

Nordimpianti System Srl, 66100 Chieti (CH), Italy

New production line of pre-stressed hollow core slabs at Batys Alliance Sroy in the Kazakhstan Republic

Nordimpianti has completed another successful commissioning of a factory for the production of pre-stressed hollow core slabs. This new plant was for "Batys Alliance Sroy" LLC in Atyrau city, in the Kazakhstan Republic. The Kazakhstan Republic has planned its country's social and economic development on key sectors such as the building sector, as one of the main ways to achieve growth in the coming years.

In 2013 to implement the national plan at a regional level, the company "Batys Alliance Sroy" decided to expand its product and service offer by upgrading its existing factory to the production of precast concrete. Batys Alliance already had extensive experience in residential, commercial and industrial building construction on which to enter the pre-stressed concrete arena.

As part of an extensive factory expansion Batys Alliance wanted to have a production line to manufacture hollow core slabs. The first step was to find a company to design and supply the equipment for the pre-stressed concrete element production line. Batys Alliance Sroy chose the Italian company Nordimpianti System SRL.

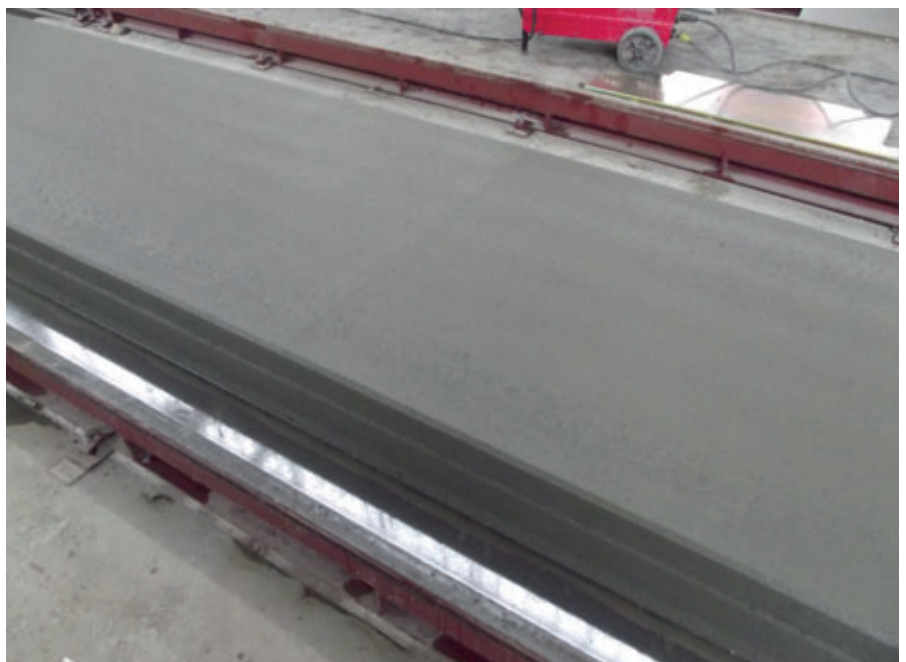
Nordimpianti is represented in over 36 countries around the Globe, countries such as Russia, Ukraine, Saudi Arabia, Iran, Libya, Emirates, Brazil, Mexico, South Korea, India, Malaysia, Argentina, Tunisia, and also in the emerging markets of Burkina Faso and Ghana. With such a broad presence in the world Nordimpianti is constantly meeting the technological challenges arising from having this diverse customer base.

