

GLOBAL SHOP SOLUTIONS CASE STUDY

FAST™ AG Solutions

In the late 1980s, a Midwestern farmer looked at the agricultural sprayers available on the market and didn't like what he saw. Thinking he could do better, he developed his own design and quickly put it to work in his fields. Neighboring farmers liked his new sprayer, and asked if he would build some for their farms. Years later, **FAST™ AG Solutions** is a rapidly growing manufacturing enterprise based in Mountain Lake, Minnesota, making high-quality liquid fertilizer applicator and sprayer products for farmers throughout the U.S.



The dependable 9613 pull-behind sprayer in action.



With its 90-foot wingspan, the 9518 sprayer is a popular choice among farmers.

Founded in 1990 by Verlyn and Nancy Fast, FAST AG specializes in two product lines – liquid fertilizer applicators for injecting liquid fertilizer into the soil and sprayers for controlling weeds with herbicides and pesticides. Their products include pull-type, front-mount, and three-point sprayers, as well as tractor-mounted tanks for holding liquid fertilizer and chemical products. The company's owners are all active farmers, using their products in their own fields, and a large amount of the firm's employees have been directly involved in farming operations.

In addition to their products, FAST AG also runs an over-the-counter parts department, selling new and used parts and equipment to local farmers and agricultural equipment dealers. These include everything from used sprayers and injectors to fertilizer injector tubes, fall tillage knives, storage tank parts, and more. The firm has a 144,000-square-foot facility in order to keep up with the company's rapid growth.

For years, FAST AG ran the business with a software system designed primarily for over-the-counter sales. The system could handle the accounting side fairly well, but had no shop floor management capabilities. As a result, the company suffered from poor inventory tracking, inaccurate costing, and many inefficient manual processes that lowered productivity and profitability. When FAST Ag began its steady growth spurt after the recession, the company's owners recognized the need for a more sophisticated production management system.

Fortunately, a few staff members had experience with Global Shop Solutions ERP software from previous companies, and recommended it highly. The company purchased the powerful ERP software in 2009, and soon embarked on the journey to migrate all their data and production processes into the highly integrated system.

Building Better BOMs

Prior to acquiring Global Shop Solutions ERP software, one of FAST Ag's biggest problems was the inability to build accurate **bills of materials** – partly because their BOMs often contained several thousand parts, but also because they didn't have a good process for bringing all the parts together for each job.

As a result, most units were built by common knowledge rather than an integrated system that could track and manage every step of the process.

“With Global Shop Solutions, it’s a different story,” says CFO and second-generation family member Cody Fast. “It took us several months to enter all our part numbers into the system and get everything set up. But now we can easily create large, multi-level BOMs in a fraction of the time it used to take to do everything by hand.”

“We start out by making subassembly BOMs – a critical step since just about everything we make is based on subassemblies,” continues Fast. “Then we pull all those subassemblies into one top-level BOM that guides the manufacturing of that particular unit. This saves time and reduces the human error inherent with manual systems, which helps to make the entire production process more efficient.”

Global Shop Solutions ERP software also yielded quick improvements in other areas of the business, including purchasing. Previously, incoming purchased parts did not have part numbers, resulting in a certain amount of guesswork for most purchases. In the ERP software, all purchased parts now have part numbers, making the purchasing process more accurate and efficient.

“We recently began using **Auto Purchasing** to further simplify our purchasing process,” notes John Schwartz, FAST Ag’s ERP Administrator. “But we’re not yet at the point where we can make full use of all its capabilities. As we further refine our inventory management processes through Global Shop Solutions, I’m confident we’ll get a lot more out of Auto Purchasing and other modules we’re just starting to use.”

Tighter Inventory Management

FAST Ag has also generated significant improvements in inventory management. According to Fast, barcoding with **GS Mobile** has greatly simplified the process of tracking incoming materials, moving inventory throughout the plant, and taking more accurate inventory counts.

In the past, purchased parts were received and inventoried manually. Now, when parts come through the door, employees simply scan the barcoded purchase order (using Motorola barcode scanners) and the materials are automatically received into inventory.

Wireless scanning has also improved the accuracy of bin-to-bin transfers. Previously, these transfers required a hand-written report indicating when and where to move parts. As a result of this slow and inefficient process, bins counts almost always ran to negative. With GS Mobile, workers can scan the parts right on the floor, improving the accuracy of the transfers and the accountability of those involved in the transaction.

“Our head of receiving really likes GS Mobile,” says Schwartz. “Her team scans inventory items straight from the purchase order, the system automatically receives the part, and it prints out the **barcode label** for the part on the spot. It’s fast, efficient, and provides excellent traceability of the parts.”

Reducing Part Outages

Not many manufacturing companies run a retail store alongside their production facility. Here again, Global Shop Solutions ERP software lends a hand.

To better manage inventory, FAST Ag created its own part numbers for the spare parts it sells, most of which do not align with the vendor’s part number. In Global Shop Solutions ERP software, counter clerks can easily look up the vendor number to cross-reference the company’s part number for faster processing of customer orders.



The side-fold applicator is used for narrower transport widths and shorter transport heights

On the shop floor, the ERP software has simplified the labor data collection process – an important component for accurately costing and pricing jobs. Previously, shop floor personnel filled out paper slips indicating what part they worked on and for how long. Now, using the [Shop Floor Data Collection](#) stations located throughout the shop floor, they scan their badges against the work order to more accurately capture time and work data. The stations bring together all the data into one central location and eliminates the time and expense of manually entering the data.

Another big improvement has come in reducing parts outages. Many of FAST Ag's parts require lead times of up to 12 weeks, making it even more critical to have precise on-hand inventory counts. With Global Shop Solutions ERP software, planners can more accurately forecast what parts will be needed and by when.

"People on the floor hate being out of parts," says Fast, "which is one reason we're working on getting the inventory as accurate as possible. The [Advanced Planning & Scheduling](#) (APS) application helps by making it easy to determine our capacities for each week and how many units we can turn out. This allows us to plan our long lead-time items more accurately, increase our turns, and ensure that everyone has the parts they need."

Confidence in the Data

As the company's ERP administrator, Schwartz oversees the ongoing use of ERP software throughout the company. Based on his experience with several different ERP systems, he rates Global Shop Solutions ERP software as the easiest to learn and use – a real advantage when dealing with employees who have no experience with ERP software.



The 8224 Applicator is used to inject liquid fertilizer into the soil.

"Because Global Shop Solutions is modular, you don't have to train everyone on the whole system," he explains. "You teach each person the module or modules they need to use for their job, and let them focus on getting real good in those areas."

"I also like the excellent navigation and drill-down capabilities. Anyone can easily click through the screens and see how everything is interconnected. For example, in the [Supply & Demand](#) screen in the Inventory application you have a wealth of data right at your fingertips. But you can also easily get to all the other modules in just a few mouse clicks."

Fast considers the visibility and integrity of data in the system, especially as it relates to job costing and pricing, as

Global Shop Solutions ERP software's #1 benefit.

"Global Shop Solutions gives us more confidence in the accuracy of the numbers," he says. "And [knowing our costs](#) better is huge. As a manufacturer, you're always looking to increase margins and price where possible and appropriate, and the ERP software has allowed us to know where we need to be on price to effectively target our margins."

"Before, we were mostly in the dark when it came to knowing our costs," adds Fast. "Now, with labor tracking, tighter inventory management, and improved forecasting, we have a better handle on our true costs. As a result, we can more accurately target the margins we need to sustain the growth of our business."