

GLOBAL SHOP SOLUTIONS CASE STUDY

Hi-Vac Corporation

Founded in 1969 in Chicago, *Hi-Vac Corporation* was formed to supply industrial vacuums for the foundry industry. At the time, plant cleanups were still performed with brooms, shovels and wheelbarrows. Using Hi-Vac's first industrial vacuum cleaner, the Hi-Vac®, one person could replace an entire crew of cleanup laborers.



Hi-Vac Aquatech unit on-site demonstration.



Hi-Vac assembly area.

In 1989, the company was purchased and relocated to Marietta, Ohio, where it produces custom-vacuum products for difficult industrial infrastructure, maintenance and cleanup challenges. Hi-Vac's products include industrial vacuum systems, hydro excavators, combination jet/vac systems, hydrojetters, and truck-mounted vacuum loaders, and are used around the globe to maintain infrastructure, improve air quality, perform non-destructive excavations, recycle, and help clean and maintain the environment.

Custom vacuum trucks represent Hi-Vac's biggest product line. However, their other products can be found in power, chemical, cement, and glass manufacturing plants, as well as foundries and other **manufacturing facilities** where safety, efficiency, recycling, environmental compliance, and effective material management are essential.

For years, Hi-Vac managed the business with an early-generation ERP system. As time went by, however, the system's antiquated features began holding the company back in many ways. In particular, inventory and job costing posed ongoing problems in the company's increasingly competitive markets. To modernize the business and implement an ERP system that could take Hi-Vac into the future, management chose Global Shop Solutions ERP software.

"We liked the **Global Application Builder (GAB)**, which allows us to easily adapt parts of the software to our ways of working," says Applications Support Manager Ezra Ward. "We also liked the company's reputation for outstanding technical support. But what really attracted us to the software was it seemed like the best fit to take the company where management wants to go, which is becoming more of a **make-to-stock company**."

Transforming Inventory Control

Not surprising for a company that produces large vacuum trucks requiring more than 2,000 parts, Hi-Vac began tackling their **inventory** issues as soon as they went live with the new software.

Their old ERP system only allowed one bin location for any part, which meant inventory personnel couldn't enter the same part number in multiple locations. That made it difficult to track inventory on hand and to find it when needed. It also led to issuing parts to jobs before they even hit the shop floor, further clouding the already limited visibility of inventory locations and quantities.

“Global Shop Solutions allows us to allocate the same part number to multiple bin locations,” says Ward. “As a result, we know with a high degree of accuracy how many parts we have in inventory and where each part is located.”

“Equally important, the superb visibility of data exposes any inventory issues that we might otherwise miss,” adds Ward. “For example, we can see when we’re not tracking something very well. Or the data might tell us we could use fewer materials by changing our routing for certain jobs. Having precise data has improved our manufacturing processes as well as our inventory management.”

Precise Costing on Every Job

In the old ERP system, **job costing** was a time-consuming and mostly manual process, especially with large custom truck jobs. Managers created separate work orders for each subassembly that went into the truck, but they had no way of tying the labor and materials information all together. Instead, machine operators wrote their times on paper cards, an inefficient and error-prone method that resulted in inaccurate costing. Also, Hi-Vac couldn’t determine the cost of smaller subassemblies because they were rolled up into the bigger product.

“The way Global Shop Solutions tracks each work order and each job forces us to report correctly,” says Ward. “As long as operators log on and off correctly, we know exactly how long they worked and what parts they used. We can now identify our costs with remarkable precision – and our accuracy will continue to improve as we gain more experience using the system.”

Meanwhile, using the Auto Purchasing screen has literally transformed Hi-Vac’s purchasing processes, making them more efficient and cost-effective.

“Purchasing materials for a large job often consumed an entire day,” says Ward. “Now purchasers run each job through Auto Purchasing and it automatically determines what to order. The system also gives purchasers the option of going down the list and ordering only what they need. Either way, it saves a huge amount of time while allowing us to buy materials more cost-effectively.”

Leaning Labor Tracking with RFID Cards

As Ward is continually discovering, even small changes made with Global Shop Solutions ERP software can make a big difference. Using the system’s built-in **RFID** capabilities, employees now can enter the building and log on and off jobs using just one RFID badge. Unlike thumbprint or other ID methods that can get too grimy to scan properly, the RFID badges work without a hitch.

“When we first started using Global Shop Solutions, we had no security for the **Shop Floor Data Collection stations** where operators log on and off jobs,” notes Ward. “Then I discovered that if I got the right reader, the system would allow people to clock in and out of jobs using the front door cards we already had.”

“Using a custom GAB script,” continues Ward, “I entered everyone’s card number into the system, turn on a few buttons, and it worked right away. The RFID cards save time, simplify labor tracking, and protect the integrity of the data by providing reliable authentication to lock down the security of the system.”

ERP Software for Today and Tomorrow

Using GAB to create custom scripts and reports has leaned processes in every department at Hi-Vac.

For example, Ward recently received a request for a custom script that would allow sales reps to archive sales orders as they entered them into the system.



Hi-Vac employee logs himself in on the Shop Floor Data Collection screen using an RFID card in his wallet.

Ward searched Global Shop Solutions' ARC store (an online library of more than 1,000 custom scripts and programs users can download for free) and found just what he was looking for. He downloaded the program, made a few small modifications, and the sales reps love it.

"I've downloaded many useful ARC programs," says Ward. "Sometimes I don't need to make any modifications, other times I rework the code a bit so we can use it. I love seeing what other Global Shop Solutions customers have created and being able to modify it to suit our needs."



Aquatech debris tanks in various stages of assembly.

Another of Ward's customization projects improved inventory accuracy and simplified materials movement throughout the shop. Using GAB, he modified a program to print inventory part numbers and a **barcode on thermal labels**. This enables inventory personnel to mark bin locations with labels that identify which parts go in each bin, saving time and eliminating the aggravation of searching for misplaced parts.

Asked to identify his favorite features of the software, Ward doesn't hesitate.

"As an IT person, I like the ease of navigation throughout the system and its logical layout," he says. "The system is set up in a way that most of the time there are obvious reasons why something happens the way it does."

Solving problems for others is a big part of my job, and it usually doesn't take long to figure something out in Global Shop Solutions."

"That said, the most important feature to me is the ease of customization."

"No two businesses do things exactly the same, and the system makes it easy to automate a small process or change reports, labels or other functionality to the way we want them to work," concludes Ward. "We're relatively new to using Global Shop Solutions and we still have a lot to learn. But I have no question that this is