Y.Cougar

Compact and multifaceted solutions for 2D and 3D microfocus inspection

- Rapid, high-resolution inspection results
- Easy operation
- Highly dynamic digital real-time image-capture chain
- Small space requirement

The system's intuitive operation allows inspection tasks to be performed quickly and effortlessly. Due to the extreme speed of inspection workflows, Y.Cougar is especially suited for the inspection of small-scale series.

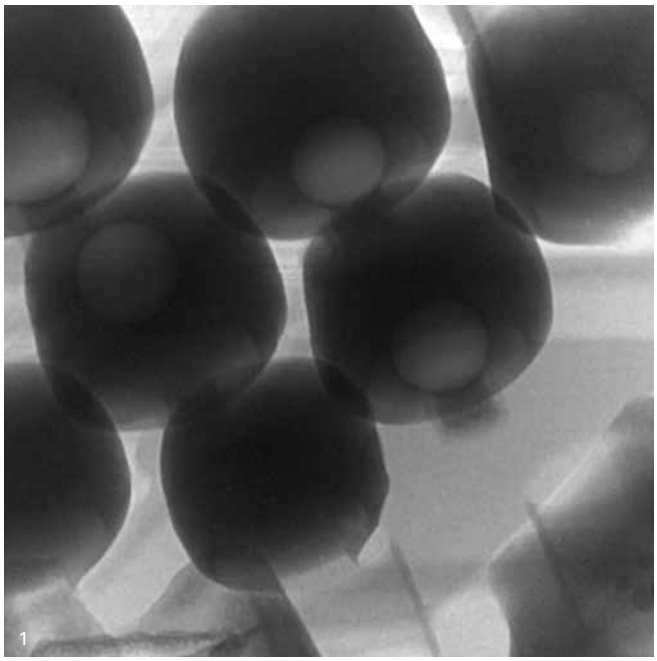
In the case of manual or single-part inspection, the 1-click operation enables availability of the first radiographic image within a few seconds. Functions such as *Click & Center, Click & Fly* or *Grid Inspection* are also 1-click operations.

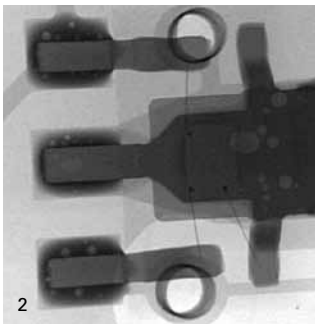
When designing Y.Cougar, special attention was paid to a small space requirement and intuitive operation. So the system can be operated in nearly any location, and even inexperienced operators can acquire good images quickly.

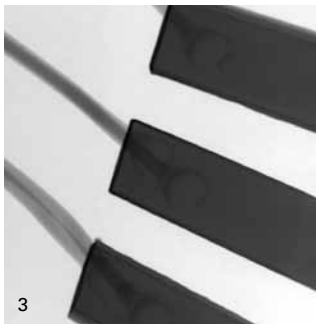
As with all units from FeinFocus, Y.Cougar offers a previously unachieved output and efficiency in both manual and automatic X-ray inspection. The brilliant radiographic images are attained via proven FeinFocus X-ray tube technology and a high-quality flat panel detector.

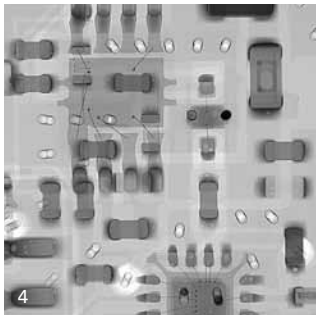
YXLON. X-ray technology at its best.

YXLON
Technology with Passion









1 BGA ball
2 Electronic component with air inclusions
2 Bond wedge
4 PCB overview

Configuration and Specifications

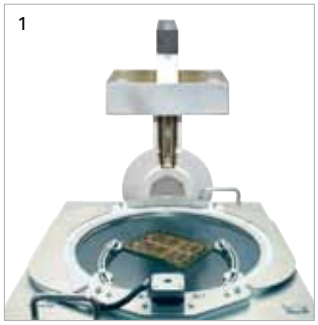
General Product Features	
Time to first image (typ.)	~ 10 s
Reconfiguration time (typ.)	< 60 s
µCT scan time (min.)	8 s
µCT reconstruction time (min.)	~ 60 s
Image chain	flat panel detector
CNC	yes, incl. *Click & Center* etc.
Twin magnifcation axis	yes, for Zt and Zd positioning
Oblique viewing	+/-70° (140°)

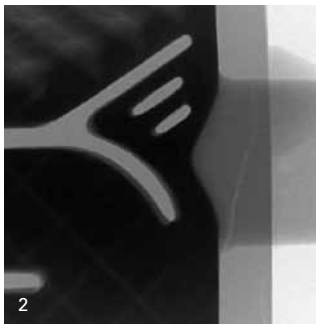
X-Ray Tube	
Tube type	open X-ray tube
Target	transmissive
Target material	Tungsten
Voltage range	25–160 kV
Current range	0.01–1.0 mA
Max. tube power	64 W
Max. target power	15 W
Detail detectability	< 1 µm, < 500 nm with MFT
X-Ray intensity control	TXI

