

Condensers / Dry coolers



Compact

The COMPACT product line offers readily available standard units for standard applications at a fair price-performance ratio.

Vario

The VARIO product line comprises series which can be customised quickly and accurately for individual projects by means of the GÜNTNER Product Calculator. Customers are able to choose specific equipment to meet their individual requirements from a variety of different material combinations, variants and accessories.

Application

The APPLICATION product line consists of series configured for special applications, e. g. for the cooling of agricultural products or storage centers. Customised adaptations and customer series are available for special applications.

Name	Product	Capacity	HFC	NH ₃	CO ₂	Heat Carrier
Flat		4 – 400 kW	GCHC		GCHC	GCHC
Vertical		4 – 400 kW	GCVC		GCVC	GCVC
V-Shape		70 – 850 kW	GVW	GVW	GVW	GFW
Flat		8 – 1320 kW	GVH	AGVH	GVH	GFH
Vertical		8 – 1320 kW	GVV	AGVV	GVV	GFV
V-Shape		30 – 2000 kW	GVD	GVD	GVD	GFD
Indoor-H		20 – 700 kW	RVH		RVH	RVH
Indoor-V		20 – 700 kW	RVV		RVV	RVV

xxx

Product available in GÜNTNER Product Calculator (GPC)

xxx

Product available on request

Controls
Control engineering



GMM
step



GMM
phase cut



GMM
f-drive



GMM
sincon®



GMM
EC



GHM
spray



GHM
pad

Competent. Reliable. Personal.



A Strong Partner

Güntner is a leading specialist for heat exchanger systems in refrigeration and air-conditioning equipment on the international market.

Founded over 80 years ago in Germany, the company developed its market and sector-oriented solutions in close personal cooperation with its customers, right from the start. Today the Güntner Group, a modern, globally-active company, combines its unique specialist expertise with top-class technical innovations to serve you and your partners in the industry, trade and service sectors.



Robert Gerle, Managing Director

Worldwide Network

An ultra-modern communication network enables the Group to utilise synergy effects in the fields of manufacturing, development and design, as well as practical competency gained from international large-scale projects, for the benefit of its customers and partners. Highly qualified, dynamic Guntner employees, consistent training programmes and a team spirit which spans the globe, all contribute toward providing you with the best results on all levels of cooperation.

The Guntner Group combines the best development, manufacturing and consultancy standards with an excellent local presence and outstanding Time-to-Market. The company maintains its worldwide presence with its own distribution companies and sales agencies.

An additional convenience: Your contacts at Guntner offer consultancy services for your local and international projects in your national language. Trade fairs, training and information events ensure that you are kept up-to-date with the latest developments. The result: Excellent planning reliability, punctual project execution and optimal performance due to well-engineered, quality products.

Guntner maintains long-term, successful relationships with its partners. The focus is on lively, solution-oriented dialogue, outstanding development competency and first-rate product availability.



The Ideal Product for Each Customer-Specific Application

Based on extensive experience in the field, the Group has established an especially diverse range of products, providing you with a variety of options for all application areas.

Industrial refrigeration



Commercial refrigeration



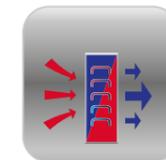
Air-conditioning



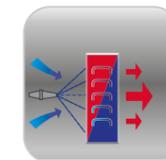
Energy and process cooling



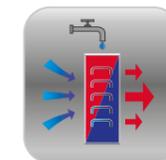
The technologies of the Guntner Group at a glance



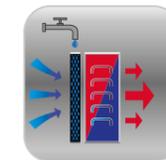
Dry coolers
in different designs



Sprayed dry coolers with Guntner HydroSpray
Intelligent control and section-wise spraying



Hybrid dry cooler HTK
Hybrid condenser HTV



Advanced Dry Cooler ADC
Adiabatic system with humidification pads
for pre-cooling

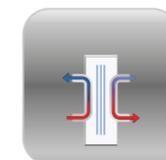


Plate heat exchangers, gasketed or module-welded
for operating pressures up to 63 bar

New Products

SLIM / Compact

GASC



Air cooler in flat design with blow-through fans
Ideal for commercial refrigeration

- Tube volume reduced by up to 37 % (compared to previous model)
- CO₂ up to 80 bar
- HACCP certification by TÜV SÜD

CUBIC / Compact

GACC



High efficiency air cooler in compact design
Ideal for commercial refrigeration

- CO₂ up to 80 bar
- Tube volume reduced by up to 37 %
- EC fans as accessory

CUBIC / Vario

GACV



Variable air cooler in cubic design
Ideal for industrial refrigeration

- Hinged inner tray for easy access
- CO₂ up to 80 bar
- HACCP certification by TÜV SÜD

FLAT / Compact

VERTICAL / Compact

GCHC GCVC



Compact design
Ideal for commercial refrigeration

- CO₂ up to 120 bar
- TÜV approval for propane
- Optimised for all „new“ refrigerants

FLAT / Vario

VERTICAL / Vario

GCHV GCVV



Robust and variable
Ideal for industrial refrigeration

- CO₂ up to 120 bar
- Greatest variability (heat exchanger, casing, fan)
- EC fans 0 – 10 V

THERMOSTORE / Application

GAIL



Insulated unit cooler
Optimised for logistics applications

- Best defrosting performance
- EC centrifugal fans
- Energy-efficient



Sustainable Innovation

The Güntner Group continuously invests the practical and strategic expertise gained over decades into future-oriented new developments.

This goal demands a sustained effort in terms of innovation amid heightened awareness of ecological challenges in the cooling and air-conditioning sectors worldwide. The Güntner Group responds to these demands by consistent further development of their product and service portfolios on the basis of state-of-the-art technologies.

Customers can rest assured that the Güntner systems they are using successfully today will remain available in future – enhanced to meet the most up-to-date technical standards, while continuously being adapted to market needs: from efficient refrigerants, energy saving and noise reduction, down to low operating costs. Güntner's innovations benefit from the Group's dynamic, highly qualified network of top-performance partners from the commerce, research and science sectors.

Ideally Tailored Components for Each Application Ensure Efficient Operation.

On a technical level, this combination flexibility facilitates solutions which achieve high efficiency: Güntner's electronic control components offer reliability and save time.

