

# heatXchange

Customer magazine of the Güntner Group | 19th edition



Güntner Group  
Keep(s) your quality.

Outlook  
Güntner at the Chillventa 2014

Know-how  
European F-gas regulation





## Everything from a single source

Dear reader,

Are you familiar with the concept of one-stop shopping? It means that you can get everything from a single source and don't need to look all over the place for the items you need.

To be able to offer you this kind of service, the Güntner Group brands Güntner, JAEGGI and thermowave moved closer together in recent years. You are the ultimate beneficiary of the resulting synergies. Although the companies continue to operate separately, we now cooperate much more closely together in our projects to offer you multi-technology solutions from a single source – whether hybrid systems, plate heat exchangers or air-cooled fin-tube heat exchangers.

This change is also reflected in our heatXchange customer magazine, which will feature our sister companies as well starting with this issue. We will cover subjects from each of these companies in combination with applications that will be familiar to all of you – another example of how well our Group's product portfolios complement each other.

These portfolios also reflect future developments. The decision regarding the revised directive on F gases from this spring is already well-known, but many people have not yet become aware of the resulting impact on our industry (see the article on page 10). We have accepted the challenges posed by these regulatory changes early on and adapted many of our products to use natural refrigerants. That way, your investment will be safe with Güntner equipment.

Under the motto "Innovations for all fluids", we are presenting at this year's Chillventa fair many outstanding new products that not only meet tomorrow's regulatory requirements, but offer performance-optimized and custom-tailored solutions for all applications (see the Chillventa preview on pages 6-7). As I mentioned at the beginning: one-stop shopping.

Visit the Chillventa fair to see these and many more future-oriented developments, because the Güntner Group is constantly moving forward.

I hope that you will enjoy this issue of heatXchange.

A handwritten signature in black ink, appearing to read "R. Gerle".

Robert Gerle  
Managing Director

**1** The company Grass-Merkur is a provider of data backup and storage services. As a result of demand, the number of available servers, i.e. the storage space, has been increasing for years. At the same time, the need for cooling and the requirements as regards cooling systems have grown too.



**2** JAEGGI supplied a total of 10 hybrid drycoolers which are used to re-cool the cooling system.



**3** When selecting the new cooling system for the production facility in Santo Ângelo, the aim was to find the best possible technical solution in order to minimize weight loss in the pieces of meat during production.



**4** Measuring 252 m in length and operated by the shipping company Aida Cruises, the AIDAblu is the world's first cruise ship to have its own brewery on board.

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# Innovations for all fluids

## Preview: Chillventa Highlights

The entire industry is working feverishly to get ready for one of its most important events: the Chillventa fair is just around the corner.

We look forward to showing you our latest innovations from October 14 to 16. Together with our sister companies thermowave and JAEGGI, we will present at our booth the entire spectrum of technologies being offered by Güntner Group in the field of heat exchangers.

JAEGGI will show its powerful hybrid drycoolers with HYDROPAD, while thermowave will present a device with sections for desuperheating, condensation and heat recovery.

The Güntner brand in particular focuses on the future, because with ALL the new models we are rolling out you can be confident they are ready for next year's regulatory changes. Whether the F-gases directive or the next stage of the ErP directive – with our products there is nothing to worry about.

How? Easy: Güntner is completely overhauling and improving our most popular condenser and aircooler series to meet future requirements. For example, we are optimizing the pipe geometries to require the least amount of refrigerants. Our model series also offer maximum variability. With the resulting diversity, you will always be able to find the solution that exactly meets your needs.

With the GPC, the future can become reality today. You choose the refrigerant you require in the Güntner Product Calculator (GPC), e.g. R1234ze, one of four new refrigerants which we have added to our configuration software. The new model ranges are designed for all refrigerants; the GPC will therefore come up with the optimum device types for your particular operating conditions. And that is it. As we said, we have already arrived in the future – come with us!

Incidentally, our Controls division has something innovative for you too. With the new Controls app, you can monitor and control your system and even collect data when on the move.

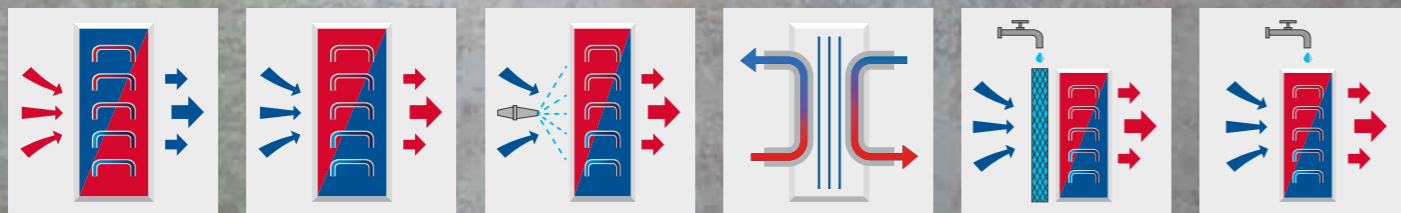


► Come and see us – our team of 50 assistants looks forward to seeing you at Stand 104 in Hall 4!

# Güntner Group – Keep(s) your quality.



## Our technologies – the right one for every application



# New Güntner products

## Agri Application

### Güntner Air Cooler Agri GACA

#### Freshness and quality for agricultural products

This newly developed agri cooler is available for HFC as well as fluids (coolants). It caters for a good and even ventilation of the foodstuffs and keeps dehumidification at a minimum.

For further information, please visit: [www.guentner.eu/products/air-coolers](http://www.guentner.eu/products/air-coolers)



## Cubic Compact

### Güntner Air Cooler Cubic GACC

#### Everything an air cooler requires

With this highly efficient aircooler in cubic design, Güntner offers a classic standard product for diverse commercial refrigeration applications. The 22 different types together cover a range from 1.3 to 84 kW and offer numerous advantages.

For further information, please visit: [www.guentner.eu/products/air-coolers](http://www.guentner.eu/products/air-coolers)



## ThermoStore Application

### Güntner Air Cooler ThermoStore GAIL

The GAIL is a newly designed insulated unit cooler with maintenance-free and directly driven centrifugal EC fans. The particularly energy-efficient fans are arranged without vibrations on rails behind the coil and can be easily pulled out of the unit laterally. Access to the heat exchanger is easy via the maintenance the opening.

