

ELECTRICAL AND AUTOMATION EQUIPMENT



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COMPANY OVERVIEW

About Polytec

Polytec is an Italian company, part of BM Group, with decades of experience in engineering **electrical and automation systems**.

With over **200 employees** and offices in Italy, USA, Mexico, Brazil, and South Korea, Polytec provides **turnkey systems** and **custom technologies** for manufacturing, process industries, and infrastructure, combining electrical design, control systems, robotics, and industrial software.

Thanks to a **multidisciplinary approach** and in-house expertise, Polytec supports customers throughout the entire lifecycle of an automation project: from consulting and design to installation, commissioning, and after-sales service.



MISSION

Polytec designs and produces unique solutions through **innovation** and **technology**. Its **people**, with their ideas, skills, and passions, support customers and their needs. The company aims to be a global and responsible organization, with solid roots in our local community and in the values it represents: sustainability, environment, and ethics.

Thinking about the future is human and gives meaning to our lives. Developing technologies or methodologies for human-machine collaboration is our way of approaching the future in a new paradigm that places **quality of life** and environmental **sustainability** at the centre of industrial processes.

VISION

OUR EXPERTISE

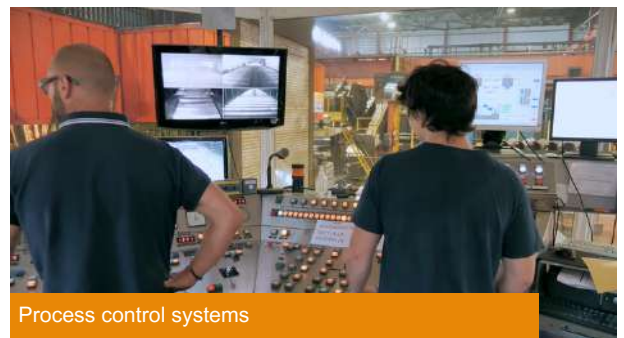
Polytec team includes automation engineers, electrical designers, software developers, site managers and operations and technology technicians who work in synergy to deliver **reliable, scalable, and smart solutions**.

Polytec integrates deep know-how in the following areas:

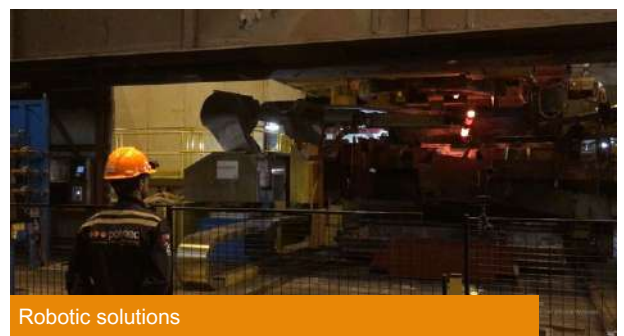
- **Electrical engineering:** power distribution systems, electrical automation systems, MV/LV design
- **Industrial automation:** control systems, PLC, SCADA
- **Industrial software:** MES, data collection, industrial IoT, system integration, and WMS
- **Revamping & retrofit:** modernization and upgrades
- **Robotics & mechatronics:** robotic solutions and custom robotic systems for process industry
- **Turnkey solutions:** from concept to commissioning, managing every project phase as an EPC



Electrical and automation equipment



Process control systems



Robotic solutions

Polytec solutions are designed to adapt to **complex and demanding production environments**, integrating seamlessly with existing infrastructure and evolving toward Industry 5.0. This new paradigm emphasizes not only efficiency and digitalization, but also the **enhancement of human well-being**, promoting collaboration between people and machines in a safe, ergonomic, and smart workspace. Polytec embraces a **sustainable approach**, combining innovation with energy efficiency, environmental responsibility, and social value creation.



Hydropower plant control and monitoring systems



Electrical and functional testing

CERTIFICATIONS

ISO 9001/14001
ISO 50001 Energy
ISO 45001 Safety
UL 508A/CSA 22.2

MARKETS

Thanks to its long-standing experience in critical production processes across various industries, Polytec is recognized as a trusted partner in the following sectors: **Steel & Foundry, Aluminium & Copper, Energy & Environment, Buildings & Infrastructures, Marine & Naval, Oil & Gas, Pulp & Paper, Ceramics & Stone.**

EPC APPROACH

With its multidisciplinary expertise and extensive industrial experience, Polytec delivers EPC (**Engineering, Procurement, and Construction**) services dedicated to industrial automation and control systems.

