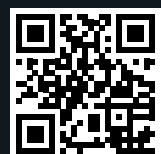


Cone Beam 3D Imaging
NewTom
what's next

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According to the standards in force, in extra-EU areas the availability and specifications of some products and/or characteristics may vary. Please contact your local distributor for further information. Pictures are for illustration purpose only.

NewTom GO COMPLETE.VISION

2D/3D CEPH INTEGRATED IMAGING



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VERSATILE AND PRECISE.

High quality images that meet a wide range of clinical diagnostic needs, all in one compact device.

GO 2D/3D CEPH able to provide high resolution images, the platform prioritises patient health thanks to low exposure protocols and exclusive SafeBeam™ technology, which lets users adapt the dose to their actual diagnostic needs and the size of the examined anatomical area.

Excellent ergonomics and an adaptive alignment system ensure correct positioning of the patient and perfect focusing for clear, detailed images. A virtual control panel guides the operator through each stage of the examination. NNT is the technologically advanced software platform to manage, process, consult and share diagnostic images.



BROAD DIAGNOSTIC POTENTIAL

A combination of device versatility and NewTom solutions designed to meet every diagnostic need broaden the opportunities available to the surgery.



ACCESSIBLE TECHNOLOGY

Guided procedures and smart automatic features have made this sophisticated technology available to all.



MINIMUM X-RAY DOSE

ECO Dose functions and SafeBeam™ technology, which automatically adapts to the dose radiated to the patient, put patient safety above all else.



MAXIMUM CONNECTIVITY

Acquired X-ray images can easily be stored, exported and shared with specialist third party software.

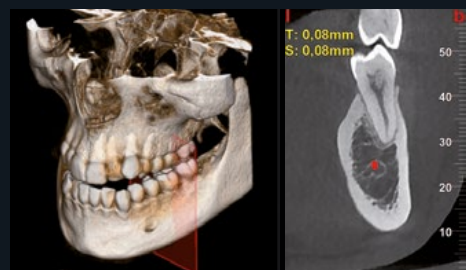


OUTSTANDING TECHNOLOGY.

Comprehensive NewTom CBCT technology combines with excellent 2D functions to provide reliable diagnosis.

Thanks to CBCT technology - first introduced to the dental industry by NewTom - GO provides extremely useful high definition (80 μ m) diagnostics data, obtained with just one scan to minimise X-ray exposure. The field of view is defined according to diagnostic requirements and ranges from a minimum of 6 x 6 cm to a maximum of 10 x 10 cm.

2D images are available with multiple advanced-function protocols that let dentists obtain precise data; once again, every precaution is taken to safeguard patient health (e.g. smart collimation and fast scans).



HiRes 3D provides ultra-high definition images with a voxel size of 80 μ m. This function is essential for an in-depth study of anatomical details. It is also available with the maximum 10 x 10 cm FOV and in combination with the ECO Scan protocol.



Without any increase in dose, a single scan in the exclusive MultiPAN mode can generate a set of 5 panoramic images corresponding to five different focal planes. Operators can choose the most suitable one for their specific diagnostic needs. Moreover, the PAN ORTHO function captures the dental arch image orthogonally to better highlight interproximal spaces and the entire root structure without any overlap.



Integration of the teleradiographic arm extends the diagnostic capacity of GO 2D/3D to cephalometric examinations. The compact arm, complete with dedicated CEPH sensor, has long and short head support rods to make positioning of adults and children easier. Collimation systems and fast scans minimise X-ray doses.



AUTOMATIC AND ERGONOMIC.

Solutions developed to maximise examination quality, from positioning systems to automated collimation.

To ensure accurate diagnoses in every situation it is vital to observe procedures that ensure images are always sharp and clear. GO 2D/3D has a single native 16-bit sensor that produces 2D and 3D images with thousands of grey levels. Image quality is ensured by advanced algorithms and protocols and by high-tech image sequencing. The high frequency, pulsed-emission generator adjusts exposure to obtain the best scans with a minimum dose.

Moreover, the cephalometric exam collimation system is based on automatic movement of the turret, which rotates and lowers the sensor, creating an opening for the X-rays directed at the 2D sensor on the teleradiographic arm.



With its five contact points, the 3D scan head support helps staff position the patient correctly and comfortably. Frontal and lateral contact points can be adjusted to maximise both patient stability during the scan and, consequently, the quality of the obtained data.

A specific protocol allows for tomographic scans of radiological templates, prostheses, models or impressions after they have been positioned on a special support.



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.

VIRTUAL CONSOLE

Settings required for acquisition can be easily controlled from a remote virtual control panel on the PC, laptop, Windows tablet or iPad.

