

Nordimpianti System Srl, 66100 Chieti (CH), Italy

Demand for precast buildings boosts hollow core floor slab production in the Greek market

Before the financial crisis of 2008 there existed only one hollow core production plant in Greece and this factor together with the use of the more favoured inverted double T-slabs limited the development and more widespread utilization of hollow core elements in the construction sector. Even this was brought to a near standstill as the aftermath of the crisis caused this one production site to close and hollow core slabs all but disappeared from the Greek market for almost a decade.

Slowly as the economic cycle gained momentum the Greek construction sector began to recover and generated a growing demand for multi-storey prefabricated structures, offices and logistic centres that needed to be built quickly, economically and in large volumes. Prefabricated hollow core slabs are a natural fit to meet these requirements due to the following:

- Modern plants using extrusion machines can produce elements in large volumes and with high production rates
- They are economical, requiring less material and labour to manufacture

- They are completely self-supporting and do not require any supports during installation.

Armos Precast S.A., a major company in the precast sector in Greece, was well aware of the advantages offered by hollow core slabs. Armos was founded in 1985 in the city of Larissa, located halfway between the capital Athens and Thessaloniki. Today the company is led by its founder Mr. George Orologopoulos and his children, Nikos and Vasiliki, both have management roles within the family business.

Armos employs over 270 people with production sites in Larissa, Athens, Crete, and North Macedonia. As the market leader in Greece's prefabricated construction sector, it is known for high-quality products and has contributed to major projects like metro tunnels, highways, and large-scale developments.

Armos has the capability to manage the entire production cycle, from design to turnkey assembly, using its own staff. Since its foundation, it has focused on the continuous improvement of production processes, using state-of-the-art



Aerial view of Armos production site in Larissa



EVO2 Extruder during the casting phase

machinery and equipment for a wide range of prefabricated products, such as:

- Hollow core floor slabs
- Complete prefabricated structural systems for buildings: beams, columns, double walls, preslabs, double tees
- Tunnel segments
- Railway sleepers
- Bridge beams
- Safety barriers
- Products for networks and utilities: pipes, box culverts, manholes, curbs, and pavement slabs
- Custom, on-demand products like facade panels, staircases, floating pontoons, and more

In 2022 Armos was heavily involved in a major project near the capital Athens. The client for the project, a paper manufacturer, specifically requested Armos to use hollow core slabs, both as floors for the office building and as roofing elements for the production area of the new plant. To complete the project Armos imported over 4,000 m² of hollow core slabs from Italy, supplied by a renowned manufacturer. More projects soon followed, with the company completing over 20,000 m² of buildings using imported Hollow Core Slabs of various sections.

Notwithstanding the fact that the work was completed in record time it became obvious that importing hollow core slabs was not a sustainable strategy due to distances causing problems with logistics and lead times and shipping costs eroding profit margins. The solution was to set up their own hollow core slab production facility.

The idea to have an in-house production capability had always been an ambition of Mr. George Orologopoulos but because of low volume demand and post crisis market uncertainties the decision was delayed until the time was right.



However, with the new generation joining the company and a growing construction market, the Orologopoulos family found new momentum and thus, the decision was made to install a new plant to produce hollow core slabs.



High quality of the finished product

Mr. Orogopoulos wasn't just looking for a supplier who could ship machines, his most important aim was to find an experienced partner who would be by his side throughout the entire process of implementing the new business and then beyond. After numerous trips around Europe to visit production plants and machine suppliers, Armos turned its attention to the Italian company Nordimpianti.

Visits to the headquarters in Italy demonstrated to the Greek company the professionalism and engineering that went into the construction of Nordimpianti's machines but it was the opportunity to see the machines in real time production that proved decisive. This came about on a visit to the Belgium company Fingo NV, to whom Nordimpianti had supplied two modern hollow core slab production plants equipped with latest-generation automatic machines.

During their visit to Fingo, Mr. Orogopoulos and his son Nikos were able to see for themselves the numerous technical advantages offered by Nordimpianti and were able to discuss the various stages of the production process directly with the Belgian company's technicians.

The decision to entrust Nordimpianti with the design and supply of the machinery was made in the summer of 2024 during a visit by Nordimpianti to Armos' headquarters. In March 2025 assembly of the production lines began in Larissa in accordance with the agreed delivery schedule. Testing of the machines took place in early May, soon followed by commercial production at the new, state-of-the-art plant.



The 500AM multi-angle Saw



Battery powered concrete bucket transport trolley



Utilising the starting plate at the beginning of the production bed to reduce waste

The production plant consists of five 100-metre-long production lines designed to meet a production requirement of approximately 600 m² of slabs per day in an 8-hour shift.

To produce hollow core slabs, Armos chose the extrusion technology supplied by Nordimpianti, characterised by innovative technical solutions capable of keeping maintenance costs low and ensuring a high level of efficiency during the casting phase.

Other ancillary machines were also supplied such as an angle saw capable of cutting elements up to 500 mm high, lifting beams, buckets for transporting concrete as well as other equipment used in the production process.

Nordimpianti also took care of designing the factory layout and the abutments, as well as providing consultancy services for the use of floor design software and production planning. This software was provided by the Belgian company i-Theses, which specialises in this field.



Hollow core slabs in the stockyard ready for delivery to site

The machine commissioning was successfully completed, and the initial floor slabs produced were utilized in a major project—a multi-level cold storage warehouse for Dianomefs, covering a total area of 10,000 m².

The introduction of hollow core slabs into Armos' product catalogue has enabled the company to further strengthen its market position and, at the same time, improve margins on slab supply and logistics.

Both Armos and Nordimpianti are well-established family-run businesses, a factor that has fostered a deep relationship founded on mutual trust. Both share an interest in maintaining an excellent reputation in their respective sectors.

With the launch of Armos' new type of floor slabs, new opportunities are set to open up for the company, which will continue to invest in additional automatic machines to improve efficiency and increase production capacity. ■

FURTHER INFORMATION

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