Acting as a single point of contact for the complete realization of automation projects, from concept design to commissioning, Polytec ensures **performance, reliability, and seamless integration** with the customer's process.

Polytec's EPC approach combines engineering know-how, field-proven technologies, and a deep understanding of industrial operations to deliver turnkey automation solutions **tailored** to each sector's needs.

- **Feasibility study**
 - Assess customer needs and project scope
 - Preliminary system design and technology evaluation
- **Detailed engineering**
 - Detailed electrical and software design
 - Control logic, HMI/SCADA architecture, and network plans
- **Procurement**
 - Components source and purchase
 - Manage vendor selection and quality control
- **Assembly & testing**
 - Assembly and internal testing
 - Factory Acceptance Test (FAT)
- **Installation & commissioning**
 - On-site assembly, wiring, and testing
 - Integration with existing plant infrastructure
- **After-sales service & training**
 - Operator and maintenance staff training
 - Monitoring and ongoing technical assistance



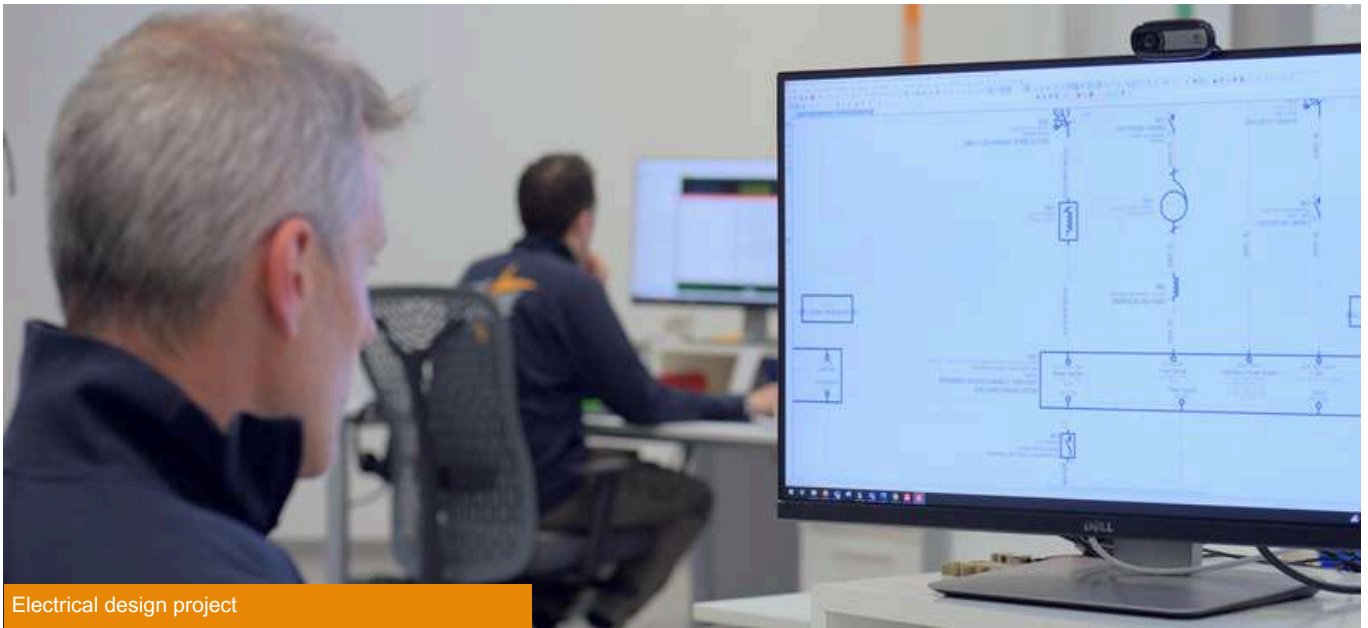
A reliable technological partner



Motor Control Center and Large drive

Electrical and automation engineering

Design and develop electrical systems and automation solutions for **complex projects**, leveraging extensive experience and using EPLAN software for precise schematics and documentation.



