

PRESS RELEASE

Since its establishment in 2003, Santao has become one of the leading enterprises in China's frozen food industry by virtue of its unique advantages: an ecological base, professional management mechanisms, advanced automatic fruit and vegetable processing lines, and strict implementation of GFSI, BRC, GAP, GMP and HACCP.

As the frozen food industry has developed rapidly, higher requirements have been placed on participants. Santao chose TOMRA as its partner to upgrade production line automation to ensure quality, improve product value, and build its brand with cutting-edge technology.



Labor challenges during frozen food's explosive growth period

Santao was one of the first enterprises engaged in the frozen food industry in China. In the 1980s and 1990s, when frozen and refrigerated food was in an emerging phase, Santao took the lead. With the increasing perfection of cold-chain logistics, the continuous improvement of refrigeration technology, and the popularization of frozen food, Santao's frozen food

business ushered in a period of explosive growth. Yet at the same time as a great opportunity, labor has posed a challenge.

Before Santao's production line was upgraded, it was completely manual, which inevitably had limitations when dealing with large or emergency orders. Due to the strong seasonal characteristics of fruit and vegetable processing, recruitment of workers has become a major difficulty. In addition, the insufficient availability of labor would be even more of a challenge when expanding capacity at the new plant.

In order to solve this labor challenge and find a solution for processing more than 10 food varieties - such as spinach, green beans, diced onion, strawberry, soybean/kernel and sweet corn - Santao researched much food processing machinery and equipment, both at home and abroad.

After detailed investigations and site visits, Santao found that most excellent frozen vegetable exporters in Shandong Province had equipped their production lines with TOMRA automatic sorters.

Following comprehensive consideration of technologies, return on investment, and other factors, Santao decided to select the TOMRA 5B as the "guardian" in the sorting stage of its production line.

"With completely manual sorting, capacity was limited and unstable, but TOMRA sorters provide us with a perfect solution. The low rate of false rejects from TOMRA's equipment has reduced the waste of raw materials and improved the yield," affirms Zheng Jintao, President of Shandong Santao Food Co., Ltd.

Expectec surprises from production line automation

Since the TOMRA 5B sorter was put into operation, the labor force has been reduced by about 80%, yet packhouse capacity has tripled, enabling Santao to take leaps in efficiency, quality, and yield.

Santao currently produces about 10 different products of quick-frozen fruit and vegetables. Each product has its own characteristics and sorting priorities, but the universality of TOMRA's equipment ensures the stable and efficient operation of Santao's production lines.

The TOMRA 5B sorter rejects foreign objects and product defects, and takes care of quality grading, for spinach, soybean, soybean kernel, shelled corn, diced strawberry, and other

foods. It is a great advantage that operators can quickly and easily set tailored sorting programs and parameters on the equipment for different food applications.

“Products sorted by the TOMRA 5B have very good and consistent quality. The customer complaint rate has dropped significantly. According to current use, this sorter should pay for itself in about two to three years. It is a wise investment,” said Zheng Jintao.



Build quality fortress with technical superiority

The TOMRA 5B sorter is designed to improve production capacity, food safety, and product quality. Equipped with an advanced algorithm and 360° camera for all-round hexahedral stereoscopic detection, it not only accurately removes foreign objects such as glass, metal, stones, plastics, stems and insects, but also identifies defects in soybeans such as different colors, dried beans, lack of kernel, single grain, fractures, plus insect attack, rust and damage.

By combining high-resolution color camera and multi-laser technologies, the TOMRA 5B can identify foreign materials such as thin and transparent glass, plastic film, and objects the same color as the product, which cannot be effectively identified in color sorting, shape sorting or by metal detection and X-ray machines. This precisely controls product quality, ensuring it stays consistent even when the quality of raw materials is uneven.

As explained by Zheng Jintao: “With its cutting-edge technology, TOMRA’s sorter can

identify foreign objects and product defects that are invisible to the naked eye and easily ignored, boosting the quality of finished products and keeping this consistent, which is in line with our strategic market positioning. We will purchase more TOMRA sorters as we further expand our production capacity in the future.”

In accordance with the latest food hygiene standards and requirements of European and American countries, TOMRA’s equipment is designed to support whole-machine cleaning. This prevents cross-contamination and microbial hazards during food processing.

Quality service enhanced by local spare parts store

Zheng Jintao highlights that TOMRA has conducted intensive studies on all kinds of sorting challenges in the whole process, from planting to delivering products to consumers, so as to customize solutions that meet or exceed market expectations - and this makes TOMRA an ideal automation partner.

TOMRA’s strong global service network and fast local service response reassure Santao. By establishing a project communication group and remote technical support system, and by offering remote video-link after-sales service, TOMRA’s technical specialists can control the equipment remotely, perform troubleshooting promptly, and give operation guidance if needed. And thanks to TOMRA’s well-stocked local spare parts store, Santao now operates with steadily running production lines and healthy capacity growth.