

Complete production plant solution – a new AAC plant in Turkey

As a leading AAC plant solution supplier in China, Keda Suremaker stands for holistic solutions when it comes to raw material analysis, plant planning, R&D, manufacturing, construction guidance, production management, training, and marketing. With a profound understanding of the importance of project-related customer service, Keda Suremaker has been successfully facing global challenges even during the COVID-19 pandemic. During recent years, Turkey has emerged as one of the fastest-growing economies in the world, and its booming economy has promoted the sustained and rapid development of the national construction industry. The construction market is showing a strong vitality and demands more eco-friendly, efficient and energy-saving building materials. With the advantages of lightweight construction, environmental protection, easy installation and other characteristics, AAC products stand out from other building materials and are trending with regards to high construction standards and high quality.

Operating under Gemikaya Holding, Arkoz Gazbeton first developed an interest in AAC projects in 2017. Gemikaya Holding has always been devoted to producing quality products and services to activate local resources and reduce the dependency on foreign markets. The company considers research and knowledge development as their social responsibility towards respecting human-oriented environmental

values. With its strong investments, Gemikaya Holding is moving forward to become an important player in the construction materials industry. Adhering to their company vision, they are very careful in selecting their business partners. Their key considerations include a high degree of automation, smooth process production technology, understanding of AAC products, project services, and branding.

Overview about the new AAC plant at Arkoz Gazbeton





The cutting system runs fully automatically

“When we first came into contact with Arkoz, they were already in consultations with various machinery suppliers from around the globe but at that time the project did not progress. In March 2019, we arranged a team of experts including our CTO and MD-assistant to visit Arkoz in Turkey for the first time. The exchange of technology and the planning of the future market have enabled the teams of both sides to reach a consensus. As the Vice President of the China Aerated Concrete Association, we have edited many National AAC standards and Industrial Standards over the years. In China, hundreds of successful projects were implemented by our skilled team using our technical know-how on AAC construction projects. This has created customers’ confidence in starting AAC projects with us. After our return to China, we kept close contact with Arkoz on technical and business-related matters”, Mr. James Lee recalled, Overseas Sales Director of Keda Suremaker.

After seven months of careful investigation, the Arkoz team visited China and during that time both parties developed the detailed scope of the contract. Finally, Keda Suremaker impressed Arkoz with

its technical advantages in equipment technology, reliable project service capabilities, and flexible financial policy.

“A simple equipment supplier is unable to meet customers’ requirements. In addition to the high-quality equipment, project service and flexible financial solutions are becoming increasingly important. We offer much more in addition to production equipment of high quality, to make sure that the customers’ success is at our core value”, states Mr. Chadwick Chen, MD of Keda Suremaker.

In January 2020, the Arkoz project contract came into force. However, the sudden outbreak of the pandemic posed a huge challenge to the manufacturing industry in China especially in the first quarter. To ensure the delivery as best as possible, the engineers of Keda Suremaker designed drawings at home and checked them online together. The administrative department submitted the company’s pandemic prevention and control regulations to the government and subsequently Keda’s factory resumed work through multiple shifts, reaching optimum



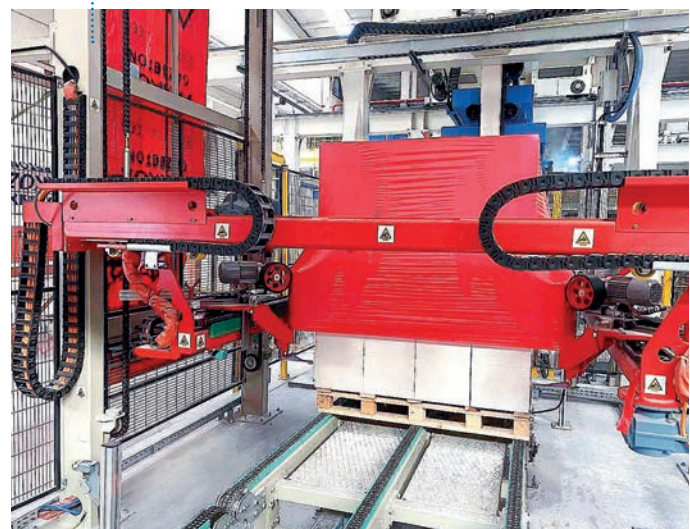
Packing section - clamping machine

productivity. Considering that the customer could not come to China for inspection and ex-factory commissioning, the Keda team facilitated the process of commissioning through online conferences and recorded videos.

