TAGnology for your Future

Company Presentation 2018

smart-**TEC** GmbH & Co. KG

smart-**TEC** – A member of the RATHGEBER Group

RATHGEBER DIGITAL

Headquarters,
Oberhaching / Munich

Production Location in Mindelheim (Allgäu)

Production Location in Bystrice (Czech Rep.)

Sales Office Wroclaw (Poland)

The RATHGEBER-Group

Andreas Schrägle
Management

Andrea Schrägle
Management

Klaus Dargahi
Management
smart-**TEC**

1948
RATHGEBER GmbH & Co. KG was founded

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

Locations
Headquarter in Oberhaching / Munich
Production I (Mindelheim / Allgäu),
Production II (Bystrice / Czech Republic (nearby Brno)
Sales Office in Breslau, Poland

Employees
Approximately 300

Annual turnover in Euros
2016: 30,6 million; 2015: 30,1 million; 2014: 28 million; 2013: 25,8 million

smart-**TEC** Facts & Figures

- More than 20 years of experience in RFID and NFC Technology
- Worldwide network (RFID reader manufacturer, RFID systems integrator, software etc.)
- Active membership in different professional associations (AIM, RFID-Competence Center, GS1 etc.)
- All processes and products achieve high quality controls and environmental management (DIN EN ISO 9001:2008, DIN EN ISO 14001:2004)
- Strong focus on customized solutions
- Strong consultancy competence in processes, optimization potential, Industry 4.0 and Internet of Things (IoT)
- More than 30 different production technologies
- Over 25 million RFID and NFC transponder in successful use worldwide

smart-**TEC** Core Competencies

- Specialized in robust, durable and weatherproof industrial transponder as in RFID /NFC labels, printed, blank and showing different security features

- Materials, design, form, print, chip technology, chip programming, size and adhesive property are specifically customized to project requirements

- Full project support: customized consulting, creation of technical feasibility studies, project design, definition of suitable RFID hard and software components, project implementation and support

smart-**TEC** Vision & Mission

smart-**TEC** is expert in customized RFID and NFC technology.
In cooperation with our partner network, we increase the process efficiency of our customer projects.

Our vision:

„Fit for Industry 4.0 and IoT
because of *smart*-**TEC**s
RFID and NFC competencies.“

Certified quality and environmental management

- Certified quality according to DIN EN ISO 9001:2008
- Environmental management according to DIN EN ISO 14001:2004

ZERTIFIKAT

DEKRA

ISO 14001:2004

DEKRA Certification GmbH bescheinigt hiermit, dass das Unternehmen

RATHGEBER GmbH & Co. KG

Zertifizierter Bereich:
Entwicklung, Vertrieb von Produktkennzeichnungen für Marketing und Technik
Zertifizierter Standort:
D-82041 Oberhaching, Kolpingring 3

RATHGEBER GmbH & Co. KG

Zertifizierter Bereich:
Entwicklung, Herstellung und Vertrieb von Produktkennzeichnungen für Marketing und Technik
Zertifizierter Standort:
D-87719 Mindelheim, Widdersteinstraße 2

Rathgeber k.s.

Zertifizierter Bereich:
Entwicklung, Herstellung und Vertrieb von Produktkennzeichnungen für Marketing und Technik
Zertifizierter Standort:
CZ-59301 Bystřice nad Pernštejnem, Nádražní 1402

smart TEC GmbH & Co. KG

Zertifizierter Bereich:
Beratung und Verkauf von RFID-Produkten
Zertifizierter Standort:
D-82041 Oberhaching, Kolpingring 3

Dieses Zertifikat ist gültig vom 22.01.2015 bis 21.01.2016 Zertifikats-Registrier-Nr.: 1711040874

DEKRA Certification GmbH
Stuttgart, 20.01.2015

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ISO 9001:2008

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ein Qualitätsmanagementsystem entsprechend der oben genannten Norm eingeführt hat und aufrechterhält. Der Nachweis wurde mit Auditbericht-Nr. A14091509 erbracht.
Dieses Zertifikat ist gültig vom 22.01.2015 bis 21.01.2016 Zertifikats-Registrier-Nr.: 3100289934

DEKRA Certification GmbH
Stuttgart, 20.01.2015

- The RATHGEBER Group has been carbon neutral since 2011

ClimatePartner°
klimaneutral

Klimaneutrales Unternehmen

Januar 2017 bis Dezember 2017

Diese Urkunde bescheinigt, dass die **RATHGEBER GmbH & Co. KG** als Teil der RATHGEBER Gruppe die gesamten Treibhausgasemissionen des Unternehmens inkl. Produktion und eingesetzter Materialien durch die Unterstützung verifizierter Klimaschutzprojekte kompensiert.

