

Press release

A milestone in the tracking of semi-finished products

At the world's leading ALUMINIUM trade fair in Düsseldorf, LEIBINGER, together with coilDNA, is presenting a cutting-edge smart code system that enables seamless tracking of any and all parts of industrial semi-finished products.

Tuttlingen (Germany), 2 August 2024 – Today, semi-finished products are manufactured, dispatched and further processed along international supply chains. One of the greatest challenges is assigning the material to each and every step of the processing chain. This becomes especially difficult when products such as coils, pipes, profiles, strips or hoses are modified in length or width during production. In conventional production processes, it is virtually impossible to precisely allocate the data for each part.

coilDNA GmbH, a 100% subsidiary of AMAG Austria Metall AG, identified the market gap and developed a patented code consisting of 14 unique alphanumeric characters that are strung together in the code track – and which are never repeated. Each individual code element allows its exact position on the product to be determined. When data is assigned to these code elements, it can be retrieved in subsequent processing steps, regardless of how the semi-finished product was split. This enables seamless tracking of the material, its properties and the manufacturing conditions over several stages of the value chain – all the way through to the end product.

Prerequisite for success

A key requirement for the success of this type of coding is a high-performance CIJ printer system that can apply the code reliably, flexibly, without interrupting production and with reproducible results – even at very high speeds and under challenging industrial manufacturing conditions. To achieve this, coilDNA and AMAG turned to LEIBINGER, the industrial printer specialist and reliable partner for innovative coding & marking systems.

Collaboration with LEIBINGER

LEIBINGER developed its advanced interface software based on the LEIBINGER messaging protocol. The LEIBINGER JET3up printer's exceptionally high data processing speed allows printing of the several 100 to 1000 metre-long rolled products at up to an impressive 500 m/min. The flexible positioning and easy manipulation of the LEIBINGER print heads enable printing of the rolled strips in AMAG's production at virtually any width position, even in several lanes if required. As a result, up to eight slit strips can

be printed individually from above and below with different markings on the slitting lines. Even in this high speed range, excellent legibility of the dot-matrix font used is ensured.

AMAG and coilDNA are delighted with the results

Dr Werner Aumayr, Mathematician and Head of AMAG IT, took part in the development of the endless code. He is impressed with LEIBINGER's printing solution: "The comprehensive support provided through LEIBINGER during the installation and testing phase, as well as the high quality and flexibility of the JET3up printers in use, deserve special mention. The installation of the printers and related equipment during ongoing production – without interrupting it – presented the team with a unique challenge, which was solved to our complete satisfaction and on schedule thanks to excellent project coordination."

An established solution and positive feedback

The solution has now become well established at AMAG and has passed extensive practical testing. In addition to the JET3up printers used at AMAG, implementation would also be possible with the new IQJET printer from LEIBINGER, as it also features the required interfaces. coilDNA's experience with the LEIBINGER printers and protocols has been very positive and the IoM (Internet of Material) experts are happy to recommend them to other companies requiring this unique expertise.

A joint trade fair appearance

This commitment to LEIBINGER is reflected in the joint trade fair appearance at this year's ALUMINIUM trade fair in Düsseldorf. From 8 to 11 October, the solution will be showcased at Stand 6E72, Hall 3. What has proven itself in practice at AMAG can also be established efficiently and reliably at other companies. All interested parties are welcome to visit the stand, explore the solution and discuss their specific requirements with the experts on site.

Contributing to sustainability

Transparency along the entire supply chain also meets the increasing demand for a clear CO2 footprint for end products. Together with coilDNA, LEIBINGER is demonstrating that stringent requirements such as these are already being met today – and can be successfully implemented. A truly innovative milestone in the tracking of semi-finished products.

Image captions:



A LEIBINGER CIJ codes aluminium products reliably and flexibly. With a patented code imprint, even partial pieces of raw material can be tracked seamlessly.

Source: Paul Leibinger GmbH & Co. KG

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About Paul Leibinger GmbH & Co. KG (LEIBINGER)

LEIBINGER is a global specialist for marking and coding systems with its headquarters in Tuttlingen (Baden-Württemberg), Germany. This third-generation family-run company founded in 1948 employs a payroll staff of around 300 employees. Its primary focus is on the development and production of industrial inkjet printers and inks for use in the marking and coding of products. The solutions created by LEIBINGER are defined by their high quality standards and their innovative technologies. As the inventor of a ground-breaking nozzle sealing technology that makes ink-based marking and coding systems significantly less susceptible to contamination, now with tens of thousands of installations worldwide, LEIBINGER is able to assure higher productivity in the production of food and industrially manufactured products. Through its subsidiaries in the USA and China and its global network of around 150 distribution partners, LEIBINGER is able to maintain a close relationship with its customers right around the world.