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

Machine technology for the new precast concrete plant of the Rector Lesage Group



Rector Polska is a subsidiary of the French group Rector Lesage with two sites in Poland. The Rector Lesage Group is a growing family-owned industrial group established throughout France and internationally (in Belgium and Poland). With almost 1,000 employees, 17 production sites and a turnover of more than 230 million euros, it has been one of the European market leaders in the production and marketing of structural elements (pre-stressed and reinforced precast concrete elements) for more than 65 years. Recently, new plant technology from Weckenmann was put into operation at the factory in Mszchonów.

Rector Polska started its activities on the Polish market in 2003. In November 2008, the first plant for the production of prestressed concrete beams was commissioned near Chrzanów, near Krakow, with machine technology from Weckenmann. In 2020, the second plant in Mszczonów (30 km from Warsaw) was put into operation with a mobile pre-silo, a concrete spreader and a transport drum for prestressing wires from Weckenmann.

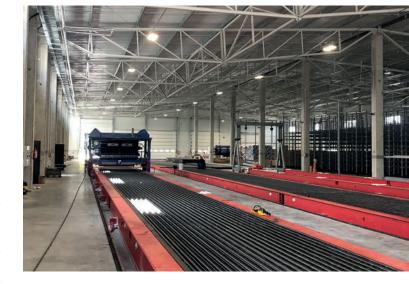
On a total area of 46,000 m^2 with a usable floor space of 4,200 m^2 and storage area of approx. 2 ha, prestressed floor beams of type RS 110 + RS 130 and PPR, as well as concrete lintels are produced on three production lines with a length of 80 m on the eastern side of the production hall.

In addition and in the western part of the hall, hollow blocks are produced and stored. Both plants are fed by a brand new mixing plant.

The building design uses environmentally friendly solutions, such as ecological heat sources (electricity and gas), selective waste storage that is safe for the environment, solutions that ensure no industrial wastewater is produced and innovative manufacturing processes that allow efficient material management.

Safe and accurate concrete distribution

The concrete spreader travels over the production lanes with the help of a gantry carriage. The hopper is dimensioned according to the production width of the lanes and is firmly mounted in the portal chassis. An e-motorised lifting and lowering extraction device, which is used for even filling of



View into the factory hall in Mszczonów in Poland

the girder moulds, is mounted on the concrete spreader. Two external vibrators are arranged on the device, the speed of which can be varied via a frequency converter. The machine concept allows an operator to safely and accurately distribute and discharge the concrete.

The pre-silo, which transports the concrete from the mixing plant to the concrete distributor, is also used for its transfer from lane to lane. For this purpose, the distributor is hydraulically attached, lifted and transported crosswise.

With the help of an electric motor-driven drum, up to 60 tension wires with a length of 84 m each can be drummed up and quickly placed directly back into the formwork. The device has a high dead weight in order to be able to absorb the tensile forces that occur.

Over the years, Rector Poland has received a number of prizes and awards for its products for the Polish market, especially for its own RECTOLIGHT system, an alternative to the classic slab.

Rector Polska has a team of over 70 employees and has been managed by Tomasz Chmielowiec, COO Rector Poland, since 2009.

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The transport drum for prestressing wires

With the second production plant in Mszczonów near Warsaw, Rector Poland can double its production capacity of prestressed beams and further expand its offer with new products, such as the production of hollow ceiling beams or prestressed lintels.

FURTHER INFORMATION



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The concrete spreader