REMOTE ASSISTANCE

By appropriately configuring the device to use the surgery's Internet connection, technical support can be provided from remote, and device status can be monitored.

3D/2D VIEWER

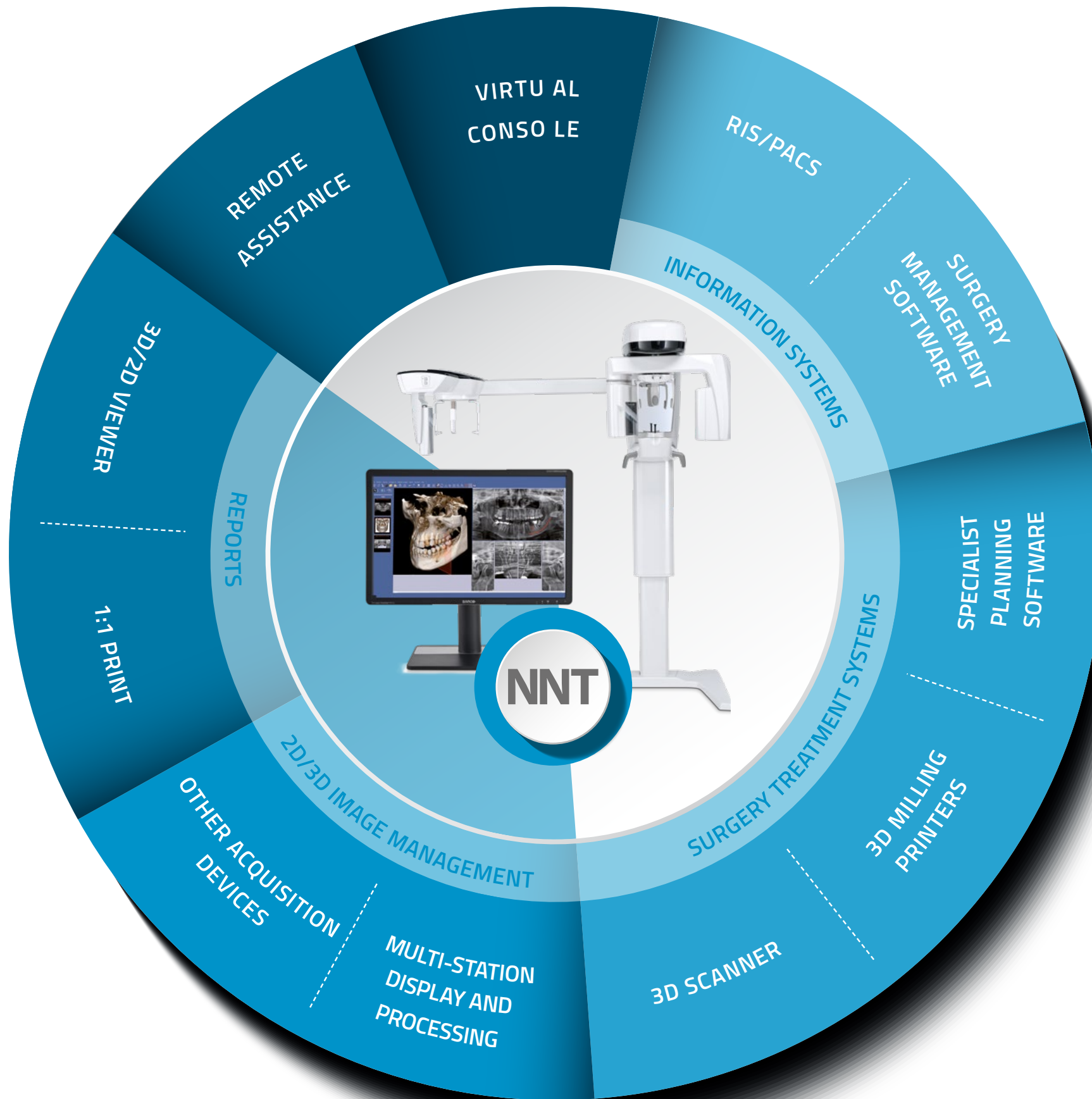
Examinations can be shared with colleagues and patients by providing the Viewer directly on CD, DVD or a USB storage device.

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.

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.



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 dental surgery management software solutions via various standard VDDS, TWAIN and/or proprietary NNTBridge modes.

SPECIALIST PLANNING SOFTWARE

Exports in DICOM 3.0 format to specialist planning software to process orthodontic treatments, prostheses, implants, orthognathic and maxillofacial surgery.

