

Led by experience. Driven by curiosity.

A spotlight on performance

MesoFocus - see production in a new light

c•met
x-ray

Increase throughput, reduce inspection cost

The MesoFocus quickly and easily detects and measures features from 25µm to 300µm at high magnification and in many cases eliminates the need for a dual tube inspection. Not only does this reduce the complexity of your inspection system, but it reduces costs per inspection part. With 3-focal spot sizes (50µm, 130µm, 200µm) it delivers the ability to analyse, detect, and measure a variety of different material densities from small to large features.

High throughput increases production rates

Ideal for inline inspection and simple integration into production lines, the MesoFocus' high throughput and 24/7 operating stamina can reduce your inspection times by up to 60% compared with standard open microfocus technology.

Maintenance-free tube gives high uptime

When you need a tube that can operate 24/7 with minimal maintenance and less downtime, the MesoFocus delivers. Predictive maintenance allows you to plan your service to fit your production schedule and maintain continuous operation when its most needed. The combination of high uptime and reduced maintenance costs reduce your total cost of ownership (TCO).

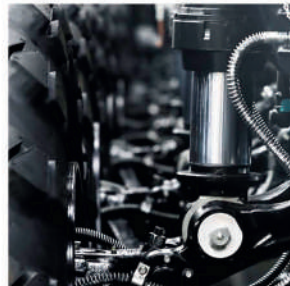
Ideal for harsh environments

The MesoFocus module has a robust, ergonomic and sealed design, which permits operation in oily and dirty environments - without a loss in performance. Dependent on usage parameters, any failure can be predicted in advance of operation. With its sealed tube, you can forget about the difficult and delicate maintenance of open microfocus tubes on the production floor, with the accompanying risk of dust and humidity.



Aerospace

High detail recognition and high penetration power are required to inspect turbine blades. MesoFocus eliminates the need for a dual-tube setup because the modules' pre-settings provide optimized resolution and power for different inspection needs.



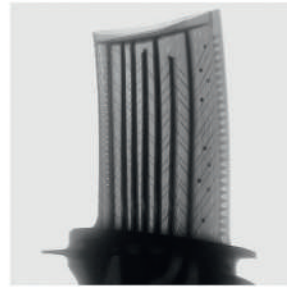
Automotive

The automotive industry strives to optimize fuel efficiency by reducing weight. These lightweight structures generate the need for high-resolution inspection, and the sealed MesoFocus module is ideal, providing stability, penetration power, speed, and resolution in both 2D and 3D CT.



Welding

The MesoFocus module is perfect for welding inspection and complies with the rigorous standards required for detecting cracks and welding flaws, inclusions, or corrosion. They can also be applied to measure wall thickness and cavities.



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The MesoFocus module

The module consists of the MXR 225MF X-ray tube, the iVario MF high-voltage generator, high voltage cables, cooler, and everything you need for quick and easy installation.

Inspect 3D printed parts and components

High-speed testing of complex additively manufactured parts on the production floor is now feasible with the MesoFocus. The combination of small focal spots with sealed tube design allows for accurate feature detection and measurements to down to 25µm.

With additive manufacturing, parts can be produced more cost-efficiently. MesoFocus enables this industry to reach its full potential by providing industrial-grade sealed X-ray tube technology, enabling high-resolution inspection in an industrial environment.

Create workflows easily and swiftly

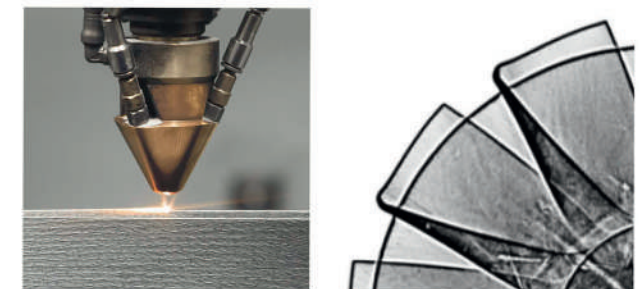
A MesoFocus system is designed to be easy to operate. With easy access to all tube functions via WebUI, Ethernet and T3 protocols, it's simple to adjust your workflow and create automated inspection routines for unattended image analysis. Unlike open microfocus tubes, which need several special functions for conditioning and adjustment, the MesoFocus module is as simple to integrate as a sealed minifocus tube.

