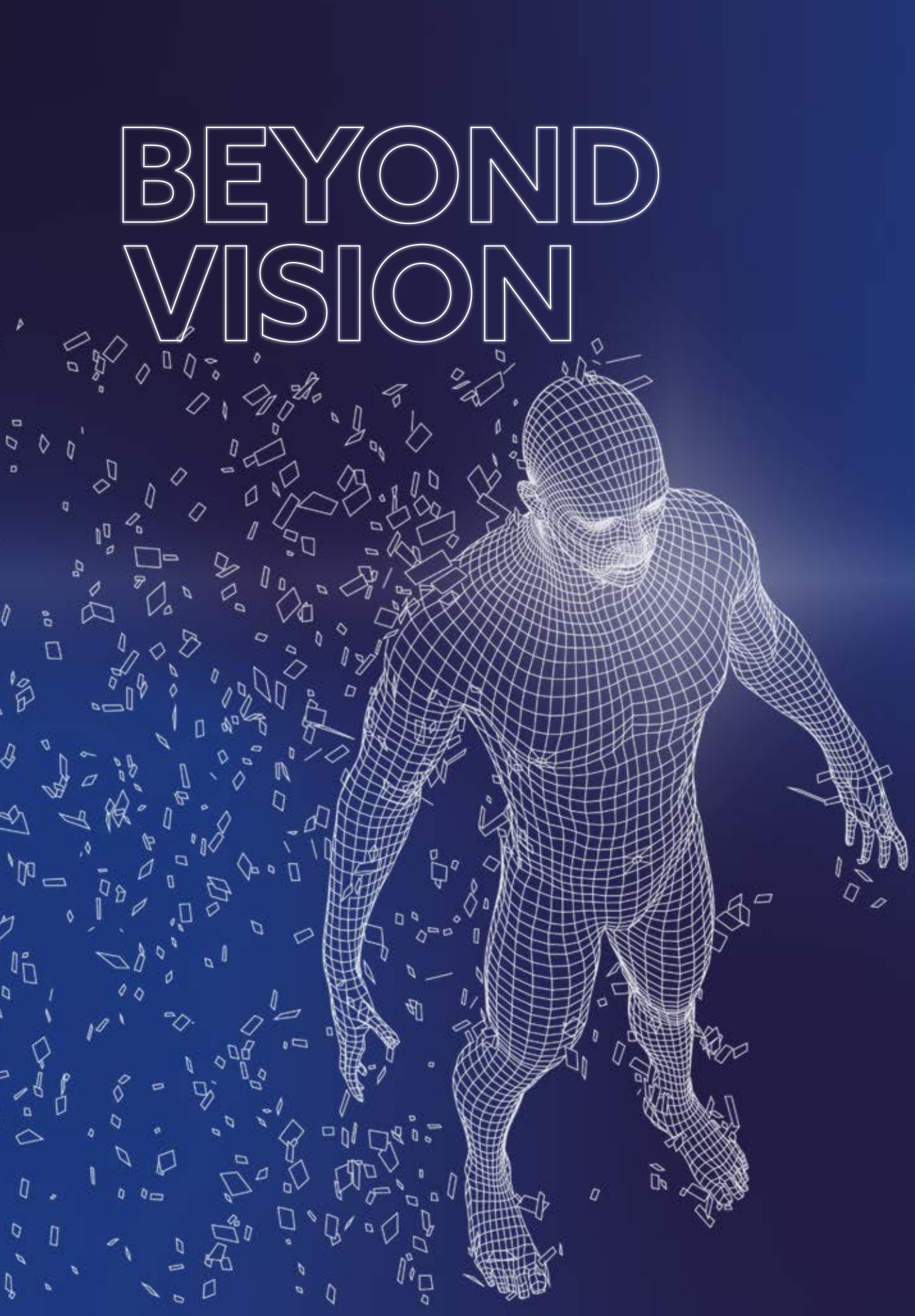
EN

NEWTOM 7G

BEYOND VISION



NEWTOM

CONE BEAM 3D IMAGING

NEWTOM 7G

Wide.Vision
Cutting-edge cbct

NEWTOM CBCT IMAGING NOW DRAWS ON FRESH ENERGY

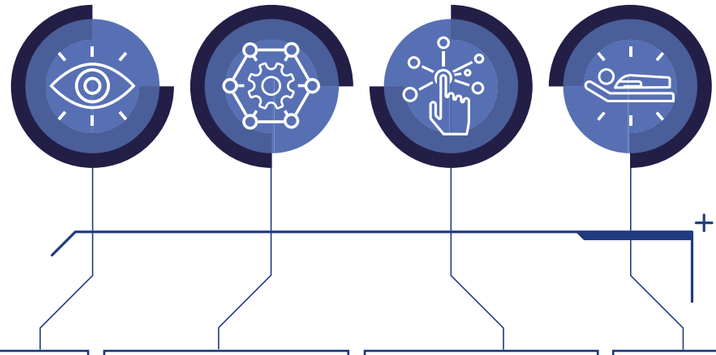
DUAL ENERGY

NEW IMAGING HORIZONS

Featuring a large gantry aperture, the NEWTOM 7G is the most advanced CBCT device on the market. From in-depth detail to the big picture.

7G

- For the very first time, Cone Beam technology can now be applied to all areas of the body, including the spine, shoulder and hip. Moreover, NEWTOM 7G is suitable for very heavy patients thanks to a high-capacity powered patient table (max 215 kg). At the same time NEWTOM 7G has all the functions and automatisms needed to adapt FOVs and X-ray doses to the patient's build (especially those of paediatric age).
- With a resolution of up to 90 µm, small complex structures such as the inner ear can be analysed with the utmost precision.
- With the patient lying down, the motor-powered table limits the risk of artifacts caused by uncontrolled movement. It also ensures simple, accurate alignment of the FOVs, making results more certain and weighting the X-ray exposure.
- Excellent device accessibility and flexibility allows multiple acquisition protocols; these range from static Ray2D examination to the investigation of joint dynamics with the CineX protocol and in-depth 3D volumetric diagnosis with ultra-high definition of bone tissue.



ULTRA-DETAILED MULTI-DIAGNOSTICS
Localised analysis over the entire body. Ray2D and 3D imaging up to 90 µm, also with radiocontrast agent. Artifact reduction and movement analysis using CineX and Cine-Scout.

TECHNOLOGICAL EXCELLENCE
High power generator (120 kV – 20kW). High-sensitivity 3D panel and innovative algorithms for volumetric reconstruction. 77 cm gantry aperture.

ERGONOMICS AND PRACTICALITY
Fully motor-powered table and 10" touch-screens, front and rear. Optimised examination flow thanks to certified NNT software with processing, sharing and RIS/PACS connectivity functions.

MAXIMISING PATIENT CARE
Patients lie comfortably on the table and X-ray doses are always proportioned to the patient's build and the examination type.

7G

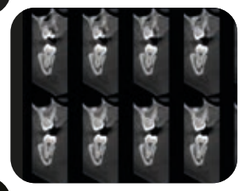
UNMATCHED POWER

Applications for precision medicine.

