

smart-TEC  
Company profile  
2024/2025



vossloh  
GIAI  
(8004)5430001341420129279

GS1 GIAI  
(8004)36145540000000000549162

DB  
High Contrast  
GS1 GIAI  
(8004)36145540000000000123456  
specimen by smart-TEC

Nameplate  
TEC  
Identification  
RFID  
QR code



smart-DOME INDUSTRIAL  
by smart-TEC  
Automatic identification  
II-5 61406 - Automatic identification  
Physical objects  
smart-TEC sDF  
2223 6110  
I:CEX EPS 15 0042X  
I 2G Ex Ia IIC T80°C Db  
CE 2011

SNCF  
GS1 GIAI  
(8004)361455

DB  
High Contrast  
GS1 GIAI  
(8004)36145540000000000123456  
specimen by smart-TEC

smart-TEC  
Identifikations-Tags für  
Schweißungen von Schienen  
- Klemmbar auf Schienenfüße -  
Schweißstellen-Nr. (2021) 0123 456 7890

RFID  
2004  
smart-TEC sDF 2223 6111  
I:CEX EPS 15 0042X  
I 2G Ex Ia IIC T80°C Db

DB  
GIAI:  
(8004)405822640000000003221142  
Dual Frequency UHF + NFC (text)  
specimen by smart-TEC

## Facts & Figures RATHGEBER Group

smart-TEC GmbH & Co. KG is a company of the RATHGEBER Group in Oberhaching near Munich. We have been developing and manufacturing customized RFID/NFC tags for over 25 years. The spectrum ranges from self-adhesive, printed RFID/NFC labels to robust, durable, weather- and temperature-resistant RFID/NFC tags for the industrial sector. The majority of RFID/NFC tags are certified for use in explosion-protected areas. In cooperation with system partners, smart-TEC also offers comprehensive project support.



Andreas Schräggle  
Managing Partner



Andrea Schräggle  
Managing Partner



Klaus Dargahi  
Managing Director

### 1948

Foundation of the company RATHGEBER GmbH & Co. KG

### RATHGEBER Group

RATHGEBER GmbH & Co. KG, smart-TEC GmbH & Co.KG, RATHGEBER k.s., RATHGEBER Sp.z o.o.

### Locations

Company headquarters in Oberhaching near Munich, production plant I (Mindelheim, Germany), production plant II (Bystrice, near Brno, Czech Republic), sales headquarters in Wroclaw, Poland

### Employees

Approx. 350 worldwide

### Annual turnover in euros

2023: 41,4 Mio., 2022: 41,7 Mio., 2021: 37,7 Mio., 2020: 31,8 Mio., 2019: 34,7 Mio., 2018: 35,5 Mio., 2017: 34,8 Mio.



Headquarter Oberhaching, Munich



Plant I, Mindelheim in Germany



Plant II, Bystrice in the Czech Republic

### smart-TEC makes the difference

- Expert in the RFID/NFC environment for more than 25 years
- Worldwide partner network (reader manufacturers, system integrators, software developers, etc.)
- Active memberships in various trade associations (AIM, dmt Förderverein, GS1 Solution Partner, Digital Data Chain Consortium (DDCC))
- All processes and products are subject to the highest quality requirements and the environmental management system (DIN EN ISO 9001:2008, DIN EN ISO 14001:2004)
- Focus on customized RFID and NFC solutions
- In-depth consulting expertise with regard to Industry 4.0, DPP and IoT
- More than 30 different production technologies at two production sites

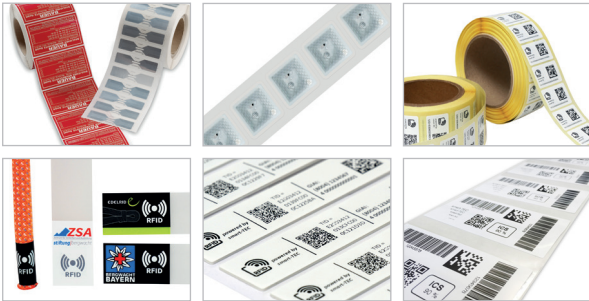
### Our core competencies

- Specializing in robust, durable and weather-resistant RFID/NFC industrial tags as well as RFID/NFC labels - programmed, printed, blank, different security features
- Materials, design, shape, printing, chip technology, chip programming, format and adhesive properties are specially tailored to the project requirements
- Labeling specialist in the chemical, railroad, medical and construction industries
- Comprehensive project support, from customized consulting to technical feasibility studies, project design, selection of suitable RFID/NFC hardware and software components to project implementation and support

## RFID/NFC products

smart-TEC specializes in all aspects of RFID/NFC technology. Our parent company RATHGEBER's more than 75 years of experience in the field of product identification for marketing and technology make us the ideal partner for smart, individual RFID/NFC solutions. Our close cooperation with well-known companies in the industry guarantees that you are always at the cutting edge of technology with us.

