

Phoenix V|tome|x M Neo

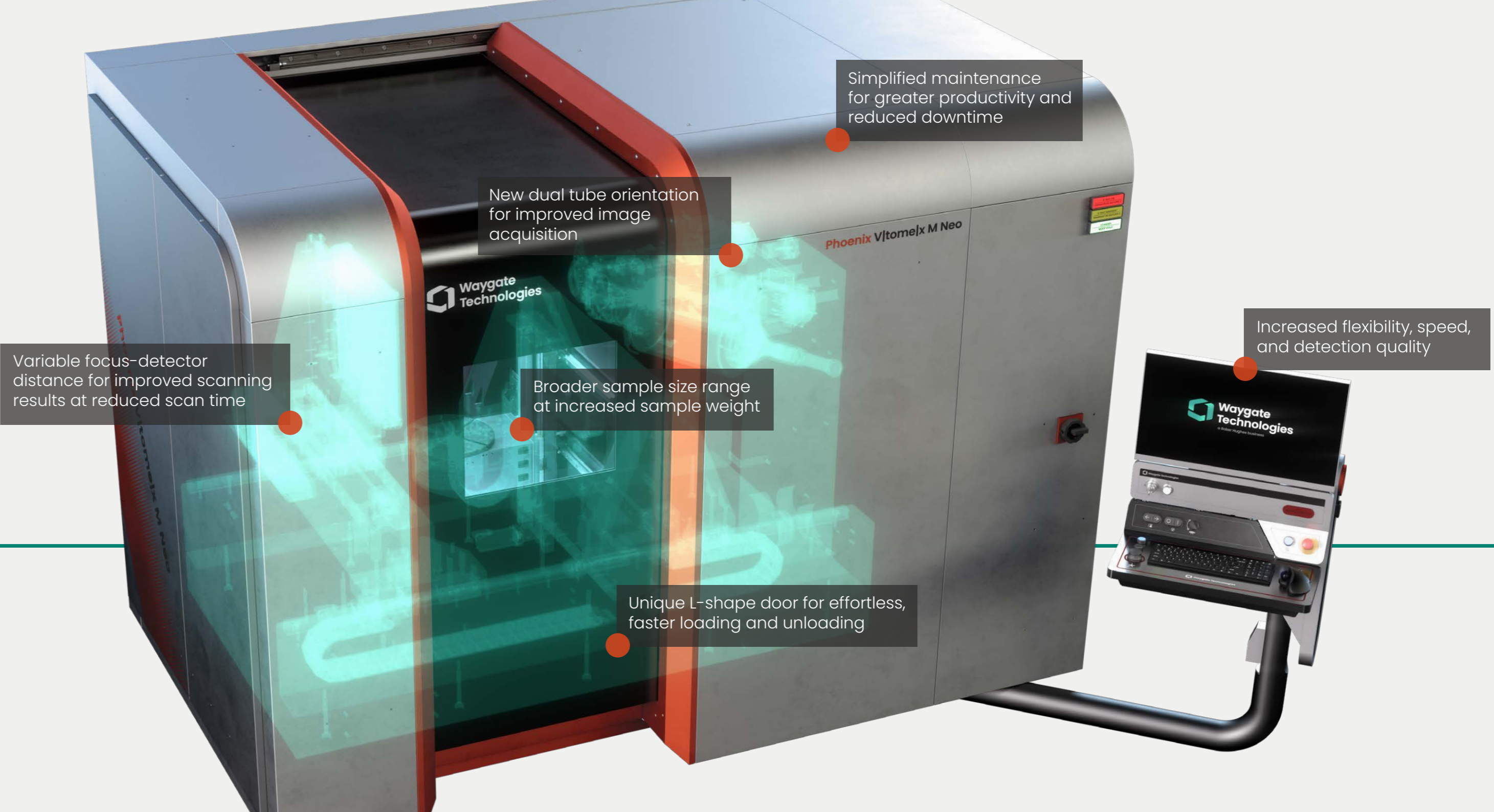
# PHOENIX V|tome|x M Neo

Premium 3D metrology and analysis  
with industrial CT starts here

# The world's most flexible industrial dual-tube micro/nano CT scanner

Discover the future of nondestructive testing with the all-new Phoenix V|tome|x M Neo.

Our flagship computed tomography solution sets a new standard in flexibility, speed, and detection quality, making it the ultimate choice for a wide range of applications in various industries.



