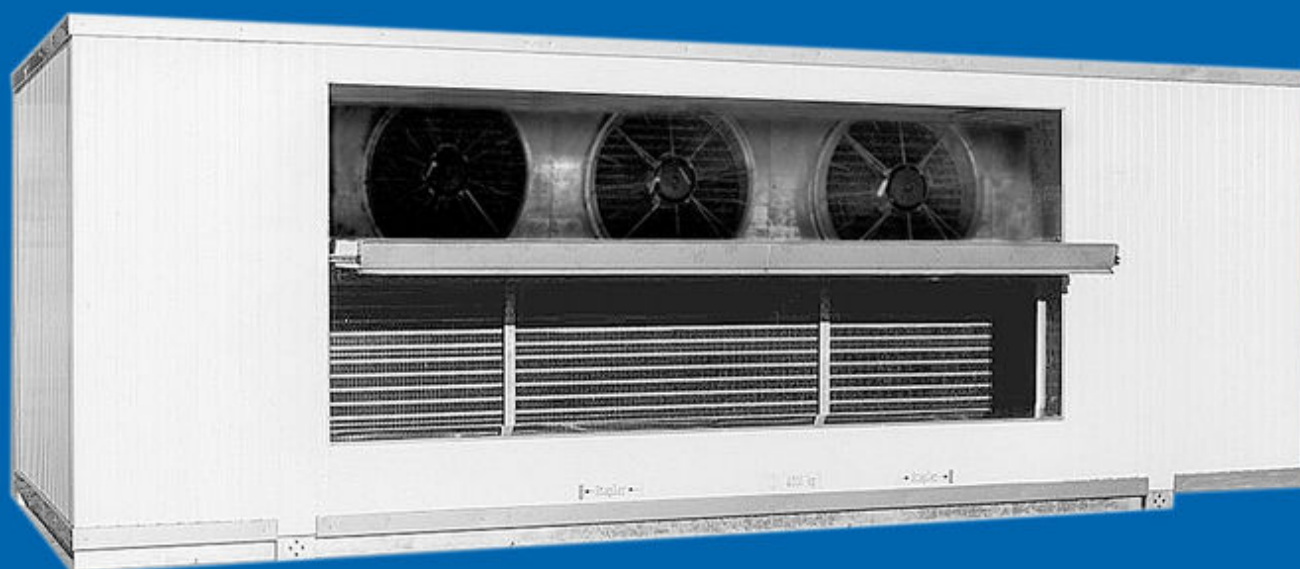


## Perfect food cooling at METRO Logistics



The new GIK: Many application advantages for systems engineers and operators

<b>Line of Business:</b>	Commercial Refrigeration
<b>Application:</b>	Food Cooling
<b>Country / City:</b>	Germany / Bremen, Gimbseim, Altlandsberg, Reichenbach, Hamm
<b>Fluid:</b>	NH <sub>3</sub>
<b>Product:</b>	Insulated unit cooler GIKS, Condenser AGVH

Food logistics specialist METRO Group Distribution Logistics GmbH & CO KG (MDL) is expanding its refrigeration systems in seven German distribution warehouses. Güntner GIKS insulated unit coolers and Güntner NH<sub>3</sub> AGVH axial condensers provide perfect food storage in the new NH<sub>3</sub> systems in five METRO warehouses throughout Germany.



The seven German distribution centres: Perfectly designed refrigeration systems provide freshness and product quality.

The globally successful METRO company has extremely high standards for maintaining freshness and product quality in food logistics. As an operator of central warehouses for deep-frozen goods, dry and fresh produce, fruit, vegetables and non-food articles, METRO distribution logistics is responsible for looking after the quality of about 21,000 different articles and the delivery thereof to 850 markets. The standards that the company demands of the warehouses in its seven distribution centres throughout Germany are accordingly high: incoming and outgoing goods must be reliably processed without any loss of quality, and refrigeration and deep-freeze storage systems must be efficient and easy to maintain.

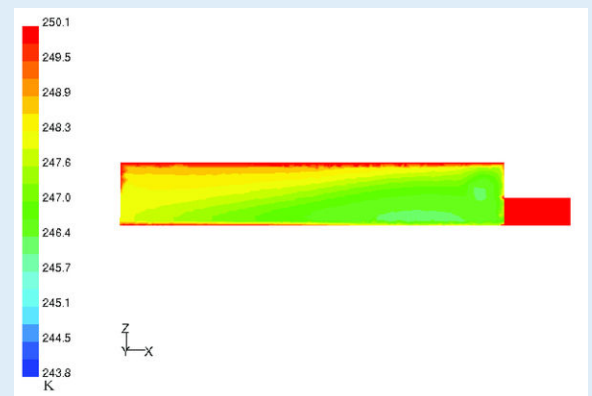
### Up to 1000 kW of refrigeration power

The new NH<sub>3</sub> refrigeration systems for deep-freeze and normal refrigeration in the MDL distribution centres in Bremen, Gimbsheim, Altlandsberg, Reichenbach and Hamm have been equipped with Güntner insulated unit coolers and axial condensers that are tailored to the capacity of the respective usage areas. De-

pending on the location, up to 12 different GIKS versions and up to 9 AGVH axial condensers refrigerate the goods at refrigerating capacity of up to 1000 kW per location.

### Walk-on insulated unit coolers

The walk-on version of the GIKS insulated unit cooler with hot galvanized heat exchanger coil and stainless steel drip trays that are specially manufactured for MDL are used to cool the rooms in the individual warehouses. Mostly equipped with radial fans, the GIKS coolers have a capacity of 100 - 300 kW with an air volume flow of 60,000 to 120,000 m<sup>3</sup> per hour and unit. The coolers require neither refrigerant-carrying nor condensation pipes in the refrigerated room, therefore dispensing with maintenance and installation costs: an advantage that provides constant room temperatures and prevents draughts and the introduction of heat or moisture, therefore guaranteeing that goods logistics operations run smoothly.



Temperature adjustment in the vicinity of the inlet with variant 1, doors on insulation cooler arranged above doors, blow-out below flap (Source: Result of simulation calculations by ILK Dresden).

### Low noise generation

Güntner AGVH condensers with capacities of 600 kW per unit are used for refrigerant condensing using ambient air in the external area of the distribution centres. The condensers are equipped with low-noise fans and maintenance-free motors and are less susceptible to leaks because of the proven Güntner floating

coil design. Reliable, low-maintenance operation with little noise generation is also provided in the external areas of the Metro distribution centres.



The proven floating coil design: For additional condenser stability and a longer life