For further information, please visit: [www.guentner.eu/products/air-coolers](http://www.guentner.eu/products/air-coolers)



# New regulations regarding F gases within the EU



The European Parliament and Council's Regulation on certain fluorinated greenhouse gases (better known as the F-gas regulation) passed in 2006 has been revised. Since work to revise the regulation began in 2012, this topic has been the focus in the specialist press and at a number of specialist symposiums and information events. In the spring of 2014, the amended version was finally passed by the European Council. The new version will be valid within the EU from 01 January 2015.

The implications of the regulation for the range of refrigerants used to date within the EU have been the subject of many discussions and should therefore be familiar to most people. In simple terms, the regulation aims to achieve a reduction in F gas emissions. Essentially speaking, this will be achieved by banning refrigerants with a Global Warming Potential (GWP) of more than 2,500 and, in a number of specific areas of the cooling industry, even those with a GWP of more than 150.

The GWP values of various refrigerants are compared in Figure 1. The refrigerants shown in red are refrigerants that are already banned within the EU or have a GWP > 2,500. Medium-term alternative refrigerants with a GWP < 2,500 are shown in yellow. Although R22 has a GWP < 2,500, it will of course be banned from 01.01.2015! Real, i.e. long-term alternatives, are shown in green. These are mainly natural refrigerants whose GWP is well below 10 in a number of cases.

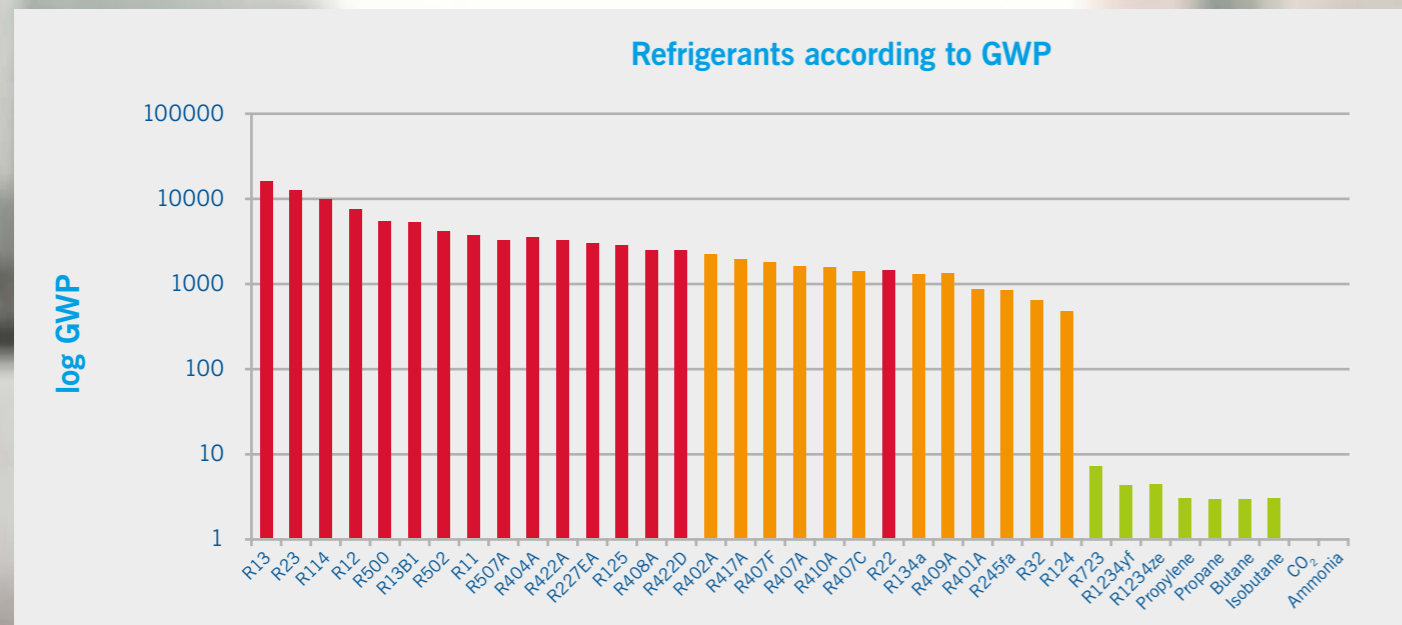
## Natural refrigerants making a comeback

Natural refrigerants have always been used in cooling systems. Indeed, ethyl ether, air, ammonia (NH<sub>3</sub>), sulphur and carbon dioxide (CO<sub>2</sub>) as well as a wide range of hydrocarbons such as propane (R290) were used until the beginning of the 19th century. However, the development of chlorofluorocarbons around 1930 led to natural refrigerants being used less and less often.

Not surprisingly, Güntner's product portfolio has always included heat exchangers for natural refrigerants. Nowadays, virtually every model can be used with CO<sub>2</sub> or NH<sub>3</sub>. These range from CO<sub>2</sub> process evaporators and direct expansion/pump operation aircoolers for CO<sub>2</sub> and NH<sub>3</sub> to NH<sub>3</sub> condensers and CO<sub>2</sub> gas coolers.

Because system design and therefore the requirements imposed on heat exchangers are changing all the time, development in this field never stands still. For example, the world's first heat exchanger with microox technology for use with propane was unveiled at the Chillventa 2012 and it will be interesting to see what innovations Güntner presents at this year's Chillventa!

Overview of the GWP of various refrigerants

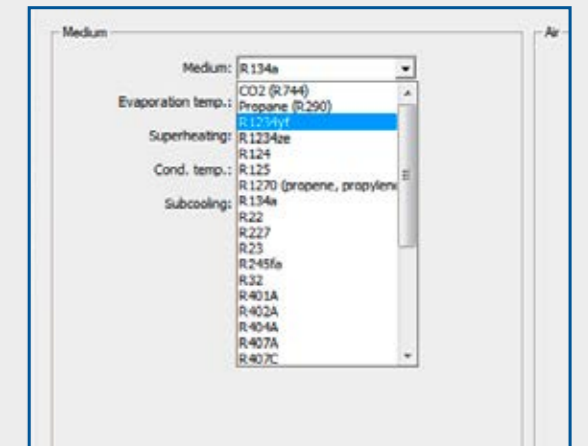


## Güntner tools that help you make the right choice today

### Güntner Product Calculator

Whether you or your customers want to use natural refrigerants in the future or plan to deploy alternatives – the Güntner Product Calculator makes it easy. The database currently contains 32 refrigerants, including the 14 that are permitted for future use in the EU – even exotic ones like R245fa.

