

RF Enables FACIL To Deliver Fasteners Just-in-Time to Ford.

CASE STUDY

JUST-IN-TIME A Radio Frequency system designed and implemented by LXE is helping FACIL supply fasteners to three of Ford's European assembly plants within two hours of receiving an order.



FACIL (Fasteners and Connections International), headquartered in Genk, Belgium, has branches in Valencia, Spain, Gent and Saarlouis, Germany. All sites are located only minutes away from three major customer assembly plants.

Facil is a joint venture formed in 1999 between two European leaders in technical fastening products. The German group, KAMAX, specializes in bolts, screws and fasteners, and the French group, A.Raymond, specializes in plastic and metal sheet clip fasteners. For a number of years these two companies have been among Ford's most important suppliers of fasteners, thanks to their complementary product ranges which cover about 60% of all the types of fasteners used in the automotive industry.

FACIL's first project started in Genk. This project involved supplying fasteners to the Ford Mondeo project. Not long after that FACIL was asked to supply fasteners for different small and medium sized cars at the assembly lines in Valencia and Saarlouis.

FACIL was formed to meet a clear need in the market – initiated by Ford – to rationalize and reduce the number of fasteners and suppliers. Fasteners are small but vital components. About 340 different types of fasteners are used in a small model, and a medium-sized model can have up to 500 types, depending on the optional extras included on the car. Altogether FACIL delivers over 1,500 different types of fasteners.

FACIL is a "full service" provider of fasteners - from design to supply at the line-side. Parts are developed by FACIL, and benchmarked and sourced at qualified suppliers. The parts are audited and checked by FACIL Quality personnel. The complete logistical flow is guarded and a bill of material management is covered for its customers.

"The OEM's assembly lines usually operate non-stop day and night, and it is vital that the production line does not grind to a halt due to the outages of a certain component – and certainly not a small five cent fastener," explains Raf Engelbos, Purchasing Manager at FACIL Genk. "FACIL has therefore implemented a warehouse management system using LXE Radio Frequency equipment to ensure just-in-time delivery of fasteners to its customer assembly plants."

Efficient Order Putaway

FACIL Genk receives quantities and types of fasteners required from Ford via Electronic Data Interchange (EDI). This information is transmitted electronically to FACIL's suppliers – daily, weekly or monthly, depending on the requirement.

The suppliers in turn send the material directly to FACIL via truck, and the bar coded labels are scanned with LXE's ruggedized handheld wireless computer. The information is fed into the main Warehouse Management System and relayed to the forklift truck operator. On the screen of his LXE vehicle-mounted wireless computer, the driver sees the warehouse location where the products need to be stored.

The inbound activities are directed by the Warehouse Management System, assuring that adequate safety-stocks are available at all times either in a random warehouse and/or at predefined locations depending on the type, value, usage and importance of the product.

Rapid Order Picking

FACIL needs to supply the production lines every two to four hours with fasteners. An order for a new batch of fasteners is sent from the Ford plant either

LXE

electronically or on Kanban carts to the FACIL warehouse. The order is picked and placed on color-coded trolleys in containers. The sequence of containers on these trolleys exactly matches the sequence that the fasteners are used on the assembly line. This saves considerable time, as the components are ready to use immediately as they enter the assembly plant.

In Genk, Gent and Saarlouis, FACIL employees bring the fasteners to a central point and the customer's personnel place the items at the line side. In Valencia, FACIL employees themselves actually place the components on the production line.

The RF system is built around access points using LXE's SPIRE™ Antenna Solution, which provides complete coverage of the warehouse. The SPIRE Antenna is a unique combination of antenna technology originally developed for space applications, industrial access points, and networking expertise. It increases the coverage, performance and reliability of a 2.4GHz wireless LAN while reducing the overall system cost. The SPIRE Antenna requires less power and data cabling, and fewer devices to be implemented and maintained, while delivering faster and more reliable operation.

Worldwide Supplier Necessary

Before choosing LXE as their RF supplier, FACIL conducted comprehensive market and technical research to find a supplier that would meet their requirements. Two requirements were top of their list.

"First, a worldwide supplier was necessary to support the implementation of the same RF system across at least three countries and maybe more in the future,"

recalls Raf Engelbos. "LXE fit the bill perfectly, thanks to its extensive global presence. At the same time, the system had to be completely reliable – even foolproof. A detailed technical survey was conducted of four RF suppliers, and sample products from each were tested and compared. LXE's fully ruggedized products consistently came out on top."

Overall FACIL is extremely pleased with the LXE RF equipment. A few surprises are usually experienced at installation time, but in Facil's case, they were quickly solved. "We are particularly satisfied with LXE's professional project management and service support capabilities.

In addition, the LXE system is extremely reliable, and our operators have found them easy to use," says Raf Engelbos.

Time and Cost Savings

Just-in-time delivery not only meets the strict deadlines imposed by the OEM for delivery of fasteners to the assembly lines, but also results in fewer picking errors and an overall higher quality of service.

In addition, with automotive manufacturers facing the need to drive down costs, it enables FACIL to reduce the overall cost of fasteners by several euro per car. That might seem insignificant, but in a total production run of more than one million cars that can lead to considerable savings.



About LXE Inc. LXE Inc. improves supply chain performance by applying over 30 years' experience developing wireless products and solutions. From wireless computers, advanced auto-ID technologies, and wireless network infrastructure, to our award-winning customer support - LXE's easy-to-use products are as reliable as the people who install and support them.

Based in Norcross, Georgia, LXE also offers a full range of turnkey services, including radio integration, project and installation management, network design, technical support, and repair services. LXE is a wholly-owned subsidiary of EMS Technologies, Inc. (NASDAQ: ELMG), and has offices worldwide. For more information, visit www.lxe.com.