

Siber System

Cryogenic transport cooling with dry ice



During the journey from the distribution centre to the supermarket the cold chain can be maintained using Siber technology, a system developed by Olivo and Messer. The automated cryogenic cooling system using solid carbon dioxide as cooling agent is patented for Olivo's insulated containers.

After collecting the food products and before transportation starts, the insulated container makes a stop at the Siber station. The Siber station's nozzle is connected to the compartment of the insulated container to fill it up

with cold energy in the shape of dry ice. The dry ice is produced on site by expansion of liquid CO₂ and automatically dosed into the dry ice compartment according to the nature of the food product, length of the transportation period and the weather conditions. As they are able to manage two different temperatures, -25°C for frozen food and +2°C for chilled food, both frozen and chilled products can be transported with the Siber containers. Delivery times of up to 24 hours are possible.

LCO₂ delivery



Picking



Dry ice production



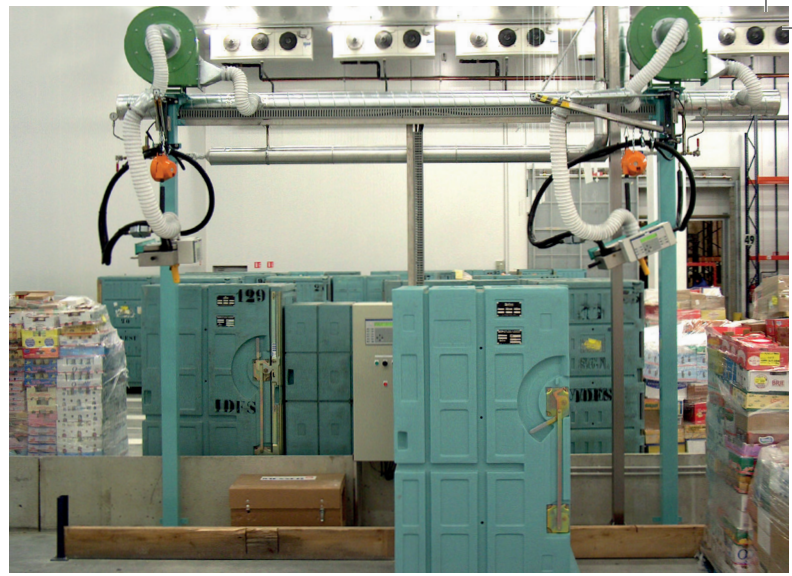
Container loading



Delivery at supermarket



Shelf filling



The Siber system brings considerable benefits:

Savings

Onsite dry ice production is cheaper than buying dry ice and there is no more loss of cold energy due to dry ice storage.

Safety

The operator never handles dry ice. It is confined to the respective compartments which stay closed during transport and delivery.

Easy of use

Only a single cooling agent is required for chilled and frozen products and its automated dosing ensures a simple and effective working process.

Quality

Product temperature is perfectly maintained during transportation.

Eco-friendly deliveries

The CO₂ used usually comes from industrial processes and is recovered and recycled to be used again. The system causes no pollution and no noise.



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