



**Waygate
Technologies**

a Baker Hughes business

Solutions
start here

Inspection starts here

25 years of
Phoenix



Celebrating

25 years

of our technology journey with Phoenix

25 Years of Excellence



phoenix|x-ray founded in 1999 by 17 X-ray visionaries in a double garage in Wunstorf, Germany.



2000



Celebrating the 100th X-ray system built in the garage. (pcb|analyser).



Moving into the new company building. Establishing three more production plants in Wunstorf in 2005, 2015 and 2019.

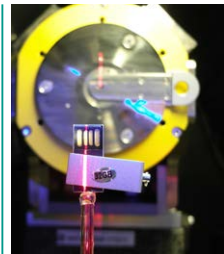
2001

First industrial nanofocus X-ray tube.



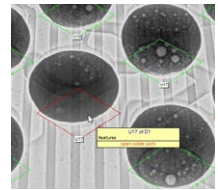
2003

V|tome|x s – first high resolution microCT lab system.



Launch of world's first 160 kV nanoCT scanner Nanotom.

2006



First CAD based automated solder joint inspection software X|act.

2007



GE Inspection Technologies acquires phoenix|x-ray.

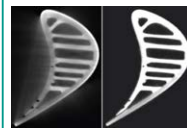
2011

Industries first 300 kV dual|tube premium precision inspection and metrology system V|tome|x M.



Compact high energy CT system V|tome|x C450 inspects and measures turbine blades and large castings.

2014



Scatter|correct patented to allow up to 100 times faster cone beam CT at highest quality levels.

2015

2016

The exclusive next generation Dynamic 41 detector series multiplies CT scan speed and resolution.



2016
2019
2020
2021
2023



Waygate Technologies received the first Frost & Sullivan's Company of the Year Awards for industrial computed tomography (CT) and was able to repeat this success in 2019, 2020, 2021 and 2023.

2017

Patented High-flux|target doubles CT scan speed or resolution.



2018

Next generation electronics inspection with Micromex & Nanome|x Neo.



2019



Baker Hughes takes share majority from GE. Creation of Waygate Technologies as premium NDT brand.

2020

9 MeV Dual|tube Power|scan for high absorbing parts of up to 2000 mm in diameter and height.



2022



New Ruby|plate 240 calibration phantom for improved metrology accuracy and productivity.

2024

Stay tuned for what's next ...



Launch of the Phoenix V|tome|x M Neo
Most flexible industrial dual-tube micro/nanoCT® scanner for an extensive range of 3D metrology, research and inspection applications in labs as well as at-line installed for automated precision inspections on the production floor.

Phoenix Highlights

25 years ago, a small group of dedicated experts started phoenix|x-ray with a vision that is as relevant today as it was then: To ensure safety, quality and productivity by making the invisible visible with innovative X-ray inspection and CT Solutions.

In 25 years, Phoenix has produced over 4000 X-ray and CT systems.

Learn about the broad X-ray and CT solutions portfolio currently offered by Phoenix.



Premium CT Technologies

Faster than ever before

- Every industrial CT user wants reproducible 3D product information, and everyone wants that information as fast and as accurate as possible. We are making that dream a reality by leveraging our exclusive innovations to create premium CT solutions that reduce overall inspection times from hours to just minutes – **all without compromising the quality of the results.** So you can meet your specific inspection needs while boosting your productivity and your efficiency.

Scatter|correct technology

Our patented technology delivers unprecedented artifact precision, achieving results up to 100 times faster than traditional fan beam CT.

Dynamic 41 digital detector

Achieve double the CT resolution at the same speed or double the throughput while maintaining the same quality as 200 µm pitch DXR detectors.

Sample|changer

This easily removable holder allows automatic changing of different samples, enhancing workflow efficiency.

Filter|changer

In combination with the Sample|changer, the optional Filter|changer enables efficient batch CT scans, streamlining your workflow and increasing throughput.

High-flux|target

Improve efficiency with faster microCT scans or achieve doubled resolution using higher power on a smaller focal spot.

