

Battery Storage Enclosure

Application: Battery storage enclosure

Product: PortaMax 458 steel stud (23 feet tall)

Benefits Provided:

- ✓ Insulated Walls for Optimal Thermal Control
- ✓ Removable Exterior Walls
- ✓ Doors Located for Aisle Access



The Situation

Our client is a developer and manufacturer of high performance lithium ion battery technology and energy storage systems with offices located worldwide. The battery making process involves storing the unfinished batteries in an aging environment, where they are moved through an automated retrieval system over the course of 28 days prior to becoming finished goods. The client required the creation of a new storage enclosure to act as the aging environment during their battery making process.



The Challenge

Our client was already committed to using modular construction, however the materials that were used needed to be non-progressive and provide optimal thermal control. The structure also needed to fulfill certain criteria. The exterior walls needed to be removable, so that the equipment inside of the room could be serviced when needed. Lastly, doors would need to be located within the exterior walls of the structure, so that the aisles inside of the enclosure could be accessed by the client's personnel.

The Solution

PortaFab determined that the Portamax 458 wall system would provide the flexibility and support necessary for completion of the project. The walls could be sized at 23 feet tall to fit underneath the existing mezzanine, and could be made of steel-faced polyisocyanurate panels, which would provide the needed R-value for optimal thermal control.

The PortaMax 458 system also incorporated a non-progressive design, which would allow the client the option to remove sections of the wall easily without disrupting the adjacent panels. This meant that the equipment inside the rooms could be serviced when needed.

PortaFab also coordinated the location of doors within the exterior wall system, allowing workers to access the aisle-ways.