

# Environmental Control for Wood Finishing Area

## Case Study

**Application:** Demising Wall in Manufacturing Plant for Environmental Control

**Product:** PortaMax XTRA-Tall Wall System (30' high x 630' long)

**Benefits Provided:**

- ✓ Effective Environmental Control
- ✓ Clean Installation Process Allowed for Continuous Operation
- ✓ Flexibility to Re-locate and Re-use in Future



### The Situation

Our client - the world's leading designer and manufacturer of office furniture - needed to separate an existing wood finishing room from the rest of their plant to prevent airborne particles originating in a sanding station from contaminating furniture being finished.



### The Challenge

To effectively divide the two work areas, the new wall would have to stand 30' high to reach the underside of the roof deck from the plant floor and fit around existing piping. Given changes in demand and styles from one year to the next, the production area had to be modified often so the flexibility to move and reuse the wall system was essential. Finally, because production would continue during the construction process, the wall system needed to be erected without dispersing airborne particles into the rest of the plant.

### The Solution

Alternative construction methods were evaluated. Block wall construction was eliminated because dust and dirt during installation would not allow production to continue and removal of the wall would be too costly. Similarly, drywall construction was dismissed because plaster dust would force production to halt during installation.

Ultimately, pre-engineered modular wall systems satisfied both requirements. All cuts would be made outside of the finish room so very little dust and dirt would be created and modular panels could be reused at a later date.

Working closely with both PortaFab design engineers, the client determined that a PortaMax XTRA-TALL modular wall system best met the project's specifications and budget criteria. The PortaMax 600 wall system with 6" thick steel-faced panels were customized to tie in to the 30' roof line. Fire and Sound panels, with 1/2" steel-faced gypsum covering an expanded polystyrene core, effectively reduced noise in the plant area and met the requirements for noncombustibility. Thanks to the timesaving advantages of a pre-engineered wall system, construction was completed in just eight weeks. The PortaMax modular panels also installed easily without interrupting plant production.