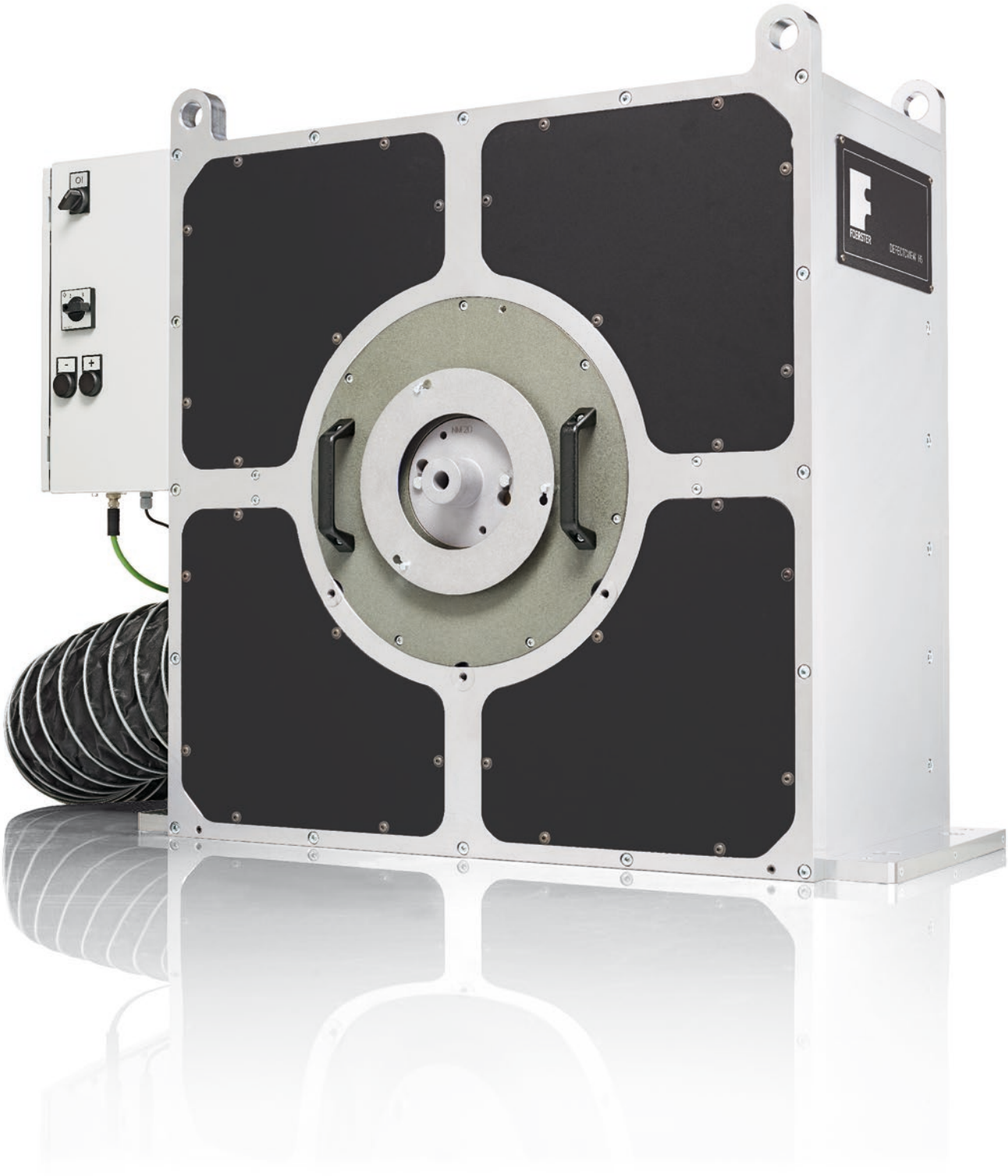
DEFECTOVIEW HS

High-speed photography for
documentation of quality in wire-rolling mills

FOERSTER



High-speed camera system for documentation of material quality

Want to visually assess the quality of your wire? Used in conjunction with an eddy current test system such as the DEFECTOMAT DA, the DEFECTOVIEW HS can take and record images of the defects.

The DEFECTOVIEW HS is a new, easy-to-use documentation system that perfectly complements eddy current testing. It offers significant added value through visualization of the defects, as this allows you to clearly validate the eddy current signals based on the defect images. This image recording system can save you time and effort on complex troubleshooting.

