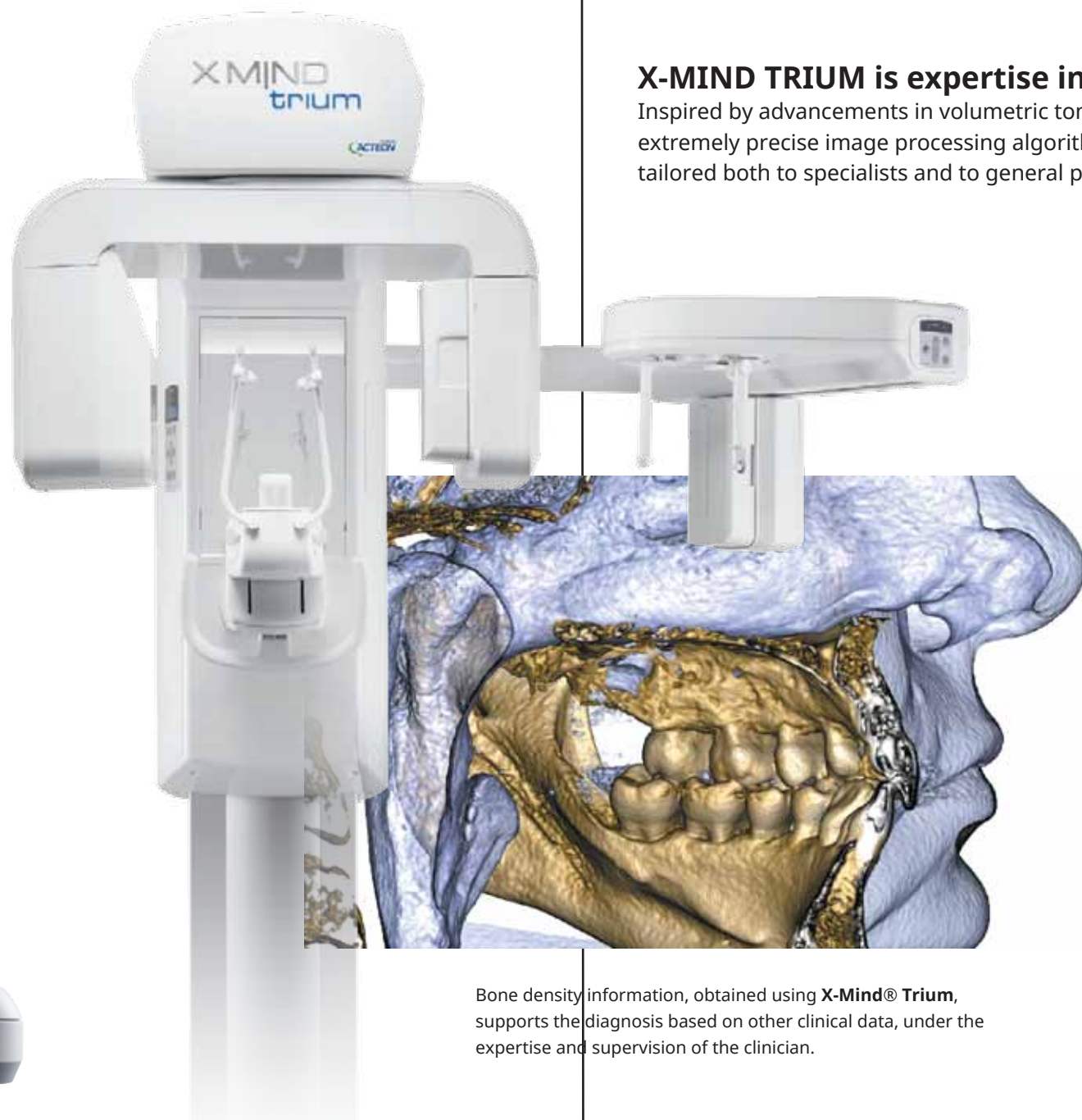
The use of **PIEZOTOME®** is particularly safe and atraumatic. Its fine, precise cuts offer fast healing with a dramatic drop in post-operative pain.

All of these **ACTEON®** innovations result from the research of 5 design offices which collaborate daily with international dental surgeons to offer patients faster, more natural results while minimizing possible operative sequelae.

PIEZOTOME



*In this design of the **X-Mind® Trium** we have taken into account all of the possible factors influencing the image quality and image consistency, including but not limited to; stability, geometry, x-ray beam generation and processing, SW and HW based filter kernels. Together with our know-how in medical imaging and the specific implementation of a dedicated analytical algorithm, we have reached outstanding results able to provide advanced clinical outcomes and indicators for the clinical practice of the future.*



Bone density information, obtained using **X-Mind® Trium**, supports the diagnosis based on other clinical data, under the expertise and supervision of the clinician.

