ATOMOS HYLA

company of sedApta group smart manufacturing made easy

CHEMICAL CASE STUDY

DAVINES

Davines S.p.A. has been working in research for almost 25 years and in the production of high quality hair-care products using renewable energy resources, favoring precious and natural ingredients, and always adopting the right scientific rigor in order to guarantee maximum safety for consumers.
Founded in 1983 in Parma, Italy, by the Bollati family, it began its journey as a research laboratory and manufacturer of high quality hair-care products for renowned cosmetic companies around the world.
After a decade dedicated to research and improvement, the Davines brand was born as a brand of professional cosmetic products for hairdressers. This exciting experience led to the formation of the cosmetic division - Comfort Zone - for leading wellness and spa centers in 1996.

Twenty years later, the Davines community has expanded to over 92 countries, involving thousands of spas and beauty centers, salons and passionate hairdressers. In 2017 a turnover of € 127 million was made with more than 500 direct employees all over the world. Despite its continued growth, from the Parma office to those in New York, Paris, London, Mexico City, Deventer (Netherlands) and Hong Kong, its roots are firmly planted in the early stages of the Parma research laboratory, from where the
entire internationalization process started.
The collaboration between Atomos FT and Davines commenced in 2013 and is part of a project to update the organization of business processes.

ANALYSIS

Since it does not work directly with the end customer, Davines' primary objective is that of guaranteeing the presence of the product in the warehouse. To make this aspect more efficient and directly linked to production, Davines turned to Atomos FT, which determined that implementation of the sedApta scheduler, Factory Scheduling, was the best solution for guaranteeing that the requirements be met.

In addition to a production site, Davines turns to some contractors that perform part of the production process. The scheduling project therefore focuses on the Parma plant and on the contractors involved in the production process.

The objectives outlined together by the Atomos FT consultants and Davines are shown below:
Improving efficiency and effectiveness scheduling (previously performed manually)
Automatic generation of work plans (for internal processes and goods held for processing), taking into account:

- availability of spending for the orders (coverage by the Odp with Raw Materials / Bulk Materials / Packaging Material)
- Order delivery dates
- Availability of production resources
- Production sequences, setup times and plant cleaning
- Allowing "manual overrides" in the generated plan
- Having an alternative scenario simulation tool

COMPANY
DAVINES SPA

SECTOR
COSMETICS

COMPANY SIZE
500 DIRECT COLLABORATORS

TURNOVER
€ 127 MLN

SEDAPTA MODULES
FACTORY SCHEDULING

- Allowing performance analysis:
  - Evaluation of machine loads
  - Compliance with delivery dates
  - Assignment of materials (availability of spending).

SOLUTION

Through Factory Scheduling it is possible to process, in a simple and effective way, the operational plan with finite capacity for each production resource:

- Machinery: machines, centers, lines
- Tools: equipment, molds (formats)
- Manpower: teams

Factory Scheduling allows operations to be scheduled based on the resource calendars, the order portfolio and work progress, with maximum operational efficiency and the minimum Work In Progress, respecting commercial priorities and constraints imposed by the market.
Thanks to its user-friendly graphic interface, it is possible for users to interact directly on Gantt diagrams, applying forcing, moving the activity over time or onto alternative resources. The measurement of the effectiveness of the scheduling is provided for each managed plan in terms of:

- Simulation analysis: simulations summary and merit indexes by calculating the parameters of reference, i.e. number of mold changes, work order delay, resource saturation
- Resource Report: display of load profiles, work plans in Gantt format per line, mold (format), and work team
- Order Report: analysis of work order dates in terms of delays and advances, progress of the work orders, Gantt by order, order availability of spending
- Consumption Report: simulated warehouse trend by quantities, materials emptying plans per line /machine, center, department.

Examination of a simulation is accomplished through the use of performance indicators divided according to the analysis you want to make. These indicators are managed by the system through their subdivision into macro areas, depending on whether they are indicators on orders, stock performance, or resource-related. The program sets in sequence, with configurable rules and constraints depending on the scope of the various resources, planned productions in order to minimize setup times, create format/product campaigns and respect the constraints on materials /components.

The plan obtained will be distributed to the departments to permit production progress and the management application to update the delivery dates.

ACHIEVED RESULTS

The benefits obtained thanks to Factory Scheduling are the following:

- Generation of feasible and optimized work plans: work sequences on individual lines
- Reduction of equipment setup time
- Possibility to simulate alternative scenarios through performance analysis with “customized” KPIs
- Increase the quality and timeliness of reminders to the suppliers
- Decrease WIP and waiting time
- Consolidation in the database of the scheduler of the process knowledge previously managed in autonomy by the production managers.

davines