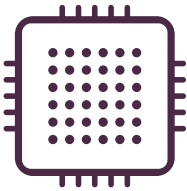




SEMICONDUCTOR

PROVIDING CLIENTS SUCCESS THROUGH LEAN PRINCIPLES,
COLLABORATIVE DESIGN, AND INNOVATIVE PROJECT DELIVERY



INNOVATIVE APPROACHES

We streamline the facility design process using innovative approaches such as Lean principles like **Target Value Design**, **Kanban**, and **BIM2Fab®** model development, which prepares fabrication drawings from design models. All enhance production efficiency and optimize project schedules.

Our design professionals and project delivery teams have a long history of developing engineered solutions and implementing innovative technology for complex environments. We understand the market pressures driving new technology solutions with ever-decreasing time-to-market turnaround.

Through collaboration, innovation, technology, and flexibility, we provide you with the most complete and cost-effective project solution—tailored to meet your business objectives, basis of design, schedule milestones, and project budgets.

SSOE's team of experts—who specialize in delivering high-quality cleanroom facilities, processes and operations, process systems, process equipment layouts, process equipment installation design, and more—work together to facilitate a seamless process that is reliably executed and fully supported from the start of design through commissioning and turnover.

1
SEMICONDUCTOR
DESIGN FIRM

in 2019; ranked Top 5
for the past 7 years (*ENR*)

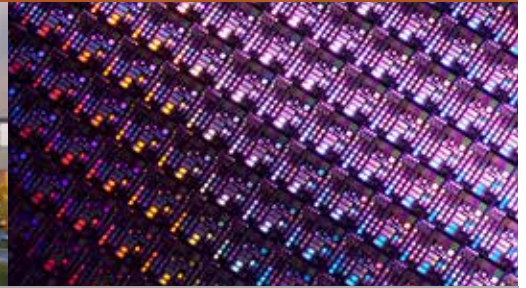


30+
YEARS OF EXPERIENCE

Team members with 30+
years of in-depth experience in
the semiconductor and related
industries ranging from small
facility upgrades to full
fab retrofits

THOUSANDS
OF TOOLS DEVELOPED

Process equipment
installation design packages
for thousands of tools for
every functional area of a
semiconductor facility



“SSOE brings enthusiasm and strong project management skills to the table. They are approachable, no ego, and always provide cutting edge solutions to our challenges.”

Design Manager, Confidential Semiconductor Manufacturer

PROJECT TYPES

- Central / process utility buildings
- Chemical delivery systems
- Clean links and trestles, including automated material handling systems (AMHS)
- Cleanroom design / modifications
- Facility / retrofit design
- High purity gas systems
- HVAC systems, including both wet and dry side systems
- Power distribution systems
- Process and Ultrapure water systems
- Process utility distribution system design, including subfab racks and laterals
- Process equipment installation: design / demolition / conversion
- Seismic retrofit analysis / design
- Solvent and aqueous waste collection / treatment systems
- Structural analysis / upgrades

TECHNICAL SPECIALTIES

- Architecture
- Code review, compliance, and permitting, including interaction with Authority Having Jurisdiction (AHJ)
- Commissioning and start-up assistance
- Construction documents
- Electrical, including distribution system design
- Energy efficiency analysis
- Fabrication drawings (BIM2Fab[®]) using design models
- H occupancy evaluations
- HVAC
- Instrumentation and controls, including process automation, PLC, and HMI programming
- Life safety systems
- Master planning
- Mechanical, HVAC and central plant systems
- Process, including production and distribution design
- Program management
- Programming / pre-positioning phases
- Structural
- Systems integration / control system upgrades
- Telecommunications