CREATOR OF INNOVATIONS IN IMAGING

X-MIND TRIUM is expertise in medical imaging

Inspired by advancements in volumetric tomography in medical imaging, **ACTEON®** designed extremely precise image processing algorithms to improve diagnostic accuracy and offer a solution tailored both to specialists and to general practitioners.

MORE INVENTIVE

By combining high quality spatial resolution with a significant reduction in X-ray doses, **ACTEON®** has made **X-Mind® Trium** the most powerful and comprehensive Cone Beam Volumetric Tomography system on the market.

LESS INVASIVE

Bone density and volume, which are important for successful osseointegration, can now be assessed. Clinical decision-making is now easier, and **treatment planning is more reliable.**

Focus adapted to the region of interest also helps **control the dose of radiation being emitted.**

INSTANTLY ASSESS BONE DENSITY AND VOLUME

A RELIABLE ASSESSMENT
OF **BONE QUALITY**
WILL HELP YOU IMPROVE
YOUR SUCCESS RATE

Easy-to-use software

A precise and detailed analysis of the existing bone volume is highly recommended in order to reduce complications associated with implant placement.

The **ACTEON® Imaging Suite 3D** software displays the **assessment of bone density all around the implant with just one click.**

Communicate with the patient

If bone volume is low, the images and information supplied by the **ACTEON® Imaging Suite 3D software** can help you clearly explain your therapeutic recommendation to your patient.

This explanation is particularly helpful if surgery and/or bone filling is necessary.

Indicator colors

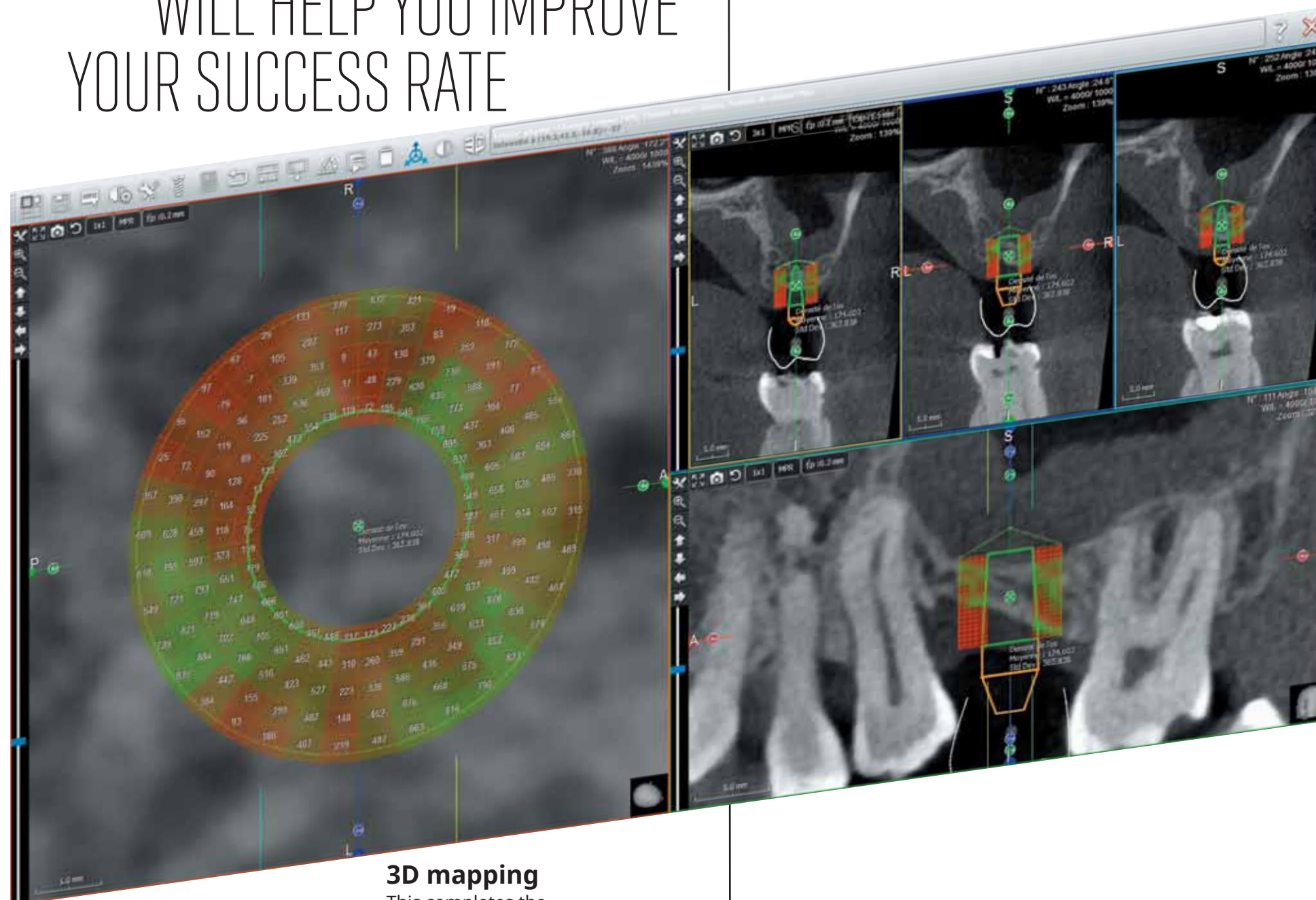
Bone density information is clearly represented by the colors red and green.