Finally, the first shipment of equipment from China started early May 2020, and the last batch of equipment was shipped in August of the same year. During that time, the pandemic spread all over the world



Packaging section



and Turkey was also facing great challenges. Arkoz and Keda were both keen to establish a successful start-up; the civil construction works were about to be completed after many days of hard work. In order not to delay the installation progress, the Keda Suremaker project services team arrived at the project site in August 2020. However, due to the outbreak of Covid-19, there was a shortage of workers and priority was given to update the working plan according to the actual human resources situation. The project manager, Mr. Sean Yu, developed solutions for the on-site work for the entire project and refined it into a complete standard, which was then communicated with Arkoz. Based on great efforts on both sides, the normative standards for the project were then established and the installation work was systematically carried out. When the project entered the commissioning stage, the project manager introduced the characteristics of each piece of equipment and presented the follow-up commissioning plan to the Arkoz team.

In addition to local services, the Keda Suremaker technical team of the Process Experimental Center also provides remote online guidance for issues related to raw materials and production processes. In January 2021, the first mould for AAC block production for the Arkoz project was successfully produced. The project was officially put into operation on the first of March 2021 and the Keda project manager remained in the plant until April for local training and operation management guidance.

“During the process of project implementation, the support of each department of our company and the experience of the team are very important. We really appreciated the understanding and hard work from our customer and their local work team. It is commendable work during such a difficult time, and we do it together”, Mr. Sean Yu said, the project manager from Keda.

Facing the great challenge of the pandemic, Arkoz and Keda Suremaker built a high standard of the modern high-end AAC production line in Samson, Turkey. The new plant has now been fully completed and commissioned, and the annual production capacity reaches 450,000 cubic meters. A panel production section is reserved for the future. The cutting system in the plant can cut six sides of the green cake and can automatically process the grooves on the green cake before autoclaving for panel production. The processing waste can be recycled through a cutting pit by the slurry recovery system. The grooving of green cake can greatly improve the production efficiency of panels and reduce the investments for equipment and construction of the white cake processing section. This also minimizes waste, noise and dust pollution caused by the white cake processing.

For the complete AAC plant solution, Keda Suremaker can offer a complete project service roadmap dividing the entire project into four parts:

Part 1: Planning and design

- Organize an expert team to visit the project site and plan the whole plant layout according to the land situation and raw material resources.
- Configure the corresponding equipment scope and investment overview according to the expected capacity and the level of automation.

Part 2: Production and logistics

- Develop a reasonable manufacturing plan to ensure reliable delivery.
- Provide various optional packaging and logistical solutions in relation to project-specific requirements.
- Ex-factory commissioning of all the main equipment to ensure reliable quality.

Part 3: On-site installation and commissioning

- Appoint an experienced project services team to attend the local site before the first batch of equipment arrives at the site. Cooperate with the site construction team to make sure that the project progresses smoothly.
- Provide complete support for conceptual planning, equipment installation, electrical commissioning, and process solutions. Besides the local service team, the online remote service team is always on call.

Part 4: After-sales and training

- Provide training and consulting services to customers throughout the project's full life cycle, including but not limited to equipment operation, safety guidance, equipment maintenance, and process FAQs.
- The Keda Suremaker Engineering Service Center is responsible for spare parts and after-sales support to ensure that after-sales needs can be met at any time.

Arkoz and Keda were both keen to establish a successful start-up; the plant was put into production successfully in March of 2021





"We are pleased to work with Keda Suremaker. Keda is not only a simple equipment manufacturer, but also a solution provider for the assessment of raw materials, plant design, guidance, commissioning, training and other services to ensure the success of the project. Compared to the traditional red clay brick, AAC products have more advantages. In addition to the surrounding Samsun region, we will also sell our AAC products to Istanbul. On the international market, we have exported our products to Georgia and plan to sell them to European countries in the future. Arkoz will also continue to work with Keda Suremaker on the existing basis to expand the future product range to AAC panels", Dr. Cengiz ÇELİK mentioned, the MD of Arkoz.

About Arkoz

Arkoz Gazbeton, which operates within Gemikaya Holding, produces AAC products in the most innovative and modern facility of the sector in the district of Samsun. Gemikaya Holding, which operates in different fields in countries such as Turkey, Georgia, Azerbaijan, Nakhchivan, Czech Republic, Ukraine and Belarus, is an international conglomerate. AAC products can contribute to earthquake resistance with their lightweight properties and are easy to process and friendly to the environment and human health. Arkoz, which adopts the principle of being a leader in the field with its innovative solutions, environmental and human-oriented approaches, aims at being a pioneer in AAC technology both in relation to product quality and provision of customer services. Being customer-oriented is part of Arkoz's corporate culture. Arkoz will continue to provide sustainable building solutions with its high-quality products all over the country, taking strength from the support of its widespread network of representatives throughout Turkey.



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