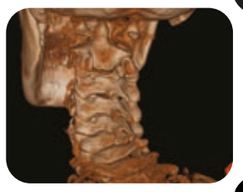
NEWTOM 7G brings cutting-edge CBCT into all-new fields of application. It can be used to investigate innumerable anatomical areas in a wide range of clinical applications, both 3D with numerous FOVs and 2D (also sequentially). NEWTOM 7G lets users create - all on just one device - ultra-high definition images to diagnose the micro-structures of the ear or hairline fractures in complex joints. It can also be used to assess post-surgery outcomes (with minimisation of artifacts caused by bone-articular prosthesis or other osteo-synthetic devices such as pins, even where extensive).

FULL SKULL
(Maxillofacial)

PARANASAL SINUSES
(Otorhinolaryngology)
(ENT)



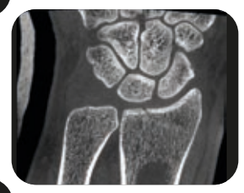
DENTITION
(Dentistry)



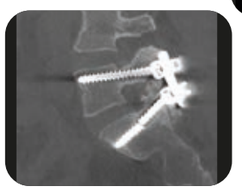
CERVICAL RACHIS
(Orthopaedics)
(MSK)

SHOULDER
(Orthopaedics)
(MSK)

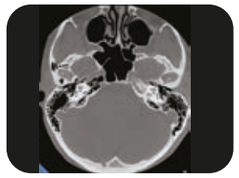
ELBOW
(Orthopaedics)
(MSK)



HAND/WRIST
(Orthopaedics)
(MSK)

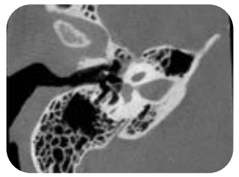


LUMBAR SPINE CROSS SECTIONS
(Orthopaedics)
(MSK)

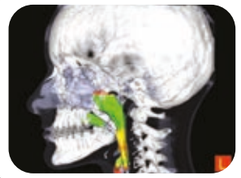


PETROUS BONES
(Otorhinolaryngology)
(ENT)

COCHLEAR IMPLANT
(Otorhinolaryngology)
(ENT)

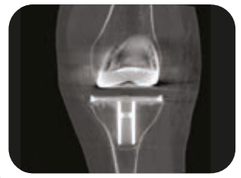


INNER EAR
(Otorhinolaryngology)
(ENT)



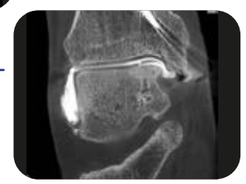
AIRWAYS
(Otorhinolaryngology)
(ENT)

HIP
(Orthopaedics)
(MSK)

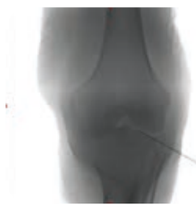


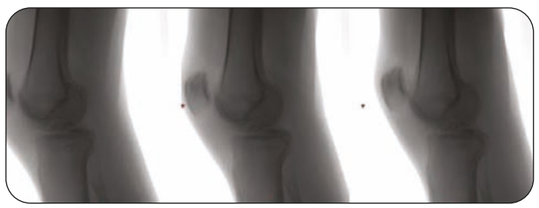
KNEE
(Orthopaedics)
(MSK)

HEEL/FOOT/ ANKLE
(Orthopaedics)
(MSK)



ARTHROGRAMS
(Orthopaedics)
(MSK)





EXTENDED 3D

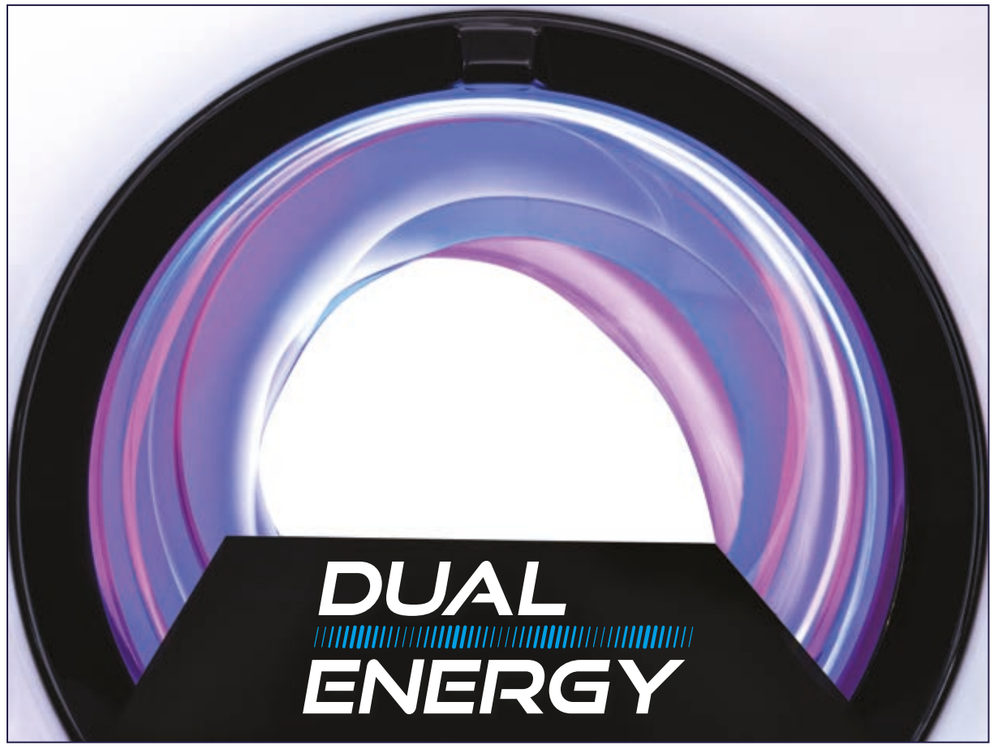
Adaptive FOVs - from a minimum of **4x4 cm** to a maximum diameter of **29 cm** and lengths of up to **62 cm** - allow the area of interest or a portion of it to be examined (taking the patient's build into account).

STATIC AND DYNAMIC 2D

The Ray2D, Cine-Scout and CineX functions make device potential even more extensive. Ray2D allows for 2-dimensional assessment from multiple angles prior to 3D investigation. The CineX serial radiography function, instead, lets users examine anatomical structures in motion and is particularly useful for studying joint mobility. The Cine-Scout function allows dynamic, real-time examination directly on the machine for assessment of moving joints.

BROADER DIAGNOSTIC RANGE

NEWTOM 7G can perform numerous types of investigation, including those with intra-articular contrast agents (e.g. arthrograms with Cine-Scout positioning).



THE RESULT OF A CONTINUOUS QUEST FOR PATIENT WELL-BEING AND EVER-GREATER DIAGNOSTIC PRECISION, DUAL ENERGY USES TWO DIFFERENT RADIANT ENERGIES TO IDENTIFY ANY PATHOLOGIES WITH GREATER CLARITY AND PRECISION.

Virtual Monochromatic Images

Dual Energy technology mitigates beam-hardening artifacts. What's more, being able to reconstruct monochromatic virtual images at different keVs improves soft tissue imaging quality and reduces metal artifacts. Lastly, Dual Energy CBCT provides a basis for tissue characterisation.