■ High density

■ Low density

3D mapping

This completes the color indicators.



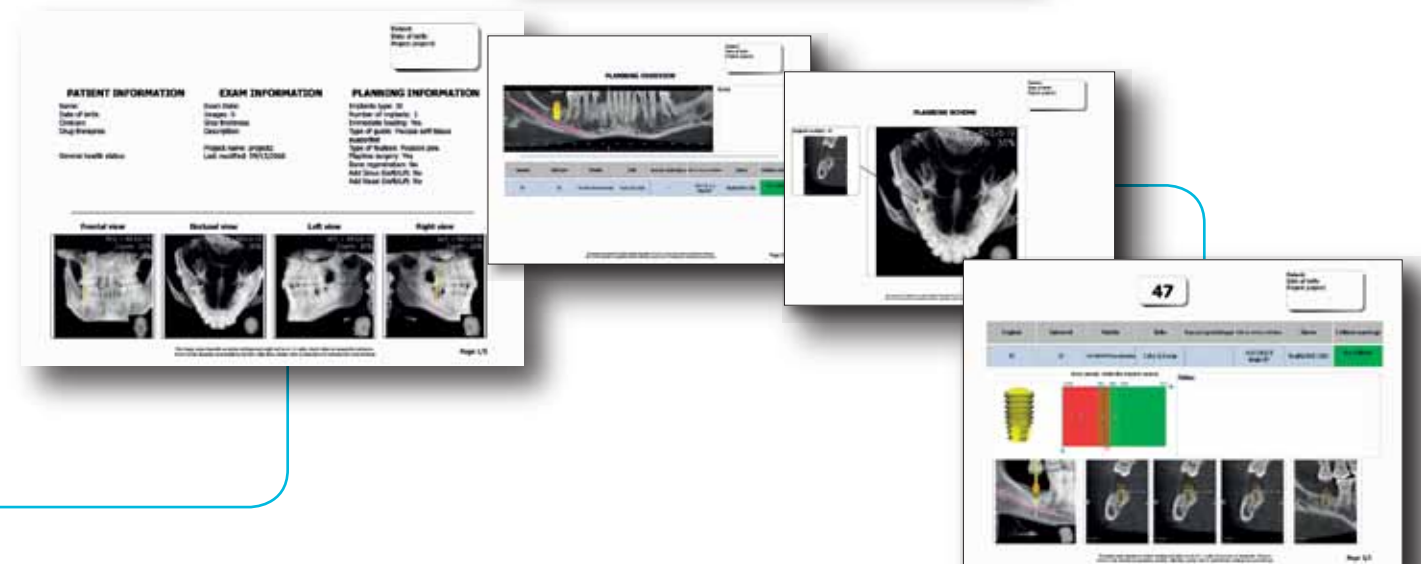
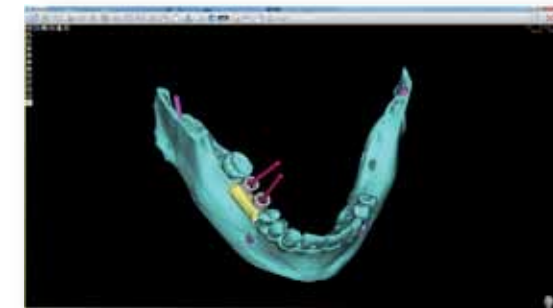
SIMPLIFIED IMPLANT PLANNING

