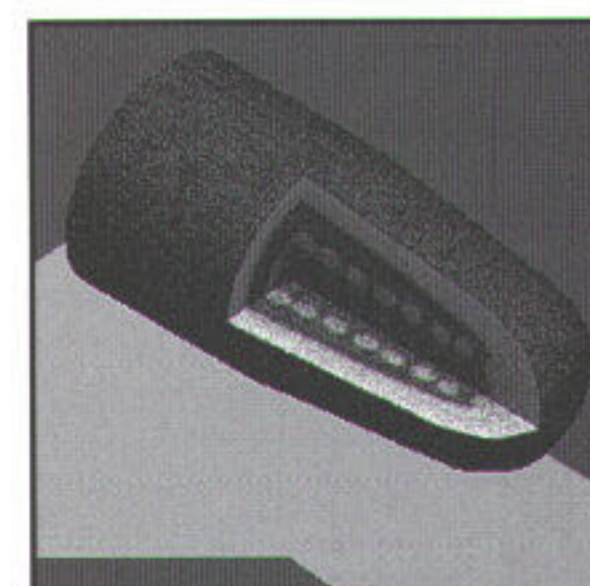
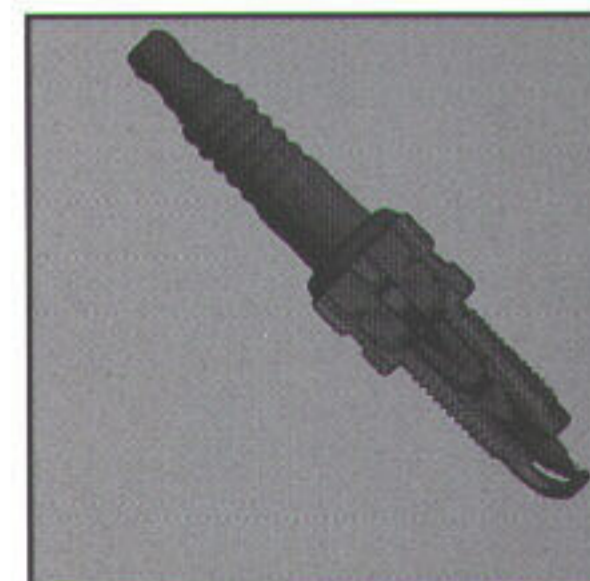
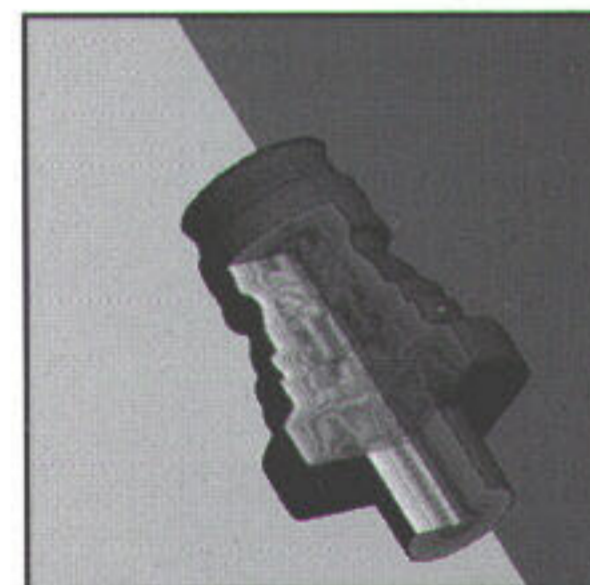
