

Integrated Project Services

# Affordable Innovation

**Bulk Pharmaceuticals**  
**Active Ingredients**  
**Small Molecule Manufacturing**



IPS is a leader in bulk pharmaceutical manufacturing and API facility design, construction, validation and commissioning. We understand these types of facilities are important to the development and production of drug concepts and are committed to establishing a technologically innovative, cost effective approach.

Our experts have designed and built facilities utilizing organic synthesis to manufacture bulk active small molecule products for clinical trials and the launch of new drugs. We have a solid understanding and experience in the design of cutting edge multi-product, multipurpose clinical pilot scale and full-size manufacturing facilities.

## Our specialized scope of services includes:

- Building flexibility, adaptability, cleanability and containment of potent compounds into the overall design and construction of facilities.
- Obtaining the maximum cost and schedule benefits through the use of a modular design and construction approach within client budget and schedule.
- Full range of facility design that integrates process design, equipment and material charging containment philosophy, cGMP and FDA/MCA/EU issues, as well as specialized handling of exhaust air and liquid/solid wastes.
- Specifying and designing Bulk API production equipment such as reactors, crystallizers, centrifuges, dryers, solids and liquids charging systems, heat transfer systems, solvent storage and distribution, and both product and solvent recovery systems.
- Integrating Bulk API process and facility issues such as processing flow, material handling, people flow, HVAC design, environmental requirements, clean in place, warehousing, utilities and plant support areas.
- Extensive knowledge of safety and compliance requirements including process equipment validation, general cleaning validation, 21CFR11 compliance, environmental permitting, waste treatment and hazardous operations analysis.

1.888.366.7660  
[www.ipsdb.com](http://www.ipsdb.com)

**Affordable Innovation for Manufacturing Technology**  
Engineering • Procurement • Construction Management • Validation

