



DRIVING QUALITY: HOW AN RFID SOLUTION MEANT COMPLIANCE FOR AUTO SUPPLIER

Customer

Major Auto Maker

Process

Hoist line electroplating of automobile body parts such as chrome bumpers and grills. A hoist line is an overhead conveyor system which contains hooks for hanging the parts being processed. Each individual part is pinned to an 85-pound solid copper rack for electroplating. Electroplating uses a “plater”, which is a series of tanks filled with chemical solutions that the product is dipped into mechanically.

Situation

The auto maker provides thousands of copper racks to the supplier to be used in the electroplating process. The supplier was required to provide information about the copper racks such as:

1. Overall condition
2. Cycle time through the plater
3. Preventative maintenance measures
4. Quantity available for use

Unfortunately, this was information that the supplier was not able to easily obtain using the existing process. If the supplier failed to implement a data collection procedure in order to effectively provide this information, the auto maker would discontinue providing the racks (which would be very costly for the supplier to procure) or even be forced to cancel their contract due to non-compliance.



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Solution

Barcom provided rugged RFID (radio frequency identification) tags to be attached to each rack, and eleven RFID data collection portals were placed in the process chain. “Through the use of RFID, data collection became a hands-free process for us.” said the Company’s operations manager. “Speed of the process and accuracy improved dramatically.” As each of the racks were introduced in the cycle, their position would be recorded and tracked continuously. By implementing Barcom’s transACTION Data Collection Software Suite, the supplier can manage data captured by the RFID readers. The tracking system and data collection database records movement of each rack and monitors each plating cycle, which gives the supplier greater visibility; simplifying the management of maintenance timetables and vital production data.

Barcom also developed reporting tools to allow operations and management personnel to efficiently and accurately:

- Review and analyze data
- Track necessary maintenance
- Improve the demand planning process

The system can now report an accurate count of rack inventory and rack location. As with the implementation of any automated system, results and benefits become more evident over time. For example, prior to implementing the automated system, a single rack might have maintenance performed on it after 20 passes through the plater. Once the system was deployed, reporting indicated that racks weren’t requiring maintenance until upwards of 100 cycles, saving time and money on preventive maintenance. Without the ability to accurately track performance, position and location of these racks, efficiencies would be difficult to improve. “The ability to provide real-time, relevant data to our customer has proven to be extremely valuable to both of us.”