



Freshness and quality for agricultural products

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Cooling fruit and vegetables is a demanding task for refrigeration technology.

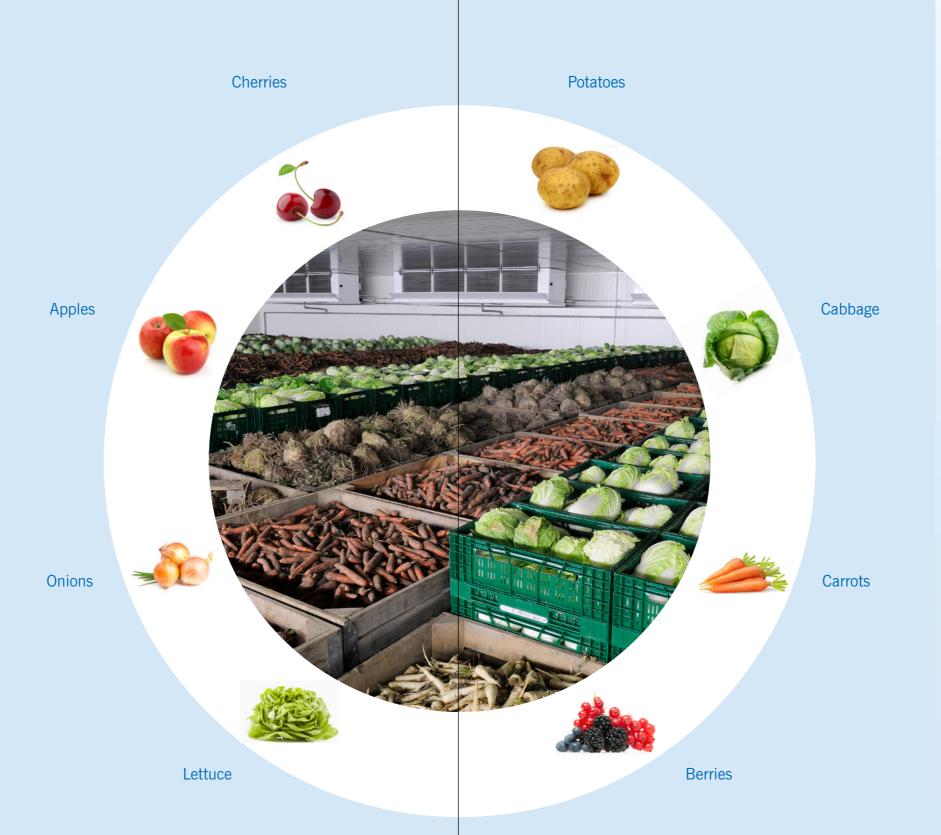
The right kind of refrigeration is critical to maintain freshness and ensure maximum storage life. Every type of fruit and vegetable requires specific storage conditions.

Once stored, the products must be brought down to the appropriate storage temperature as rapidly as possible. This means that aircoolers have to fulfil the following requirements:

- Fast cooling
- Maintaining a high level of humidity
- Thorough and uniform ventilation of the goods

The subsequent storage phase, which may last for several months, requires only a fraction of the cooling power, but even when operating at this reduced load the system needs to maintain a high level of humidity and the correct storage temperature.

Aircoolers and refrigeration systems must fulfil these different requirements while constantly ensuring optimum conditions.



