



# Higher value creation using an in-house packaging procedure

“ *The Chinese Agribusiness Company Qingdao Chia Tai Co. Ltd., Which is Part of Thailand’s Largest Agribusiness Conglomerate Charoen Pokphand Group (Cp), Ordered its very first Thermoforming Packaging Machine from MULTIVAC.* ”

Poultry was long considered a luxury product in China and was only eaten on special occasions. However, over the last three decades, the per-capita consumption increased from one kilogram to nine kilograms per year, as the American Institute for Agriculture and Trade Policy (IATP) reports. The majority is produced locally: In 2011, China became the world’s second largest producer of poultry, behind the United States. An increase in purchasing power, the growth proportion of women in the workforce and urbanisation are a few of the socio-economic factors playing a role in the booming demand for poultry products. Although many people still prefer to purchase their poultry at the traditional “wet markets”, or live-animal markets, there is a growing shift. People are beginning to shift to traditional markets due to the growing health risks involved with the “wet markets”. This means the demand for convenience products with hygienic packaging and

considerably longer shelf lives is growing in China. “The trend is moving towards packaged, ready-to-eat foods and convenience foods, particularly in the cities. The consumers’ awareness of quality and brands is also increasing,” reports Julia Wu, Marketing Manager from MULTIVAC China.

## Annual production volume of 50 million chickens

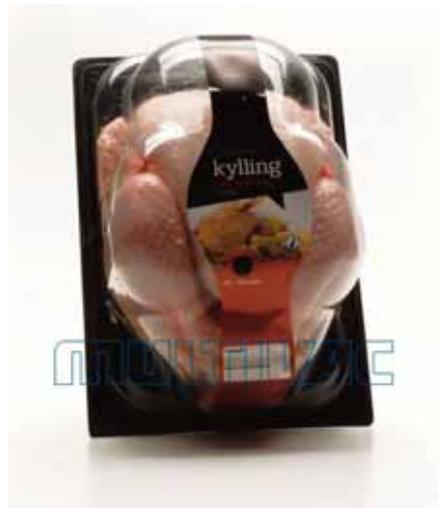
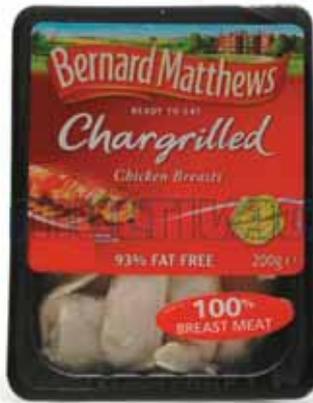
Qingdao Chia Tai Co. Ltd., a modern agribusiness company founded by the well-respected Chia Tai Group in 1989 in the harbour city of Qingdao (Shangdong province) is also profiting from this consumer trend. Like many producers of chicken meat in China, Qingdao Chia Tai covers the entire production chain – from the production of feed to rearing the chicks, with its activities also extending to industrial processing, packaging and sales. The company’s annual production totals around 50 million chickens.

The products available under the Chia Tai brand name include fresh, frozen and pre-cooked chicken in a diverse range of pack shapes and pack sizes. High in protein, lean and free from chemical additives, they are popular among consumers all over China.

However, Qingdao Chia Tai not only distributes its products on the domestic market, but also caters for large, internationally active fast food and supermarket chains such as Lotus, Carrefour, RT-Mart, Wal-mart and Liqun Group. Its international orientation is one of the main reasons Qingdao Chia Tai is counted among the top 500 companies for overseas investors.

The numerous plants operated by the company for producing feed, breeding, slaughtering and dressing the animals are correspondingly modern and state-of-the-art.

# Packs from around the world



## Exclusive on MULTIVAC

The processes comply with the guidelines described in the Hazard Analysis and Critical Control Points (HACCP) concept and are certified as compliant with ISO 9002.

### In-house over outsourcing

Qingdao Chia Tai did not have any packaging lines that could be used for specified consumer-grade processing of chicken meat for the Japanese market until 2014.

The meat was therefore cut into standard market portion sizes only, and then

exported to Japan. Contract packers became responsible for the final packaging of the portions, as well as for distribution to end consumers. This meant that the profit made by Qingdao Chia Tai, in this segment, was limited.

At the end of 2014, the company decided to establish an in-house, ready-package process for end consumers. Liu Fengke, General Manager of Food Business Division, started by familiarizing himself with the corresponding requirements for the packaging procedure, the materials needed and the packaging

machines that might be suitable. When it came to selecting a supplier, several factors played an important role: the packaging machine had to satisfy the highest standards in hygiene, as well as feature the ability to be integrated into the production line with existing, Japanese loading systems and printing systems.

The line integration capacity of the machine manufacturer therefore became very significant. Furthermore, the film materials needed to have properties allowing the portion packs to be heated in the microwave or in boiling water.

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### R 245 thermoforming packaging machine with additional modules and line integration capacity

When searching for the optimum packaging solution, the Chinese food producer drew on its contacts with the local sales and service subsidiary of MULTIVAC China after consultation on technical terms and initial negotiation with MULTIVAC Japan. This packaging specialist had already successfully managed several projects on the Chinese market and is well respected for its innovative tooling technology, as well as its automation competence.

MULTIVAC made an exact analysis of the requirements of Qingdao Chia Tai and recommended manufacturing the packs in a thermoforming process as this offers the most flexibility in terms of the packaging material and the pack shape.

In October 2014, Qingdao Chia Tai decided to purchase the R 245 thermoforming packaging machine, which was planned to be installed by MULTIVAC in May of this year in the production facility in Qingdao. The machine model is capable of being extended with other modules and is suitable for integration into automated production lines. To satisfy the customer requirements, MULTIVAC will also be integrated into the required third-party compo-

nents in the packaging line, thereby ensuring maximum efficiency.

The thermoforming packaging machine, the loading system and the printing system each feature separate machine controls which are, however, synchronised with each other. The machine control can be operated in Chinese using the IPC 06 industrial PC, which is equipped with a 12-inch LCD touchscreen display and the HMI 2.0 graphic user interface. The HMI can depict the entire packaging procedure in simple pictograms. "Thanks to the intuitive HMI 2.0 machine control display, the packaging machine is exceptionally user-friendly and ensures a high level of operating reliability" as Fengke says with praise.

When it comes to hygiene, the R 245 is evolved to cope with the high standards

**The MULTIVAC R 245 thermoforming machine was installed in 2015 and then used for consumer-grade vacuum packaging for portions of marinated chicken. The required integration of third-party components, such as an automated filler for marinade and a sophisticated labelling solution into the line, was carried out at the same time as the on-site installation.**

**The production of chickens accounts for 70 to 80 % of the Chinese Poultry Industry. China has been the world's second-largest producer of Chicken Meat and Eggs since 2011 and this Sector is continuing to grow.**

applicable for packaging marinated products: its durable stainless steel construction and its groundbreaking hygiene design make the MULTIVAC machine suitable for sensitive food products. Smooth surfaces, rounded edges and stainless steel construction makes cleaning extremely simple and user-friendly. "Thanks to side panels which are easy to open, the inside of the machine is completely accessible for cleaning. The transport chain, chain guide, lifting units and mechanical modules, as well as the motors, valves and wiring, have all been optimised for hygiene. Furthermore, the R 245 is also capable of being completely washed down," as Nereus Mei, Area Sales Manager from MULTIVAC China explains.

This machine model is, first and foremost, highly flexible when it comes to the use of packaging materials, cutting units and formats, ensuring that Qingdao Chia Tai will also be able to use the packaging line in the future to package other products. ♦

## MULTIVAC R245