Variable focus-detector distance for improved scanning results at reduced scan time

New dual tube orientation for improved image acquisition

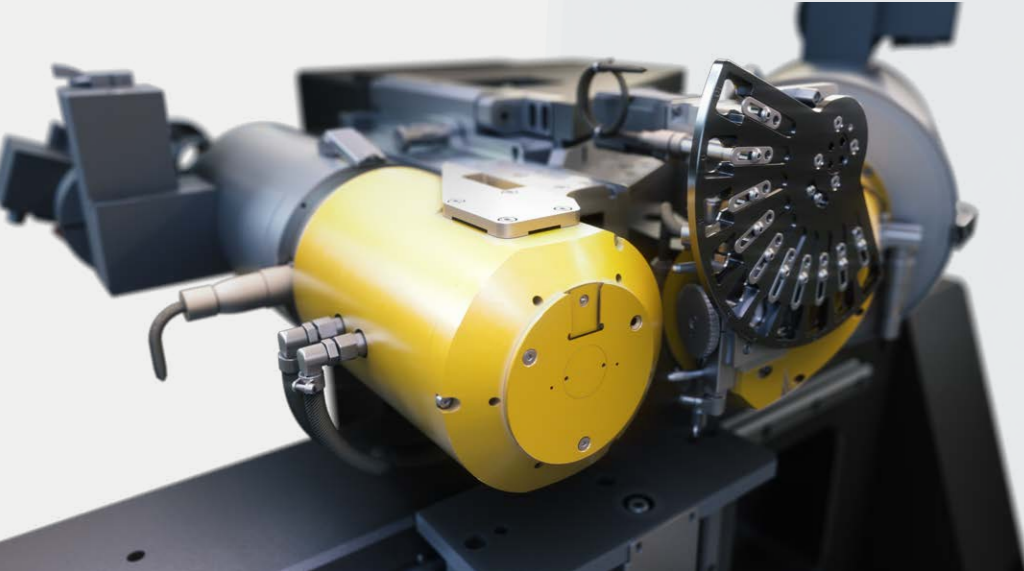
Broader sample size range at increased sample weight

Unique L-shape door for effortless, faster loading and unloading

Simplified maintenance for greater productivity and reduced downtime

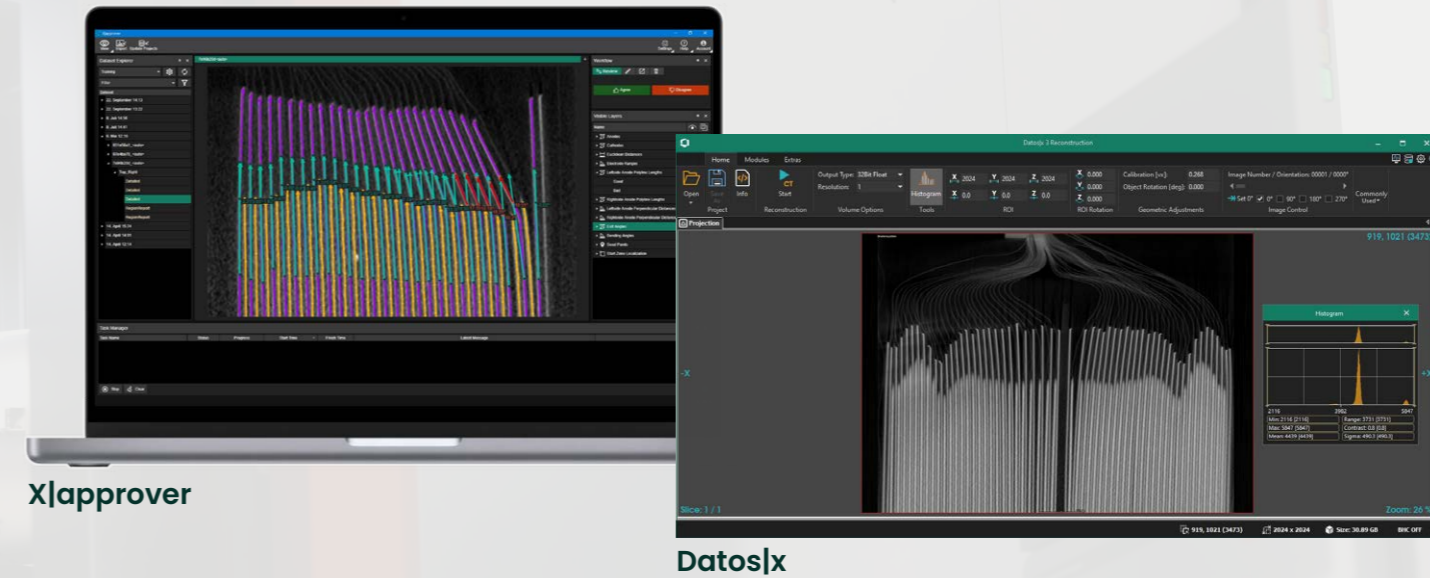
Increased flexibility, speed, and detection quality

