



Renault Argentina Relies on Zebra Technology to Become a 4.0 Industry



The operation of Renault's factory in Argentina over than 2400 employees and 65 years of operation and history. The vehicle manufacturing industry in Latin America is going through one of its worst moments in 2020, product of the economic crisis hitting the region, added to the effects of the COVID-19 pandemic.

In this context, it is essential to rethink and adapt production methods, in order not only to modernize operations, but also to improve competitiveness.

Answering to the latest Smart Factory trends, Renault's subsidiary in Argentina decided to automate the factory located in the province of Cordoba, including in the supply chain technology to provide greater reliability and traceability. In this particular case, the finished vehicles transport process, in which it was necessary to optimize operating times and guarantee the traceability of the vehicles.

SUMMARY

Customer:



Renault Argentina - Industria Automotriz

Partner:



EFALCOM

Country:

Argentina

Industry:

Vehicle Manufacturing.

Challenge:

To incorporate 4.0 Technology and digitalize the processes in Cordoba's Factory in Argentina to optimize the operational times and improve traceability of vehicles in dispatch to authorized dealers through RFID technology.

Zebra's Comprehensive Solution:

- Antennas in strategic points
- Tags made with RZ 4XX series printers
- MC33 Mobile Computers
- FX9600 Industrial readers

Results:

- Efficient flow control of vehicles from manufacturing line to dispatch.
- Profitability of the processes, gaining in quality and resources.
- Human error elimination.
- Reliable information.
- Task redistribution optimization.

Challenge

The transformation to Industry 4.0 involves not only the digitization of processes. The introduction of technology and the automation of operations help move toward the forefront of the industry, optimizing processes and gaining in efficiency.

Being quality a main premise, in Renault the search for improvement is constant. With the aim of becoming a leading factory in terms of operations innovation, it was decided to digitalize the Santa Isabel factory in order to optimize operating times and improve the traceability of the vehicles from the exit of the production line to their dispatch from the Santa Isabel factory to the authorized dealers.

The greatest challenge came from the company eFALCOM, which together with its partner Zebra Technologies, developed solutions applied to industrial automation and process control more than 40 years ago. Zebra's RFID technology is highly reliable, the performance of their devices is outstanding and they are easy to integrate, resulting in a state-of-the-art comprehensive solution.

eFALCOM advised and accompanied the planning of an efficient method to control the vehicle flow, from the exit of the production line in the factory to the loading of trucks in the logistics yard and their subsequent dispatch to authorized dealers.

Solution

Some processes do not admit margin of error. A failure in dispatch can result in vehicles being delivered to the wrong customer, which indeed has great economic impact to the company.

The solution given and entrusted to Zebra technology consists in the printing of labels that are applied to the vehicles at the end of the production line, before their entrance to the logistics yard, identifying them one by one. In addition, control points were installed with reading antennas at strategic points of the logistical process in the commercial sector, where the washing process, inspection and dispatch are verified by means of stoplights and barriers.

CASE STUDY
RENAULT



"Frankly, we are very satisfied with the results achieved so far and we believe that as implementation takes hold, satisfaction will be even greater."

Agustin Padovano,
Supply Chain Manager Renault

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This facilitates control when loading trucks, which in addition, are identified with an RFID tag that makes sure the truck matches the load. In the case of unpatented units, very specific monitoring is required.

Components of Zebra's RFID line were used, ranging from the generation of a label with RZ4XX series printers, MC33 mobile computers, FX9600 industrial readers and the comprehensive eFALCOM's solution.



Antennas were placed at strategic points, in order to optimize operating times and control the flow end-to-end, which reduces to zero the possibility of error and 100% automates vehicle transit controls and authorization.



CASE STUDY RENAULT

As last stage, once trucks are loaded, all units are automatically read, which makes it possible to detect errors, missing or crossed vehicles. All this information is recorded in a database that ensures that all vehicles comply with the required traceability and requirements.



Results

Prior to the incorporation of RFID technology, a logistics operator manually performed vehicle traceability; in some cases, tracking was done in Excel spreadsheets, which made the process very slow and prone to errors. With the implementation, it was possible to reach a better negotiation with the logistics operator with improved operating costs, generating considerable savings.

Regarding the inventory process, a 50% improvement in the resources allocated to this process was achieved, also helping eliminate involuntary and human factor errors by 10%, providing information that is more reliable. This automation allowed the company to focus on other problems, having the guarantee of working with real data and the exact traceability of vehicles, without risk of stock losses and greater visibility.

Digitalization contributed to improve the process' profitability indicator, redistributing tasks more efficiently in work stations to gain in quality and results, in addition to optimizing the internal transit time of the units.

The implementation of new technology is a process that involves adapting the way operators work and how the factory operates. In this sense, the role of eFALCOM as a business partner was essential, advising from pre-sale to implementation.

For more information
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