Perform lightweight material inspection

The MesoFocus tube design, with its wide energy range allows materials to be tested down to 50 kV. Accurate and repeatable measurements of low-density materials and the analysis of low-density parts such as those made of plastics and composites can now be achieved with one system. The MesoFocus eliminates the need for a dual tube inspection system especially where composite materials and aluminium are combined in one single part.

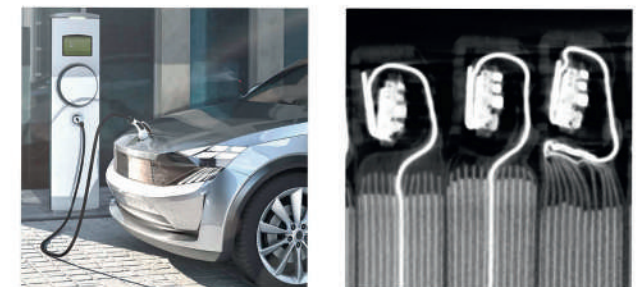
Consistent image quality and repeatability

By providing a stable dose rate over a 24-hour period, image stability remains consistent over long scanning times. Unlike open microfocus tubes, the MesoFocus module can be used for long term CT scans. Processes are highly repeatable and accuracy of measurements remains consistent.



Additive manufacturing

Additive manufacturing opens new possibilities across a host of industries, but critical to additive manufacturing is testability. MesoFocus enables the detection of small manufacturing defects down to 25µm in an industrial environment.



Battery

Portable devices and e-mobility demand increasing energy storage, leading to always smaller structures. Ensuring safe battery packs, inspection with failure detection down to 25µm is required, and the MesoFocus is a perfect fit.



Electronics

MesoFocus is ideal for electronics and electromechanical assembly inspection, where penetration power in combination with high resolution down to 25µm is a requirement.

Modular thinking

With more than 70 years under our belt, we've come to understand how vital it is that all the elements in an X-ray module work seamlessly together. It also requires deep know-how of the wide range of applications our customers demand – and how important it is for you to get a module, which is not only tailored to your needs, but is easy to configure, simple to install and trusted to deliver quick readiness. That's how we can offer you a module that's built with your company's success in mind.

Sharpen your performance with MesoFocus

Flexibility, stability high-throughput and ease of use are the key advantages the MesoFocus brings to your application. With three perfectly circular focal spot sizes you can analyse, detect, and measure a range of material densities from small to large features. The combination of sophisticated internal geometry and a stable generator give tube stability that provides consistent CNR, SNR, image quality and repeatability for longer scans, as well as metrology measurements.

Delivered as a complete, perfectly matched generator and tube system, the module is fast and straightforward to use. The operator no longer has to adjust the current to fine-tune the image; the module pre-settings automatically do this: select a focal spot, punch in the variables, and the module automatically optimizes power and output. Increase your throughput, boost production rates and reduce integration complexity with the MesoFocus – and take your performance to the next level of flexibility, speed and reliability.



Enlightenment through technology

Customers trust us to challenge the limits of what can be revealed. By pioneering intelligent X-ray technologies, we provide safer and more economical, ground-breaking solutions enabling our customers to navigate their own voyage of discovery.

Accepting this challenge demands extraordinary commitment. We invest talent and resources in creating brighter ways of exposing hidden worlds through the application of energised light. Light is at the core of everything we do, illuminating the path ahead. And with light comes revelation.

The transparency and clarity of the data we reveal, empowers our customers to make enlightened business decisions. These decisions have an impact on our mutual security and efficiency, accelerating our common journey to a sustainable planet.

Because when we see things clearly, the right way forward is obvious.

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