Güntner Agri-coolers are available in different versions:

Large Surface

- Preferably for systems with direct evaporation
- For use with a medium temperature difference

High Efficiency

- Preferably for systems using a water/glycol mixture
- For power-optimised operation with a small temperature difference

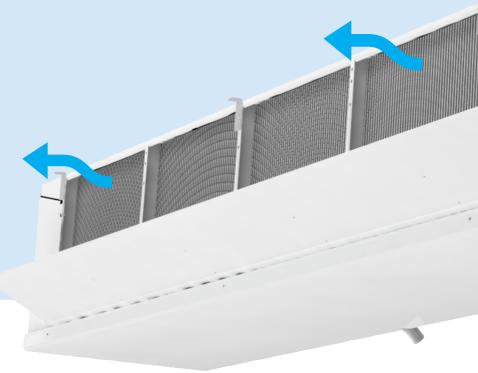
GACA benefits

Low moisture loss

- With optimised heat exchangers
- Designed for low DT1
- Little cooling of the air

Thorough and uniform ventilation of the goods

- Blow-through fans
- High rates of air circulation
- No temperature layering in storage room
- Up to six fans per unit



Top quality fans

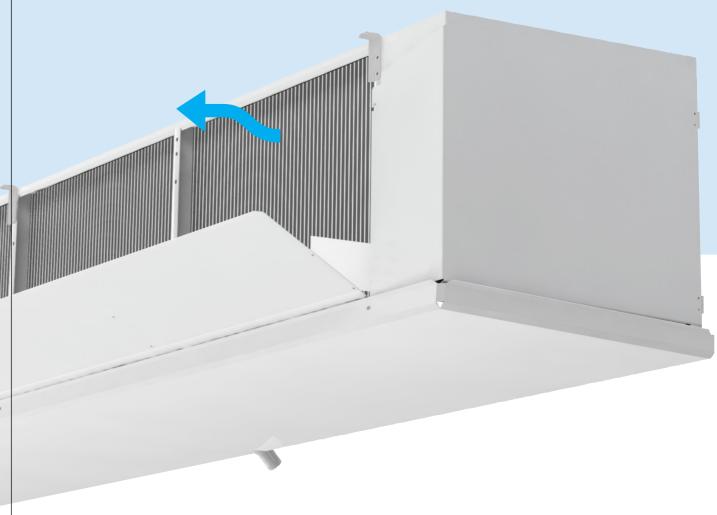
- High efficiency
- Compliant with the ErP DirectiveMotor protection with thermocontacts
- Two fan speeds
- Different fan diameters

Reliable operation

- No condensation thanks to thermally-decoupled tray
- Top quality heat exchangers
- Simple, strong design

Maximum use of room height

- Flat casing design
- Air guiding sheets for lifting airflow



Solid, stable casing

- Sheet steel, galvanizedStainless steel ceiling hangerTray made of AlMg

Heating element*

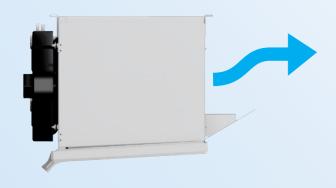
- For heating in winter
- For dehumidifying indoor air

Easy cleaning

- Drop-down trayDrop-down drip plate
- Hinged side cover for opening
- Bevelled edges

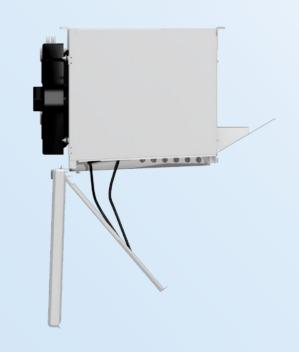
Air guiding sheet

- For lifting the airflow
- Optimum use of stacking height
- Max. air circulation
- Increased Coanda effect



Easy cleaning

- Drop-down tray
- Drop-down drip plate
- Hinged side cover for opening
- Smooth casing



Technical data

	GACA
Refrigerant(s)	HFC, water/glycol
Variants	Large Surface High Efficiency
Fan size; diameter in mm	400 / 450 / 500 / 630* / 710*
Power range in kW	4 – 115
Number of fans	1 – 6
Air volume in m³/ h	2,800 – 66,700
Quality standard	ISO 9001