Multi|bhc

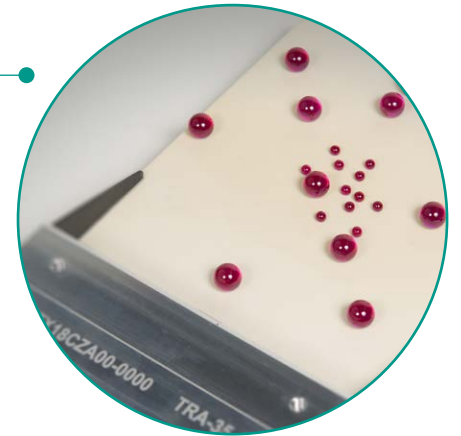
The Multi|bhc tool corrects streaking artifacts which typically occur as multiple dark streaking bands positioned between dense areas in multi-material samples.

ASC|filter

Adaptive scatter correct filter offers unrivaled image quality by significantly reducing artifacts caused by reduced grey values in high absorbing sample CT datasets.

Offset|CT

Scan even larger parts with up to 100% larger scanning volume.



Ruby|plate

The patented Ruby|plate phantom allows 3x faster automated verification of the specified measurement accuracy.

Helix|CT

Scan longer samples with improved image quality to increase probability of detection (POD) with efficiency and ease.

Metrology|edition

Ensures leading measurement accuracy, compliant with VDI/VDE 2630-1.3 standards, for reliable revalidation of system performance and reproducible metrology applications.

Phoenix Microme|x Neo and Nanome|x Neo

High resolution 160/180 kV micro- / nanofocus X-ray inspection systems with 3D CT option

The Phoenix Microme|x Neo and Nanome|x Neo series offer unparalleled high-resolution 2D X-ray inspection and 3D CT capabilities in one compact system. These innovative solutions deliver exceptional positioning accuracy, making them ideal for a wide range of industries including electronics, R&D, failure analysis, and process and quality control.



Phoenix Nanotom[®] M

Premium performance nanoCT[®] scanner

The Phoenix Nanotom[®] M delivers premium performance with its 180kV nanofocus X-ray CT system, catering to both scientific and industrial computed tomography (microCT and nanoCT) and 3D metrology. This system achieves exceptional spatial and contrast resolution across a wide range of samples and applications. Its fully automated CT scan, reconstruction, and analysis process ensures ease of use and fast, reliable results. Ideal for fields requiring high precision such as academics and electronics, the nanoCT[®] can rival limited synchrotron facilities.



Phoenix V|tome|x S240 Neo

Industrial CT Scanner with unparalleled flexibility and efficiency



The V|tome|x S240 Neo offers unmatched flexibility and efficiency with its 5-axes manipulation for 2D and 3D inspection of samples up to 10kg and 500mm in diameter. This versatile system is perfect for scientific analyses, industrial research, and quality assurance tasks in the electronics, battery, and aerospace industries. Its optional Dual|tube configuration combines submicron detail detectability with powerful inspection capabilities, providing an excellent price-performance ratio for industries demanding precise and reliable results.



Phoenix V|tome|x M Neo®

Most flexible industrial dual-tube micro/nanoCT® scanner



The Phoenix V|tome|x M Neo® exemplifies flexibility, offering the most versatile 180kV nanofocus / 300 kV microfocus dual-tube CT solution for a wide range of applications including 3D metrology, research, and automated inspections.

Ideal for both lab settings and production floors, this system combines Waygate Technologies' unique innovations such as Scatter|correct and High-flux|target to deliver fast, precise results for parts up to 75kg and 500mm in diameter in industries such as aerospace, batteries, and electronics.



Phoenix V|tome|x C450

High performance compact industrial 450 kV
Meso- and Minifocus CT system

The Phoenix V|tome|x C450 is a high-performance, compact industrial CT system featuring a 450kV Minifocus X-ray tube. It is designed for the inspection and 3D metrology of a broad range of applications, including large light metal castings, turbine blades, composites, and additive manufacturing parts.

The system is also available with a Mesofocus tube for enhanced resolution, ensuring the highest scan quality with Waygate Technologies' proprietary Scatter|correct technology. Ideal for industries such as aerospace, defense, and automotive, it provides reliable and detailed inspections of critical components.



