

# PORTAFAB

## CASE STUDY

### Powder Coating System Enclosure

**Customer:** American Seating

**Location:** Grand Rapids, MI

**Application:** 56' x 58' x 16' Tall Powder Coating System Enclosure

**Product:** OmniFlex 300 Plus

**Benefits Provided:**

- Effectively environmental control
- Effective control of air pressure
- World class appearance



#### THE SITUATION

American Seating's world class manufacturing facility in Grand Rapids, Michigan was undergoing changes and needed an environmentally controlled application room to enclose their powder coating process.

#### THE CHALLENGE

Due to the precise nature of the powder coating process, it was important to maintain temperature and low contamination conditions within the room while preventing dust particles and other contaminants from entering.

The area would include a self contained HVAC system, but various size "key holes" had to be installed to provide equipment, conveyor, and parts access to it. The enclosure had to be specifically designed and built to maintain positive pressure even with these open "key holes".

#### THE EVALUATION

From a functional perspective, the project required 16 foot ceilings to accommodate large equipment as well as ceiling anchoring to eliminate interior columns and maximize usable space. It needed to insulate the room from inner plant temperature fluctuations and accommodate existing floor contours.

However, it also needed to provide a world-class appearance, be easy to install, minimize plant disruption, and have the flexibility of design to accommodate future modifications.

#### THE SOLUTION

Colin Cronin, American Seating's Manager of Manufacturing Engineering took the responsibility to design and install a new world class powder coating system within the confines of the proposed plant layout. Working with PortaFab's design engineers, the team created a modular enclosure to their exact specifications. It included a ceiling supported from above, access for large equipment, and custom cut-outs for conveyors and other equipment - the "key holes" that allow the entire process to function.

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