### RFID/NFC label (LF/HF/UHF)



#### smart-LABEL

- Very thin and self-adhesive
- Blank or printed
- All common chip types and frequencies
- Individual chip coding and programming
- Wide variety of materials and adhesives
- Adaptation to customer-specific requirements: Shape, size, material, adhesive, imprint, programming and security features - hologram, security punching, microprinting, personalization, etc.

### RFID/NFC digital name plates (LF/HF/UHF)



#### smart-PLATE

- Metal type plate and integrated RFID/NFC technology
- All common chip types and frequencies
- Individual chip coding and programming
- Metal name plate printed or laser engraved
- Various fastening options (riveting, screwing, gluing, welding, etc.)
- Wide range of materials and material thicknesses (aluminum, stainless steel, etc.)

### RFID / NFC industrial tags – also explosion-proofed (LF/HF/UHF)



#### smart-DOME

- Customization of design, color, shape, mounting (also in miniature)
- Very high mechanical, thermal and chemical resistance
- Mount-on-metal version for metallic surfaces
- All common chip types and frequencies
- Imprinting, laser marking and chip coding according to customer requirements
- ATEX, IECEx and UKEX certified

### RFID / NFC emblems (LF/HF/UHF)



#### smart-CHROMOTION

- All common chip types and frequencies
- 3D haptics, free in design and color selection
- Chip coding and personalization according to customer requirements
- Can be applied to almost all textiles

## Certified quality and environmentally conscious management

Environmental protection plays an important role throughout the RATHGEBER Group. The Group's environmental management has been certified in accordance with DIN EN ISO 14001:2015 for many years. The RATHGEBER Group is also the first climate-neutral company in the industry. At our plants in Germany and Bystrice (Czech Republic), we produce exclusively in DIN EN ISO 9001:2015-certified quality.



## Competence Center

The RFID/NFC Competence Center is the interface between customers, sales, development, product management, measurement laboratories, partner companies and all other necessary specialist departments RATHGEBER Group and offers a wide range of different services in the field of RFID/NFC technology.

An international team offers customized process consulting and optimization and trains customers in workshops and seminars tailored to specific needs and problems. We show how RFID/NFC technology can be used to make processes faster, more traceable, more secure and more cost-effective.

## Process consulting and optimization



- ✓ Training on the technical basics of RFID/NFC technology
- ✓ Workshops and seminars - on our premises, in a customer environment or online
- ✓ Well-founded consulting expertise for process design and implementation in the context of Industry 4.0, DPP and IoT
- ✓ Comprehensive project support, from customer-specific consulting to the implementation of feasibility studies, cost-benefit analyses and project design
- ✓ Support in the selection of suitable RFID and NFC hardware and software components

## Performance measurements in our own laboratories or in customer environments



- ✓ Determination of the orientation-dependent range/response field strength to optimize the alignment of the RFID/NFC reader to the RFID/NFC transponder
- ✓ Performance determination for RFID/NFC transponders for the HF frequency (13.56 MHz) and the UHF frequency (868 and 915 MHz)
- ✓ Extensive temperature, weathering and stress tests in our laboratories and in customer environments
- ✓ Detailed documentation of our test results and recommendations for technical implementation

## Software solutions

The first decisive step into the age of IoT (Internet of Things) and Industry 4.0 is the digital identification of a product or machine. This is done either via a printed 2D code or an integrated RFID/NFC tags with an unique and globally unique serial number (UID).



When the 2D code or RFID/NFC tag is read with a smartphone or tablet, an automatic connection is established with our IDconnect software solution. Product or machine specific information is then provided online in IDconnect - without having to load an app. The globally unique chip identification number (UID) of the RFID/NFC tag or the serial number assigned in 2D code format are linked to the customized IDconnect.

