

Experience

300mm Projects

In late 2012, SSOE Group merged with Evergreen EDC bringing to the company significant experience in sustaining and retrofit projects for semiconductor and related industries.

SSOE provides continuous sustaining engineering services for our clients – during and between major fab conversions. We have been working in the industry for more than 20 years and have been involved in converting fabs to meet the industry changes from 100mm wafers to 300mm wafers.

Our projects for the semiconductor and related industries range from small facility upgrades to full fab retrofits requiring the installation of over two hundred process tools. This wide range of experience gives us an in-depth understanding of how to help our high tech clients meet the new and on-going facility challenges facing the industry today.

The following are just a few examples of our 300mm project experience:

300mm P1268 Tool Install, Confidential Client, Hillsboro, Oregon

Scope included process tool demolition, installations, and CIP design packages for all functional areas. SSOE provided micro-schedules for coordination, cost tracking per tool, performance reports, database management, calculations as well as facilitating design review meetings with the client.

300mm Electrical Design, Confidential Client, Hillsboro, Oregon

Master Tool Install Packages covering all functional areas of the 300mm process. This included interfacing with the tool owners and functional area leads to develop packages to meet new facility criteria. These packages were then used as templates for detailed design for the new process development. This work included power, lighting, LSS, facility upgrades, automation, and telecom/data.

300mm EUV Stepper Tool Install, Confidential Client, Albany Nanotech Center, Albany, New York

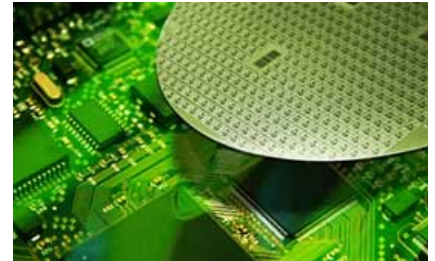
Hookup design and turnkey construction support for the installation of a complex, first-of-kind semiconductor EUV stepper including UHP piping and all other required services. Provided overall project management and design of mechanical systems.

300mm Material Thickness Tester, Confidential Client, Albany Nanotech Center, Albany, New York

Hookup design and turnkey construction support for the installation of 300mm material thickness test tool including UHP piping and all other required services. Provided overall project coordination and design of mechanical systems.

300mm Mechanical Design, Confidential Client, Hillsboro, Oregon

Master Tool Install Packages covering all functional areas of the 300mm process. This included interfacing with the tool owners and functional area leads in order to develop packages to meet new facility criteria. These packages were then used as templates for detailed design for the new process development.



Experience

300mm Project Experience

300mm Multilayer Deposition Tool, Confidential Client, Albany Nanotech Center, Albany, New York

Hookup design and turnkey construction support for the installation of Kr and Xe UHP gas bottle system including UHP piping, regulators, and custom designed stand for bottles.

300mm Structural Design, Confidential Client, Hillsboro, Oregon

Master Tool Install Packages covering all functional areas of the 300mm process. This included interfacing with the tool owners and functional area leads to develop packages to meet new facility criteria. These packages were then used as templates for detailed design for the new process development.

300mm Tool Installation - Project Engineering, Confidential Client, Hillsboro, Oregon

Acted as the client representative overseeing process aspects of facility upgrades. Project included installation of High Pressure OFA, PCW, CLW, and Scrubber to an existing facility. Responsible for supervising and managing process aspects of retrofit between multiple clients, construction managers, contracted A/E firms, and contractors. Tasks included maintaining design schedule; approving design documents; defining and developing scope; fielding contractor questions; verifying site conditions; managing budgets; coordinating impacts to other systems; developing punch-lists; issuing post IFC changes; verifying layouts; leading meetings; researching specifications; and managing information flow.

300mm Tool Ramp - Tool Install Project Management and Design, Confidential Client, Hillsboro, Oregon

Installation of over 75 – 300mm Sort and Test tools. Responsibilities included being the single point contact with owner, developing and maintaining a micro-schedule, developing and managing budget; status reports; reconciliation of Master Packages; LSP packages; and updating BKM. Also responsible for services during construction and prefabrication templates.

300mm Wafer Pod Washer Tool Install, Albany Nanotech Center, Confidential Client, Albany, New York

Hookup design and turnkey construction support for the installation of an automatic semiconductor wafer pod washer.

300mm Wet Station Tool Install, Albany Nanotech Center, Confidential Client, Albany, New York

Hookup design and turnkey construction support for the installation of complex semiconductor BEOL wet bench cleaning station including wet scrubber, chemical distribution system, UHP piping, and all other required services.

300mm Wafer Track Tool Install, Albany Nanotech Center, Confidential Client, Albany, New York

Hookup design and turnkey construction support for the installation of complex semiconductor wafer track tool including point of use VOC abatement system, chemical distribution system, UHP piping and all other required services. Provided overall project coordination and design of mechanical systems.



Experience

300mm Project Experience

150mm through 300mm Tool Install - Multi-Discipline Design, Confidential Client, Hillsboro, Oregon

Diffusion; Planar; and CVD functional areas for process change of existing facility. Responsibilities included managing design schedule and budget; providing detailed design for installation, demo, and relocation; updating specifications; interfacing with building officials; and providing support during construction.

Active Vibration Isolation System, Albany Nanotech Center, Confidential Client, Albany, New York

Design and turnkey construction support for the installation of a PLC controlled active vibration system including first-of-kind custom designed 33,000 lb. inertia block to support the 300mm EUV source, 300mm EUV stepper main chamber, and 300mm wafer track tool. Provided overall project coordination and design of mechanical systems.

Asphalt Heat Exchanger Design, Confidential Client

Prepared design for an asphalt heat exchanger to boost asphalt temperature to meet process temperature requirements. Prepared preliminary sizing, piping and instrumentation design.

D1C, Phase 3, Confidential Client, Hillsboro, Oregon

Provided Process design services for fit-up of a 300mm Semiconductor Fab; coordinated fieldwork; managed client's project budget.

Fab Facility, Confidential Client, Hillsboro, Oregon

Provided project management and engineering design for fit-up of additional production and support space. Phase 4 included the installation of fifty 300mm tools and a production area to support them. Phase 3 included the design and coordination required to support the planar functional area. Phase 2 included the installation of equipment and supporting facility needs in the following areas: planar, pathfinding, fab support rooms, clean link between two cleanrooms, nonclean link from between two buildings, and labs.

P1262 Tool Install - Mechanical Design, Confidential Client, Aloha, Oregon

Tool install mechanical design for the installation of over 75 – 300 mm Sort and Test tools. Responsibilities included acting as the single point contact with owner, developing and maintaining a micro-schedule, developing and managing budget; status reports; reconciliation of Master Packages; LSP packages; and updating BKM's.

P1264 and P805 TID - Mechanical Design, Confidential Client, Aloha, Oregon

Master Tool Install Packages covering all functional areas of the 300mm process. This included interfacing with the tool owners and functional area leads to develop packages to meet new facility criteria. These packages were then used as templates for detailed design for the new process development.

