



Güntner Info

GVH
GVV

Condensers

GFH
GFV

Drycoolers

8 kW – 1,300 kW



Robust and flexible!

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Güntner specialises in air-cooled condensers and drycoolers for all the usual media. The GVH/GFH series has been developed and improved over a number of years and has been particularly successful.

GVH/GFH are available as vertical or horizontal units and are extremely versatile. Using the Güntner Product Calculator GPC, you can quickly and easily configure suitable condensers or drycoolers. You can choose from a very wide performance range, a variety of fans for different sound requirements and an extensive programme of accessories.

Güntner can supply suitable solutions for even the most specific requirements. Whether you need a multiple circuit coil, subcoolers, special varnishing or empty casings – just ask us and we will be happy to help you.

One great advantage of Güntner's heat exchangers is their robust design, intended for a long service life. All requirements pertaining to transport, installation, operation and cleaning were taken into account during the development process and factored into the design. High-quality heat exchangers, Güntner's proven floating coil principle and support sections are just a few of the many special technical features.

Easy to configure (GPC)



Reliable performance figures (Eurovent)



High-performance



Corrosion-protected for installation on the coast



Can be adapted to the architecture



Quiet



Robust



Cleanable



Efficient with Güntner controls



Tailored solutions for any application

Wide performance range

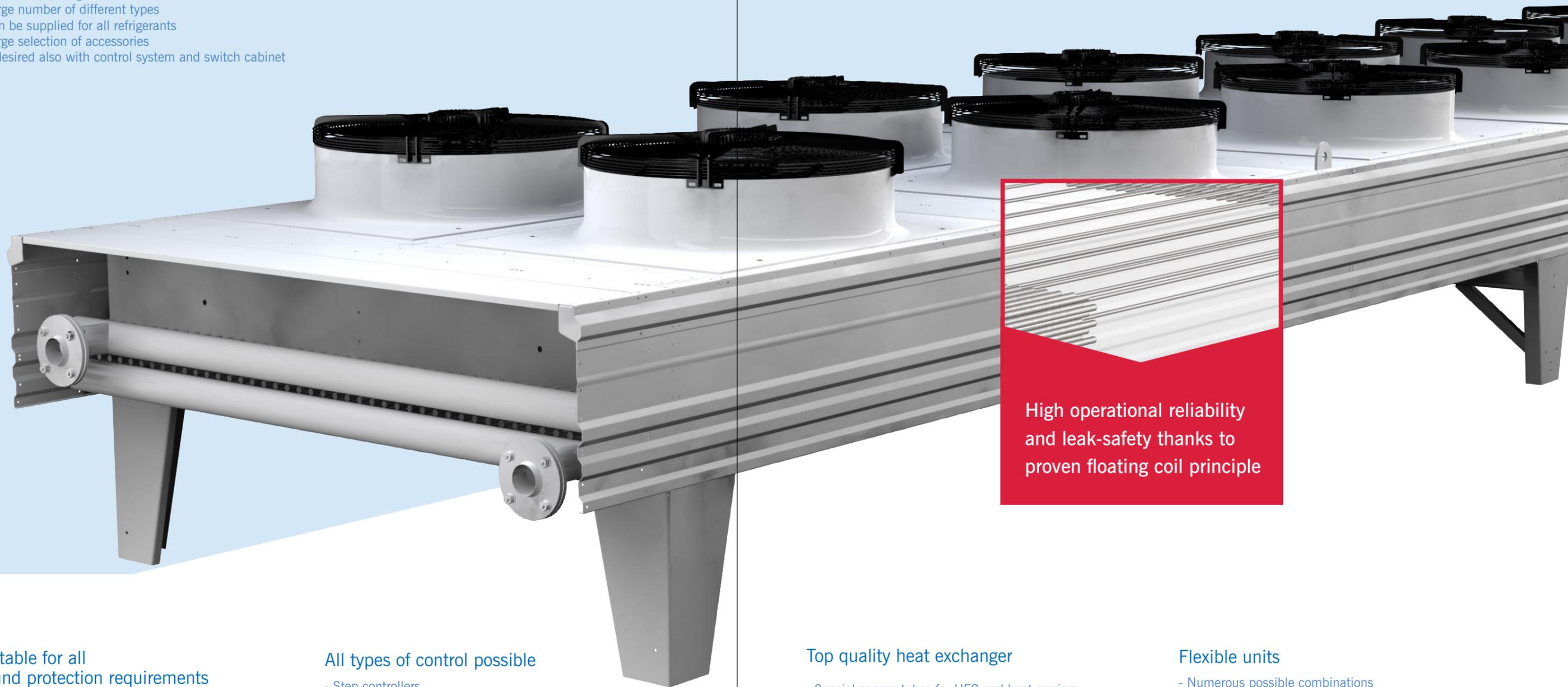
- Performance range from 8 to 1,300 kW
- Large number of different types
- Can be supplied for all refrigerants
- Large selection of accessories
- If desired also with control system and switch cabinet

