



CSZ TEST SOLUTION SUPPORTS BETA TECHNOLOGIES' ELECTRIC AIRCRAFT R&D

When electric aerospace company, BETA Technologies, approached the CSZ team for a consultation and purchase of a custom environmental test solution, we were excited to partner with an organization working to transform the landscape of air transportation. BETA Technologies' ambitious pursuit of electric aviation offers revolutionary potential for their larger goal of forging a path to zero-emission aviation.

BETA plans to power electric aircraft with a Lithium-ion Battery Cell Pack prototype — the product the CSZ team was tasked with customizing a solution to test. These batteries require rigorous testing to assess performance and safety.

With modifications to CSZ Brand's walk-in chambers, our team customized two Welded Walk-Ins tailored to BETA Technologies' exact testing requirements. The chambers simulate the conditions the battery prototype is anticipated to experience in its lifetime, such as those during take-off, flight, and landing.

To manage the potential for a thermal runaway associated with research and development testing on lithium-ion battery packs, which could lead to flame and smoke, the CSZ team conducted a comprehensive risk evaluation, implementing a custom safety package to manage such an event.

Temperature Range



Humidity Range



Altitude Range



Site level to 40,000 ft

CUSTOM SAFETY PACKAGE



Gas Measuring system for H₂, O₂, & CO

- Beacon tower light to indicate chamber status
- Electrical door locks with safety interlock switches
- Emergency stop push button
- Fire suppression system
- Gas measuring for H₂, O₂, and CO
- Overpressure release via burst disc system
- Explosion-resistant interior lighting
- Explosion-resistant low-watt-density sheath heaters

CSZ
Cincinnati Sub-Zero
The Testing Standard.