# FEATURES



## ADVANCED FEATURES FOR SUPERIOR IMAGING AND ANALYSIS

- High-performance microfocus and nanofocus tubes
- Dual tube setup with horizontal orientation improves image acquisition
- Exclusive Dynamic 41 detectors
- High-flux|target technology enabling faster scanning



Xlapprover

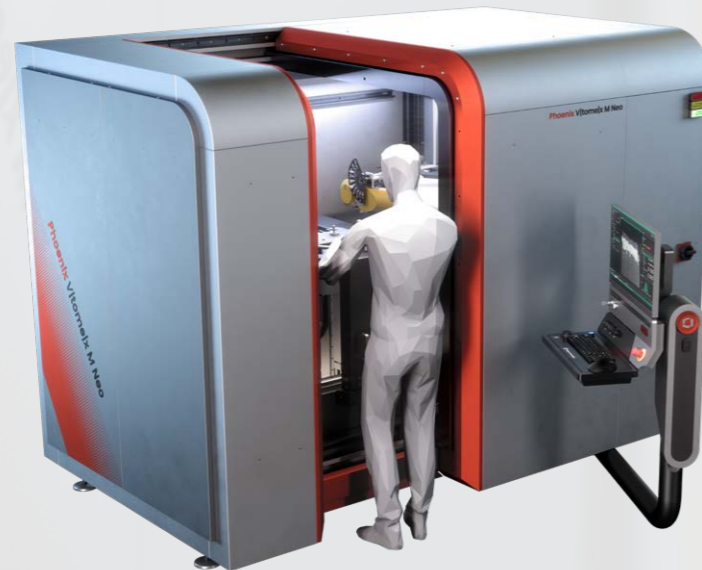
Datos|x

## EFFICIENCY-DRIVEN AUTOMATION

- Automatic defect recognition (ADR) workflows through Xlapprover software
- Equipped with the latest Datos|x software providing full control of your data acquisition and even faster data reconstruction

## ACCESSIBLE DESIGN

- Two large sliding doors provide effortless operation
- Flexible loading via internal or external crane
- Highly versatile control panel

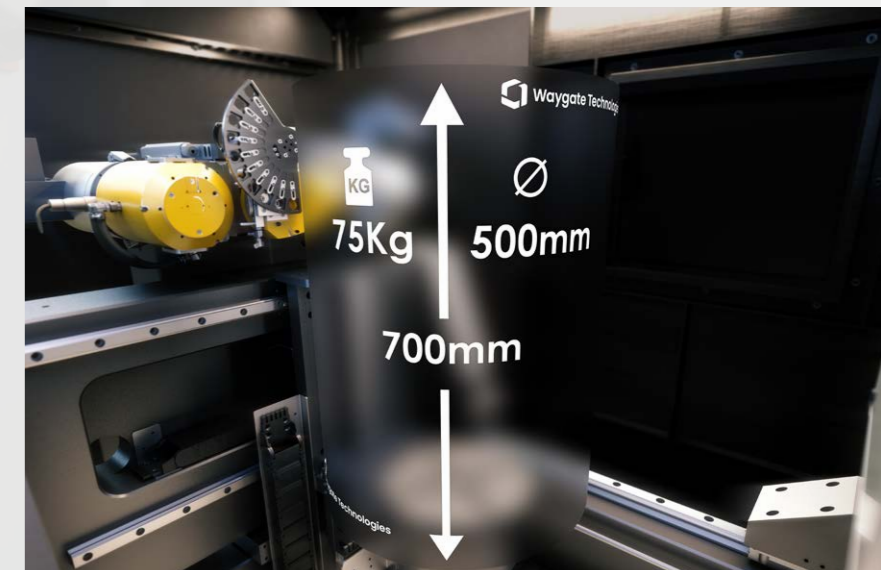


## A SOLUTION WITH HIGH SERVICEABILITY

- Easy to access maintenance door
- Re-engineered manipulator enabling high efficiency

## EXPANDED SCANNING AREA FOR LARGER AND HEAVIER PARTS

- Expanded scanning area suitable for inspecting both small and large parts
- High variable focus detector distance