A comprehensive range of accessories allow for optimal adjustment to local operating conditions. Specialised Güntner solutions are tailored to individual markets on all continents on the basis of systematic needs analyses and consistent product management. The Güntner Group implements quality management across the globe, thereby fulfilling the high quality

and performance requirements specified in the best and most recent relevant standards, such as: DIN EN ISO 9001; DIN EN ISO 14001; EUROVENT CERTIFY ALL; ASME B31.5; ARI; ASHRAE and UL.

Regular audits are conducted in the Group's seven production sites worldwide to ensure optimal material quality and manufacturing processes.



The Most Important Information at www.guentner.eu



GPC download
Free configuration software



Specialist information/
Application tips

Your worldwide contact partners



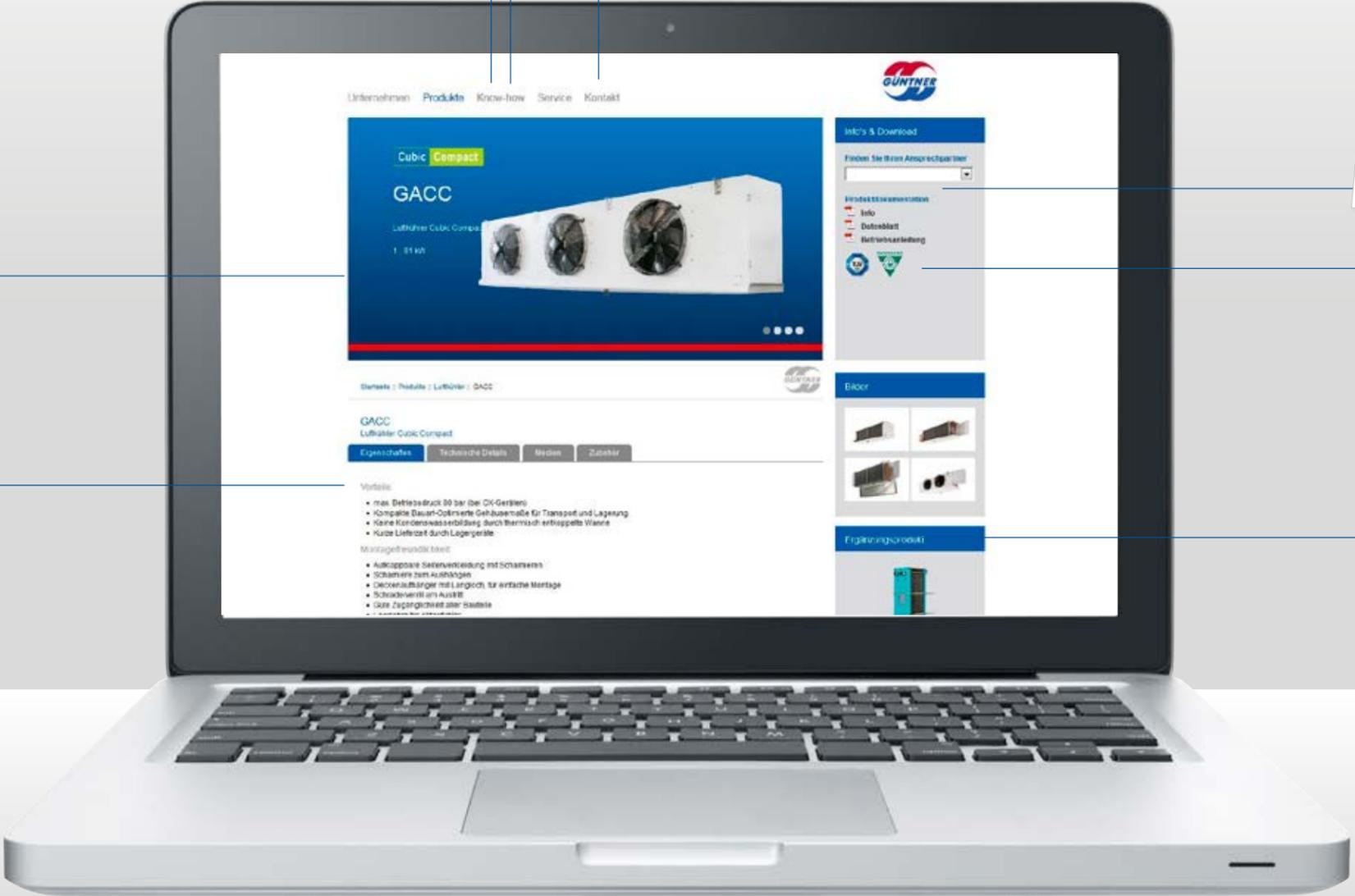
Information brochures
Data sheets
Operating instructions

Zertifikate
zum jeweiligen Produkt

Product photos

Product properties
All product benefits at a glance

Complementary Products



Perform Thermodynamic Configurations and Generate Quotes Quickly and Safely

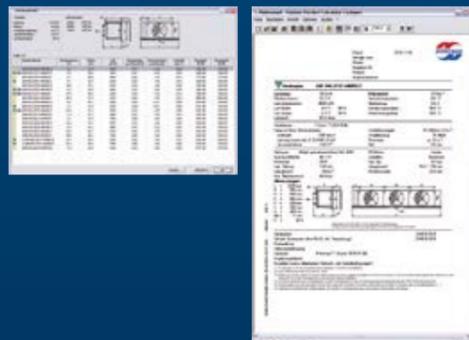
The Güntner Product Calculator GPC configuration software allows you to quickly and easily configure the right unit for your individual application. Simply enter the required parameters in the convenient entry screen on the GPC.

An exact thermodynamic configuration is performed and a selection of suitable units is provided, while taking into account the operating conditions and accessories you have selected. After selecting the optimum unit, the GPC generates a data sheet with technical data, dimensions, weights and prices for you.

Use our GPC for swift and precise selection of heat exchangers, control units and switch cabinets!

Your benefits at a glance:

- Precise thermodynamic calculation, even with uncommon usage areas
- Quick and reliable design work
- Individual setting of different units possible for each entry field
- 15 languages
- Current prices and delivery times can be called up
- Shows units in stock with short delivery times
- Night limit, fans in accordance with intended use and energy efficiency



Your free
Güntner Product Calculator (GPC) to download:

www.guentner.eu



Short Delivery Times for Units Kept in Stock

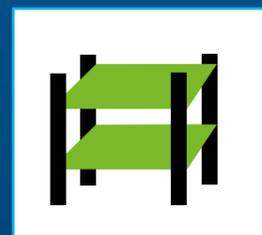
When performing a search, the GPC configuration software indicates which items are in stock and can be delivered in just 4 days. The storage symbol appears on these units.