## Digital product passport (DPP)



Our IDconnect software solution was developed for the simple implementation of the Digital Product Passport (DPP). According to an EU regulation, every company is obliged to provide information on the origin, composition, materials and disposal options of a product throughout its entire life cycle. This information must be easily and digitally accessible. Our IDConnect is perfect for this.

The information provided by the Digital Product Passport supports entrepreneurs and producers in the economic optimization of their own manufacturing process. For example, the comprehensive analysis of the materials used quickly reveals where resources can be saved in the manufacturing process. Supply chains are also comprehensively analyzed by the DPP and checked for economic factors. The DPP also provides the end customer with comprehensive information that they can use to optimize their purchasing decisions based on ecological factors.

## Digital twin

A digital twin is the virtual representation of an object, a machine, a tool or an entire system. This virtual representation includes all information regarding materials, functional components, machine data, critical features, maintenance intervals, etc. This data is updated in real time. Our IDconnect software solution offers fast and seamless implementation of the digital twin.

## Digital customer loyalty

With IDconnect, you create direct, long-term and sustainable customer relationships and actively involve your customers in your company or your brand. You stay in contact with your customers even after the sale by providing digital, fast, up-to-date and uncomplicated content.

Customers use their mobile devices, such as smartphones or tablets, to read the NFC transponder invisibly integrated in their handbag. The customized IDconnect website is opened immediately without an additional app. This appears in the look and feel of the handbag seller's corporate design.

Product information, images, videos, certificates, instructions for use and proof of originality are displayed to end customers via IDConnect. Marketing and sales promotions such as competitions, vouchers or special sales offers can also be played out directly and promptly to customers. Direct interaction is achieved through integrated contact forms, customer registrations, links to your websites and social media channels.

## References

As an expert in smart identification solutions, we have been customizing RFID/NFC technology into any shape for over 25 years. With our expertise, we develop and produce your RFID/NFC tags tailored to your requirements - in terms of shape, color, size, imprint, material, attachment and thermal, chemical and mechanical resistance.



## Memberships and partnerships



### AIM

AIM is a global, vibrant network - As the industry association for Automatic Identification, Data Capture and Mobile Data Communication, AIM represents the common interests of the industry. AIM promotes the development and application of Auto-ID technologies: marking, identification and automatic data capture using barcodes, matrix codes, RFID and sensor technology. Through regular events, the association actively supports the industry networking, knowledge transfer and development.



### Digital Data Chain Consortium (DDCC)

The members of the DIN SPEC 91406 consortium, the VDI Technical Committee 2770 and the Digital Platforms for Asset Management and Maintenance in the Process Industry working group form the Digital Data Chain Consortium (DDCC). The aim is to establish the complete digital data chain from the manufacturer to the plant operator - taking into account national standards DIN SPEC 91406, the VDI guideline 2770 on international ISO/IEC standards and the further development of cloud-based information systems.

## IDTA

### IDTA - The future of the digital twin

The IDTA is the central point of contact for all interest groups and creates and IDTA: The IDTA acts as a central point of contact for all interest groups, provides the necessary specifications and integrates sub-models into the big picture. A powerful alliance that innovatively shapes the future of the digital twin. The successful implementation of the digital twin and the international dissemination of Industry 4.0 technologies require a common understanding among all stakeholders in industry, universities, associations and research institutions. The IDTA is the central point of contact for all stakeholders.



### GS1 Germany Solution Partner

GS1 Germany stands for efficient cross-company processes along the value chain. GS1 standards form the basis for tailor-made solutions for industries, processes and topics. GS1 Germany systematically promotes the implementation of identification, data carrier, communication and process standards for customers from various industries. GS1 standards optimize supply chains, reduce costs and open up extraordinary potential in many different industries.



### GS1 Switzerland

With standards and process models, GS1 Switzerland supports companies in optimizing their flows of goods, information and value. They strengthen business performance and ensure a holistic customer experience. The GS1 system architecture comprises Identify, Capture and Share. It identifies objects in the supply chain across the entire lifecycle, provides physical tagging and enables the exchange of master, transaction and event data.



### dmt-Förderverein

The dmt-Förderverein supports the Print and Media Technology course and its consecutive Master's degree in Print Media, Technology and Management at Munich University of Applied Sciences - a forum for professional and social exchange. The association sets the course for practice in order to create a joint network between students, alumni and companies. It helps to guide students and actively supports their professional and personal development. Companies and students benefit from this strong network.