Download the GPC

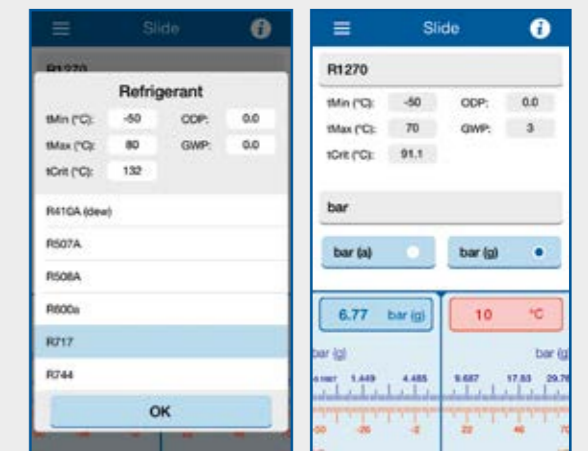


Refrigerant options in the GPC

### Güntner app

Even if you are away from your desk and need information about the future use of a certain refrigerant – the Güntner app is always there. It features a database that makes determining a particular refrigerant's GWP quick and easy.

More information about the Güntner app



Refrigerants in the Güntner app

ODP and GWP at the tap of a button



## Sprayed drycoolers for cooling server rooms

The company Grass-Merkur is a provider of data backup and storage services. As a result of demand, the number of available servers, i.e. the storage space, has been increasing for years. At the same time, the need for cooling and the requirements as regards cooling systems have grown too.

Horst Kutzinski, the owner of Wärme-Klima-Bad GmbH, is the systems engineer responsible for Grass-Merkur's systems and an all-rounder who takes care of all his customer's technical issues. "It all started with a cooling tower," he said. "As time went on, the need for cooling increased and a new system concept was eventually necessary. The operational safety and energy efficiency of the new system were particularly important. Naturally, it must be ensured that the servers are functional at all times, even if a component should fail. In order to work in the most energy-efficient manner possible, we were on the lookout for the latest technology."

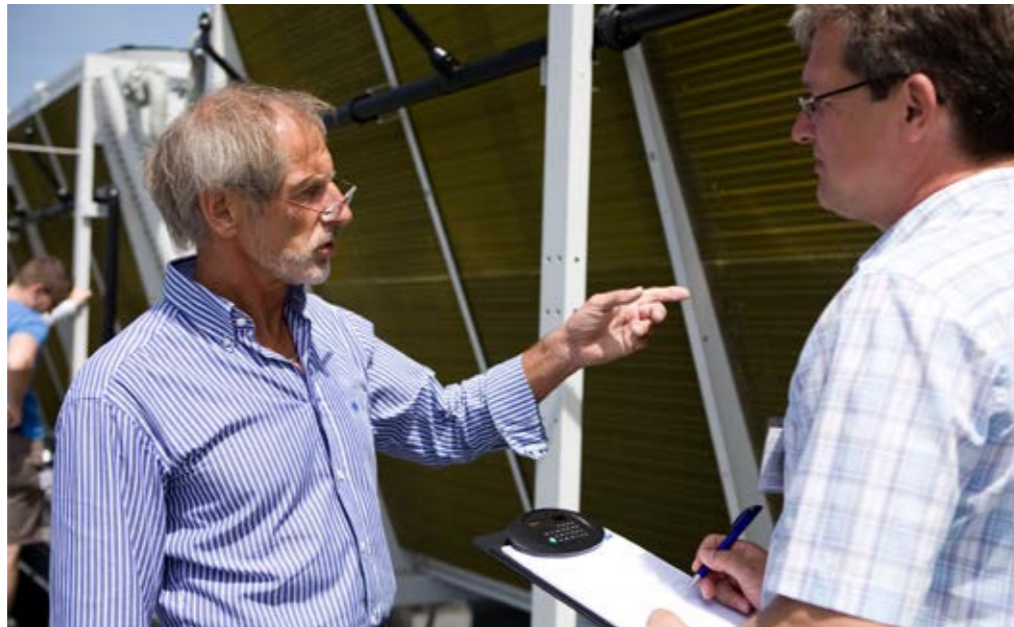
After approaching Güntner for the first time, Mr Kutzinski learned of the new GFD drycooler with the innovative HydroSpray system. The GFD was exactly what he was looking for. After all, the system would spend most of the time in free cooling mode with spraying yet still provides the facility to switch to re-cooling in order to cope with peak loads. At the Chillventa, he then took a closer look at the device.

Given the level of cooling necessary in the computer centre, he ordered two 300kW GFD drycoolers, each equipped with 2 x 7 EC fans. And naturally the Professional version of the new HydroSpray system with the associated GHM Professional controller. "In order to set the power at precise levels, we can control and activate each spray nozzle individually," said Kutzinski. "The controller automatically recognises which spray sections have been operating for the most hours and then switches on the sections with the lowest number of operating hours first. Thanks to a water treatment system with a water softening and desalination unit, I can spray for up to 1,000 hours a year using the GHM Professional. Normally, free cooling with spraying is enough. We work with a standard glycol circuit. In order to prevent corrosion, we opted for epoxy resin coated fins. The devices were delivered completely mounted and wired."

For the server rooms, three 150 kW coolwalls are available as inner units. As outer units, two water-cooled water chillers each with a cooling power of 250 kW and the associated Güntner GFD drycoolers with spraying are used. ▶



← Spraying can be controlled individually for all sections.



The system's main operating mode is free cooling with spraying up to a drycooler outlet temperature of approx. 18 °C. At the same time, the return flow of the coolwalls is fed via pumps to the GFD drycoolers before being pumped to the forward flow of the coolwalls.

Up to an external temperature of approx. 21 °C, the system runs in mixed mode: the return flow of the coolwalls goes to the evaporator of the water chillers, is pumped to the drycoolers and is then pumped via the condenser of the water chillers to the forward flow of the coolwalls. The various operating modes are controlled by a complex valve system.

