

High-quality automated production through advanced technology integration

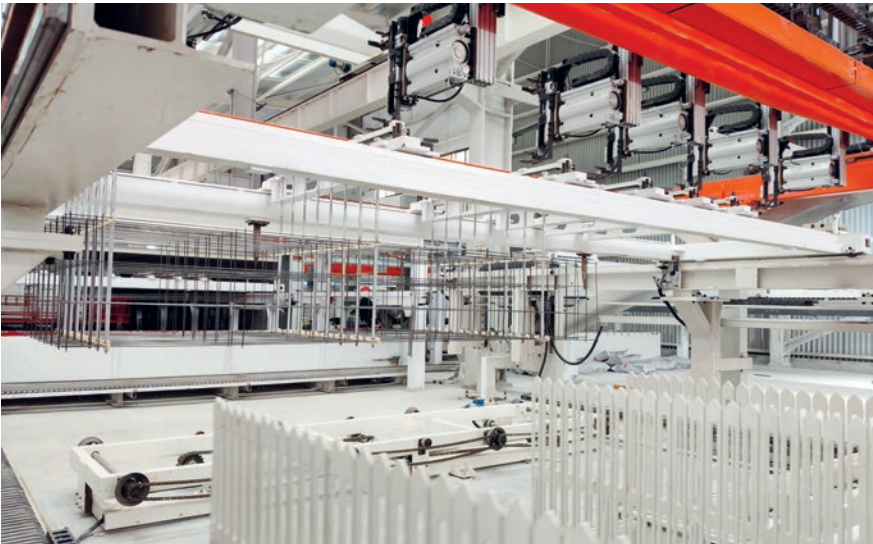
The Shaanxi Nitya New Materials Technology Co., Ltd. (Nitya) Project is a high-end production line born from the strategic partnership between Teeyer Intelligent and Nitya. This project integrates Teeyer Intelligent's latest R&D breakthroughs, including automated networking workstations and the integrated Horizontal-Autoclaving Green Separation System. Today, it stands as a national benchmark for the efficient and green production of high-end autoclaved aerated concrete panels.



Headquarter of Shaanxi Nitya New Materials Technology Co., Ltd.

Nitya, headquartered in Tiangong Second Road, Zhouling New Industrial Park, Qinhan New City, Xixian New Area, Shaanxi, has a registered capital of RMB 223.28 million and a total asset of more than RMB 2.5 billion.

Nitya currently has an annual production capacity of 40,000 precast concrete lining segments, 600,000 m³ autoclaved aerated (sand) concrete blocks and panels, 1.2 million prestressed concrete sleepers, 50,000m³ precast concrete PC components and 100,000 tons of dry-mixed mortar for AAC. With business coverage spanning the entire Northwest China, Nitya has built a strong and influential presence within the industry.



Automatic networking workstation

Partnering with Nitya, Teeyer Intelligent successfully delivered and commissioned its 10th production line in October 2025. Throughout the entire project lifecycle, from initiation to stable operation – Teeyer Intelligent maintained a strong on-site presence, closely collaborating with the Nitya team to refine process flows and oversee installation and commissioning. Backed by professional technical expertise and high-efficiency execution, the project was advanced smoothly and brought to a successful conclusion.

Transforming manufacturing with next-generation technology integration

Backed by a total investment of RMB 120 million, the production line adopts Teeyer Intelligent’s cutting-edge automatic control systems and eco-friendly manufacturing technologies. By integrating core technologies and processes – including automatic networking workstation, green separation, horizontal autoclaving, and servo horizontal cutting – the project achieves efficient, stable, and high-quality automated production.

Jutone automatic networking workstation

In the Nitya project, the automatic networking workstation has fully demonstrated its technological advantages in practical operation. It has significantly improved production efficiency, ensured stable and reliable operation, reduced production costs, and enhanced overall safety – delivering tangible benefits to the enterprise.

As a high-efficiency solution for the AAC production industry, Jutone automatic networking workstation effectively addresses the long-standing challenges of traditional manual networking, including low operational efficiency, high labor intensity, and elevated overall operation and maintenance costs. Through technological upgrades and process optimization, it not only substantially boosts operational efficiency but also significantly reduces labor and workforce management costs.

This workstation is equipped with multiple functions, including automatic feeding of clips, automatic grasping and positioning of frames, automatic frame



Servo horizontal cutting machine

changing, automatic clipping, automatic circulation of mesh panels, and automatic mesh weaving. It is compatible with all types of clips and mesh panels, thereby achieving full automation throughout the entire mesh weaving process.