CARRY OUT IMPLANT PLANNING USING JUST ONE PIECE OF SOFTWARE



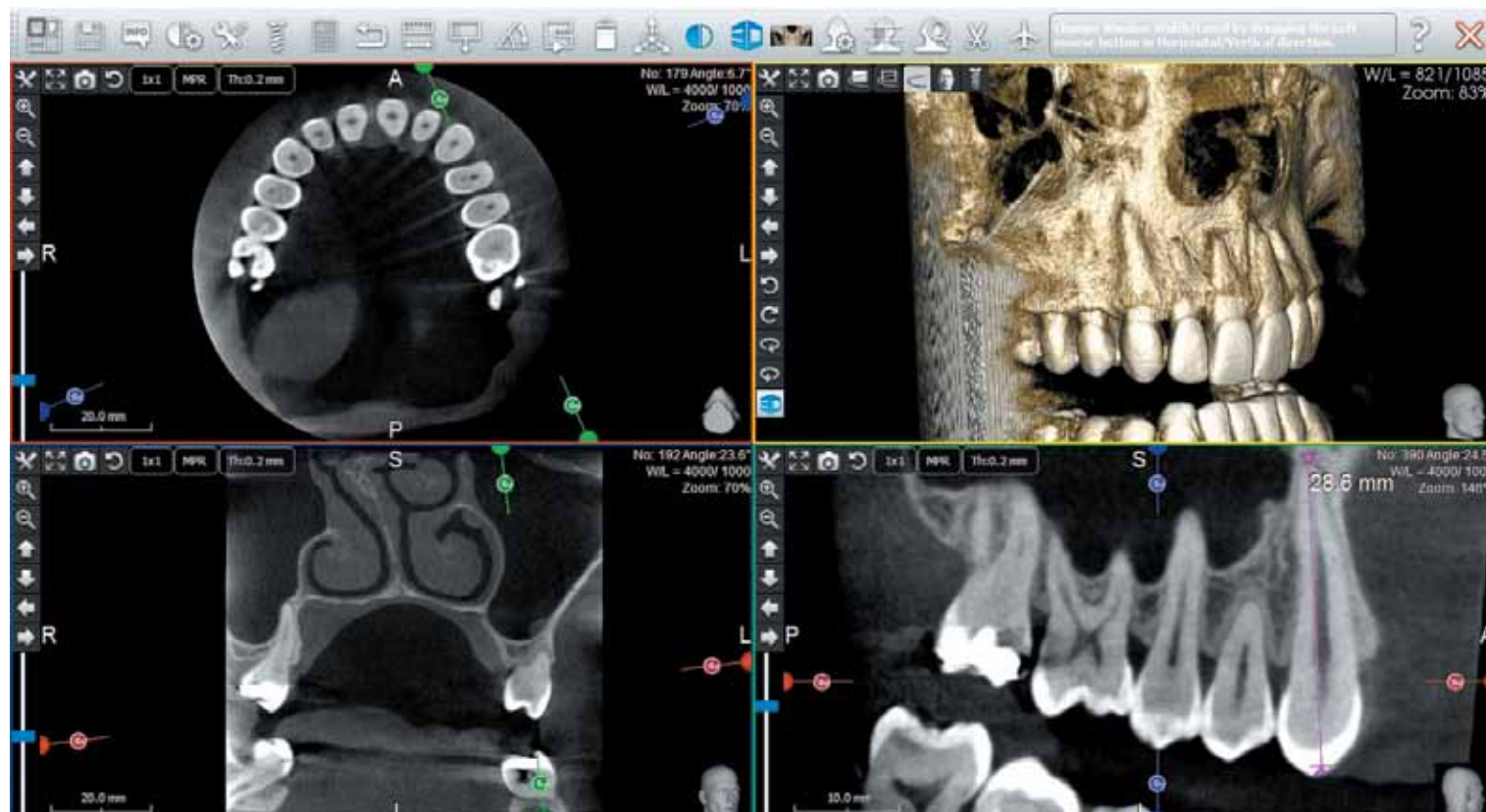
Combined with its **ACTEON® Imaging Suite software**, X-Mind® Trium is an essential tool for planning the treatment and post-procedure follow-up. Its 3D imaging offers **high precision of the anatomy from a single scan** and provides a full understanding of the patient's jaw. Its results are **quick and accurate, thereby streamlining your workflow**.

