Traceability through the manufacturing process at Dana Incorporated

In 2017, Dana implemented a new MES system to meet growing customer demand. Along with the new MES system, DANA began using RAIN RFID for 100% traceability through the manufacturing process. In this process, every DANA part is individually scanned at each station in the process, and as a batch when leaving the facility on a pallet.

After thoroughly testing a large variety of off-the-shelf RAIN RFID tags, DANA was unable to suitable solution for tagging of automotive parts. Off-the-shelf tags either failed testing or were too large and expensive to meet stringent product requirements and price targets. Dana commissioned Confidex Ltd., the leader in industrial RFID tags, to develop a custom RAIN RFID tag which could meet Dana product requirements including high temperature washing and painting. Throughout the design process, DANA and Confidex teams worked closely together to ensure optimal read performance and adhesion of the final tag design.

Joe Hoerl, Sales Director of North America at Confidex Ltd, sees the value in wireless technologies like RAIN RFID, NFC, and Bluetooth making the difference in the automotive industry: “Dana has been a leading supplier in the automotive industry for more than a century. We’re excited to work together to innovate solutions which enable higher levels of automation and production efficiency.”

The end result was success in achieving 100% traceability of each product despite the rigors of the Dana production including: high temperature washes, painting, and handling while also being read at any product orientation. RAIN RFID fulfilled these requirements with affordable pricing to tag every product.
Today, each product has a RAIN RFID tag which stays with the product through its full lifecycle.

Brent Vetter, Sr. Process Engineer at Dana notes “The primary business benefit realized at Dana has been that the operator doesn’t have to grab a 2D barcode or UPC scanner to identify the product. The tag is scanned without having the operator and robotics or automation system orient the tag in any particular direction. This saves significant work and cycle time while maintaining 100% traceability through production.”

About Dana Incorporated

Dana is a world leader in highly engineered solutions for improving the efficiency, performance, and sustainability of powered vehicles and machinery. Dana supports the passenger vehicle, commercial truck, and off-highway markets, as well as industrial and stationary equipment applications. Founded in 1904, Dana employs more than 30,000 people in 33 countries on six continents who are committed to delivering long-term value to customers. Based in Maumee, Ohio, USA, the company reported sales of $7.2 billion in 2017. Dana is ranked among the Drucker Institute’s listing of the 250 most effectively managed companies.

About Confidex

Confidex designs and delivers wireless identification solutions built on the pioneering Smart Tickets, LINKS by Confidex™ RFID & NFC tags and labels, Bluetooth beacons and supporting software services – the key enablers linking assets and people in business-critical processes. The company has enabled wireless IoT solutions since 2005, making supply chains, transactions and authentication of goods or people more efficient. With its global network of resellers and distributors, Confidex, the technology award-winning Finnish company, serves its customers representing a broad range of industries in Europe, Americas, Middle-East and Asia.

About RAIN RFID Technology

RAIN RFID is a global alliance promoting the universal adoption of UHF RFID technology in a way similar to other wireless technology organizations including NFC Forum, WiFi Alliance and Bluetooth SIG. RAIN uses the GS1 UHF Gen2 protocol which ISO/IEC has standardized as 18000-63. The word RAIN—an acronym derived from RAdio frequency IdentificatioN—is intended as a nod to the link between UHF RFID and the cloud, where RFID-based data can be stored, managed and shared via the Internet. A RAIN RFID solution uses a reader to read and write a tagged item, manage the data and take action.