

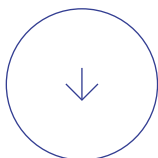


Hardware & Software
integrator to improve
the quality and
the productivity



Strong alliance, smart solutions.

The Tradition of Innovation



With more of 25 years in the business, AP2 is able to offer its experience as a System Integrator in various markets ranging from rubber to plastics, from coating lines to calendering lines, including also lines for the tires building.

The AP2 team is made up almost exclusively of specialized engineers with long experience in the automation field. The services that AP2 offers are focused on customer satisfaction so that delivery times and required technical specifications are respected.

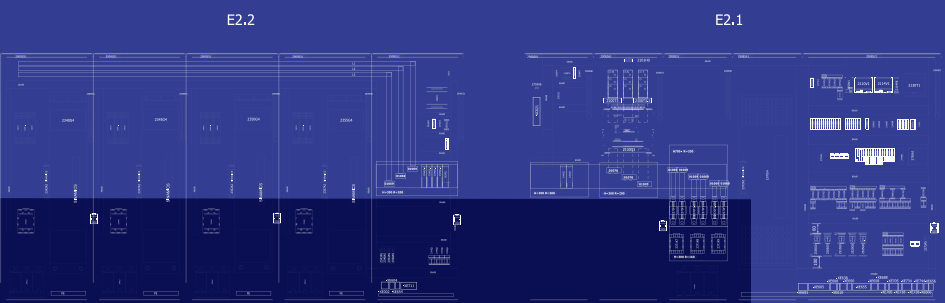


“Learning is experience, everything else is just information” A. Einstein

What AP2 makes

The entire production of AP2 is carried out by skilled personnel, thus ensuring high standards of quality in all stages of production. Our engineers cover all the phases of the project:

- Hardware Design
- Software Design
- Testing
- Commissioning



AP2 is a System Integrator capable of providing turnkey automation systems based on all main platforms:

- Siemens
- Rockwell
- Omron
- Parker
- Mitsubishi
- ABB
- Schneider
- Control Techniques



From Design to Realization



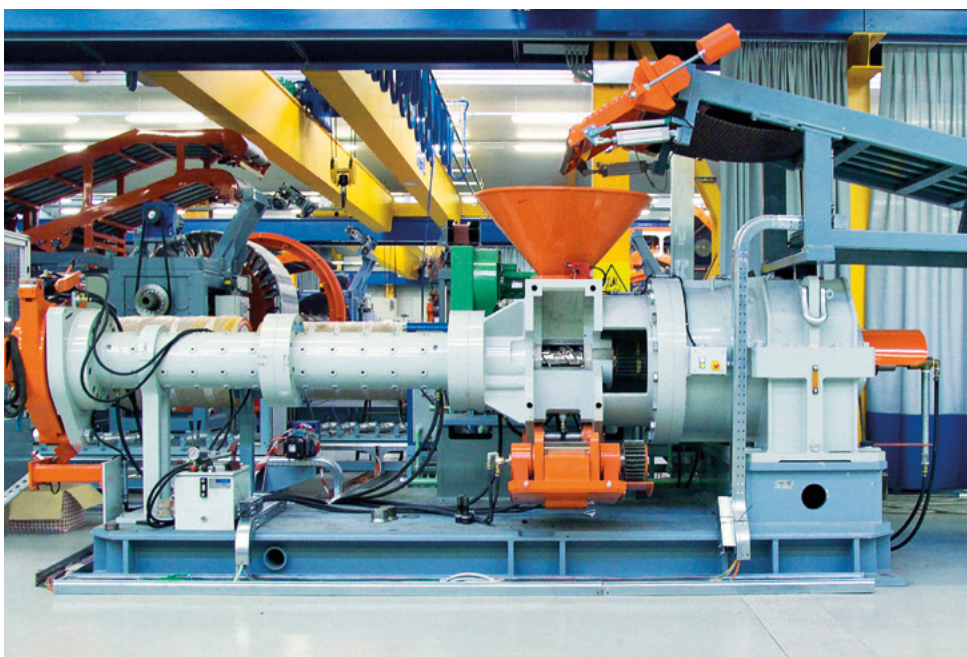
The solutions we offer cover all the activities needed to supply “turnkey” automation of a process, and include specifically:

- Drawing up the electrical specifications in close contact with the manufacturer of the mechanical process
- Hardware Design and drawing up the circuit Diagrams
- PLC Software Design
- HMI Software Design and related interfaces for factory management systems
- Building electrical panels and any necessary external wiring
- In-house testing with the customer's participation, if desired
- Commissioning
- Production and Product Engineering Support
- Remote Support by means of a VPN on a Dedicated Server



Tire Industry

This is our core business – the area in which we have the greatest number of projects and realizations. We cover the whole production chain for the realizations of tires, from the mixing rooms to the pre-warming lines, from the extrusion lines for the tread band to the realizations of the bead wires. We have acquired wide experience in the production of both textile and metallic semi-finished products, which together with cutting and splicing the plies are part of the preparation of the materials for the Tire Building Machine. An essential stage of tire production is its building. AP2 has gained valuable experience in the building machines of tires for motorcycles, motor scooters, cars, trucks and agricultural vehicles. Our experience is further enhanced by the dimensional checks performed on finished products.



