

PRESS RELEASE

Use of Optical CCS Inline Measuring Systems in Aluminium Cold Rolling Mills

Unique Camera Cluster Systems (CCS) guarantee top measuring accuracy for maximum quality requirements

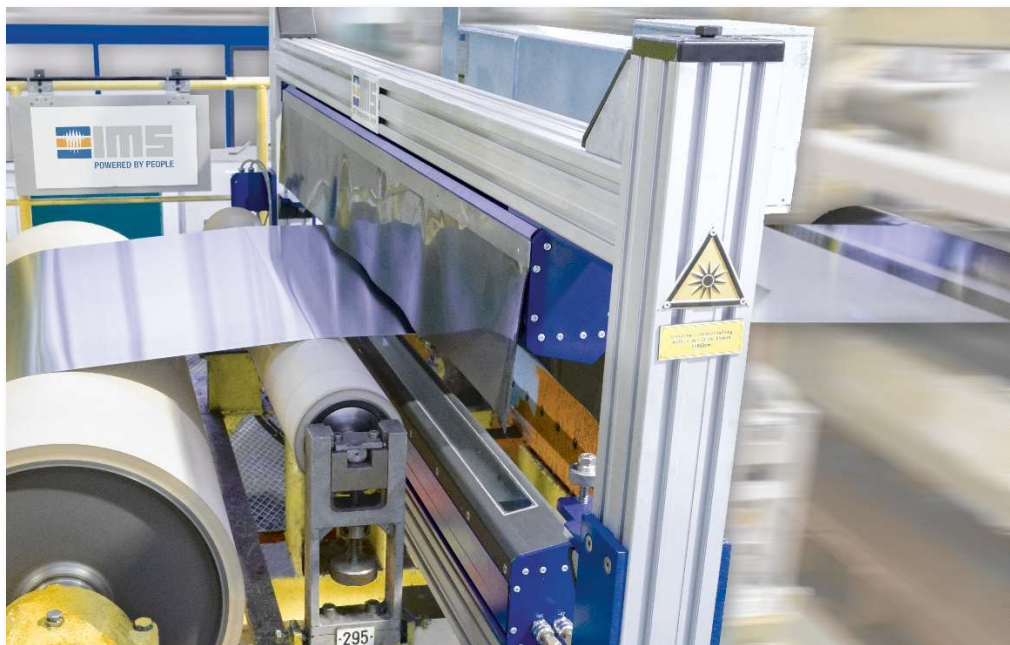
10.08.2021

Sonja Koch

Dipl. Ing (FH)

+49 2056 975-228

sonja.koch@ims-gmbh.de



Caption:

The unique IMS Camera Cluster Systems (CCS) form the basis of the optical measuring systems

- Aluminium is already an indispensable raw material for the most important industrial sectors of our globalised world, tendency rising
- CCS inline measuring systems guarantee high-precision solutions for numerous measurement tasks on aluminium products rolled down to foil thickness
- Significant increase in output and productivity of rolling mills with optimum quality, within the smallest tolerance limits

IMS Messsysteme GmbH
Dieselstraße 55 • 42579 Heiligenhaus | Germany
Phone: +49 2056 975-0 • Mail: info@ims-gmbh.de
www.ims-gmbh.de

The non-contact measuring systems of IMS Messsysteme GmbH have been developed further consistently in accordance with the specific requirements of the industry and applicable standards since the 1980s. Measuring systems from the Heiligenhaus-based manufacturer are used wherever meticulous material testing must be ensured during production. The precision systems have therefore now become an integral part of hot and cold rolling mills for aluminium, steel and non-ferrous metals around the globe.

The product portfolio of IMS Messsysteme GmbH offers an impressive range of state-of-the-art measuring systems optimally matched to each other for both aluminium hot and cold rolling mills that already perform the most significant measuring tasks precisely in their standard versions.

The flawless quality of the end product rolled down to foil thickness has the highest priority in aluminium cold rolling mills. Understandably so, since aluminium foils are also used in sterile areas such as the pharmaceutical industry, or as packaging material for food and beverages. Leaks here, for example, can have serious consequences.

For quality control within the tightest tolerance limits, IMS Messsysteme GmbH also offers aluminium cold rolling mills a convincing product portfolio of precision inline measuring systems for reliable performance of a wide range of measuring tasks and documentation of the results. In addition to radiometric measuring systems, optical Camera Cluster Systems (CCS) play a decisive role here.

The following CCS systems already cover the most common measuring tasks in aluminium cold rolling mills in their standard version:

- width, hole, edge crack detection
- slit strip width measurement
- pinhole detection
- sheet geometry measurement
- flatness and evenness measurement

Top availability and reproducibility of all measurement results form the basis for an optimal automated control of the production processes. Only through this 100% automation is it possible to effectively increase output while simultaneously reducing the reject rate.

These measuring systems owe their impressive performance to the unique Camera Cluster Systems (CCS). These systems are based on fast, intelligent high-tech cameras that are combined in so-called clusters.



A measuring unit essentially consists of the following components: a camera unit and – depending on the application – an LED or laser light source. The camera units are linked so closely that 100 of these high-tech cameras alone are used to inspect strip 2 metres wide. Thanks to their modular design, the CCS systems can be adapted easily to any strip width.

The quality data management system developed in-house by IMS continuously stores all measurement, production and order data during the inline measurement process, thereby enabling exact tracking and verification at any time. For 100% quality assurance, quality reports can be generated automatically and delivered for each product.

However, fully automated measurement technology is not only about economic advantages, but also about environmental protection and conservation of resources. By using high-precision measuring systems, material defects, surface irregularities, tolerance and dimensional deviations and many other factors that, in the worst case, would lead later to material rejects can be detected at an early stage in the manufacturing process. And precisely this contributes significantly to active climate protection as it is no longer necessary to produce new products to substitute defective ones, thereby saving non-renewable energy and water.