



XRH111

Compact all-round cabinet



VisiConsult
X-ray Systems & Solutions

Compact layout and small footprint

Computed Tomography (CT) ready

Automated Defect Recognition (ADR)

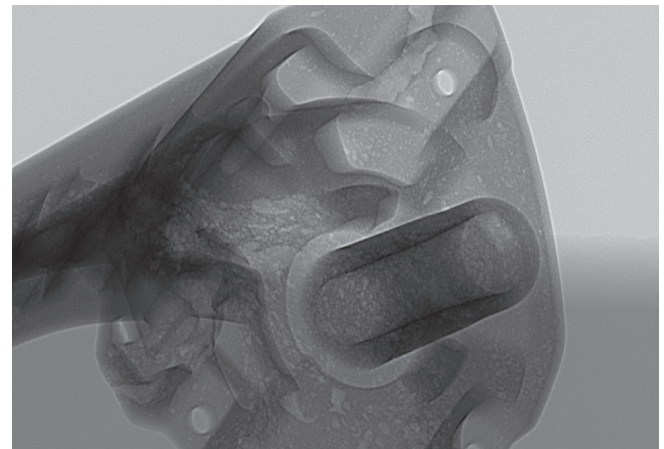
Compliance to international standards

Robust and reliable industrial design



XRH111 – The compact all-round system

Today manufacturers 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 economic price.

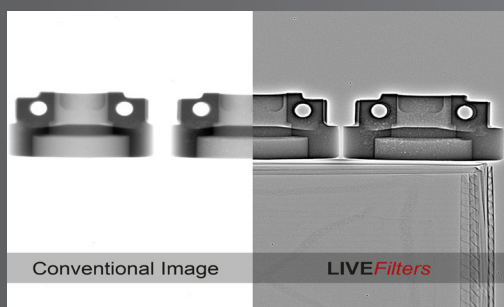


CT – Advanced 3D inspection through CT

Computed Tomography (CT) is a powerful tool for R&D departments that need to know exact error positions, size or shapes. A typical application is the detection of porosities in casting parts during the development of new processes. The focus of the XRH111 is to deliver results in a short time, therefore the in-house developed QUICKscan provides reliable reconstructions within a few minutes. To help our customers to stay one step ahead VisiConsult developed an economical in-line CT functionality that even allows a seamless integration to the ADR. Therefore, it is possible to analyze and archive the 2D images and the 3D reconstruction. This leads to a maximum reliability and impressive results.

Modular design and high quality

For a maximum safety the cabinet is certified by the German TÜV and CE to ensure no X-ray leakage and fulfillment of all related standards. The robust industrial design, developed and produced in Germany, guarantees a long lifetime and low downtimes even in demanding conditions. The system is designed for ergonomic operation and easy loading of parts. The fork lifter pockets and quick system setup procedure ensure a high mobility. The unique shutter allows the X-ray tube to remain switched on when the door is opened for loading. This extends the lifetime of the tube and detector by a huge amount. All motors can be automated in CNC programs and offer highest accuracy.



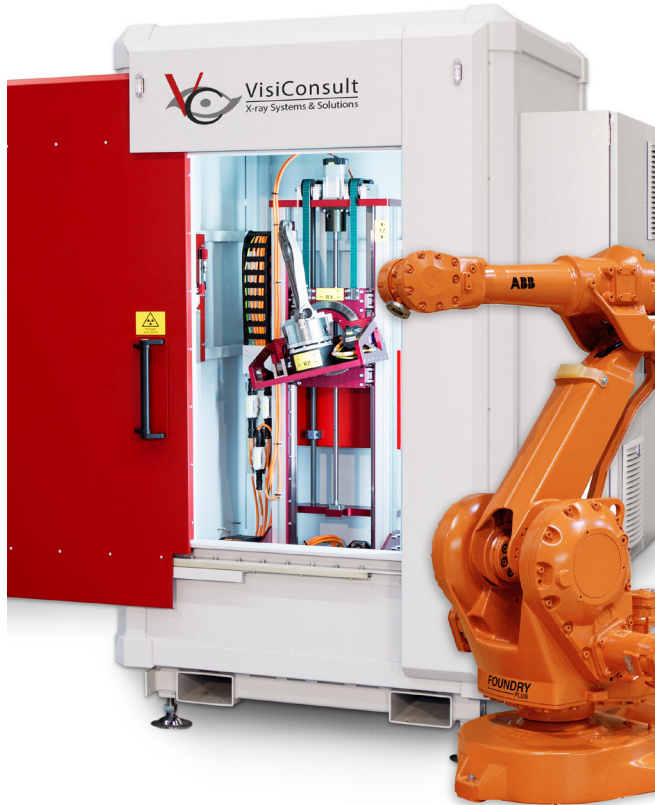
To find even the tiniest failures in test-parts our renowned image enhancement system *Xplus* has a broad portfolio of enhancement features to deliver sharp and noise-reduced images.