Efficient fans

- AC and EC technology with Güntner Motor Management
- With two speeds as standard
- Motor protection with thermocontacts

Robust casing

- Casing with high torsional stiffness thanks to profiled side walls
- Galvanized sheet steel
- Varnished in RAL 7035
- Special varnishing available in any RAL colour



High operational reliability and leak-safety thanks to proven floating coil principle

Suitable for all sound protection requirements

- Five available sound levels
- With two speeds as standard
- Suitable for speed controller
- Individually specified maximum speed

All types of control possible

- Step controllers
- Phase cutting
- Frequency converters
- EC fans with Güntner Motor Management
- Bus-enabled system
- Pre-wired ready to operate

Top quality heat exchanger

- Special copper tubes for HFC and heat carriers
- Stainless steel tubes for NH_3
- Surface-corrugated aluminium fins for easy cleaning and high heat transfer
- Staggered tube pattern with fin spacings 2.2 and 2.4 mm

Flexible units

- Numerous possible combinations
- Configurable tube materials and geometries
- Various fin spacings possible
- Various tube-circuiting options
- Coated fins possible



Competence for unique system solutions

Thanks to its expertise and years of experience, Guntner has developed a series of units that can be adapted to any particular requirements and offers numerous advantages.

The series is constructed so variably that it can be used for any applications in the areas of drycooling and condensing.

The resulting system solutions will entirely meet your requirements as to performance, sound emissions and material combination right down to the factory-wired controllers.

