

NaturaLINE Adds Sustainable Choice to UNIT45 Offerings

At the biennial Transport Logistic trade fair in May, more than 60,000 visitors from 123 countries had the opportunity to see container lessor UNIT45's latest innovation, a 45-foot "green" refrigerated container featuring the NaturaLINE® unit from Carrier Transicold.

Showcased in one of the main entrances of the Messe München hall in Munich, Germany, the new natural-refrigerant container model was promoted by UNIT45 as the most environmentally sustainable offering in its refrigerated container line-up.

The refrigerated container is designed for customers seeking alternatives to the use of synthetic refrigerants, which are being curtailed by European environmental regulations. Carrier Transicold's NaturaLINE unit is the world's only container refrigeration unit to use carbon dioxide (CO₂), a natural refrigerant with a global warming potential (GWP) of only 1, the baseline against which all other refrigerants are measured.

"The trend is toward more environmentally sustainable products, especially with the phasedown of traditional refrigerants," said Jan Koolen, general manager of Rotterdam, Netherlands-based UNIT45. "Our customers, particularly those in stationary containers but also short sea carriers and logistics companies, are ready for green solutions that will present new business opportunities. We believe our new container featuring the NaturaLINE unit will appeal to them."

The Intermodal Innovators

UNIT45 was founded 15 years ago on the idea that the 45-foot pallet-wide shipping container is a perfectly-sized universal transport vessel for intermodal applications throughout Europe.

Virtually identical in volume to a conventional European refrigerated trailer, UNIT45 says its steel boxes are stronger and more versatile

than those used for road, rail or waterway transport. Each UNIT45 container can hold 33 Euro pallets – the same as a refrigerated trailer. Plus, they provide the extra capacity necessary when used for cold storage by food distribution centers and supermarkets. UNIT45 containers are also ideal for on-site refrigerators for major sporting events and large concerts.

“We think the NaturaLINE-refrigerated containers will be the perfect complement for supermarkets that already use CO₂-based refrigeration and now require additional refrigeration capacity,” said Jan Nouwen, technical manager, UNIT45. “For applications such as these, the NaturaLINE unit’s low-sound output will be appreciated by our customers.”

Known in the industry as intermodal innovators, UNIT45 offers custom container solutions, both dry and refrigerated. Its new dry container has room for an additional pallet, allowing for 34 Euro pallets. UNIT45’s refrigerated line-up includes a variety of single- and multi-compartment diesel-electric and electric reefers. And in addition to the new NaturaLINE chilled systems, the company recently added 50 Carrier Transicold Supra[®] 1250 truck refrigeration units for its trans-Eurasia rail service.

“We are excited to introduce the new NaturaLINE technology to our fleet,” said Nouwen. “We have high confidence in CO₂ as a refrigerant, based on its successful application in other industries, such as commercial refrigeration.”

Naturally Innovative

Nouwen shared that the containers equipped with the NaturaLINE system are green in other ways as well. They are painted using water-borne coatings that are more environmentally sustainable than traditional solvent-based coatings. In addition, the container’s high-performance foam insulation is a liquid blowing agent with a GWP of less than 5.

Thanks to Carrier Transicold's innovative engineering, NaturaLINE isn't just sustainable, it's also efficient. A multistage compressor, variable-speed drive and gas cooler coil are some of the unique features that help the NaturaLINE unit deliver the desired refrigeration capacities.

CO₂ refrigerant's GWP of 1 is far lower than synthetic refrigerants, which have GWPs ranging from more than 600 to nearly 4,000. Unlike synthetic refrigerants, CO₂ is not subject to the regulatory phasedowns, availability issues and rising costs that are already affecting refrigerants in land-based applications throughout Europe.

"The Transport Logistic event was a great platform to meet our customers and show them UNIT45's innovative solutions," Rozalija Vajt, marketing manager of UNIT45, said. "Customer interest in our new green box with the NaturaLINE unit exceeded our expectations and we're looking forward to putting the units into service."



Carrier Transicold's international key account manager, Kay Henze (right), discusses the merits of cooling with natural refrigerants with Jan Nouwen and Jan Koolen of UNIT45.



UNIT45's new green reefer, as presented at Transport Logistic, uses a NaturaLINE refrigeration unit, low-GWP foam and environmentally sustainable waterborne coatings.