A combination of real-time noise reduction (*MotionDetect*) and image enhancement (*LiveFilters*) highlights defects that were not visible for the human eye before. This results in brilliant images during live inspection, while the high dynamic range allows to look into different material thickness at the same time.

Xplus – Discover the Invisible

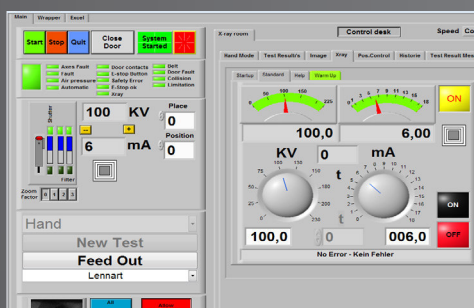
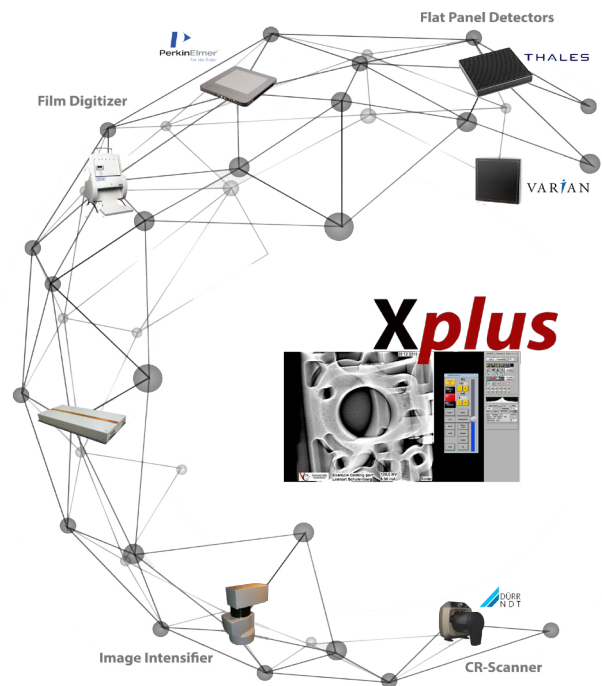
The core of the system is our in-house developed image enhancement system *Xplus* that sets new industry standards. Constant development and 25 years of experience combined with a maximum flexibility towards special process requirements help our customers to be a step ahead! Advanced features like overlay 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 and many more. VisiConsult is a highly agile and flexible solution provider. Therefore, special software or even hardware requirements can be easily implemented on customer demand! As a solution provider VisiConsult is not bound to a certain detector brand but can offer a broad variety of equipment based on the application requirements.



ADR for automated inspection

The XRH111 can also be used for high volume inspection through the Automated Defect Recognition (ADR) module. Several automation levels from assisted inspection up to a completely automated process with robot part handling are available. This entitles the system for a 24/7 inspection without any downtimes and operators. 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). The VisiConsult ADR has many reference installations worldwide and is certified by renown companies in the automotive industry.



Due to its flexibility the XRH111 is a universal inspection system. Switching between Automated Defect Recognition (ADR), 3D-CT laboratory inspection or manual testing is done effortlessly in a few seconds. 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.

The XRH111 is a compact X-ray cabinet for advanced inspection tasks like CT and ADR.



XRH111 - technical specification

Max. part size (mm - Ø x height)	400 x 600
Max. part weight (kg)	25
System size (mm L x W x H)	1612 x 1407 x 2290
System weight (kg)	2800
Console size (mm L x W x H)	1200 x 950 x 1600
Console weight (kg)	175
Energy (kV)	160, 225
Horizontal motion TX (mm)	415
Magnification TY (mm)	420
Focus Detector Distance FDD (mm)	1100 - 1225
Focus Object Distance FOD (mm)	480 - 900
Vertical motion TZ (mm)	660
Manipulator tilt RX (deg.)	± 20°
Part rotation RZ (deg.)	360° multiturn
External Loading TX2 (mm)	100

Dimensions and electrical values can vary depending on X-ray equipment. Bigger parts can be inspected through reloading. Cabinet in compliance to German and international radiation law. Dimensions can be customized in case of special requirements.



Your VisiConsult Sales Team!

Connection values: 3N PE, 400/230 V, 50/60 Hz, 6 kW
Ambient conditions: Ambient +10° to +35°C

- Compliance to international quality standards like ASTM etc.
- Brilliant images with high dynamic range and enhanced contrast
- Extensive archiving options including full DICOM support
- Intuitive and ergonomic operation for maximum efficiency
- Sequences, CNC axes and ADR for high throughput inspection



VisiConsult is a family owned company located in Northern Germany and is a specialist for customized and standard X-ray systems. All our products are developed and produced locally and delivered as turn-key solutions. This leads to cutting edge performance 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 Security and classic Non Destructive Testing (NDT) markets like aerospace, automotive and many more lead to an unmatched experience in X-ray technology and result in a superior global service network.