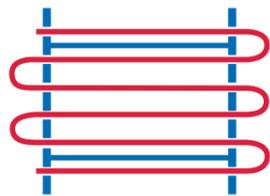
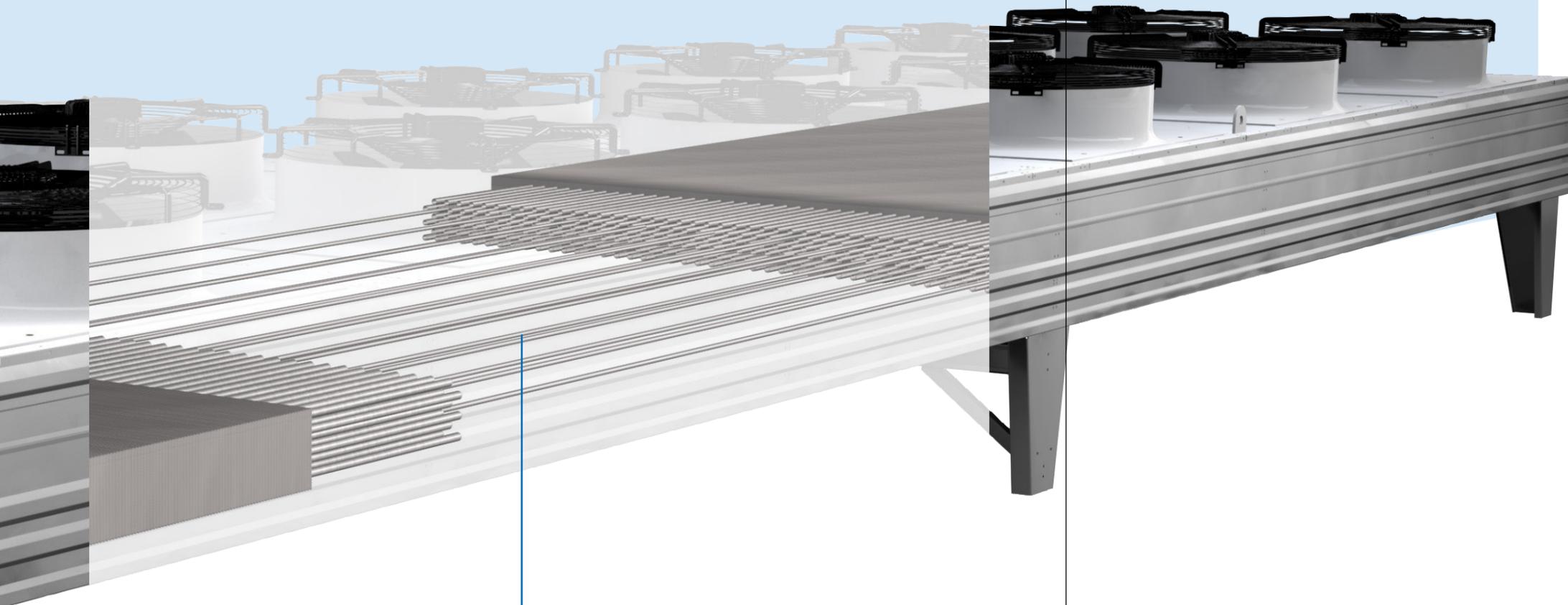
Easy to install

- Crane lugs to simplify transport by crane
- Small number of feet and hence fewer bases
- Factory-fitted modules (switch cabinets, empty casings, ...)



Inspection and cleaning

- Fans easily accessible
- Cleaning hatch*
- Fold-down fan plates with gas pressure dampers*



High operational reliability and leak-safety

- Proven Guntner floating coil principle (fluid-carrying tubes do not make contact with the casing, which increases the heat exchanger's service life)
- High torsional stability for crane and forklift transport

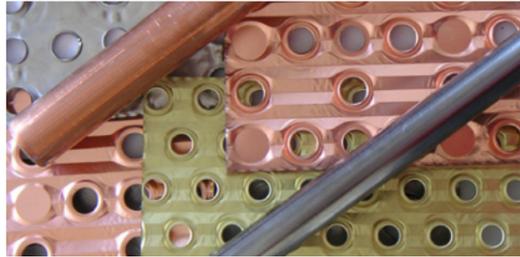
Certified performance reliability

As a member of the Eurovent Certification Programme, we guarantee the performance of our products. As part of the certification process, all series of a participating manufacturer are tested and confirmed by specially approved laboratories. With units certified by Eurovent you can rely upon the fact that the specified performance values are actually achieved.



Wide range of options and accessories

Numerous material combinations



Liquid receivers



Increased corrosion protection



Different applications with aggressive atmospheres require targeted material selection. We have compiled a brochure with recommendations for material selection.

