### TECHNICAL SPECIFICATIONS

#### X MIND trium





	PANORAMIC	СВСТ	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	
Гуре	CMOS	Flat Panel CMOS	CMOS
FOV and format	260 x 148 mm	ø40 x 40 mm, ø60 x 60 mm, ø80 x 90* mm, ø110 x 90 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		
lechnique	Single scan	360 ° single scan	Single scan
xposure time	3.3 sec - 13.5 sec	6 sec - 9 sec	18 sec
icanning time	18.8 sec - 25 sec	12 sec - 30 sec	23 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	From 30s**	4 sec
	EXPORTED IMAGE FORMAT		
	JPEG, BMP, PNG, TIFF	DICOM, STL	JPEG, BMP, PNG, TIFF
	MECHANICAL DATA		
Weight	170 kg (PAN)	185 kg (PAN-CBCT)	215 kg (PAN-CEPH)
	IEC		
Class and Type	Class II, Type B	Class II, Type B	Class II, Type B
	WORKSTATION MINIMUM REQUIREMENTS		
	WORKSTATION PAN/CEPH	WORKSTATION CBCT (Included with X-Mind trium)	WORKSTATION AIS CLIENT (WINDOWS/MAC)
Processor	Intel i5	Intel Xeon 2.9 GHz	Intel i5
lard Disk	1TB 7200 rpm	256 GB (OS) + 1 TB (AIS database)	300 GB
MAM	8 GB	16 GB	8 GB
Graphics card	OPEN GL 2.1 compatible (suggested an NVIDIA GT/GTX)	Nvidia P620 (2 GB - Display) Nvidia P2000 (5 GB - 3D reconstruction)	Dedicated GPU with 16 Bits RAM at leas
Screen resolution	1600 x 1024	1600 x 1024	1600 x 1024
Network card	INTEL CT 1000 pro	INTEL CT 1000 pro	1 Gh/s

\*Not available in Canada where these volume are limited to 80x80mm

\*\*The reconstruction time may vary according to the exam parameters.

**Operating system** 

This medical device is classified as class IIb according to the European Medical Device Directive in force.

Windows 10 Professional 64 bits

It bears the CE marking. Notified Body: IMQ 0051. This medical device is intended for dental care and is reserved for health care professional; it is not reimbursed by health insurance agencies. This equipment has been designed and manufactured in keeping with a quality system certified EN ISO 13485. Carefully read the user manual available at www.acteongroup.com. Manufacturer: de Götzen (Italy)

Windows 10 IoT Enterprise 64 bits

DE GOTZEN | A company of ACTEON Group Via Roma 45 | 21057 Olgiate Olona VA | ITALY Phone + 39 0331 376760 | Fax + 39 0331 376763 Email: info@acteongroup.com | www.acteongroup.com



Windows 10 Professional 64 bits /macOS X Sierra

(10.12)





# WITH TRUE LOW DOSE, GAIN REAL PROTECTION WITHOUT COMPROMISING 3D IMAGE QUALITY







Happing of bone density to improve success rate

4 FOV From 4x4 to 11x9 to focus on the region of interest

Up to 50% Dose reduction\*





### ACTEON INNOVATIVE IMAGING

X-MIND<sup>®</sup> TRIUM is the true low dose solution ensuring maximum protection and precise imaging.

Combined with AIS, accurately plan your treatment. Surgery has never been so predictable!

# DOSE REDUCTION WITHOUT COMPROMISING IN IMAGE QUALITY





True low dose helps to reduce the X-ray dose while preserving a high-quality image.

Less traumatic

Reliable diagnosis and planning

Minimised surgical effects

#### The unique True Low Dose solution is possible thanks to:

## 1. IMAGE ENHANCING ALGORITHM

With the new powerful algorithm, you can now decrease the X-ray settings up to 50% with peace of mind. Our True Low Dose algorithm will reveal all anatomical structures on the 3D radiographic scan, versus the classic low dose systems where clinical information can be missed, due to lack of collected data.

STANDARD DOSE 90kV - 8mA



90kV - 4mA



### 2. SMART SLIDE MOVEMENT

X-mind<sup>®</sup> trium sensor cassette moves closer to patient's head. This allows to reduced X-ray dose settings up to 10% while keeping the exact same image guality as before.

**BEFORE SLIDE MOVEMENT** 



CLASSIC LOW DOSE



TRUE LOW DOSE 90kV - 4mA



#### AFTER SLIDE MOVEMENT



# INSTANTLY ASSESS BONE DENSITY AND VOLUME



#### Easy-to-use software

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

The ACTEON<sup>®</sup> Imaging Suite 3D software displays **the assessment** of bone density all around the implant up to 2 mm, with just one click.

#### Communicate with the patient

If the bone volume is low, the images and information supplied by the ACTEON<sup>®</sup> Imaging Suite 3D software can help you to **clearly explain your therapeutic recommendation to your patient**. This explanation is particularly helpful if surgery and/or bone grafting is necessary.

## A RELIABLE ASSESSMENT OF BONE QUALITY WILL HELP YOU TO IMPROVE YOUR SUCCESS RATE, AND TO PREDICT THE OSTEOINTEGRATION



#### **Indicator colours**

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



High density



#### **3D** mapping

This completes the colour indications.

