

Single Pallet Machine



Quick Mould-
changing System

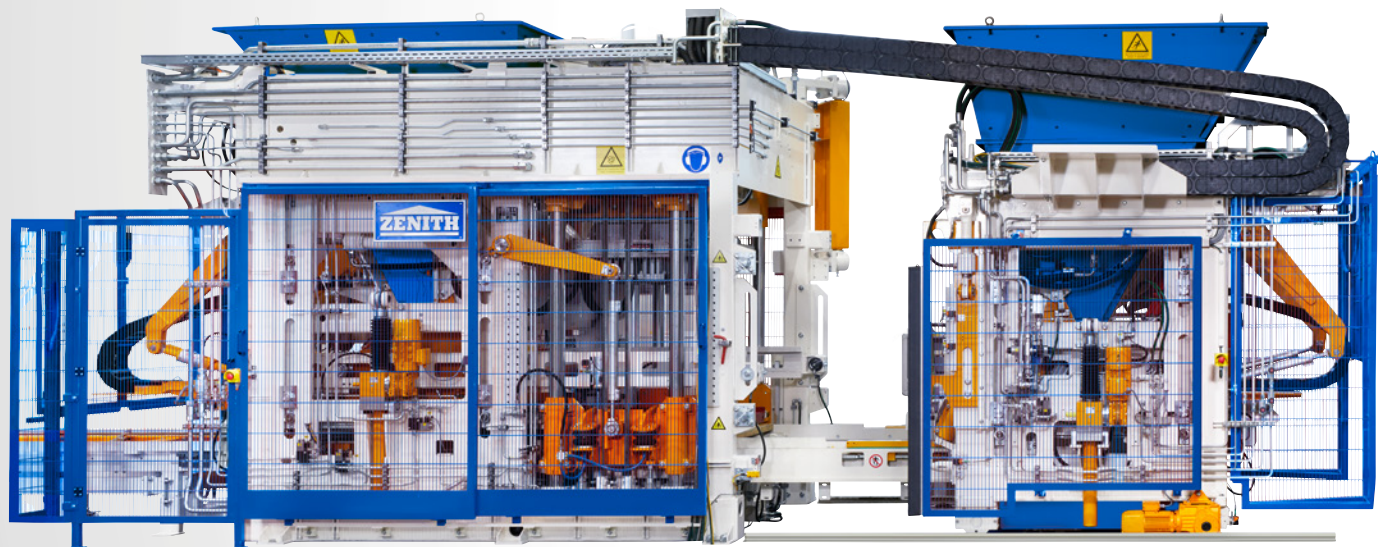


Intelligent
Interaction System

870

Fully automatic stationary Single Pallet Machine

870



Fully automatic stationary Single Pallet Machine

The development of the single pallet machine 870 is ZENITH's answer to the continuously increasing expectations in trouble free high speed production, permanent high product quality, product variety, best comfort in operation and easy maintenance of the plant.

Continuous research and development of highly stressed parts, the use of the well proven vibration system and a reliable hydraulic system are a few examples that are incorporated in this machine. Integrated in a fully automatic single pallet plant, model 870 will serve as a dependable production unit on the highest efficiency level.

Model 870 is designed for a comprehensive product range: all elements for horizontal and vertical market segments as well as landscaping with product heights from 30 to 500 mm can be produced.

The hydraulic system which was tailored for this machine cares for a smooth operation. Oil temperature regulation via sensor, automatic monitoring of the oil-level as well as the possibility of combining the pumps as emergency procedure are only a few advantages of this system.

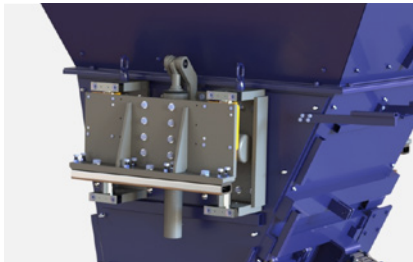
"Ultra Dynamic" stands for the modern ZENITH vibration system which uses a one-piece vibrating table, Together with the innovative hydraulic and electric controls, it provides for the fulfillment of highest quality standards worldwide. Extremely short setup times, fast cycle times and a sophisticated but comprehensible process visualization for user-friendliness complete the profile of this machine.

No matter if you start from scratch or want to integrate the machine in an existing plant, ZENITH experts will accompany you from the first idea to the production of perfect products. We will support you from the planning stage to supervision of production and offer teleservice as well as after sales service including spare parts supply.



Features

1



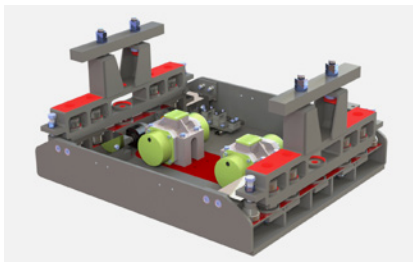
The height adjustable base mix hopper is a special novelty and was developed to significantly improve the quality of the concrete products. It helps optimizing the material flow and cares for an even distribution of material. In addition, the filling quantity in the feed drawer can be adjusted precisely and product-dependently.