Electrical design project

Assembly and testing

Assemble hardware components with precision and conduct Factory Acceptance Testing (FAT) to ensure **full compliance** with project specifications before site delivery.

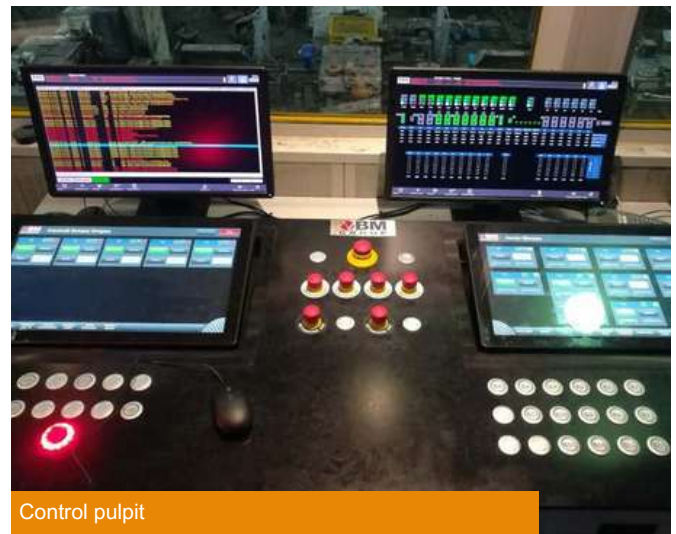


ERW tube mill - F.A.T. phase

Software development

Our in-house software engineering team configures automation platforms with a focus on **performance, flexibility, and usability**.

- PLC and DCS programming
- SCADA and HMI development
- Data acquisition and connectivity (MES, ERP, IIoT)
- Custom automation logic and process optimization tools



Commissioning and start-up

We manage **on-site implementation, testing, and final validation** to ensure that all systems operate as designed.

- Electrical and functional testing
- Start-up and tuning of automation loops
- Operator support and initial training
- Handover and documentation



ENERGY DISTRIBUTION SYSTEMS

Polytec designs and supplies **electrical equipment**, including low and medium voltage switchboards, LV/MV Motor Control Centers (MCC), and power distribution systems.

Our solutions ensure high **reliability**, energy **efficiency**, and **compliance** with international standards.



Turnkey electrical room in container



Power center



Medium voltage cells



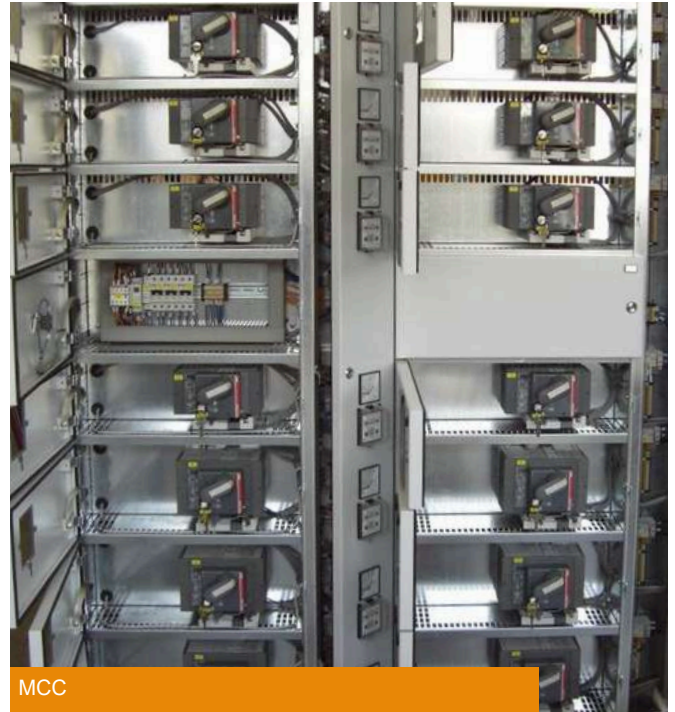
Power center

AUTOMATION PANELS

Polytec supplies customized **automation panels** for controlling and managing industrial processes, integrating both hardware and software according to project specifications.