Readily Available Units kept in Stock

Evaporators: GASC, DHF, GACC

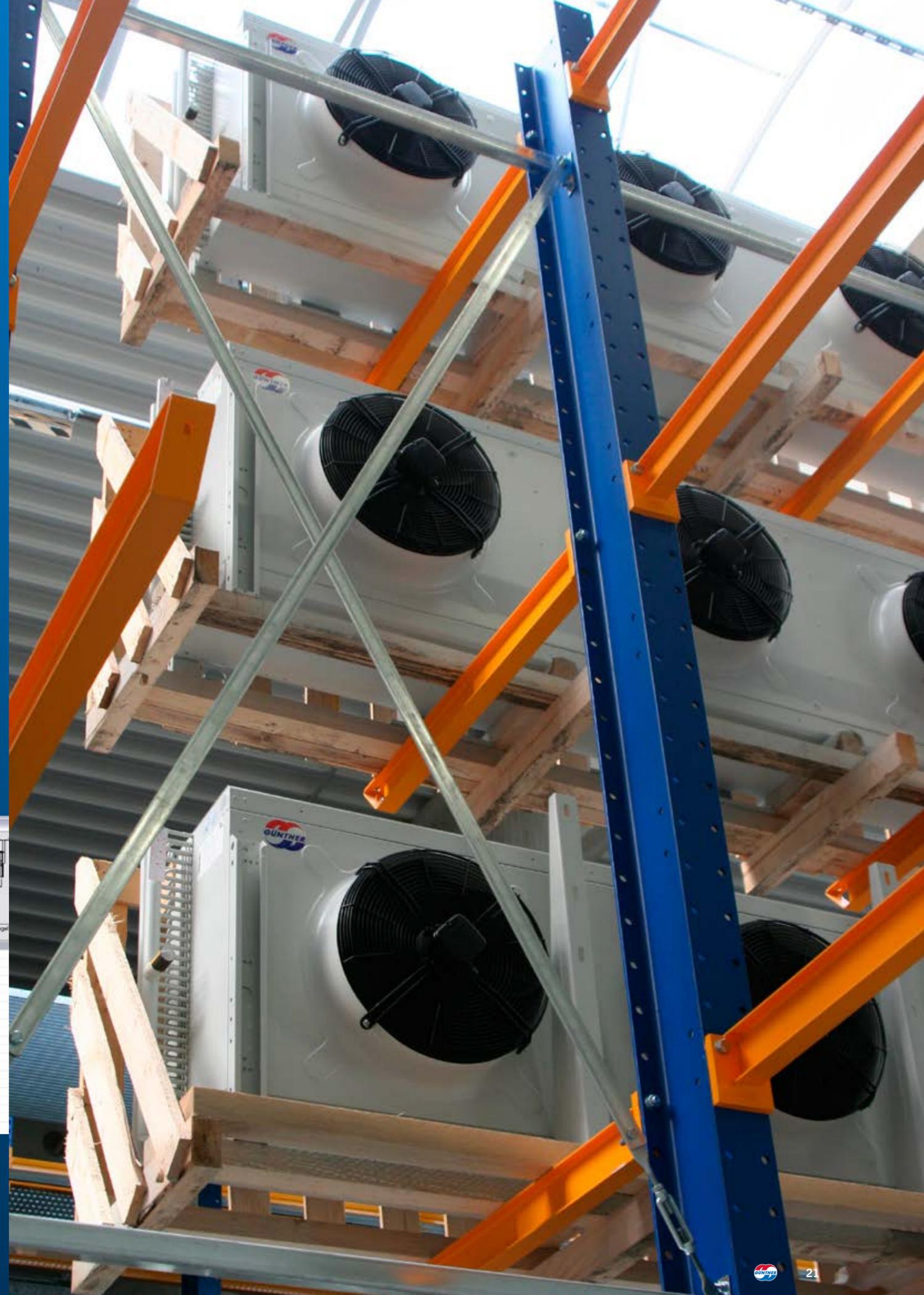
Condensers: GVM, GVH, GVV, GVVX, GVHX

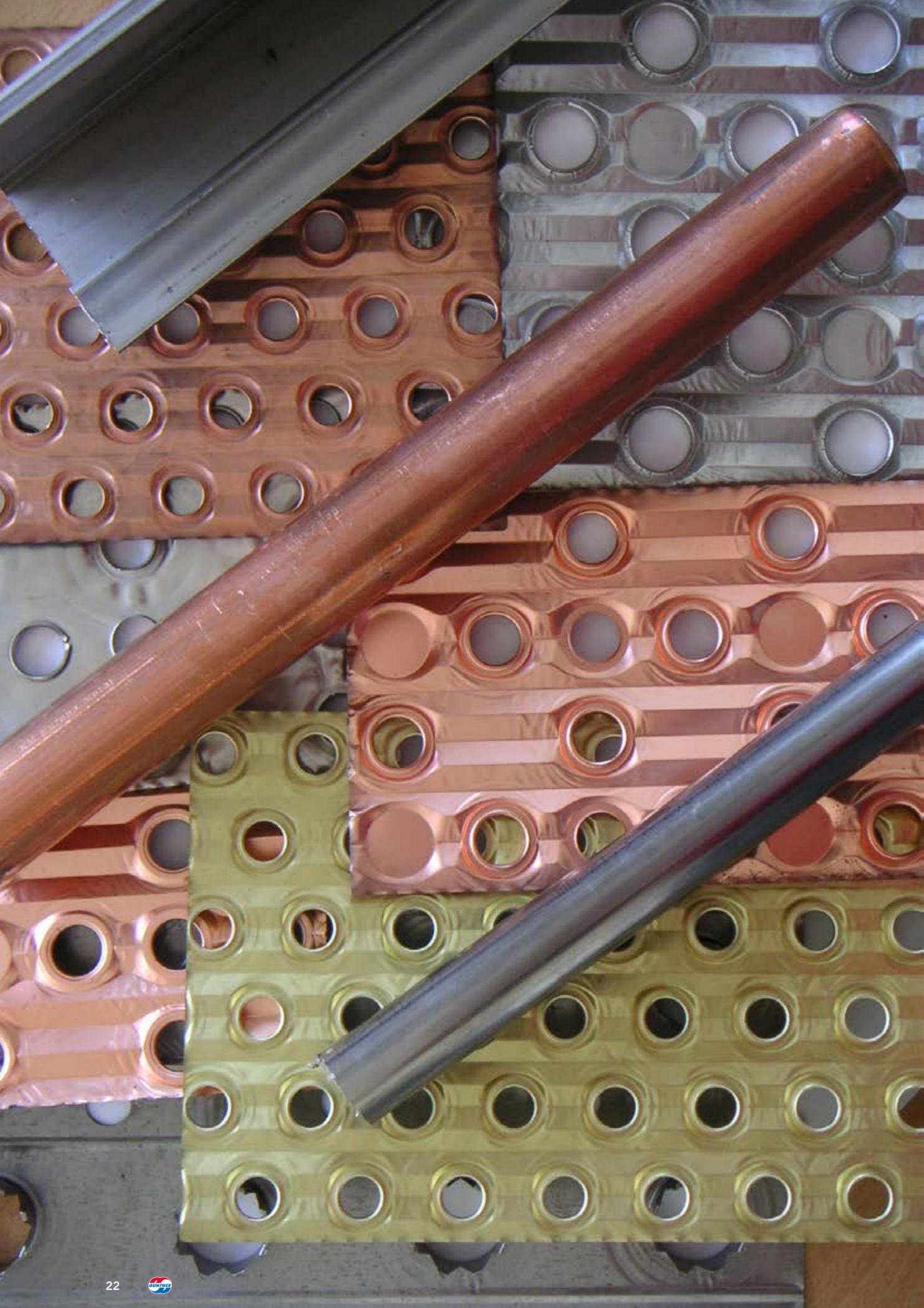
Rapid availability and reliable delivery are the be-all and end-all of customer satisfaction. Our in-house logistics department enables us to amply fulfil our customers' expectations in this respect.