3D MILLING PRINTERS

Software modules are available to segment the reconstructed volume and export to STL format the surfaces required to create 3D models that can underpin planning and treatment.

3D SCANNER

Prosthetically guided planning by integrating (via the dedicated software module) data in STL format from optical, intraoral or laboratory scanners, with volumetric data.

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.

TECHNICAL SPECIFICATIONS.

Images	2D	3D
Type	Complete or partial adult and child panoramic*, QuickPAN Orthogonal Panoramic, MultiPAN, Dentition, Bitewing*, Frontal and Lateral (right and left) maxillary sinuses, Temporomandibular Joint (2 x Lateral + 2 x Frontal) open and closed mouth. AP-PA, LL Standard, Long, Quick, Carpal teleradiography.	Complete examination of the 2 arches in a single scan for adults and children (reduced collimation). Studies of the maxillary region with maxillary sinuses. Studies localized to region of interest.
Maximum resolution (MTF ₁₀)	PAN: 5 LP/mm CEPH: 3 LP/mm	Best quality: ≥ 2 LP/mm Voxel 80 µm (minimum section thickness)
Field of view (mm)	PAN: 210 (length) x 115 (height) CEPH: 258 (length) x 194 (height) PAN Child: 180 (length) x 100 (height) Dentition: 140 (length) x 10 (height) Bitewing: 167 (length) x 70 (height)	DENT and SIN: 100 (diameter) x 100 (height) 100 (diameter) x 70 (height) 100 (diameter) x 60 (height) 80 (diameter) x 70 (height) 80 (diameter) x 60 (height) 80 (diameter) x 100 (height) 60 (diameter) x 70 (height) 60 (diameter) x 60 (height)
Maximum image data dimensions	PAN: 7.5 MB (single image) CEPH: 14 MB	720 MB
Magnification	PAN 1.2 - 1.3 CEPH 1.13	1 to 1 (Isotropic voxel)
Scan time	PAN: 13.8 s (ORTO), 12.3s (STD.), 6.8s (ECO) CEPH: 9.9 s (STD); 3.7s (ECO)	BEST QUALITY: 16.8s (High Resolution) REGULAR: 11.2s (Standard) ECO: 6.4s (Low Dose)
Estimate of typical effective dose (ICRP 103)	PAN: 5 - 9 µSv	FOV: 10x10 35 µSv (Voxel 160 µm) - 80 µSv (Voxel 80 µm) FOV: 6x6 9 µSv (Voxel 160 µm) - 27 µSv (Voxel 80 µm)
Minimum image display times	RealTime	15 s
Advanced filters	aPAN (Auto adaptive PAN) ApT (Autoadaptive Picture Treatments)	aMAR (Autoadaptive Metal Artifact Removal)

3D PAN & 3D PAN-CEPH	X-RAY GENERATOR
Focal spot	0.6 mm (IEC 60336)
Anode voltage	2D mode: 60 kV – 85 kV continuous emission 3D mode: 90 kV (Pulsed mode)
Inherent filtration	2D > 2,5 mm Al eq. (at 85 kV) 3D 6 mm Al eq. (at 90 kV)
Generator type	Constant potential (DC)
Anode current	4 mA - 15 mA
Exposure control	SafeBeam™
Maximum continuous anode input power	42 W (1:20 at 85 kV/10 mA)
Embedded X-ray shielding behind receptor	IEC60601-1-3 compliant

DETECTOR		
Function	3D et PAN	CEPH
Type	Amorphous Silicon (CSI)	CMOS (Csi)
Dynamic range	16bit (65,535 grey levels)	14bit (16,383 grey levels)

