



Родничок

New ZENITH production line at
Company Rodnichok in Ukraine

The mobile multilayer machine Zenith
940 presents itself completely over-
hauled in model year 2009



New ZENITH production line at Company Rodnichok in Ukraine

Multilayer machine manufactures many types of concrete products

Text and pictures: M. Frerichs

Rodnichok, a Ukrainian company that has been doing business for over 10 years in the Chernovtsy region, manufactures a great variety of building products and exhibits a high degree of professionalism.

In this endeavor, General Manager Ivan Semenyuk relies on state-of-the-art production lines operated by highly motivated, thoroughly trained employees. Beyond concrete blocks, pavers and other products used in garden design and landscaping, the company also manufactures windows, doors, styrofoam panels, sandwich units and system components used for roof coverings. In total, ten different categories of construction products are manufactured at the Bojan site.

The manufacturing capacity for concrete blocks has been expanded by the installation of a new production line. The fundamental requirements determined for this investment included a cost-efficient production line offering a very high degree of flexibility and maximum availability whilst also complying with the exceedingly high quality standard implemented by Rodnichok. For this

project, it was very important to ensure a simple link to the existing concrete mixing unit. As the supplier of this production line, the Neunkirchen-based company Zenith was chosen, which has been manufacturing state-of-the-art block machines for over 50 years. At the very heart of this line is the Zenith 844 stationary multilayer machine. Over 200 systems of this type have already been installed worldwide. An extremely low capital expenditure, small footprint and a very high degree of production flexibility are some of the key benefits offered by this multilayer system, which has been improved continuously. In addition, only one machine operator and one forklift driver are needed, keeping the number of staff at a very low level. Further advantages include the low degree of maintenance and spare parts required. The machine is operated from a soundproof control room equipped with a state-of-the-art Siemens S7 control unit and visualization via a very user-friendly, self-explanatory, menu-based touch panel. Production parameters are entered and stored according to separate ma-

chine section visualizations. The touch panel is used to enter mix designs and machine parameters for most diverse molds and production schedules. The production line features a pallet magazine, a pusher conveyor for the pallets and a roller conveyor for the finished cubes.

As the biggest multilayer machine offered by Zenith, the 844 model has been mainly designed to manufacture concrete paving stones, curbstones and a large number of similar products used in garden design and landscaping in heights from 50 to 500 mm. The required constant stone heights are ensured by a twin-section vibration table and an individually adjustable frequency control for the vibrator drives. In this respect, it is also important that the molds be filled uniformly via an accurately routed filler car with adjustable scrapers.

In multilayer production, freshly manufactured products are stacked upon each other up to a defined cube height (640 mm) where the individual layers are separated from each other by a sufficiently high



Fig. 1: Curbstone production with the Zenith 844 on the pallet roller conveyor.



Fig. 2: Paving blocks manufactured on the Zenith 844 multilayer machine.



Fig. 3: Zenith 844 multilayer machine with soundproof control room.



Fig. 4: The Rodnichok site in Bojan, Ukraine.

layer of dry sand. The production process progresses as follows: A small lifting table takes up an empty pallet that is positioned precisely under the mold box and the mobile vibrating table. Once the mold has been filled, the vibration process starts. The fresh concrete products are demolded directly onto the pallet immediately after removal of the vibrating table. This process is repeated immediately thereafter, and the layers of fresh blocks are stacked upon each other. This cycle is repeated for as many times as needed to reach the maximum stacking height. Following this step,

the pallet with the product cube is automatically moved onto the roller conveyor. At the same time, a new pallet is moved out of the magazine and transported onto the lifting table via the pusher conveyor. A forklift transports the pallet with the layers of fresh concrete products into the curing area. At a later point in time, the cured products are stacked to create saleable units by means of a specially designed clamp, and packaged ready for shipping. The production line could be assembled and commissioned within a very short period. At Rodnichok, employees are enthusiastic about the

favorable cost-output ratio and the high degree of flexibility. Further benefits include the quick and easy cleaning of the machine and its low degree of servicing and maintenance. In this project, all quality requirements on the concrete products have been exceeded by a clear margin.

The design of the Zenith 844 multilayer machine enables an incremental upgrade to implement a fully automatic circulation system. In this respect, the Rodnichok management has indeed taken a future-proof decision by investing in this machine.

The mobile multilayer machine Zenith 940 presents itself completely overhauled in model year 2009



The high-performance and easy to operate control unit in Touch Panel execution is surely one of the highlights. Another improvement is the hydraulic control with proportionally controlled movements of the main axles. The application of digital path measuring is also possible.

The multitalent ZENITH 940 offers the widest range of production possibilities of all concrete block / paver machines currently available on the world market. The ZENITH 940 can be used as a universal machi-

ne as well as special machine for nonstandard products. It is an ideal machine to complete a single pallet plant as it allows economical production of niche products.

With the application of a ZENITH 940 you will always make the right choice.



CHAMPIONS MADE IN GERMANY

“Champions made in Germany” is a commitment by Zenith Maschinenfabrik to the industrial location Germany. All concrete block /

paver machines manufactured by Zenith are made of parts from in-house production and purchased parts made in Germany. “Cham-

pions made in Germany” are machines of highest quality and first class performance.