- 1 Locating and tracing the mandibular canal precisely is the first step in the implant planning procedure. It also **measures the distance between the canal boundary and the implant**.
- 2 3D modelling can then be used to **choose the size and shape of the implants** in proportion to the patient's morphology based on a **substantial and scalable implant library**. Better still, you start by putting the crown in place, which serves as a guide for better positioning of the implant.
- 3 **ACTEON® Imaging Suite gives useful information to assess volume and bone density** for implant placement, which can effectively be used to guide the diagnosis and surgical treatment.
- 4 **ACTEON® Imaging Suite exports imaging data** generated by X-Mind® Trium scans in STL format. This data can be imported into a **surgical guide design software**.
- 5 **In less than a minute**, you can produce and print a full implant report, to illustrate **your written report (required)**. This illustrated report can also help you better inform your patient or a referring dental surgeon.



DETAILED IMAGING FOR ENDODONTICS

A THREE-DIMENSIONAL IMAGE FOR A MORE ACCURATE DIAGNOSIS



5 REASONS TO USE DETAILED IMAGING

- Provide additional examination to 2D imaging in high-risk situations
- Highlight the list of potential risks prior to surgery
- Obtain very precise information about anatomical relationships
- Procure valuable support in making a decision for a safe and good therapy
- Accurately determine the working length of the tooth when resuming treatment

Through its performance, **X-Mind® Trium** contributes significantly to the accuracy of endodontic analyses, such as:



The determination of the
anatomy of dental roots



The diagnosis of apical lesions
and the diagnosis of fractures



The apex/sinus relationship

MANY MORE CLINICAL BENEFITS THAN YOU CAN IMAGINE

HUGE VARIATION OF APPLICATIONS

In addition to applications designed exclusively for implantology or endodontics, **X-Mind®Trium** responds directly to the needs of specialists and general practitioners in the diagnosis of pathologies related to periodontics, orthodontics and maxillofacial surgery. Benefits include:

- Evaluating a detailed morphology of the bone tissue
- Helping to diagnose infectious diseases
- Examining maxillofacial fractures
- Determining the protocol for extracting impacted teeth
- Conducting an orthodontic assessment
- Detecting dental anomalies
- Helping to diagnose temporomandibular joint disorders
- Exploring the maxillary sinuses



Diagnosing temporomandibular joint



Diagnosing infectious disease disorders



Exploring the maxillary sinuses



Determining the anatomical situation and depth of periodontal pockets



Conducting an endodontic diagnosis



Determining the protocol for extracting impacted teeth

FOCUS ON THE REGION OF INTEREST

X-Mind® Trium offers you a broad selection of field of view, letting you focus on the region of interest for the target diagnosis and reducing the patient's exposure to X-rays:



ø 110x80 mm



A **110x80 mm** field of view will offer a full view of the dentition, mandibular canal and lower sinuses.



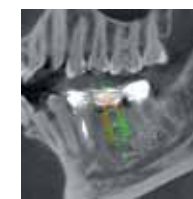
ø 80x80 mm



A **60x60 mm** or **80x80 mm** field of view will be optimal for defining the positioning of one or more implants or for diagnosing periodontal problems.



ø 60x60 mm



ø 40x40 mm

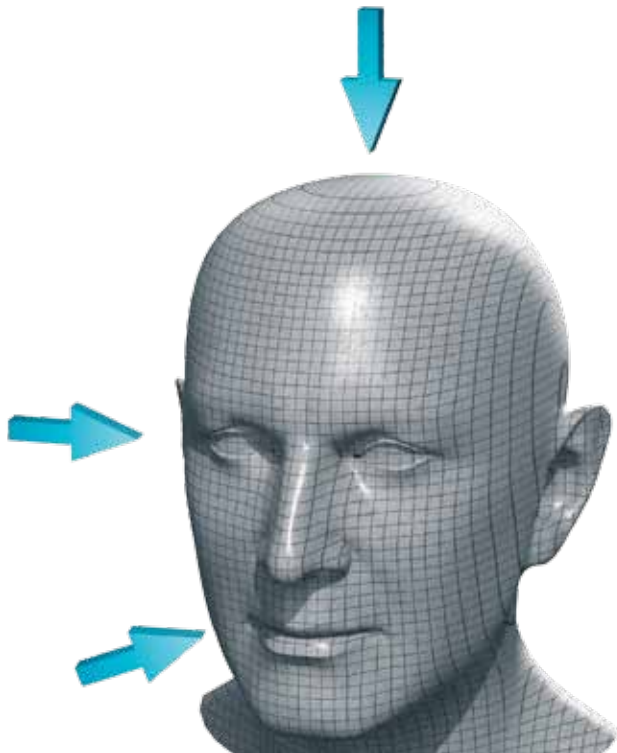


A **40x40 mm** field of view with resolution at 75 µm is ideal for diagnosis and endodontic treatment.

