



VisiConsult

X-ray Systems & Solutions



The compact all-rounder!

INNOVATIVE SOLUTIONS
FOR X-RAY
TECHNOLOGY

Full functionality – small footprint – low cost

XRH111 – the compact all-round system for small to medium parts

Today companies have to walk the fine line between a low-cost production and the compliance to demanding international standards. For this purpose VisiConsult developed a compact cabinet with the complete portfolio of X-ray testing functionalities. The **XRH111** combines a small footprint and minimum-cost layout with high-end features like Computed Tomography (CT) and Automatic Defect Recognition (ADR). This leads to an efficient and scalable X-ray testing solution for a very economical price.

Basic principles – superior quality

The **XRH111** is a X-ray cabinet to test all kind of parts up to a diameter of 400mm and a height of 600mm that do not exceed 25kg. Depending on the job-requirements the system is available with 160kV or 225kV.

The cabinet has a footprint of 1650 mm x 1450 mm x 2300 mm and is certified by the German TÜV, which ensures absolute safety, no X-ray leakage, fulfillment of all standards and an ergonomic operator position.



Xplus – Discover the Invisible

The core of the system is our in-house developed image enhancement system **Xplus** that sets new industry standards. Constant development and 25 years of experience combined with a maximum flexibility towards special process requirements help our customers to be a step ahead!

Advanced features like overlay tools, macro generators, filter builders, live image enhancement, report toolkits, **DICONDE** integration, measurement tools and many more make the **Xplus** the most sophisticated software on the market. It fulfills all major international industry standards like **ASTM**, **EN17636-2**, **Boeing 7042/44**, **NADCAP** etc. VisiConsult is a highly agile and flexible company and therefore special software or even hardware requirements can be easily implemented on customer demand!

To find even the tiniest failures in test-parts our renowned image enhancement system **Xplus** has a broad portfolio of features to deliver sharp and noise-reduced images.

According to our principle “Discover the invisible” the VisiConsult LiveFilters will highlight failures that were not visible for the human eye before. Combined with our MotionDetect this is even possible during live inspection and leads to a superior detection rate.



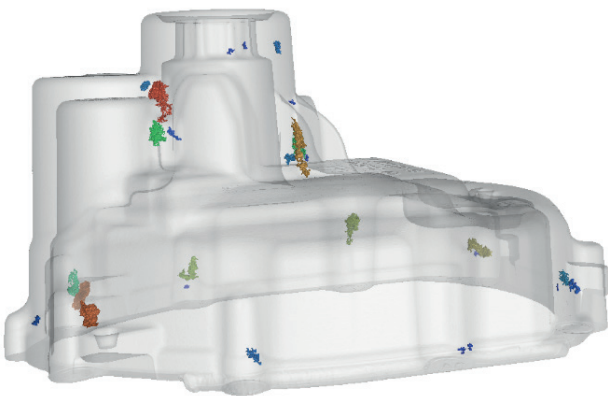
ADR – 24/7 inspection without human interaction

In cases like high volume serial production the **XRH111** can be used for Automatic Defect Recognition (ADR). Several automation levels from assisted inspection up to a completely automated process with robots are possible. This entitles the system for a 24/7 inspection without any downtimes and no testing personnel. Even complex tasks like measurement jobs, completeness checks, fitting control and many more can be solved by our in-house developed **Xplus^{VAIP}** (VisiConsult Automated Image Processing). Our developers are constantly looking for new challenges to solve complex tasks.



CT – Detailed insights for advanced testing and R&D

Computed Tomography (CT) is a powerful tool for Research and Development departments that need to know exact error positions, size or shape. A typical application is the location of porosities in casting parts during the development of new casting processes. The focus of the **XRH111** is to deliver results in a feasible time, therefore our in-house developed **QUICKscan** delivers reliable results in just a few minutes.



To help our customers to stay one step ahead of competition we developed an economical in-line CT functionality that even allows a seamless integration to our ADR. Therefore it will be possible to analyze and archive the 2D images and the 3D reconstruction. This leads to a maximum reliability and impressive results. In serial production the amount of time needed for the inspection job is crucial – therefore we optimized our **QUICKscan** to deliver very fast and reliable results for a maximum throughput.



Due to its flexibility the **XRH111** can be used as an universal system. Switching between Automatic Defect Recognition (ADR), 3D-CT laboratory inspection or manual testing is done effortlessly without any downtimes. This leads to an increased system utilization and saves investment costs for multiple inspection systems.

The operator just loads a defined parameter set and the system is ready for the new task. In day to day business simplicity and efficiency is the key to success.

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Technical specification

| | |
|------------------------|--------------------------------|
| Energy (max.) | 160 kV / 225kV |
| Object size | Ø400mm x 600mm height |
| Object weight | 25 kg max. |
| Cabin size (W x D x H) | 1650(2250)mm x 1450mm x 2300mm |
| Cabin weight | 3500 kg / 3700kg |
| Travel X-axis | 415 mm |
| Travel Y-axis | 430 mm |
| Travel Z-axis | 640 mm |
| Tilt X-axis | -20° / +20° |
| Rotation Z-axis | 360° multiturn |
| Magnification | 1,3 - 2,5 |
| Electric connection | 400/230V 50 Hz, 32A |
| Power consumption | 6 kW |
| Comp. air supply | 6 bar |
| Ambient Conditions | +10° to +40°C non condensing |

The compact X-ray cabinet for small to medium parts with CT and ADR functionality.

VisiConsult GmbH is a family owned company located in Northern Germany and is a specialist for customized and standard X-ray NDT systems. To ensure a premium quality our products are developed and produced locally as turnkey solutions. This leads to cutting edge technology and a high flexibility. Our goal is to solve our customers problems with tailored systems and guarantee a premium post-sales service.

More than 25 years of expertise in Automatic Defect Recognition (ADR) and image enhancement for a broad variety of industries combined with experienced engineers result in solutions that set new industry standards.



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