RFID stands for Radio Frequency Identification and enables the contactless and unique identification of objects via radio. RFID tags do not require visual contact. The information from the RFID tag is transferred to an RFID reader and vice versa.

Industry 4.0 requires the digital identification of workpieces, tools, containers, machines and devices that can also exchange information with each other. RFID also opens up many possibilities for the "Internet of Thing" (IoT). Depending on the application, RAIN RFID (UHF; far field) and NFC RFID (HF; near field) systems are used.

The RFID transponder usually remains on a product and thus also ensures reliable traceability.

Label

RFID transponder

Carrier film
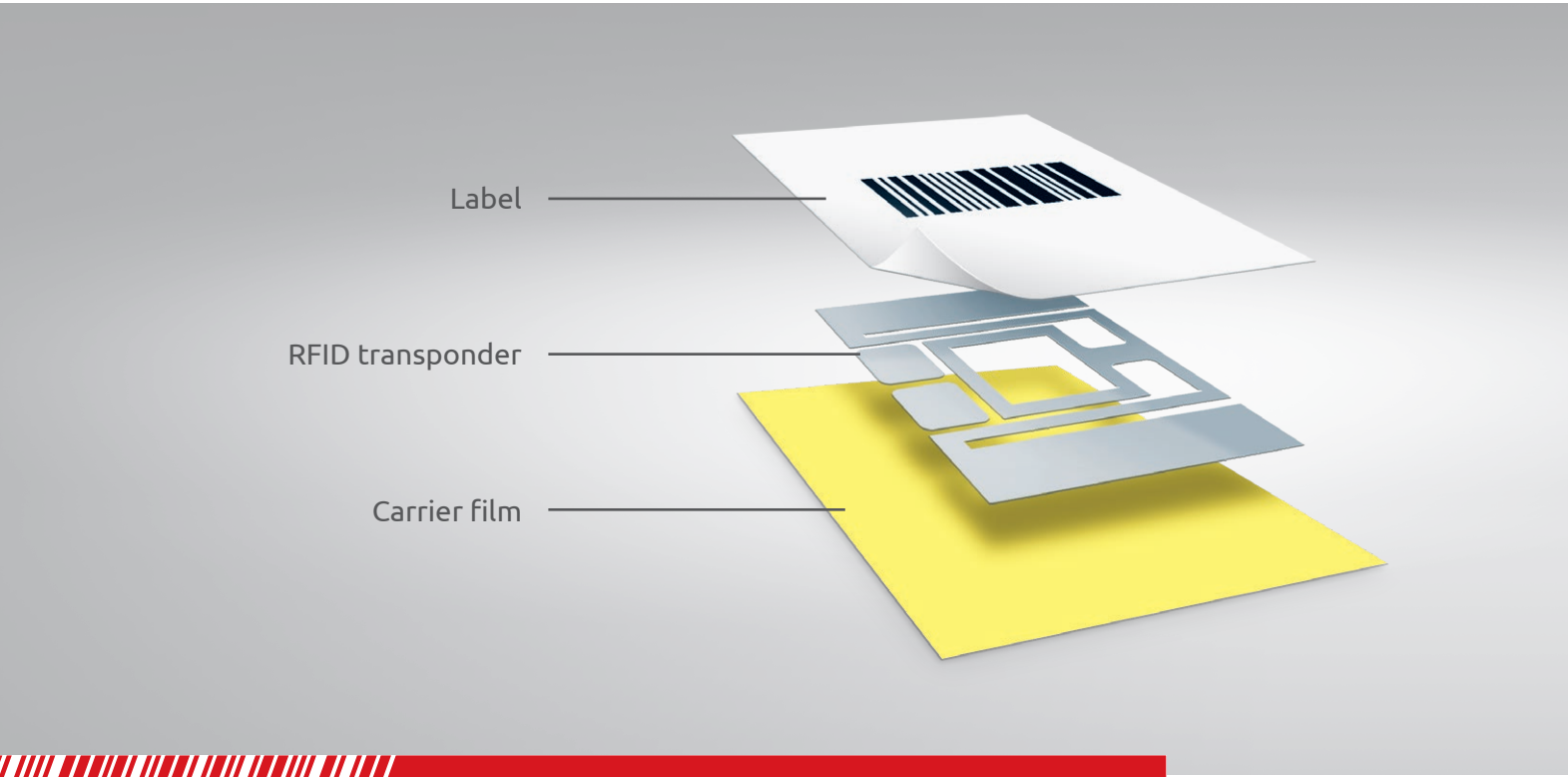
Applications:

