The X5000 is a multi-axis high-resolution digital x-ray system for digital radiography and computed tomography inspection of small to large objects with a large format detector. The 5000 Series has innovative cabinet and manipulator designs for easy part loading of even the largest of objects. The system can accommodate a variety of part shapes, sizes and weights. The steel/lead/steel cabinet has a fit and finish that is unparalleled in the industry and the machine tool technology used in the motion control system ensures a long trouble free life. All systems are manufactured to meet all state and federal radiation safety regulations.
SPECIFICATIONS

OVERALL
• X-ray Energies from 10kV-600kV
• Geometric Magnification: Greater than 2000x
• Overall Maximum System Resolution: better than 500nm
• Meets ASTM E2597 Standard

CABINET
• External Dimensions: 79” Wide x 108” Deep x 92” Tall (200cm Wide, 274cm Deep, 232cm Tall)
• Cabinet Features: Cable access port with cover, interior lighting, powered sliding access door(s), leaded glass viewing window/ internal camera monitoring system, safety light curtains
• Optional bi-parting doors for overhead part loading
• Steel/lead/steel construction
• Meets or exceeds all federal and state radiation safety regulations
• Touch screen operation
• Includes one ergonomic desk and chair

MANIPULATOR
• Maximum Sample Weight: 250lbs (113kg) (optional customization)
• Scan Travel (customization available): Vertical = 48” (122cm), Horizontal = 33” (84cm), Z axis (source to detector) = 48”
• (122cm), Tilt = +20º/-15º, Rotation (optional +/-30º) = 360º continuous
• Motorized detector travel for variable focal distance adjustment
• Part Manipulation Control:
  ◦ All drives variable speed joystick controlled
  ◦ Each axis is independently controlled
  ◦ NSI CNC motion control software for automated scanning with automatic image processing and archiving capabilities
  ◦ Option: Rotational stage indexes outside of the cabinet for ergonomic part loading/unloading

X-RAY SOURCE
• Voltage Range: 10kV-600kV
• Minimum Focal Spot Size: < 500nm
• X-ray Tube Types: Nano-focus, Micro-focus, Mini-focus, Open or Sealed, Transmission or Directional or Dual Head

X-RAY DETECTOR
• Digital X-ray Detector Types: Flat Panel (DDA), Linear Diode Array (LDA), Image Intensifier
• Grade Options: Standard or CT Premium, 14bit or 16bit
• Detector Size: Up to 16” x 16” (40cm x 40cm)

X-VIEW SOFTWARE
• Comprehensive acquisition, processing and archival program with user-friendly interface
• High performance image processing and measurement functions
• Non-proprietary multiple image format output/input. Diconde compliant
• Automated program functions for fast analysis
• Multiple window interface for display of raw image, processed image, density data, etc.
• Computed Tomography acquisition module
• Optional 3D Computed Tomography calibration, reconstruction and visualization
• Optional 4D Computed Tomography