Colour-coded images

NEWTOM Dual Energy software enables users to perform semi-automatic tissue segmentation and apply colour codes, streamlining the differentiation of materials within the scanned area. This allows rapid and straightforward detection of potential pathologies.

Blended image

The new features enable weighted blending of high- and low-energy imaging. The resulting images combine the low noise, typical of high-energy acquisition, with the high contrast resolution of the low-energy image set.

NEWTOM DUAL ENERGY TECHNOLOGY

As of today NEWTOM 7G incorporates the Dual Energy (DE) system, elevating performance to new heights and revolutionising the way your practice operates.

Dual Energy tomography employs two distinct radiant energies to acquire two sets of images of the same anatomical area.
Since tissues have different sensitivities to different energy levels, the obtained images can now provide information on the chemical composition of the tissues themselves. This means pathologies can be detected with greater confidence and precision.

DUAL ENERGY: *NEXT-LEVEL MEDICAL IMAGING*

At the forefront of diagnostic imaging, Dual Energy Cone-Beam CT acquisition is set to broaden the medical application horizons of CBCT technology.
NEWTOM Dual Energy CBCT provides unique clinical information that lets you highlight, characterise, quantify and distinguish tissues within the scanned zones. This means you can obtain much more information on the chemical composition of the materials in the area under investigation.

Dual Energy Color Coded image CBCT*

Dual Energy Color Coded image CBCT*

*under clinical validation

FEWER MOTION ARTIFACTS

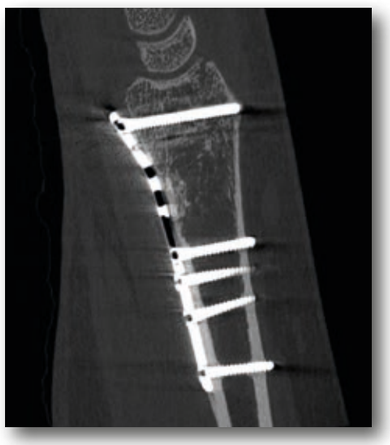
One of the main causes of image quality decay is the appearance of artifacts caused by patient movement, including involuntary actions such as breathing or trembling. NEWTOM has developed an algorithm that corrects any movement-induced distortions. It does this on each axis, offsetting any shifts, rotations or variations in distance from the panel. The result is uncompromising quality.

Motion correction OFF

VMI 50 Motion correction ON

FEWER METAL ARTIFACTS

Metal artifacts are a common issue in tomography and can significantly impact image quality and, consequently, diagnostic accuracy. Dual Energy CBCT lets you reconstruct a monochromatic virtual image by selecting the most suitable energy level (keV), ensuring unrivalled image quality even where implants, prostheses and/or osteosynthesis systems are present.

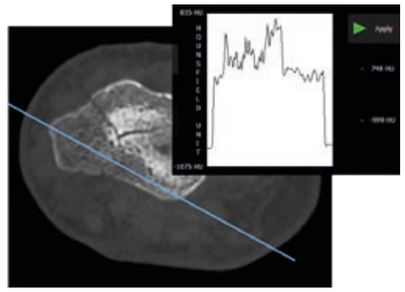


VMI 85keV – Metal

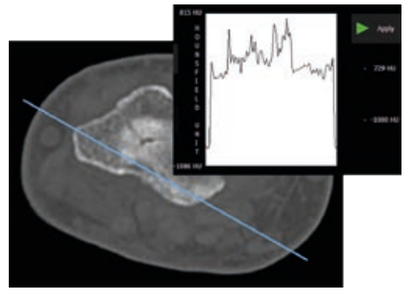
VMI 85keV – Metal

IMPROVED PRECISION

Quantitative tests have demonstrated that Dual Energy protocols improve - compared to single-energy CBCT exams - HU accuracy, contrast resolution and image homogeneity.



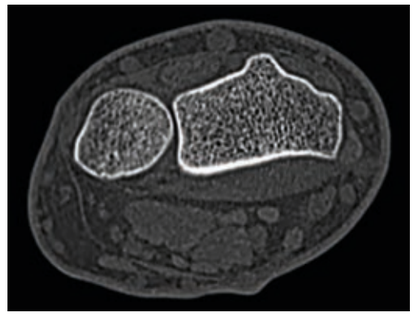
Dual Energy CBCT



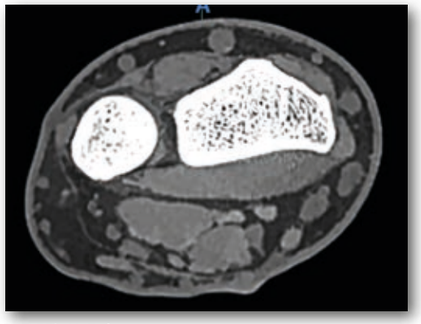
Multi-detector CT

IMPROVED TISSUE CONTRAST

CBCT Dual Energy lets you differentiate between separate tissue types by harnessing their energy absorption properties.
Hence its outstanding effectiveness in obtaining higher-quality imaging of the cortical bone, the trabecular bone and significantly better soft tissue images.



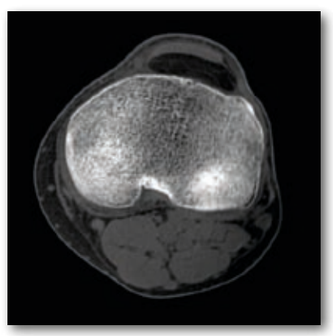
VMI 60keV; Bone



VMI 50keV: Soft

LOW ENERGY, HIGH ENERGY... *AND EVERYTHING IN BETWEEN*

Reconstruction of the information from the low and high energies is instantaneous. The special DE software developed by NEWTOM allows real-time selection of energy levels during display. This means you can access a vast spectrum of information, making pathology detection more effective and reliable.



VMI 50keV: SOFT

VMI 50keV: SOFT

OPTIMAL PRACTICALITY, CERTAIN RESULTS

Automated work flow plus the possibility of customising protocols. Advanced image processing software functions.

NEWTOM 7G features automatisms that streamline work and limit the distortion inherent in manual procedures, thus ensuring the best results in the shortest time. The on-machine multi-consoles and/or touch-screen allow for assisted patient alignment with multiple scouts and Cine-Scout, plus the selection of FOVs and radiological parameters. Furthermore, radiologists can customise protocols to suit specific diagnostic needs.

Reports feature the advantage of advanced NNT software functions that allow users to process and share specifications for different medical specialisations. Multiplanar analysis with personalised orientation allows body areas to be assessed from different angles. All examinations are fully compatible via the DICOM format: they can be shared via NNT Viewer or printed in 1:1 scale.

NNT: USER-FRIENDLY CUSTOMISED SOFTWARE
Doctors can access specific protocols and views by anatomical area and diagnostic query; they can also establish personal settings for re-use at a later time.

