



## Hamburg Süd Deploys XtendFRESH™ System to Deliver Avocados, Bananas and More

As one of the world's largest carriers of refrigerated cargo, Hamburg Süd has long understood that for some sensitive fruits and vegetables, refrigeration alone is not always enough.

For that reason, the shipping line has maintained a fleet of specialized containers that offer controlled atmosphere (CA) technology. The latest addition to its portfolio is Carrier Transicold's XtendFRESH™ atmosphere control system.

This year Hamburg Süd added 400 refrigerated containers enhanced with XtendFRESH systems, which help to slow ripening and preserve produce quality by actively managing oxygen and CO<sub>2</sub> levels within refrigerated containers while automatically removing ethylene.



*Hamburg Süd has enhanced its perishable shipping options with 400 refrigerated containers equipped with the XtendFRESH atmosphere control system.*

The new systems have been placed into service in support of avocado exporters shipping over the trade lanes from the west coast of South America to Asia, North America and Europe, according to Martin Schoeler, senior manager, Logistics-Technology, Hamburg Süd.

"Avocados are a significant market and initially will be the main target of utilization," Schoeler said, adding that banana exports beyond 30 days will also be able to take advantage of XtendFRESH's capabilities.

"Ethylene removal is a unique feature of the XtendFRESH system that differentiates it from other systems and is definitely much desired by our customers," said Michaela Steineker, global reefer manager, Sales & Marketing, Hamburg Süd, explaining that in collaborating with Carrier Transicold on operational tests, the shipping line stressed the importance of this capability in a CA system.

Prior to purchase, Hamburg Süd also commissioned independent testing of the XtendFRESH system by Eurofins, which verified the XtendFRESH system's ability to help preserve the quality of perishable items through live tests of bananas in stationary trials as well as loads shipped from Latin America to Scandinavia. The produce was analyzed for appearance, freshness, water content and other attributes.

The 400 new XtendFRESH systems were factory-installed on PrimeLINE® refrigeration units equipped with Carrier Transicold's energy-saving EDGE technology package. The refrigeration systems were mounted to 40-foot high-cube containers, and Carrier Transicold provided additional support beyond the sale.



Schoeler explained that to provide optimal results for end customers when using controlled atmosphere technology, “Carrier worked closely with Hamburg Süd to develop robust and solid operational procedures, such as procedures relating to the air tightness of the box, which is one of the biggest challenges.”

Carrier Transicold also supported Hamburg Süd with joint educational programs for its South American customers to explain the technology, its benefits and how to enable the best postharvest outcome.

The XtendFRESH system’s ability to remove ethylene, while precisely managing oxygen and CO<sub>2</sub>, is key to its performance and distinguishes it from other products for container atmosphere control. Ethylene is a hormone given off by ripening produce that accelerates ripening if left unchecked. A patented, self-regenerating activated-carbon scrubber assembly captures ethylene and controls CO<sub>2</sub> levels. As oxygen is consumed by ripening produce, automated, on-demand fresh-air ventilation helps maintain the optimum level for the cargo inside.

With its modular design, the XtendFRESH system is designed to be more flexible than Carrier Transicold’s prior atmosphere control solution. Available as an option with new equipment, it is also relatively easy to install on existing refrigeration units, including the ThinLINE®, PrimeLINE and PrimeLINE unit with EDGE technology.

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EDGE, which stands for Enhanced Digital for Greater Efficiency, includes a set of design enhancements that improve on the industry-leading PrimeLINE unit’s track record for energy efficiency. The EDGE option significantly reduces energy consumption for



*Cargo experts examine fruit quality after opening a test container equipped with the XtendFRESH system: Michaela Steineker of Hamburg Süd, with the surveyor, Thies Clausen of Eurofins, and her colleague José Ortiz.*

refrigeration beyond the exceptional efficiency for which the standard PrimeLINE has already built a reputation.

PrimeLINE units and those with EDGE technology now comprise a significant portion of Hamburg Süd’s more than 80,000 refrigerated containers, helping the shipping line and global logistics provider achieve its sustainability goals.

With long experience in the transport of perishable cargo, Hamburg Süd ranks among the top five refrigerated container carriers worldwide and the largest container carriers serving the South American markets.

The Hamburg Süd fleet comprises 168 ships, 46 of which are owned, and 13 of which have a capacity of 9,000 TEU or more and, with their large refrigerated container capacity, are mainly deployed on Asia-South America and Europe-South America routes. ◆