



MANUFACTURING CONSOLIDATION SERVICES AND SOLUTIONS

When your company's manufacturing strategy calls for the consolidation of manufacturing facilities, you want a System Integrator who knows how to lower your risks and help maximize the opportunities to fully realize the project's production and revenue objectives.

Polytron, is a CSIA-Certified leader in engineering consulting and systems integration, and is 2015 System Integrator of the Year. Applying over 30 years years of manufacturing engineering expertise, we deliver Full System manufacturing consolidation services and solutions from design to startup - *ANYTHING INSIDE THE FOUR WALLS*.

This enables us to provide you with design, definition, and execution solutions that help you meet your objectives while reducing risk and meeting your project deadlines in:

- Project Management
- Consolidation Definition and Execution Services
- Material Handling and Packaging Systems
- Process Systems and Utilities
- Automation and Controls
- Industrial Network and Security Solutions (INSS)
- Manufacturing Intelligence / MES
- Machine Safety
- Workforce Development and Training

Our complete services portfolio and wide-ranging expertise combined with our focus on the delivery of your business objectives at a lower risk makes Polytron your one-stop provider for manufacturing consolidation projects with:

- Minimized production downtime
- Flexible line design for multi-product production
- Multiple-format packaging
- Multiple-product material handling system
- Innovative space design for new and old line configuration
- Management of equipment and line relocation
- Vertical startup with PolySimSM emulation for pre-construction decisions



APPROACH TO MANUFACTURING CONSOLIDATION PROJECT DELIVERY

Project Management provides the cornerstone of risk mitigation for your manufacturing consolidation projects. When the Project Delivery Team - a cross-functional team of project stakeholders - create the shared vision, promote a "common purpose" through defined project success criteria that align the project team with the business goals, you are able to realize project success: lower risk, shorter startup, and a sound ROI for your business

Through a clear definition of your needs and priorities from both the business and plant perspective, we develop and deploy your solution through an appropriate blend of system engineering, automation, controls, and people development - *Putting Performance in the Hands of Your People*.



PMP Certification

Our Project Managers are Project Management Professionals certified by the Project Management Institute (PMI).



Clients: Fortune 500 companies - majority retained over 20 years.

Our Employees: 65+, Certified Project Managers, Electrical and Mechanical Engineers, IT Professionals, Training professionals and support staff.

Areas of Expertise

Process, Packaging, and Material Handling
Automation and Controls
Machine Safety
Manufacturing Intelligence
Workforce Development & Training
Industrial Network & Security
Project Management

Industries Served

Food
Beverage
Chemical
Consumer Packaged Goods
Automotive / Tire
Life Sciences
Energy

CASE STUDY

Challenge: A global beverage company needed to merge two companies into one manufacturing organization. This required the most cost effective state of the new organization by consolidating production capabilities from seven (7) facilities into three (3) locations without disrupting the company's operational capabilities.

Objective: The project included: a major building expansion at one location; product filtering and blending; new chilling and blending, and throughout the system; a total of seventeen (17) production lines modified and/or installed; utilizing mostly used, relocated equipment; and one (1) line that incorporated the use of new equipment.

The execution of the project took approximately fifteen (15) months to complete, and the total amount of capital managed was \$40MM. Polytron provided complete responsibility for Batch process automation of the new batch/blending operation. Included full responsibility for electrical design, installation design, controls hardware supply, Batch, PLC and HMI programming and operator and technician training and documentation for all 17 production lines.

Results: Provided definition and execution services for the consolidation of multiple manufacturing capabilities and production volumes of liquid product from seven (7) locations to three (3), without disrupting the plants' operational capabilities. Provided project management, design, integration, installation management and system verification. Delivered the project UNDER budget and ON schedule.

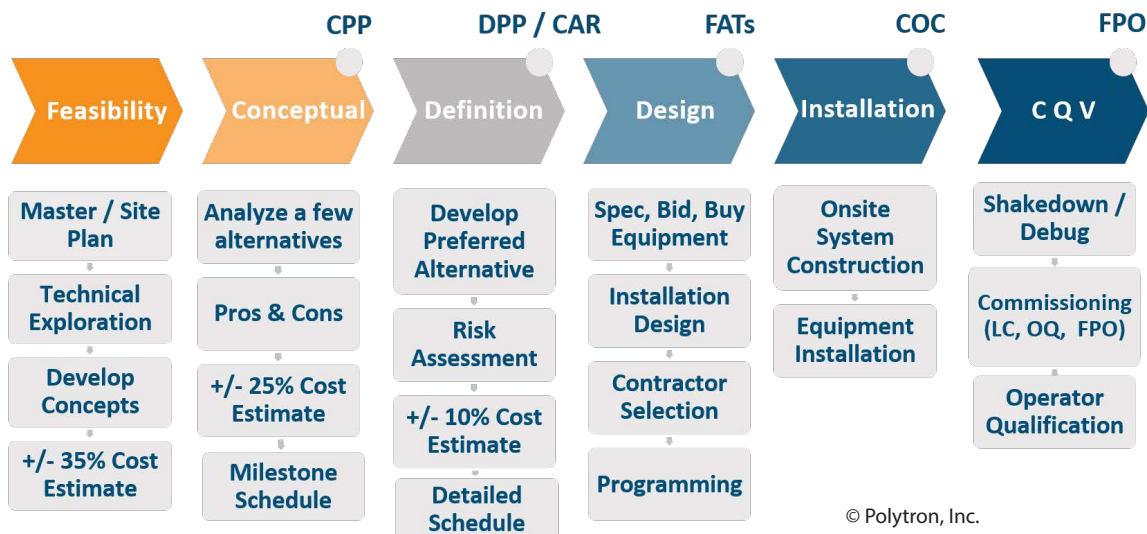
TURN-KEY OPERATIONS SOLUTIONS

Polytron provides a single point of contact for your projects with a comprehensive solutions offering including:

- Collaboration with your team to create the Functional Design Specification
- Development of the Electrical / Controls based upon the Functional Design Specification
- Machine /System Integration and Programming
- OEM procurement and management
- Supply of electrical and mechanical hardware and installation
- Onsite support for construction management, debug and system validation
- Documentation and Training for performance continuity

Polytron offers a full set of engineering capabilities from start to finish: front end engineering discovery efforts; detailed design; construction installation packages; network integration; operator interface design; and, total system training.

