

Quaker Windows & Doors



Case Study

IntelliTech International Inc.

Founded in 1949 Quaker Windows began in the venetian blind business. During their 62 years in business, they expanded their business into the window and door industry in two manufacturing facilities in Freeburg, Missouri. This family-owned business of 500 employees is unique in the windows

Challenges: Keeping track

Challenges: Keeping track of their complicated inventory, product identification, work in progress tracking and taking year-end physical inventory

Solutions: Printing out barcoded labels from their networked IntelliBar M48 and M412 printers enabled them to automate their processes and get better control of their enormous inventory

Results: Less time in inventory control and processing, increased customer satisfaction and more time to focus on expanding the business

and door marketplace because unlike other manufacturers, they manufacture three different types of windows and doors in vinyl, wood *and* aluminum. In addition, Quaker Windows is well known for their historical work in St. Louis and their aluminum windows for the Hilton Hotels.

Problem/Challenges

Quaker Windows was challenged with keeping track of their complicated vinyl, wood, aluminum windows, doors, and associated parts inventory. "Handling three different types of material for each

product line was like running three different companies at once," said Rick Otto, Controller at Quaker Windows, "especially when each process of the inventory control was performed *manually*." Their challenges were with:

- **Product Identification:** As they came out with new products, it was difficult to keep track of the parts that were similar to parts they already had for other products.
- **Bin & Shelf Labeling:** As their inventory increased, the problem arose for keeping track of where their parts were located in their manufacturing facilities.
- **Work in Progress Tracking:** They needed to track the goods through their manufacturing process to delivery to the dealers nationwide.

The year-end physical inventory:

- Took two full weeks to complete with each employee from more than 30 departments *manually* counting every single part of their thousands of inventory parts from boxes of screws to rails, etc.
- Required each employee to:
 - manually count every single part, weighing parts on a little scale to convert them from lbs. to pieces
 - sift through and manually enter their inventory count in their 1,000 page alphabetized inventory printout

- manually enter the information from the inventory printout into their AS/400 system

“The end of year physical inventory was a monster,” says Rick.

Quaker Windows wanted to switch to a more automated process by printing out barcodes and introducing scanners to their main office and glass manufacturing facilities as a means of getting better control of their enormous inventory. They turned to IntelliTech for the solution.

Solution – IntelliBar Printers

Quaker Windows purchased IntelliBar M412 and M48 thermal transfer barcode label printers to connect directly to their AS/400 system and ICS FormSprint Software. With the IntelliBar M412 printers, they were able to print, for instance, 10,000 labels at 12 (ips) inches per second in a few minutes. And with the purchase of external rewinders, they rewound the labels as they printed so they didn’t have to rewind thousands of labels. Using Symbol/Telxon 960SL scanners they began scanning the parts as they came in and printed various sized thermal transfer labels using IntelliTech DuraWaxXT ribbons on the IntelliTech’s IntelliBar M412 and M48 thermal transfer barcode label printers for their two manufacturing locations.

The solution has enabled them to:

- **Identify Products:** Label all their raw materials to keep track of the similar part numbers with other parts they already had.
- **Label bins and shelves:** Apply barcode labels on storage shelves/bins to identify a part to a specific shelf location within their manufacturing facilities.

- **Track Work in Progress:** Produce labels for tracking the goods through their manufacturing process so customers could check in real-time the status of their order.
- **Use JIT:** Keep track of inventory levels and **Just In Time** inventory control
- **Conduct year-end inventory:**
 - Reduce the physical inventory time from two weeks to a half day.
 - Cut manpower from 30 departments to a few employees
 - Eliminate all manual entry with automatic data capture of inventory data throughout the year and improve inventory accuracy

“We’re a family owned business. It’s always nice when we can contact a company and get a certain couple of people to answer the phone, without getting a voice prompt and then get someone different every single time. It’s peace of mind knowing they know our history, our time schedule and if we need something quicker, they take care of us. That means a lot to us. And the printers are so durable – the return on investment has been great with the IntelliBar printers.”

- Rick Otto

Ethernet network works much faster.

Quaker Windows upgraded all their IntelliBar printers to Net100’s which enabled them to replace their twinax connectivity with an Ethernet 100/10Base-T network in both their locations. “The Ethernet network works much faster, is more reliable and runs over fiber,” says Rick. “The transition was easy to do and it really made it real easy to set

up a printer, update the work to it and bring it up and running in no time.”

In addition to printing labels for inventory control, Quaker Windows also used the IntelliBar printers to print many sizes of thermal transfer paper labels to expand their labeling application capabilities such as:

1. Raw Material label

- a. This label allows them to scan their raw material inventory. According to Quaker Windows, it has been a life saver.



2. Finished Goods label

- a. Applied to a product, such as windows, allows Quaker Windows to track their products throughout the stages of production as they are shipped to the customer.



3. NFRS (National Fenestration Rating Council) label (show label sample)

- a. This label contained the value for ratings for windows which was big for Quaker Windows the last couple of years, especially with the O’Bama tax credits. The requirements that a window had to meet in order to meet those tax credits were listed on this label.



UV for

4. Address labels

- a. “We can print anything we want with these printers, even – standard address labels,” says Rick.

- ✓ 100% ability to do cycle counts for real-time, up-to-date inventory totals throughout the year
- ✓ Improved customer satisfaction by allowing the customer to check the progress of their order in real time during Quaker Windows manufacturing process
- ✓ More time to focus on the continual expansion of the windows and door business in additional niche markets.

“We’ve always stuck with IntelliBar printers because they worked so well, they’re so durable -- I can sleep well at night with those IntelliBar printers because they never go down,” says Rick.

Results

As a result of using the IntelliTech solution, Quaker Windows has:

- ✓ Reduced the end of year physical inventory taking from 2 weeks to ½ day
- ✓ Eliminated 100% of human error element with accurate inventory
- ✓ Gained cost savings in man-hours since they don’t have to have somebody in maintenance worrying about having to do preventative maintenance on the printers