

Cleanroom for Polymers Research & Testing

Case Study

Application: Cleanroom (ISO 7 & ISO 8)

Products: Series 300 Aluminum Framing System and Vinyl Fire and Sound Panels

Benefits Provided:

- ✓ Multiple ISO classifications for different areas including gowning room, storage area and main lab.
- ✓ High visibility windows to serve as client demonstration area.
- ✓ Complete turn-key solution through PortaFab's involvement with general contractor, pre-construction meetings and on-site supervision during installation.



The Situation

Our client is a manufacturer of rugged tubes, hoses and fittings used in natural gas processing, hospitals and manufacturing plants. After receiving a \$2.3 million investment, our client decided to consolidate some of its research efforts in high-tech polymers from labs in Europe and the US to its facility in Ohio. Our client required a new cleanroom to be constructed within their facility in order to aid their polymers research program. PortaFab's cleanroom product line was specified by Parker due to previous successful projects with PortaFab and Parker's client base in the US.



The Evaluation

The cleanroom enclosure would require multiple rooms, including a gowning room, main laboratory area as well as a storage area for the polymers. Strict environmental control would be required in order to maintain safe storage and handling of the polymers including temperature, humidity and reduction of particulates.

The client also requested the addition of high visibility windows to be utilized with the cleanroom environment to serve as a demonstration piece for visiting clients.

The Solution

Our distributor worked closely with PortaFab's engineering and design team throughout this project to ensure that expectations were met based on our previous working relationship with the client. PortaFab also worked closely with the general contractor from initial specification throughout the construction of the cleanroom to ensure specifications were met, which included attending pre-construction meetings and on-site supervision during the installation process.

Our distributor utilized our Series 300 aluminum framing system featuring 12-foot tall walls with our Fire & Sound panels to provide the required level of thermal control. Based on our client's request, our distributor incorporated full length glass window panes to the exterior two sides of the cleanroom to provide full views of the process inside. The attached gowning room was designed as an ISO 8 classified area, while the main laboratory space featured a recirculating cleanroom design and an ISO 7 classification.