EXCEPTIONAL IMAGE QUALITY

X-Mind® Trium has a scanning and reconstruction algorithm that produces a **high quality 3D image**. The representation of bone material in the maxillofacial skeleton is **accurate** and **perfectly uniform**, regardless of the viewing axis.

A HIGHER
RESOLUTION 75 μm



The quality of the diagnosis and endodontic treatments improves significantly with resolution at **75 μm** on the X-Mind® Trium.
In addition to obtaining a perfect view through adapted spatial resolution, pulsed mode scanning, **high sensitivity** CMOS sensor, and the use of small fields of view allow for a notable reduction in X-rays.



360° ROTATION FROM 18 TO 27 SECONDS
DEPENDING ON THE SELECTED FIELD OF VIEW

X-Mind® Trium offers you a broad selection of field of view, letting you focus on the region of interest for the target diagnosis and reducing the patient's exposure to X-rays:



3D
RECONSTRUCTION
TIME IN
29 SECONDS



ARTIFACT REDUCTION FILTERS

AN OPTIMAL FILTER FOR REDUCING METAL ARTIFACTS

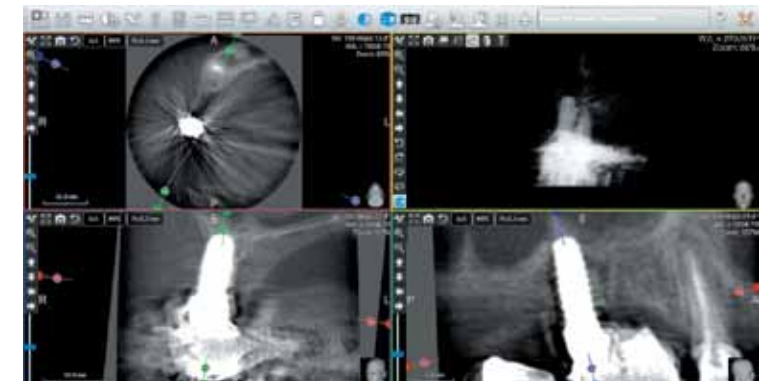
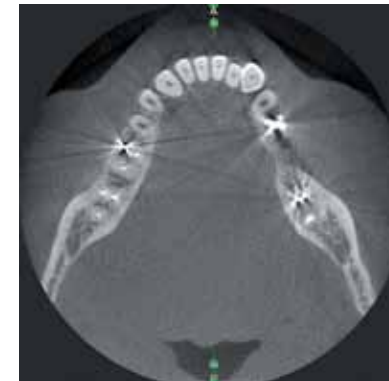
X-Mind® Trium is equipped with a dynamic artifact reduction filter to eliminate streaks and dark bands caused by the presence of metal.

The image can be freely reconstructed with adjustable filter levels based on the target level of information and the need to cut out artifacts.

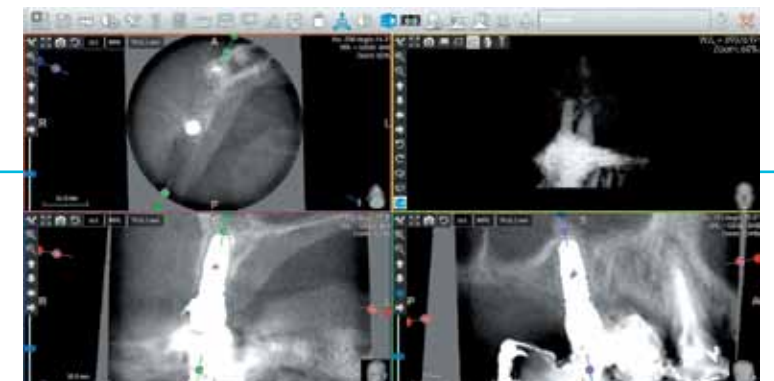
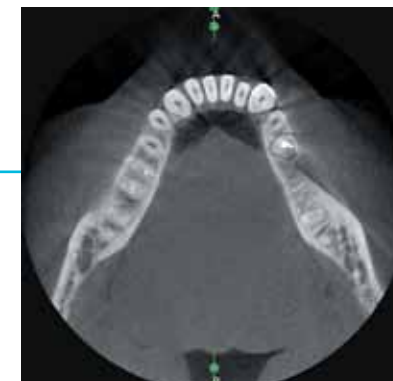
The goal is to best isolate the desired information during the examination.