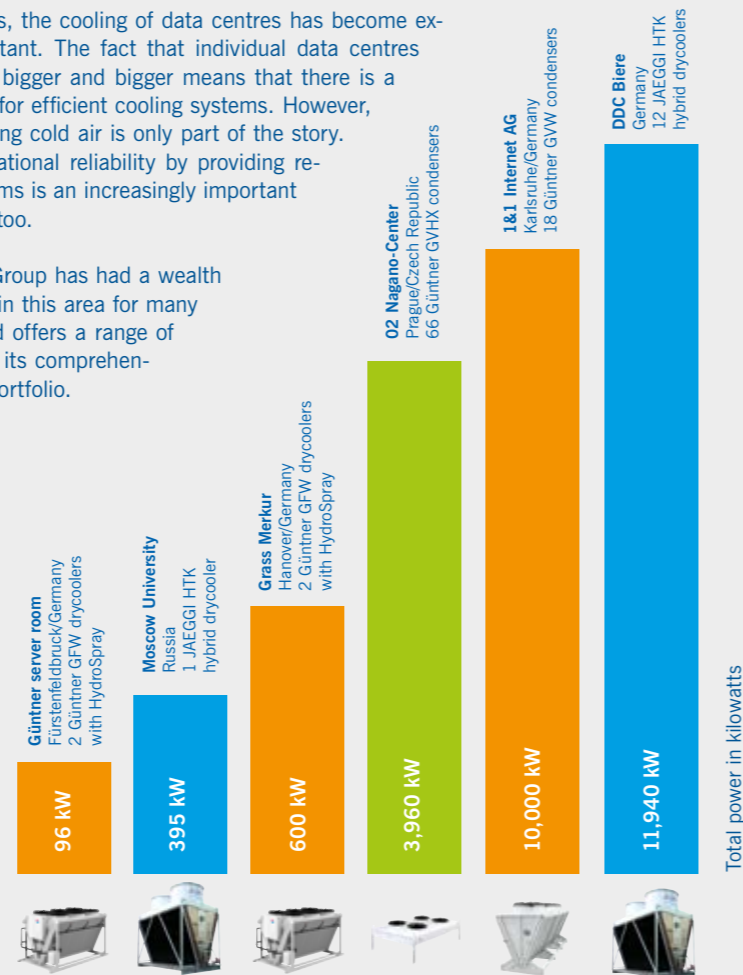
Because the devices were installed in a mixed-use area, the issue of soundproofing was important too. However, the GFD drycoolers easily meet the requirements with a sound pressure level of 49 dB(A) at 10 m. Even if additional devices are installed, this will not cause problems: "It is only a matter of time before we need to expand the system again," said Kutzinski. //

## Experts in server room cooling

### Application expertise with a wide range of products

In recent years, the cooling of data centres has become extremely important. The fact that individual data centres are becoming bigger and bigger means that there is a growing need for efficient cooling systems. However, simply supplying cold air is only part of the story. Ensuring operational reliability by providing redundant systems is an increasingly important consideration too.

The Güntner Group has had a wealth of experience in this area for many years now and offers a range of solutions with its comprehensive product portfolio.



## “Very good” rating – keep up the good work!

### As a premium manufacturer, quality plays a key role in our work.

However, this relates to more than just our products. In order to establish the Güntner brand as a quality product in the eyes of our customers, we focus on quality in everything we do.

This begins with contactability and the information we provide and also includes consulting and order processing, shipping, the product of course and even our after sales service. If you associate all of these areas with high quality, you will be a satisfied customer who is likely to recommend us to other people. If you do recommend us further, then we will have achieved the very highest level of customer satisfaction.

In order to be able to measure this customer satisfaction, the Güntner Group regularly conducts customer surveys as an established part of our improvement process. The standards

here are high. After all, our customers have rated us very highly as regards “Quality and Functionality”, “Reliability and Durability”, “Delivery Punctuality” and the “Quality of Technical Assistance” for years now. In this year’s spring survey, however, we have done even better not only in these categories but in a total of 14 out of 19 of the categories queried. This shows that we were right to focus on internal processes when making improvements in the past. And we intend to continue doing so in the future.

The results tell us that you too value quality. Our certification activities, e.g. our participation in the Eurovent certification process, play a very important role here. Naturally, you want to be sure that you receive a high-quality device you can rely on. A comment from a customer in the Middle East sums this up: “With Güntner, I can rely on what the employees say and the information in the documentation. When I use Güntner products, I can sleep soundly at night.”

The survey also provided an opportunity for you to point out trends you would like us to concentrate on in the future. You told us that energy efficiency remains an important criterion when selecting products. Furthermore, over half of you said that Eurovent certification was an important factor when deciding whether or not to make a purchase, while 90 % of customers believe that their working relationship with Güntner will develop positively in the future.

In short, a “Very good” rating – keep up the good work!



1.47

is the mark customers gave for the reliability and durability of our products



14 out of 19

In the opinion of customers, Güntner has performed better in 14 assessment categories compared to the last survey



1.57

is the mark given for the GPC design program



95 %

would remain Güntner customers on the basis of their satisfaction



1,88

is the mark customers gave for their overall satisfaction





# Hybrid drycoolers in Switzerland's largest office building

**In 2012, the major Swiss bank Credit Suisse moved into a new office building at the foot of the Uetliberg mountain in Zurich. The new CS Uetlihof building is the largest office building in Switzerland with 8,000 workstations, an energy centre, a canteen and a sport zone.**

The bank invested 270 million francs in the 16-storey building with six of the floors underground. The Uetlihof complex is part of the CS room planning strategy which aims to move workstations from smaller buildings in the city centre to large-area buildings such as the Uetlihof.

Those responsible are proud of the newly designed workstations. Individual offices are a thing of the past. All employees can choose a different working environment every day to

suit their work and schedule. There are various cabins and privacy areas, garden offices with lots of plants and standing desks for anyone who prefers them or needs to stand because of back problems.

One of the biggest challenges when implementing the ambitious plans to create the country's most modern workstations was complying with the strict Minergie-P-Eco regulations which apply to the building. Only buildings whose energy consumption is very low qualify for Minergie-P-Eco certification. The Uetlihof 2 is the largest building in Switzerland which complies with this building standard. Innovative building systems and special thermal insulation played an important role here. An energy centre supplies the bank's computer centres – it alone cost 100 million francs to build.