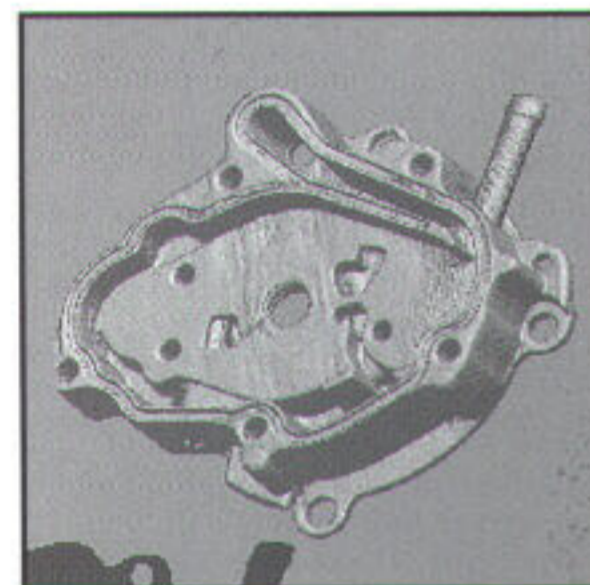
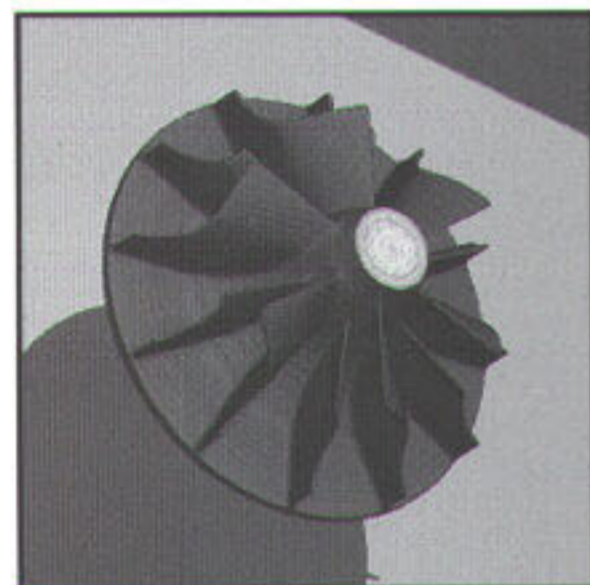


