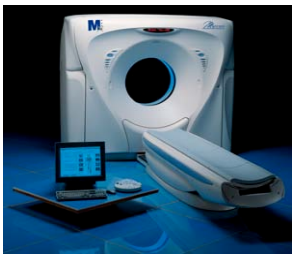
Mx - 8000 Quad Ultrafast CT System

Manufacturer: PHILIPS
Model: MX-8000 (4 slices) fully refurbished!



The Mx 8000 is a high power, ultrahigh resolution premium volumetric CT scanner. It is built on an UltraFast (0.5 sec.), multi-slice platform providing comprehensive clinical solutions in CT at a significantly lower operation cost.

Mx 8000 with breakthrough True Capture Technologies (TCT™). It includes:

- Up to 100 seconds of continuous multi-slice spiral capability
- 0.5 second full 360° scan time Temporal resolution as low as 450 msec
- Patented DFS sampling providing the worlds highest in-plane resolution - 24 lp/cm
- SlimScan: 0.5 mm slice thickness providing isotropic imaging, e.g. the same resolution in the axial, coronal or sagittal plane
- Ultra fast,(0.85 Sec)Sub second axial and spiral reconstruction package

Built with over a decade of multi-slice experience, Mx 8000's proprietary spiral interpolation and reconstruction techniques increase multi-slice coverage while maintaining image quality.
ESP II (Easy Scan Planning) software with specialized viewing modes is specifically designed for multi-slice workflow and virtually eliminates technologist learning curves, providing the ultimate productivity tool and gateway to new CT applications.

Mx 8000 System components include:

Gantry, patient table, power distribution cabinet, cooling unit, Mx 8000 operating, viewing and processing console, High-speed computing and display system

Key System Highlights:

- UltraFast, MultiSlice, Spiral Scanner by design
- Asymmetrix™ - Picker Patented variable wide area detector providing optimal dose efficiency
- Excellerator™ 200 Mbit/second Ultrahigh speed multi-slice data acquisition system
- On-board 60 kW, high frequency, high-voltage generator
- Low-voltage Slip-Ring
- 6.5 MHU high power X-ray tube
- Dynamic Focus System (DFS) doubles data density providing up to 24 lp/cm ultra-high spatial resolution, in axial and spiral scanning
- SubSecond scan mode: 0.5 sec for full 360° scan
- 17.2 GB raw data storage memory
- 0.85 sec reconstruction time for a large FOV image
- Reconstruction matrices of 340, 512, 768 and 1024
- Powerful Silicon Graphics R5000SC RISC host computer with multitasking graphic

user interface and ESP II Software
- 20", high resolution,1280 x 1024 color monitor
- Patient couch with 1570 mm scannable range
- Gantry and table controls conveniently located on both sides of the gantry and on the operator console
- Large 50 cm field-of-view (FOV) inside a wide, flared
- 70 cm aperture
- Multiple-Slice sequential axial scanning of up to 4 simultaneous slices
- Multiple-Slice, volumetric spiral scanning: up to 100 sec continuous, multiple and bi-directional acquisitions.
- 80 cm spiral coverage in one 30 sec. breathold with 0.5 mm slice thickness
- Real-time image processing: Zoom & Pan, Cine, Multiformat and Image Graphics
- DICOM 3.0 compliant image format, archive and networking
- ESP II Software packages and software license

Additional Software options:

- Master look
- Bolus Pro Ultra
- Evolving imaging
- Prospective gating package
- UHR reconstruction matrices
- PDQR sub-sec reconstruction

MxView Diagnostic workstation

The MxView independent multimodality diagnostic workstation provides quick processing, analysis, manipulation, display, filming, storage and retrieval of images from different imaging modalities.

MxView features:

- Cutting-edge clinical image processing
- Real time and user-friendly operation
- Universal connectivity
- Full DICOM 3.0 compliance
- Standard Unix-based workstation
- Windows-like, mouse driven user-interface
- Fast Silicon Graphics workstation based on a RISC processor
- 320 MB basic memory with optional expansion to 1 GB RAM
- 1280 x 1024 pixels display on a high resolution color monitor
- 9.0 GB hard-disk for storage of up to 37,000 (512 x 512 matrix) images (CT9229)
- Basic monochrome and color DICOM print capability
- Post-processing and enhanced clinical applications:
- Real-time multiplanar Reformatting (MPR) of images into any user-defined linear or curved planes
- 3D SSD (Shaded Surface Display) of up to 15 separate tissues or organs with real-time manipulations and cutting (optional)
- Real-time CT and MR Angiography including MPR curved cuts along vascular structures (optional)
- VOYAGER-Virtual Endoscopy to provide an interactive exploration of patient anatomy from inside (optional)
- 4D-Angio Volume Rendering to reproduce the whole tissues and organs volume (optional)
- MasterMatch -Image fusion for 3D co-registration of studies taken by different modalities or by same modality at different times (optional)

- Dental CT for producing panoramic and cross-sectional cuts through the Mandible or Maxilla from CT images (optional)
- Time Lapse application for graphic display of MRI or CT pixel values vs. time to analyze the uptake and perfusion of contrast media with time

COMPUTER AND DISPLAY
- System Computer - Unix -based RISC computer
- Main Memory - 320 MB RAM
- Operating System - Unix system
- Mouse-driven Windows-like graphic interface
- Display monitor - 1280 x 1024 pixels, 120 Mhz bandwidth, non interlaced
- 20" high resolution color display monitor
- Gray levels and colors - 256 gray levels and up to 16 million colors