JAEGGI supplied a total of 10 hybrid drycoolers which are used to re-cool the cooling system. At lower ambient temperatures in free cooling mode, they replace the energy-intensive cooling machines. Because the hybrid drycoolers offer high re-cooling performance with only a

small amount of energy and water, they contribute to the system's overall environmental compatibility and efficiency.

The coolers are installed on the top floor of the building. The devices' dimensions were extremely important because they were brought onto the finished floor of the building via openings in the roof. Air from the room is sucked out freely through the mesh panelling in the façade. The waste air is released into the environment via stainless steel channels which rise up through the ceiling.

## TECHNICAL DATA

Cooler type:	HTK 2.4/7.2, 10 units in total
Cooling power:	1,600 kW per cooler, 16 MW in total
Cooling medium:	30 % glycol, 70 % water
Cooling water temp.:	40/34 °C
Wet bulb temperature:	22.5 °C (35 °C at a rel. humidity of 35 %)
Footprint with switch cabinet:	2.45 m x 8.8 m
Operating weight per cooler:	8,855 kg

## MINERGIE®

Minergie is a registered trade mark of the Minergie association (Bern, Switzerland). The label is Switzerland's highest energy standard for low-energy buildings. There are various requirements according to the building category. If additional criteria are met, the certification can be extended to the Minergie-ECO or Minergie-P-ECO standard.

Even more expertise at a click!



## The Guntner App

To coincide with the Symposium 2013, Guntner developed its own cooling app. With practical functions in clear categories, it allows access to Guntner's cooling know-how and company tools – even when you are on the move. The numerous practical functions have now been expanded and further improved. The first comprehensive update is now available in app stores.

Download the Guntner app now!





Alibem sites; Santo Ângelo in red

# Natural refrigerants for slaughterhouse in Brazil

Using natural refrigerants in the food industry has been a topic of interest for a while. Especially when it comes to the field of meat production, ammonia refrigerating installations have been in use already for decades.

The same applies for the Brazil-based company Alibem Comercial de Alimentos Ltda. Alibem, known on an international level for their great meat quality, offer a wide range of products. In 2004, the company began to slaughter 1,000 pigs per day; the production has since more than tripled. The production takes place at two sites in the Rio Grande do Sul region; 2,300 pigs are slaughtered in Santo Ângelo and 3,000 in Santa Rosa per day.

This capacity increase was necessary as the company has entered new markets like Singapore and South Africa and recently signed an export agreement with China. In addition to this, there have been the needs of the local market in which Alibem wanted to serve niches like the demand for new meat cuts and smaller cuts of pork meat.

It was all about finding the best technical solution possible to cater for minimum weight loss of the meat cuts during the production and to keep the plant's energy consumption as low as possible. Unique for this

project: For the first time, Guntner Brazil were not only the component supplier, but also collaborated with the customer's engineers in charge on the technical plant design and were responsible for the electric and mechanic installation of the entire plant.

A part of this responsibility was to change existing concepts rooted in the market: So, not only the capacity of the evaporators was in focus – in this case, it was the size of the heat exchanger surface that was decisive for the model selection. A sufficient surface with the possibility of raising the evaporating temperature, thus reducing the driving temperature difference, allows for reaching the required room temperature also at low fan speeds. At low speeds, the rate of air circulation stays at a level preventing excessive desiccation of the meat. Furthermore, current consumption is accordingly low especially at low speeds so that energy consumption could also be reduced.



AGHN made of stainless steel



MAN made of stainless steel



The plant in Santo Ângelo meets the highest technical standards

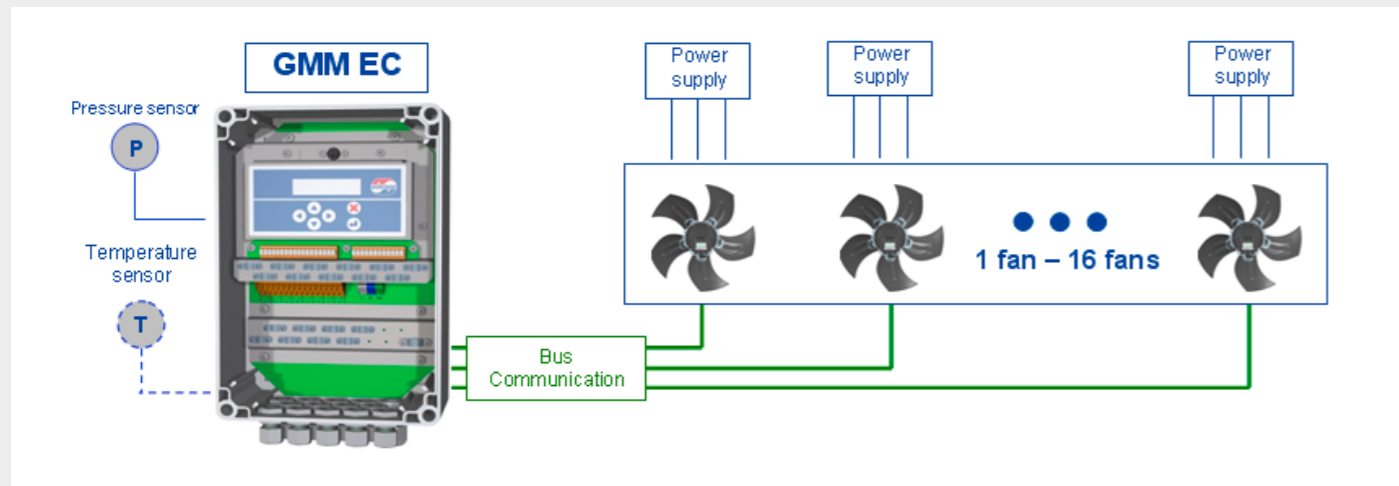
The following Guntner evaporators were chosen for the ammonia plant with pump circulation with a total cooling capacity of 11,395 kW:

Unit type	No.	Kind of room?	Guntner solution/Why?	Accessories + Options
S-MAN 065*	6	Freezing tunnel	Because in this case we use the fan for 250 Pa total pressure drop.	Water defrost, Hot gas defrost on coil and tray and Double insulated tray
S-AGHN 050	6	Processing room	Small industrial evaporator with re-heat coil (dehumidifier) and low noise level	Re-heat coil (dehumidifier)
S-AGHN 050	5	Storage room – frozen products	Industrial evaporator – standard to low temperature.	Water defrost, hot gas defrost on coil and tray and double insulated tray
S-AGHN 050	2	Storage room - polyvalent (-10 °C or -35 °C)	Industrial evaporator – standard to low and medium temperature (reversible process)	Water defrost, hot gas defrost on coil and tray and double insulated tray
S-AGHN 071	10	Expedition and palletization	Industrial evaporator with re-heat coil (dehumidifier)	Re-heat coil (dehumidifier)
S-MAN 065*	6	Carcass chilling room	Because in this case we use the fan for external pressure drop and high volume air flow.	Double insulated tray

\* Series from Sales region NLA

# Güntner Motor Management – the full programme

To ensure the highest possible energy efficiency, stable operation and maximum reliability and durability, cooling systems require dependable controllers, e.g. for the condensation pressure. Güntner Motor Management is incorporated into all Güntner controllers. All versions offer five different operating modes in slave or auto configuration.



GMM EC

The products on offer include a range of constant and step controllers. Most recently, the GMM step and GMM phase cut controllers were added to the portfolio.



GMM sincon



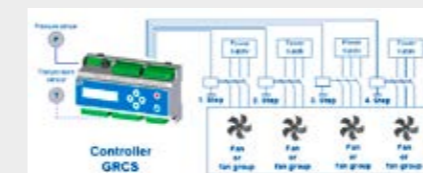
GMM f-drive

## GMM step

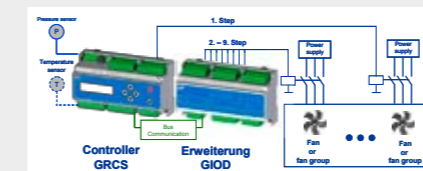
Like all GMMs, the GMM step is a system manager, information manager and process controller in one. Various bus systems are used to facilitate communication with the higher-level control system, or for integration into the building's control technology systems.

The GMM step is available in a Basic or Professional version and offers practical functions such as setpoint displacement, setpoint changeover, fan cycling, maintenance cycles, alarm management etc.

As far as investments are concerned, the step controller is the least expensive solution and can be used wherever the setpoint value does not need to be controlled exactly and the application in question is not sound-sensitive.



GMM step basic (1 – 4 steps)



GMM step professional (4 – 9 steps)

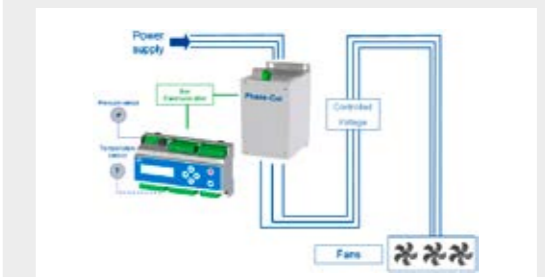
## GMM phase cut

The GMM phase cut also acts as a system manager, information manager and process controller. This controller too offers analogue and digital communication inputs and outputs as standard. Optionally, a facility for profibus or modbus communication is available as well.

In addition to the basic functions of a controller for condenser/dry-cooler fans, the GMM phase cut offers further cooling functions including setpoint displacement, setpoint changeover, fan cycling, maintenance cycles, alarm management etc.

The GMM phase cut is the cheapest constant controller which is particularly well suited to applications which are not sound-sensitive. It is available in a compact version or a version for installation in a switching cabinet.

The GMM phase cut can be used for Güntner's GHM spray and HYBRIMATIC® Hydro Management systems (for JAEGGI ADC Hybrid Blue®), while the GMM step can be used for Güntner's GHM spray Hydro Management system.



GMM phase cut



▲ EC LAB at Güntner Brazil



▲ thermowave GmbH test facility in Berga, Germany

## Innovation within the Güntner Group

The firms which belong to the Güntner Group attach great importance to technical innovations. Rather than relying on theoretical considerations, they immediately carry out practical tests on their new products.

### Test facility at thermowave

thermowave GmbH in Berga, a manufacturer of plate heat exchangers, has had its own test facility since the middle of 2013. All products are tested thoroughly to determine their performance as regards pressure drop and heat transfer.

Instead of resorting to theoretical performance curves and empirical equations, the company puts its products to the test. Measurements are taken with water as the hot medium and water-glycol as the cold one. The test facility is equipped with Coriolis mass flow meters and sensitive, state-of-the-art sensors. The facility is certified by TÜV Thüringen and this certification is renewed every two years. This confirms conformity between the design data and the actual performance figures. Data obtained by correlating a large number of measurement points are then fed into the TLC, the company's own calculation software. The authoritative performance figures obtained in this way ensure that products meet the needs of customers.

### Test laboratory in Brazil

Güntner do Brasil now has its own test laboratory too. Last year, the first test laboratory in the southern hemisphere which deals exclusively with evaporative condensers opened in Caxias do Sul. This once again shows that Güntner is at the forefront of technological progress. The so-called EC LAB uses a recognised ASHRAE test method and is the only test laboratory in the southern hemisphere that can simulate environmental conditions for any location on Earth in order to test the performance of evaporative, adiabatic and air-cooled heat exchangers and other products.

The technical centre is the result of a partnership between Güntner Brazil and Güntner US. Customers of the Güntner Group can therefore be certain that they are getting reliable products offering guaranteed performance which are not only sustainable and environmentally friendly but also help to reduce installation and operating costs.

### Measurement laboratory and test facility in Fürstfeldbruck

There are two test facilities at the company headquarters in Fürstfeldbruck. The first is the measurement laboratory for the condenser and aircooler ranges where the performance and thermal properties of the products are measured and tested under various conditions. The second is the recently built Wet XL test facility for large sprayed condensers and drycoolers where performance levels in sprayed and dry mode can be tested under various conditions.

### Basic work in two own laboratories

Last year, laboratories for basic chemical work and more in-depth investigations into the relevant metallic components were also set up at the Fürstfeldbruck site and in Tata. The work carried out there includes corrosion tests as well as the production and evaluation of metallic samples.

