ECO C.320

VCxray
by VisiConsult

X-RAY ON

CONTROL PANEL ECO C.320

ECO line

Robust design for demanding environments

VCxray
by VisiConsult

Versatile

ECO C.225
ECO C.320
ECO C.450

This universal X-ray inspection cabinet is equipped with a C-arm and a large inspection envelope, as well as full CNC capability for automated inspection sequences. As with all ECO line systems, the ECO C. has a favorable cost-benefit ratio due to its standardization, but the X-ray source and detectors are still configurable. An easy and fast installation is ensured due to the compact design that includes forklift pockets. As soon as the system arrives, the operator can start to inspect because the training requirements are low, and the software is user-friendly.
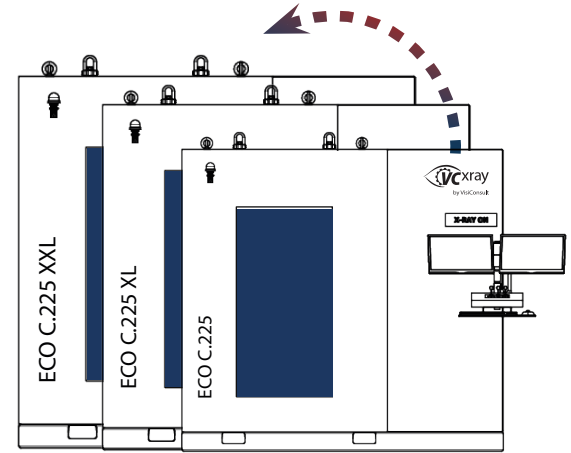
Optional **Film Mode:** CR and film inspection in your DR system.

- No frills concept and pure focus on the essentials

- Excellent cost benefit ratio for economic quality control

- Easy operation principle and low training requirements

- Ideal solution for manual and semi- automatic inspection tasks

- Full CNC capability for automated inspection sequences

- Easy movement on the shopfloor using forklift pockets

- Full VisiConsult image processing software suite available

- Inspection sequences and macros available

- Can be upgraded to Automatic Defect Recognition (ADR) and CT
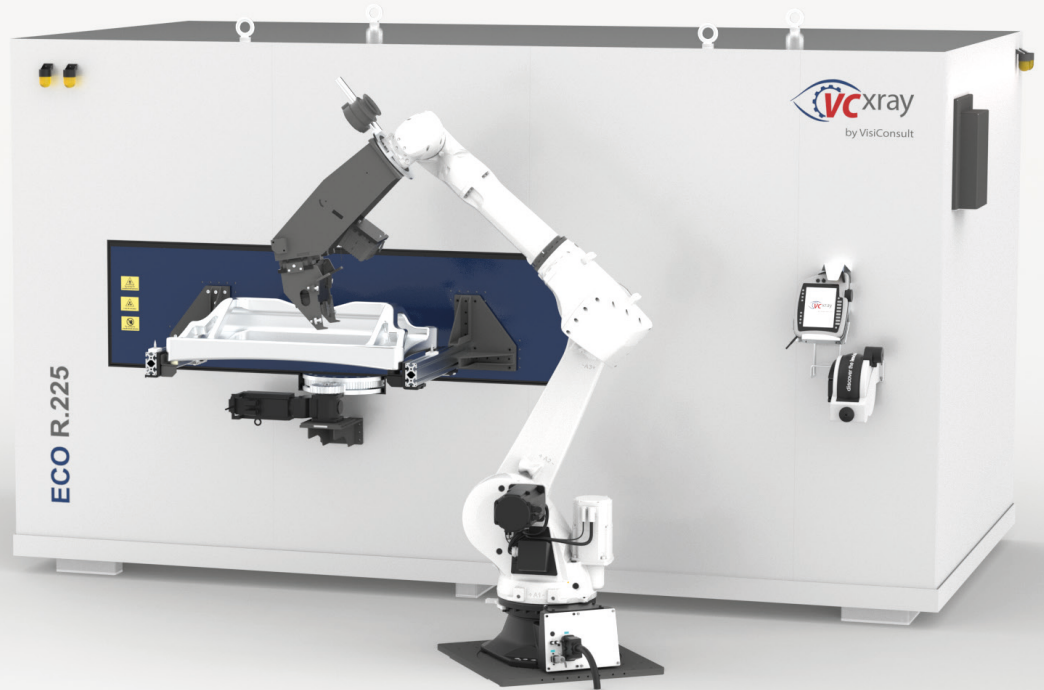
XL and larger sizes available!
More space for bigger parts

ECO C.225 XXL

ECO C.225 XL

ECO C.225

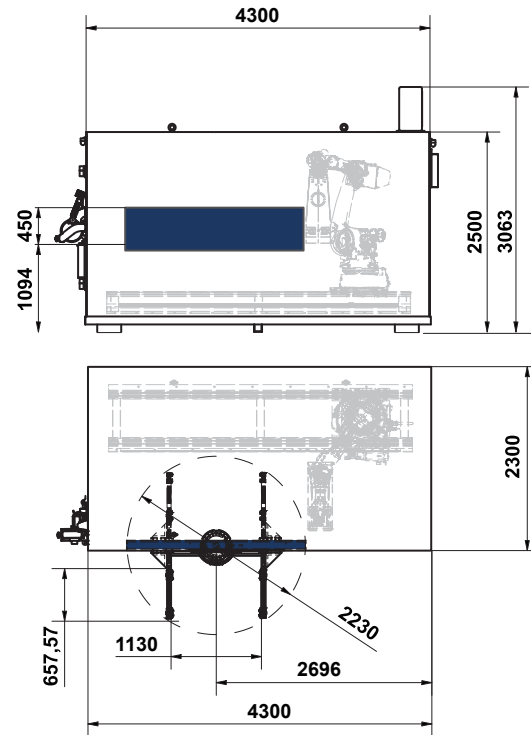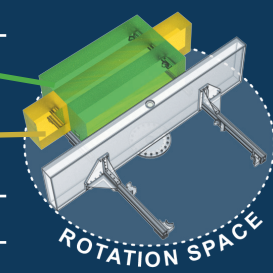|	ECO C.225	ECO C.320	ECO C.450
Total Weight	10000 Kg	18500 kg	25500 kg
Dimension (without panel) LxWxH	2600 x 2300 x 2600 mm	2850 x 2650 x 2700 mm	3150 x 2650 x 2800 mm
Parts envelope	Ø 700 x 1200 mm		
Tilt axis	± 20°		
Lift axis	1200 mm		
Magnification	1.22 x-4.65 x		
Part weight	Max. 150 kg		
Energy	225 kV	320 kV	450 kV