ORTHOPAEDICS

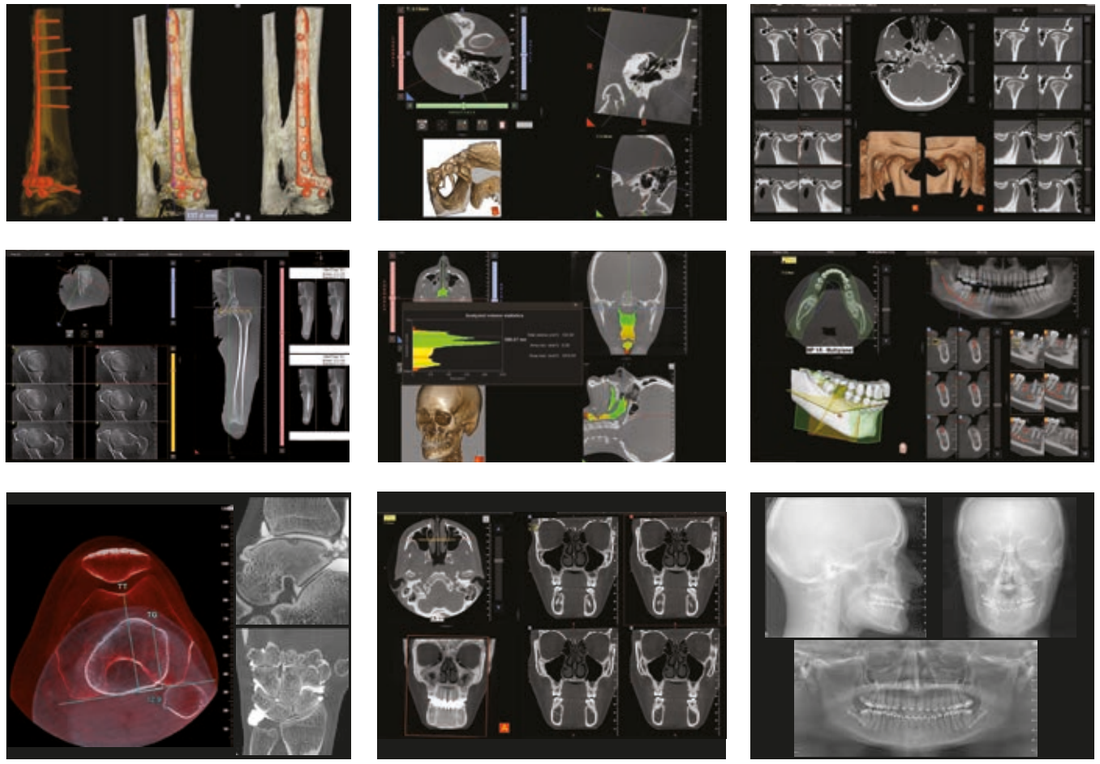
Osteo-articular study with multiplanar view.
In addition to shoulder, hip, spine, small bones and joints, NEWTOM7G is highly useful for assessing extremities.
If necessary, use a contrast agent; NEWTOM 7G also lets you investigate joints in motion. Advanced NNT software functions provide access to comprehensive reports.
A TT-TG analysis function is available for femur-patella pathology and trauma analysis.

OTORHINOLARYNGOLOGY

Ear and airways volume analysis.
Dynamic examination of the inner ear along non-orthogonal planes to diagnose diseases of the ossicular chain, stapes platina, semicircular canals, cochlea and adjacent structures. The lying down position aids airway investigation for sleep apnoea treatment while NNT software features a special instrument for complete volumetric assessment of the case.

DENTISTRY, IMPLANT AND ORTHOGNATHIC SURGERY

Dental-Maxillofacial and bilateral TMJ analysis.
Dual view and symmetric analysis of the temporomandibular joints.
The Sharp 2D function produces an image dataset consisting of Latero-Lateral and Antero-Posterior Panoramic and Teleradiography images; cephalometric studies and orthodontic rehabilitation work can be performed.
Maxillofacial surgery planning with implant simulation and post-op follow-up.



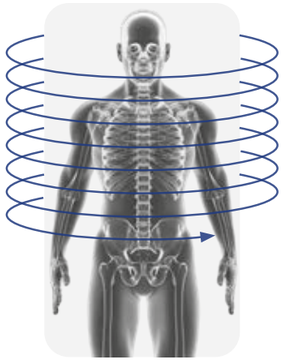
HI-TECH HIGH-END PERFORMANCE

Highly advanced biomedical imaging with new high-potential image chain.

NEWTOM CBCT generates ultra-high definition volumetric images with native isotropic voxel resolution, non-overlapping sections and fewer artifacts. Unlike the spiral fan beam scan typical of other MSCTs, a single cone beam scan increases image quality, contains the X-ray exposure area and reduces costs.

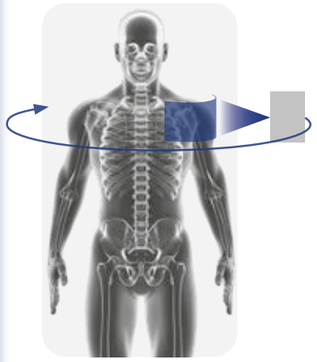
The high-power X-ray generator with rotating anode and small focal spot (0.3 mm) maximises performance and ensures emissions can always be adapted to specific needs. The large, latest-generation HD flat panel detector, with high signal/noise ratio, yields improved soft tissue display.
Innovative volumetric reconstruction algorithms and advanced filters minimise reconstruction times and optimise imaging.

MSCT



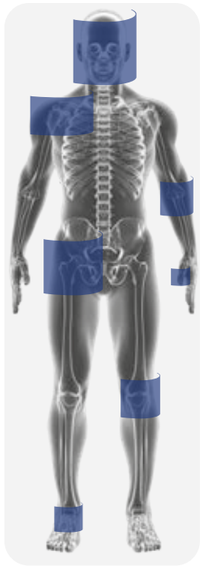
Fan beam,
greater irradiation.

CBCT



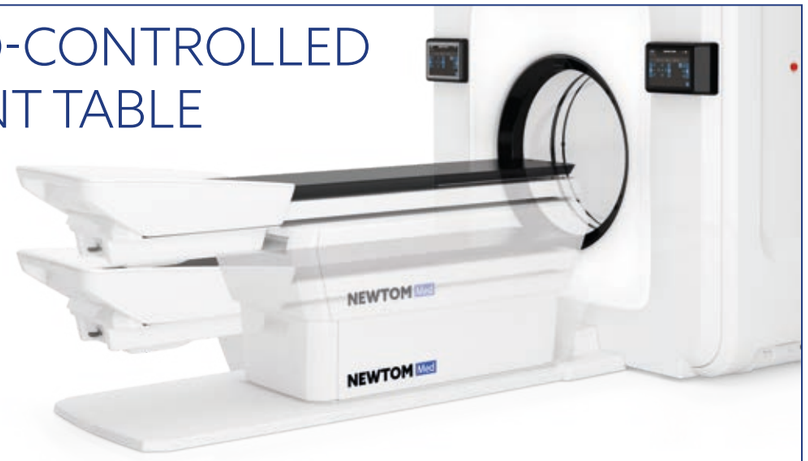
Cone beam,
less irradiation

MULTI-SCAN BODY



Allows investigation of the whole body, but exposure is limited to the specific area of interest.

