

## NEUSOFT MEDICAL SYSTEMS



### Neusoft Medical Systems

Neusoft Park, Hunnan Industrial Area, New & High-Tech  
Development Zone Shenyang 110179, P.R.China  
Tel: (86 24) 8366 7009 Fax: (86 24) 2378 2797  
E-mail: [neumedical@neusoft.com](mailto:neumedical@neusoft.com)  
[medical.neusoft.com/en](http://medical.neusoft.com/en)

### NeuViz Dual Dual-slice CT Scanner System



**Neusoft**<sup>®</sup>  
Beyond Technology™



## Dual-slice CT Scanner System

Are you planning to compromise the quality of your service to your patient due to limited budget or poor return on investment for expensive CT scanner?

Do you have any choice other than strip down or refurbished CT scanner?

Without compromise on performance and functionality, NeuViz Dual offers you large bore gantry, powerful generator, and plenty of application packages, just a full fletch scanner which delivers top quality images and meets all your daily clinical needs.

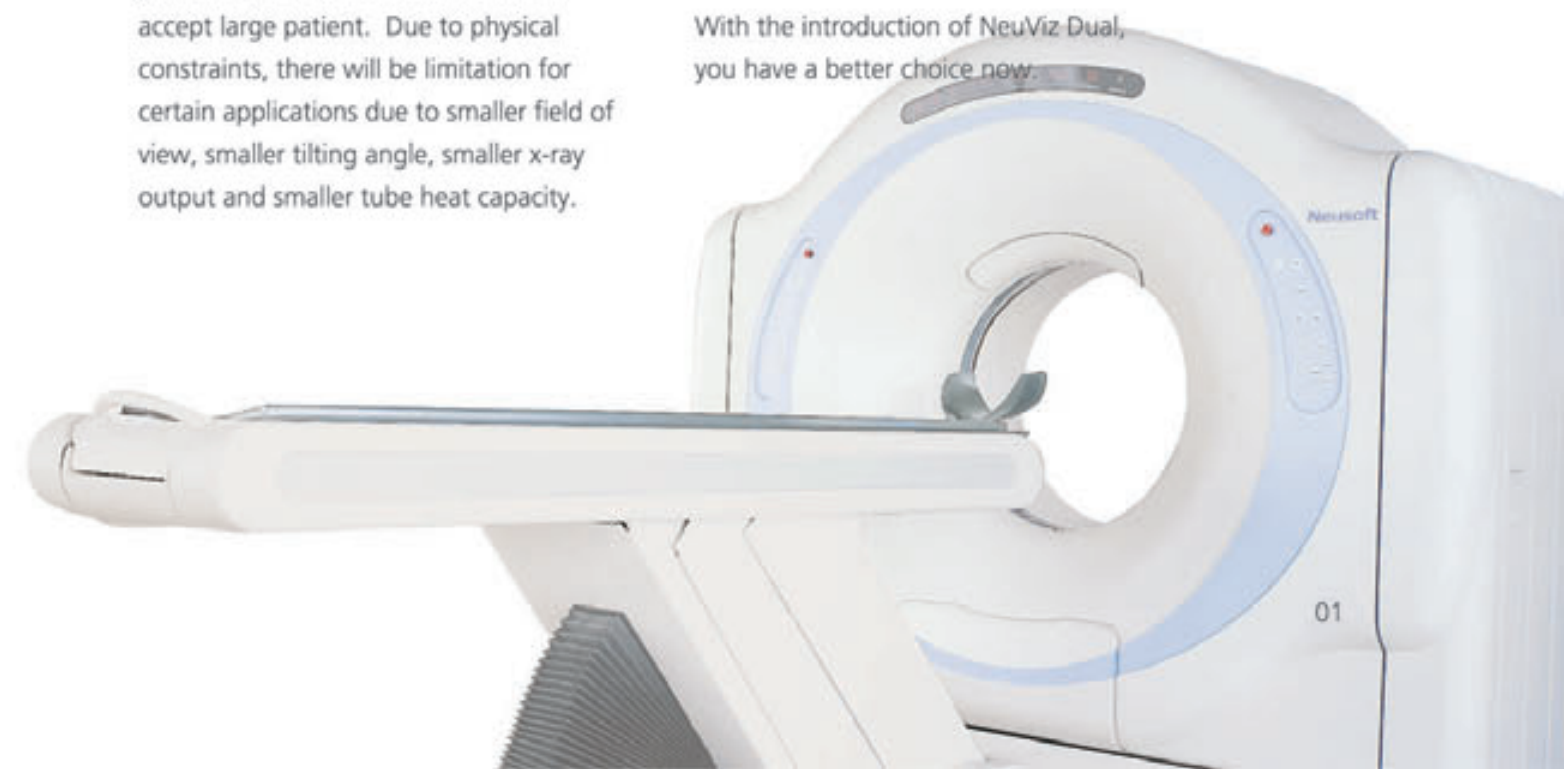
## NeuViz Dual -a full fletch dual slice CT Scanner

