

# The Glass Industry has a Transportation Rack Problem

There are an estimated 3 million glass racks in circulation industry wide and yet they remain largely invisible. A company might own \$10 million worth of racks, but they don't appear on any balance sheet. At a cost of \$500 to \$5,000 each, glass racks are expensive but not valued. In an automated production environment where a rack slots directly into a customer's fabrication machinery, the rack itself is an integral part of the supply chain. And yet, the company's racks are managed with all of the precision of the paper clip inventory.

Without a reliable way to track them, glass racks go missing. All the time. According to a National Glass Association industry survey, 65% of glass manufacturing professionals said retrieving glass racks was a constant headache. The same survey revealed that 50% routinely lost racks that left their facilities and 51% said their customers kept their racks without reimbursement. One plant we spoke with spent 25% of their annual freight spend on retrieving racks. A plant can easily lose 200 racks in a six-month period. Uncontrolled racks are a consistent problem throughout the glass industry.

"The glass industry runs on precision," says Tim Watson, CEO of SMART Logistics. "These are companies that can tell you how many molecules of argon gas are between two layers of glass. But, what's surprising, is that they can't tell you how many A-Frames they have or where they are."

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### In our experience the glass rack problem boils down to three main issues:



#### Visibility.

Logistics managers have little control over total rack inventory, individual rack location, or expected return date.




#### Productivity.

Daily production decisions are sometimes informed by available racks as much as customer demand.



#### Service.

Late and missing orders force the sales team to waste time on damage control instead of driving customer satisfaction.



**"In a business where engineering tolerances are precise and quality guarantees absolute, can you afford to leave your glass racks to chance?"**

Tim Watson | CEO  
SMART Logistics

# Visibility: know the location of every rack

In our experience working with major glass companies, glass racks spend 80% of their time outside of the facility that owns them. Tracking them falls to the logistics manager, who notes their comings and goings on an Excel spreadsheet or white board. Rounding up missing racks means an email blast or working the phones. Barcodes or QR labels are only as good as the human beings scanning them on either end. In a recent SMART Logistics analysis we found that when it comes to glass racks even a company's ERP system can be off by as much as 15%.

"The first step toward solving the glass rack problem is to establish a baseline for reality," says David Gustafson, President of SMART Logistics. "For the glass industry that means helping a company get their head around the basics. How many racks do we have? Where are they located?"

## How do we get them back?

SMART Logistics' solution is to install durable, highly connective SMART tags on each glass rack. These tags, which are about the size of a hockey puck, are self-sufficient tracking devices that use available cellular technology to provide each rack with a unique digital identity. That digital identity empowers the company's logistics manager to track each and every rack on clear, easy-to-read maps and reports. A custom, intuitive software portal makes finding a glass rack as easy as using the navigation and location updates we all rely on every day.

### Tracking features include:



**2-minute per rack installation with no special equipment.**



**5+ year battery life without recharging.**



**Remote, wireless firmware updates.**



**Continuous connectivity in facility or field.**



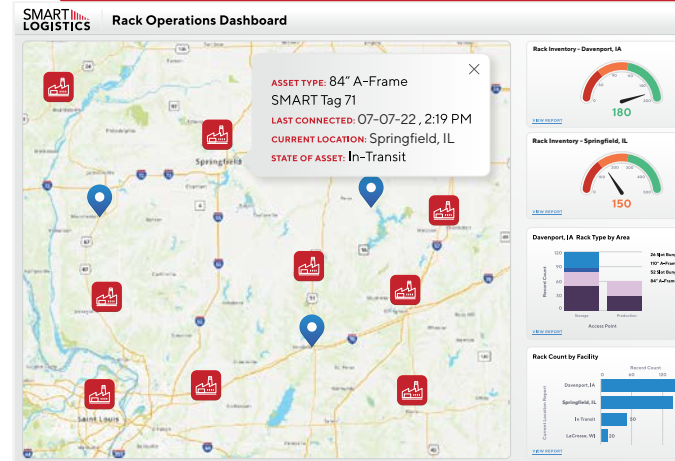
**SMART portal accessible from any device.**



**Extensive rack location and utilization reporting.**

## Illustration: “why is our rack in Georgia?”

In 2020, SMART Logistics partnered with a major custom glass manufacturer to solve their rogue rack problem. Over 1000 glass racks at one of their key plants were tagged. Each tag was programmed to upload its location every two hours if the glass rack was moving, and once a day if the rack was no longer in transit. Locating the rack became as easy as checking the client portal on a laptop or mobile device.