Teil	Abmessungen	
13C-D1W	Länge: 2413 mm	
P-404A	Breite: 1145 mm	
rep.:	Höhe: 363 mm	
	45.0 °C	
	32.0 °C	
	40 °C	

Treffer: 20	Garantienummer	Lebensdauer [h]	Fläche [m²]	LUR [m³/h]	Schallleistungspegel [dB(A)]
●	S-GH09S.1B2-ND-E	66.3	164.2	20400	61
●	GH09S.1C2-ND-E	45.9	225.9	25100	51
●	S-GH09S.1B2-ND-E	45.5	164.2	20800	59
●	GH09S.1C2-ND-E	45.1	196.4	24500	51
●	GH09S.1E2-ND-E	44.8	251.2	27940	51
●	GH09S.1E2-HW-E	44.8	251.2	27940	51
●	GH09S.1C2-ND-E	44.2	196.4	20800	59
●	GH09S.1E2-LJ-E	43.4	251.2	25100	48
●	GH09S.1A2-ND-E	44.9	207.2	29750	54
●	GH09S.1A2-ND-RW-E	44.9	207.2	29750	54
●	GH09S.1A2-ND-E	44.6	207.2	30800	53
●	GH09S.1C2-ND-E	40.4	206.5	22420	45
●	GH09S.1C2-HW-E	41.0	206.5	28030	51
●	GH09S.1C2-LJ-E	41.0	206.5	28030	51
●	GH09S.2E1-ND-E	45.2	206.4	29800	57
●	GH09S.1E1-HW-E	43.6	206.1	31750	54
●	GH09S.1E1-HW-E	46.2	206.1	24230	49
●	GH09S.1E1-HW-E	43.6	206.1	31750	54
●	GH09S.1E1-HW-E	43.2	206.1	33200	53
●	GH09S.1A2-ND-E	44.0	205.0	30150	56





Material Diversity for Each and Every Application

The resistance of a material in a heat exchanger is put to the test both internally and externally. From the inside, the chemical properties, pressure and temperature of the refrigerant exert an influence on the tubes or profiles, while the more or less aggressive ambient air (ammonia, sulphuric acid, salt, vinegar, etc.) exerts an influence from the outside.

The versatile material combination options are based on experience and comprehensive tests and analyses. Güntner heat exchangers can be configured for customised applications by selecting the appropriate materials.

Just ask us – we'll be happy to advise you!

Different applications with aggressive atmosphere require targeted material selection. We have compiled a brochure with recommendations for material selection (sorted according to applications).

www.guentner.eu/know-how/application-tips



GCHC

Condenser/fluid cooler
for horizontal set-up
Innovative heat exchanger technology

4 – 400 kW



Advantages

- Compact design
- Ideal for commercial refrigeration
- Innovative heat exchanger technology
- Up to 120 bar fro CO₂
- High power density
- Low weight
- Low refrigerant charge
- TÜV approval for hydrocarbons (propane)

Energy-saving operation

- Efficient heat exchanger for small dT
- Reduced operating costs when selecting EC fans with GMM

Montage- und Servicefreundlichkeit

- Ventilatoren werkseitig verdrahtet
- Geringes Gewicht
- Reinigung des microox-Wärmeübertragers mit 50 bar möglich
- Kompakte Bauart

microox heat exchanger

- Compact heat exchanger with aluminium profiles and high-capacity fins
- Soldered to form a stable unit
- Low refrigerant charge; high power density

finoox heat exchanger

- Staggered tube pattern
- Special copper tubes for HFC, CO₂ and heat carrier
- Surface-corrugated aluminium fins for high heat transfer

Frame and casing

- Galvanised steel sheet
- RAL 7035 coating

Fans

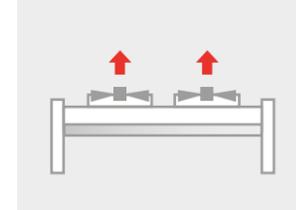
- Available in AC and EC technology
- Low-noise fans
- 5 sound levels
- Motor protection with thermocontacts
- 230 V, 1~, 50 Hz or 60 Hz
- 400 V, 3~, 50 Hz or 60 Hz (from fan diameter of 500 mm)