X-Ray Inspection Systems for Radioscopy and Three-Dimensional Computed Tomography

SEIFERT

3D-CT



The direct three-dimensional computed tomography enables a simple and economical analysis of a specimen's volume data. During specimen rotation, hundreds of slices are measured. In addition to the usual viewing of slices, the direct 3D computed tomography also allows a specimen assessment through longitudinal as well as cross sections. The parallel process of collecting measurement data and of computing reconstructions ensures very short processing times.

The use of a modern semiconductor flat panel detector also permits to view the specimen in the well-known radioscopy mode. The time-consuming search for ROIs in the specimen becomes superfluous.

Features

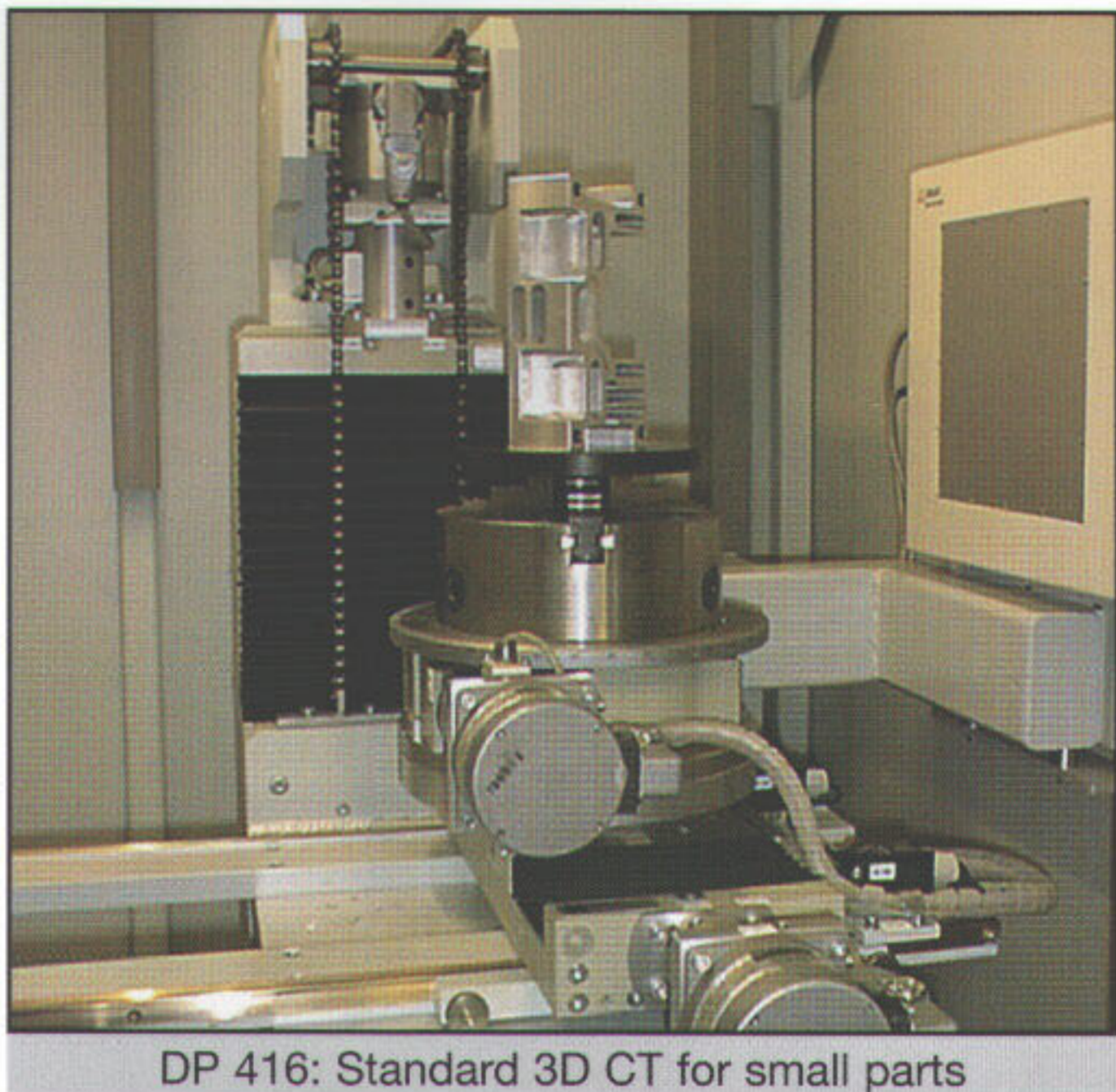
- Simple and fast determination of volume ROIs
- Direct 3D CT with hundreds of slices during a specimen rotation
- Short measuring and reconstruction times
- 3D volume reconstruction
- Reconstruction running parallel to measurement
- Automatic adjustment of 3D CT
- Direct viewing of the 3 orthogonal specimen planes
- Series of 2D slices supply information on the internal specimen structure
- 2D and 3D measurements in the specimen
- CAD data generation (reverse engineering)
- Extension of measuring range for large-volume specimens
- Excellent contrast sensitivity up to 450 kV
- Variable number of angle projections
- Modular system configuration through requirement-specific extensions ending in 3D CT
- Simple control with WINDOWS NT



