

Specific aircooler series developed for Metro



More light, more space, more transparency: The Metro CC market of the future offers its customers a new shopping event. Daylight systems add to the comfortable atmosphere.

Line of business:	Commercial Refrigeration
Application:	Supermarket Cooling
Country / City:	Slovakia / Bratislava
Fluid:	R404A
Product:	Slimline unit cooler GDF, Wall/ceiling unit cooler GHN, Ceiling unit cooler DHF

National food culture is taken into account

Nearly all Cash & Carry markets are based on the same concept. However, the proportion of fresh products vs. deep frozen products varies, depending on the national food culture and the development of the consumers' interest in fresh and deep frozen products in countries where they are not yet used to them. For example, in Morocco, with 100 to 150 m shelf length, the Metro market's fresh food area is relatively large. In China, fresh fish is much more important than in Rumania. On average, a standard Metro CC market comprises 170 running meters of shelves for deep frozen products, 180

running meters of refrigerated cabinets and about 300 m² of air-conditioned space for fruit and vegetables. In the so-called "junior markets" the cooled areas are about half this size.



The new Metro corporate design at the checkout area;
Photo: Adrian Bato, vice store manager in Bratislava

Based on the instructions of the Metro planning department, Güntner developed an air cooler series responding to virtually all food cooling requirements at all temperature ranges. Güntner adapted the GDF series air coolers to Metro's requirements – low construction height, inclined suction unit and no draughts – so that it can be used in all temperatures ranges and complies with Metro's needs for simple but efficient constructions. The decreased rotation speed of the fans, designed to prevent draughts, is a special property of the GDF series. Whilst Metro formerly used different aircooler series and brands in the various temperature zones, today the Güntner GDF series air cooler operates nearly exclusively in all countries.

Cold air distribution with only one product line

Concentrating on one brand and one product line represents important advantages: it can be supplied short term and is also manufactured at the Güntner site in Surabaya, Indonesia. Indonesian aircoolers maintain the same high quality standard as German models and can be imported at a cheaper rate due to duty advantages within Asia. The development of the supermarkets in Asia shows that Güntner has taken a far-sighted decision with its production site in Indonesia.



Single discharge ceiling mounted "low noise" model GDF air cooler with reduced rotation speed, for low-noise cooling.

More prefabrication

For future supermarkets, refrigeration equipment could realistically be supplied in a standard container, completely mounted. Such solutions have the advantage that compound units and electrical installations can be checked in advance and only need to be connected to the piping systems once they have arrived at their final destination.



The condenser units are positioned on the roof, directly on top of the central refrigeration system. In the background: central ventilation unit.

As Güntner condensers are already designed to fit in the containers, this opens the way for interesting possibilities. For example, it would be possible to fully install a compound unit in a 20' container and to add the condenser during transport. Arriving at its destination, the condenser needs only to be installed on the roof of the container and connected to the pre-mounted piping. The design of the containers allows a high level of pre-fabrication and a pre-check on site. More important, however, is the independence from the construction plan, i.e. the refrigeration equipment can be ordered independently from the construction progress. At its fi-

nal location, only two small strip fundamentals where the container refrigeration unit can be placed are needed. This helps to reduce the already tight construction times.

We visited the Metro CC "Market of the Future" for you in Bratislava, Slovakia. More fresh and frozen food for the customers

Step by step, existing Metro CC markets in Germany are being adapted to the concept of "Market of the Future". Besides the new Metro corporate design, the extension of the fish, fresh and deep frozen food department plays an important role. The editors of heatXchange wanted to see one of the most recent CC markets and visited the Metro market in Bratislava, Slovakia. The hypermarket, which fully corresponds to the customers' needs, was opened in November 2000 near the airport after only six months in construction.



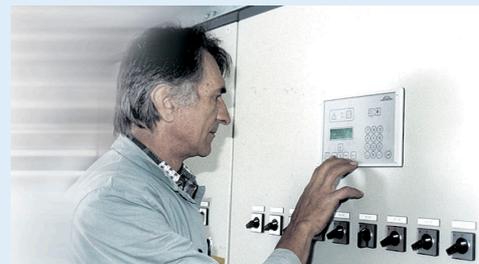
Slovakian people still need to get used to the variety on offer. With targeted promotions, Metro wants to accustom its clients to more varied and healthy nutrition.

Through this Metro market, the more sophisticated hotel and gastronomy industries (and also wholesale and commerce) have an outlet that complies with the concept of "Market of the Future". The most striking property of the market, with a total surface of 7000 m², is the new strong colour design in the Metro yellow and blue, as well as the lighting of the sales areas with artificial daylight through special illumination. Customers also appreciate the bigger distances between the shelves and the spacious circulation areas. The optically pleasing, sturdy and easy to clean Rockland concrete floor in the entire Metro market, including supply area, cooling and frozen food chambers, represents another important novelty.



Frozen food storage with GHN air coolers

The fresh fish department, with its range of local fresh-water fish, sea fish and seafood specialities, is new and still rather unusual for Slovakia.



The French service company Optimal looks after all building related technology at Metro in Bratislava, including refrigeration equipment.

Air conditioned check stores improve the cooling chain

Sea fish is still an exception on the Slovakian menus. Together with haute cuisine and the more renowned hotels, the markets want to positively change the food culture of Slovakia. The range of fish on offer will contribute to this initiative. At the same time, with high quality and an individual food range, the Metro markets try to differentiate themselves from the rest of the other hypermarkets.



Local fresh-water and sea fish play an important role in the gastronomy industry. For Metro the fish department helps as well to differentiate it positively from other hypermarkets.

The so-called check stores, i.e. supply areas with different temperatures and lock gates for direct coupling of the lorries, play an important role in food quality assurance. In this zone, quality, packaging and the required transport temperature of all products are checked thoroughly, whether it is a supply of international brands or local products. Then the goods are distributed to their respective storage areas by the shortest route.

All fresh food areas, as well as the cooling and deep frozen food chambers, are monitored by means of a refrigeration equipment management system. Every temperature variation is registered immediately and sent by modem to the maintenance company, even before the Metro employees recognize any sign of change.