Options

- Fans wired at factory

Set-up

horizontal



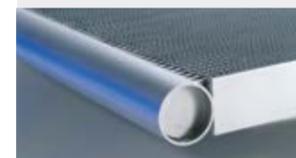
Fans

1 – 6
450 / 500 / 710 / 800 mm



Heat Exchanger

microox-technology



finoox-technology
D E F G

Fin spacing: 2 – 3 mm



Suitable Applications

Low to medium capacities



Walls / roofs with low load-bearing capacity



Operation with flammable refrigerants



High power density



Refrigerant / capacity

	Fluid	Nominal capacity	Sound pressure level acc. to EN13487 at a distance of 10 m
Condenser	HFC	4 – 400 kW*	27 – 70 dB(A)
	Propane	4 – 380 kW*	27 – 70 dB(A)
Gas cooler	CO ₂	5 – 600 kW**	27 – 70 dB(A)

* as per EN327 (tLE=25°C, tC=40 °C) ** as per EN327 (tLE=25°C, 110/35 °C)

Dry cooler	Water/glycol	5 – 325 kW*	27 – 70 dB(A)
	Water/glycol 90/70 °C	20 – 1,000 kW	27 – 70 dB(A)

* as per EN1048 (tLE=25°C, 40/35 °C)

Available accessories

Multiple circuit coil	Subcooler	Controls	Other
✓ Upon request	✓ Integrated for finoox	<ul style="list-style-type: none"> ✓ GMM EC ✓ GMM sincon ✓ GMM phase cut ✓ GMM step 	<ul style="list-style-type: none"> ✓ AC or EC fans ✓ Vibration dampers ✓ Extended legs ✓ Flange connection ✓ Threaded connection ✓ Empty casings ✓ Ventilation, emptying with ball valve ✓ Special varnishing
	Upon request for microox	<ul style="list-style-type: none"> ✓ Switch cabinet ✓ Repair switch ✓ Fans wired 	

Available materials

Material	Tube	micro-channel	Fin	Casing
AlMg				
Aluminium		✓	✓	
Copper	✓			
Aluminium, epoxy-resin coated			✓	
Steel, hot-dip galvanised				
Sheet steel, galvanized				✓

✓ Standard design

GCVC

Condenser/fluid cooler for vertical set-up
Innovative heat exchanger technology

4 – 400 kW



Advantages

- Compact design
- Ideal for commercial refrigeration
- Innovative heat exchanger technology
- Up to 120 bar fro CO₂
- High power density
- Low weight
- Low refrigerant charge
- TÜV approval for hydrocarbons (propane)

Energy-saving operation

- Efficient heat exchanger for small dT
- Reduced operating costs when selecting EC fans with GMM

Montage- und Servicefreundlichkeit

- Ventilatoren werkseitig verdrahtet
- Geringes Gewicht
- Reinigung des microox-Wärmeübertragers mit 50 bar möglich
- Kompakte Bauart

microox heat exchanger

- Compact heat exchanger with aluminium profiles and high-capacity fins
- Soldered to form a stable unit
- Low refrigerant charge; high power density

finoox heat exchanger

- Staggered tube pattern
- Special copper tubes for HFC, CO₂ and heat carrier
- Surface-corrugated aluminium fins for high heat transfer

Frame and casing

- Galvanised steel sheet
- RAL 7035 coating

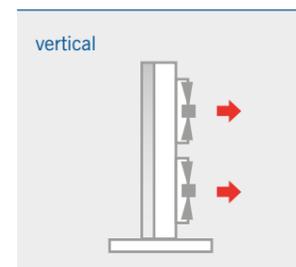
Fans

- Available in AC and EC technology
- Low-noise fans
- 5 sound levels
- Motor protection with thermocontacts
- 230 V, 1~, 50 Hz or 60 Hz
- 400 V, 3~, 50 Hz or 60 Hz (from fan diameter of 500 mm)

Options

- Fans wired at factory

Set-up



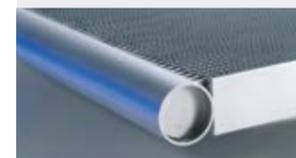
Fans

1 – 6
450 / 500 / 710 / 800 mm



Heat Exchanger

microox-technology



finoox-technology
D E F G

Fin spacing: 2 – 3 mm



Refrigerant / capacity

	Fluid	Nominal capacity	Sound pressure level acc. to EN13487 at a distance of 10 m
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	Propane	4 – 380 kW*	27 – 70 dB(A)
Gas cooler	CO ₂	5 – 600 kW**	27 – 70 dB(A)
<small>* as per EN327 (tLE=25°C, tC=40 °C) ** as per EN327 (tLE=25°C, 110/35 °C)</small>			
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	Water/glycol 90/70 °C	20 – 1,000 kW	27 – 70 dB(A)
<small>* as per EN1048 (tLE=25°C, 40/35 °C)</small>			

Available accessories

Multiple circuit coil	Subcooler	Controls	Other
✓ Upon request	✓ Integrated for finoox	<ul style="list-style-type: none"> ✓ GMM EC ✓ GMM sincon ✓ GMM phase cut ✓ GMM step 	<ul style="list-style-type: none"> ✓ AC or EC fans ✓ Vibration dampers ✓ Extended legs ✓ Flange connection ✓ Threaded connection ✓ Empty casings ✓ Ventilation, emptying with ball valve ✓ Special varnishing
	Upon request for microox	<ul style="list-style-type: none"> ✓ Switch cabinet ✓ Repair switch ✓ Fans wired 	

Available materials

Material	Tube	micro-channel	Fin	Casing
AlMg				
Aluminium		✓	✓	
Copper	✓			
Aluminium, epoxy-resin coated			✓	
Steel, hot-dip galvanised				
Sheet steel, galvanized				✓

✓ Standard design

Suitable Applications



GVW / GFW

V condenser with compact design for airconditioning and commercial refrigeration

70 – 850 kW



Advantages

- Small set-up area; low height
- Fans, single row with upward air discharge
- When accommodating high outputs, combined positioning of several units saves space
- With combined positioning of units, a steel frame must be placed under the units to ensure an adequate air supply

Easy to Install

- Crane lugs to simplify transport by crane

Space-Saving Construction

- Low installation height
- Small width
- Small set-up space

Suitable for Sound-Sensitive Areas

- 5 sound levels available
- Standard with two speeds

Inspection and Cleaning

- Fans easily accessible
- Cleaning flap under the heat exchangers

High Operational Reliability and Leak-Safety

- Proven Güntner floating coil principle (refrigerant-carrying tubes do not make contact with the casing; increasing the heat exchanger's service life)

Heat Exchanger

- Staggered tube pattern 50 x 25 mm
- Special copper pipes for HFC and heat carrier
- Surface-corrugated aluminium fins for high heat transfer

