

Y.CT Solutions CT-based X-ray inspection systems

Non-destructive material testing based on computed tomography offers new possibilities to meet increasing demands on quality in many areas of industrial production. With the CT product range YXLON International is opening a new dimension in inspection techniques while setting international standards.



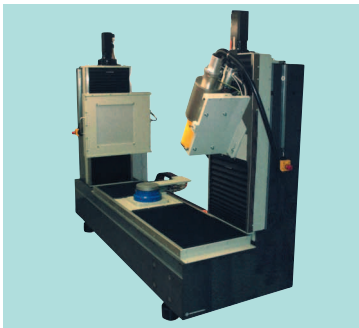
Y.CT Compact for CT inspection close to production

Designed to fit within a compact, radiation-shielded cabinet. Trouble-free integration into the production process and user-friendly operation. The rapid availability of measurement results allows for short test cycles resulting in low inspection costs per part. Well suited for material inspection, e.g. blowholes, crack searches and quality control in series production. Optimized for medium-sized inspection items made of plastics, lightweight alloys and aluminum, for example pistons.

Inspection envelope: diameter 300 mm, height 500 mm

Alternative: 225 kV or 320 kV X-ray source

Alternative: Line detector array or flat panel



Y.CT Precision for high-resolution results

The system's strength lies in the detailed investigation of small inspection areas. The rapid capture of data from full-scale volumes allows specialized inline reconstruction.

The inspection procedure can be reproduced exactly.

Specialized for test and measurement tasks in the range of μm resolution. Application possibilities lie wherever a 100% check on quality control is required. Designed for smallest-scale to medium-sized dimensions of inspection items such as ICs and circuit boards. Optimized for materials such as lightweight alloys, plastics or metal foams.

Inspection envelope: diameter 240 mm, height 750 mm

Open 225 kV microfocus X-ray tube

Flat panel with vertical-scan field extension



Y.CT Universal for a wide spectrum of inspection items

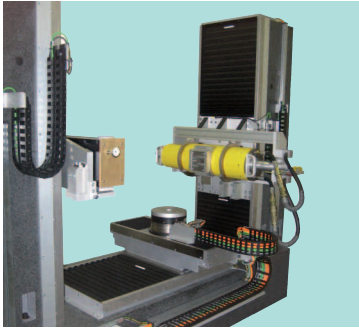
Offers a larger inspection envelope with equally high measurement precision throughout the entire envelope. A high-performance manipulator is equipped for voluminous and heavy inspection items. The primary applications are in research and development, as well as for rapid prototype qualification.

Suitable inspection items are cast parts made of aluminum and steel, as well as materials made of concrete, ceramics or rubber. The manipulator handles dimensions ranging from medium to large inspection items such as engine blocks or gear cases.

Inspection envelope: diameter 620 mm, height 1,200 mm

450 kV X-ray tube

Line detector array and flat panel



Y.CT Modular for flexible requirements

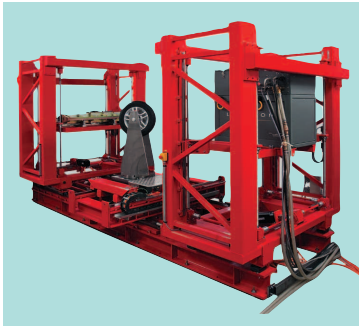
Modular configurable setup of the CT system, all modules can be retrofitted. Trouble-free adaptation to operational inspection tasks. Allows for a very wide range of inspection tasks and inspection items, all in one CT system.

Well suited for testing and measurement tasks involving cast parts, composite materials, electronics components. Capture of inner and outer geometric dimensions from smallest-scale to medium-sized inspection items, e.g. from electronic connectors to cylinder heads.

Inspection envelope: diameter 620 mm, height 600 mm

Optional: Micro and macrofocus X-ray tube

Optional: Line detector array and flat panel



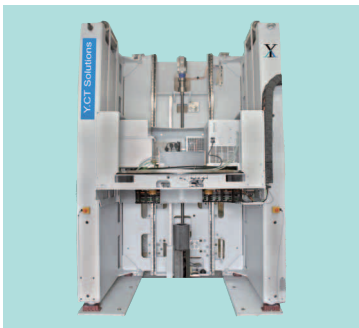
Y.CT Tire around tire and rims

Encompasses the comprehensive international palette of tire and rim types. Consideration of full-scale tire volumes is possible. Comprised of a special tire-constraining unit for studying tires under pressure.

Suitable for displaying different rubber layers within the tire and tire attachment to the rim. Application in research and development, as well as in the quality control of new tire types. Easy tire handling via a pallet system.

Inspection envelope: tire diameters up to 2,000 mm

X-ray source: 450 kV or 2.5 – 6 MeV linear accelerator



Customized solutions

System components are freely configurable. Adaptation from the CT system to operational test and measurement tasks. Technical data are optimized for the spectrum of inspection items.

Suitable for all X-ray-absorbent materials.

X-ray sources from 225 kV microfocus up to 9 MeV linear accelerator

Different type of line detector array and flat panel

Specifiable manipulator precise to $\pm 5.0 \mu\text{m}$ in the inspection envelope

Adapted radiation protection at the production site

Integration into operational inspection process and work flow