Phoenix V|tome|x L450

Large part 2D and 3D CT scanning with maximum flexibility

The Phoenix V|tome|x L450 provides maximum scanning flexibility for 2D and 3D inspection of large parts up to 1300mm in diameter. This system is equipped with up to two 450 kV minifocus or 300kV microfocus X-ray tubes, making it ideal for precise metrology, research, and quality assurance in industries such as aerospace, automotive, and heavy manufacturing. It is the premium solution for research labs and industrial applications, ensuring the highest accuracy of inspection on large and heavy products with Waygate's full suite of functions and innovations.



Phoenix Power|scan HE

Scan large, complex parts with ease: 9 MeV High Energy CT Scanner



The Phoenix Power|scan HE leverages 9 MeV high-energy CT scanning technology combined with Waygate Technologies' advanced features to handle extremely large (up to 1920 mm in diameter) and heavy (up to 1000kg) parts. This system is ideal for industries requiring precision and speed, such as aerospace and automotive. It excels in scanning high-absorbing complex assemblies with unmatched efficiency, providing faster and more accurate inspections than ever before.



On Demand Scan Services

Book Inspections at our Customer Solutions Centers – by the hour, scan, or project



Use our inspection scanning services at our global CSCs to ensure the safety, quality, integrity, and consistency of your parts and products.

Access the latest premium X-ray and CT inspection technology with flexible, cost-effective CT scans, 3D analysis, and metrology.

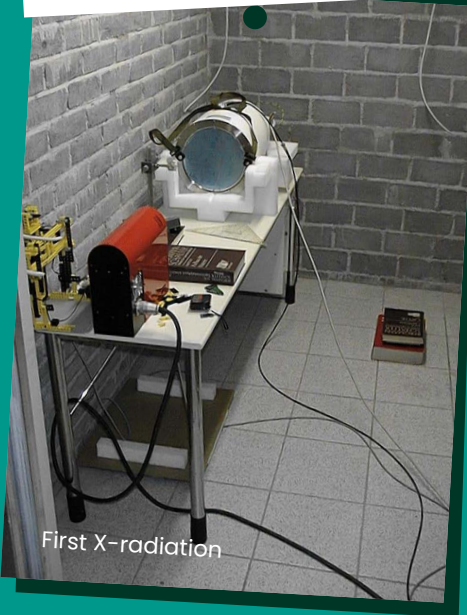
We are available whether you need to inspect a single sample part or a large volume batch. Let our experts with decades of inspection experience help you see things from a new perspective.

**Need inspection capacity?
Our global network has you covered.**



Phoenix Fun Facts & Stories

On June 14, 1999, the team successfully generated first X-radiation. Only the Lego-brick-based manipulator failed.



First X-radiation

The first trade fair appearance attracted a lot of attention: The Phoenix team did not yet have a system to demonstrate, but offered free beer.



First fair: SMT Nuremberg May 1999

The first cabins built in the double garage were pushed by hand on public roads to a nearby car paint shop.

A facility manager once wanted to help with the installation of a Nanotom that had just been delivered and connected water to the compressed air hose. When our service technician arrived, the system was already flooded. The Aquatom was born.

A Chinese customer once rightly complained that the system delivered was not the one he had ordered: due to a mix-up at the packaging company, which also worked for another X-ray company, he received a competition system while his phoenix system was on its way to Mexico.



Tabletop bench|mate

One customer liked the phoenix bird logo so much that he asked for permission to have it tattooed on his buttock. Unfortunately, we never received a photo to prove it.



The smallest X-ray system ever built by phoenix|x-ray was the tabletop bench|mate. With only 150 kg, it was 5600 times lighter than today's lead-concrete bunker based Power|scan HE giant. Lashed in the trunk of a small panel van, the bench|mate completed in 2002 a 2,600 km Tour de France to numerous on-site customer demos.

For an US customer, we had to build a V|tomex L 450 three times: The first high 15 ton granite manipulator crashed against a low bridge, the second broke in pieces due to a mishap at the shipping company.

| 25 years of Phoenix

A legacy of growth driven by innovation

Our 17 founders were determined not to be just another X-ray provider, but to deliver world-class performance with intelligent innovation. Our state-of-the-art Phoenix X-ray and CT solutions are designed to increase inspection and measurement throughput without sacrificing quality.

Here is to 25 more years of reliable inspection.

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