MCC



MCC



MCCs, PLCs and Remote IO

CONTROL SYSTEMS

Monitoring and control of process variables through advanced automation software and platforms:

- Distributed Control Systems (DCS)
- Programmable Logic Controllers (PLC)
- SCADA systems
- HMI (Human-Machine Interface)

We design **scalable** control architectures to ensure performance, flexibility, and easy integration.



SCADA pulpit



PLC



PLC

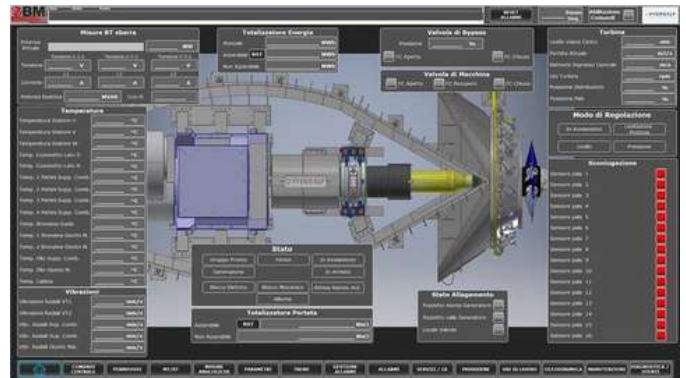


Control pulpit

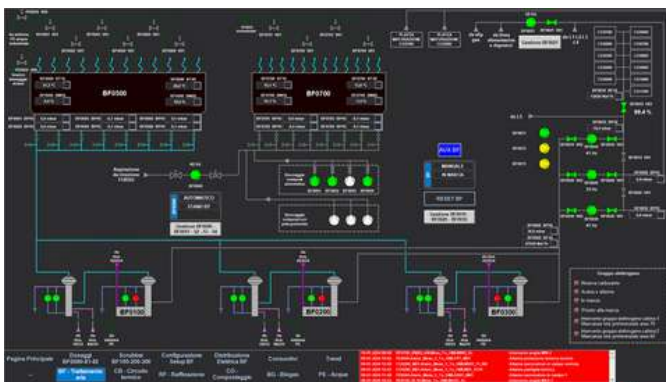
SYSTEM INTEGRATION

Polytec plays a critical role in **system integration** by designing and implementing interfaces that enable **seamless communication** between diverse industrial components such as PLCs, robots, sensors, SCADA, MES, and ERP systems.

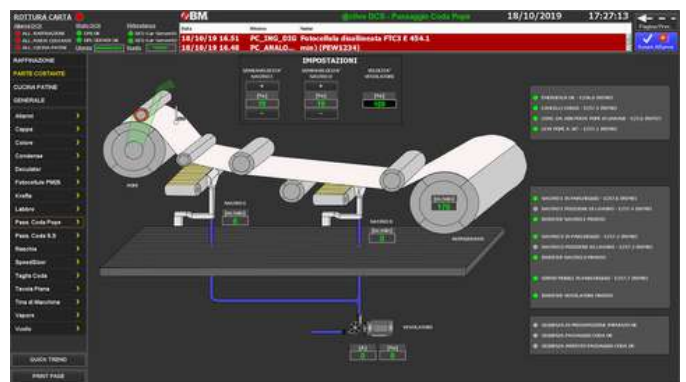
These interfaces act as translators and coordinators, ensuring that data flows **smoothly** and **accurately** across different technologies and platforms.