Furthermore, the workstation utilizes a variety of artificial intelligence algorithms and incorporates multiple robotic systems, including Scara four-axis robots, vision-based imaging systems, automated precision picking systems for randomly arranged materials, and automated material distribution technology. It also integrates various control systems and advanced algorithms.

Depending on the configuration, the system may additionally include automatic bit changing, automatic dust removal, and oil application for steel bits, enabling comprehensive automation in networked operations.

With continuous process iteration and ongoing optimization of equipment and control systems, the efficiency of the steel mesh installation process has been further enhanced, driving notable improvements in overall production line performance and operational efficiency.

Servo horizontal cutting machine

Teeyer Intelligent's newly developed servo horizontal cutting machine has been successfully applied in the Nitya project. It can automatically identify cutting parameters, determine product specifications, and accordingly match and accurately adjust the

cutting position of each steel wire. At the same time, it can set the dimensional loss compensation during the steel wire cutting process, significantly improving the product dimensional accuracy, providing solid and reliable assurance for the quality of Nitya's AAC panel products.

Teeyer Intelligent servo horizontal cutting machine is capable of automatically switching cutting steel wire positions based on real-time production information, enabling flexible manufacturing of blocks and panels with different specifications. This intelligent adjustment considerably improves operational efficiency while greatly reducing dimensional deviations caused by manual wire hanging.

During operation, the machine is equipped with automatic steel wire cleaning functions to ensure stable cutting performance. In the event of wire breakage, an instant alarm is triggered, effectively minimizing unnecessary material loss and continuously safeguarding product quality throughout the production process.

Horizontal-autoclaving green separation system

Integrating horizontal-autoclaving green separation system, Teeyer Intelligent's latest system effectively resolves the adhesion challenges of traditional vertical autoclaving. In the Nitya project, this breakthrough has effectively lowered wastage and achieved a demonstrable increase in both throughput and yield.

From the independently developed green separation technology to today's dual-direction green separation system, every iterative upgrade reflects the profound expertise and relentless exploration of the R&D team.

By intelligently adjusting the separation support positions, the first-generation green separation technology achieves high-precision separation of green cakes. Combined with a real-time quality inspection system, it effectively resolves long-standing industry challenges associated with traditional processes, such as green cake adhesion and product damage.

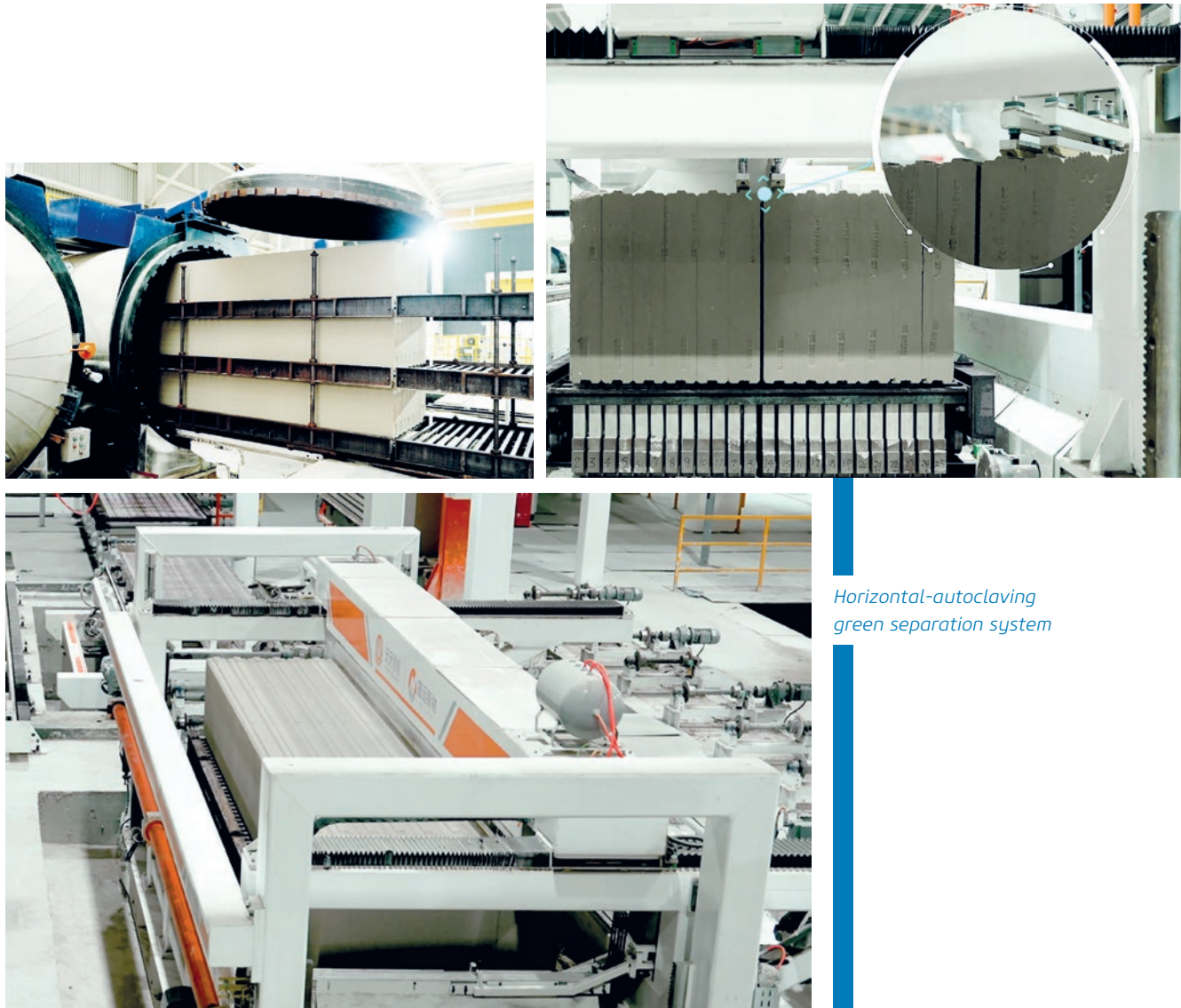
At the same time, the vertical cutting and horizontal steaming process has been further optimized, improving the product qualification rate and delivering a more efficient, stable, and reliable production solution for customers.