2



The hopper flaps of the base and face mix hoppers are equipped with servo motors. This allows extremely fast opening and closing times. The result is an much exacter dosing. The advantage is a better reproducibility of the production process which further improves the high product quality.

3



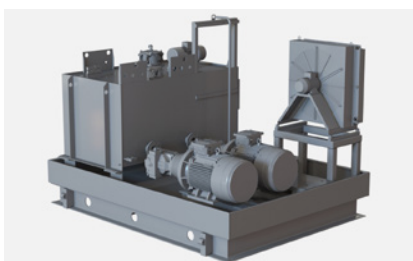
The main tamper head offers much more flexibility during production than common tamper heads. The number of rubber buffers can be selected freely. Furthermore, the main tamper can also be designed according to the connections of other manufacturers. These innovations make the production much more precise and reliable.

4



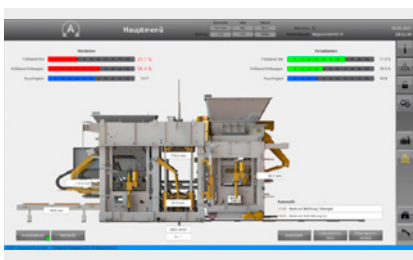
The vibration system with one-part vibrating table was further developed in cooperation with the RWTH Aachen. It achieves a high energy efficiency thanks to the optimal distribution of vibration forces. As this system works without oil bath and does not need additional air cooling, it is very eco-friendly and allows easy maintenance.

5



The machine works with two main pumps (capacity 270l/min) and two pressure accumulators for quick cycle times during regular production. In case of a pump failure, the machine can be operated with the second pump to avoid a production stop. The additional pump for setting mode (capacity 20l/min) guarantees for a safe limitation of speeds for the respective movements.