Polytron Objective-Focused Method



© Polytron, Inc.

LOWER YOUR RISK WITH POLYSIMSM

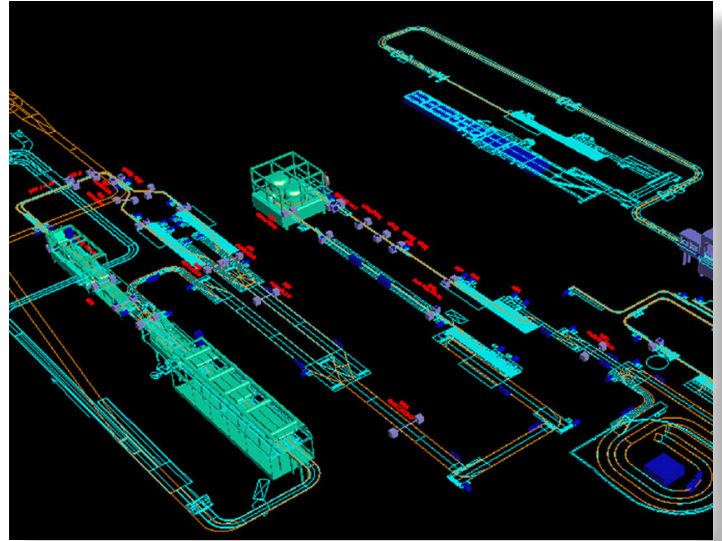
Today's speed of business increases your risk on any manufacturing project. Tied to the project are production deadlines, product promotions, stakeholders, and vendors who have never worked together before, and as always– the ROI.

Polytron's use of simulation technology to build a system virtually for the purposes of fully testing the automation and information systems reduces your risks – answering many questions before they are even asked. No matter what the mechanical solution, our PolySimSM Emulation model coupled with the real - world control system will demonstrate the operation of the new system, validate the design, and confirm the system's productivity and throughput *before* startup.

Polytron's Workforce Development and Training Group incorporates the working PolySimSM model as a training tool for operators and maintenance technicians to ready your workforce for efficient operational performance on Day One of the newly consolidated facility.

No matter which company I work for or the manufacturing, packaging, or process solution I need, Polytron is my first choice and the preferred partner to which I turn to help me and my employer be successful. Their project management methods are the best in the market. Risk management, design issues, procurement, engineering, start-up issues, everything that goes into a project, is identified, managed, confirmed, documented, and delivered.

*Instrumentation and Controls Manager,
Global Beverage Company*



PEOPLE READINESS THROUGH WORKFORCE DEVELOPMENT AND TRAINING

Workforce Development is an often overlooked high risk factor to ensuring your business realizes a continuity of Performance with your new system. Our **Process** of developing and deploying performance-based manufacturing solutions while ensuring your **People** are fully prepared for the new system lowers your risk to achieve your business objectives.

Polytron's Technology Transfer and Training Group focuses on delivering successful training strategies to your key production employees. Our proprietary training program delivers the development and management to strengthen your multigenerational workforce for optimal performance.

Technology Transfer and Training services ensure that your workforce is knowledgeable in the processes and procedures of upgraded or new operations including:

- Training needs analysis
- Training Plan and Program
- Training documentation development
- Training facilitation
- Training validation
- Job Aids

Using proven adult learning methodologies, we create and execute targeted training plans, develop effective materials, create easy-to-use learning aids, and facilitate hands -on blended learning events to ensure that your workforce is equipped to deliver stated business goals at the time of start-up. The training program's goal is to close knowledge gaps and ultimately increase your Overall Effectiveness by utilizing your greatest resource – *your people*.

Putting Performance in the Hands of Your People

PACKAGING SOLUTIONS

For flexible lines, complicated system design, OEE improvement, or unusual packaging, Polytron has the technical know-how and dynamic solutions to address, improve and enhance each one. We combine best practices across multiple industries to come up with the right packaging solution for your unique challenges.

By offering turnkey automation solutions from concept to virtual commissioning, implementation, and workforce training, we help you maximize operational efficiency from beginning to end with options and solutions designed for your specific product variations.

Polytron delivers integrated packaging solutions including:

Material Flow - Increase your system throughput and reduce waste.

Line Layout - Optimize your line layouts with 2D and 3D visualizations

Equipment Specification and Selection - Select the right equipment from the right vendor

Product/Package Flexibility - Coordinate with your marketing and engineering groups to ensure flexibility - across the board.



INDUSTRY CERTIFICATIONS AND AFFILIATIONS



First Machinery Safety Solution Partner in North America



SIEMENS



Digital System Integrator

ISA/IEC Cybersecurity Specialist Certificate



3300 Breckinridge Boulevard
Ste 100
Duluth, GA 30096
678.328.2999 Local

855.794.7659 (Toll Free)