


COPELAND ZB AND ZFI COMPRESSORS

Help modernize China's agricultural cold chain capability



In recent years, the agricultural wholesale market has been redeveloped to be more diverse in terms of products and services.

Wholesalers not only serve as distribution centers for warehousing and logistics of goods, but also as service providers that supply retailers with services customized to their brand. The prerequisite to this new role is controlling the quality of agricultural products. Wholesalers in the agricultural market find that their greatest challenge is providing a suitable storage environment for all kinds of agricultural products while reducing the energy consumption of refrigeration equipment.

The Copeland ZB and ZFI compressors meet the different temperature requirements of various foods such as fruits, vegetables and frozen products.

Chinese wholesale market safeguards the quality of its fruits and vegetables with Copeland large ZB scroll compressor

Customer

The Dongguan Jiangnan Guanxiang Fruit Wholesale Market is one of the large-scale fruit trading centers

in China. It handles wholesale, retail, cold chain, and storage functions for fruit production and trade for the whole country.

Challenge

The Dongguan Jiangnan Guanxiang Fruit Wholesale Market has a single storage volume of 3500 m³/room and a refrigeration load that is high all year round. Since the fruits that they handle are easily perishable, the establishment's temperature and humidity requirements are high. Its goal is to employ the best refrigeration system to maintain the high quality of fresh fruits such as red pomegranates, cantaloupes, Fuji apples and Pucheng pears before they reach the end customer.

Solution

Copeland supplied the Dongguan Jiangnan Guanxiang Fruit Wholesale Market with the Copeland ZB150KQ large commercial refrigeration scroll compressors, which have a large cooling capacity that extends up to 30HP. They also have an axial and radial compliance design and a built-in diagnostic protection system, both of

which help ensure the reliability of operations. Moreover, the ZB compressor has built a name for refrigeration reliability since its introduction into the Chinese market for more than a decade now.

Lastly, the ZB150KQ has fewer internal components, making it more compact, lightweight and cost-effective than reciprocating compressors. Less moving components mean that the compressor will produce less vibrations and sound as well.

Copeland worked with its local distributor in Southern China, Guangzhou Yongqiang Environmental Technology Co.,Ltd., to determine what refrigeration solutions would address the needs of the Dongguan Jiangnan Guanxiang Fruit Wholesale Market.

Food company ensures food safety of frozen products with ZFI scroll compressor

Customer

Darun Cold Food Company is a comprehensive market located in Fangcheng County, Nanyang, Henan.

Challenge

Darun Cold Food Company has a cold storage project that aims for a safe and reliable refrigeration system to precisely maintain the storage temperature for frozen food, ice cream and other frozen goods. By doing so, the company will be able to ensure the food safety of their frozen products.

Solution

Copeland provided Darun Cold Food Company with a ZFI122 refrigeration compressor, which is part of the Copeland ZFI scroll compressor family. The compressor has a large cooling capacity that extends up to 30HP. It is also fitted with a CoreSense diagnostic module, which prevents the compressor from being damaged if the compressor exceeds operational limits.

Additionally, the ZFI122 is equipped with EVI technology, which controls discharge temperature, protects the compressor from possible damage and improves energy efficiency in low-temperature conditions by 5%–20%.

Result

Engineers in the wholesale market praised the powerful performance of the Copeland compressors. The product helped them achieve fast cooling speeds,

save energy and costs, reduce time on maintenance and reach sales goals.

The agricultural wholesale market will continue to shift toward diversified services as the retail industry transforms and grows and as consumption habits change. Thus, high-standard cold storage and cold chain systems will be more indispensable. Copeland will continue to help wholesalers in the market to innovate using high-quality cold chain products that are customized with high cost performance and reliability for customers.



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