



NCS Pharmaceuticals has experience in engineering design, commissioning and validation in a wide variety of different facilities, systems, processes and equipment. This experience includes, but is not limited to the following:

Facilities	
Compounding/Formulation Aseptic Suites Laboratories Controlled Substances BMS	Environmental Rooms Containment Areas Medical Devices Barrier Technology

Utilities/Services	
Purified Water Water for Injection Sterile Air Compressed Air Plant Air Nitrogen Dust Collection Waste Neutralization	Process Chillers HVAC Vacuum Clean Steam Plant Steam Emergency Power Sterilize in Place Clean in Place

Systems/Computer Validation	
Computer Hardware Computer Software Automated Warehouse SAP	Label Control Automatic Inspection Distributed Control Systems Programmable Logic Controllers Decontamination System

Parenterals	
Steam Sterilization Depyrogenation Ovens/Tunnels Aseptic Filling/Processing Terminal Sterilization Radiation Sterilization Lyophilizers Form/Fill/Seal Machines Glassware Washers/Dryers	Environmental Monitoring Stopper Washing/Sterilizing Stoppering/Crimping Ethylene Oxide Sterilization Sterile Filtration Laminar Flow Hoods Inspection Stations



Oral Solid Dosage Forms	
Blenders High Shear Mixers Fluid Bed Granulators Milling Equipment Check Weighers Tablet Presses	Tablet Coaters Tablet Printers Capsule Printers Dryers Centrifuges Microwave Drying

Biotechnology	
Master Cell Banks Media Preparation Buffer Preparation Fermentation Harvesting Separation	Ultrafiltration Chromatography Biosafety Cabinets Deactivation Neutralization Sterilization

Bulk Pharmaceuticals	
Reactors Centrifuges Distillation Columns Crystallizers Extruders	Tank Farms Solvent Recovery Vessels/Agitators Filtration Drying

Packaging	
Unscramblers Fillers Pluggers Cappers Tamper Evident Features Labelers Batch/Date/Bar Coders Blister Packers	Neck Banders Accumulation Tables Cartoners Shrink Wrappers Overwrappers Case Sealers Palletizers Cottoners

Clients Served:

- Pfizer
 - Schering-Plough
 - Lilly
 - Genentech
 - Dupont
- Wyeth
 - Organon
 - BMS
 - DPT Labs
 - Miwon
- Merck
 - Ortho-McNeil/J&J
 - Amgen
 - CBL
 - Bio-Matrix/Genzyme



- **Sidmak/Pliva**

In addition to the NCS Pharmaceuticals experience sheets, NCS Pharmaceuticals Validation Services, provide services in the following areas:

- Start-Up
- Regulatory Compliance Consulting
- Quality Assurance Programs
- Process and Cleaning Validation
- Computerized Systems Validation
- Audits, etc.

pharmaceuticals
consulting | engineering | design | build | compliance