

# Chemical Manufacturing Solutions

## Overview

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.

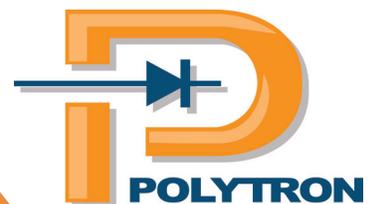
## Solutions

Polytron will provide you with application 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

## Chemical Sectors

- ▶ Speciality Chemicals
- ▶ Dry / Liquid Speciality Chemicals
- ▶ Cleaning Chemicals
- ▶ Automotive Fluids
- ▶ Polymers
- ▶ Plastics
- ▶ Personal Care Products
- ▶ Paints and Coatings
- ▶ Formed Fiber
- ▶ Extruded and Cast



## Process Electrical Capabilities

Polytron provides a full range of Chemical manufacturing solutions. Our comprehensive solutions offering includes:

- ▶ ISA88 Batch Process Control
- ▶ 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

## 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



# Chemical Packaging Capabilities

Polytron provides a full range of packaging solutions for the chemical industry. Our comprehensive solutions offering includes:

- ▶ Full System Packaging Solutions
- ▶ Multi-format, High-speed Packaging Lines
- ▶ Multi-product Packaging
- ▶ Bottle, 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 chemical manufacturing solutions? **Contact us.**

