MAJA
Relieve Pressure on Production

Mechanical and Plant Engineering

Name:
MAJA-Maschinenfabrik
Hermann Schill GmbH & Co. KG

Website:
www.maja.de/en

Products:
Machines for derinding, slicing and skinning, automation systems for the meat processing industry, ice machines

Sites:
Kehl-Goldscheuer/Germany, Entzheim/France, Omaha/USA

Employees:
approx. 200 (2015)

Revenue:
approx. €25m (2015)

Focus on the module:
Production (APS; Advanced Planning and Scheduling)

Why proALPHA?
- Replacing numerous isolated solutions with one integrated ERP system
- Mapping a wide range of products and small lot sizes
- Transparent and simultaneous planning of material flows and capacities with priorities

Benefits
- Delivery times are reduced by approx. a third to three or four weeks
- Overtime in make-to-order production is reduced to zero, compared to previously 21 hours per employee and month
- Stock on hand in production and of self-produced parts is reduced by approx. a third
- Almost all bottlenecks are removed and capacities are optimally utilized
- Clear rules for MRP and production

For more than 60 years, MAJA has developed, produced and distributed high-quality machines for the food industry. The family business has already mounted more than 90,000 of its long-life plants worldwide and assembles approx. 2,000 new ones each year. Its products range from derinding and membrane skinning machines as well as slicing and portioning systems for the meat processing industry to fish and poultry skinning machines and ice machines for supermarkets, catering services,

To efficiently manage its wide range of products, the company decided in 1994 to work with the ERP system proALPHA. Since 2007, proALPHA Advanced Planning and Scheduling (APS) has boosted the company’s production processes.
The highlight of MAJA’s portfolio is a machine slicing 155 pieces of meat of exactly 120 grams per minute – day after day. The robot in hygienic design is not only very fast in cutting and packing meat for discounters and supermarkets, it also works with high precision. “Our customers in the meat processing industry expect maximum yield, which can only be achieved with minimum offcut and highest precision,” says Joachim Schill, managing partner at MAJA and head of the technical department.

The company also has to face other challenges. “Short delivery times of three to four weeks and high delivery reliability are typical of our business today,” says Bernd Schäfer, head of Human Resources & EDP at MAJA. The company delivers its products to 130 countries worldwide and has to ensure that they comply with each country’s regulations, be it on the electrical equipment and refrigerant used, or safety standards and food hygiene.

Merging Numerous Isolated Solutions into One
When MAJA introduced proALPHA in 1994, the main aim was to merge numerous isolated solutions into one integrated ERP system. The company wanted to automate its processes with workflows and eliminate interfaces and redundancies. MAJA reached its goal with the help of proALPHA. However, production was still planned with an external production planning and control system (PPS) which used “optimal” instead of actual lot sizes.

This approach disregarded that the focus should be on the overall optimum and the factors required to achieve it, such as cycle times, delivery reliability, and the availability of machines, human resources and material at a specific point in time. As a result, there were repeated discussions about late deliveries and passed deadlines between the sales, MRP and production division.

Optimizing Production Based on Managerial Criteria
When MAJA upgraded to a higher proALPHA version in 2007, they decided to add the integrated multi-resource planning system APS to the ERP software. This module enabled the company to optimize the utilization of resources in order to improve its delivery reliability and cycle times. Today, MAJA plans its material flows and capacities simultaneously and includes various time horizons and production and delivery sites in its production.

To manufacture the machines and the related components and assemblies, MAJA has to complete approx. 41,500 work orders per year. This entails 47,000 bills of materials and routings as well as 10,500 purchased parts. APS assigns the parts to be manufactured to the respective sites and determines the required capacities, such as human and operating resources. Factors such as demand, distribution and transport are also taken into account to achieve optimum routing. “The system greatly contributes to making our processes more transparent and versatile,” says Bernd Schäfer

Flexibility in Planning to Relieve Pressure on Production
The head of Human Resources and EDP knows that flexibility in planning is key: “When a high priority order comes in, we have to do the whole planning again.” Previously, this meant a lot of pressure on the production division to complete these high priority orders.

Today, they can be scheduled even on short notice. Pressure on production is relieved. APS issues warnings in case of bottlenecks or overloads, prioritizes work orders, and suggests alternate resources. Companies can plan ahead and immediately react to changes and fluctuations in demand.
Reducing Delivery Times by More Than a Third

“We run the optimizer three to four times a day,” says Bernd Schäfer. The core of APS are algorithms that create suggestions based on which planners can optimally utilize resources, such as materials, tools, human resources, and time. As a result, the MRP division can entirely focus on planning and only hands over actually required and feasible work packages and schedules to production.

Only a few months after APS had been implemented, MAJA already benefited from faster, more versatile workflows, increased transparency, and higher efficiency in production. The company has optimized the utilization of human resources and machines and knows which things have to take priority. Machines and plants can now be delivered in three to four weeks instead of five to six weeks.

Overtime in make-to-order production was reduced from 21 hours per employee and month to zero. Based on 100 employees, overtime of 2,100 hours in total was avoided. The number of orders whose processing was started but put on hold later due to new priorities was reduced by 90 to 95 percent. Almost all artificially created bottlenecks were removed. After only one year, stock on hand in production was reduced by approx. 30 percent. The number of work orders completed on the extended workbench was reduced by 22 percent, and the stock on hand of self-produced parts was reduced by a fifth.

Providing Excellent After-Sales Service

To set itself apart from the competition, MAJA not only has to offer top-notch machines, but also provide fast and excellent after-sales service. “The ERP system is of great help to us, for example, when delivering spare parts to our customers,” says Joachim Schill.

MAJA is thinking about introducing the proALPHA Service module, which would allow for a major increase in efficiency in this division. All employees in customer service, be it the hotline or maintenance, have access to uniform data. Since they can track the entire life cycle of a product, they can provide customers with information about the current order status, already completed orders, and invoices. Service processes are streamlined, which also adds to customer satisfaction.

“Instead of just reacting, we take action. Production is completely transparent now. Thanks to proALPHA, we are well-prepared for all future challenges.”

Joachim Schill, managing partner at MAJA-Maschinenfabrik Hermann Schill GmbH & Co. KG