

The new AAC plant generation: Squaring the circle?

The requirements for the “perfect” AAC production plant differ significantly around the globe. Some markets focus on highest possible production capacities for blocks, others prefer medium-sized plants for a production mix of blocks and reinforced wall elements. As a consequence Wehrhahn offers a wide variety of well-proven plant concepts to accommodate for all these different market requirements.

Despite there are some common trends all over the world. Customers ask for lowest possible energy consumption figures, compact plant design, utmost flexibility to produce a wide range of highest quality blocks and panels and all this at lowest possible investment. Do we seek for a solution to square the circle? Wehrhahn is confident that the latest plant generation covers all needs of customers in these different markets.

What is new?

Outstanding features characterise this “all-new” plant generation. The required factory space was reduced by 30 %. Intelligent newly developed electric control modules facilitate the highly feasible production process including self-managing machine control and predictive maintenance tools. The plants reach very high overall equipment effectiveness (OEE) figures and very fast possible cycle times of the individual plant sections.

Foundation pits could be reduced by 90 %

The factory is now installed on the floor. Previously some of the machines required deep foundation pits. By redesigning equipment it has been possible to eliminate almost 90 % of all previously required pits. This is now the standard for all newly supplied AAC plants by Wehrhahn.

For many years hydraulics were necessary for a reliable and safe machine operation. New developments in the electric drive systems led to a reduction of hydraulic components by 60 %. High performance electromechanical drives replaced the former hydraulics.

The cutting line is considered as the “heart” of an AAC production plant. The engineering teams did not stand still, but again deeply questioned and fine-tuned each single cutting machine. The uniform distribution of cutting wires in a very long cutting ma-



The first plant of the “new generation” has already successfully started operation

chine now reduces stress applied on the cake during cutting, in particular for very thin blocks and panels where many wires have to pass through the cake. The length of the thickness cutter has almost been doubled. The wires and knives are automatically cleaned to enhance the cutting surface and to obviate material sticking to the wire. Efforts have also been put on the side trimmer (cutting length and profiling). The machine is now equipped with a new "quick-change" cutting system and automatic knife cleaning devices.

Another important issue is the separation of blocks prior to autoclaving. The new AAC plant generation uses the proven Wehrhahn green cake separating technology. However, in order to add additional flexibility to the process, a brand-new unique intermediate curing station between cutting and separating has been developed. The curing station allows cake hardening prior to separating reducing the risk of unsightly marks on the AAC products and providing more flexibility for the hardness of the cake during cutting which finally results in a larger cutting window.

New super smooth surface cutter

A significant new feature is the implementation of a thickness cutter for super smooth surfaces. The Wehrhahn cutting line remains unchanged and can still be used for cutting of blocks and profiling of panels in upright position. The newly designed thickness cutter is installed near the second tilting machine. Instead of cake tilting onto the autoclave grid the cake will be picked up by the cake inserter and is put into the super smooth thickness cutter. The cake rests on a high precision cutting grid on top of the machine. The cutting grid can be changed depending on the required panel thickness. Cutting is done by two adversely oscillating cutting frames similar to those used in the cross cutter. The cutting

frames are installed vertically and move on a special linear horizontal guiding through the cake. For every cut two wires are used which are installed behind each other. The first wire cuts the thickness and the second one smoothens the surface. The result: a precise and super smooth panel surface.

Service and support is most important

State-of-the-art plant technology is the key for an efficient and feasible production process. Intelligent service and support tools complement the new AAC plant generation. Keeping the plant in best shape and to support customers in operating the plant is important and gets more and more in the focus of the clients not only looking for the best AAC plant, but also relying on best service.

The all new AAC plant concept will be presented during the bauma 2019 in Munich, 8th to 14th April. ●

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