In the highly competitive healthcare service environment, being competitive is not easy. Being forced to refer a patient to other imaging institute does not only mean a dilemma but also lose of patients and lose of revenues. Providing the best services to customers is one of the key successful factors. The question is how to provide the best services and keep the cost under control.

In order to reduce production cost of CT scanner, some companies offer strip down systems which have small bore, small x-ray generator and limited application packages in their standard configurations. With these scanners, you have to compromise your services. You will not be able to accept large patient. Due to physical constraints, there will be limitation for certain applications due to smaller field of view, smaller tilting angle, smaller x-ray output and smaller tube heat capacity.

The other alternative many companies are offering today is so-call refurbished systems. The sales persons will tell you these systems are from famous companies, might be even "refurbished" by the original manufacturers. What they did not tell you is that many of the components in these "refurbished" systems will become obsolete in a few years time. It would become very expensive to repair if not impossible. Furthermore, since these "refurbished" systems were designed years ago, they are lacking of advanced applications, which have already become routine today.

With the introduction of NeuViz Dual, you have a better choice now.



## Power, Speed, Versatility, Quality and Care

### Power

Large 70 cm bore and  $\pm 30^\circ$  tilting enables the examination of large patients and complicated patient positioning. Patient table load of 200 kg represents no patient weight limitations.



Selection of maximum 42KW generator and 4MHU x-ray tube gives powerful penetration needed for difficult position such as pelvis and heavy patients. It also enables longer continuous spiral scanning of maximum 125 rotations, 100 seconds, and 1300 mm, offers long time continuous examination and improves patient throughput.

Powerful computer platform and large storage capacity enable sub-second reconstruction and large volume image archive, presenting one of the best configurations in the market.

### Speed

Maximum rotation speed of 0.8 second\* per rotation makes it possible to complete a brain study in 10 seconds and a thorax scan in a single breath hold!

Subsecond reconstruction speed allows almost real-time display of current examination.

Maximum 250 slices (125 rotations, 100 seconds, at 0.8 second per rotation) can be produced in one non-stop scanning, ideal for the situations where speed and throughput are especially critical, such as trauma, and for high volume, high demand sites.



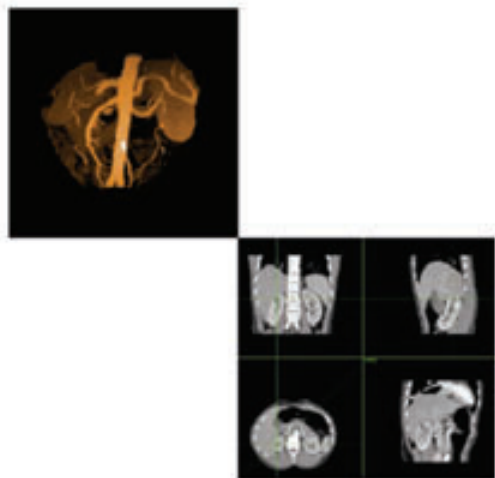
\*Optional



## Power, Speed, Versatility, Quality and Care

### Versatility

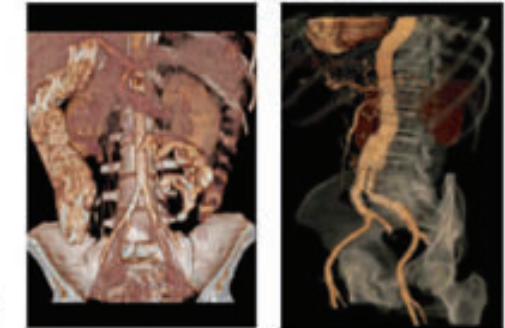
- Comprehensive application packages are offered in the standard configuration. You will find the applications just fit for your needs.
- Flexible and friendly CT workstation is rich in applications and scalable to your needs. It includes a set of the most powerful CT capabilities on the market today, improving outcomes and productivity by working the way you do. Nearly all visualization of advanced CT applications and archiving can be done quickly and easily.
- Selection of different generator and x-ray tube combination to match with different needs.