<http://www.guentner.eu/know-how/application-tips>



Multiple circuit coils



Subcooling



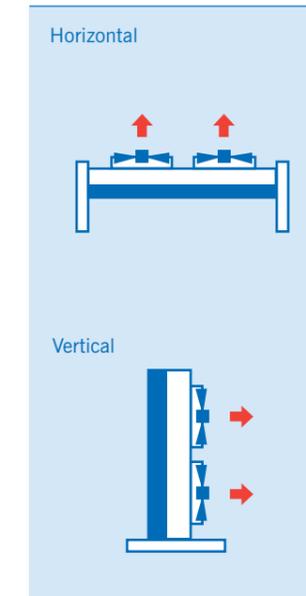
Empty casings for components installed on-site



Speed controllers and switch cabinets



Orientation



Product types / Refrigerant / Output

	Sound level	Refrigerant	Nominal capacity*	Sound pressure level**
GVH/GVV	N	HFC	19,8 – 1180 kW	47 – 67 dB(A)
	M	HFC	70,2 – 1126 kW	45 – 64 dB(A)
	L	HFC	14,6 – 961 kW	36 – 60 dB(A)
	S	HFC	11,7 – 681 kW	31 – 48 dB(A)
	E	HFC	13,8 – 624 kW	28 – 49 dB(A)
AGVH/AGVV	N	NHC	47,8 – 1310 kW	54 – 67 dB(A)
	M	NH ₃	76,0 – 1158 kW	45 – 64 dB(A)
	L	NH ₃	34,4 – 986 kW	47 – 60 dB(A)
	S	NH ₃	23,8 – 704 kW	40 – 52 dB(A)
	E	NH ₃	21,5 – 652 kW	35 – 49 dB(A)
GFH/GFV	N	Heat carriers	24,3 – 929 kW	49 – 67 dB(A)
	M	Heat carriers	60,8 – 965 kW	45 – 63 dB(A)
	L	Heat carriers	17,9 – 732 kW	39 – 60 dB(A)
	S	Heat carriers	14,1 – 585 kW	31 – 52 dB(A)
	E	Heat carriers	14,1 – 527 kW	31 – 49 dB(A)

* t_{LE} 25 °C, t_c 40 °C ** at a distance of 10 metres as per EN 13487

Fans



1 – 12
450 / 500 / 650 / 800 / 900 / 1000 mm

Heat Exchanger



Fin geometry:
H up to type 065 25 x 22 mm
From type 080. 50 x 25 mm with staggered tube pattern
Fin spacing
2.2 / 2.4 mm

Available Accessories

Liquid receivers	Controls	Other
<ul style="list-style-type: none"> ✓ Horizontal ✓ Vertical 	<ul style="list-style-type: none"> ✓ GMM EC ✓ GMM sincon® ✓ GMM phase cut ✓ GMM step 	<ul style="list-style-type: none"> ✓ Epoxy resin-coated fins ✓ Special varnishing ✓ EC fans ✓ Inspection cover ✓ Vibration dampers ✓ Flange connection ✓ Extended legs ✓ Empty casings ✓ Max. operating pressure 41 bar ✓ Made of stainless steel
Subcooler		
<ul style="list-style-type: none"> ✓ Multiple circuit coil ✓ Separate heat exchanger 	<ul style="list-style-type: none"> ✓ Switch cabinet ✓ Repair switch 	

Available Material

Material	Tube	Fin	Casing
AlMg			
Aluminium		✓	
Copper	✓	✓	
Aluminium, epoxy-resin coated		✓	
Steel, hot-dip galvanised			
Sheet steel, galvanized			✓
Stainless steel, V2A 304	✓	✓	✓
Stainless steel, V2A 316	✓	✓	

✓ Standard version

References

Protection of historic buildings

The Altmarkt gallery in Dresden operates 20 GFH dry-coolers to ensure a pleasant atmosphere. Utilising the “free cooling” operating mode saves energy amounting to 95,000 kWh per year. To protect the historic building, the drycoolers were arranged at an angle and integrated into the building.



Process Cooling

In this factory, the company Glockenbrot produces baked goods for branches all over Germany. This involves processing 100 tonnes of flour every day. Güntner's drycoolers cool the refrigeration units required for process cooling.



