

PULP AND PAPER

ABB Ability™ Manufacturing Execution System helps Kotkamills Oy cut costs



When Kotkamills Oy receives an order – 200 tonnes of magazine paper, for example – from a customer in western Europe, it takes an average of 28 days before the shipment is delivered. This period forms a multi-stage logistic chain that includes many variables. An essential aspect of Kotkamills’ day-to-day operations is a smooth order-production-delivery process made possible by ABB’s Manufacturing Execution System (MES).



Customer: Kotkamills Oy



Location: Kotka, Finland



Customer need: Integration of production control and logistics functions with other systems



ABB Solution: ABB Ability™ MES for pulp and paper including: Order Management, Production Planning, Production Management, Quality Data Management, Decision Support and Process Data Management, as well as continuous support services.



Result: System cost savings

Kotkamills Oy has an annual turnover of around EUR 270 million, and exports represent about 90% of total product sales.

Better integration

When Kotkamills Oy was acquired by a private investment firm, the change of ownership meant that the company had to rethink its production control and logistics functions. According to Mr. Petri Hirvonen, CFO, the system then in use at Kotkamills Oy was part of the former owner’s group-wide

system, and the company had one year to migrate to its own environment. At the same time Kotkamills Oy wanted better integratability of the individual systems. “System integration has not only brought us new technology but also enabled us to build a system that matches our needs perfectly,” Petri Hirvonen says.

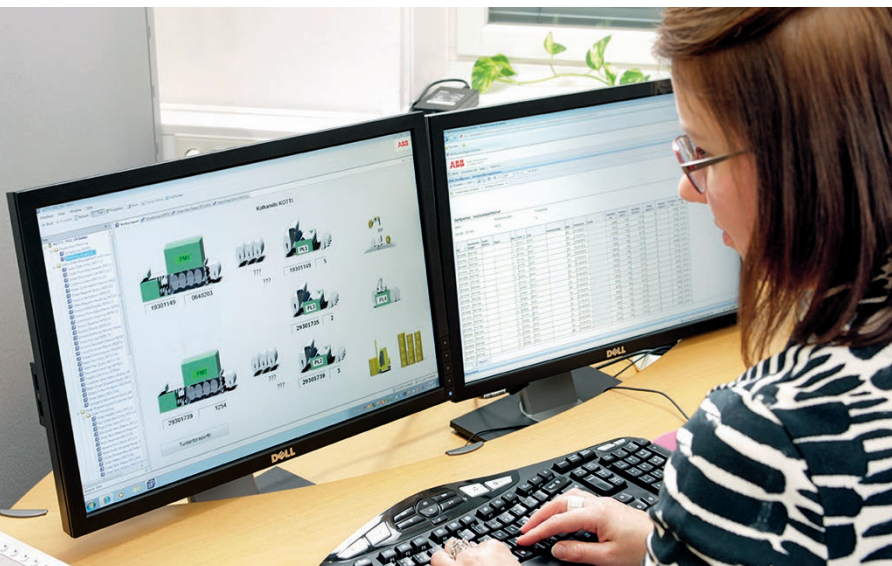
All the systems previously in use at Kotkamills Oy (with the exception of the sales and production control systems at the sawmill and the mill system at the impregnation mill) have been replaced by ‘KOTTI’, an integrated MES solution supplied by ABB. The reporting function and communication links with the messaging system were also replaced.

“We have realized considerable savings in our system costs”

Mr. Petri Hirvonen, CFO of Kotkamills Oy

Ongoing updates

The project itself was implemented in a dynamic way: less than one year from the project launch, the KOTTI system was already in use at Kotkamills Oy. Not all aspects of the project were completed in a year, but the goal was for the new system to take over within a year, and that was achieved.



The KOTTI system brings increased transparency to the order-production-delivery process and enables Kotkamills Oy to react rapidly to any changes that impact the logistic chain.

KOTTI consists of two parts: the MES and sales and logistics management. Petri Hirvonen says that in spite of the broad scale of the project, it remained within budget. So far, the overall system has undergone two updates. Non-invasive updates are possible because a productized system approach was chosen. The updates have covered the latest product versions and features tailored for Kotkamills Oy, such as the addition of price calculation components to invoice lines.

Implementing updates in stages has provided not only a cost-effective way to tailor solutions to match Kotkamills' needs, but also the opportunity to seamlessly manage product life cycles.

"Kotkamills Oy is continuously developing its system, and at the same time ABB is evaluating the scope for productizing the features in question. This year's development work is under evaluation, as are the version upgrades that may be implemented," says Ms. Tiia Lantta, Sales System Manager.

Real-time information improves transparency

There are many variables in the paper production process. Factors that make production planning and management easier include more predictable production times, reduced trim losses, and storage of end products in the correct warehouse locations. Important quality related factors are consistency of product quality and identification of nonconformities at the earliest possible stage. Improved transparency in reporting and order management makes communication easier and increases responsiveness between production and sales.

KOTTI provides real-time information on the different stages of the order-production-delivery process. Because it covers the major part of Kotkamills' logistics function and combines sales and production into the same chain, the system delivers plenty of scope to boost production planning, management and warehousing helping to process data and manage quality and orders.

"Order handling, invoicing and sales are always up to date. Our operations are more straightforward with KOTTI," explains Tiia Lantta.

Standardized message format

EDI (electronic data interchange) messaging between Kotkamills Oy and its external partners is handled by a messaging provider. This ensures that the systems at both ends are updated with, for example, unit data for the harbor operator or export information for customs.

The system is able to process and save large amounts of information; the number of single inbound or outbound messages per month can reach 20,000. As a result of the standardized message format, message connections can be built and utilized efficiently. This means less manual work and easier collaboration between different partners like agents, harbor operators, customs officers, carriers and end customers.

Effective process management reduces costs

The single integrated system has produced savings in both the cost of managing the order-production-delivery process and the cost of maintaining the hardware and updates.

"We have realized considerable savings in our system costs," says Petri Hirvonen.

Fact box

Kotkamills Oy has production plants in Kotka and Tainionkoski, Finland, as well as a subsidiary in Malaysia and sales offices in Germany and Spain, producing products that range from printing paper, laminating paper and sawn timber.

The company has certified ISO 9001 quality, ISO 14001 environmental, and OHSAS 18001 occupational health and safety management systems, as well as certified systems for verification of the chain of custody of wood based raw materials.

Over 100 pulp, board and paper mills use ABB MES solutions worldwide.

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