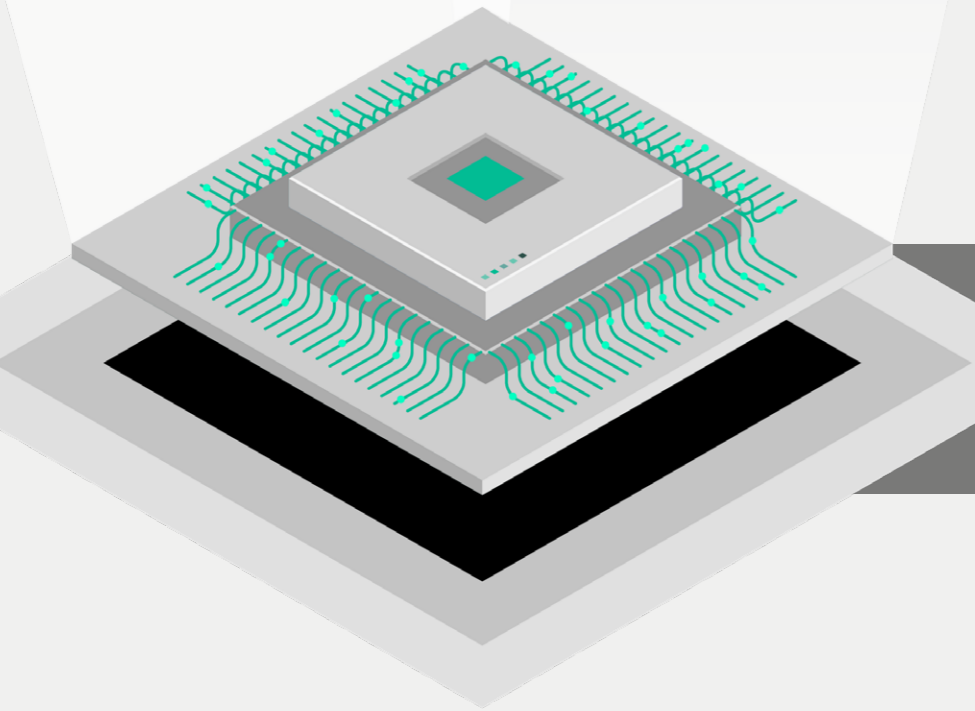


# APPLICATIONS

## Made to meet your industry challenges

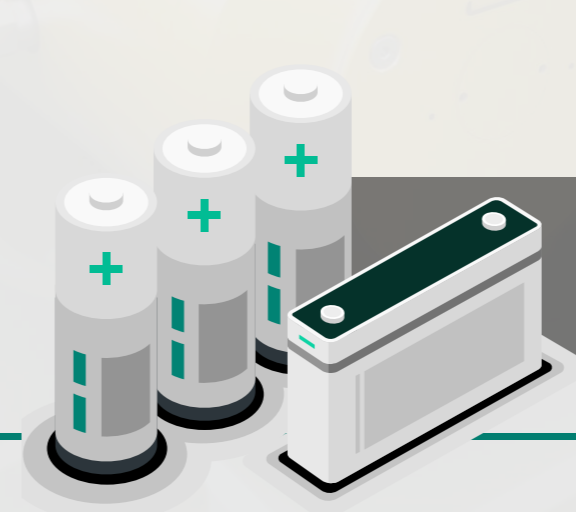
The Phoenix V|tome|x M Neo is a flexible system suitable for a wide range of 3D metrology, research, and evaluation applications in laboratory environments.

Additionally, its automation capabilities make it well-suited for precise testing in production environments, providing reliable results for industrial applications.

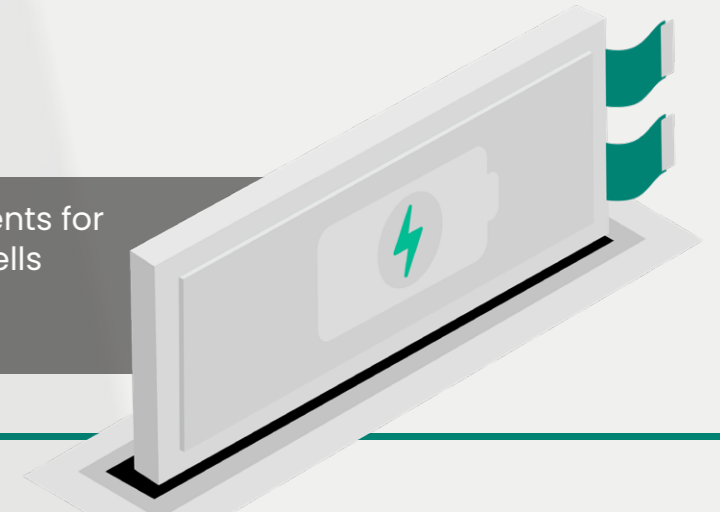


- Ideal for assessing microstructures and complex assemblies, examining solder joints, or inspecting from small to large circuit boards
- Optimizing manufacturing processes in the electronics industry