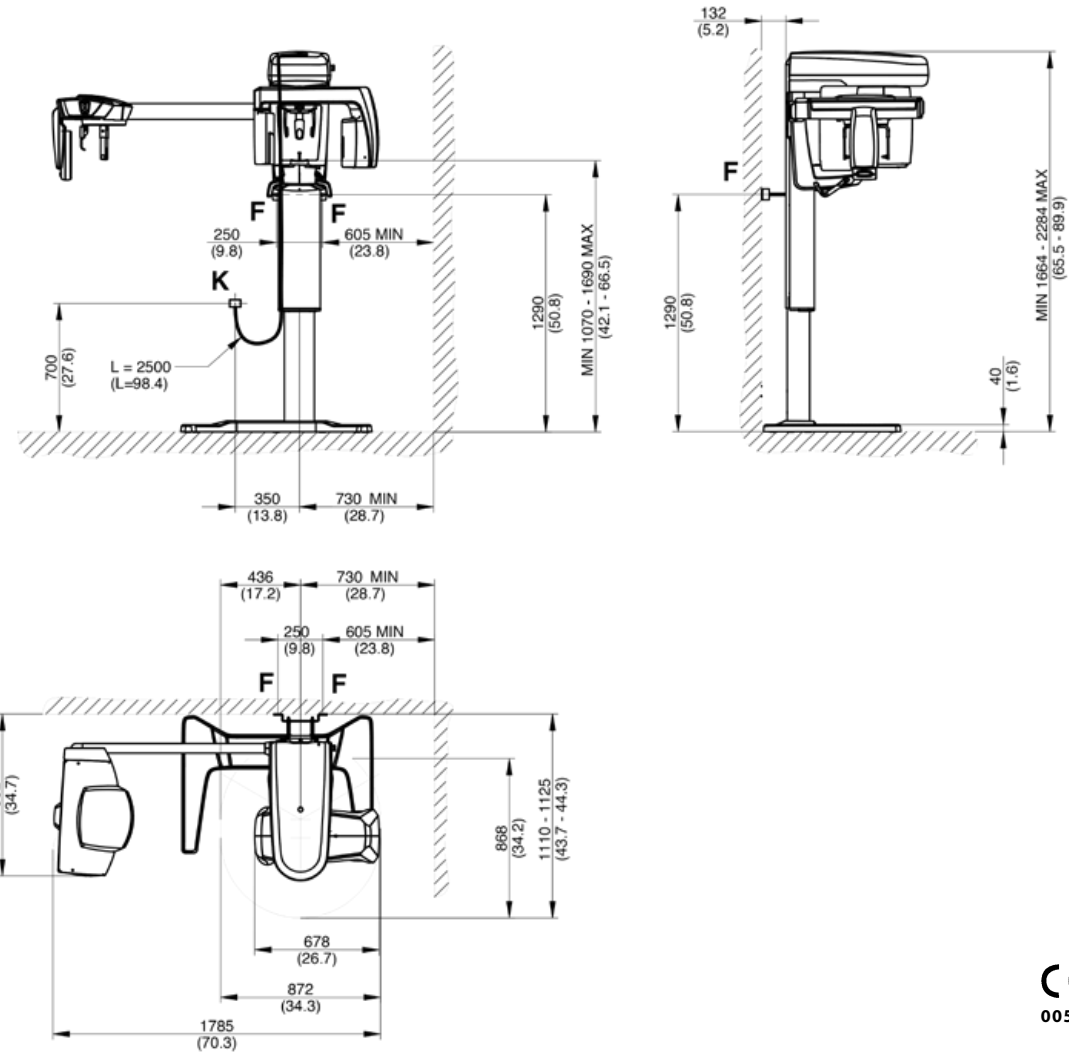
ERGONOMICS	
Examination selection	Procedure guided from virtual control panel on PC and/or iPad
Patient positioning	Suggestion from virtual control panel - Servo-assisted alignment, 3 laser guides (3D Scout View)
Patient positioning	5 contact point, adjustable 3D/2D version right/left
Adjustments	2-speed height adjustment drive Keypad on machine and/or iPad app Servo-assisted alignment: Keypad on machine or remote control (via Scout View)
Other functions	Multilingual, parking position, remote control
Notes	Easy access for patients in wheelchairs

CONNECTIVITY	
Connections	LAN / Ethernet
Software	NewTom NNT and App iPad NNTviewer (Free)
Supported protocols	DICOM 3.0, TWAIN, VDDS
DICOM nodes	IHE compliant (Print; Storage Commitment; WorkList MPPS; Query Retrieve)
App iPad	Virtual control panel for the device and the NNT 2D viewer

INSTALLATION	
Minimum space requirement (L x D)	CEPH version: 1785 mm x 1030 mm
Package dimensions (L) x (P) x (H) in mm	Box1: 930 x 690 x 960 (Machine Base) Box2: 1860 x 355 x 350 (Column on the ground) Box3: 575 x 1275 x 380 (Teleradiographic Arm)
Weight	3D/2D version: 93.5 Kg (251 lb) + CEPH: 21 kg (46 lb)
Accessories	Free standing base

POWER SUPPLY	
Voltage Frequency	115 – 240 V single-phase 50 / 60 Hz
Maximum absorbed surge current	20 A at 115 V; 12 A at 240 V
Current absorption in standby mode	Maximum 0.5 A (240 V); 1 A (115 V)
Notes	Automatic adaptation for voltage and frequency

Specifications subject to change without prior notice.



Dimensions in millimeters
(dimensions in inches)

