

PROJECT SPOTLIGHT



Web Industries

Client's Unique Demands Help Drive Innovative Cold-Storage High-Density Solution

CHALLENGE

Based in Boston, MA, Web Industries formats pre-impregnated carbon fiber composites for aerospace fabrication at its Atlanta-area facility in Suwanee, GA. Its products are used in the manufacture of planes like the Boeing 787 Dreamliner and the Airbus A350. To increase these composites' shelf life before use in construction, they need to be stored in temperatures of -10 degrees F.

"When our Web Atlanta composite formatting facility was built around 2008, our freezer capacity was designed to meet the needs of a specific client program," said Bob Scott, a process engineer at Web Industries. "That

program had a set size of pallets and racks. Now we're supplying multiple major aerospace programs. We needed more cold storage capacity."

In 2014, Web projected that it was not going to have enough on-site freezer space to accommodate the growth in demand for aerospace composites that the company was seeing. It was faced with three options: construct additional traditional racking systems in its on-site warehouse, rent off-site freezer space, or refit its current facility to include additional on-site freezer space that could hold raw materials or formatted composites due to be shipped to end-users.

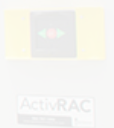
SOLUTION

The third option was the charm. Existing warehouse space was converted to new freezer space. This first required additional work on the existing slab. Additional concrete had to be poured, deepening the slab to 24 inches. Insulation and rebar were also added, allowing for better accommodation of heavy loads. Web Industries worked with Patterson Pope and Spacesaver to devise an augmented version of the ActivRAC® Mobile Shelving System for storage of the composites. Specially engineered with enhanced electronics and heavy-duty wiring to work in cold environments, the new ActivRAC spent a year in development at Spacesaver's Wisconsin headquarters before finally being perfected in the summer of 2016.

Once it was installed in the new freezer, the temperature was slowly brought down (about 10 degrees a week) until the target temperature of -10° F was achieved.

"This system never existed before; it's a one-of-a-kind," said Scott. "Patterson Pope responded to our needs with real ingenuity and innovation. It's going to make a big difference moving forward."

The new freezer measures approximately 108' L x 70' W. By replacing the pull-back racking with the 16,000-pound capacity ActivRAC, Web now has room to store twice as much material as it did before the new system was installed.



ActivRAC

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Process Engineer
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ACHIEVEMENT

"We ended up more than doubling the capacity of their old freezer, where they were just using regular pallet rack," said Patterson Pope Sales Representative Bob Tyler. "Being able to work with Spacesaver to devise this new solution is really a testament to ingenuity. It's been challenging, but also educational and fun."

"This is a solution that's not just ours; it's a solution that's required for the whole industry," added Scott. "Anybody that uses composite fiber will be able to benefit from a solution like this. We all have the same problems, and this is a workable answer."

As the aerospace industry and thus Web's business continues to grow, the need for even more freezer space will become necessary. The ActivRAC "Cold Package" system will play a meaningful role in that evolution.