This technology has been successfully implemented in the Zhejiang Rongsheng project, representing Teeyer Intelligent's first flat-steaming green separation production line.

Furthermore, its successful application in the Thailand Diamond project marks the first overseas deployment of Teeyer Intelligent's green separation technology.

As Teeyer Intelligent's latest R&D achievement, the second-generation dual-direction green separator represents a major leap forward built upon the technological foundation of the previous generation. Compared with the traditional single-direction green separation solution, the operating speed has been increased by 60%.

Both the upper and lower separating devices utilize servo control, which has the characteristics of fast response speed and high positioning accuracy. The



Horizontal-autoclaving green separation system

separating block has intelligent selection and combination functions, which can adapt to the separating of blocks and panels with a minimum size of 40mm.

In addition, the system is equipped with a newly designed cleaning device, which can keep the support surface clean at all time.

This advanced system is set to make its first application in the Starken project in Malaysia, marking another milestone in Teeyer Intelligent's ongoing innovation in green separation technology.

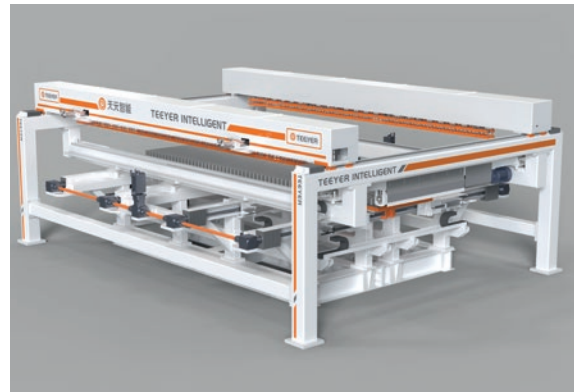
Teeyer Intelligent provides full lifecycle solutions for AAC production lines, covering market research, raw material testing, customized process design, installation and commissioning, as well as after-sales maintenance and service.

At present, its core products – including the smart palletizing and logistic system, intelligent cutting system, flexible segmentation system, and MES system – have all undergone comprehensive upgrades and iterations.

These advancements deliver significant performance improvements in precision control, intelligent operations, and production efficiency. Leveraging enhanced technological capabilities, Teeyer Intelligent empowers customers to build greener, smarter, and more efficient production systems, while continuously to lead the way in the intelligent and green transformation of the AAC equipment industry. ●



The first generation green separator



The second-generation dual-direction green separator



Finished product yard, Nitya project



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