München, den 11.01.2017

RATHGEBER

Competency and Service

RFID/NFC-Know-how

- All frequencies
- All types of chips

Printing Technologies

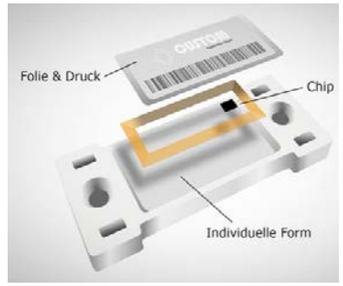
- Flexographic printing
- Silkscreen printing
- TTR printing Digital printing

Material and Finishing Technologies

- Brushing
- Embossing
- Top coats
- Textured coats
- Lamination

Security Features

- Hologram foil
- Security cuts
- Void foil
- 4D security



Customizing

- Individual shapes
- Printing and encoding
- Doming

System integration

- Process
- analysis Cost-benefit analysis

Selected references

and many more…

Discover the diversity of our products…

Product groups

- RFID/NFC Labels

- RFID/NFC Cards & Tickets

- RFID/NFC Industrial Transponder

- RFID/NFC Metal Plates

- ATEX-approved Transponder

- NFC-Transponder

RFID/NFC Labels

***smart*-LABEL**

***smart*-LABEL Security**

smart-LABEL:

- Very thin and self-adhesive
- Available with different types of chips for all frequencies
- Printed or blank
- Encoded and personalized

Reference:

1. *Continental*: controlling and lending of toll equipment
2. *Böhringer Ingelheim*: shipping optimization through bulk reading

smart-LABEL Security:

- Hologram
- Security cuts
- Micro printing
- Special chip encoding and programming
- Tamper protection

References:

1. *Tönnjes*: third license plate for windshield
2. *AUDI Stuttgart GmbH:* automated check of employees‘ driving licenses

RFID/NFC Cards & Tickets

***smart*-CARD (according to ISO)**

***smart*-CARD (customized)**

***smart*-WRIST**

smart-CARD:

- ISO standardization or special shapes according to customer needs
- Available with different types of chips for all frequencies
- Printed or blank
- Encoded and personalized

Reference:

1. *Engel:* Control of authorizations for the calibration of injection molding machines
2. *SecuSuisse:* Hotel locking system

smart-WRIST:

- Customized shapes
- Straps in different colors and clasps
- Different mounting options (foot, wrist etc.)
- Available with different types of chips for all frequencies

References:

1. *Burgstaller:* Access and accounting for camping sites
2. *Runtastic:* Time tracking for marathon runs

RFID/NFC Industrial Transponder

***smart*-DOME Classic**

***smart*-DOME Freestyle**

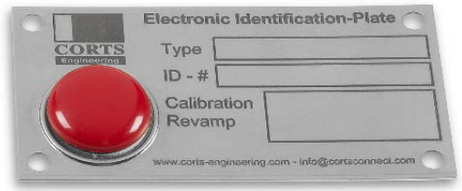
***smart*-DOME Classic / *smart*-DOME Freestyle:**

- robust, durable and weatherproof
- Printable and customizable according to customer requirements
- Available with different types of chips for all frequencies
- Free decision regarding shape, color and design
- Different types of mounting
- Also for high temperature applications
- Mount-on-Metal version for metallic surfaces

References:

1. *Berliner Wasserbetriebe*: maintenance and service
2. *Daimler:* maintenance tracking at single-lane hanging systems
3. *SpanSet:* identification of strap and lash belts for „life cycle“
4. *Stuttgarter Straßenbahn:* automated maintenance tracking at ÖPNV

RFID/NFC Metal Plates



***smart*-PLATE**

smart-PLATE :

- Combination of metal plates and RFID technology
- Visual data lasered or printed
- Available with different types of chips for all frequencies
- Individual shapes
- Durable aluminum or V2A stainless steel
- Different mounting possibilities

References:

1. *Sulo:* identification of waste container for maintenance tracking
2. *BAYER:* service and maintenance tracking for machinery
3. *NisTec*h: service and maintenance tracking for soundproofing walls
4. *Schweizerische Bundesbahn:* identification of safety-relevant components for maintenance tracking purposes

RFID/NFC Wristbands and Key Fobs

***smart*-KEY Standard**

***smart*-KEY Logo**

***smart*-KEY Hybrid**

smart-KEY:

- Customized printing
- Different shapes and colors
- Robust and durable
- Available with different types of chips for all frequencies (also two chip technologies in one smart-KEY)
- Pleasant look and feel
- Printing with long-term resistance to rubbing and yellowing
- Also suitable for industrial applications

References:

1. *Jungheinrich:* driver identification for fork-lifts
2. *DHL:* locking system for DHL small boxes
3. *emz Hanauer:* waste accounting of private households through by RFID technology
4. *PLAYMOBIL:* access control and canteen billing

NFC-Transponder

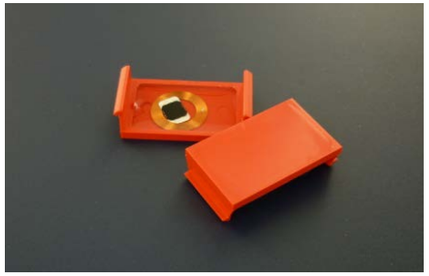
NFC-Transponder:

- Customized
- Different shapes and colors
- Fields of application:
  - ✓ Ticketing in public transportation
  - ✓ Security services/ Health care
  - ✓ intelligent print products
  - ✓ Smart-Home applications
  - ✓ mobile payment systems
  - ✓ Loyalty programs and voucher systems
  - ✓ Streaming or downloading of data
  - ✓ Access control / time tracking

References:

1. *Amnesty International*: Awareness Campaign
2. *Mini:* NFC key cap
3. *Sternstunden e.V.:* donation solutions
4. *Vodafone:* POS marketing tool
5. *Deutsche Bahn:* Touch & Travel

Special requirements



***smart*-DOME** direct moulding

***smart*-DOME Classic**
with UHF technology

***smart*-DOME Freestyle**
with diverse mounting possibilities

***smart*-DOME** cable ties

***smart*-DOME Freestyle**
with laser UID on PVC-medium

***smart*-DOME Freestyle MAG**
with Neodym power magnets

USE-CASE RFID: DHL locking systems

	Description
Product	▪ *smart*-DOME Epoxy
Shape	▪ PVC card with Epoxy Finish ▪ with mounting hole and key ring
Application	▪ Access authorization for the newly launced DHL small boxes ▪ To open the small boxes
Goals	▪ Time unlimited delivery of the packages ▪ Ability to restructure shipping and returns management respectively ▪ Improved customer service/ fewer delivery attempts
Excecution / Procedure	▪ When ordering the personal small box online, every DHL customer receives the matching RFID key that controls the locking system and allowing contactless opening of the small box. DHL delivery staff will have an RFID master key for each area respectively.

USE-CASE RFID: SpanSet – Cataloguing, Maintenance & Verification

	Description
Product	▪ *smart*-DOME Classic LF / HF / UHF ▪ *smart*-DOME Epoxy LF / HF ▪ *smart*-DOME Freestyle LF / HF / UHF
Shape	▪ with and without ferrite ▪ with and without center hole ▪ with and without adhesive film ▪ Serial number or UID lasered
Application	▪ Cataloguing ▪ Tracking of service intervals ▪ Verification of prescribed inspections and maintenance
Execution / Procedure	▪ The UID of the transponder and, optionally, a sequential number are stored in a database together with the object to be checked. Then e.g. ✓ Extracting of maintenance lists ✓ Test results logged

USE-CASE NFC: Deutsche Bahn – Touch & Travel

	Description
Product	▪ special *smart*-Label (HF) on metal, for all weather conditions and all surfaces, complex prints and complex programming
Goals	▪ Customer retention ▪ Simplified ticket sales ▪ No cash handling, neither at the operator nor the customer
Application	▪ Download the Deutsche Bahn app to the smartphone ▪ At the "starting station“; hold smartphone to the label (=registration) ▪ At the „target station“; hold smartphone to the label again ▪ Monthly billing according to route plan (similar to telephone bill)
Customer	▪ Deutsche Bahn (approx. 50,000 *smart*-LABEL)

Thank you for your attention