WITHOUT FILTER



WITH FILTER



PANORAMIC MODE & CEPHALOMETRIC MODE

PANORAMIC RADIOGRAPHY

Whether raw or filtered to optimize the details, panoramic **X-Mind® Trium** images support a fast and easy diagnosis.

DENTAL PANORAMIC



PANORAMIC WITH IMPROVED ORTHOGONALITY



X-ray beam perpendicular to the jaw for better orthogonality and to reduce the overlapping of crowns.

CHILD PANORAMIC



BITEWING



A quick bitewing image in one shot

TMJ SECTIONS



Both open and closed mouth images

MAXILLARY SINUS



Frontal views of the lower portion of the maxillary sinus and paranasal area

CEPHALOMETRIC RADIOGRAPHY

Due to its patented cinematic and collimation, patient positioning is easier on **X-Mind® Trium**. Install the cephalometric arm on the right or left, depending on the configuration of the office.

FULL SKULL LATERAL



POSTERIOR ANTERIOR



COMPREHENSIVE SOFTWARE

ACTEON[®] imaging suite

The **ACTEON[®] Imaging Suite** software offers intuitive navigation with the mouse and advanced functionality. It alone lets you manage all of your images, from scanning to viewing images from all **ACTEON[®]** imaging devices (CBCT, Panoramic, intraoral digital X-ray system, intraoral camera, etc.) and much more.

A QUALITY IMAGE
VIA AN INTERFACE THAT IS
SIMPLE, QUICK, INTUITIVE

DICOM
COMPATIBLE

EXPORTS
TO
STL FORMAT

WINDOWS
COMPATIBLE

MAC
COMPATIBLE

iPad
COMPATIBLE



ADVANCED FUNCTIONALITY FOR INTUITIVE NAVIGATION

- IMPLANT PLANNING
- CROWN PLACEMENT
- MANDIBULAR NERVE TRACING
- EASY NAVIGATION IN DIFFERENT SECTIONS
- MOUSE CONTROL
- BONE DENSITY ASSESSMENT AND VOLUME MEASUREMENT
- SURFACE, DISTANCE AND ANGLE MEASUREMENT
- SUBSTANTIAL AND SCALABLE IMPLANT LIBRARY
- PRINTED IMPLANT REPORT
- SHARING OF INFORMATION ON A NETWORK
- CASES EXPORTED ON A CD OR USB KEY
- EXPORTED IN STL FORMAT
- METAL ARTIFACT REDUCTION FILTER
- PANORAMIC AND CEPHALOMETRIC IMAGE DETAIL OPTIMIZATION FILTER
- VIRTUAL ENDOSCOPE
- INTEGRATES WITH VARIOUS PATIENT MANAGEMENT SOFTWARE
- DICOM COMPATIBLE

ACTEON SERVICE | & YOU |

"Clinical trainers" are available to show you the clinical aspects and patient benefits of **ACTEON[®]** products and train you on how to use them.

Free, ongoing and unlimited service can be reached Monday to Friday, from 9:00am to 7:00pm.

ACTEON[®] can also analyze and troubleshoot remotely, and specialist technicians can provide on-site service as quickly as possible.

BETTER QUALITY OF LIFE



THE TRUE DIAGNOSIS OF PAIN

The introduction of 3D medical scanners has provided significant benefits for the diagnosis of complex diseases. Cone Beam Computed Tomography (CBCT) machines, have made these exams more common, making it possible to **provide better diagnoses** within the dental office.

ACTEON® is fully involved in this technological revolution by providing effective extraoral solutions for diagnosis that are comprehensive in their use and fully meet the expectations of dental surgeons and their patients.

PATIENTS WHO ARE REASSURED AND SATISFIED

Beyond the simple replacement of missing teeth, increased life expectancy and aesthetic concerns have led to the development of implant procedures.

Patients now have the opportunity both to improve their quality of life through the **latest restorative techniques** and, with the help of CBCT, to obtain a **faster and more accurate diagnosis** with a **less exposure to X-rays**.

TIME SAVING AND INSTANT RESULTS FOR THE DENTAL SURGEON

Owning your own **ACTEON® 3D extraoral imaging system** in your office is a great asset for quick and accurate diagnoses, **saving time and improving your patient's satisfaction**.

The three-dimensional image on the screen lets you provide your patient with the necessary up to date information. In addition, this demonstration and its illustrated explanations will be crucial in **obtaining the patient's full involvement and agreement with the proposed treatment plan**. Finally, **X-Mind® Trium** allows you to print a **full illustrated implant report in just a few seconds** to be provided to your patient and/or their referring dental surgeon.