SERVO-CONTROLLED PATIENT TABLE



The fully motorized patient table (Patent Pending) provides considerable excursion, the minimum height of 56.5 cm ensuring easy access at all times. Extremely precise three-dimensional table movement ensures perfect patient positioning patient with respect to each FOV. Maximum total load capacity is **215 kg**.

LARGE GANTRY

The large gantry opening increases the scope for diagnosis and makes positioning easier. Openings on both sides prevent patients from experiencing claustrophobia, while access from the rear also allows use by wheelchair patients. Furthermore, the advanced (Patented) kinematic system allows for complete, fast rotation.
The backlit gantry area provides soft lighting, making the time in the X-ray room more pleasant.

EXCELLENT POSITIONING

The prone or supine position is ideal for successful examination outcomes as it reduces the artifacts caused by patient movement;
it is particularly suitable for elderly persons with educed mobility and indispensable in the case of sedated or trauma patients.

TOTAL CONTROL

Automatic or manual exposure protocols for more accurate diagnosis.

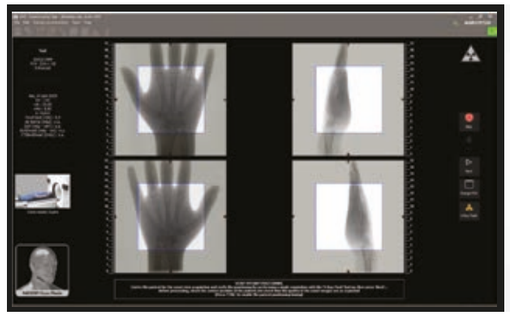
The consoles are positioned on the side of the machine and are always accessible during patient handling. The Multi-Scout Vision view with 4-image acquisition provides precise info on the patient to allow selection of the most suitable FOV or framing adjustment via the keypad.
With the virtual console function, users can also save personalised protocols for the different anatomical areas.

REMOTE MONITORING

Throughout the various stages of the examination, patients are monitored via the on-board video camera and an intercom establishes a reassuring line of direct communication that can also be used to give patients instructions when necessary.

CINE-SCOUT MODE

The 22" touch-screen can be used to control the examination flow and display anatomical structures in motion in real time. In Cine-Scout mode, then, it's possible to set up a sequential X-ray examination for dynamic analysis. X-ray emission is activated via an external, cable-linked foot control.



GUIDED ALIGNMENT

Laser guides simplify patient positioning, ensuring the area of interest is aligned perfectly. Multi-Scout Vision lets users observe the maximum field of view for each application from 4 perspectives before selecting the most suitable, more restricted FOV - properly aligned on the region of interest only - to further limit the X-ray dose.

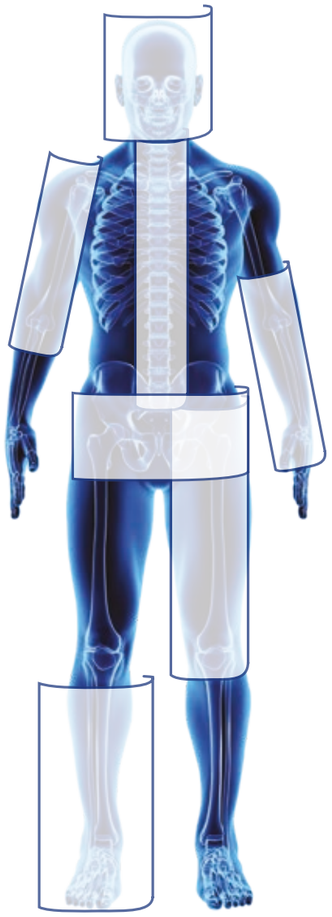
MULTI-CONSOLE TOUCH SCREENS

The 10" control touch-screens used to guide alignment and set up the examination are located on board the machine, making them easily accessible. A simple, user-friendly interface allows the examination type to be selected in just a few steps.
It's possible to choose a set-up that has from 2 to 4 consoles, with installation on both sides of the gantry, front or rear. Moreover, users can personalise the settings for each anatomical area.

A FOV FOR EVERY NEED

Select the most suitable FOVs, also for large anatomical areas.

NEWTOM 7G has 15 FOVs, extendable with eXtra Functions*.
Each one is associated with 4 protocols: Low Dose, Regular, Enhanced and Best Quality, ensuring X-ray doses are always proportionate to actual needs. The eXtra FOV function lets users perform bilateral examination of the hips, spine and lumbar area, also at high resolution.

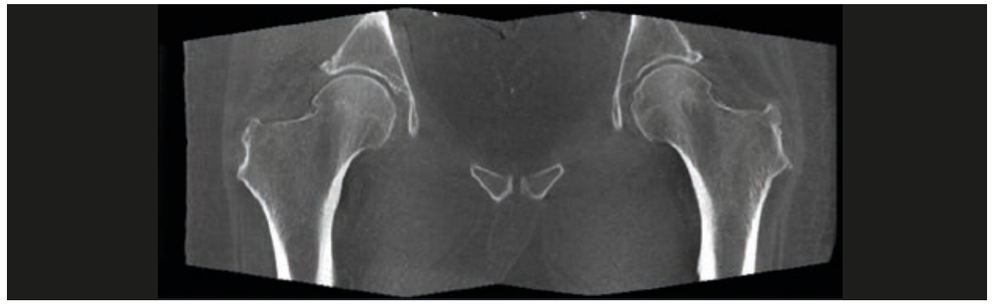


eXtra Functions

The eXtra FOV function lets users extend the field of view longitudinally to analyse anatomical structures such as the spine and limbs, up to 17x62 cm and 29x56 cm. It also allows broadening of the lateral field of view (up to 40 cm) to provide a more compete view of the pelvis. This is an automated protocol that, via patient table movement, groups together from 2 to 4 FOVs in sequence in a single exam. Multi-scan is automatic and can be modulated according to clinical requirements.

*optional

DUAL BILATERAL HIP EXAMINATION NEWTOM 7G system automatisms allow for acquisition of an extended FOV on the horizontal plane. Developed to acquire bilateral hip images, the NEWTOM 7G can capture a 40x17cm FOV. The horizontally extended FOV allows comparative assessment of hip bones via reconstruction into a single volume. The acquisition will therefore show a single volume on which users can modify the display plane to better adapt to clinical needs.



EXTENDED FOVs Thanks to synchronised movement of the patient table and X-ray chain, NEWTOM 7G allows the acquisition of extended FOVs on the vertical (longitudinal) plane. The length of the extended FOVs on this plane can be modulated: users can therefore select FOVs with lengths from 22 cm up to 62 cm. Extended FOVs allow better morphological assessment of long bones and extensive bone structures (e.g. spine). Thanks to the intrinsic advantages of CBCT technology, extended FOVs provide high performance even where metal prostheses are present, such as during surgical follow-up stages.

