Progress Maschinen & Automation AG, 39042 Brixen, Italy

Reinforcing the future with automation and software in Norway

In the future, there will be increasingly high demands for efficient sustainable processes in the building industry, with a high degree of automation and digitalization. Prefabrication has good conditions for being able to meet these requirements. It is an efficient and quality-assured way of building, and Overhalla Betongbygg is convinced that precast elements will be sought after in the future. Therefore, the most modern producer in Norway invested in automated reinforcement machinery and innovative software by one of the market leaders in precast technology, Progress Group in close cooperation with their renowned Danish partner CPT.

Effects of automation

Overhalla Betongbygg is already seeing the effects of the investment in the new mesh welding plant M-System BlueMesh® with the respective software solution. They have managed to reduce their steel consumption by 20% and were able to produce with lower resource use and higher quality. The acquired machinery has also brought significant improvement in the working conditions with less physically demanding tasks.

„We invested in a Progress mesh welding plant to reduce our steel consumption, streamline the construction process, and increase our production capacity ", says Odd Andre Devik Amdal, Project Leader at Overhalla Betongbygg.

The mesh welding plant M-System BlueMesh

The new mesh welding plant produces not only flat mesh but also fully bent reinforcement cages. The use of the so-called single bending heads is the first of its kind in Scandinavia. The 20% steel reduction comes from the machines possibilities for using different wire diameters from 6 to 16 mm and change them automatically in no time. This means, that the M-System BlueMesh can produce according to specific requirements and avoid oversized elements. Another point that helps to reduce steel consumption is the high flexibility of the machine working directly from coil being able to perform cut outs in the right geometry. The bespoke mesh also ensures a higher quality of the concrete elements. If the formwork is placed incorrectly, it will soon be discovered when the complete mesh cage is placed into it. This is an additional control that Overhalla Betongbygg has not had before, and which helps to increase quality.

Overhalla Betongbygg is Norways leading concrete plant in automation and digitalization.

The precast plant in the town Overhalla is producing building materials since the 1940's.

The mesh welding plant M-System BlueMesh is handling the production of flat and bent mesh automatically according to the CAD data.

This advanced plant can produce mesh and cages in all shapes and sizes.

With the single bending heads the wire can be bent exactly according to plan without manual labour.

The fully automated bending solution ensures a high quality of the reinforcement cages.

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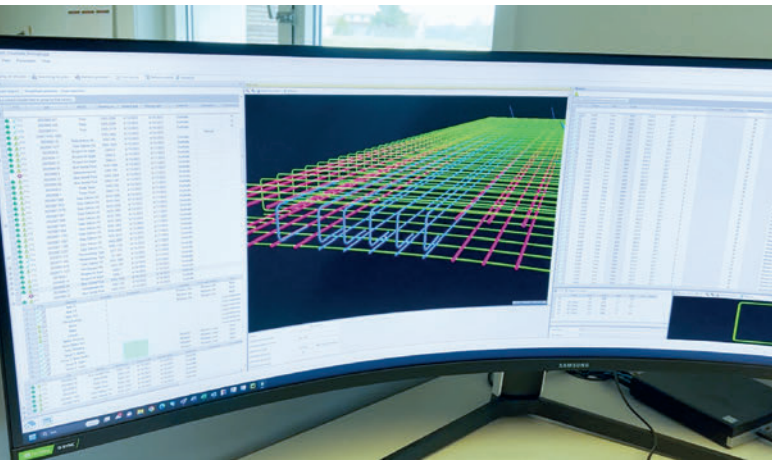

The software integration ensures a smooth production.

Overhalla Betongbygg was established in 1946 and has been a supplier of concrete products since then. In the last 30 years, the company has experienced great growth in the precast concrete industry. Today, the company is the leading concrete element factory in Norway, especially in regards of digitalization and automation. Overhalla Betongbygg's market extends across the country and the company supplies a wide range from commercial buildings, bridges, stately buildings to large smolt plants (salmon farms), which is their specialty. Currently the company is building the government quarter in the capital of Norway, Oslo.

The benefits of software integration

The implemented software solution from Progress Group allows Overhalla to import CAD data, adapt it, and then control production, in coordination with the ERP system. The software "profit" is a tailor-made solution for the management and organization. With this tool, production processes, order positions and the machines themselves can be monitored and controlled. The software package also includes the "stabos" solution for the collection and evaluation of machine and production data. By means of the centrally collected data, it is easy to keep an eye on the productivity, efficiency, and quality of the plant and to react immediately to downtimes. The unique cloud service enables data access from anywhere.

Modern methods for a better future

Overhalla has also changed their working method in production to optimize the machines performance and output. With this significant investment the company has become more competitive and sustainable.

„It has been a big process to change from the traditional way of producing to a more mechanical and automated production. Our designers have learned new ways of designing, with a bigger focus on optimization during dimensioning. We are satisfied with the investments so far," states Odd Andre Devik Amdal and adds: „The cooperation with Progress Group has been good before the investment, during the execution and after the installation."

Report video

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FURTHER INFORMATION

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