Automotive industry
» Inspection and traceability of assembly parts
» Efficient intralogistics with SLC

Logistics sector
» Control of incoming and outgoing goods
» Avoidance of inventory bottlenecks

Trade
» Tracking & tracing from the manufacturer to the cash register
» Simple handling of returns

Packaging material
» Labelling of consumables for the beverage industry
» Logistics process for raw materials/paper industry

Pharma
» Tamper-evident seal

Logopak solutions at a glance

RFID technology	Print & Apply systems	Labelling systems	Barcode printers	Verification solutions
Labelling software	Consumables	Worldwide service	Made in Germany	Spare parts availability

Logopak is a member of

RAIN RFID

aim — Advancing Identification Matters.

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Vers. 1.0 /// Subject to technical changes without notice.

2345824352184975284   Tracing // RFID-Tag
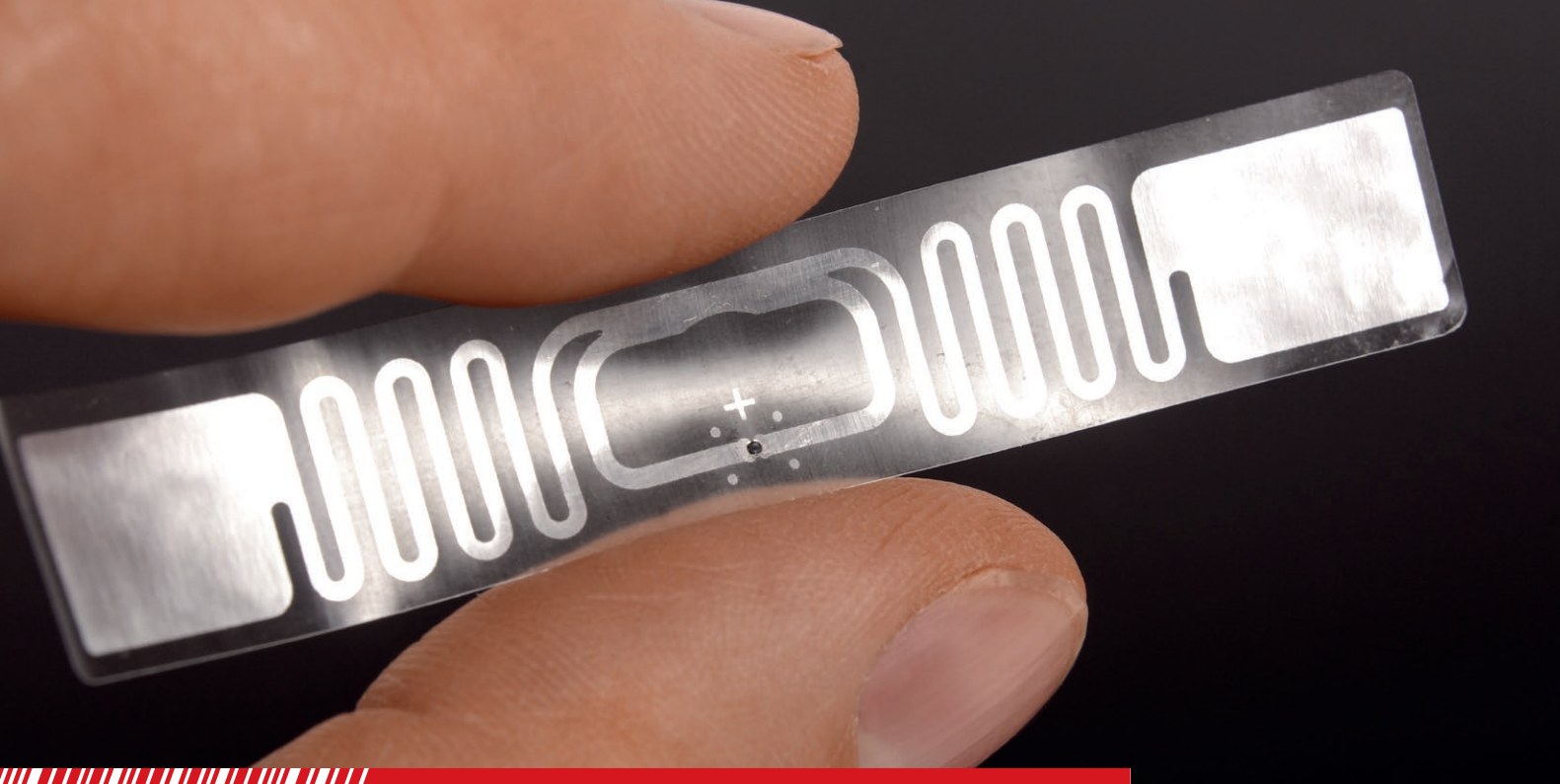
06:21 a.m.   09:43 a.m.   01:54 p.m.   03:34 p.m.   09:20 p.m.   03:25 a.m.