3 SOLUTIONS IN 1

SELECT NOW, IMPROVE LATER

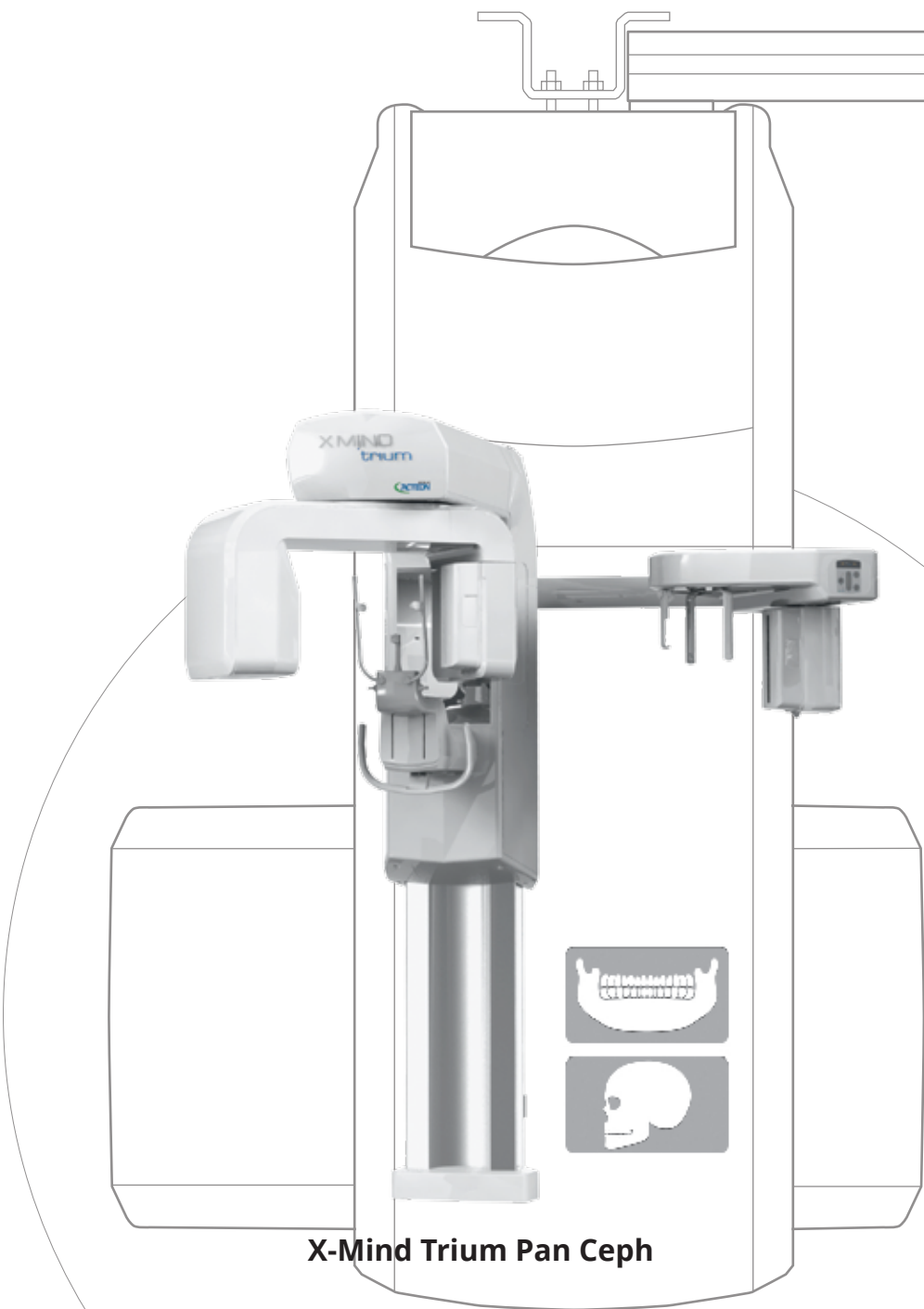
- **X-Mind® Trium** has an extensive range of options. It is upgradable on site.
- **X-Mind® Trium** will adapt to the ever increasing needs of your clinic by adding 3D imaging or digital cephalometric modalities when you decide it is necessary.



X-Mind Trium Pan



X-Mind Trium Pan 3D



X-Mind Trium Pan Ceph



X-Mind Trium Pan Ceph 3D

Pan	☒	☒	☒	☒
3D	☐	☒	☐	☒
Ceph	☐	☐	☒	☒