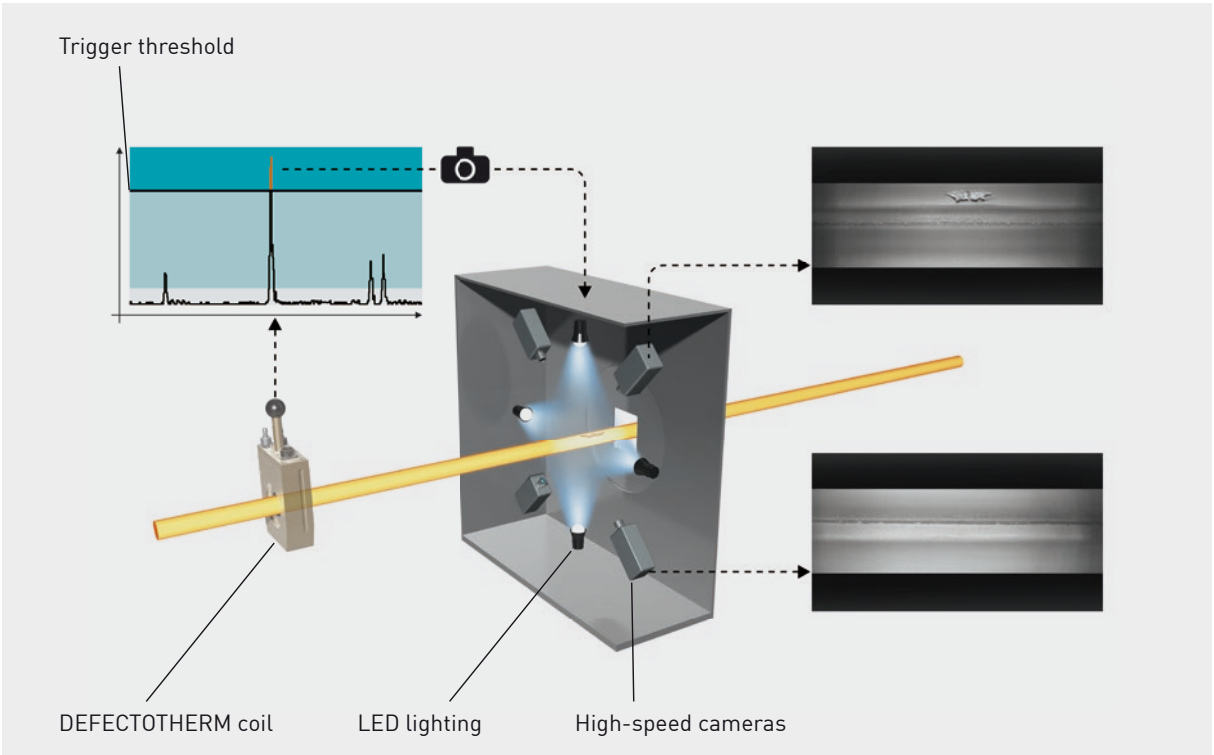
Its four high-speed cameras, together with LED lighting optimized for just this application, enable 360° optical inspection of the wire surface. When triggered by defect signals from the eddy current sensor, high-quality images of the defects are captured by the cameras and made available by the system.

More information without having to interpret signals
As soon as a wire has been rolled, you can visually review and evaluate the detected flaws. This allows you to draw conclusions – at a very early stage – about potential causes of the defects and, if necessary, take targeted interventions in the process: Directly compare the image in the ImageViewer against the associated eddy current test data.

Designed for the conditions typical of rolling mills
Due to the need for high availability and the harsh operating conditions usually found in rolling mills, the DEFECTOVIEW HS is designed to be particularly easy to maintain.

The cameras and LED lighting systems are shielded by a special glass cylinder that protects them from mill scale, dirt and water. Any scale, dirt or water that enters the system along with the wire is immediately removed by air from a blower. This reduces the cleaning effort to a minimum. The glass cylinder may be removed and cleaned, as necessary.

And should maintenance measures be required, the components' easy accessibility and the instrument's service-friendly design make it possible carry this work out quickly.



Images triggered by eddy current signals from a DEFECTOTHERM coil

The benefits

Defect visualization
When you can actually see the defects detected using eddy current, it's easier to interpret the signals – making it possible to draw fast conclusions about potential problems in the production process. This allows you to reduce costly waste.

Optimized for the rolling mill
The DEFECTOVIEW HS is designed for production speeds of up to 150 m/s and temperatures of up to 1200°C.

Optimization and faster commissioning of eddy current test systems
Assisted by DEFECTOVIEW HS's informative defect images, you can optimally adjust your eddy current test system to your rolling mill in the shortest possible time. The selected test parameters can thus be visually verified and their reliability increased.

Simple integration into an existing rolling mill
The camera system's compact design – 49 x 108 x 108 cm (L x W x H) – and its low requirement for precise wire guidance facilitate flexible integration of the DEFECTOVIEW HS into your existing rolling mill. Continuous image recording allows the DEFECTOVIEW HS to be positioned flexibly behind the DEFECTOTHERM coil.

