

Modernisation of the industrial plant for more sustainability

A2C Préfa decided to modernise its production to achieve its sustainability goals. A lot of planning has gone into waste recycling, reduced emission of pollutants, water treatment and the ongoing development and production of innovative concrete products. A2C Préfa's main product is the BB slab, a combination of timber and precast concrete slab. They chose Progress Group as their automation and digitalisation partner for the production modernisation of this product. The decisive factors were twofold: Progress provides turnkey solutions for the entire carousel plant and shares the ambition to optimise the production process in terms of sustainability.

Sustainable action as a corporate principle

As the market leader in the prefabrication of concrete building systems in the Paris area, A2C Préfa is committed to sustainable development. The vision is to be a pioneer in all their practices - from the extraction of the granulate to the building system. This contribution to sustainable development within A2C Préfa is called ID Concrete - an approach that is built and thus actively supported by all employees.

A2C Préfa in numbers:

- 2 production sites: Corbeil-Essonnes and Sivry-Courtry
- 150 employees
- 180 projects realised simultaneously
- 350,000 m² of prefabricated slabs (approx. 25 % of the market in the Paris region) & 100,000 m² of BB slabs (350,000 m² planned by 2024)
- 250,000 m² of double walls (i.e. approx. 25 % of the market in the Paris region)
- 40,000 ML linear structural elements (posts, beams)

Automation for sustainability

Automation supports sustainable production. For the production of the wood and concrete BB slab, the company relied on sustainable technology from Progress Group and implemented machines from several companies in the group:

- A Form Master shuttering and de-shuttering robot works automatically and accurately according to the provided



The concrete spreader works exactly with the calculated quantities and therefore saves concrete.



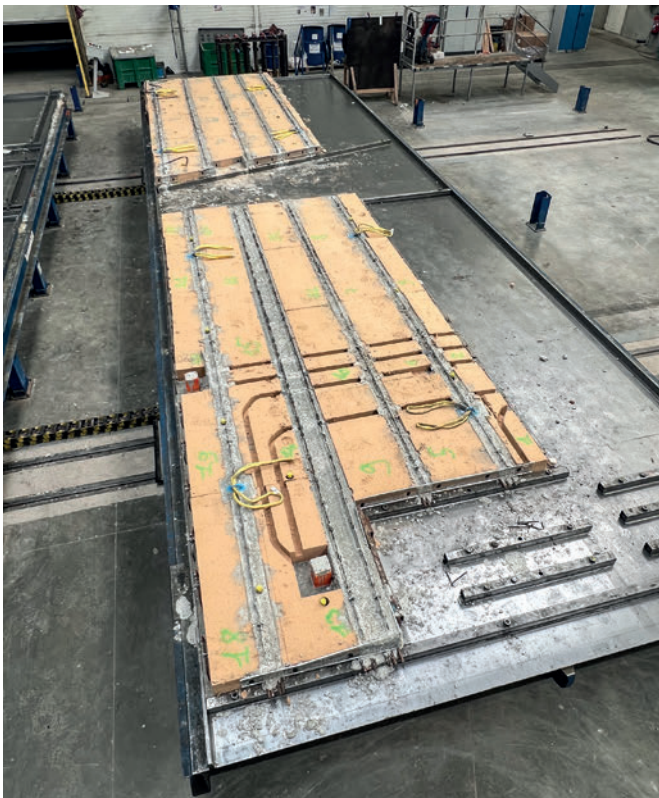
The lattice girder welding machine Versa was installed under the coils to save space and can produce the lattice girders just-in-time.



The Pluristar is an automatic stirrup bender, straightener, and double-bending machine in one.

CAD data. This saves time, avoids errors and hence waste.

- A multifunctional Pluristar machine for bending, cutting and welding the reinforcing steel, works directly from the coil. It means less waste, better quality and less physical work for the employees.
- A lattice girder welding machine Versa with automatic height adjustment during ongoing production. This saves time, material and in this design, it is unique on the market.



This customized device for plotting and grooving the recesses for pipes in the wood of the BB precast slab is a modification of the insulation cutter.



High-Speed.

Sleeper production

PAUL supplies

- Prestressing installations incl. planning work
- Anchor grips
- Prestressing machinery (single-/multi-stressing jacks)
- Strand pushing and cutting equipment
- Automatic prestressing machines for railway sleepers
- Prestressing equipment for bridge construction (prestressing cables and stay cables)

The experts in
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The shuttering robot places the formwork with centimetre precision and without filling elements such as polystyrene extensions.



- An automated concrete spreader eCon Drive® distributes the exact amount of concrete needed on the pallet according to the received data while saving resources.
- The high-pressure waterjet cutter for insulating materials - jointly developed by Progress and A2C. It can irradiate compressed wood fibre blocks in such a way that the grooves for the tubes can be plotted and milled into the slabs or the slabs can be cut to size. It can also be used to remove the milled or cut material, glue the ceilings in a fully automatic process and store the product.
- An automated transport trolley provides more safety in the plant and brings the panels quickly to the storage location.
- The overall control system solution ebos® clearly displays the current production status and thus facilitates the work of managers and employees. It is a comprehensive solution for work preparation, production and process analysis, continuously covering all aspects of the production process.

Sustainability = employee well-being

When it comes to sustainable action, the importance of providing good and safe working conditions for employees is often forgotten. Social sustainability also includes designing the employees' environment according to the most work-friendly conditions possible. All employees agree that the physical strain has decreased significantly since the installation of the new machines. "Initially, we chose Progress Group because they offered us a turn-key solution for the entire plant - today, they are a true partner for the future!" says Sébastien Straub, Directeur Industriel. ■



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FURTHER INFORMATION



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