

METROTOM



ZEISS METROTOM 800 320 kV

Speed meets precision for high-density components



The efficient allrounder for parts of high-density

ZEISS METROTOM 800 320 kV is designed for high-precision inspection and metrology of dense materials like Inconel, Cobalt Chromium (CoCr), and additively manufactured metal parts or multi material assemblies. With 320 kV and advanced imaging technology, it delivers faster scans and unmatched accuracy, even for large or intricate components.



With tight metrology specifications at high-kV, the system meets VDI/VDE 2630 1.3 standards, ensuring the highest measurement accuracy for both quality control and critical inspections on complex geometries.

Multipurpose CT for small and large parts

With its high-kV X-ray source and adaptable scan settings, the system provides optimal penetration and accuracy for precise results across various part sizes and materials. This makes it the ideal solution for both inspection and metrology in a wide range of industrial applications.



Applications

Aerospace

- Internal structures of small Inconel blades
- Additively manufactured metal parts (e.g. injection nozzles)

Medical

- Cobalt Chromium implants (e.g. femoral knee, tibial knee)
- Titanium implants (e.g. bone plates and screws)

New energy vehicles

- Battery cells housed in steel
- Battery stacks & smaller modules
- Large connectors
- Stators

Electronics

- Small sensors housed in steel
- Multi material assemblies
- Motors with magnets and copper coils



Quick scans with outstanding image quality



A short source-to-detector distance enables scans up to four times faster than other ZEISS METROTOM systems to reduce scanning times even further for high-throughput applications. Additionally, ZEISS scatterControl minimizes scatter artifacts, ensuring sharp, high-contrast images even for dense materials – an ideal combination of speed and image quality for demanding industrial inspections.

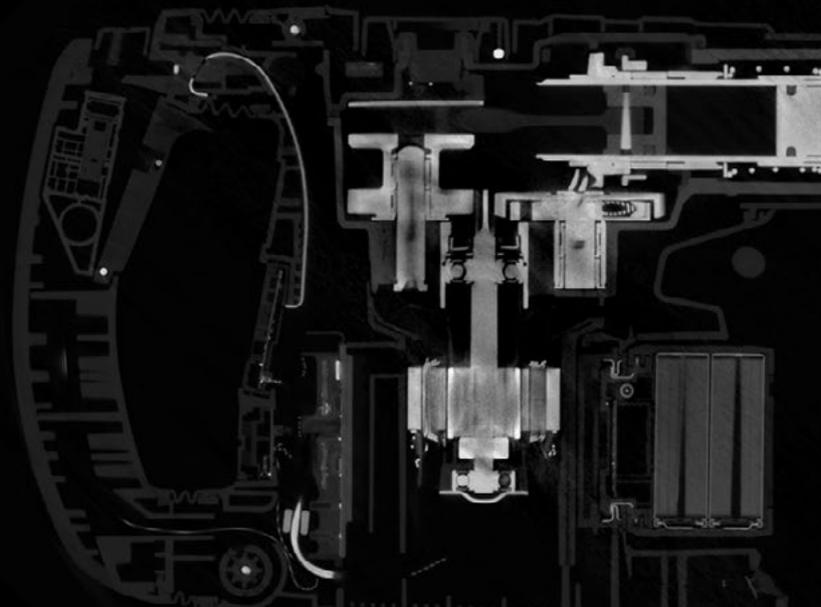


The X-ray tube operates at high-kV continuously, requiring no cooldown phase. This ensures maximum uptime, allowing back-to-back scans without delays for long-duration inspections or high-throughput at-line applications.

Comprehensive CT data analysis in 3D

The easy-to-use analysis software ZEISS INSPECT X-Ray allows complete CT data analysis in 3D – automated or customized and suitable even for beginners. Geometries, shrinkage holes or internal structures and assemblies can be analyzed precisely. Even small defects become visible through individual sectional images.

Various software options such as AI-driven ZEISS Automated Defect Detection further enhance the part inspection with ZEISS INSPECT X-Ray by automating the defect detection and simplify the inspection workflow



Technical details

X-ray tube	320 kV micro focus, max. 500 W
FPD	3072 × 3072 px @ 139 µm
Dimensions	1820 × 3200 × 2100 mm
Part weight	Up to 50 kg
Max. reconstruction volume (d × h)	325 mm × 250 mm 325 mm × 520 mm (vertical FoV extension) 500 mm × 470 mm (vertical and horizontal FoV extension)

For further information, check out our website zeiss.ly/sr1s

