

Industrial^{IT} process plants for the paint and coatings industry

Creating value through integrated solutions



ABB has developed Industrial^{IT} solutions and engineering for the paint and coating process with design, construction, installation and revamping of complete and fully automated paint production plants.

Process Engineering

Process specialists

Combining the mastering of production processes and operating phases with its market knowledge, ABB has been involved in the development of international paint manufacturers. ABB is composed of expert process teams aware of your market and production constraints. ABB has been designing and engineering original solutions for paint and coating production plants for more than 30 years.

Service and expertise for a global solution

With a real knowledge of your business, ABB is the ideal partner able to manage the project from the feasibility study, basic engineering and detail design up to the delivery, start-up and operators training of the turnkey plant. ABB will help you optimize your project at all levels, whatever its size and specific requirements.

Process control/automation

Based on specific referenced paint software developed for this market, ABB designs and implements the plant automation from the definition of specifications to the start-up of the unit. ABB teams are composed of paint experts, process and automation specialists bringing solutions and anticipating your needs in terms of computer management of formula, recipes, traceability, scheduling, etc.

Technology

Using its process expertise and experience in paint and coating production, ABB has developed innovative and optimized solutions to each specific constraint encountered in paint production phases: dispersing, grinding, tinting, filtration, cleaning, transfer, pigging system, powder handling, pneumatic transfer, control system, scheduling.

ABB offers a global solution supported by:

- project management focused organization
- process specialists
- efficient engineering and design departments
- innovative products and technology
- worldwide sales and service network
- the ABB global structure

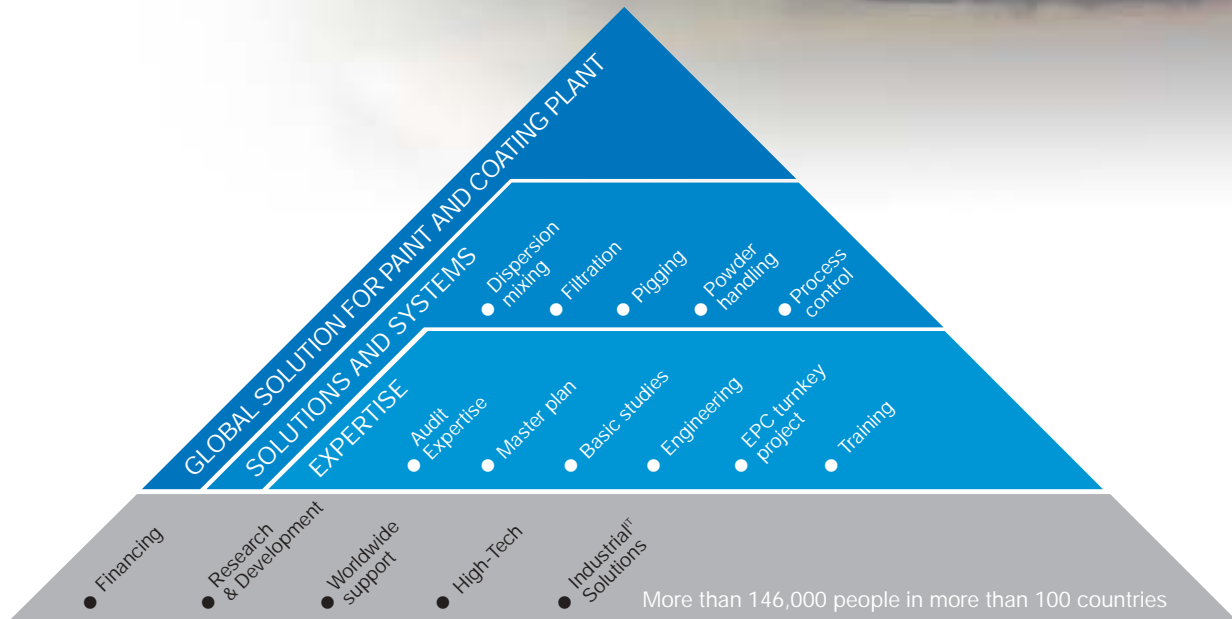
Process supervision and scheduling

Your process under control

Paint experts, process and automation specialists of ABB have developed control systems and supervision software such as Paintcel (batch production monitoring) and Ordocel which are perfectly adapted to the requirements of paint manufacturers.

Paintcel ensures the entire management of raw materials, formula, sub-recipes, recipes, stocks, cleaning and production stages. Parameter setting enables Paintcel to optimize the production.

Ordocel is a key link between ERP and supervision, enabling the optimization in real time of the scheduling of individual unit operations. Ordocel integrates cleaning reduction, equipment occupation rate and packaging.



Powder handling

Dosing, handling and pneumatic transfer of powders:

- titanium dioxide
- calcium carbonate
- talc
- silica, aerosol
- barium sulphate
- etc.

Decorative

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Industrial

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Automotive

Mixing, paint preparation and dispersing

ABB has designed mixers and dispersers specially to meet the paint and coating's requirements:

- high dispersing fineness
- high pumping rate of viscous products
- excellent productivity
- production and batch size flexibility (viscosity/density)
- integrated cleaning devices
- high solid content products



Audit/Expertise • Design • Process engineering • Automation • Complete

complete solutions for paint and coating production plants.



