

## GLOBAL SHOP SOLUTIONS CASE STUDY

# Brookfield Fabricating Corporation

*Brookfield Fabricating Corporation is a leading manufacturer of structural steel and aluminum overhead sign structures for use in the commercial, cell tower and highway transportation industries. Located in Brookfield, Missouri, the three-shop firm provides an end-to-end fabrication process for contractors that install sign posts and structures throughout the U.S.*



*One of several arched trusses manufactured by Brookfield Fabricating found at the George Bush Intercontinental Airport in Houston, Texas.*



*Brookfield Fabricating's shop floor.*

Founded in 1985, Brookfield Fabricating started out fabricating metal products such as ground-mounted breakaway sign posts, state designed and in-house designed overhead sign structures, bridge diaphragms, pedestrian rails, and other bridge component parts. Since then, the company has expanded into fabricated tower component parts, steel overhead sign trusses, cantilever and butterfly structures, and bridge-mounted sign supports.

Brookfield Fabricating is AISC certified, and many of their welders are qualified in accordance with American Welding Society codes, AASHTO, and various state DOT codes for both steel and aluminum welding processes.

When Brookfield Fabricating's long-time CEO decided to retire, company management decided it was time to invest in ERP software. After evaluating several different ERP products, they chose Global Shop Solutions ERP software.

"Our retiring CEO had a treasure trove of knowledge about the business in his head, and we needed a place to organize and store that invaluable data," says Production Control Manager Lance Faulkner. "We also needed more consistency and accuracy with our inventory, and we wanted to get all the departments working together more effectively. Global Shop Solutions had all the functionality we needed to accomplish these goals in one integrated system."

### **Reducing Inventory Counts from 2 Months to 1 Day**

Before using Global Shop Solutions ERP software, physical inventories were performed once a year, and involved a considerable amount of labor. After completing the counting, personnel manually transferred hundreds of hand-written pages to a database.

"It took three people working full-time for two months to tally up the raw materials inventory and add in finished goods and WIP," says company Controller Brooke Mauzey. "The next day, when someone took the first piece of material out of the yard, the inventory was already off because we had no way tracking it to adjust the inventory count."

Now, shipping and receiving personnel [barcode](#) all incoming materials, which automatically enters them into Global Shop Solutions ERP software, where they can be easily tracked as they move through the production process. The yearly inventory count is now conducted with Bluetooth scanners and mobile tablets instead of pencil and paper.

“Instead of months, we now have an accurate inventory count at the end of the day,” says Mauzey. “Because the process takes so little time, we have started conducting cycle counts to verify accuracy throughout the year.”

***“Global Shop Solutions gives us a snapshot of everything going on in all three shops at any given time, allowing us to run our business more efficiently and effectively.”***

#### **Improved Material Utilization**

On the purchasing side, lengthy lead times for many of their materials don't allow Brookfield Fabricating to purchase directly for the job. In particular, some of their steel mill vendors may only have a rolling once or twice a year. As a result, Brookfield Fabricating must purchase those materials well in advance, without knowing exactly how much they need.

Global Shop Solutions' Supply & Demand screen in the inventory application lends a hand by tracking exactly how much is on hand at any moment and what is being called for on the demand side. This gives purchasers a better idea of how much to order without over-buying. The system also helps to utilize materials in inventory more efficiently, including tracking and using remnant pieces of material.

“In the past, we didn't have a reliable method for tracking remnants, and we would end up with a lot of material pieces of various sizes scattered around the yard,” says Faulkner. “At our request, Global Shop Solutions created a custom drop process that makes it easy to track remnants. Now, when we have leftovers from a large piece of steel, we simply issue them back into inventory. When smaller jobs come up, we can instantly look up the exact size and location of every remnant out in the yard.”

#### **Certification Packets at the Touch of a Button**

Most of Brookfield Fabricating's contract customers are required to submit certification documents for all materials used in their jobs. This, in turn, requires Brookfield Fabricating to put together supply material certification packets, some of which contain 70 pages of certifications, for most of their jobs.

“Everything that goes into our jobs – from pipes, plates, angles and beams to hardware, galvanizing and paint – has to be certified down to the last detail,” says Faulkner. “Assembling the packets used to take hours upon hours. With Global Shop Solutions, we can put them together in minutes.”

When Brookfield Fabricating receives material or hardware, they scan the certification document and use [Document Control™ software](#) to attach it to the material or hardware. As materials get issued to various jobs, the certs remain attached with the job, eliminating the need to spend time searching for them in a file folder somewhere.

Here's the real payoff: Brookfield Fabricating had a custom program built (using the [Global Application Builder](#), or GAB) that enables them to pull up a certification checkbox as each job is completed. The checklist shows all the linked documents, and workers simply check off each certification needed for the packet.

“It’s amazingly fast and simple,” says Faulkner. “We hit a button and the program automatically combines all the checked certifications into one PDF to send to the customer. It’s a huge time saver, and we know we’re sending the correct certs with every job.”

### The Right Data When and Where People Need It

Meanwhile, company-wide access to data is generating process improvements throughout the business.

- **Improved workflow.** Production workers can electronically access the work orders to see when issued materials are due to arrive. This allows them to start jobs ahead of time using materials they have on hand. When the ordered material arrives, workers already have part of the job built and ready to go.
- **Reduced setup times.** Instead of cutting only one or two parts at a time, Brookfield Fabricating now cuts more efficiently, and tracks the pieces in Global Shop Solutions ERP software for use in future jobs reducing setup times by handling the material only once instead of multiple times.
- **More accurate labor costing.** Workers electronically log on and off all jobs using the [Shop Floor Data Collection](#) (or GUI) software on the shop floor, allowing Brookfield Fabricating to determine labor costs down to exact sequence.

As for improved communications, Mauzey and Faulkner give Global Shop Solutions ERP software two thumbs up.

Mauzey says, “With the superb integration of data, I can go just about anywhere in the system to figure out what’s going on. The visibility of processes and the real-time aspect of the data is tremendous, especially when it comes to inventory.”

Faulkner concurs.

“Every morning I get a report showing all the jobs worked on the previous day and what materials were issued,” he says. “If something doesn’t look right, I can talk to the people involved to make sure everything is going to the right place and being worked on at the right time.

“The [Work Order Dashboard](#) provides a quick overview of all the open jobs, including when hardware and materials are coming in and which portions of the job have been completed. Global Shop Solutions gives us a snapshot of everything going on in all three shops at any given time, allowing us to run our business more efficiently and effectively.”



*Another arched truss manufactured by Brookfield Fabricating in Iowa.*