Progress Maschinen & Automation AG, 39042 Brixen, Italy

New fully automatic cage welding machine installed at Finger Beton Sonneborn GmbH & Co KG

A new cage welding machine of the type VTA 160, designed by Progress Maschinen & Automation, has been put into operation at the production facility of Finger Beton Sonneborn GmbH & Co KG. Efficiency, speed and complete automation are the outstanding features that characterise this innovative machine.

The two wheels of the VTA are electronically synchronised; the Progress inverter welding provides quality and efficiency.

Following production the finished reinforcement cages are automatically removed.

The removal robot transports the reinforcement cages to the pallet circulation plant of the pipe-making machine and sets them down on waiting pallets.

No manual work is necessary with the VTA 160 cage welding machine – all processes are fully automated, from the feeding to the removal.

The VTA 160 has been in operation at the production facility of Finger Beton Sonneborn GmbH & Co KG for over six months now. It is able to produce reinforcement cages with diameters from 300 mm to 1,600 mm, which are used in the production of steel reinforced concrete pipes.

The added value that this machine offers Finger Beton is obvious: both the personnel expenditure and the expenditure of time for production are low. At the same time a high and constant level of quality can be guaranteed.

"The complete automation and the coherent concept of the VTA 160 convinced us", says Jörg Fischer, technical plant manager, explaining Finger Beton's decision. Both the feeding of the bars and the removal of the finished cages take place automatically. "That is a huge advantage compared to before", Fischer continues, "because the 90 kg cages had to be removed by hand." In addition to that, and no less important, it was possible to integrate the machine optimally into the production sequences of the existing fully automated pipe production plant.

At the start of the production cycle the longitudinal wires are supplied to the feeding wheel, which then takes care of the setting of the cage diameter. In a next step the extraction wheel fixes the longitudinal wires with pneumatic wire clamps. The production process starts and the two wheels begin to turn – not via a connecting shaft, but electronically synchronised.

The welding system is also sophisticated: thanks to the Progress inverter welding, not only is the welding quality high and the connected loads low, but sparking is also significantly reduced. In addition the cage diameter can be quickly changed, even during the manufacturing process. An automatic winding wire cutter rounds off the cage production.

Following production the completed reinforcing cages are automatically removed, transported to the pallet circulation plant of the pipe-making machine and set down on the waiting pallets. Thanks to a pallet buffer, the production of further cages can be continued in the meantime.

The VTA product family was developed by progress Maschinen & Automation, a Progress Group company. The company specialises in the development and construction of tailor-made solutions for the processing of reinforcing steel and for plant automation.

FURTHER INFORMATION

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