

PREFABRICATION CONCEPTS FOR IMPROVED TOOL INSTALL

Allan D. Chasey, PhD, PE

Jiei Ma, Graduate Student

Abstract

The speed of the design and construction of the semiconductor manufacturing facility has become one of the important factors determining the competitiveness of a product in terms of meeting the market window for sales advantage. How to accomplish the contamination free manufacturing facility design and construction with continuously shortening schedules while reducing cost and satisfying the rigid cleanliness and safety requirements is a major challenge faced by the construction industry.

Numerous uncertainties during design and construction, such as and modifications of tool design, present additional difficulties to an already challenging situation. More changes are expected to further improve the cleanroom design and construction process. To achieve this improvement, innovative technologies and creative methodologies need to be developed through joint efforts, not only by individual semiconductor manufacturers, but by the industry as a whole.