Avery Dennison Smartrac
QodeNext Case Study
April 2021

Weighing the benefits of RFID

Avery Dennison RFID tags are improving the security and efficiency of weighbridge operations

AVERY DENNISON

QODE NEXT
Traceability Redefined

rfid.averydennison.com

The challenge

QodeNext, an India-based system integrator specializing in supply chain traceability, collaborated with one of India's largest paint and chemical manufacturers to automate truck management in two state-of-the-art plants. The company wanted to capture a host of improvements, including reduction in turnaround time, labor costs, product theft, along with enhanced transparency across their plants' operations.

The solution

QodeNext implemented its modular, RFID and BLE-based Truck Management System to manage vehicle movement at the customer's facilities. The solution monitors, schedules, and tracks the movement of trucks at every point from entry to exit. Avery Dennison RFID inlays were central to QodeNext's solution for automating weighbridge operations and making them more efficient and secure.

How it works

India's first biometric system, developed by QodeNext for capturing truck weight on the weighbridge, has Avery Dennison RFID inlays at the system's heart. As the trucks arrive at the facility gate, security personnel attach tamper-proof RFID tags to the truck and use mobile tablets to capture drivers' fingerprints. Every tagged truck advances to the weighbridge, where drivers exit the cab and verify their fingerprints by touching the screen of a biometric system. Only when the prints have been verified, the system captures the truck's weight and allows drivers to proceed.

QodeNext configured the weighbridge to be used from both ends, by installing a dual set of RFID readers, along with dual sensors, boom barriers, and display systems. Using AI logic, these sensors can detect and process trucks coming from either end of the bridge and trigger reading of the RFID tags, using multidirectional input to reduce the possibility of stray reads.

The benefits

Automation of weighbridge operations helped deliver significant savings for QuodeNext's customers, due to the reduction in human interaction at the weighbridge and the associated reduction in the opportunity for error, corruption, and theft. Automation of these operations also led to greater throughput by speeding weighing. Business continuity has also improved. In case the system on any weighbridge fails or encounters challenges, trucks can easily be diverted to another, reducing operational slowdowns or stoppages.

How Avery Dennison made a difference

Our RFID experts worked closely with QodeNext and its customer to optimize the system and ensure that our inlays integrated flawlessly with RFID readers, sensors, software, and other system components.

Because of its unique antenna design and reliable long distance reading capabilities through the glass surface, AD665u8 was recommended. These tags were deployed on windshield of the trucks which helped in achieving reliable and efficient results.

Our position as the world's largest RFID Industry partner of UHF RFID inlay and years of expertise, enabled the team to provide high quality and consistently dependable inlays. This capability also makes us a partner of choice for use in a variety of Industries and contexts.

About us

Technology and invention is about creating new possibilities with a clear sense of purpose. To fix and improve things. To create a world, where every physical item will have a unique digital identity and digital life

As the world's largest RFID partner, we enable our partners to meet and exceed even the most challenging tagging requirements across a broad array of applications and industries.

Our capabilities include the most experienced RFID inlays and tags team in the industry combined with unbeatable R&D capabilities for fast innovation and customization backed by more than 1750 patents. We offer the broadest portfolio of high-quality inlays and tags including many ARC certified products and ARC quality certification.

The combined production capacity exceeds 12B units annually and is provided by a resilient manufacturing network of 7 sites globally adhering to our strong commitment to sustainable manufacturing processes.

AVERY DENNISON