

Braskem expansion project surpasses benchmarks with Emerson technology and Main Automation Contractor services

RESULTS

- Cut software development time almost in half
- Saved almost \$700,000 on factory acceptance testing
- Completed commissioning and startup in record time
- Achieved record production levels after only 12 months

APPLICATION

Plant expansion to increase production of polyvinyl chloride (PVC) and its intermediate, vinyl chloride monomer (VCM)

CUSTOMER

Braskem—Maceió, Alagoas, in Brazil.

Braskem is the largest producer of thermoplastic resins in the Americas, including polyvinyl chloride from its plant in Maceió.

CHALLENGE

In response to a surging market for PVC, Braskem aimed to increase output by expanding its 20-year-old Maceió plant. To make the most of this investment, they decided to take advantage of a more efficient manufacturing process and more advanced automation technologies.

Because this was the Maceió team's first experience with the new manufacturing process and automation technologies, they also needed an experienced automation partner and a new approach to managing the work—one that would ensure they had the right skills and resources on hand to safely complete the project within their tight schedule.

SOLUTION

Braskem chose Emerson as their Main Automation Contractor (MAC), responsible for providing automation technologies and services for the entire project.

The MAC approach made managing the overall project much easier for Braskem. It simplified sourcing, avoided integration headaches, provided clear lines of communication and accountability, and enabled Braskem to take advantage of Emerson's automation expertise and its project management experience, tools, and resources.



“Emerson was with us every step of the way, supporting us on the most important task of starting up the plant in a short amount of time.”

Marcus Aurélio Cabral Campêlo
Production Manager
Braskem PVC Alagoas

Emerson provided the advanced automation capabilities Braskem sought, including integrated DeltaV™ process and safety systems, electronic marshalling, S88 batch software, FOUNDATION™ fieldbus communications, and intelligent digital field devices.

Emerson project specialists also managed automation-related tasks that included planning and engineering, delivery, installation, integration, configuration, commissioning, and startup support.

Over the course of the project the Braskem and Emerson teams developed a close working relationship that enabled them to solve any problems as they arose—and achieve a successful startup on schedule, on budget, and without safety incidents.

They also exceeded several benchmarks for project success:

- They completed application software development in only 7 months compared to Braskem's benchmark of 12 months, reducing costs by an estimated \$300,000.
- Factory acceptance testing of the automation took four months less than is typical, saving almost \$700,000.
- Commissioning and startup were completed in record time, with only five months from first cabinet installation to first PVC production.
- The first batch of PVC was entirely on-spec, and after only 12 months of operation Braskem achieved record production levels.

“Braskem and Emerson worked together, each doing more than their share to reach the same goal. Everyone was committed to a safe, on-schedule startup, and that’s why it was successful.”

Roberto Serafim da Silva
Operations Technician
Braskem PVC Alagoas



By taking advantage of Emerson’s technologies and Main Automation Contractor services, the Braskem team exceeded project benchmarks and achieved record production levels.

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