



***In-Metal flush mounted RFID tags require very little space and result in a well protected solution with long service life and reliable operation***

**Application:**

Parts fixtures are used to carry a wide variety of products through automated assembly lines. At the individual process locations, an RFID system is used to retrieve information and record manufacturing and test data.



***The long, thin housing makes this an ideal R/W head for conveyor-based RFID applications***

**Goal:**

Automatic and reliable identification of the parts fixture allows step-by-step tracking of the work-piece, thus enabling decentralized control throughout the entire manufacturing process. The RFID tags act as a mobile database taking information from station to station.

**Requirements:**

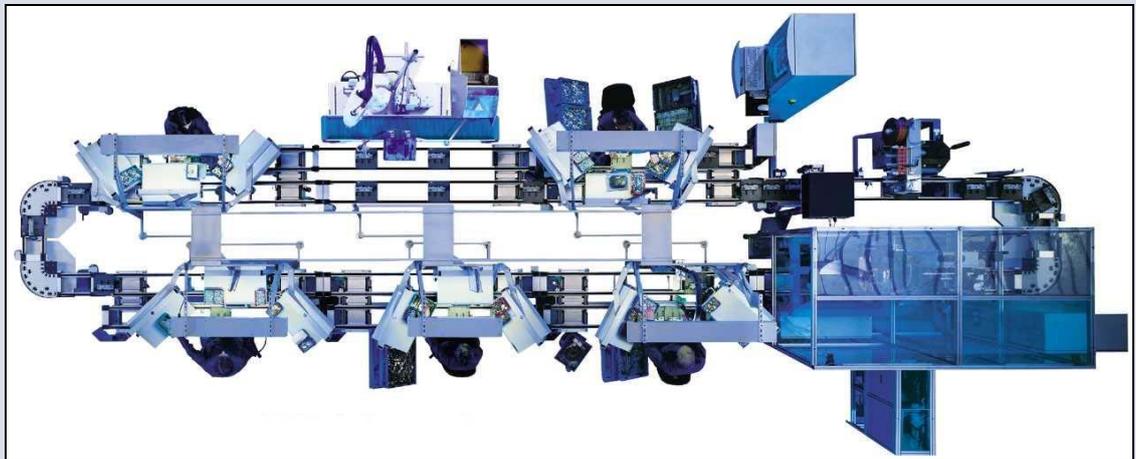
To achieve long-term, reliable operation, most parts fixtures utilize solid metal bases that are used to hold compact, flush mountable RFID tags. When a decentralized control strategy is desirable, an RFID solution with read/write capability is needed.

**Customer advantage:**

In contrast to barcode and DataMatrix solutions, RFID systems are 100% maintenance and wear free and contain no moving parts. Powerful integrated data verification processes make incorrect tag data exceedingly unlikely. Flush mounting the inherently robust RFID tags results in a mechanically superior solution adding another level of reliability. As all relevant process data can be written to the tag, a solution that does not depend on a central database is easily accomplished. Data is always available at each process location allowing additional work cells to be added quickly.

**What is being done:**

The embeddable RFID tag is mounted at a central location on the bottom side of the parts fixture. The conveyor moves the fixture past an RFID read location that uses the tag data to control diverters and gates to progress the part to the next available process station. Here, quality data specific to the manufacturing step is written back to the tag. Frequently, several near-by readers are connected to the same *IDENT Control* interface, which in turn is connected to a PLC using one of many supported industrial networks. At the end of the final process, all process and quality data are read and recorded in a database. This allows specific parts to be identified in case of recalls.



*RFID controls the manufacturing processes of a parts fixture transport system*

High production efficiency and 100% parts traceability in combination with decentralized control are key features supported by RFID-enabled fixtures.