DP 417: Charging of specimen manipulator



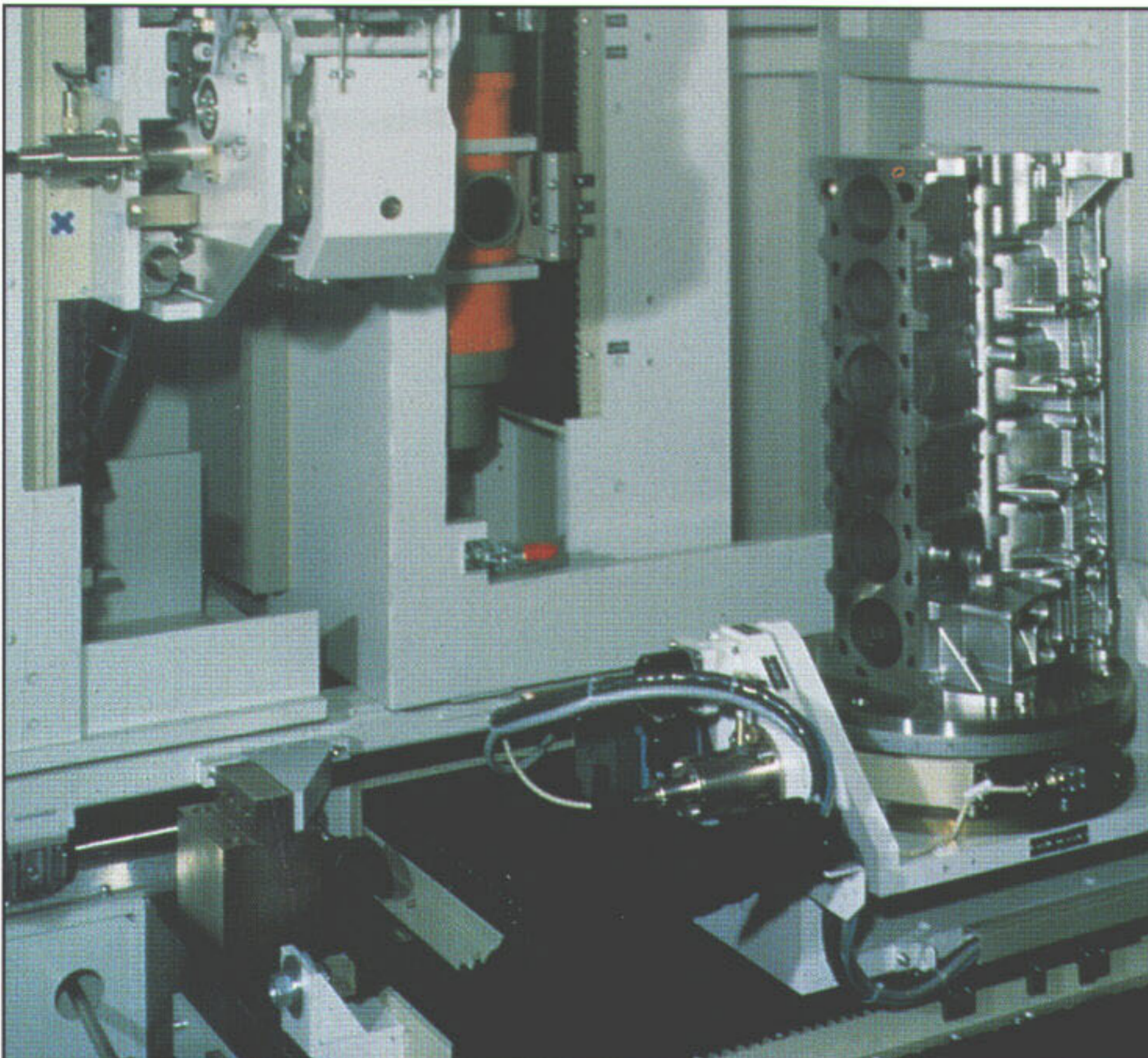
DP 417: Radiation protection cabinet for up to 450 kV X-ray voltage



DP 416: Standard 3D CT for small parts

The direct 3D computed tomography allows to view a specimen ROI over several planes. Besides the usual plane CT slices, longitudinal as well as cross sections can be selected.

A three-dimensional visualisation of the specimen volume and a display of the results in the STL format for continued processing with a CAD system enable the spatial measurement of the internal specimen structures.