Rapid

ECO R.160
ECO R.225

The ECO R. is equipped with a robot inside the cabinet. A universal part table allows rapid part changing, where single parts, as well as several parts, can be inspected at the same time. The table is loaded from the outside of the cabinet either manually or by a second robot to achieve a fully automated system. The ECO R. is available with 160 or 225 kV, and comes with Automatic Defect Recognition (ADR).

Possible to load manually or by robot

- High throughput optimization enables speed

- Flexibility due to many features and options

- Loading by robot or operator possible

- Optimized for ADR operation

- Equipped with reliable industrial robot (Standard: ABB)

- Universal part table allows rapid change-over between parts

- Can be integrated into factory IT (MES/ERP)

- Inspection of a single large part, or several smaller parts at once

- Possible to load manually or by robot

- Automation interfaces available

	ECO R.160	ECO R.225
Weight	16000 kg	19000 kg
Dimension	4300 x 2300 x 2500 mm	
Parts envelope	Ranging between 700 x 400 x 1150 mm and 200 x 400 x 1800 mm	
Tilt axis	+-35°	
Lift axis	1200 mm	
Magnification	1,1 x -2 x	
Part weight	Max. 30 kg	
Energy	160 kV	225 kV

ROTATION SPACE

❯ Comprehensive image processing

- ✔ All ECO systems run with proven Xplus image processing and control software

- ✔ Includes a broad variety of image enhancement tools for unmatched clarity

- ✔ The VCxray LiveFilters ensure a realtime image enhancement similar to FLASH or HDR filters

- ✔ Easy annotation and overlay functionalities

- ✔ All software functions can be automated using inspection sequences and macros

- ✔ Multi language support

❯ Automated Defect Recognition (ADR)

- ✔ All ECO systems are ADR capable (Standard for ECO R.)

- ✔ Allows to detect defects like porosities

- ✔ Including an ADR offline programming toolbox

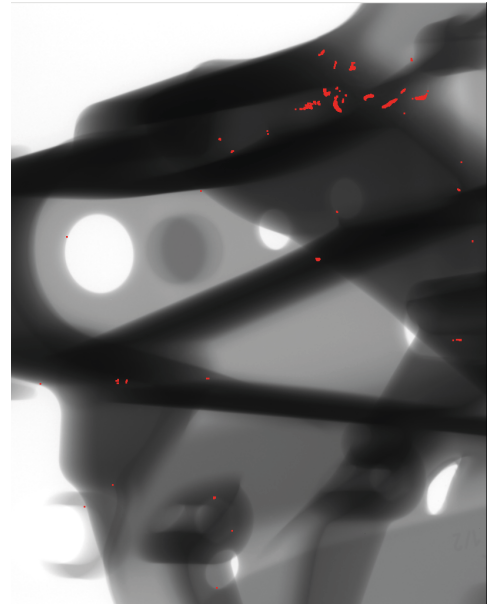- ✔ Evaluation criteria like defect size , defects per area , distance between defects etc. can be defined

❯ Premium X-ray sources

The ECO line provides a broad range of premium X-ray sources, that match your needs and specifications. From 225 to 450 kV with a focal spot of 0.4/1.0 and 0.4/1.2 mm. X-ray tubes come from VCxray's partner COMET and are manufactured in Switzerland.

❯ Excellent Detectors

	DDA0505J	DDA0909M	DDA1012M	DDA1717M	DDA1717HE
Active Area	130 x 130 mm	210 x 210 mm	250 x 301 mm	427 x 427 mm	426 x 426 mm
Pixel Pitch	85 µm	205 µm	100 µm	139 µm	100 µm
Frame Rate	20 (1x1) 40 (2x2)	30 (1x1) 60 (2x2)	10 (1x1) 20 (2x2)	6 (1x1) 12 (2x2) 18 (3x3)	10 (1x1) 20 (2x2) 30 (3x3)
Pixel Matrix	1536 x 1536	1024 x 1024	2496 x 3008	3072 x 3072	4260 x 4260

Automatic detection of defects through advanced image processing or Artificial Intelligence (AI) algorithms can offer significant savings. VisiConsult has over 25 years of experience in this field and has a comprehensive in-house developed ADR toolbox. It fulfills international quality standards like ASTM, as well as the demanding company standards in the automotive industry. Typical ADR applications include the detection of porosities, inclusions and cracks, as well as geometric measurements and feature recognition. It is possible to define specific ROIs to check many metrics like density, distance, size, occurrence per area and many more tools that can be dynamically defined. Training of the system does not require any programming skills and can be adapted by our customers.

➤ Computed Tomography

- ✔ Dimensional Measurement and Reporting
- ✔ Assembly Verification and Visualization
- ✔ External and internal measurement
- ✔ Foam Analysis
- ✔ Defect Detection
- ✔ Fiber Flow Analysis
- ✔ Failure Analysis

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