

Procter and Gamble uses RFID to track product - Datalogic

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Procter and Gamble's facility in Jijona, Alicante Spain recently introduced EMS RFID to its shipping department. In the fast-paced shipping area forklifts load 33 pallets onto delivery trucks every 20 minutes. Errors such as loading the wrong pallet on the wrong truck, or losing pallets, are extremely costly. Procter and Gamble (P&G) had made the decision to implement an inventory and shipping-tracking system, but were unsure about what type of technology would be optimal. Application requirements included handling the pallets in pairs, allowing for traditional staging operation, and most importantly, a zero percent error margin. Two different tracking systems were evaluated: a handheld scanning system, and an RFID solution. After conclusive tests and performance analysis engineers concluded that hand scanning would take forty percent longer to load a truck than the proposed RFID solution. Mirrors also would need to be installed for hand scanners, in order to provide line of sight for the second pallet being loaded onto the truck. These and other customization requirements made RFID a more appealing option.

In previous applications we've seen, EMS Antennas are often sunk into the floor of production or assembly facilities. Tags on product, or forklifts pass over these antennas, and relay information to the operating system. P&G reversed this tag/Antenna relationship, sinking RFID tags into the cement at strategic locations between the conveyers and dock doors. Tags are written to with information regarding their location, and serve as geographical markers. Antennas, mounted to the underside of the forklifts, pass over the tags in the floor as the Forklifts drive up to the loading dock from the conveyer. When a pallet comes off of the production line, fixed barcode readers scan barcodes on the package, then relay to the PLC information about what product is on the pallet. Forklifts with antennas mounted to their undersides move the pallets from the conveyer to the dock doors. In this process they pass over the tags in the floor, which have been written to with a serial number to indicate their location. These tags serve as markers, so that when a forklift loads up a truck, operators have record of what product has been loaded and know exactly where it has been.

FLT terminal screens inside the forklifts allow operators to keep updated as to what product they are moving, and where it is intended to go.

EMS Technology Specifics

For this application P&G went with the LRP series of reader/Writers from EMS. Four LRP820-04 Conveyer-Style Antennas were installed on the facility's forklifts. Ninety different tags were sunk into the ground at strategic locations to create a grid operators use to track pallets. LRP250 Tags are

durable (IP68 rating) and offer 48 bytes of memory. Using the LRP820-04 Conveyor Antenna 8.5 inches of range are typical, more than enough for the P&G application.