Altitude – extreme conditions

Germany's highest transmitter is operated by the Bavarian broadcasting company BR in the Alps. Güntner drycoolers are in operation in all weathers at an altitude of 1800 m.



Fish processing – corrosion protection

One of Europe's largest and most modern fish processing plants is on the Baltic island of Rügen. Installing condensers and drycoolers on the coast calls for special anti-corrosion measures. Güntner's special corrosion-protected condensers fulfil these requirements.



Stringent sound requirements

Refrigeration equipment with a total cooling power of 3.5 MW is installed at the Rinecker Proton Therapy Center. The location of the drycoolers called for a non-standard assembly and compliance with extra stringent sound requirements.



High cooling power – special assembly situation

London is home to one of Europe's largest shopping centres. 61 speed-controller equipped Güntner dry-coolers provide for a pleasant atmosphere. Such a large number of drycoolers calls for special measures for the assembly and installation. The speed controllers ensure that the required sound levels can be complied with day and night.



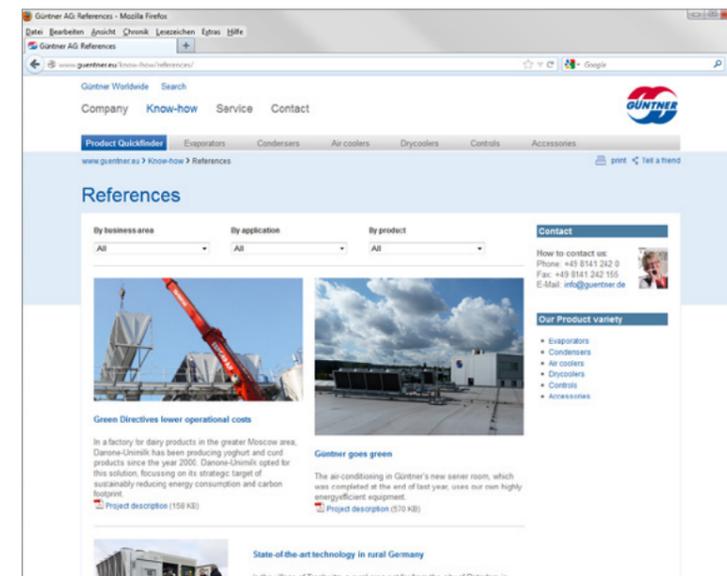
Tradition and High-tech

The traditional pub “Zum Franziskaner” in Munich relies on the very latest technology from Güntner. The refrigeration unit's energy efficiency is monitored and optimised around the clock to make sure the world-famous Bavarian beer is cooled to perfection.



Industrial refrigeration and resource efficiency

Wieland Copper Works converted their drycoolers from groundwater to air, which doubled the capacity of their rolling mill. Six Güntner drycoolers now provide the rolling plant with 3 MW of refrigeration power.



You will find more references at <http://www.guentner.eu/know-how/references/>

Controls

The GMM system is available for AC or EC fans. A number of different technologies are utilised. There is, however, one feature common to all management systems: They all provide various functions that serve to enhance energy efficiency.

AC fans

A number of technologies are available for AC fans depending on the application.

EC fans

Maximum efficiency can be achieved with EC fans and the GMM EC.

	GMM step	GMM phase cut*	GMM f-drive	GMM sincon®	GMM EC
Energy efficiency	Refrigerating circuit ● ● ● ● Speed controller ● ● ● ●	Refrigerating circuit ● ● ● ● Speed controller ● ● ● ●	Refrigerating circuit ● ● ● ● Speed controller ● ● ● ●	Refrigerating circuit ● ● ● ● Speed controller ● ● ● ●	Refrigerating circuit ● ● ● ● Speed controller ● ● ● ●
Refrigerating circuit	Precision ● ● ● ● Sound ● ● ● ●				
Speed controller	Investment ● ● ● ● Service life ● ● ● ●	Investment ● ● ● ● Service life ● ● ● ●	Investment ● ● ● ● Service life ● ● ● ●	Investment ● ● ● ● Service life ● ● ● ●	Investment ● ● ● ● Service life ● ● ● ●

