



Vinamilk's mega dairy is a fully automated UHT factory, using some of the most advanced solutions in the world from Tetra Pak.

STATE OF THE ART

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Photos: Tetra Pak, Istock.com



The Vietnam Milk Factory is the most advanced plant in automation and integration that Tetra Pak has ever built.

ALTHOUGH THE AVERAGE VIETNAMESE still prefers to drink beer, tea or coffee, consumption of liquid dairy products is increasing by double digits in Vietnam, a country with about 93 million people. But Vinamilk, the largest dairy company in Vietnam, is outperforming the market. Between 2008 and 2015 the company's revenues had a double-digit average growth, in some years showing a growth rate of nearly 40 per cent. According to Kantar World Panel data released in 2015,

Vinamilk is the country's number one brand within the dairy sector, with a penetration rate of 97 per cent in urban areas. And there is still room for growth, since penetration is 70 per cent among the 62 million Vietnamese living in rural areas of the country.

Since the company has an ambition to conquer the global market and secure a place among the world's Top 50 largest dairy companies, Vinamilk decided to build a major dairy in the Binh Duong



CASE

“This new plant has laid a solid foundation for Vinamilk to become one of the world’s top 50 dairies.”

MAI KIEU LIEN



Province. The company’s ambition with the mega factory was very clear: to have the most modern UHT plant ever built. Vinamilk assigned Tetra Pak to build it, convinced of the company’s total plant capability.

“From our very first meeting, Vinamilk made clear they wanted outstanding service, premium quality and the very latest in processing and packaging technology,” says John Koch, Plant Sales Coach Tetra Pak Processing Systems.

In July 2010 Tetra Pak partnered with Vinamilk to design, supply and manage the implementation of the greenfield UHT plant, including processing equipment, packaging lines and a plant integration system. “Close cooperation between the two companies is key to the success,” Koch says. “Collaboration took place on all levels, from managing directors to engineers.” Such cooperation is only possible when the relationship is more of a partnership. Vinamilk clearly sees the benefits of Tetra Pak’s approach, which is built on three pillars: to fully understand customer needs, understand the business and understand the importance of the relationship itself.

AN EXAMPLE OF the intimate relationship was the joint team of eight to ten experienced engineers that worked with the initial engineering. “We worked closely together on a pre-project study,” says Koch. “This collaboration was essential for our understanding of the customer’s needs, strengthening our relationship and finding the best way forward together,” he says.

The new factory, located in the vicinity of Ho Chi Minh City (Saigon) in Binh Duong Province, is a wonder of state-of-the-art dairy technology.



The advanced and fully automated UHT milk factory in Binh Duong is a testament to Tetra Pak’s best knowledge in dairy and beverage production.

It is a palace of pipes and machines in shining stainless steel. Here, the most efficient equipment has been installed, production planning results in maximum utilisation of raw material, low losses and low utility consumption and, consequently, low environmental impact.

The plant covers an area of 200,000 m², is designed to receive 80 tonnes of raw milk per hour and processes 400 million litres of milk per year. In order to produce more than five million packages per day of fresh milk, drink yoghurts and chocolate milk a number of advanced machines, systems and components are used.

Tetra Pak’s broad product range and vast knowledge come to full use: milk reception, pasteurizers, mixing units, aseptic tanks, UHT treatment units and cleaning-in-place units. More than 20 processing modules are used. Carton packages



ong Province is a clear example of Vinamilk's hunger for the lat-

BENEFITS WITH THE SOLUTION:

- Integrated plant with automatic control from inlet to package. The automation of a large number of actions in the plant minimises human errors and mistakes.
- Environmental friendly. Sustainable solution with full traceability. Efficient use of valuable raw materials and recovery of product minimises waste and environmental footprint.
- Uncompromised food and equipment safety.
- Through efficient production planning, optimal recipe handling, optimal use of equipment (OEE), thorough product tracking to minimise returns, etc. Vinamilk makes substantial savings each year.
- The plant produces five million packages per day.

VIETNAM'S LARGEST DAIRY

Vinamilk is the largest dairy company in Vietnam. When the war ended in 1976, Vinamilk was established and received government support to become the first big dairy manufacturer in Vietnam. Since then, it has developed its own corporate culture with high employee engagement, building a level of experience that no other domestic player can match. Vinamilk products are exported to more than 30 countries, including the Middle East, Australia, USA, France, Canada, Poland, Germany and many countries in Southeast Asia.

are filled with the processed dairy products on 17 packaging lines. Fifteen unmanned laser-guided vehicles move packaging and products around the factory via Wi-Fi instructions.

THE BRAIN OF the plant is a Tetra Pak's automation system that lets Vinamilk run and control the entire plant from reception of milk to distribution. All production equipment is connected, so that the individual units can communicate with one another. It makes production cost-efficient, safe and repeatable. It also increases reliability, minimises human error and makes products fully traceable. Vinamilk can monitor and control quality continuously while minimising the consumption of water, energy, packaging material and the milk itself. Furthermore, automation enables production scheduling, which prevents unplanned downtime.

At the inauguration of the factory in September 2013, Mai Kieu Lien, Vinamilk's Chairwoman and General Director, praised the facility: "Vinamilk's mission is to provide world-class quality milk products at an affordable price. This new plant has laid a solid foundation for Vinamilk to achieve our goals and become one of the world's top 50 dairy companies." ●

MORE INFO:

www.vinamilk.com.vn

www.tetrapak.com/processing/automation

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