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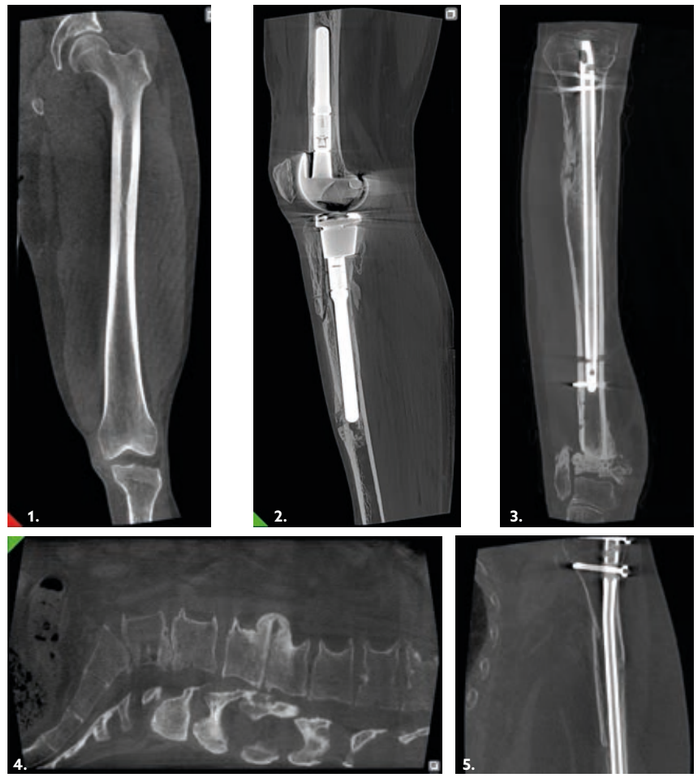


1. Complete femur
2. Knee osteosynthesis follow-up
3. Tibia osteosynthesis follow-up
4. Lumbosacral column
5. Humerus intra-articular pin

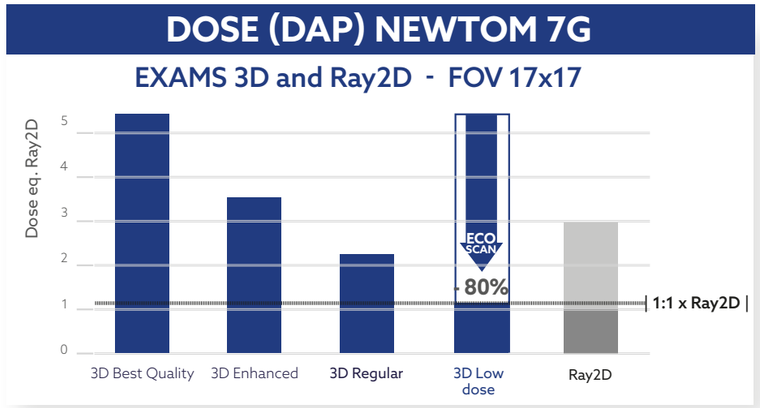
PATIENT PROTECTION AND CARE

Low X-ray doses, always proportionate to patient build and clinical requirements.

In the case of surgical follow-ups or paediatric tests, adaptive FOVs, Ultra Rapid scan mode or the ECO Low Dose scan can be used to reduce the X-ray dose.

Pulsed emission CBCT technology activates the X-ray source only when necessary, thus limiting exposure. Moreover, SafeBeam™ technology automatically adapts emissions to the patient's anatomical characteristics, eliminating any risk of overexposure. These features make it possible - in cases where it's necessary to assess the anatomical site from different perspectives - to obtain a regular volumetric tomographic image with a dose equivalent to two traditional X-rays.

Furthermore, radiologists can modulate emissions manually to reduce the dose further. Lastly, preliminary low dose Ray2D assessment can be performed.
If necessary, this can be followed by a high resolution 3D examination, limited to the area of interest, for in-depth diagnostics.



ADAPTIVE LOW DOSE CBCT NEWTOM 7G is equipped with four 3D protocols that let you adapt the X-ray dose to actual diagnostic needs. With the Low Dose protocol, the X-ray dose can be reduced by up to 80%: the equivalent of a Ray2D radiograph with the same field of view.

3D LOW DOSE
The NEWTOM 7G CBCT Low Dose protocol reduces scan times to as little as 7.2 s, with a beam emission time of just 1.4 s.
This ultra-fast ECO scan mode is ideal for reducing the X-ray dose (e.g. post-operative checks and paediatric applications).

ADAPTIVE EXPOSURE CONTROL
SafeBeam™ technology automatically adapts CBCT and CineX emission parameters to the framed anatomical area and adapts dose to patient build (both adult and child).

2D RADIOGRAPHY
The Ray2D function lets users perform 2D X-ray examinations with a 30x30 detector on various areas from multiple projection angles, selectable at 5° intervals.
Exposure parameters (kV e mAs), and therefore the dose, can be adapted to effective requirements.

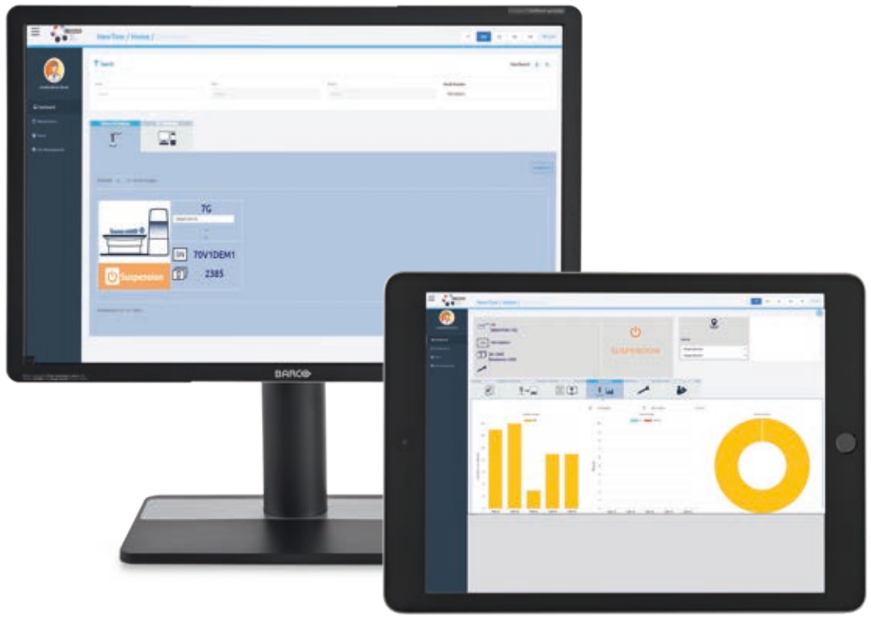
ADAPTIVE FOVs
The NEWTOM (Beam Limited Patented) collimation system can be used to obtain modular FOVs and precision-select the area to be exposed for CBCT examinations. This permits a lower X-ray dose, especially in paediatric applications.

TILT-ADJUSTABLE HEAD SUPPORT
The carbon fibre headrest (Patent Pending) for Head & Neck examinations can be angled at up to 45°. The tilt allows the head to be positioned in a way that perfectly frames the ear and, consequently, reduces irradiation of the lens by a factor of 6 to 7 compared to the same examination without head support. Lastly, patient comfort is ensured by a soft cushion.