Frame and Casing

- Sheet steel, galvanized
- Painted with RAL 7035

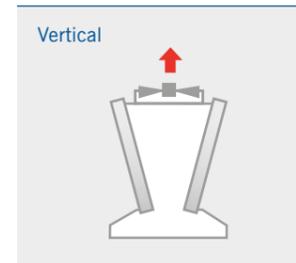
Fans

- Low-noise fans
- Standard with two speeds
- 5 sound levels
- Motor protection with thermocontacts
- 230 V, 1~, 50 Hz or 60 Hz
- 400 V, 3~, 50 Hz or 60 Hz (from fan diameter of 500 mm)

Options

- Corrosion-protected fins on request
- Circuit breakdown
- EC fans with Motor Management
- Quiet fans

Airflow Direction



Fans

2 – 8
800 / 900 mm



Heat Exchanger

Fin geometry: F
50 x 25 mm
Staggered tube pattern

Fin spacing
2.0 / 2.4 mm



Product Types / Refrigerant / Capacity

	Sound Level	Refrigerant	Nominal Capacity	Sound Pressure Level*
GVW	N	HFC	159.0 – 852 kW	48 – 65 dB(A)
	M	HFC	144.0 – 766 kW	39 – 62 dB(A)
	L	HFC	131.0 – 500 kW	43 – 51 dB(A)
	S	HFC	89.0 – 514 kW	30 – 49 dB(A)
	E	HFC	81.0 – 437 kW	23 – 45 dB(A)
GFW	N	NH ₃	132.0 – 647 kW	51 – 65 dB(A)
	M	NH ₃	128.0 – 578 kW	48 – 62 dB(A)
	L	NH ₃	108.0 – 420 kW	44 – 51 dB(A)
	S	NH ₃	76.4 – 373 kW	35 – 49 dB(A)
	E	NH ₃	69.2 – 369 kW	32 – 45 dB(A)

* at 10 m distance in acc. with EN 13487

Available Accessories

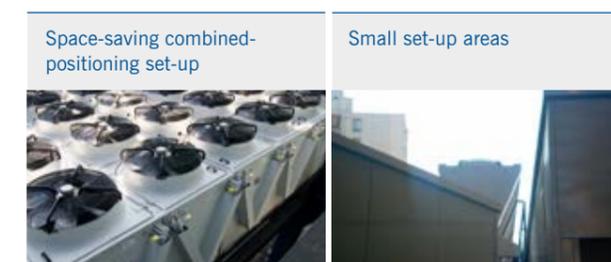
Liquid Receiver	Controls	Other
<ul style="list-style-type: none"> ✓ Horizontal ✓ Vertical 	<ul style="list-style-type: none"> ✓ GMM EC ✓ GMM sincon® ✓ GMM phase cut ✓ GMM step ✓ Switch cabinet ✓ Repair switch 	<ul style="list-style-type: none"> ✓ Epoxy-resin coated fins Special varnishing ✓ EC fans ✓ Max. operating pressure ✓ 41 bar ✓ Empty casing (fitted at the side) ✓ Vibration dampers
Subcooler <ul style="list-style-type: none"> ✓ Kreislaufunterteilung ✓ Separator Wärmeaustauscher 		

Available material

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

✓ Standard version

Suitable Applications



GVH / GFH

Condenser/fluid cooler in horizontal design for all applications

8 – 1320 kW



Advantages

- Extensive power range, large model range, different sound levels
- Can be supplied for all refrigerants
- Large selection of accessories
- With control system and switch cabinet on request

Easy to Install

- Crane lugs to simplify transport by crane
- Factory-fitted modules (switch cabinets, empty casing...)
- Torsion-resistant casing due to side plates with profile (Güntner profiles)
- Fewer unit legs and fewer bases are required

Low Height

- For demanding architecture
- If visual covers are planned

Suitable for All Noise Protection Requirements

- 5 volume levels available
- Standard with two speeds
- Suitable for speed control

High Operational Reliability and Leak-Safety

- Tried, tested and proven Güntner floating coil principle (refrigerant conduits do not make contact with the casing; increases the heat exchanger's service life)
- Stable housing (minimal bending) when transporting by crane or forklift due to side plates with profiles
- High stiffness with reduced weight

Inspection and Cleaning

- Fans easily accessible
- Cleaning cover as an accessory

Heat Exchangers up to Construction Size 065

- HFC: Staggered tube pattern 25 x 22 mm
Fin spacing – 2.2 mm
- Heat Carrier: Staggered tube pattern 50 x 25 mm,
Fin spacing – 2.4 mm

Heat Exchangers from Construction Size 080

- Staggered tube pattern 50 x 25 mm,
Fin spacing – 2.4 mm
- Special copper pipes for HFC and heat carrier
- Stainless steel pipes for NH₃
- Surface-corrugated aluminium fins for high heat transfer

Frame and Casing

- Sheet steel, galvanized
- Painted with RAL 7035

Fans

- Low-noise fans
- Standard with two speeds
- 5 sound levels
- Motor protection with thermocontacts
- 230 V, 1~, 50 Hz or 60 Hz
- 400 V, 3~, 50 Hz or 60 Hz (from fan diameter 500 mm)

Dimensions

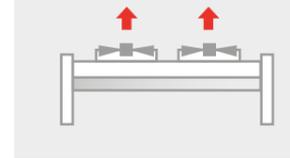
- Length 0.9 m – 12.0 m
- Width 0.8 m – 2.3 m

Weight

- 70 – 3000 kg

Airflow Direction

Horizontal



Fans

1 – 12

450 / 500 / 650 / 800 / 900 / 1000 mm



Heat Exchanger

Fin geometry: H
Up to type 065: 25 x 22 mm

Fin geometry: F
From type 080: 50 x 25 mm
Staggered tube pattern

Fin spacing
2.2 / 2.4 mm



Suitable Applications

Especially sound-sensitive applications



Universally applicable



Product Types / Refrigerant / Capacity

	Sound Level	Refrigerant	Nominal Capacity	Sound Pressure Level*
GVH	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	N	NH ₃	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	N	Heat Carrier	24.3 – 929 kW	49 – 67 dB(A)
	M	Heat Carrier	60.8 – 965 kW	45 – 63 dB(A)
	L	Heat Carrier	17.9 – 732 kW	39 – 60 dB(A)
	S	Heat Carrier	14.1 – 585 kW	31 – 52 dB(A)
	E	Heat Carrier	14.1 – 527 kW	31 – 49 dB(A)