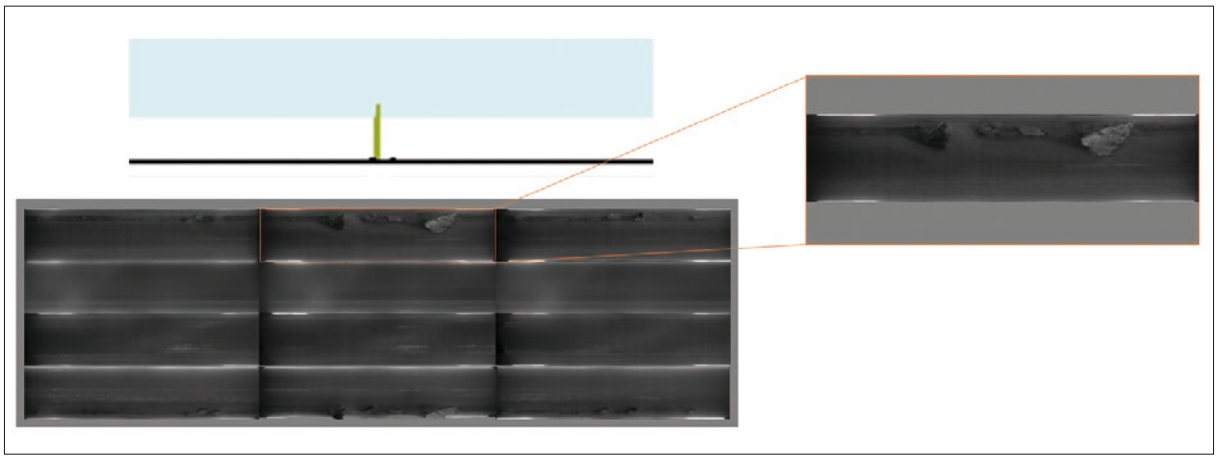
User-friendly software
The clearly structured user interface is based on the same proven operating concept as that of the DEFECTOTEST DA software, allowing users to orient themselves quickly.

Long cable runs
In addition to the standard data transmission over distances of up to 40 m, there is also the option of transmission via fiber optic cable. This makes it possible to bridge distances of up to 150 m without interference – and thus to accommodate the electronics in a protected area.

Flexible installation of the electronics
Thanks to their modular design, the electronics can easily be installed in a stand-alone control cabinet or integrated into a DEFECTOMAT DA (or other existing 19-inch) electronics control cabinet. This enables customer- and application-specific installation and integration of the components into your existing peripherals.

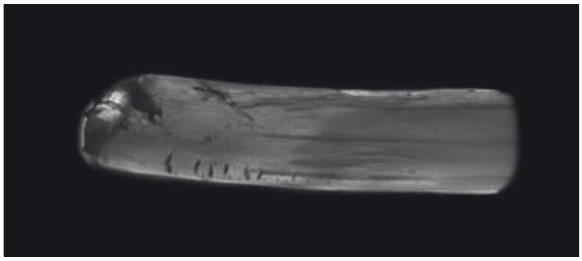
Object storage
The image data is saved to an S3-compatible object storage, which can be located either on the local computer or in the network. The S3-compatible interface also facilitates the connection of cloud storage. The image data can be viewed together with the eddy current data using the ImageViewer.

Web interface
The web interface allows you to remotely access the live system of the DEFECTOVIEW HS via any modern web browser. This allows you to quickly assess the current camera image and record the current system status.

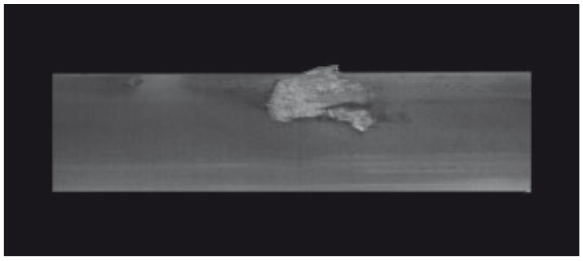


Eddy current and image data

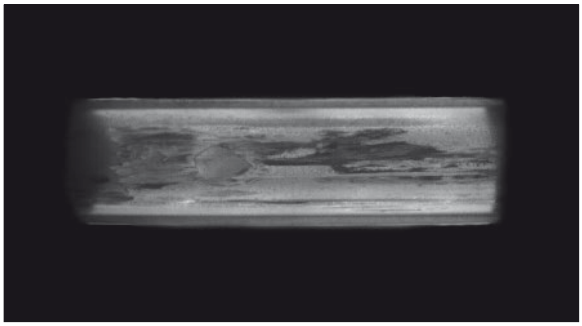
Images of material defects taken with the DEFECTOVIEW HS



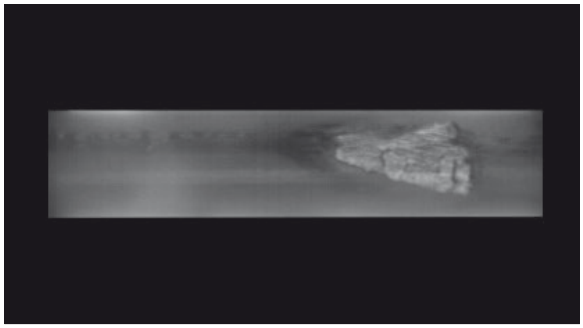
Wire diameter 7 mm | speed 75 m/s



Wire diameter 8 mm | speed 60 m/s



Wire diameter 6.5 mm | speed 80 m/s



Wire diameter 8 mm | speed 60 m/s

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