



XRH222^{TL} Heavy duty inspection cabinet



VisiConsult
X-ray Systems & Solutions

Loading through the roof or doors

CT - Computed Tomography

ADR - Automated Defect Recognition

Compliance to international standards

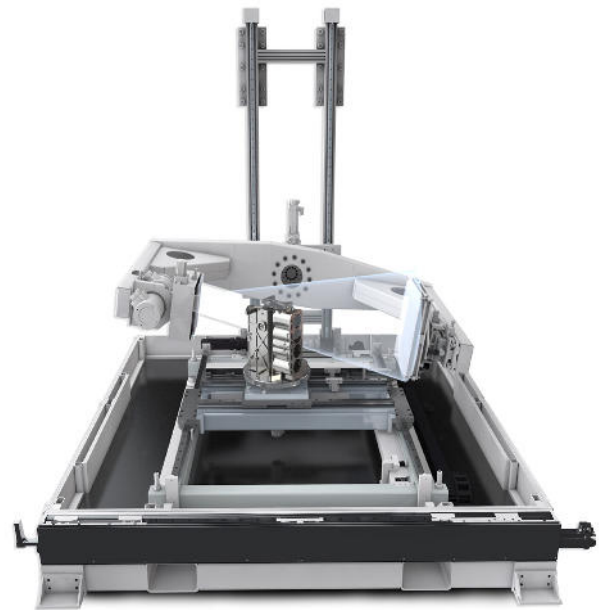
Extensive image archiving incl. DICOM



XRH222^{TL} – Heavy-duty inspection cabinet

The challenge in inspecting heavy and big parts is the complicated part-handling. Manufacturers are either forced to set up an X-ray bunker or to endure a tedious part handling. The first option has a big impact on flexibility and space requirements, while the second option slows down the process by a big amount. To allow a more efficient inspection VisiConsult developed a top loader version of the renowned XRH222^{TL}.

This system can be conveniently loaded through a roof-mounted crane or fork lifter. Due to ultra-precise axes the complete inspection portfolio is available: High quality 2D visual inspection, advanced 3D Computed Tomography (CT) analyses, Automated Defect Recognition (ADR), real-time live inspection, process automation and much more. The cabinet can be used as an in-line or off-line system for many applications like casting, composite, welding, aerospace parts etc.



Modular design and high quality

To provide the best inspection results VisiConsult supplies a broad variety of X-ray components. Tube and detector can be freely combined depending on customer preferences or application requirements, which are determined through complex case studies. To penetrate even thickest materials, the energy can be chosen up to 450kV. For a maximum safety the cabinet is certified by the German TÜV and CE to ensure no X-ray leakage, fulfillment of all standards and an ergonomic operator position. The robust industrial design, developed and produced in Germany, guarantees a long lifetime and low downtimes even in demanding conditions.



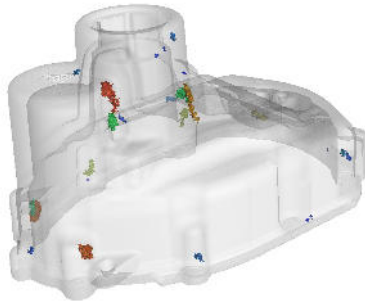
To find even the tiniest failures in test-parts our renowned image enhancement system *Xplus* has a broad portfolio of enhancement features to deliver sharp and noise-reduced images.

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.

Advanced 3D inspection through CT

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 detection of porosities in casting parts during the development of new casting processes. The focus of the XRH222^{TL} 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 VisiConsult developed an economical in-line CT functionality that also allows a seamless integration to our ADR. Typical checks are porosity analysis and actual-nominal comparison.



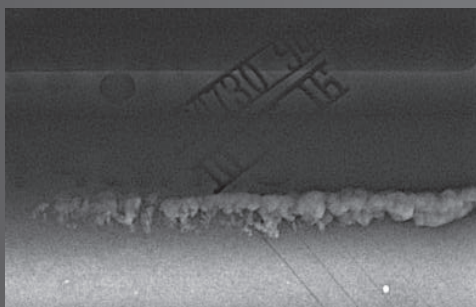
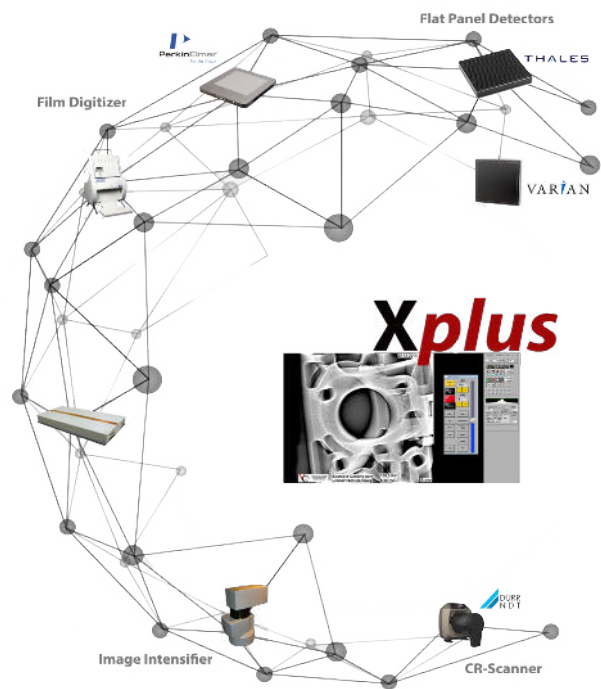
ADR for automated inspection