* at 10 m distance in acc. with EN 13487

Available Accessories

Liquid Receiver	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 ✓ Max. operating pressure ✓ 41 bar ✓ Empty casing ✓ Inspection cover ✓ Vibration dampers ✓ Flange connection ✓ Extended legs
Subcooler <ul style="list-style-type: none"> ✓ Circuit breakdown ✓ 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	✓	✓	
✓ Standard version			



GVV / GFV

Axial condenser / dry cooler with vertical design for all applications

8 – 1320 kW



Advantages

- Extensive power range, large model range, different sound levels
- Can be supplied for all refrigerants
- Large selection of accessories
- With control system and switch cabinet on request

Easy to Install

- Crane lugs to simplify transport by crane
- Factory-fitted modules (switch cabinets, empty casing...)
- Torsion-resistant casing due to side plates with profile (Güntner profiles)
- Fewer unit legs and fewer bases are required

Suitable for All Noise Protection Requirements

- 5 volume levels available
- Standard with two speeds
- Suitable for speed control

High Operational Reliability and Leak-Safety

- Tried, tested and proven Güntner floating coil principle (refrigerant conduits do not make contact with the casing; increases the heat exchanger's service life)
- Stable housing (minimal bending) when transporting by crane or forklift due to side plates with profiles
- High stiffness with reduced weight

Inspection and Cleaning

- Fans easily accessible
- Cleaning cover as an accessory

Heat Exchangers up to Construction Size 065

- HFC: Staggered tube pattern 25 x 22 mm, Fin spacing – 2.2 mm
- Heat Carrier: Staggered tube pattern 50 x 25 mm, Fin spacing – 2.4 mm

Heat Exchangers from Construction Size 080

- Staggered tube pattern 50 x 25 mm, Fin spacing – 2.4 mm
- Special copper pipes for HFC and heat carrier
- Stainless steel pipes for NH₃
- Surface-corrugated aluminium fins for high heat transfer

Frame and Casing

- Sheet steel, galvanized
- Painted with RAL 7035

Fans

- Low-noise fans
- Standard with two speeds
- 5 sound levels
- Motor protection with thermocontacts
- 230 V, 1~, 50 Hz or 60 Hz
- 400 V, 3~, 50 Hz or 60 Hz (from fan diameter 500 mm)

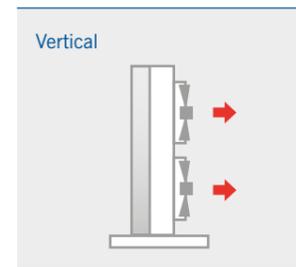
Dimensions

- Length 0.9 m – 12.0 m
- Width 0.8 m – 2.3 m

Weight

- 70 – 3000 kg

Airflow Direction



Fans

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



Fin spacing

4 / 7 mm



Suitable Applications

Especially sound-sensitive applications



Universally applicable



Product Types / Refrigerant / Capacity

	Sound Level	Refrigerant	Nominal Capacity	Sound Pressure Level*
GVV	N	HFC	19.8 – 1184 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)
AGVV	N	NH ₃	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)
GFV	N	Heat Carrier	24.3 – 929 kW	49 – 67 dB(A)
	M	Heat Carrier	60.8 – 965 kW	45 – 63 dB(A)
	L	Heat Carrier	17.9 – 732 kW	39 – 60 dB(A)
	S	Heat Carrier	14.1 – 585 kW	31 – 52 dB(A)
	E	Heat Carrier	14.1 – 527 kW	31 – 49 dB(A)

* at 10 m distance in acc. with EN 13487

Available Accessories

Liquid Receiver	Controls	Östetiges
<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 ✓ Max. operating pressure ✓ 41 bar ✓ Empty casing ✓ Inspection cover Vibration dampers Flange connection
Subcooler		
<ul style="list-style-type: none"> ✓ Circuit breakdown ✓ 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	✓	✓	
✓ Standard version			

GVD / GFD

V-coil condenser / dry cooler
for air-conditioning and process cooling

30 – 2000 kW



Advantages

- High-performance V-type condenser/dry cooler
- For medium to high capacities in process cooling and air-conditioning
- Various sound levels; many design types
- With control system and switch cabinet on request

Easy to Install

- Transport simplified by 2 movable crane lugs
- No cross beam required
- On request factory-fitted accessories, switch cabinets, speed controllers

Suitable for All Noise Protection Requirements

- 5 volume levels available
- Standard with two speeds
- Suitable for speed control

High Operational Reliability and Leak-Safety

- Proven Güntner floating coil principle (refrigerant conduits do not make contact with the casing; increases the heat exchanger's service life)
- Self-supporting casing structure, withstands bending and deformation
- High stiffness with reduced weight

Inspection and Cleaning

- Fans easily accessible
- Cleaning openings with no parts that could get lost
- Stable surface-corrugated aluminium fins

Heat Exchanger

- Staggered tube pattern 50 x 25 mm; fin spacing 2.4 mm (Option 2.0 / 2.2 / 3.0 / 4.0 mm)
- Special copper pipes for HFC and heat carrier
- Stainless steel pipes for NH₃
- Surface-corrugated aluminium fins for high heat exchange

Frame and Casing

- Sheet steel, galvanized
- Painted with RAL 7035

Fans

- Low-noise fans
- Standard with two speeds
- 5 sound levels
- Motor protection with thermocontacts
- 400 V, 3~, 50 Hz or 60 Hz