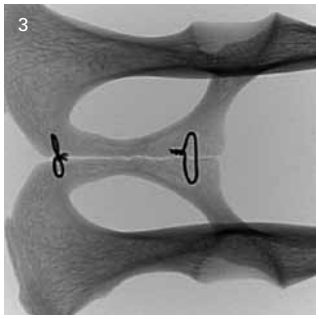
Manipulation	
Manipulation control via	mouse or joystick
Inspection area (max.)	310 mm x 310 mm (12″ x 12″)
Sample size (max.)	440 mm x 550 mm (17″ x 21″)
Sample tray axes	X, Y
Oblique viewing	+/-70° (140°)
CNC	yes

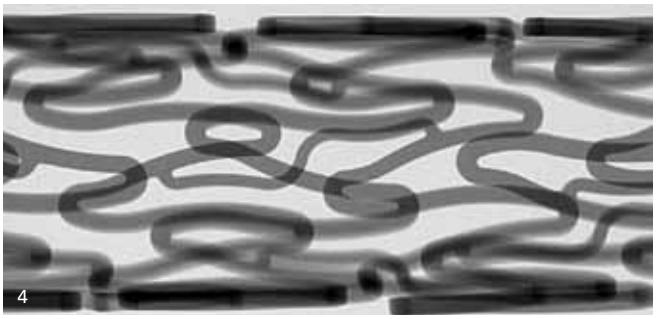
Image Chain	
Geometric magnification (max.)	2,000x
Total magnification (max.)	17,500x

Physical Dimensions	
Width / depth / height	~ 1,100 / 1,100 / 2,100 mm
Weight	~ 1,450 kg









1 Turntable in Y.Cougar
2 Crack in a turbine blade
3 Inner bone structure
4 Stent

Y.Cougar

In the case of manual and semi-automatic 2D and 3D µCT inspection of medium to large quantities, Y.Cougar offers high flexibility.

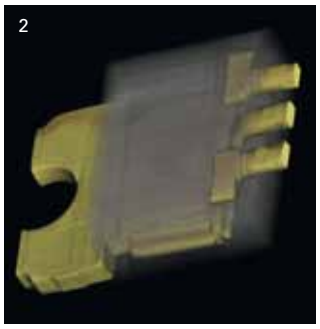
The standard version comprises a digital flat panel detector, CNC, oblique views and the following possibilities of manipulation:

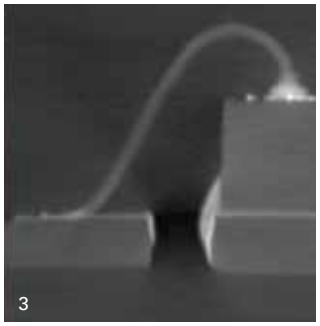
- Z-axis detector with 140° tilt
- Sample tray X/Y positioning
- Optional 360° rotation
- High-precision µCT sample rotation (with µCT module)
- Z-axis tubes

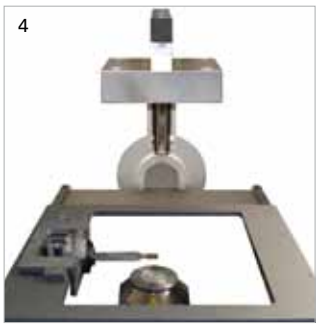
Inspection Workflow

Y.Cougar with oblique viewing and the CNC function are particularly suited for demanding tasks.

The system can be guided manually via joysticks or by *Click & Center* within the X-ray and overview image. All it takes are a few mouse clicks to be able to teach inspection work-flows code-free. The *Visual Basic Script* generated is excellently suited for additional adaptations specific to the customer. The *Easy-View* user interface allows direct access to libraries containing saved inspection workflows.







1 X-ray image of an inhaler
2 3D view of a power device
3 Tomogram of an LED
4 CT axis

Y.µCT Module with Y.QuickScan® Option

Allows an in-depth look into the inner, three-dimensional construction of inspection items via virtual cross-sections and layers.

The Y.µCT module, available for Y.Cougar, includes the following components:

- µCT manipulator with highly accurate rotation axis
- User-friendly scan and reconstruction software
- Workstation for reconstruction and visualization
- Y.QuickScan® for µCT scans within seconds and reconstructions in less than 2 minutes (optional)

Inspection Workflow

Systems with the Y.µCT module are particularly suited for high-resolution volumetric scans. Tube settings and positioning can be saved as a µCT program.

A sequence of projections is acquired during 360° sample rotation and transferred for reconstruction. The visualization software using an interface similar to CAD enables the detailed analysis of virtual cross-sections, layers and a lot more.

YXLON
Technology with Passion

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