## Plate heat exchangers out at sea



Measuring 252 m in length and operated by the shipping company Aida Cruises, the AIDAblu is the world's first cruise ship to have its own brewery on board. Three types of beer have been brewed on the ship round the clock since February 2010.

To ensure that beer is brewed in the smoothest and most efficient way possible, a thermowave plate heat exchanger from the Clean range is used in the process.

The requirements imposed on technical equipment for use aboard ships – space-saving design, ship-specific fixings and compliance with the standards of the American health authorities (USPH Standards) – pose a particular challenge. With its compact design, low weight and yet high flexibility, the TL 90 thermowave plate heat exchanger used is the ideal model if power output needs to be changed later on.

In order to meet the demanding requirements of the food industry, all TL 90 plate heat exchangers are designed and built in accordance with "Hygienic Design" principles. On the AIDAblu, the unit is used to cool the wort from 90 °C to approx. 20 °C.

When producing beer, thermowave plate heat exchangers can also be used to cool the brewing water, beer or green beer and as pasteurisers.

Since the brewery on board the AIDAblu went into operation, a further three AIDA Cruises ships (AIDASol, AIDamar, AIDAstella) have been equipped with on-board breweries. thermowave plate heat exchangers are used successfully here too.



Fotos: © AIDA Cruises

# Güntner Group on expansion course

Thanks to our strategy of being as close as possible to our customers, the Güntner Group is able to recognize new developments and help shape the market. In times of growing markets and rising demand for our products, we have to grow strategically as well. To meet these requirements, we are steadily expanding our production capacities and increasing our research and product development activities.



## 1 APODACA, Mexiko

In early June, Güntner de México opened its new “Plant 2” production facility with a festive ceremony. The plant offers space for five new production lines that will be used exclusively for the manufacture of stainless-steel equipment in the field of industrial refrigeration. The new facility increases the total production area by almost 50 percent.



## 2 CAXIAS DO SUL, Brazil

Last year, Güntner do Brasil in Caxias do Sul opened its EC test lab. It uses a recognised ASHRAE testing method and is the only test laboratory in the southern hemisphere that can simulate environmental conditions for any location on Earth to test the performance of evaporative, adiabatic and air-cooled heat exchangers and other products.



## 3 FÜRSTENFELD-BRUCK, Germany

To be able to use the company lab for large outdoor units, the headquarters site in Fürstfeldbruck added an outdoor testing facility called “Wet XL”, where heat exchangers can be tested in their original size and in dry or sprayed operating mode.



## 4 TATA, Hungary

Güntner’s largest production facility in Europe added another 2.5 hectares to its 11 hectares. The Tata plant now has several new production buildings and the design facilities were significantly expanded as well. Another addition is a visitor centre that features exhibition, training and meeting areas along with an overview of the company’s history.



## 5 IZHEVSK, Russia

At our plant in Ishevsk, Udmurtia, Russia, we produce high-quality fluid collectors and bundled-pipe heat exchangers. This year we added more equipment to keep our production facilities state-of-the-art and expand our capacity.



## 6 SINGAPORE

The closer cooperation within the Güntner Group is also being reflected in local physical changes. In Singapore, the sales offices for Güntner and thermowave products are now located in the same building. Customers now have a single address for competent application advice.

# What is new in the Guntner Product Calculator (GPC)?

The latest version of the GPC includes a number of new features and changes that are described here.

## Changes to the basic settings dialogue

The basic settings dialogue now features a selection group relating to the ErP Directive. You will find the basic settings dialogue in the menu under "Options – Settings"; you will then see a "Basic Settings" button at the right of the window that appears. The ErP directive is binding within the European Economic Area. If you configure a device that is to be used within the EU, you should select the option "I would only like to have devices which conform to the ErP Directive". If you are configuring a system for use outside the European Union, you can select the option "The ErP Directive is not relevant to me. The devices will be installed and used exclusively outside the European Economic Area."

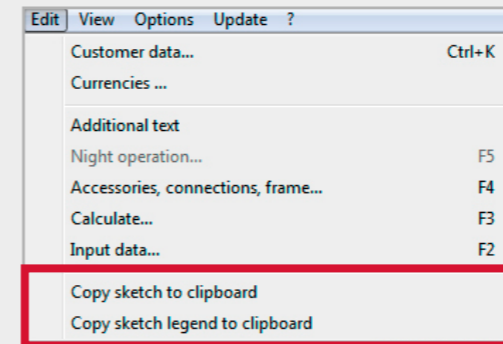
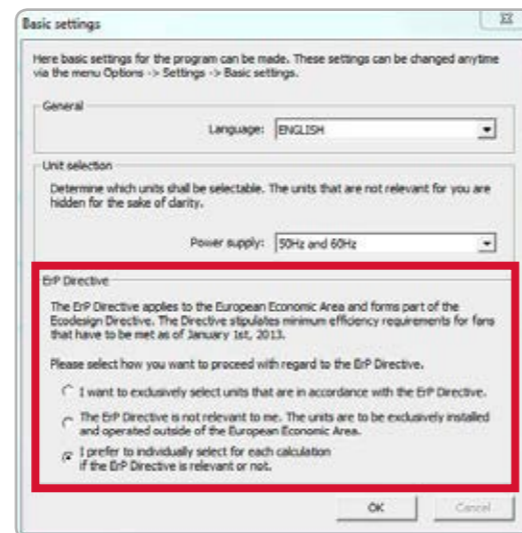
Naturally, you are at liberty to specify whether or not the ErP Directive is to be taken into account for each system.

## Guntner HydroSpray system

The Guntner HydroSpray system for the high-performance GFD (dry-cooler) and GVD (condenser) V-Block devices is already established on the market and is already very well known. If, when selecting a device for your project, you would like to equip your chosen GFD or GVD with this water-saving and performance-enhancing system, please contact your Guntner sales employee, who will be happy to come up with a suitable system for you!

