Phoenix V\|tome\|x S240 microCT

The versatile industrial 2D radiography and 3D CT system for high resolution inspection with improved features and design.
Inspect with precision and efficiency.

The bestselling industrial CT workhorse

When being launched in 2003, the Phoenix Vltome|x S has been the first lab size highly resolving micro- and nanoCT® system. With its unique Dual|tube configuration option, it rapidly became the bestselling CT system of that kind worldwide with approximately 500 installations in research institutes and quality labs all over the world.

With the next generation of this trendsetting system now available, customers benefit from the unprecedented versatility of that 2D inspection and 3D CT system, combining high-resolution, ease of use and reliability with a great price-performance ratio.

The new Phoenix Vltome|x S240 microCT system covers a wide range of application capabilities:

- Internal defect analysis
- 3D quantitative porosity analysis
- Flexible 2D X-ray inspection
- Materials structure analysis
- Assembly control
- CAD Data nom/act comparison
Scan faster and see more.

The Phoenix V|tome|x S240 is one of the few CT systems worldwide combining the highly efficient Dynamic 41 detector technology and High-flux|target — enabling high image quality as it scans much faster, or with improved accuracy, and truly revolutionizing inspection.

We offer several configurations and optional tools to help you achieve your production throughput goals with extreme accuracy. With High-flux|target and multi beam-hardening correction for improved image quality, you can increase probability of detection (POD) with efficiency and ease.

- **Dual|tube**
  Fast and easy switch between micro- and nanofocus X-ray tube.

- **Dynamic 41 digital detector**
  Double CT throughput at the same quality level as conventional DXR detectors.

- **High-flux|target**
  Improve efficiency with faster microCT scans or doubled resolution with higher power on a smaller focal spot.

- **Helix|CT**
  Scan with improved image quality to increase probability of detection (POD) with efficiency and ease.

- **Offset|CT**
  Scan even larger parts with up to 100% larger scanning volume.

- **Beam-hardening correction**
  The Multi|bhc tool corrects streaking artifacts which typically occur as multiple dark streaking bands positioned between dense areas in multi-material samples.

- **Phoenix Datos|x CT software**
  Fully automate your data acquisition, volume processing, and evaluation with ease.

- **Full 2D investigation**
  Manipulator tilt axis (+/-45°) for fully flexible radiographic inspection.
The micro- and nanoCT® solution for your specific inspection tasks.

Whether you need to increase speed, detection detail, or do both, the Phoenix V\textit{tome\texttt{x}} S240 can be formatted for any 3D industrial or scientific microCT task. To allow high flexibility, the V\textit{tome\texttt{x}} S240 may optionally be equipped with both, a 180 kV/15 W high-power nanofocus X-ray tube and a 240 kV/320 W microfocus X-ray tube. Due to this unique combination, the system is an ideal tool for a wide range of applications from extreme high resolution scans of low absorbing materials as well as for 3D analysis of high absorbing objects up to 400 mm in diameter.

**Industrial 3D NDT**
Beyond high-resolution 3D analysis in R&D and failure analysis labs, this machine allows 3D production control of injection mouldings, small castings, electronic devices, sensors, batteries, complex composites and 3D printed parts. And with the offset\texttt{CT}, you can scan even larger parts with up to 100% larger scanning volume.

- Internal defect analysis / 3D quantitative porosity analysis
- Assembly control
- Materials structure analysis

**Research & Development**
With its high-resolution 180 kV nanoCT® option, the Phoenix V\textit{tome\texttt{x}} S240 opens a non-destructive third dimension for research & development down to the submicron scale—with no required preparation, slicing, coating or vacuum treatment.
Advanced Tools for Flexibility, Precisions and Ease of Use.

Waygate Technologies offers several options to increase quality and productivity of your CT scans.

**Dual|tube CT**
To expand the application range especially for research and electronics inspection tasks, the V|tome|x S240 can optionally be equipped with an additional 180 kV high power nanofocus X-ray tube, enabling nanoCT® with a best detail detectability 200 nanometers. Within few minutes, the tubes will automatically be changed after just switching the button.

**Helix|CT**
Phoenix V|tome|x S240 is capable for performing helical (or spiral) scanning, with your sample constantly moving upwards in the X-ray beam. This enables you to scan longer parts faster, eliminating the need to stitch several partial scan results together afterwards. On the other hand, this acquisition technique generates significant better results due to eliminating artifacts on horizontal surfaces and in the stitching areas.

**Offset|CT**
With its Offset|CT scan capability, compact CT systems like the V|tome|x S240 can scan bigger parts than ever before, or the same size parts, but with higher resolution.

**Click&measure|CT**
Your entire CT process chain can be fully automated with the push of a single button. It reduces operator time and influence, while dramatically increasing productivity as well as reproducibility of your CT results.
Measure with Insight

Non-destructive CT based coordinate measurement

3D CT offers big advantages over conventional tactile or optical coordinate measuring machines (CMM) — especially if there are complex parts with hidden or difficult surfaces.

- Nominal-actual CAD comparison
- Dimensional measurements / wall thickness analysis
- First article inspection
- Tool Compensation
- Reverse engineering / tool compensation
# General specifications

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A partnership for improved performance.

The excellent price/performance ratio of the versatile Phoenix V\textregistered\text{tomelx} S240 is just one example of how Waygate Technologies makes scientific research as well as industrial quality assurance and manufacturing processes more efficient. With our entire precision CT line, a variety of optional innovations, and expert service, we are committed to enhancing precision and productivity for your operations through our global service network.

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