WORKING ON-LINE

Improved efficiency thanks to remote sharing, monitoring and maintenance systems.

NNT software is equipped with advanced functions that let users share reports with colleagues, labs and hospitals, making it ideal for multidisciplinary treatment and orthopaedic implant planning.
What's more, thanks to the Di.V.A. and Easy Check services offered by NEWTOM, the system undergoes constant monitoring.
This, in turn, lets users plan maintenance, optimise usage times and receive remote assistance.



CONTINUOUS MONITORING

Di.V.A. (the 'Digital Virtual Assistant') automatically processes usage data and statistics so that workloads and maintenance tasks can be scheduled accordingly.
The Easy Check tool also ensures continuous remote technical monitoring, facilitating maintenance scheduling and providing early resolution of any issues.

AN OPEN, INTERFACEABLE SYSTEM

NNT is an open system that offers plenty of scope for sharing and storage.

This characteristic makes NEWTOM 7G not just a diagnostic device but a tool that can integrate into treatment and surgery planning. It can, in fact, dialogue with specialist third party software such as software for the development of prostheses, surgical templates and implants.
Use of the DICOM standard means it can dialogue with the RIS and PACS systems used in hospitals, specialist clinics and X-ray centres.
Moreover, it can access cloud-based X-ray report services.
A free NNT Viewer can be provided to patients and colleagues alike to display X-ray images.
Lastly, NNT is compatible with the MAC platform via Paralles Desktop.
All in compliance with privacy protection standards.

COMPLETE CONNECTIVITY

Excellent connectivity and integration with the modern systems adopted by NEWTOM. Workflow and clinical and diagnostic activities become much easier and highly performing.

Di.V.A. AND EASY CHECK
To ensure maximised workflow smoothness, the Di.V.A. digital virtual assistant provides data and usage statistics to plan workloads and maintenance. The Easy Check tool also ensures continuous remote technical monitoring, to facilitate maintenance scheduling and anticipate the resolution of any critical issues.

INDUSTRY 4.0

in according to
EN ISO/IEC 17065:2012

NNT: CERTIFIED SOFTWARE

NNT has been granted the ISDP© 10003 international scheme for data protection certification, to assess compliance with the European Regulation 2016/679 concerning the protection of individuals with regard to the processing of personal data.

VIRTUAL CONSOLE

The required X-ray settings can be conveniently managed on the machine via a 10" multi-console and/or 22" touch-screen. They can also be managed remotely via a virtual control panel for PCs.

REMOTE ASSISTANCE AND I.O.T.

By connecting the device to the Internet, it is possible to carry out remote technical assistance and monitor operation with Di.V.A. and Easy Check from an I.o.T. perspective. The device will send information on its own performance and any critical issues.

INFORMATION SYSTEMS

RIS/PACS
IHE compliant system that allows communication with RIS/PACS systems and DICOM printers. Complete services available: Print, Worklist, Storage Commitment, MPPS and Query/Retrieve.

SURGERY MANAGEMENT SOFTWARE
An open system designed for fast, efficient interfacing with the main veterinary clinic management software applications via standard (VDDS, TWAIN) and/or proprietary (NNTBridge) modes.

NNT REPORTS

1:1 PRINT
Complete and flexible report for storing and sharing colour reports on photographic paper or grey scale reports on X-ray-equivalent transparencies.

3D/2D VIEWER
Examinations can be shared with colleagues and animal owners by providing the Viewer programme directly on CD, DVD or a USB storage device.

SURGERY TREATMENT SYSTEMS

SPECIALIST SOFTWARE
Volumetric and 2-dimensional images, like videos processed with the CineX function - which are compatible with DICOM 3.0 (IHE) standard - can easily be shared via the NNT Viewer or printed in 1:1 scale.

3D PRINTERS AND MILLING MACHINES
Software modules are available to segment the reconstructed volume and export the surfaces needed to create 3D models (which can underpin planning and treatment) to STL format.

3D OPTICAL SCAN
Prosthetically guided planning thanks to integration (via the dedicated software module) of STL format data from optical, intraoral or laboratory scanners with volumetric data.

NNT 2D/3D IMAGE MANAGEMENT

OTHER ACQUISITION DEVICES
Compatibility with TWAIN and DICOM 3.0 standards guarantees NNT software management of images from other 2D/3D image acquisition devices, such as video cameras, sensors, PSP and CBCT scanners.

MULTI-STATION DISPLAY AND PROCESSING
Image storage on a shared database in a local network that can be accessed from any workstation and iPad (only 2D). Management of multiple archives and access to password-protected data.

X-RAY SOURCE

Type	High frequency generator (constant potential DC), rotating-anode X-ray tube 20 kW (Rated Power)
Focal spot	0.3 mm - 0.6 mm (IEC 60336)
Total Filtration	21 mm Al eq. @ 70kV (of which inherent Filtration 1 mm Al eq). @ 70kV)
Anode Voltage	70 - 120 kV (selectable in 10 kV steps)
Anode Current	Focal spot 0.3 mm → 5 - 54 mA (selectable in 1 mA steps) Focal spot 0.6 mm → 55 - 120 mA*(selectable in 1 mA steps) *The max kV available for use may vary according to mA
Maximum continuous anode input power	120W (120kV; 5mA; 8ms; 17x17; REGULAR)

DETECTOR

Technology	Amorphous silicon flat panel (CsI)
Pixel Size	154 µm
Dynamic range	16 bit (65,536 grey levels)

3D IMAGE ACQUISITION

Anatomical regions under diagnostic investigation Adult - Child	Head neck: dental-maxillofacial complex, teeth, upper and lower jaws, temporo-mandibular joint (TMJ), ear, nose and throat (ENT), cervical spine. Body: sections of the spine, upper limbs including the shoulder, lower limbs including the hip.			
Scan technology	Cone Beam TC - Partial or complete rotation (360°)			
Exposure control	• Manual mode: parameter selection (± 10 kV, ± 1 mA) • Automatic SafeBeam™ mode adapts exposure factors on the basis of patient build and the anatomical area			
Scan protocols - for each FOV	Low Dose (ECO)	Regular	Enhanced	Best Quality
Scan times	7.2 s - 10 s	14.4 s	14.4 s - 18 s	19.2 s - 26 s
Emission times	1.4 s - 4.6 s	2.8 s - 6.1 s	2.8 s - 6.1 s	3.8 s - 8.8 s
CBCT EXAMS	BODY VERSION		BODY PLUS VERSION	
ADAPTIVE FOV (ϕ) x (H)	INCLUDE		ADD	eXtra Functions
*eXtra extended FOVs	17 x 32* cm	13 x 12 cm	29 x 30* cm	29 x 56* cm
	17 x 22* cm	13 x 8 cm	29 x 17 cm	29 x 43* cm
	17 x 17 cm	13 x 6 cm	29 x 12 cm	21 x 56* cm
	17 x 12 cm	10 x 10 cm	24 x 30* cm	21 x 43* cm
	13 x 32* cm	8 x 8 cm	24 x 17 cm	17 x 62* cm
	13 x 17 cm	8 x 6 cm	21 x 30* cm	17 x 47* cm
	15 x 6 cm	6 x 6 cm	21 x 17 cm	13 x 62* cm
	-	4 x 4 cm	-	13 x 47* cm
				40* x 17 cm
Voxel Size resolution	Variable according to used scan protocol (from 90 µm to 500 µm)			
Reconstruction time	Less than 1 minute			