The XRH222^{TL} can also be used for high volume inspection by adding the Automated Defect Recognition (ADR) module. Several automation levels from assisted inspection up to a completely automated process with robots are available. This entitles the system for 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 XplusVAIP (VisiConsult Automated Image Processing). The VisiConsult ADR has many reference installations worldwide and is certified by renown companies in the automotive industry.

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.

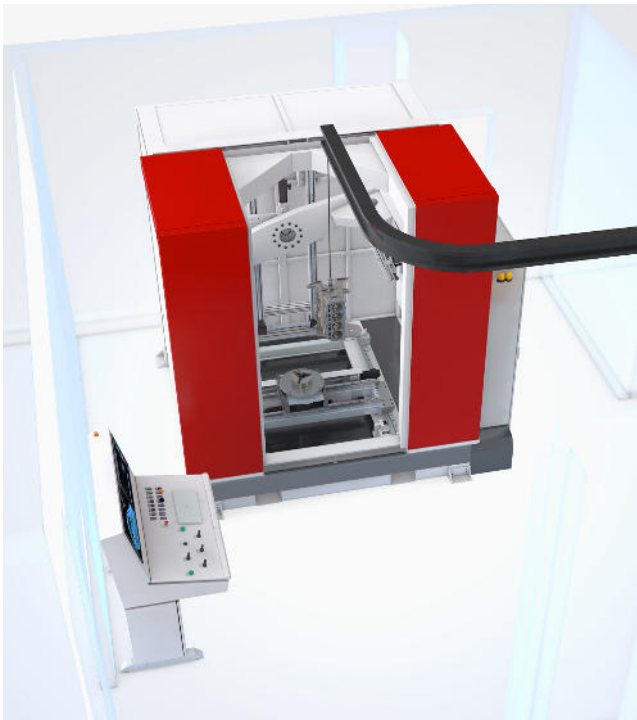
It fulfills all major international industry standards like ASTM, EN17636-2, Boeing 7042/44, NADCAP and many more. VisiConsult is a highly agile and flexible solution provider. Therefore, special software or even hardware requirements can be easily implemented on customer demand!



Being designed for big and heavy castings the angled doors allow a part handling by a roof-mounted crane or even fork-lifter. For inspection parts can be placed on the inspection table or in custom part holders.

The heavy duty part manipulator with a bearing load of 600kg was developed to carry even big steel castings. To maintain the ADR and CR capability VisiConsult developed a sophisticated control system incorporating ultra-precise motors. To allow inspection from multiple angles the C-Arm is able to do a $\pm 20^\circ$ tilt in every position.

The XRH222^{TL} is a specialized X-ray inspection cabinet for heavy and big parts.



XRH222^{TL} - technical specification

Max. part size (mm - Ø x height)	900 x 1500
Max. part weight (kg)	600
System size (mm L x W x H)	3000 x 2500 x 3000
System weight (kg)	13.500
Console weight (kg)	175
Console size (mm L x W x H)	1200 x 950 x 1600
Energy (kV)	160, 225, 320, 450
Horizontal motion TX (mm)	1200
Magnification TY (mm)	650
Focus Detector Distance FDD (mm)	1530
Focus Object Distance FOD (mm)	530 bis 1130
Vertical motion TZ (mm)	1520
C-Arm tilt RX (deg.)	+/- 20
Part rotation RZ (deg.)	360 multiturn

Dimensions and electrical values can vary depending on X-ray equipment. Cabinet in compliance to German and international radiation law. Dimensions can be customized in case of special requirements, especially in terms of part size.

Connection values: 3N PE, 400/230 V, 50/60 Hz
Power: 8 kW
Grounding: 8mm² separate grounding components
Transport: Complete cabinet on fork lift truck
Ambient conditions: Ambient temperature +10° to +35°C

- Easy part handling of big, heavy and complex parts
- Heavy duty part manipulator with ultra-precise axes for CT
- Completely developed and produced in Germany by VisiConsult
- ASTM etc.
- Customizable dimensions and layout if required



Your VisiConsult Sales Team!



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.