



semiconductor

ssoe<sup>®</sup>. making clients successful.



**Why SSOE?** The SSOE Experience is the combination of our Value Promise and Great Client Service that results in trusted relationships.

To consistently exceed clients' expectations is a common goal in our industry. So, how is our promise of outstanding performance any different from others? We have proof. Greater than 98% of clients we surveyed would recommend SSOE Group to a colleague. And more than 150 of our clients have been with us for at least 20 years. These endorsements are a result of our Great Client Service—our corporate-wide commitment to understand and exceed your expectations and deliver unexpected benefits.

For decades, we've found ways to deliver greater value to clients. You can count on us to deliver high quality projects, on schedule, with fewer problems, and for lower total cost to save you time, trouble, and money. Through this Value Promise SSOE returned 105% of our fee to clients in the form of project savings over the last 5 years.

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## Advantages

- Our 25 years of in-depth experience in the semiconductor and related industries range from small facility upgrades to full fab retrofits requiring the installation of more than 200 process tools. We have designed new facilities, retrofitted existing facilities, performed upgrades and expansions, implemented new technology, and designed tool installations. SSOE's wide range of experience gives us a unique understanding of how to help high-tech clients address today's demanding, time-sensitive facility challenges.
- We've kept pace with this dynamic industry by working alongside experts in the field and dedicating ourselves to delivering high-quality engineering services that drive new products to market, on time and without interruption.
- SSOE has developed tool install design packages for thousands of tools for every functional area of a fab. Innovative approaches to streamlining the design process such as our lead-centric team structure, significantly enhance process efficiency and keep projects on schedule.

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## SSOE Facts

- SSOE was founded in 1948 and currently has more than 20 locations worldwide.
  - We are a global project delivery firm for architecture, engineering, and construction management, with projects in 40 countries.
  - SSOE offers program management services from design through construction, to commissioning and start-up, for seamless project delivery.
  - SSOE's focus is using the appropriate project delivery method for your goals, including Virtual Design and Construction (VDC), which brings our clients better and faster results through more integrated teams and advanced technologies. Even when a more traditional delivery model is used, you'll see significant benefits from the collaboration strategies and technological capabilities our leadership in VDC necessitates.
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## Technical Specialties

- Architecture and MEP
- Code review, compliance, and permitting
- Commissioning / Start-up
- Detailed design
- Energy efficiency analysis
- "H" occupancy evaluations
- HVAC
- Instrumentation and controls
- Interaction with Authority Having Jurisdiction (AHJ)
- Life safety systems
- Master planning
- Process
- Process automation, PLC, and HMI programming
- Process instrumentation and controls
- Program management
- Programming / Pre-positioning
- Structural
- Systems integration / Control system upgrades
- Telecommunications

## Project Types

- Basebuild facility / retrofit design
  - Chemical delivery systems
  - HVAC systems
  - Power distribution systems
  - Solvent and aqueous waste collection / treatment systems
  - Structural analysis / upgrades
- Central / Process utility building
  - Ultrapure water systems
  - Cooling water systems
  - Heating water systems
- Clean links, trestles, automated material handling systems (AMHS)
- Cleanroom design and modifications
  - Sort, assembly / test projects
  - Subfab design
  - Tool installation design / demolition / construction
  - Wafer manufacturing
- High purity gas systems
- Seismic retrofits

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**“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

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## Locations

Alliance, OH  
Atlanta, GA  
Birmingham, AL  
Chandler, AZ  
Cincinnati, OH  
Columbus, OH  
Denver, CO  
Hamburg, Germany  
Huntsville, AL  
Kalamazoo, MI  
León, Mexico  
Lima, OH  
Midland, MI  
Monterrey, Mexico  
Mumbai, India  
Nashville, TN  
Omaha, NE  
Penang, Malaysia  
Portland, OR  
Raleigh-Durham, NC  
Riverside, CA  
St. Paul, MN  
Santa Clara, CA  
Shanghai, China  
Toledo, OH  
Troy, MI  
Washington, DC

## Markets

Energy  
Life Sciences  
Manufacturing / Process  
Telecommunications

## Services

Architecture  
Construction management  
Data / Fire / Security  
Energy consulting  
Engineering  
Master planning  
Procurement  
Project / Program management  
Site selection  
Tool install  
Virtual Design and Construction

## Rankings

### *Engineering News-Record (ENR)*

- Top 5 Semiconductor Design Firm for the past 4 years
- Top 10 Manufacturing Design Firm for the past 5 years

### *ENR Global Sourcebook*

- Top 35 International Manufacturing Design Firm for the past 5 years

### *Building Design + Construction (BD+C)*

- Top 10 Engineering / Architecture Firm for the past 4 years
- Top 10 Industrial Engineering Firm for the past 4 years
- Top 15 BIM Engineering Firm for the past 5 years

Named "Best AEC Firm to Work For"  
*(Building Design + Construction)*

Named a "Great Workplace"  
*(Great Place to Work®)*



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