# CARRY OUT SIMPLIFIED IMPLANT PLANNING

## WITH THE INTUITIVE AIS SOFTWARE, PLANNING YOUR TREATMENT HAS NEVER BEEN SO EASY



Locating and tracing the mandibular canal precisely is the first step in the implant planning procedure. It also measures the distance between the implant and the anatomically structures. Import the STL file generated from your digital impression and match it with the 3D image X-Ray in order to define the gum thickness. Add your virtual STL wax-up created by your lab or get it from our universal virtual prosthesis library to obtain a better implant placement. 3D rendering can then be used to choose the size and shape of the implants in proportion to the patient's morphology based on our cloud implant library. 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. In less than a minute, you can edit 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. ACTEON® Imaging Suite exports imaging data generated from X-Mind® trium scans in STL format. This data can be imported into a surgical guide design software. Thank to our dedicated feature you can create you own surgical guide for a minimal invasive solution and predictable surgery.\* ACTEON PLANNING OVERVIEW

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



# GET DETAILED IMAGES FOR PRECISE ENDODONTIC TREATMENT

## A THREE-DIMENSIONAL IMAGE FOR A MORE ACCURATE DIAGNOSIS

The multiple slices obtained with X-Mind<sup>®</sup> trium allow you to navigate from the outside to the core of the tooth, and beyond.

Indispensable for endodontics, X-Mind® trium's metallic artifact reduction filter differentiates with extreme precision man-made material and human anatomy.

## 5 REASONS TO USE DETAILED IMAGING

- Provide additional information 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 effective therapy
- Accurately determine the working length of the tooth, when resuming treatment

X-Mind<sup>®</sup> 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 fractures



The apex/sinus relationship

# BENEFIT FROM MORE CLINICAL ADVANTAGES THAN YOU CAN IMAGINE

## WIDE VARIETY OF APPLICATIONS

In addition to applications designed exclusively for implantology or endodontics, X-Mind<sup>®</sup> 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 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 disorders



Exploring the maxillary sinuses



Determining the anatomical situation and depth of periodontal pockets



Determining the protocol for extracting impacted teeth

# FOCUS ON THE REGION OF INTEREST

X-Mind<sup>®</sup> trium offers you a broad selection of fields of view, letting you focus on the region of interest for the target diagnosis and reducing the patient's exposure to X-rays:









ø80x90mm\*

a 110x90 mm







ø 60x60 mm

ø 40x40 mm







A 110x90 mm field of view will offer a full view of both dental arches, mandibular canal and maxillary sinuses.

A 60x60 mm or 80x90\* mm field of view will be optimal for defining the positioning of one or more implants or for diagnosing periodontal problems.

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

# EMPOWER YOUR DIAGNOSIS WITH EXCEPTIONAL IMAGE QUALITY



## 360° ROTATION FOR HIGHLY DETAILED IMAGES

Perform a scan in 30 seconds\*, depending on the selected field of view.

## AN OPTIMAL FILTER FOR REDUCING METAL ARTIFACTS

X-Mind<sup>®</sup> 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.

## ULTRA HIGH RESOLUTION 75 µm

The quality of the diagnosis and endodontic treatments improves significantly with resolution at **75 µm** on the X-Mind<sup>®</sup> trium.

> X-Mind<sup>®</sup> 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.



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# COVER ALL CLINICAL APPLICATIONS WITH PAN AND CEPH DIAGNOSIS

## PANORAMIC RADIOGRAPHY

Whether raw or filtered to optimise 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



A quick bitewing image in one shot

#### TMJ SECTIONS



## CEPHALOMETRIC RADIOGRAPHY

Due to its patented cinematic and collimation, patient positioning is easier on X-Mind<sup>®</sup> trium.

Install the cephalometric arm on the right or left, depending on the configuration of the office, and get the best cephalometric X-rays.

L SKULL







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### MAXILLARY SINUS

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

#### POSTERIOR ANTERIOR



# PROVIDE BETTER QUALITY OF LIFE





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<sup>®</sup> 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 ARE REASSURED AND SATISFIED

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

## TIME SAVING AND INSTANT RESULTS FOR THE DENTAL SURGEON

Owning your own ACTEON<sup>®</sup> 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<sup>®</sup> trium allows you to print **a full illustrated implant report in just a few seconds** to be provided to your patient and/or their reference dental surgeon.



# DISCOVER INTUITIVE TOOLS

### EXCEL IN YOUR ANALYSIS **RECORD TIME WITH** THE POWERFUL, INTUITIVE AIS AND HIGH-PRECISION SOFTWARE





- Superior design
- Clean lines
- User-friendly
- Open architecture
- Full integration
- Advanced functionalities

## ADVANCED FUNCTIONALITY FOR INTUITIVE NAVIGATION

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

- 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
- Design surgical guide



- Sharing of information on a network
- Cases exported on a CD or USB stick
- Exported in STL format
- Metal artifact reduction filter
- Panoramic and cephalometric image detail optimisation filter
- ENT module
- Virtual endoscope
- Integrates with various patient management software
- Dicom compatible

# SELECT NOW, IMPROVE LATER

# PERFECT SOLUTION MADE FOR YOU

Select the best configuration, for your pratice:



"Clinical trainers" are available to show you the clinical aspects and patient benefits of ACTEON<sup>®</sup> products and train you on how to use them.

Free, ongoing and unlimited service can be reached Monday to Friday, from 09:00 to 18:00.

ACTEON<sup>®</sup> can also analyse and troubleshoot remotely, and specialist technicians can provide on-site service as quickly as possible.



Pan

3D

Ceph

• : available option