Coating Lines

Historically a part of textile finishing, the coating market covers several production processes that have very distinct characteristics. The systems are used in sectors like Automotive products (air bags, truck tarpaulins, car interiors), the Garment industry, Construction, Footwear, Pharmaceuticals, and even the production of conveyor belts. Independently of the diversity of production processes in this field, AP2 is able to provide reliable applications with a high degree of standardization in the choice of components and in the implementation of software, while remaining open to new technologies and faithful to a philosophy of System Integrator that defines the company.



Technical Rubber & Plastic

In the rubber and plastic field, AP2 realize automation for the processing of raw materials used for the production of semi-finished products. These latter necessary for the production of finished products such as: flooring, gaskets, pipes, plastic and insulating films, etc... As per the tire market, the technical rubber market also requires the whole control of processing parameters, production and post-production analysis, which we implement by using specific tools designed to satisfy the most rigorous demands and ensure increasingly timely product traceability.



Textile & Finishing Lines

Alongside of the coating sector is the textile finishing, which is traditionally well rooted in Northern Italy. Our production includes electrical equipment for the automation of machines for embossing, calendering, drying (by thermal oil, gas, electric and infrared ovens), accurate unwinding and rewinding of semi-finished textiles and laminating for the formation of multilayer products. AP2 also boasts specific experience in the implementation of control systems for textile stenter frames and other uses. In this context, the knowledge of the various processes that AP2 has acquired over the years makes particular importance and allows us to optimize the resources employed and obtain high level performance and quality.

Human Machine Interfaces & MES Interface

Supervision systems (HMI) for complete control of the plants are fundamental, however, in markets where very high-quality standards are required, quality controls and traceability of process parameters are equally important, especially in the automotive and tires industry. AP2 was able to respond to these market needs right from the beginning and is continuously implementing functionality in step with customers' requests, by developing them on all the main environments including:

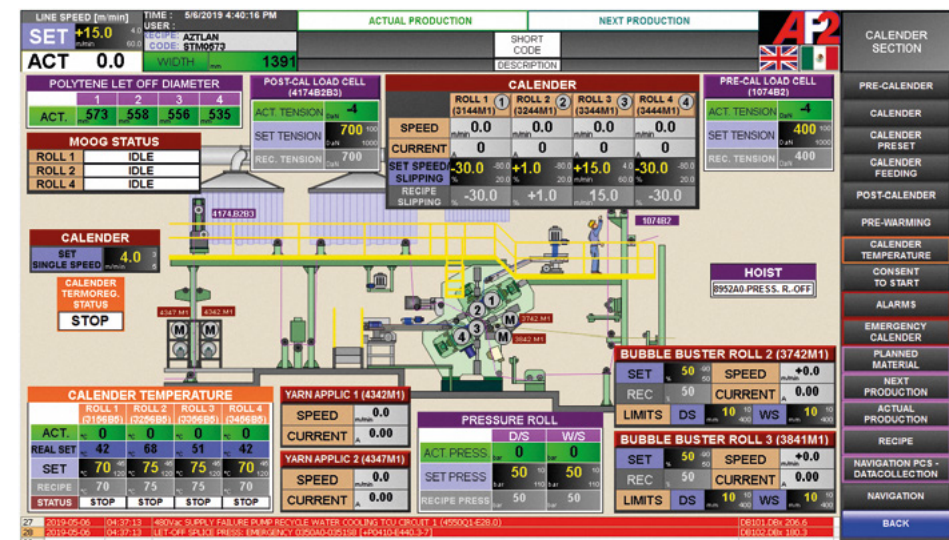
Siemens WinCC Rockwell Factory Talk Progea Movicon
General Electric iFix Wonderware Intouch Ignition

In addition, the AP2 team has developed a system of data exchange with a factory MES (Manufacturing Execution System) capable of receiving production orders, provide production data and synchronizing the database of recipes in a simple and transparent way.



Service & Commissioning

A fundamental and integral element of the services offered by AP2 is the commissioning of electrical equipment and the company's designed software. The commissioning is carried out by our experienced and reliable engineers, begins with the I/O Test, proceeds then with production testing until reaching the acceptance of the installation and the satisfaction of end customer, anywhere in the world. Subsequently, thanks to the most modern Teleservice systems, AP2 is able to provide constant support for the resolution of any problems that arise after start-up or for the optimization of production sequences.



Realizations

Within the various Fields of Application, the systems we have developed over a nearly 20 - year period cover the entire production chain and can be classified mainly in function of the type of raw materials involved.

Open Mills Mixing lines Extrusion lines
Fibreglass Production lines Calendering Lines
Printing lines Coating Lines for Technical Textiles
Air Bag Production lines Tire Building lines
Cutting lines Lines of Impregnation and Drying
Semi-finished Production lines Embossing lines

Our added value is our experience, which translates into the:

- Reliability of the solutions used
- Use of hardware platforms in line with the knowledge/requirements of the end customer
- Standardisation of the PLC and HMI programs
- Reduction of commissioning times
- Reduced machine downtime thanks to remote diagnostic assistance



AP2 srl

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