## Additions to the GHN.2 and AGHN.2 ranges

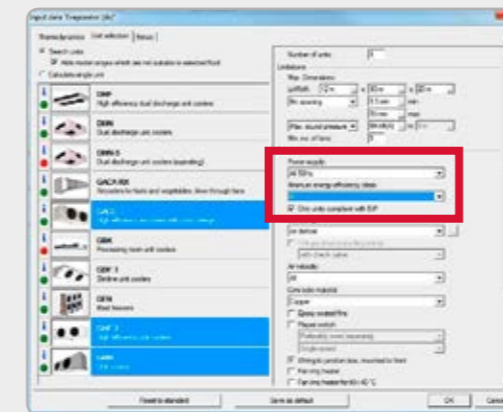
Devices with a fan diameter of 900 mm have been added to both ranges, while device types with four fans have been added to the 710, 800 and 900 mm fan diameter versions.



## Sketch copy function

Another highly practical new function is the facility to copy the diagrams and legends for the selected device in the GPC datasheet to the clipboard. This makes it very easy to copy your selected version to other documents and thus integrate it quickly into your project documentation.

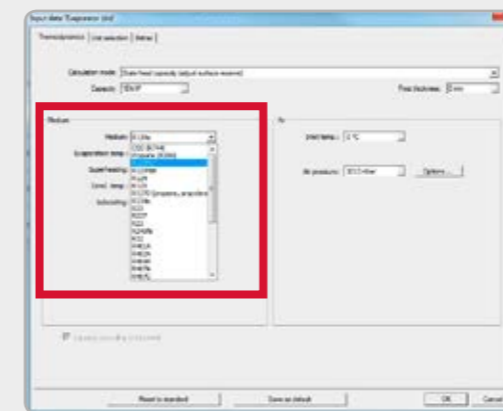
You will find this function in the menu under "Edit"; the two functions are "Copy Diagrams to Clipboard" and "Copy Diagram Legend to Clipboard".



## Classification of energy efficiency classes according to Eurovent

The efficiency class is now displayed in the list of hits. You can also make your selection in such a way that not only the required basic parameters are satisfied but also the most energy-efficient device is used from the start. This reduces operating costs!

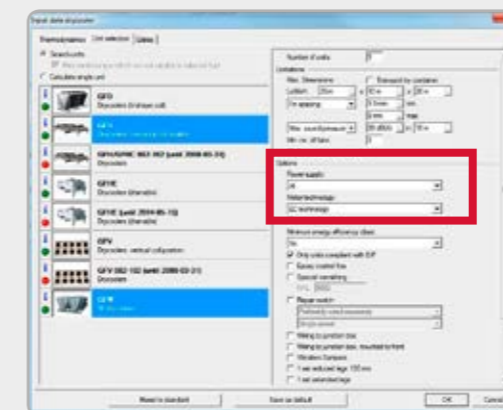
When choosing a device, you can select the minimum energy efficiency class under "Options" – "Minimum Energy Efficiency Class".



## New refrigerants with low GWP values

The following four new refrigerants are now available in the GPC selection programme:

- R1234yf (GWP = 4)
- R1234ze (GWP = 6)
- R600 (butane, GWP = 20)
- R600a (isobutane, GWP = 3)



## EC fans: AxiTop option for 800 and 900 diameters

The AxiTop option is now available for EC fans with the 800 and 900 fan diameter in Europe. The AxiTop diffuser from ebm-papst is a passive component for improving noise levels and efficiency. As shown above, the option can be selected by ticking a checkbox under "Motor Technology" on the device selection page. If you click on this option, devices which do not have this option will not be shown when searching for devices. If you have already chosen a device, you can also select or deselect the AxiTop option in the accessories dialogue.



## thermowave – Kyffhäuser mountain race

**For the third time, thermowave GmbH, the Berga-based manufacturer of high-quality plate heat exchangers, sponsored the Kyffhäuser Mountain Marathon.**

This sponsorship shows that the company likes to promote its home region while working to improve the health of its employees. As in previous years, thermowave fielded its own teams for the 6-kilometer and 14-kilometer courses. Company employees even participated in the marathon race. Each year, roughly 3,000 participants come to Bad

Frankenhausen to make it to the top of Kyffhäuser Mountain on foot or mountain bike. We don't know whether the heat of the contest left the athletes any time and desire to admire the landscape and landmarks of "Europe's smallest low-mountain range". But when it was over, all thermowave runners were happy and proud to have made it to the finish line.



## JAEGGI – ISO 9001 certification went without a hitch

**All parts of JAEGGI, i.e. its administration and sales offices in Switzerland and its production facilities in Fürstfeldbruck, Germany, have been certified by Swiss company SQS to comply with the ISO 9001:2008 quality management standard.**

SQS stands for the "Swiss Association for Quality and Management Systems". The company is an internationally recognized certification provider that grants "SQS-certified Management System" and "SQS-audited Management System" designations as registered seals of quality. To obtain an SQS certificate, a company must successfully pass the certification process. All requirements of the applicable standard must be met. In this case, the standard was the ISO 9001:2008, which places

high demands on a company's management processes. To maintain its certification, a company must successfully pass a recertification process every three years as well as an annual maintenance audit. The audit report gave special praise to the company's open communication culture, its professional competency in all areas and its consistent design and implementation of all processes.



## Güntner – B2Run corporate challenge in Munich

**The B2Run German Corporate Running Championships take place each year in 11 major cities. They combine sports with an entertaining social program – all for a good cause, because part of the starting fee goes to charity.**

The B2Run event in Munich is virtually the flagship of the racing series. This year's race was held for the tenth time, and with 30,000 participants from about 1,500 companies it is also the largest corporate racing event in Germany. Güntner was also represented again with its own time. 18 ambitious athletes went to the start of the 6-kilometer race and were cheered loudly by their own "fan section". One of the greatest mo-

ments of the event occurs each year when the runners enter the Olympic Stadium for the finish. What runner would not dream of making it to the finish line against such a backdrop and in front of thousands of cheering spectators. One employee summarized it perfectly: "A truly uplifting feeling. I'll definitely participate again next year."



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# Innovations for all fluids



## Curious? Visit us at Chillventa!

At this year's Chillventa, we will present outstanding new products which meet both the future requirements of the F-Gas Regulation and the next stage of the ErP Directive. With these products, we offer you the confidence that your projects are future-proof. Along with further technologies from the Güntner Group, like the hybrid coolers from JAEGLI and the plate heat exchangers from thermowave, we offer an entire range of tailor-made solutions.

We are looking forward to presenting to you a number of innovative products at Chillventa. Visit us at **Chillventa 2014 in Nuremberg | 14 – 16 October | Hall 4, Booth 104**



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