Major contract successfully completed in Kazakhstan – complete facilities for a new precast plant

Commissioning of a new production site for precast concrete elements in the northern Kazakhstan city of Kostanay was a further giant step for the building industry in this central Asian country. The Progress Group acted as a full-range supplier and provided all plant and machines for the manufacture of diverse precast concrete elements and associated reinforcement.

It is a great success for both the Progress Group and the Kazakh construction industry. This was also reflected in media coverage, where the opening of the new production facilities of the company TOO "Kostanay-MBI" was really celebrated.

Completely equipped with machines and plants from four Progress Group companies, the factory does indeed represent a complete solution. From reinforcement to walls, floor slabs and even ventilation shafts and stairs – every element of a building shell can be manufactured in the factory. A circulation plant by Ebawe, including 56 pallets, three stacking racks, two concrete spreaders, a plotter and a compacting, smoothing and cleaning system forms the centrepiece of the precast concrete element production. It can be used to manufacture thermally-insulated sandwich walls and solid walls.

tecnocom, an affiliated company, was responsible for delivery of one battery mould each for partition walls, stairs and ventilation shafts. The use of battery moulds to manufacture the latter is unique and def-



In addition to a new precast plant, TOO "Kostanay-MBI" also constructed a new office building in Kazakhstan. All footpaths were designed with visually appealing paving stone from the associated concrete paving stone plant.



The freshly poured concrete is drawn off to the desired level and compacted with a vibrating levelling beam.



Following a pre-curing phase, the sandwich wall is smoothed with a power trowel.



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Raising the finished sandwich wall with the help of the tilting mechanism.



Vertical welding manipulator for welding reinforcement cages



The EBA S series automatic stirrup bender produces stirrups and bars with great accuracy.



The M-System Evolution mesh welding plant receives the required data from ebos. The reinforcement mesh are produced just-in-time and precisely in accordance with specifications.



Battery mould for production of partition walls

initely worthwhile: In the production of ventilation shafts, the slightly conical cores are not drawn, but lowered a few centimetres to simplify the mould stripping process. The production is also cost-effective and space saving.

The product portfolio is rounded out by a plant, supplied by Echo Precast Engineering, for the manufacture of prestressed hollow-core slabs. A bucket conveyor delivered by Kübat ensures trouble-free transport of raw materials.

In terms of reinforcement, the factory in Kostanay was equipped with a 6-reel mesh welding plant for production of custom reinforcement mesh in accordance with the corresponding CAD files. The scope of delivery also included an automatic stirrup bender, a cutting machine for processing bars and a vertical welding manipulator. Developed by progress Maschinen & Automation, another member of the Progress Group, these installations and machines provide fully-automatic, just-in-time production of custom meshes and reinforcing cages.



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VGA Versa – use our know-how to your advantage

The VGA Versa allows fully automatic and just in time lattice girder production. The plant is equipped with automatic lattice girder height adjustment and produces at the highest level of flexibility.



Ventilation shafts are manufactured using a battery mould in the new factory in Kostanay. After curing of the concrete elements, the slightly conical cores are not drawn in the usual way, but lowered a few centimetres to make the stripping process easier. The production is also cost-effective and space saving.



Vertical production at TOO "Kostanay-MBI" with battery moulds for partition walls, ventilation shafts and stairs

Planning, monitoring and control of all aspects of production processes are handled by the comprehensive ebos software.

Once again, the Progress Group was able to demonstrate its strength in the fulfilment of this major contract. Thanks to the close collaboration of the four participating subsidiaries, it was possible to offer the client, TOO "Kostanay-MBI", a turnkey project matched precisely to their needs.

Thanks to the modern technical equipment and know-how, the Kazakh company is now in a position to produce precast concrete elements for up to 100,000 m² of high quality living space each year with its 150 employees. The completion of a floor in only two days, which met with great approval in the press, is now also a reality in Kazakhstan.



Separate bay for production of prestressed hollow-core slabs on multiple tracks

FURTHER INFORMATION



TOO "KOSTANAY-MBI" ul. Promyschlennaja 45 Kostanayskaja oblast 110000 Kostanay, Kazakhstan T +7 7142 394606, F +7 7142 394607 kostanay.dsk@mail.ru



concrete solutions

Progress Holding AG Julius-Durst-Str. 100 39042 Brixen, Italy T +39 0472 979900 F +39 0472 979999 info@progress-group.info www.progress-group.info



Ebawe Anlagentechnik GmbH Dübener Landstr. 58 04838 Eilenburg, Germany T +49 3423 6650 F +49 3423 665200 info@ebawe.de www.ebawe.de



Progress Maschinen & Automation AG Julius-Durst-Str. 100 39042 Brixen, Italy T +39 0472 979100 F +39 0472 979200 info@progress-m.com www.progress-m.com



tecnocom Via Antonio Zanussi 305 33100 Udine, Italy T +39 0432 621222 F +39 0432 621200 info@tecnocom.com



Echo Precast Engineering NV Industrieterrein Centrum Zuid 1533 3530 Houthalen, Belgium T +32 11 600800 F +32 11 522093 info@echoprecast.com www.echoprecast.com