Cleaning In Place (CIP) solutions

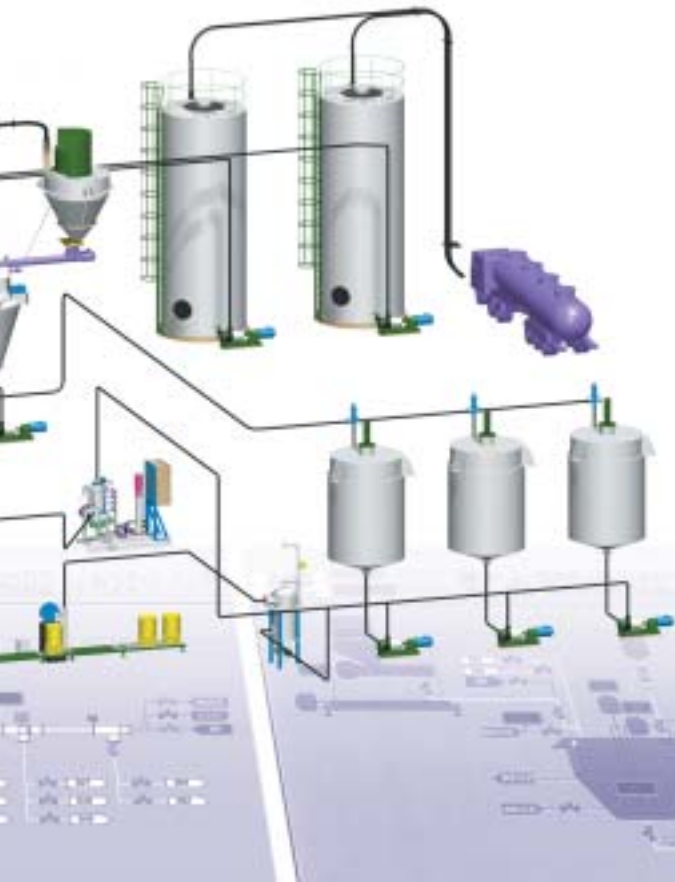
Varnish

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Heavy duty

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Coil coating



In addition to optimized plant design, ABB designed innovative systems to offer specific solutions to face cleaning constraints in paint industries.

In-line filter with CIP system

- automated declogging and self-cleaning system
- optimized and constant quality
- reduction of extrusion problems resulting from pseudo-plastic particles
- low product losses

High efficient cleaning system for mixers

- high and low pressure system
- Cleaning In Place devices
- very low quantity of cleaning solvent required



Pigging

Thanks to the development of its components (multi-way valves, manifold, etc), the pipe pigging techniques have become true systems modifying the whole production unit:

- increased flexibility of the workshop
- reduced waste solvents
- increased raw material yield
- product change without cross-contamination



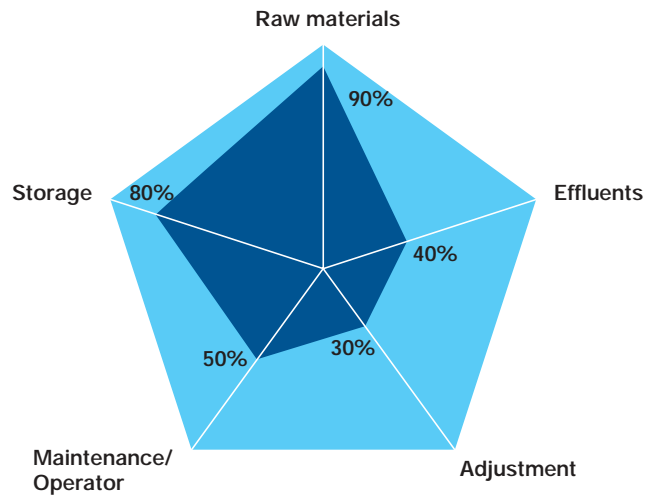
solution • Innovative systems • Installation • Revamping • Turnkey project

Applications

ABB designs and supplies turnkey production units for the following paint and coating applications:

- building paints (water- and solvent-based)
- industrial paints
- automotive paints
- varnishes
- heavy duty paints
- coil coatings

Our application expertise can also be found in: glues, adhesives, PVC, compounds, inks, plaster, gelcoats, sealants, etc.



Typical savings resulting from a workshop upgrade

Services



ABB offers a full range of dedicated services to reach an optimized operational paint plant.

Design and validation

- basic engineering
- tests of solutions
- process improvements
- plant simulation

Project execution

- detailed studies
- procurement and construction
- site activities
- commissioning and start-up

Completion and evolution

- training
- maintenance
- plant evolution and revamping

For a successful investment

In the range and scope of its technology, systems and services, ABB will bring you customized solutions for a successful investment.

Our process teams will:

- evaluate your process
- study (with you) how to get the best return on investment in the shortest timeframe
- bring you evolutionary operability of your plant
- optimize the operation and investment global cost, while reducing operating maintenance
- design a flexible and evolving production plant
- design equipment matching your real needs
- analyze cost benefit
- offer innovative, quality and reliable solutions
- propose unit simulation and trials
- offer complete structured service from audit-expertise to staff training
- anticipate your requirements and create innovative solutions

Based on our process engineering expertise and experience, ABB designs and develops innovative solutions, especially dedicated to the paint and coating industry:

- original solutions and systems for cleaning
- solutions for production scheduling
- new designs of modular fabrication, in-line systems, etc.

Your investment is our concern. Our engineers will study how to optimize and improve your production performances:

- quality at the right price
- just in time distribution manufacturing
- direct savings on your paint applications
- reactivity of your production

Being concerned with protecting the environment and people has encouraged us to develop original solutions to:

- reduce effluent waste into the air, ground and water
- reduce volatile organic compounds (VOC)
- optimize the cleaning
- eliminate risks by implementing safe processes and working conditions

ABB will find the right solutions to reduce adjustments, increase production, improve and maintain regular quality:

- full recipe management with complete traceability
- optimization of equipment use: dispersers, mixers, grinders, packaging, etc.

We will accurately evaluate your needs and requirements to reach sustainable development. We help you to prepare the future.

Industrial^{IT}

The Next Way of Thinking



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