Nordimpianti was given the task to design and build a casting machine capable of producing both 1200 mm and 1500 mm wide hollow core slabs on the same production bed. The CIS market has long used 1200 mm and 1500 mm widths in the building sector. To achieve this Nordimpianti used existing technology and developed it further. The customer chose the Extruder casting machine for hollow core slab production in order to take advantage of producing hollow core slabs with the best technical-economic characteristics and with the added bonus of lower machine maintenance costs

Other suppliers had proposed a range of solutions in casting machine design for the production of hollow core slabs 1200 mm wide on a 1500 mm wide production bed,



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New construction design for the forming insert to enable production of 1200 mm hollow core slabs on a 1500 mm wide production bed



The new Extruder Evo e150 from Nordimpianti



Nordimpianti also supplied a Multi-function Machine for bed cleaning, bed oiling and wire laying, a Stressing Machine, a Cutting Saw, a Bucket for concrete transport and a Lifting beam with Clamps specially designed to be able to lift both 1200 mm and 1500 mm wide slabs

however these solutions were not considered adequate as during the casting of the narrower 1200 mm slabs the concrete slurry could escape into the gap between the casting bed and the oscillating sideformers which in turn could damage the surface of the production bed.

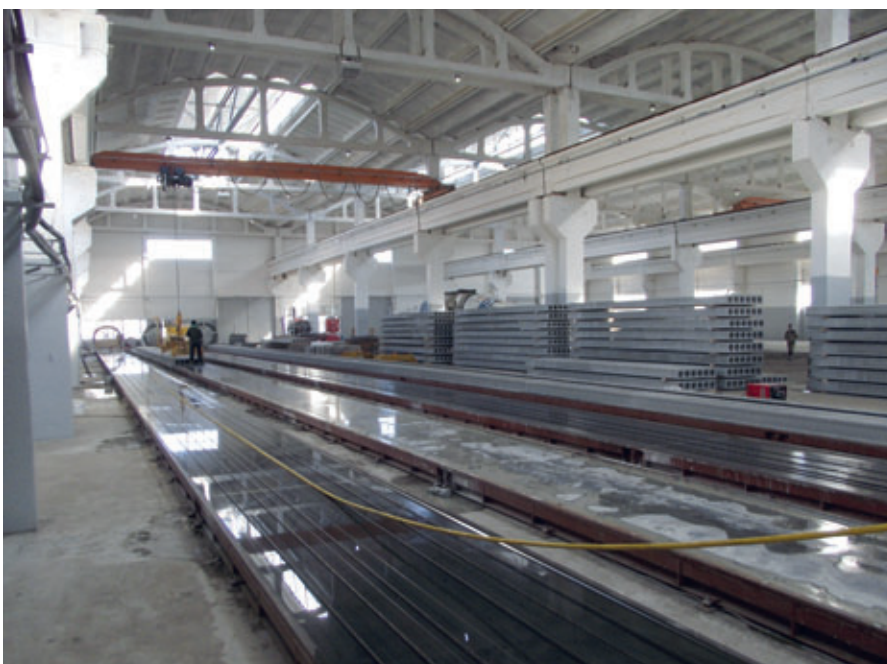
Nordimpianti has successfully developed its Extruder in order to solve one of the most important problems when producing a 1200 mm wide slab on a 1500 mm wide production bed – namely, keeping the slurry seepage to a minimum and thus not causing damage to the surface of the steel beds while at the same time producing elements that have an excellent side edge finish.

The innovative approach taken by Nordimpianti allowed the customer to reduce material and labour costs and came with the additional advantage of being able to produce hollow core slabs of different dimensions using the same machine, hollow core slabs 220 mm high in both 1200 mm and 1500 mm widths. It gives Batys Alliance Sroy a flexible approach to offer the best solutions for different projects within the construction sector.

The production line was commissioned in January 2014. The production plant consists of four 75 m long production beds with reaction beams for the stressing phase. Nordimpianti also supplied a Multi-function

Machine for bedcleaning, bed oiling and wire laying, a Stressing Machine, a Cutting Saw, a Bucket for concrete transport and a Lifting beam with Clamps specially designed to be able to lift both 1200 mm and 1500 mm wide slabs. The production output of the plant is 420 m² of hollow core slabs per work shift and achieved using the minimum of personnel.

After the commissioning of this first production line in Kazakhstan, Nordimpianti is well placed to use its design expertise and innovation to meet new and different construction project challenges from within Kazakhstan and beyond. ■



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FURTHER INFORMATION

nordimpianti Concrete Experience...

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