● ● ● ● not so good ● ● ● ● very good

* Available from the middle of 2013

Quickly and safely configure thermodynamically & generate quotes

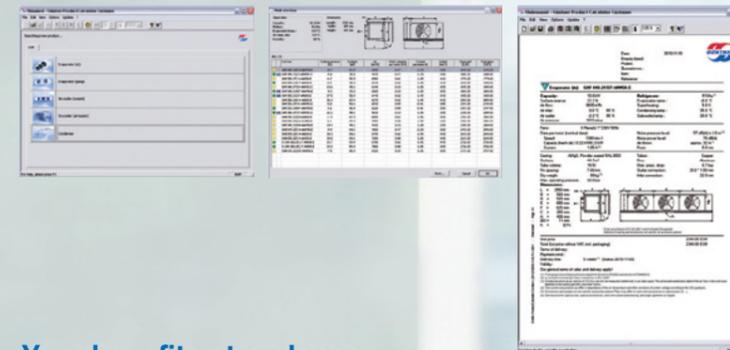
The Guntner Product Calculator GPC configuration software allows you to quickly configure the right unit for your application. Simply enter the required basic data in the entry screen on the GPC. An exact thermodynamic configuration then follows.

Use our software for selecting aircoolers, condensers, dry-coolers, control units and switch cabinets.

Download your
Guntner Product Calculator (GPC) for free.
www.guentner.eu



Numerous functions for quick and precise configuration – from series selection to options, through to control:



Your benefits at a glance:

- Precise thermodynamic configuration
- Quick and safe configuration
- Different units possible
- 15 languages can be set
- Current prices and delivery times can be called up
- Display of rapidly deliverable units in storage



Our expertise is your advantage!

Application advice

Our specialists are your contact partners waiting to help you. They will advise you in detail and configure the best unit for your application in accordance with your requirements, or develop a complete concept for a ready-to-operate solution straight away.



Fans

We use high-efficiency, directly-driven, brand name fans for continuous control, balanced in two planes. With balancing quality Q 6.3 they comply with DIN ISO 1940 Part 1. The fans are maintenance-free and extremely long-life.



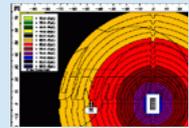
Leak-safety

The proven Güntner floating coil principle relieves the fluid-carrying heat exchanger tubes, without any contact with casing parts (end plates or separator plates). The heat exchanger is on a floating bearing, and is therefore protected against leaks.



Sound

The extensive test runs in our internal test laboratory enable optimum fans to be selected for the sound requirements of your application – starting with configuration with the Güntner Product Calculator.



GPC – Güntner Product Calculator

The extensive test runs in our internal test laboratory enable optimum fans to be selected for the sound requirements of your application – starting with configuration with the Güntner Product Calculator.



You don't have a Güntner Product Calculator yet?

You can download the software from the Güntner website or request it on a CD.

www.guentner.eu

Control

Güntner Controls is an independent department which has been delivering efficient and top quality controllers and switch cabinets for many years now. Our experts work out project-specific solutions for you for the highest demands in all areas. We have an individual switch cabinet solution for all your applications – regardless of whether it involves AC or EC fans. We control everything!



Service After Sales

Our Service After Sales department supports our customers with problems and questions they may have. If there are any doubts at all, a colleague is quickly on-site to take care of your issues and interests directly there with you. Our employees are not only refrigeration technology experts – they are also qualified in many other specific areas, e.g. as certified welders for different pipe wall strengths and materials.



If interested, please contact our Sales department:
sales@guentner.de



Güntner AG & Co. KG
Hans-Güntner-Str. 2 - 6
82256 FÜRSTENFELDBRUCK
GERMANY

www.guentner.eu