


ALWAYS ON TARGET

Spacesaver's Universal Storage Container ensures safety, security for parachute riggers and jumpers



I will keep constantly in mind that until men grow wings their parachutes must be dependable. ~ The Rigger's Creed, United States Army Quartermaster Corps

Imagine being responsible for up to 20,000 parachutes at any given moment—and, by extension, the lives of as many soldiers. As a Chief Rigger for an Army Quartermaster Company, the job of packing and repairing those chutes is a massive task. Riggers pack and store anywhere from 300—350 chutes a day, and how they are stored has

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a tremendous impact on the safety of the jumpers. One parachute that doesn't deploy fully or correctly could result in the loss of a soldier's life.

At the Army Quartermaster Company, chutes had been stored in heavy-gauge wire baskets. As the baskets would go

through normal wear and tear, sharp edges and stray wire become a common occurrence. Additionally, the wire mesh on the undercarriage of the baskets couldn't protect against wet days, when dirt, mud, and moisture would find a way to the chutes near the bottom. A makeshift piece of cardboard provided a less-than-ideal

solution. In addition, the new T-11 parachutes the company had been supplied were slightly larger than the T-10's they were used to storing, creating


another challenge in maximizing basket space.



Chutes being stored in heavy-gauge wire baskets. The wire was bending and breaking causing catch points where the chutes could potentially be damaged.



STORAGE BEFORE



Riggers at a State National Guard were experiencing a similar strain. The base was in the process of repurposing a new storage facility, and their T-11 personnel chutes were currently being stored in cardboard boxes on a pallet rack. In order to transport the chutes, they needed to be unpacked and repacked to a suitable container. Excess chutes were also stored in

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metal lockers, which didn't allow the chutes to breathe properly.

Spacesaver's solution for these similar challenges doesn't begin in the United States, but an ocean away in Europe. The European Air Force base pre-dates the United States Air force and is considered to be the birthplace of Italian aviation. And, two years ago, they were facing the exact same storage issues.

"The European Air Force Base was getting the new T-11 civilian parachutes to replace the

T-10's, and didn't have the means to store them," says Jane Glass, Spacesaver's Director of Government Sales. "They were using a system comprised of wire baskets with wheels that fit on a pallet rack. The wire on the baskets was bending and breaking, causing catch points where the chutes could potentially be damaged."

Another problem was capacity, and after trying to find a commercial container that would fit the base's needs and coming up short, Glass turned to Spacesaver's engineers to create a custom solution—the Universal Storage Container (USC). For prototype testing, Spacesaver turned to the Airborne Division of the Army Quartermaster company. "[This] is one of three largest parariggers in the United States. Getting them involved was closer than taking the prototypes overseas," Glass says.

Throughout the prototype process, the Spacesaver engineers paid close attention to



Smooth interior design, so there are not any catch points to damage the chute.

Welded bottom that has forklift access from all sides.

STORAGE AFTER

the chief riggers in the Army Quartermaster Company. The first prototype was spot-on as far as concept, but a thicker gauge metal and a larger size was needed. The next iteration addressed and solved the durability issue by adding diamond perforated 12 ga. steel panels for visibility and ventilation and an 11 ga. steel frame for strength and rigidity. Protected hinges and a reinforced plate on the bottom were added to avoid forklift damage to the container when being pushed into place on a cargo vehicle.

A third prototype revealed that adding a few inches to the height of the container would make it possible to send one container of parachutes (64 chutes) on a plane carrying 54 jumpers—previously, a minimum of

two were needed. This change paved the way for creating two available container sizes—the large container motivated by the Quartermaster Company's needs, and a smaller size, which stores up to 30 chutes.

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After the prototype testing wrapped up, the Army Quartermaster Company placed an order for 339 large Universal Storage Containers. The containers are made easy to use with lift points on all sides and a structurally welded reinforced



Universal Storage Container stores up to 64 main chutes which correlates with the 54 jump seats on a C-130 air craft. One full plane equals one container.

base for forklift access, and the access is possible from all four sides. And, as the USC's are stackable—up to 3 high—The Quartermaster company is planning to utilize the USC's in conjunction with

training missions. Soldiers tested the USC's by transporting and moving the containers just as they would during an international deployment. Shortly after the end of the training mission in the local area, an order was placed for 40 small USC's, which will be paired with a Spacesaver Parachute Rack system for hanging an additional 250 chutes.

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Jane Glass, Director of Government Sales

Spacesaver's mobile racking solution, ActivRAC® 16P, to maximize floor space by eliminating all but one aisle between racking.

For the State National Guard, the real test for the Universal Storage Container was deploying two of the prototypes for in-state

The product development process for the Universal Storage Container speaks to a fundamental part of Spacesaver's product development ethic. "We look for product gaps that don't exist, and then we work with our customers to refine those products," Glass says. "A key driver for our company is to treat our customers as the catalyst of their own solution."



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