



BINS improves relationships between departments and with customers.  
Reaches 99% of due date promises



## INTRODUCTION



BINS produces rubber items for different sectors such as aeronautic, railway and mainly the automotive since 1953. Using cutting-edge technology, BINS grew to be one of the top industries in this segment in Brazil, supplying both national and international markets. Located in São Leopoldo city, State of Rio Grande do Sul, currently with 420 employees, it was the first Brazilian company to mould rubber components with an injection process, and in the 70's BINS was also the pioneer in the use of robotic injectors for silicon based products.

Keeping the quality demanded for these markets and reducing the environmental impact of production are among the key company concerns. The TS 16949 and ISO 9001:2000 certifications, together with ISO 14000 standards makes BINS one of the most recognized companies of this segment in Brazil.

One of the company's biggest competitive advantages is its vertical internal structure for tooling, responsible for the part production and maintenance, providing not only the on-time maintenance, but also the best quality for customers, using the specialized expertise acquired over years of making rubber products.

## THE CHALLENGE

The rubber manufacturing department is ruled by several constraints; worker capacity and tools availability are the greatest problems in the production planning process. Some spreadsheets developed for that purpose weren't providing the capacity view. This was being compensated by safety slack that was consuming precious available time and increasing the inventory. Along with this, different business rules and planning guidelines were only in the employee's intrinsic knowledge.



Moreover on the tooling area, due to the casts complex design and variable material arrivals the production and maintenance plan had a low detail level so that it couldn't generate a good and accurate scheduling nor simulate several scenarios, and at the same time local scheduling decreased the possibility of global gains.

The Preactor implementation project at the same time with a new ERP system also increased the challenge, to be faced along with the complexity of cast designing and manufacturing and the high scale of rubber production.

## SOLUTION

After an exhaustive market analysis looking for a new ERP that also provided an APS system, BINS chose ACCERA to implement a Preactor APS solution along with a new ERP implementation project provided by another company.

Since the project beginning, the solution was divided in two separated models – rubber manufacturing and tooling – each one to focus on its specific area, each with its own particularities and challenges.



The rubber manufacturing model has mechanisms like automated constraints creation and reports that make the production easier to follow up. So the information flows with more frequency and reliability between PCP and Production areas, creating a better visibility and agility to make decisions.

Besides that, secondary constraints regarding worker capacity was assigned to resources, mould availability was linked to each new product insert, and setup times associated with the scheduling sequence were assigned to each different type of mould change. At the same time some Preactor reports were developed to calculate and generate, from the vulcanization sequence, material requirements and quantities to each date, providing information to other areas production, following pull production logic.

In the tooling area the challenges were a little different even though the final objectives were similar. During the project some similarities between different moulds were identified, so standard manufacturing templates were created taking into account the complexity of each mould design. Not only did this reduced the amount of time in planning, execution and update but also enabled new orders to be created from zero very quickly using the same template where appropriate, increasing the ability to provide feasible delivery dates for moulds to manufacturing.

During the project, the ACCERA team along with the BINS team adopted the strategy of using the Stand Alone format in the Preactor implementation; it means that all entries were made inside Preactor, without any integration with other systems. In this way the Preactor APS solution was available for use before the new ERP implementation, generating a faster return on investment. Preactor was also prepared for the integration with the new ERP in the future, with the minimum possible additional development.

## RESULTS

An agile decision-making process, along with visibility and assertiveness in the production schedule, provides better operational results and better relationships with customers and between the company departments. After the complete implementation of the two Preactor models, BINS achieved a faster planning process, reducing the time used by the PCP team for this purpose by 50%, so now planners have time to analyze results and engage in interactive decision-making, and has eliminated the inefficient and ineffective use of spreadsheets.

Marcelo Braun is IT Manager at BINS. *“Searching for the right tool to complement our ERP, we found that with PREACTOR we had the agility and information reliability, and with ACCERA a partner with know-how and initiative to understand and implement our requirements.”*

With an Advanced Planning and Scheduling tool that considers all constraints and complexities along the manufacturing process, BINS increased from 85% to 99% their on-time delivery performance for its customers. It created better relationships and improved the reliability and respect in the market. Besides that, some qualitative gains emerged such as vacation planning for production and maintenance teams, for example.

Currently BINS is almost at the end of the new ERP implementation, and it will be integrated with the Preactor APS Solutions that are in fully functional and totally integrated production planning tools.