

CASE STUDIES

BAXI REDUCE PRODUCTION TIMES AND INCREASE ASSEMBLY LINE FLEXIBILITY

BAXIROCA

INCREASED COMPETITIVENESS THROUGH FAST AND ACCURATE LINE BALANCING

Needing to be able to manufacture up to 40 different models of boiler it is essential that we have the flexibility to reconfigure our assembly lines quickly and accurately to optimize our resources and achieve high performance production, says Miguel Navarro, Engineering Production Manager at Baxi's Barcelona assembly plant.



SUPPORTING GLOBAL MARKET PLAYERS

Baxi's Spanish manufacturing and assembly facilities at Castellbisbal, 19 kilometers north of Barcelona, produce a wide range of wall mounted and floor standing domestic boilers. The company is a market leader in the development and production of competitive heating solutions delivering not only conventional gas boilers but also solar heated devices and new heating technologies capable of generating electrical power. To remain competitive in what is a very aggressive cost conscious market; Baxi continually works towards improving manufacturing efficiency, optimizing its logistical network and developing innovative products.

A recent project to develop and manufacture a new boiler clearly illustrates the nature of the challenges faced by Baxi. With the design for the new boiler taking place in their UK Preston site the European project team made up of staff from Spain, Italy and the UK worked to identify where production of the new boiler could best be carried out. Deciding to manufacture the new boiler at Castellbisbal the Barcelona based production engineers were faced with designing and implementing efficient and cost effective production processes. A task they will carry out using the line balancing capabilities of INS's Krontime manufacturing software solution.

KRONTIME HELPS TO REDUCE COST AND IMPROVE PROCESS EFFICIENCIES

Serving an international market Baxi's products, 90% of which are for domestic use, are sold through an extensive global reseller network. Intercompany trading enables Baxi to benefit from cost advantages gained through manufacturing products in cost efficient countries.

"We aim to provide a competitive range of complete heating solutions for our customers. This requires that we constantly monitor and implement new ways to maintain quality whilst striving to reduce costs in order to provide lower priced products to resellers," says Miguel Navarro, Engineering Production Manager at Baxi's Barcelona assembly plant.

Using Krontime, Baxi is able to effectively manage labor and component costs across their assembly lines. Controlling labor costs requires efficient processes.

Krontime helps Baxi develop optimized manufacturing processes and provides the tools to continually monitor their effectiveness. At each workstation on the assembly line operators are able to view assembly operations which detail the actions required, the tools to use and the materials needed.

“Krontime provides a good solution that helps us develop, monitor and optimize our manufacturing operations,” says Miguel Navarro, Engineering Production Manager at Baxi’s Barcelona assembly plant.

COMPREHENSIVE SOLUTION AND STRATEGIC PARTNERSHIP

To achieve this Baxi purchased the Krontime Methods and Time application which they employ to validate operation times using MTM (Methods-Time Measurement) a pre-determined motion time standard.

“It is very important to us that we have a close working relationship with INS. We use the standard support services of telephone and e-mail. But what makes INS different is its personal contact. When we have a problem that cannot easily be solved over the telephone one of their support staff will come to site where the issues can be more easily communicated and solutions quickly identified,” says Miguel Navarro, Engineering Production Manager at Baxi’s Barcelona assembly plant.

INS is continually enhancing their Krontime solution and listens carefully to their customer’s needs. When Baxi required a more efficient way to view information about operations and associated tools INS were quick to respond and provided a new filter ability to allow Baxi to easily download selected information.

A VALIDATED SOLUTION THAT MANAGE ALL RELATED PRODUCTION PROCESS INFORMATION

Before selecting the Krontime product, Baxi, who were part of the Roca Group, consulted with the bathrooms division of the group, who were already using Krontime to optimize their manufacturing. Based on the results achieved by Roca, Baxi made the decision to deploy the Krontime product in their Barcelona factory.

Having an integrated software solution that Krontime provides allows us to use one system to manage all aspects of improving our production processes. If we did not have Krontime it would be difficult for us to maintain the vast amount of information about our production lines. Communicating changes rapidly and accurately would be very expensive in terms of time and the people required. But with Krontime this becomes a simple exercise,” says Miguel Navarro, Engineering Production Manager at Baxi’s Barcelona assembly plant.



Before Krontime was used at their Barcelona factory Baxi process planners employed spreadsheets and paper to calibrate and validate the methods and time calculations for each production line. But

spreadsheets and paper distribution methods did not allow them to easily add or change components to operations sequences. It was very difficult to quickly and accurately reconfigure lines using these old ways of working.

Manual assembly accounts for 95% of the operations on the constant flow lines used at the Barcelona site where performance is measured by the number of boilers per hour produced. During any 30 minute period the model of boiler being manufactured can change. This can only be achieved through using Krontime's ability to rapidly distribute to each assembly area on the line information about the operations, tools and materials required.

"Krontime generates the documents we use to assemble each model of boiler. These are downloaded to the operators at their workstation. The information they require includes the operations to perform, the components to use and the tools to employ. All this information is held in Krontime and electronically distributed using PDF files," says Miguel Navarro, Engineering Production Manager at Baxi's Barcelona assembly plant.

IMPORTANT MEASURED BENEFITS

Using these proven and trusted methods and tools Baxi can be confident that they distribute high quality products to their reseller networks and onto to the end customer.

Having fully integrated Krontime into its manufacturing operation Baxi are able to easily calibrate their assembly lines to determine how long each operation takes. Time savings have also been achieved using Krontime to generate documents for logistics that not only show which parts and components are needed but how many are required at each workstation on the assembly line.

"With Krontime we have been able to reduce typical production times from 30 minutes to 25 minutes which represents a 30% productivity improvement," says Miguel Navarro, Engineering Production Manager at Baxi's Barcelona assembly plant.

In summary all manufacturing businesses can take advantage of Krontime's ability to improve production performance through optimizing operations, knowing what and how many parts are required and where they need to be used. Product quality is maintained eliminating the chance of the wrong parts being used or parts being omitted and prevents incorrect assembly being performed.

"We are planning to move from an IBM AS400 ERP solution to MOVEX M3. Krontime and INS will play a crucial part in providing additional business benefits to our operation. For example through integration we will extract labor costs for every section on the production line and for every model of boiler from Krontime into the new ERP solution. Without Krontime and the expert services from INS we would not be able to achieve this," says Miguel Navarro, Engineering Production Manager at Baxi's Barcelona assembly plant.

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