Hydropower plant SCADA

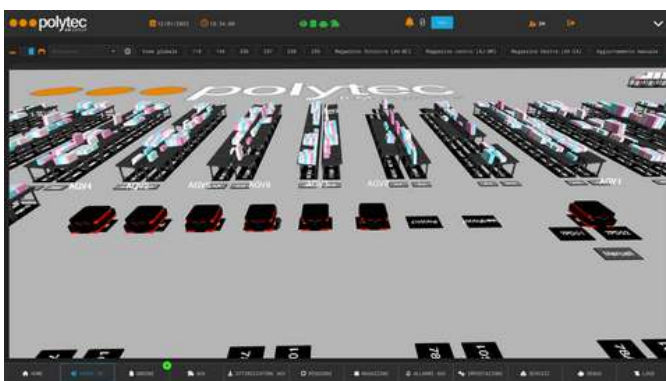


Forsu cycle SCADA



Pulp & paper mill SCADA

System integration goes beyond simply connecting hardware and software: it creates a unified ecosystem where all elements work together harmoniously to **optimize** processes, **improve** efficiency, and **enable** real-time decision-making.



Warehouse management system



AGV SCADA

REVAMPING & RETROFITTING

Polytec specializes in revamping and retrofitting automation systems, helping industries **modernize** existing assets without the need for complete replacement.

Through targeted upgrades, Polytec integrates **advanced technologies** into legacy equipment, enabling enhanced **performance**, **safety**, and digital **connectivity** while extending the lifecycle of valuable machinery.

Revamping projects typically involve reengineering control systems, replacing obsolete components, and updating software logic, allowing existing production lines to meet current standards of productivity, efficiency, and cybersecurity.

Retrofitting, on the other hand, adds new functionalities (such as smart sensors, data acquisition modules, or robotics) to equipment that remains mechanically sound, bridging the gap between traditional systems and Industry 4.0 environments.

Key **benefits** of Polytec's revamping and retrofitting services:

- Reduced **downtime** and costs compared to full equipment replacement
- Extended useful **life** of existing machines and production lines
- Improved process **performance** through modern automation platforms
- Enhanced **safety** and compliance with current regulations
- **Integration** with digital systems (SCADA, MES, ERP) for real-time monitoring and data-driven decisions
- **Minimal disruption** to operations, thanks to tailored solutions and expert engineering.



Large Drives & MCC



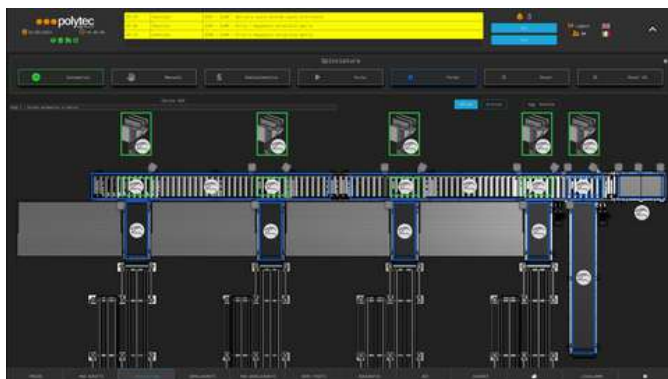
Commissioning team



Site management

TECHNOLOGICAL PACKAGES

We deliver **complete turnkey technological packages** tailored to customer needs, combining engineering, automation, control, and electrical systems into fully integrated solutions. Each package is designed to optimize **process efficiency**, reduce downtime, and enhance operational control.



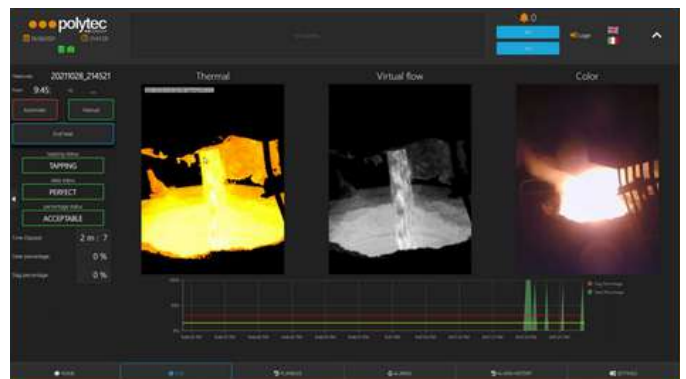
Visual tracking



Visual tracking



Defect detection system



Slag detection system

WHY CHOOSE POLYTEC AS YOUR EPC PARTNER?