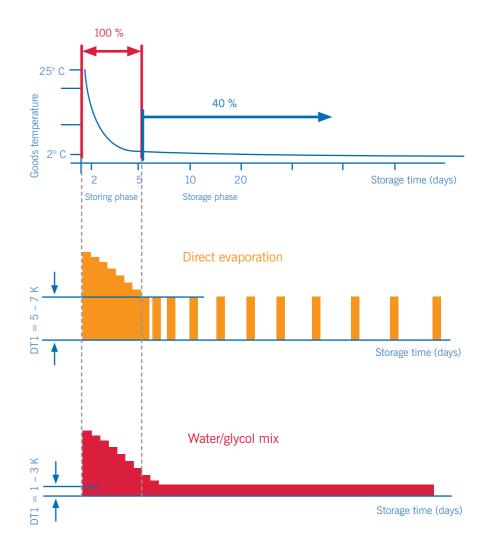
* Available from the end of 2013

Aircooler power adjustment

Depending on the storage conditions, the cooling of the fruit or vegetables to the required storage temperature takes approx. 3 to 5 days. The storage phase then begins, and can last up to several months. Only a fraction of the cooling power is required during this time, 40%, for example.

This means the refrigeration system and the aircoolers are operated at partial load and must meet the following conditions:

- Exact adherence to storage temperature
- No temperature fluctuations
- Maintenance of a specific, generally high, level of humidity, to prevent water diffusing out of the chilled goods
- Even air distribution and good ventilation of the chilled goods

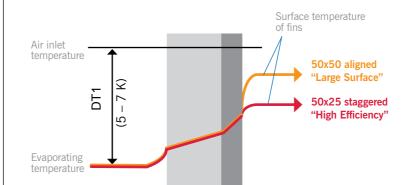


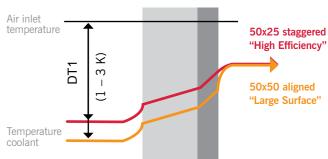
Güntner tip for HFC: *Large Surface*

- Ideal for use with direct evaporation (HFC) and thermostatic expansion valves
- Aligned tube pattern
- Large heat exchanger surface
- For higher surface temperatures with medium DT1 (5 7 K)

Güntner tip for water/glycol High Efficiency

- Ideal for use with water/glycol or electronic expansion valve with a small temperature difference
- Staggered tube pattern
- Efficient heat exchanger with large surface
- For energy-optimised operation with low DT1 (1 7 K)





Our expertise is your advantage!

Application-specific consulting

Our specialists are at your disposal as contact persons and are ready to give detailed advice anytime. They design



the unit according to your requirements for optimal adaptation to your application or develop a complete concept for a ready-to-operate solution.

Fans

We use high efficiency, direct drive fans for continuous control that are two-plane balanced according to DIN ISO 1940



part 1, i.e. they comply with the balance quality Q 6,3. The fans are maintenance-free and have an extended service life.

Leakage protection

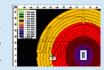
Due to Güntner's tried and tested floating coil principle, the heat exchanger coil can expand without affecting the fluid-



carrying tubes; in consequence the tubes are not in direct contact with casing parts (front plates/separation plates). The heat exchanger coil rests on floating bearing and thus

Sound requirements

Extensive test series in the companyowned laboratory ensure that, already during unit design with the Güntner



Product Calculator, fans optimized to the sound requirements of your installation are selected.

Güntner Controls

Güntner Controls is an individual department at Güntner supplying performant and high quality controllers and



switch cabinets. Our experts develop project-specific solutions to satisfy highest requirements in all sectors. We provide a switch cabinet solution for your individual application –suitable for EC and AC fans. With us, everything stays under control!

Service After Sales

Our Service After Sales supports you in case of problems and answers your questions. If necessary, our colleagues



can be promptly on-site to take care of your concerns. Our employees of Service After Sales are not only experts in refrigeration engineering, they are also qualified in further specific fields, i.e. as certified welders for different tube wall thicknesses and materials.

For further information, please contact our Sales department: sales@guentner.de