Unique process reliability

Automatic RFID identification with Logopak

Field-tested

In the paper industry, RFID has been used for years for quality control and track & trace within the supply chain.

Tamper proof security

As a closure control for packaging, variously designed tags with built-in sensors provide reliable protection. When the RFID tag is read, any unauthorised opening of the packaging is reported.

T applicator

The most common method for applying RFID labels and inlays to products and pallets. After describing and checking the RFID data, it is applied to the target with a simple movement of the applicator.

SLCs in the automotive industry

Many German automobile manufacturers are equipping their small load carriers (SLCs) with RFID tags so that they can be used more efficiently within the process chain.

Unique possibilities

Logopak offers professional labelling systems for the secure programming and application of RFID tags. The LogoSoft middleware enables integration and connection to ERP (Enterprise Resource Planning) production systems as well as the recording of RFID data in the ERP system.

The LogoSoft middleware enables integration and connection to ERP production systems as well as the recording of RFID data in ERP systems. RFID-based identification solutions can also be used in applications where traditional barcodes are unsuitable.

The data contained on the RFID tags enables comprehensive automation in the process industry, e-commerce or logistics. They thus become a decisive pillar for the Internet of Things (IoT) and Industry 4.0.

» Each chip has a unique serial number (UID/TID) enabling unique identification at the individual product level
» Visual contactless communication between RFID/NFC transponder and read/write system
» Insensitivity to dirt and an almost 100% first reading rate
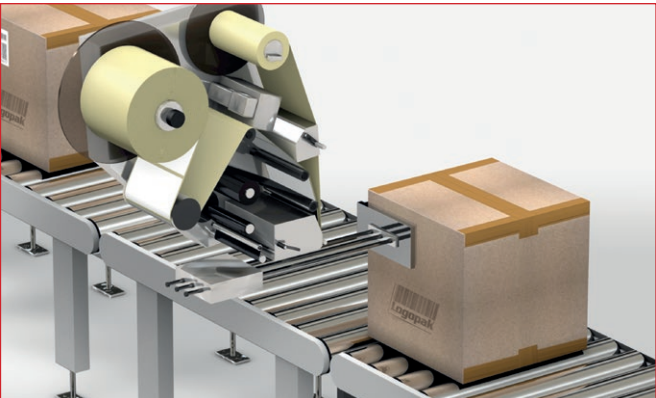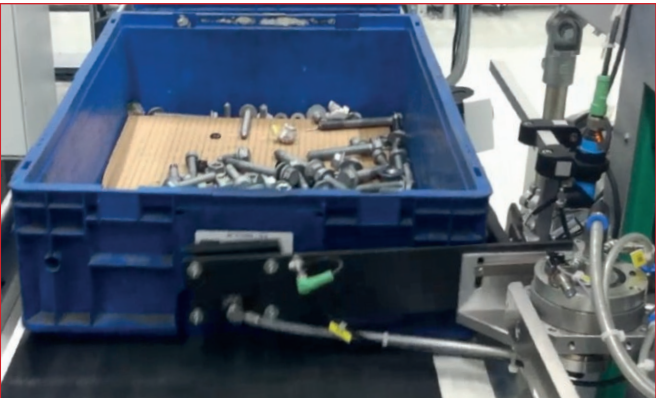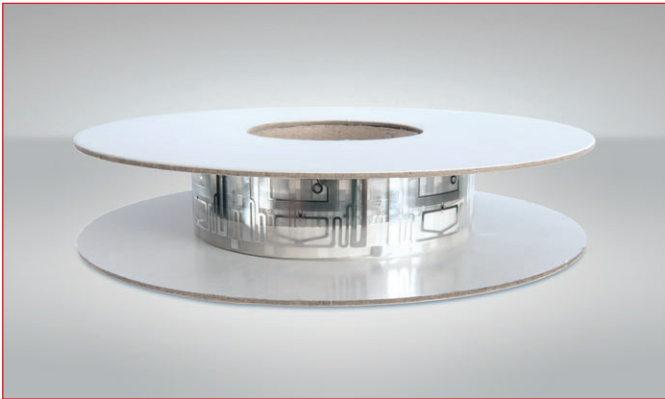» Simultaneous reading of several products in one working step (bulk reading)