- One-stop **partner** for full automation scope
- **Cross-sector experience** in critical production environments
- **In-house** engineering, software, and field support
- Focus on **safety, efficiency, and sustainability**
- Proven **track record** in delivering on time and on budget

KEY PROJECTS

ALUMINIUM

Project: Electrical and automation equipment and software revamping of the caster machine.



MARINE

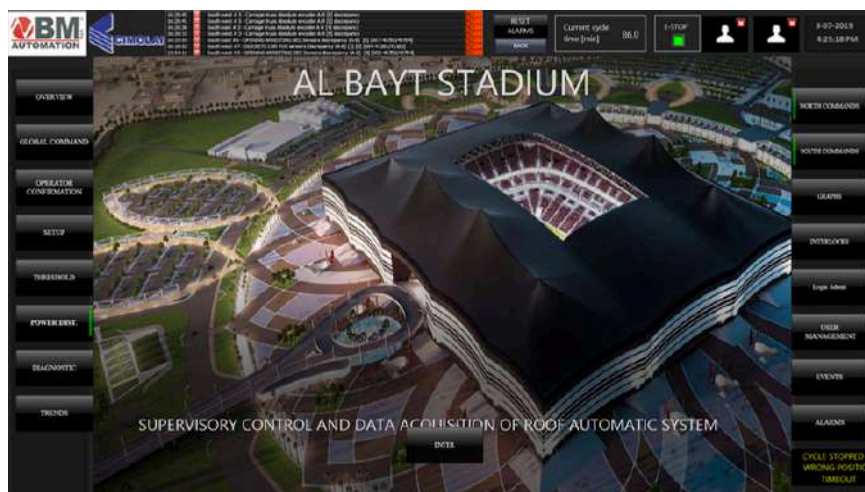
Project: Full set of low voltage distribution panels and inverter cabinets designed for cruise ships.

PULP & PAPER

Project: Electrical and automation equipment for the continuous machine.



KEY PROJECTS

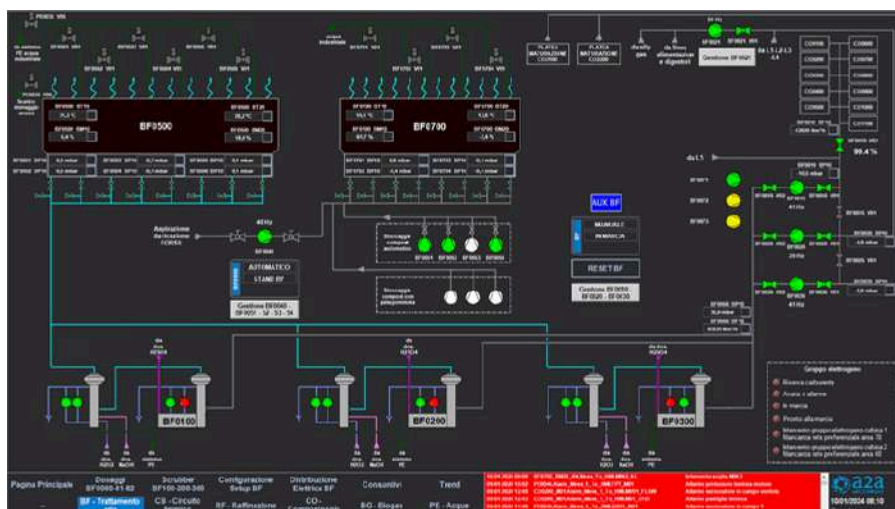


INFRASTRUCTURES

Project: Automation and electrical equipment for the mobile roof of the Al Bayt Stadium.

INFRASTRUCTURES

Project: Revamping from ABB & Schneider PLC to SIEMENS SPC and network, new cabinets and new PLC and HMI software for Mose.



CIRCULAR ECONOMY

Project: Automation, electrical equipment and software for Cavaglià and Lacchiarella plants.

KEY PROJECTS

STEEL

Project: Complete supply of low voltage motor control center cabinets, PLC cabinets, electrical distribution cabinets, with PLC and HMI software.



STEEL

Project: Drive revamping: MV/LV distribution, supply and installation of new 20kV ABB Armored MV Cabinets and LV power center.



STEEL

Project: Medium Voltage Drive.



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FUTURE INSIDE



