



Innovative Testing Solutions for Next-Gen Batteries

An industry-leading developer of next-generation all-solid-state battery technology announced plans to expand the scope of its solid-state battery material production with a second facility. Once equipped with new R&D labs and cell testing equipment, this facility would expand the production footprint and enable the company to advance to the initial stages of the automotive qualification process.

As a manufacturer of cutting-edge technology, this developer must employ rigorous testing protocols to demonstrate the stability and safety of its proprietary technology.

Tasked with equipping the developer's new large-cell testing facility, we quoted 17 customized ZP Reach-In Test Chambers, Models ZPX-43-2-H/WC. These models provide a 43 cubic ft workspace and are equipped with options designed to safely test batteries for EUCAR level 5. To address the company's temperature uniformity needs, the CSZ team made changes to the airflow design.

Special features

- Temperature-limited sheath heaters
- No internal light
- Electronic door lock
- Optical alarm
- Heated explosive relief
- CO2 fire suppression
- Gas monitor
- Fresh air blower or N2 purge or dry air purge
- Product limit with alarm
- Non-sparking fan blades
- Pressure relief vent

The next set of customizations address the company's need to successfully load and unload the large-cell batteries - which can weigh over 1000 pounds – into the chambers. The design featured unique shelf supports to facilitate ease of loading and a customized fixture frame mounted to a steel cart. The fixture frame is electrically operated and includes superior height positioning for loading shelves at upper and lower positions. A rear floor brake safely locks the cart to ensure reliable and safe testing practices.



By providing the all-solid-state battery developer with customized chambers and equipment tailored to their specific testing requirements, the CSZ team helped the company to move forward in its testing and qualification process. We are a proud collaborator in testing next-generation battery technology, bringing the industry closer to advancing this revolutionary technology.