2D IMAGE ACQUISITION

FUNCTIONS	Ray2D	CineX	Cine-Scout
Type	Single Shot X-ray for static analysis	Multi-Shot X-ray, variable duration for dynamic analysis	
Info	Equivalent to a Scout View	Remote execution with repositioning scout image	Examination start and display on board machine via foot control and monitor
Source-Detector distance	Fixed 980 mm		
Projection angle	Variable ±5° (position can be selected by user)		
Transparency size (FOV on patient)	30 cm x 30 cm (17 cm x 17 cm)		
Scan time	0.015 - 0.6 s	1-36 s @ 25fps	1-36 s @ 12fps
Emission time	0.015 - 0.6 s	0.25 - 9 s	0.18 - 6.48 s
Automatic exposure control	Manual parameter selection (± 10 kV, ± 1 mA, ±Δt ExposureTime)	Automatic SafeBeam™	Manual parameter selection (± 10 kV, ± 1 mA, ±Δt ExposureTime)
Maximum X-ray load	72 mAs	777 mAs	
Image format	DICOM or JPEG	DICOM / AVI	DICOM / AVI

POWER SUPPLY

Voltage | Frequency	230 V ~ (± 10%) | 50/60 Hz (± 1%)
Maximum power absorption	16 A
Absorbed current	2 A (stand by)
Notes	Power supply values other than those indicated require the use of an adapter/converter (not supplied)

ERGONOMICS

Large gantry	Aperture 77 cm (30″)
On-machine console	2 or 4 10" full touch screens that can be positioned right or left, front or rear
Examination selection	Protocols can be personalised via the on-machine console or from a PC workstation
Patient table	220 cm long, 45 cm wide (with soft folding mattress)
Patient table load capacity	215 kg (200 kg patient + 15 kg accessories)
Patient positioning	Examinations can be performed with the patient lying down or seated at the rear with position selection from console (Prone or Supine; Decubitus Right or Left; with Head or Feet facing forwards)
Patient Alignment	Servo-assisted + 3 Laser guides (Class 1 - IEC 60825-1) - 3D: 4x Scout View; XF Pack: 4x Scout view - CineX: 1 ScoutView
Patient positioning	Soft head cushion and stability bands plus other dedicated radio-transparent supports Head rest can be adjusted from 0 to 45°, with carbon fibre support and cushion
Adjustments	3-axis, 2-speed powered patient table: control on board machine. Longitudinal excursion: 0 cm - 148 cm | Vertical: 57.5 cm - 88 cm | Lateral: -10.8cm - +10.8 cm
Other functions	Patient monitoring system with video cameras and intercom to observe and communicate from the remote workstation
User interface software	Multi-Language: Italian, English, French, German, Spanish, Portuguese, Greek, Polish, Finnish, Swedish, Dutch, Czech, Bulgarian, Hungarian, Turkish, Lithuanian, Ukrainian, Russian, Chinese

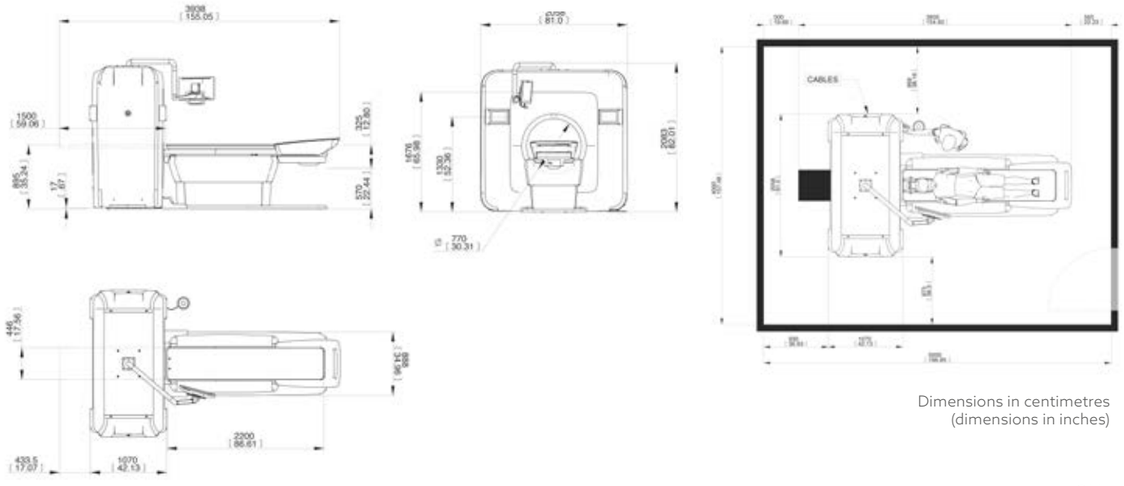
CONNECTIVITY

Connections	LAN / Ethernet
Software	NEWTOM NNT (compliant with ISDP®10003:2020 in accordance with EN ISO/IEC17065:2012 - certificate number 2019003109-2) and iPad NNT viewer app (free), STL (RealGUIDE)
Supported protocols	DICOM 3.0, TWAIN, VDDS, CLOUD sharing (RealGUIDE)
DICOM nodes	IHE compliant (Print; Storage Commitment; SR document; WorkList MPPS; Query/Retrieve)
IOT - Remote Monitoring	Di.V.A. WEB-based applications & Easy Check with profiled user access (ISDP®10003:2020 compliant in accordance with EN ISO/IEC 17065:2012 certificate number 2020003704-2)

INSTALLATION REQUIREMENTS

COMPOSITION	SCANNING UNITS	PATIENT TABLE
Maximum dimensions (L x D x H) complete with optional components	2050 mm x 1070 mm x 2083 mm - (80,7″ x 42″ x 82″)	2200 mm x 888 mm x 895 mm - (86,6″ x 34,9″ x 35,2″)
Package dimensions (L x D x H)	2200 mm x 1417 mm x 2207 mm - (87″ x 56″ x 87″)	2450 mm x 1130 mm x 1100 mm - (96,5″ x 44,5″ x 43,5″)
Weight with packaging	1020 kg (2249 lb)	590 kg (1300 lb)
Accessories	Cine-Scout Pack (monitor and foot control for on-machine emissions confirmation)	
Minimum space requirement (L x D)	Footprint: 3938 mm x 2050 mm (155″ x 80.7 ″) Room: 5000 mm x 4000 mm (lateral access to device required for assistance)	
Total weight of installed device complete with optional components	1050 kg (2315 lb) exerted on the footprint area stated above	

Specifications subject to change without prior notice.



Dimensions in centimetres
(dimensions in inches)

NEWTOM
CONE BEAM 3D IMAGING

cefla
Making Your Life Better.

07/2025 N7GGB251S00

BU MEDICAL EQUIPMENT

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