## Comprehensive application packages

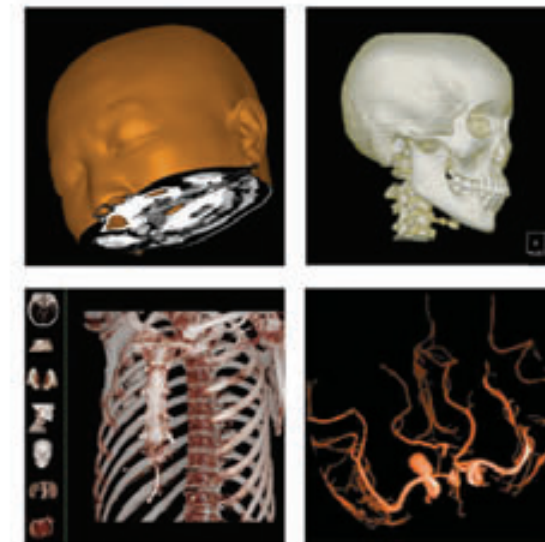
### MPR (Multi-Planar Reconstruction)

- Real-time reformation of axial images into user-defined plane, coronal, sagittal, oblique, or curved.



### MIP/MinIP (Maximum or Minimum Intensity Projection)

- Reconstructs images to demonstrate enhanced vascular structures and pathological changes.



### SSD (Surface Shaded Display)

- Provides fast reconstruction of three-dimensional images of different tissues or organs and easy to understand presentation of complex anatomy.

### CT-Angiography

- Display of blood vessels, vascular anomalies, aneurysms, and stenoses.

### VR (Volume Rendering)

- 3D VR software provides unique simultaneous visualization of vasculature, soft tissue, and bone.
- VR visualization offers real-time interactive control over opacity and transparency values to permit viewing through and beyond surrounding structures, such as arterial calcifications.

## Comprehensive application packages

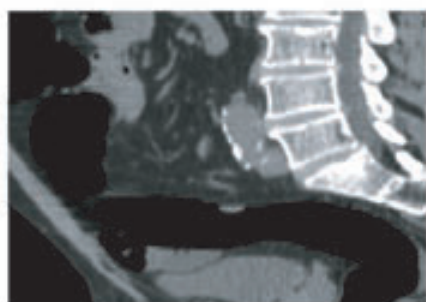
### VE (Virtual Endoscopy)

- Renders spiral CT data to provide fly-through images within and around hollow organs
- Clinical applications include virtual colonoscopy, bronchoscopy, and angio-scopy.



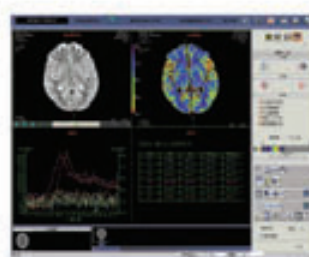
### Bolus Timing

- Establishes the optimum delay time for contrast injection. The delay time is selected to optimize peak contrast enhancement and reduce contrast injection dose usage for CTA.



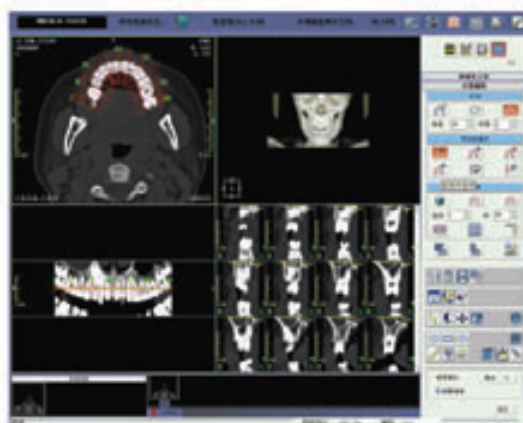
### Brain Perfusion\*

- Delivers quantifiable brain perfusion results to evaluate the acute or chronic stroke patient.



### Dental CT \*

- Performs imaging of the mandible or maxilla for assisting oral surgeons in planning implantation of prostheses.



### Bolus Tracking\*

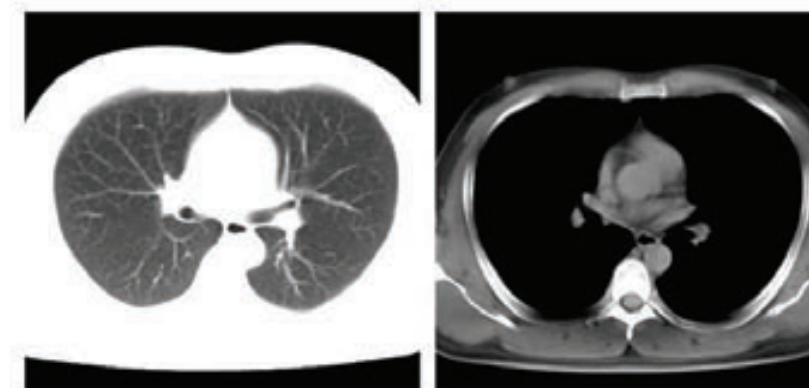
- An automated injection planning technique that permits the user to monitor actual contrast enhancement and initiate scanning at a predetermined enhancement level. Combine with SAS for full automation and efficacy.