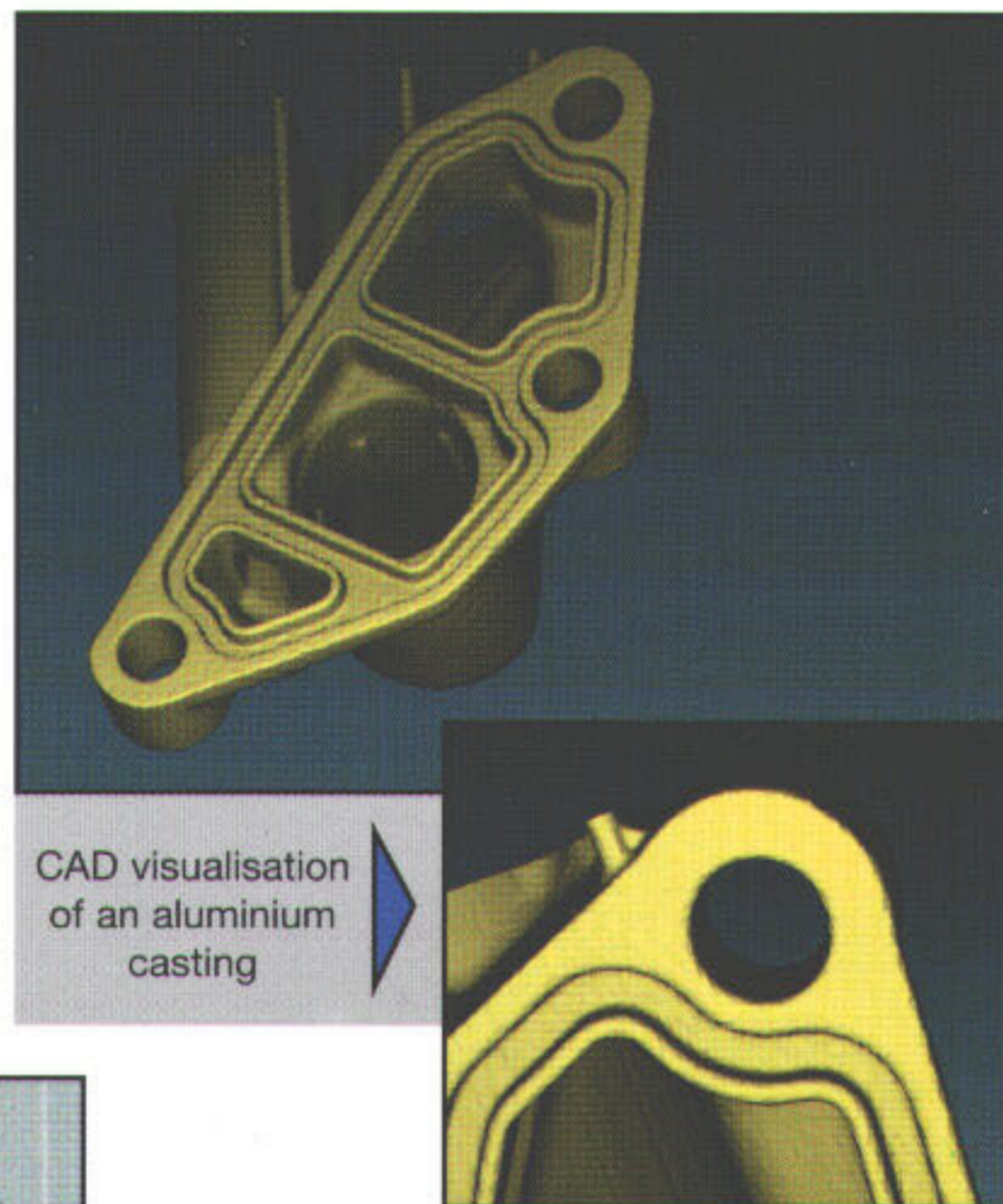
DP 248: Computed tomography up to 450 kV and microfocus computed tomography up to 225 kV

During a measurement routine the specimen is rotated through 360°. The number of angle projections is variable and determines the achievable detail resolution.

With each measurement, the direct 3D computed tomography establishes hundreds of slices and thus already the volume information on the specimen.

The measuring and reconstruction time amounts to about 3 minutes for 200 angle projections.

Assuming 400 angle projections, the results are available in about 9 minutes.



CAD visualisation of an aluminium casting

Options

- Volume visualisation through MPEG or AVI compatible videos
- Short reconstruction time through parallelling of additional computers
- Measuring options for specimen structure analysis
- Volume data display in STL format
- Continued processing with CAD systems for measurements and reverse engineering



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