The difference was night and day. Each of the plant’s customers were identified on a map of North America. Each individual rack’s location was indicated by a color-coded map marker. Refreshing the map gave the logistics manager an accurate picture of the entire tagged fleet with no spreadsheets, no phone calls and no guesswork.

In one case the logistics manager watched a rack slowly drift south until it finally ended up in Georgia. The company doesn’t have any customers there, but it wasn’t uncommon for a customer of their customer to end up with one of their racks. (We call them “downstream customers.”) Using the portal map the logistics manager tracked down the downstream customer and called the plant manager. Not only did they send back the one rack, the downstream customer said that 68 more racks had piled up over the past year. Those came home, too.

**“You could watch in almost real time as racks went missing.”**



## Productivity: the 'next level' consequence of missing racks

The custom glass industry is all about tight turnarounds. Customers want product shipped within 72 hours, sometimes based on a verbal order. It's not uncommon for glass to leave the plant before the official purchase order arrives at the finance department. With production speed essential, plants can't slow down to wait for the right rack to be available.

When the right rack isn't available, a patch might be to substitute another rack type, however this can lead to breakage and incompatibility with a customer's handling equipment. Anecdotally, we've heard often of production having to shift from high priority customer orders to low margin inventory stock due to rack mismatches. In some cases, a production line halts entirely waiting for a truckload of racks to show up.

SMART Logistics' glass rack tracking system ensures that the right racks are always on hand, preventing production bottlenecks and driving operational efficiency.

## Service: are rack stock outs harming relationships?

A glass manufacturer can't afford to disappoint its customers. This is especially true in the custom glass industry, where relationships are precious and it's essential that the company delivers, on time, every time. Having control of your glass racks means that your sales staff can keep their promises and spend time meeting goals and nurturing relationships, not performing damage control over delayed shipments. Companies that deploy SMART Logistics' system don't have to make excuses or lose leverage in future negotiations because of a history of costly delays.



**"The custom glass industry is all about tight turnarounds. Customers want product shipped within 72 hours!"**

# The business case: tracked racks provide instant + sustained ROI

When measuring ROI on tracking racks we start by considering the number of rogue racks. In partnership with one of our customers we helped them identify nearly 300 racks that went missing over only a six-month period. Retrieving them yielded a \$350,000 cost savings on replacements. Another facility using our system retrieved over 1000 of their racks from a single customer.

These examples from single plants represent a rapid payback of many multiples the investment in the service. And this is only measuring the hard cost of missing racks! Additional value comes from freeing up production staff's time, and the transportation expense saved by scheduling full trucks for backhaul. Not to mention productivity and customer satisfaction gains, which are likely most valuable of all. The SMART system is able to give glass manufacturers data on their racks for the first time, quantifying something that was only observational.

## A final thought

At SMART Logistics we believe that tracking glass racks is about more than inventory control. Our solution empowers our customers to transform the humble glass rack from an untraceable liability into a managed strategic asset. What was once invisible becomes visible, and if you can see it, then you can control it, and if you can control it, then you can leverage it for success.

**"Glass companies know they have a rack problem, but they don't know the magnitude. Honestly, they're usually shocked to see what the data reveals."**

**Tim Watson | CEO  
SMART Logistics**

### **Get a live consultation**

The team at SMART Logistics is devoted to helping glass manufacturers solve their rack challenges.



**Learn more at  
[smartlogisticsinc.com](http://smartlogisticsinc.com)**



**Call (888) 883-1705**