

Nordimpianti System SRL, 66100 Chieti (CH), Italy

Prefab once again chooses Italian extrusion technology to deliver prestressed hollow core slab high production output

Prefab is a dynamic company located 100 km from Sao Paulo City. Its precast element production started in 1985 and its output mainly consists of light Omega panels for roof coverings and 150, 200 and 265 mm high hollow core slabs. The 150 and 200 mm hollow core slabs are mostly configured as wall panels and have a strong presence in the market because of their ease of use and their minimum production costs with respect to other precast wall systems.



Stockyard at the Prefab factory.

The founders have led the company to success in the Brazilian market through vast experience in supplying more than 400 precast projects such as industrial buildings, universities, logistics centres and shopping malls and producing more than 1.8 million square metres of precast concrete elements. Since 2014 Prefab has consolidated its leading position in the precast industry by producing prestressed hollow core slabs up to 400 mm high to meet the most demanding applications in the Brazilian market.

Nordimpianti and Prefab first met in 2010 during the Concrete Show exhibition in Sao Paulo. Prefab were looking to modernize their old extruder machines and were impressed by the technology on offer from the Italian company. As part of a complete manufacturing line Nordimpianti supplied a new extruder series Evo E125 casting machine especially designed for the

Brazilian market, where 1,250 mm is the standard width with an element cross-section optimized for the technical performance and weight of the element. The extruder produced hollow core slabs with heights of 150, 200 and 265 mm. Nordimpianti is one of the few companies to develop its machines for the Brazilian market, adapting its machinery to the local standard width and responding to the specifications required.

More recently Brazil has become a fast moving market and considering the scale of construction projects taking place in the country, there is a great requirement for innovative construction systems that can facilitate larger spans, allow for a reduction in the number of columns and achieve better load-bearing capacities of the precast concrete elements. Several projects related to the construction of shopping malls, air-



Nordimpianti supplied a new Extruder series Evo E125 casting machine especially designed for the 1,250 mm wide hollow core slabs that are standard on the Brazilian market.

ports and logistics centres have already been designed on the basis of using 400 mm high prestressed hollow core slabs. Although Brazil is a country where prestressed hollow core slabs are employed on a large scale, there was a lack of suppliers of concrete hollow core slabs with these heights and with other technical features. In 2013 Prefab became aware that the market was about to open its doors to a technology ready to offer reliable construction solutions.

Prefab had already proven the reliability and low maintenance requirements of Nordimpianti's machines and were seeing for themselves on a day to day basis the quality of the produced elements both in terms of the finish and durability. As a result

Concrete show Brazil
Sao Paulo | stand 430

Wet Casting

ADVANCED TECHNOLOGY

EXTRUDER
TECHNOLOGY

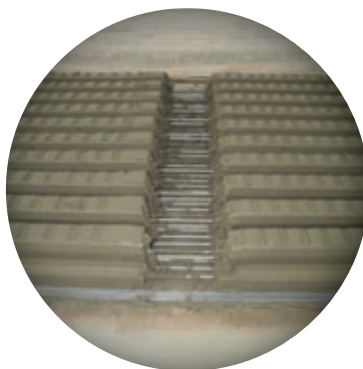
SLIPFORMER
TECHNOLOGY

The Wet Casting **wf** series, the winning choice for the production of elements with particular technical specifications



Versatile

Wide range of elements that can be produced simply by changing the finishing mould.



Special Products

Ability to produce elements with special design characteristics.



High quality finished product

High concrete compaction, accurate surface finish.



400 precast projects such as industrial buildings, universities, logistic centres and shopping malls have been supplied by Prefab with more than 1.8 million square metres of precast concrete elements being produced.

of this the Brazilian company is preparing to meet market requirements by once again choosing Nordimpianti and its extruder-technology-based model E125 Evo for the purchase of a new complete manufacturing line for the production of prestressed hollow core slabs with a height of 400 mm.

One of Nordimpianti's main tasks is to support its customers along the entire purchasing chain from the start of the project to plant commissioning. The quality of the equipment and the after-sales service dedication of the Italian team were already well known to Prefab; in particular the excellent performance of the 125 Evo extruder. For Nordimpianti the sale of a machine is not the end of the story, it is the start of a new alliance between the company and the customer.

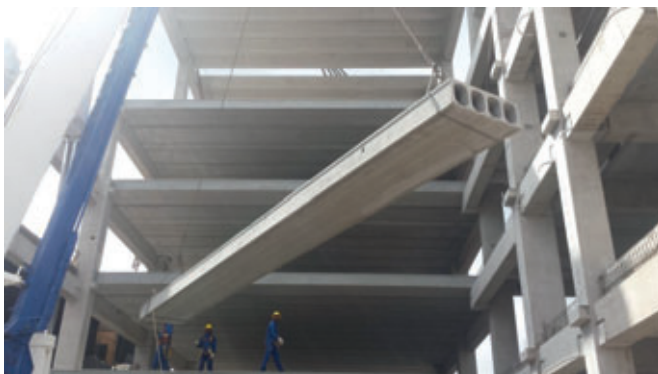
The advantages of Nordimpianti's extruder machine are as follows: high concrete compaction, minimum downtime for product changeover, user-friendly and easy



400 mm high hollow core slabs during the installation phase.



The achievable span is up to 16 metres with a load-bearing capacity of 500 kg/m²; in other projects Prefab uses hollow core slabs with a span of 9 metres and a load-bearing capacity of 4,500 kg/m².



One of the complete projects from Prefab using 400 mm hollow core slabs is the cultural centre called "Novo Ideas" with a total surface area of 3,600 m², which was constructed in just 25 days.



Several projects related to the construction of shopping malls, airports and logistic centres have already been designed on the basis of using these prestressed hollow core slabs with a height of 400 mm.

access for maintenance and cleaning operations, touch screen control panel for controlling the machine speed and the concrete compaction.

With a wide range of products, Prefab offers the best solutions in commercial and industrial construction, supporting its customers with a professional team that accompanies them through every phase of the construction process from the initial ideas to the specific construction solutions for the installation of the concrete elements.

Prefab is also able to meet other ongoing projects in Brazil. In fact with this kind of precast element it is possible to construct floors for different types of buildings. Large span 16 meter hollow core slabs with a load-bearing capacity of 500 kg/m² are possible as well as shorter 9 meter hollow core slabs, with a load-bearing capacity of 4,500 kg/m².

Hollow core slabs supplied by the Brazilian company Prefab are individually checked in order to avoid problems and to ensure the safety and efficiency during construction.

One of the complete projects from Prefab using 400 mm high hollow core slabs is the cultural centre called "Novo Ideas" with a total surface area of 3,600 m², which was constructed in just 25 days. This was made possible because of the flexibility of the hollow core slab construction system utilised by Prefab in these types of projects.

Engineers completed the project thanks to the advantages offered by the concrete hollow core slab system. The theoretical load bearing calculations were borne out in real life applications and this together with the thermal and acoustic insulation characteristics justify the claim that hollow core slabs are the perfect choice of a concrete element. ■

FURTHER INFORMATION

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