



### **CLIENTS**

Abbott Laboratories

Amgen

Boehringer Ingelheim

**Bristol Myers Squibb** 

Johnson & Johnson

**Kemin Industries** 

Merck

Millipore Sigma

**Novartis** 

Nutrien

Pfizer

Pharmavite

Procter & Gamble

Qualitest

Sandoz

Full-service team with expertise in highly regulated industries.

For more than three decades, SSOE has focused on design for highly regulated industries that rely on the most stringent standards of cleanliness—both in their manufacturing and research facilities. From material selection to clean-in-place systems, to specialized HVAC systems, our experts design spaces that optimize performance with compliance.

Working with SSOE, you will experience a collaborative process that benefits from your early and frequent input. We use Building Information Modeling (BIM) to facilitate that collaboration—improving your ability to intuitively see a view of how your lab or your process line will be laid out so that you can provide feedback before it is built in the real world.

We understand speed-to-market is a driving factor. We worked to eliminate any non-value-added steps in our design process assuring no project delays.

Clients gain value by selecting SSOE because our design is easily constructed, qualified, maintained, and most importantly safe.

## **LEAN**COMMITMENT

SSOE's commitment to Lean Project Delivery (LPD) aims to improve project success for our clients by eliminating waste, enhancing value, and increasing satisfaction of all parties to the project

# **DIGITAL**TRANSFORMATION

SSOE navigates the digital transformation by helping develop Digital Twins, Smart P&IDs and BIM data management solutions

## **1,100+** EMPLOYEES

SSOE has 18 offices in the United States, Mexico, and India with professionals licensed in all 50 states







### **PROJECT TYPES**

#### **MARKET SEGMENTS**

- · Solid oral dose
- · Liquid oral dose
- Active pharmaceuticals ingredients (APIs)
- · Pharmaceutical excipients
- · Medical devices

#### **PROCESS SPECIALITIES**

- Granulation
- Drying
- Blending
- Reacting
- Filtration
- Compression / encapsulation
- Filling
- · Primary and secondary packaging

#### **FACILITIES**

- · cGMP production spaces
- Offices
- · Pilot plants
- · Power plants / utilities
- Cleanrooms
- Warehousing (automated and traditional)
- · Laboratories and vivariums (QC, QA, R&D and Micro)

### **OME TECHNICAL SPECIALTIES**

- · Architecture
- · CIP and pigging system design
- · Code review, compliance, and permitting
- · Commissioning and start-up
- Controls engineering
- · Electrical power
- · Energy efficiency analysis
- · Environmental engineering
- · Equipment, system, and process validation
- · Flow modeling and pipe stress analysis
- · Front End Loading (FEL) Capital planning / budgeting

- · Industrial engineering analysis
- · Industrial ventilation / dust collection
- · Liquid handling
- · Long-lead equipment procurement
- · Mass / Energy balance calculations
- Master planning
- · Material handling systems design
- · Powder handling
- · Process automation, PLC, and HMI programming
- · Primary filling and packaging design
- · Process development and design
- · Process equipment specification

- · Process safety studies
- · Power systems analysis including arc flash hazard
- · Process wastewater treatment systems
- · Programming / Pre-positioning
- · Project management
- Sanitary design
- · Secondary packaging design
- · Site selection
- · Structural engineering
- · Systems integration / Control system upgrades
- · UPS water system design