RFID from start to finish

These tags can be used and read with both RAIN and NFC technology. While RAIN can be used with a good reading range in supply chains and logistics, NFC also allows data to be read by private end users with smartphones, for example.
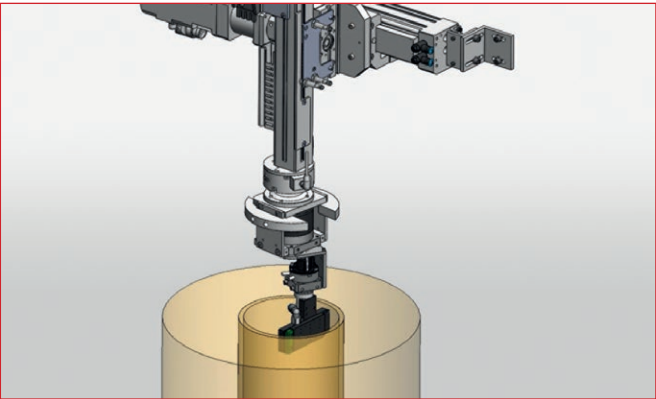
On metal

The further development of RFID technology has made the use of tags on metal surfaces much easier.
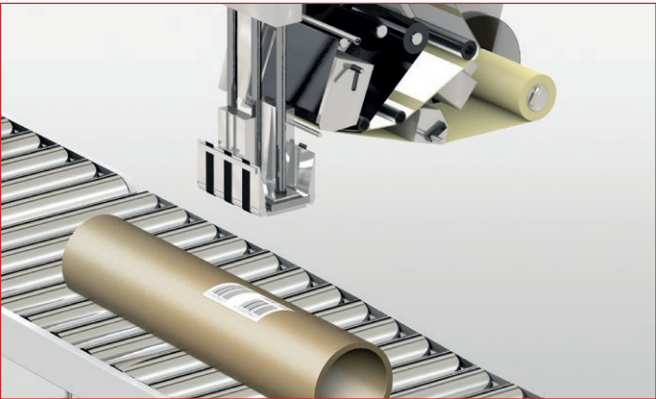
Rolls

The marking on the core before rolling up the product is very beneficial for rolled goods. This allows production quality and internal logistics to be supported by RFID technology.

Roll core labelling

Rolled up goods can be marked retrospectively on the inside of the core. The rolls can then be detected automatically – even after partial consumption of the rolled up goods.

RFID in the Supply Chain
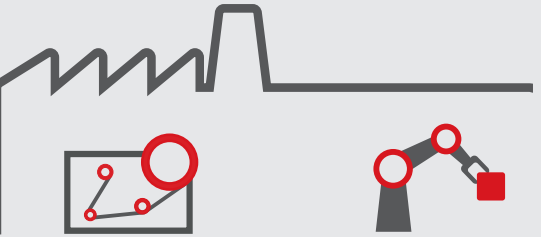
Production:
Applying the RFID tags

Internal logistics:
Control of the individual products within the production line

Shipping:
Compare shipping packages with order list

Logistics:
Track & trace

Delivery to warehouse:
Bulk recording of entire deliveries to the warehouse or distribution centre

Warehouse management:
Permanent overview of availability and stocks

Distribution:
Data transfer to the ERP system of the recipient

Branch office:
Simplification of inventory and traceability of goods

Recycling:
Identification of valuable products in the recycling process