# ZWA precast plant modernises its reinforcement production for extra efficiency, flexibility and productivity

The reinforcement production at Ziegelwerk Arnach (ZWA) in Bad Wurzach, Upper Swabia, has undergone an extensive modernisation. The partner for this project was progress Maschinen & Automation. The company was responsible for the conception, delivery and installation of the new plant. The precast element manufacturer ZWA Ziegelwerk Arnach GmbH & Co. KG is thus consistently pursuing the path of modernisation of its production plants. The new production line for reinforcement manufacturing went into operation in mid-February.



VGA Versa: saving of time and elimination of offcuts thanks to the fully automatic and stepless height adjustment during production.



One of the two insertion units of the reinforcement robot. These fully automatically lay the manufactured lattice girders as well as the longitudinal and transverse bars on the pallet.

The installed machines from progress Maschinen & Automation enable the efficient, flexible and fast processing of reinforcing steel off the coil and show that a renewal can be accompanied by a leap in technology and innovation. "Our conviction that progress can offer precisely those products that meet our needs was decisive for the co-operation", emphasises Karl-Josef Fassnacht, CEO of the family-owned company, which is already led by the family's third generation.

The VGA Versa lattice girder welding machine represents an innovative solution for the production of lattice girders. Its special feature – the fully automatic and stepless adjustment of the height during production – not only saves time, but also eliminates offcuts. The precise cut is made possible by the variable adaptation of the distance between the weld spots of the diagonal wire. This also results in the elimination of high storage costs.

For ZWA the machine was additionally designed for the automatic change of production from KT800 to KTS girders. The electrical servo-motor drive requires little maintenance, while the resistance spot welding provides for optimum connections and at the same time low connected loads. Production is thus not only flexible, but also efficient. In addition, the end product meets high quality requirements.

Following their manufacture, the lattice girders are fed directly to a similarly newly installed reinforcement robot. With the aid of two mobile insertion units the robot places the lattice girders on the pallet for the corresponding precast concrete elements in accordance with CAD-CAM specifications. The longitudinal and transverse bars required for this are also automatically positioned.

### PRECAST CONCRETE ELEMENTS



The new production line for reinforcement manufacturing: VGA Versa (rear left), MSR16 2BK (rear) and the reinforcement robot (front).

The longitudinal and transverse bars are produced by the MSR16 2BK multi-rotor straightening machine. Similarly developed by progress Maschinen & Automation, it is used for the straightening, cutting to length and bending of reinforcing steel off the coil with a diameter of up to 16 mm. The proven progress multi-rotor straightening technology provides for a high straightening quality, while the new technology leads to a lowering of the noise level and power consumption and the electrical servo drives guarantee ease of maintenance and high operating reliability. One outlet of the type-2BK can be used for single or double-ended crimping of the bar ends.

A positive interim conclusion could be drawn after just a few weeks. According to CEO Fassnacht, the entire production sequence, the increase in production and the end products entirely meet the expectations. The modernisation of the reinforcement production at ZWA thus fits seamlessly into the list of successful collaborations between progress Maschinen & Automation and customers worldwide.

#### FURTHER INFORMATION



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