

ZINQ tags: The key to effortless component identification and seamless traceability

In the production hall of Schwevers Stahlhochbau GmbH & Co. KG in Kalkar, component after component is lined up. Each one has a labeled and laminated tag attached to it - a ZINQ tag. This tag contains relevant data such as weight, position and order number, as well as QR codes from IQSteel, the ERP system used by Schwevers. This means that each part carries its digital information directly with it and remains uniquely identifiable throughout all process steps: from production and galvanizing to assembly on the construction site. For Schwevers, this means maximum transparency, smooth processes, and full control over project progress at all times.

Florian Hachmann-Köhl, workshop manager at Schwevers, greatly appreciates the data-rich tags: "The ZINQ tags are small, handy, and offer real added value thanks to individual QR and barcode options: We can quickly assign components, record them digitally, and process them smoothly. We also use them for internal control of the flow of goods—this ensures clear processes and greater transparency." Currently, there is a project in which steel railings manufactured by Schwevers and then finished by surface specialist ZINQ must arrive on site on time.

Even smaller orders involving thousands of individual parts, which are transferred from digital drawings to physical production, would be virtually impossible without sophisticated labeling. ZINQ tags can withstand high temperatures of up to 450 °C, meaning they easily survive the galvanizing process—QR codes remain permanently legible, guaranteeing reliable labeling.

From metal tag to smart tag

In the past, only position numbers were stamped onto metal tags. Today, however, modern ZINQ tags provide significantly more information: they connect to ERP and MES systems and enable real-time tracking of all components. This creates a continuous digital chain, from manufacturing to surface application to assembly. In addition, the tags can remain permanently on the component, for example as a material passport for digital models or BIM applications.

Tailor-made for the journey

“In-house printing offers our customers complete flexibility, fast availability, and is incredibly easy to implement,” says Michael Rahlke, Business Development ZINQ Technology.



Labeling example of a ZINQ tag that Schwevers used for one of his projects.

“We supply the stainless steel sheet signs with ceramic coating as blank rolls—around 90 meters long and 76.2 millimeters wide. The customer determines the final sign length using the cutting settings on the laser. Apart from the tags, there are no consumables for labeling, as the color is already contained in the signs. The ZINQ tags are marked with a CO2 laser, to which the special ceramic ink reacts by turning black." Laminating can then be carried out with acid protection laminate for subsequent galvanizing or, if necessary, with a blasting and paint protection laminate for possible painting.

Reduction of incorrect deliveries and optimization of processes

The type of information on the labels is arbitrary and easy to design thanks to the software supplied: company logos, component descriptions, and even machine-readable barcodes can be applied. This enables consistent identification and traceability at every stage of the process. Easy allocation on construction sites, especially with multiple suppliers, reduction of incorrect deliveries, and reduction of time and error expenditure in goods receipt and issue processes are just some of the advantages that the use of tags brings. Florian Hachmann-Köhl sums it up as follows: "Fast data capture and easy tracking at a low overall cost make ZINQ's Tag & Track solution indispensable for us. It is easier to use than conventional label printers. With each ZINQ tag, a history is created for each component or packaging unit, which also facilitates subsequent project evaluation."

The facts

Project
The customer is looking for a solution for the individual components of its steel construction projects that allows them to be individually marked, identified, and digitally tracked throughout the entire process chain. ZINQ tags are the perfect solution in every respect: they can be attached directly to the component with the desired information—in plain text, as a barcode, and/or as a QR code—and remain legible indefinitely. Instead of using ZINQ technology for contract printing, the customer has opted for automated labeling of the blank tags in-house (in-house printing). The latest generation, ZINQ tag® PLUS EZ, takes development one step further: the integrated protective film eliminates the need for lamination entirely. This is a decisive advantage that saves time and further simplifies handling.

Client
Schwevers Stahlhochbau GmbH & Co. KG

The Kalkar-based company offers steel and steel construction solutions for commercial and industrial buildings - from design, consulting, and planning to steel processing in its own factory and turnkey construction, all from a single source. Steel is processed into the desired solutions in state-of-the-art NC-controlled facilities, drilling, sawing, blasting, and cutting plants. Further information is available at: www.schwevers-stahlhochbau.de

Galvanization
ZINQ Gelsenkirchen GmbH & Co. KG

project management
ZINQ Technologie GmbH
Further information is available at: www.zinq-technologie.com

Implementation of ZINQ tags - these are the possibilities:

Solution 1: We supply you with pre-printed ZINQ tags (wage pressure)

1. You entrust us with the information you provide on the You can specify labels via an Excel file.
2. We suggest the label size best suited to your needs, and you choose your preferred labeling technology (text with or without QR code/barcode, etc.).
3. All you have to do now is attach the ZINQ tags that were delivered to you!

Solution 2: Label your ZINQ tags yourself (self-printing)

1. We provide you with the special hardware and assist you with the installation on site.
2. You order the (unprinted) ZINQ tags from us and then label them yourself for your future projects.
3. All you have to do now is attach your printed ZINQ tags to the components and/or packaging units.