

Weckenmann Anlagentechnik GmbH+Co.KG, 72358 Dormettingen, Germany

Keegan Precast Ltd. in Ireland expands its product range with new circulation system

The established precast concrete part manufacturer Keegan Precast Ltd. with more than 120 employees is meeting the requirements of the market in Ireland and Great Britain with a further ultra-modern pallet circulation system. With the new production facility Keegan Precast Ltd. is reacting to the growing demands of its customers with regard to product variety, increasing quality, quantity and efficiency, and fast reaction times.

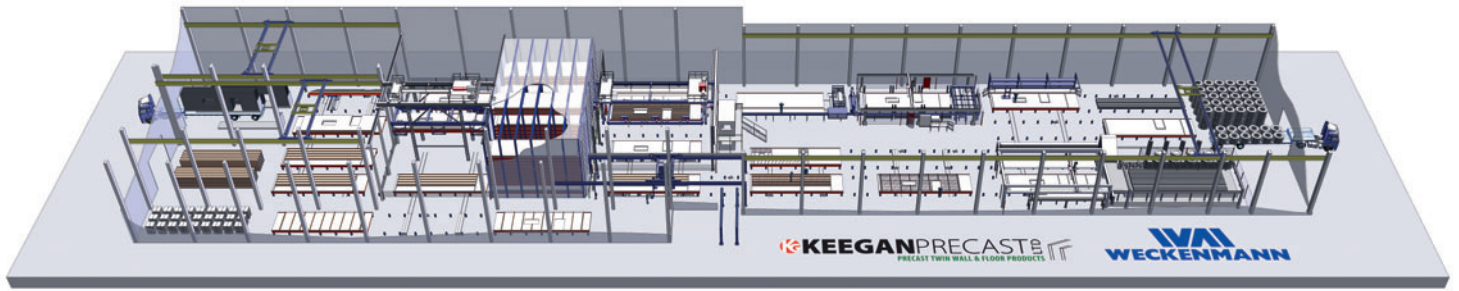
Keegan Precast was regarded until 2004 as a renowned operator of a limestone quarry, a manufacturer of hollow concrete blocks and a supplier of ready-mix concrete. In 2004 John Keegan, the owner of the company of the same name, decided to move into precast element manufacturing. Double walls and precast slabs with in-situ topping were already being produced in 2005 at his quarry site in Rathmolyon, Co.

Meath, Ireland on an automatic pallet circulation plant from Weckenmann Anlagentechnik GmbH & Co. KG. Whether in industrial or residential construction, Keegan Precast has proven to be a reliable supplier and partner of the precast industry in Ireland and Great Britain.

The market requirements, which had grown steadily over the years, led to the owner and managing director John Keegan deciding in 2016 to invest in a second pallet circulation plant. Together with the globally operative plant supplier Weckenmann Anlagentechnik GmbH & Co. KG from Dormettingen, Germany, which also supplied the first plant, an ultra-modern and very flexible pallet circulation plant was planned and installed on the basis of diligent market analyses and efficient team discussions. Precast concrete elements have been produced on the new plant as well as on the old plant since 2017.



The circulation plant at Keegan Precast in Ireland.



3D layout of the new plant

Keegan Precast's product variety was expanded beyond the tried-and-tested double walls and precast slabs with in-situ topping. Insulated/uninsulated double walls and precast slabs with in-situ topping are manufactured in top quality along with solid walls, sandwich walls, foundation slabs, beams or solid slabs.

Through the sophisticated plant concept with various offline workstations, Keegan Precast is also able to manufacture precast concrete elements as façade elements without slowing down the flow of pallets in the plant. Together with the ultra-modern machines such as concrete distributor, pallet turning device or storage and retrieval machine, this plant concept additionally allows orders to be executed at very short notice, irrespective of the end product.

The high-quality precast concrete elements are precisely shuttered in the new circulation plant by a fully automatic shuttering robot of the third robot generation from Weckenmann. Shutters for double-walls, precast slabs with in-situ topping and solid walls are manipulated by the shuttering robot at just one pallet position. Virtually the entire range of precast con-

crete elements can be covered by the sophisticated A-series and M-series shuttering system, thus reducing manual shuttering to a minimum. A fully automatic brick positioning robot can be even be retrofitted in a later expansion stage.

The plant controller and manufacturing processes in the circulation plant are controlled by the Weckenmann WAvision control system in close exchange with the CAD planning office at Keegan.

In parallel with the new plant, Weckenmann also carried out a retrofit of the old circulation plant. Here, too, the complete plant controller was brought up to date by Weckenmann and also supplemented by the WAvision master computer. Keegan Precast thus produces its precast concrete elements on two pallet circulation plants with standardised control systems.

The renowned and globally recognised plant supplier Weckenmann Anlagentechnik supplied everything from a single source and a further flagship project was implemented with this ultra-modern plant.



Machines for the surface finishing of concrete elements





Storage and retrieval machine / curing chamber



Pallet turning device

Facts about the new plant at Keegan Precast:

- 4 insulated curing chambers with a pallet capacity of 56 pallets
- Shuttering pallets measuring 3.8 x 14 m for high-quality precast element surfaces with edge shuttering on both sides
- Overhead storage and retrieval machine with vertical and horizontal withdrawal area for the precast elements
- Offline stations for the installation of insulation / form liners / bricks
- Fully automatic pallet turning device with mobile clamping arms for adaptation to wall thicknesses and insulation
- Fully automatic shuttering robot with shuttering transport system with cleaner/oiler for A-series and M-series shuttering system
- Manual shuttering places with offline stations for manual shuttering and the installation of bricks and form liners
- Concrete distributor with concrete compaction using noiseless vibration technology
- Complete circulation plant control hardware/software
- WAvision MES system for the organisation of the circulation plant technology

FURTHER INFORMATION



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Shuttering robot



Manufactured precast concrete elements with bricks.

PLANT DESIGN **MACHINERY** AT ITS BEST

We develop and build the matching plants and machinery for diverse production sites worldwide for the production of high-quality precast concrete parts. From fully automatic high-performance plants with robot technology through high-quality formwork to matching shuttering profile systems and magnets – everything from one source.



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