

Life Science Solutions

Systems and Services

Polytron, is a CSIA-Certified leader in engineering consulting and systems integration and is 2019 System Integrator of the Year. Applying almost 40 years of manufacturing engineering expertise, we deliver full manufacturing systems and solutions from process to material handling, to packaging and warehousing.

Polytron is uniquely positioned and fully qualified with certified, best-in-class systems integration talent and industry expertise to deliver the special requirements for the Over-the-Counter, Med Tech, and Pharma industries. Polytron maintains GMP guidelines for engineering standards and 21 CFR 11 for control, data handling and validation compliance.

Getting Started

Polytron will provide continuous improvement solutions that help you meet your business objectives while reducing risk and improving overall performance in:

- ▶ Packaging Systems and Material Handling
- ▶ Process Systems and Utilities
- ▶ Smart Manufacturing – MES/MOM
- ▶ Industrial Network and Security Solutions (INSS)
- ▶ Automation and Controls
- ▶ Emulation and Simulation
- ▶ Turnkey Project Management
- ▶ Machine Safety

Project Types

- ▶ Performance Specifications
- ▶ Line Layout Detail Designs
- ▶ Equipment/Vendor Evaluations
- ▶ Flow Diagrams
- ▶ Cost Estimating and Control
- ▶ Package Design and Materials
- ▶ OEE Estimates/Calculations
- ▶ Simulations / Emulations
- ▶ Training Stations
- ▶ System Assessments
- ▶ Piping & Instrumentation Diagrams
- ▶ Mass Balance
- ▶ Process Equipment Specifications
- ▶ Isometric Piping Diagrams
- ▶ Batch, Continuous & Advanced Process Control
- ▶ Energy Efficiency
- ▶ Panel Design and Fabrication
- ▶ Installation Documentation
- ▶ PLC & HMI Development
- ▶ Virtual Commissioning



Production and Automation

Polytron provides a full range of Medical Device, OTC, and Pharma Industry manufacturing solutions. Our comprehensive solutions offering includes:

- ▶ ISA88 Batch Process Control
- ▶ Compliant Electronic Batch Records
- ▶ Continuous Batch Process Control
- ▶ Batch Processing and Recipe Management
- ▶ Dry/Liquid Ingredient Storage, Blending, and Mixing
- ▶ Advanced Process Control - Internal Model Control / Coordinated Control / Modular Multivariable Controls
- ▶ Rockwell Automation PlantPAx (Distributed Control System migration)
- ▶ SCADA/PAC/HMI Programming
- ▶ Instrumentation - Specifications, Selection and Supply
- ▶ Electrical Design and Installation Packages
- ▶ Power System Single Lines - Design and Development
- ▶ Industrial Network Upgrades / Security
- ▶ Control System Emulation and FAT
- ▶ MI/MES - Data Visibility from ingredient receiving through packaging, including company-wide performance, recipe management and integration with ERP system
- ▶ Track and Trace, Quality Analysis, Compliance Reporting
- ▶ Downtime Tracking, KPI Dashboards
- ▶ Machine Safety Risk Assessments and Mitigation

New and Existing Lines

Complete and Specific Project Management

- ▶ Construction Management
- ▶ Startup Management
- ▶ Added systems to existing lines
- ▶ Added new equipment to existing lines
- ▶ Line and facility consolidation
- ▶ Efficiency improvements / increase capacity
- ▶ Complete and Specific Project Management
- ▶ Construction Management
- ▶ Startup Management

Process Mechanical Engineering

- ▶ Process Flow Diagrams (PFD) Design and Development
- ▶ Piping & Instrumentation Diagram (P&ID) Design and Development
- ▶ Configuration of New and Existing Manufacturing Lines
- ▶ Facility Consolidation for Production Efficiency
- ▶ Construction Management and Procurement
- ▶ Process General Arrangements: Tank Farms, Pumps, Skids. etc.
- ▶ Process Equipment Specification and Selection
- ▶ Process Calculations and Mass Balance
- ▶ Mechanical Design and Installation Packages
- ▶ Piping Design and Installation Packages
- ▶ Isometric Piping Diagrams



Product and Packaging

Comprehensive solutions offering includes:

- ▶ Tablets, Caplets, Liquids, Gels, Suspensions, Powders
- ▶ Cans (normal atmosphere and pressurized)
- ▶ Bottles - plastic and glass (round & non-round)
- ▶ Vials
- ▶ Cartons, Blister packs, Bags and boxes
- ▶ Full System Packaging Solutions
- ▶ Multi-format, High-speed Packaging Lines
- ▶ Multi-product Packaging
- ▶ Bucket, Barrel, Tote, Bag, Supersak, Bulk
- ▶ ASRS, AGV, Manual, Robotic and Conventional Palletizing
- ▶ Warehouse Capacity and Automation Optimization

Industry Certifications and Affiliations



Contact Us

Using our expert knowledge in best-practices and standards we ensure the highest degree of project success in all areas of the project.

Are you ready to take the next steps toward life science solutions? [Contact us.](#)

