



BIOPROCESS TECHNOLOGY FACT SHEET

IPS PROFILE

- Full range of stand-alone or full scope of engineering, procurement, construction management and validation services
- Focused on high performance, technically complex facilities
- Completed over \$700M of projects in the past five years, 4000+ projects completed
- Owned / Managed by industry-trained professionals
- Projects in 33+ states; Project Range \$1,000-\$17,000,000
- Founded in 1989
- ISPE Company of the Year 2004 - 2005
- 275+ Employees including:
 - Architects - 16
 - Automation Experts - 4
 - Process Engineers - 12
 - Electrical Engineers - 10
 - Mechanical Engineers - 31
 - Plumbing Engineers - 4
 - Commissioning/Validation Specialists - 75
 - Construction Managers/Superintendents - 37

IPS has a core excellence of design professionals, process engineers, engineers, architects and compliance specialty with industry operating experience that specialize in designing, building and validating pharmaceutical and biotechnology facilities.

TECHNOLOGICAL AREAS of EXPERTISE

- Biotech Process Design
- Bioreactor / Downstream Purification Design
- Critical Utility Systems
- Potent Compounds
- Isolator Technology and Design
- Secondary Manufacturing / Aseptic Liquid and OSD Technologies
- Site / Facility Master Planning
- Process Architecture - Layout
- Manufacturing and Operations Optimization and Simulation
- Validation and Commissioning

THE IPS DIFFERENCE

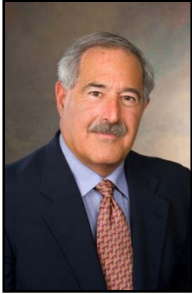
- EPCV Project Execution
- Cost Effective Design
- Biotech Resource Library
 - Equipment Specs / URSS / P&IDs
- Expertise in Sterile Isolation Technology
- Operations Excellence Simulation
- Programs to Accelerate Scale-up through Manufacture
- 3D Modeling: Rivet, Piping Models
- Diverse Team of Bioprocessing Experts





BIOPROCESSING EXPERTS

Knowing the technology, industry trends, regulatory environment and manufacturing processes enables our Bioprocess Design Experts to identify opportunities to streamline production and maximize efficiency.



Saul Edenbaum
Bulk Plant Design,
Biotech Facility Design



Rick Braun
Bioreactor Design,
Critical Utilities,
Process Automation



Gerry Cerulli
Bulk Plant Design,
Containment and CIP
Technology,
Biotech Plant Design



Joe Wilusz
BulkPlant Design,
Biotech Unit Operations,
Pilot Plant Design/
Aseptic Liquid Filling



Joe Rotman
Upstream
Processing,
Bioreactor Design,
Formulation System
Design/CIP, Materials
Handling



Mike Villiekis
Aseptic Process



Sterling Kline
Process Architect



Don Potter
Concept Architect,
Biotech Facility