6

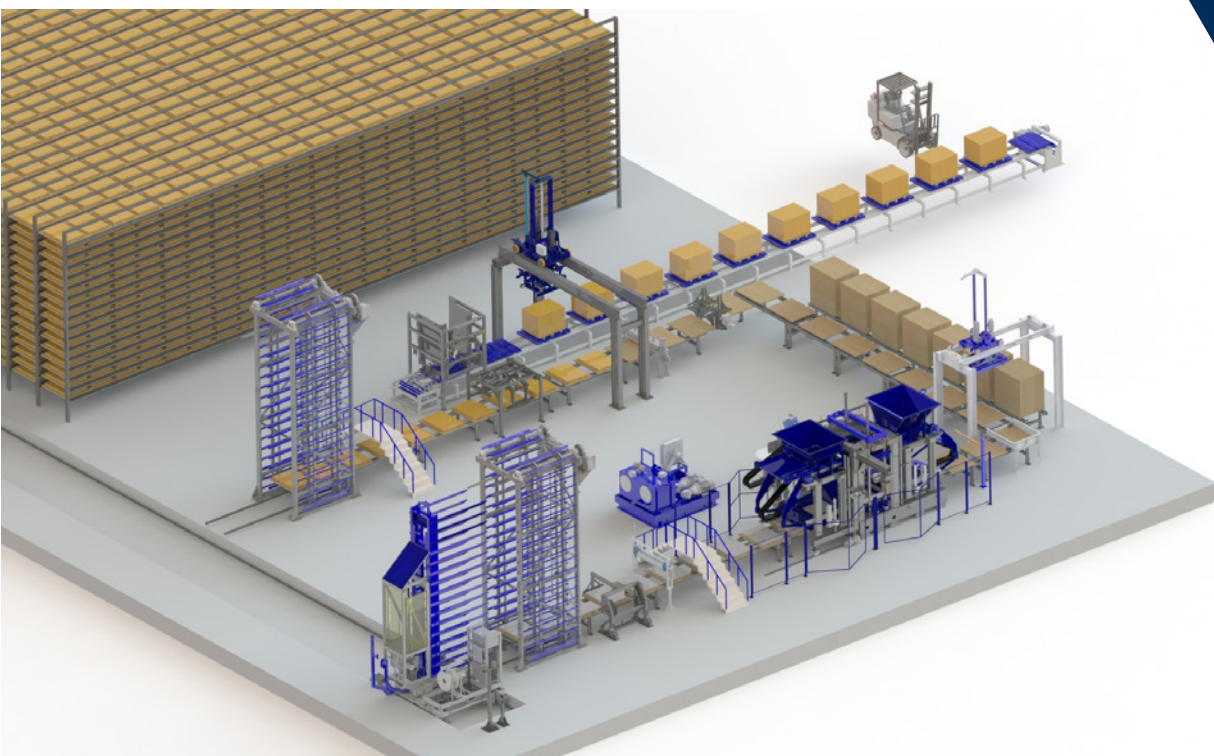


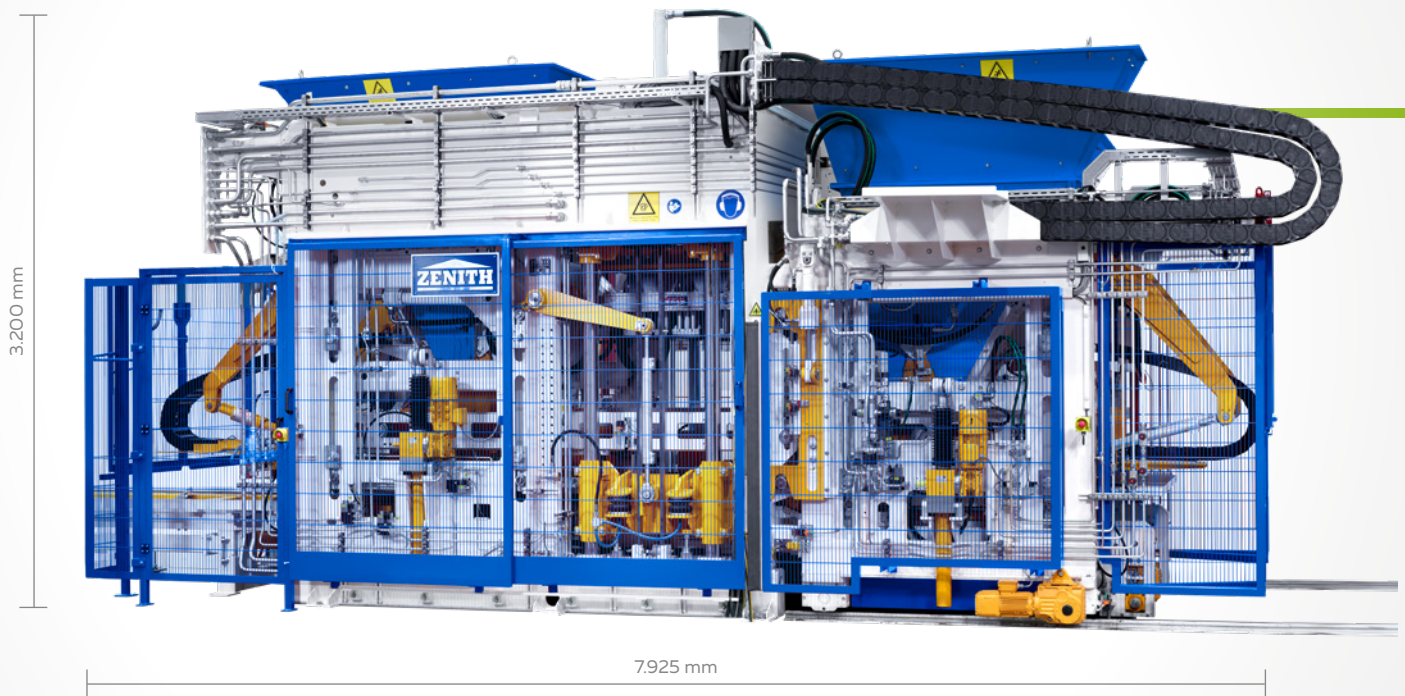
All main axes (tamper head, mould, feed drawer, filling grate) are designed as controlled axes in the TIA-portal. Therefore, external control electronics are not necessary. This system provides for exact and continuous positioning. The high precision of the repetitions in the production process guarantees for a constantly high product quality during nonstop production.

Examples of products



Layout





Technical details

Features

Features

Max. block height	500 mm
Min. block height	40 mm
Optional block height (min.)	30 mm

Pallet size

Standard	1.400 x 1.100 x 50 mm
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Different pallet sizes are possible

Back concrete hopper

Volume (geometric) max.	2.400 l
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Face mix hopper

Volume (geometric) max.	2.400 l
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Different hopper executions with draw plate or dosing flap for multi-color production are available.

The feeding height can be adjusted individually.

Machine weight

With face mix unit and mould	ca. 35.000 kg
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Machine dimensions

Max. total length with face mix unit	7.925 mm
Max. total height (transport)	3.200 mm
Max total width	3.100 mm

Machine data / Power supply

Vibration system

Vibrating table one-part, Ultra-Dynamic servo vibration with frequency and amplitude control (centrifugal force max.)	175 kN
2 tamper head vibrators (centrifugal force max.)	35 kN

Hydraulics

Capacity (total)	560 l/min
Operation pressure	
pump 1 machine	180 bar
pump 2 tamper head	200 bar
pump 3 setting mode	200 bar

Electrics

Connection power (standard) with face mix unit Installed power	ca. 310kW
Connection power	ca. 160kW
Fuse protection	315A
Supply line	4x 185mm ² alternatively 2x 4x 70mm ²

System Siemens S7-1500, TIA-Portal

Operation via Touch Panel

Technical details are subject to changes – without prior notice. Pictures of equipment shown are examples only. Photos may include options as per customer's demand.



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