- Excels in evaluating critical components like air foils and additive manufactured parts used for spare parts and maintenance, as well as cutting-edge carbon fiber technology
- Advanced capabilities in assessing intricate electronic components tailored for satellites



- Precise anode and cathode measurements for cylindrical, prismatic as well as pouch cells
- Failure analysis for various battery cell configurations



# A LONG LEGACY

## Building on tradition

The Phoenix V|tome|x M Neo is a next-generation industrial CT system, building on the success of the widely-used Phoenix V|tome|x platform with over a thousand installations worldwide. It offers remarkable advancements, including improved image

results, an expanded scanning area for larger and heavier samples, variable focus detector distance, and a new cabinet design for enhanced flexibility and accessibility.

Phoenix V|tome|x M Neo



Unique L-shaped door to load heavy and large samples

**50 KG** V|tome|x M

**75 KG** V|tome|x M Neo

Increased maximum sample weight

420 x 400mm

V|tome|x M

Increased scan envelope

500 x 700mm

V|tome|x M Neo

X-ray tube	Open directional high-power microfocus X-ray tube, closed cooling water circuit. Optional additional open transmission high-power water cooled nanofocus X-ray tube Horizontal dual tube orientation for improved image acquisition
Max. voltage / power	300 kV / 500 W. Alternatively available with 240 kV / 320 W microfocus X-ray tube  Dual tube option for nanoCT®: additional 180 kV / 20 W high-power nanofocus tube with Diamond window, high precision rotation unit, easy tube exchange just by a push of a button
Geometrical magnification (3D)	1.29 x to 100 x; up to 225 x with nanofocus X-ray tube
Detail detectability	Down to < 1 µm (microfocus tube); optional down to 0.2 µm (nanofocus X-ray tube)
Min. voxel size	Down to 2 µm (microfocus), Optional 1 µm with Dynamic 41 100; Optional down to <0.5 µm (nanofocus + Dynamic 41 100)
Detector type (all according to US ASTM E2597 standard)	Temperature stabilized Dynamic 41 200 large area detector with superior image and result quality, 410 x 410 mm (16" x 16"), 200 µm pixel size, 2036 x 2036 pixels (4 MP), extremely high dynamic range > 10000:1  Optional Dynamic 41 100 detector 410 x 410 mm (16" x 16"), 100 µm pixel size, 4048 x 4048 pixels (16 MP) for doubled CT resolution
Manipulation	Granite based precision 6-axes manipulator
Variable focus-detector-distance	Optional 310 mm - 900 mm (12.2"-35.4")
Max. sample diameter x height	310 mm x 700 mm (12.2" x 27.5") in height; up to 500 mm (19.7") in diameter when using an offset scan
Max. sample weight	75 kg (165 lbs.), high accuracy CT
Max. focus object distance	700 mm (27.55") applied for microfocus tube
System dimensions W x H x D	Appr. 2,911 mm x 2,177 mm x 1,710 mm (114.6" x 85.7" x 67.3")
System weight	Appr. 9,500 kg (20,940 lbs.)
Temperature stabilization	Active X-ray tube cooling   temperature controlled cabinet   temperature stabilized detector
Optional patented Scatter correct hard-/ software bundle (also upgrade option)	CT quality like 2D fan beam CT with minimized scatter radiation artifacts. Max. scan diameter: 290 mm, up to 450 mm when using an offset scan
Optional High-flux target	2 times faster CT scans or doubled resolution; X-ray inspection power up to 100 W
Optional Helix CT & Offset CT	Advanced scanning trajectories for improved scanning volume and data quality: Helix CT for long part scans with less artifacts and better quality, Offset CT to scan bigger parts or same size with higher resolution
Optional Click&measure CT	Included
Software	Phoenix Datas x 3D computed tomography acquisition and reconstruction software. Different 3D evaluation software packages for 3D metrology, failure or structure analysis on request
Radiation protection	Radiation safety cabinet for full protective installation without type approval according to German StrSchG/StrSchV. It complies with French NFC 74 100 and the US Performance Standard 21 CFR Subchapter J. For operation, other official licenses may be necessary

Contact us to discuss your inspection needs  
[waygate-tech.com](https://www.waygate-tech.com)