\*Optional

## Power, Speed, Versatility, Quality and Care

### Quality

Sub-millimeter slice thickness realizes isotropic imaging, optimizes image quality of coronary/sagittal reconstruction and 3D reconstruction.



### Artifacts reduction:

- Beam Hardening Compensation
- Motion Artifact Reduction
- Volume Artifacts Reduction
- Adaptive Streak Artifacts Reduction
- Metal Artifacts Reduction
- Lung Intensification
- Advanced Noise Reduction



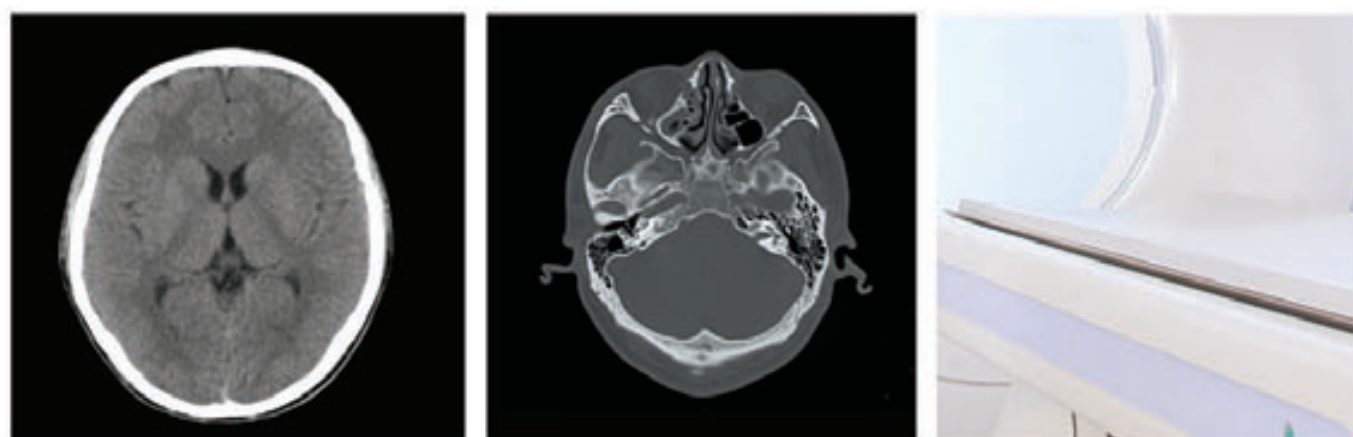
## Power, Speed, Versatility, Quality and Care

### 1/4 Detector Shift

- Technology enables ultra-high spatial resolution in axial and spiral scanning by doubling data acquisition.

### Focus Spot Tracking

- This technique compensates focal spot movement in Z due to thermal changes in the tube, and in mechanical forces during gantry rotation and tilting.



### Wedge Filter & Anti-Scatter Collimator

- In NeuViz Dual, specific Wedge Filter innovations have been developed to block out X-rays that do not contribute to image quality. Anti-Scatter collimator reduces X-ray scatter and dose can be managed to limit the exposure specifically to the location of interest.

## Care

- **AutoVoice** and graphic prompt guide breathing & breath-hold for children, elderly and hearing-impaired.
- **Remote Gantry Tilt** saves patient positioning time. Large 70 cm bore and  $\pm 30^\circ$  tilting gantry is esthetic and ergonomic, maximizing patient comfort and flexibility for patient handling.
- **Pediatric Protocols\*** are specially designed for infants and pediatrics, provide dedicated low-dose techniques to optimize image quality. Combined with the Dose Display features, NeuViz customers have an easy, accurate method for controlling the dose their young patients receive.



- **DoseSaved** calculates and regulates radiation dose required for different anatomic regions and minimizes X-ray radiation without compromise in image quality.
- The intuitive interface is easier than ever before. Streamlined workflow is automatic wherever possible and necessary, making technologists' jobs easier.



\* The appearance and specifications are subject to change without prior notice.  
\* The content in this brochure is based upon typical sites and may vary based on site conditions.