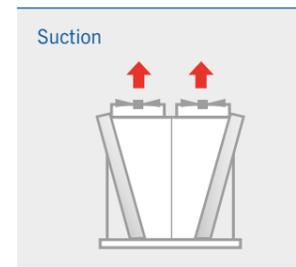
Dimensions

- L 3284 – 12139
- B 2300
- H 2850

Weight

- 1672 – 5690 kg

Airflow Direction



Fans

4 – 18
200 / 310 / 400 / 450 / 500 mm



Heat Exchanger

Fin geometry: F
50 x 25 mm
Staggered tube pattern

Fin spacing
2.4 mm

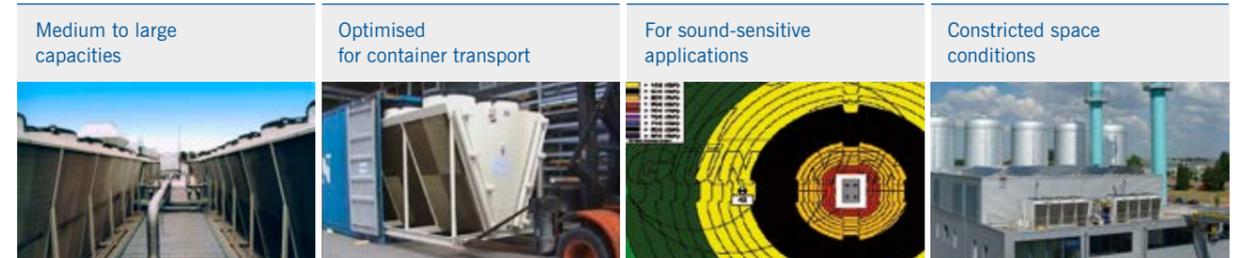


HydroSpray

Basic: 300 h/a
Professional: 1000 h/a



Suitable Applications



Product Types / Refrigerant / Capacity

	Refrigerant	Nominal Capacity	Sound Pressure Level*
GVD	HFC	50 – 2000 kW	38 – 60 dB(A)
GFD	Heat Carrier	30 – 1850 kW	32 – 60 dB(A)

Higher capacities on request

* at 10 m distance in acc. with EN 13487

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"> ✓ HydroSpray (water spraying) ✓ Epoxy-resin coated fins Special varnishing ✓ EC fans ✓ Max. operating pressure ✓ 41 bar ✓ Empty casing (fitted at the side) ✓ Vibration dampers
Subcooler		
<ul style="list-style-type: none"> ✓ Circuit breakdown ✓ 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

RVH

Condenser with radial fans for indoor set-up

20 – 700 kW



Advantages

- Air-cooled condenser with radial fans for indoor set-up
- Fans with external pressure for connecting air ducts and sound absorbers
- Module-type casing with frame and overhaul openings
- Horizontal or vertical design

Installation

- Modules can be disassembled for installation
- Vertical or horizontal air discharge
- Separate switch cabinet, speed controller, on request

High Operational Reliability and Leak-Safety

- Proven Guntner floating coil principle (refrigerant conduits do not make contact with the casing; increases the heat exchanger's service life)
- Robust casing construction

Inspection

- Good accessibility through large inspection cover

Heat Exchanger

- Staggered tube pattern 50 x 25 mm; fin spacing 2.4 mm
- Special copper pipes for HFC and heat carriers
- Surface-corrugated aluminium fins for high heat transfer

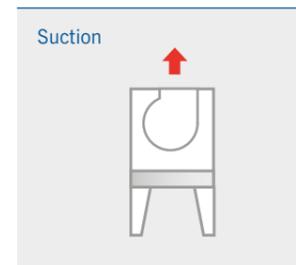
Frame and Casing

- Sheet steel, galvanized
- Painted with RAL 7035

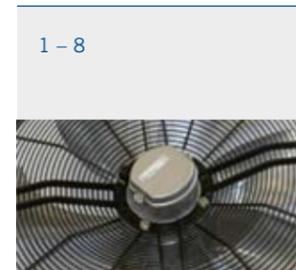
Fans

- Radial fans with forward-curved blades
- Various external pressures
- On request, with two speeds
- 400 V, 3~, 50 Hz or 60 Hz

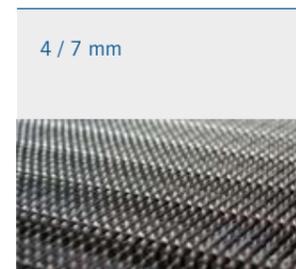
Airflow Direction



Fans



Fin spacing



Product Types / Refrigerant / Capacity

Refrigerant	Nominal capacity	Sound pressure level*
HFC CO ₂	20 – 700 kW on request	

Available Accessories

Liquid Receivers	Controls	Other
<ul style="list-style-type: none"> ✓ Horizontal ✓ Vertical 	<ul style="list-style-type: none"> ✓ GMM sincon® ✓ Switch cabinet ✓ Repair switch 	<ul style="list-style-type: none"> ✓ Epoxy-resin coated fins ✓ Max. operating pressure 41 bar ✓ Vibration dampers ✓ Check valves
Subcooler		
<ul style="list-style-type: none"> ✓ Circuit breakdown ✓ Separate heat exchanger 		

Available material

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

✓ Standard version

RVV

Condenser with radial fans for indoor set-up

20 – 700 kW



Description

- Air-cooled condenser with radial fans for indoor set-up
- Fans with external pressure for connecting air ducts and sound absorbers
- Module-type casing with frame and overhaul openings
- Horizontal or vertical design

Installation

- Modules can be disassembled for installation
- Vertical or horizontal air discharge
- Separate switch cabinet, speed controller, on request

High Operational Reliability and Leak-Safety

- Proven Güntner floating coil principle (refrigerant conduits do not make contact with the casing; increases the heat exchanger's service life)
- Robust casing construction

Inspection

- Good accessibility through large inspection cover

Heat Exchanger

- Staggered tube pattern 50 x 25 mm; fin spacing 2.4 mm
- Special copper pipes for HFC and heat carriers
- Surface-corrugated aluminium fins for high heat exchange

Frame and Casing

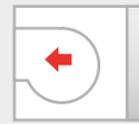
- Sheet steel, galvanized
- Painted with RAL 7035

Fans

- Radial fans with forward-curved blades
- Various external pressures
- On request, with two speeds
- 400 V, 3~, 50 Hz or 60 Hz

Airflow Direction

saugend



Fans

1 – 8



Fin Spacing

4 / 7 mm



Product Types / Refrigerant / Capacity

Refrigerant	Nominal capacity	Sound pressure level*
HFC CO ₂	20 – 700 kW on request	

* at 10 m distance in acc. with EN 13487

Available Accessories

Liquid Receiver	Controls	Other
<ul style="list-style-type: none"> ✓ Horizontal ✓ Vertikal 	<ul style="list-style-type: none"> ✓ GMM sincon® ✓ Switch cabinet ✓ Repair switch 	<ul style="list-style-type: none"> ✓ Epoxy-resin coated fins Max. operating pressure ✓ 41 bar ✓ Vibration dampers ✓ Check valves
Subcooler		
<ul style="list-style-type: none"> ✓ Circuit breakdown ✓ Separate Heat Exchanger 		

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

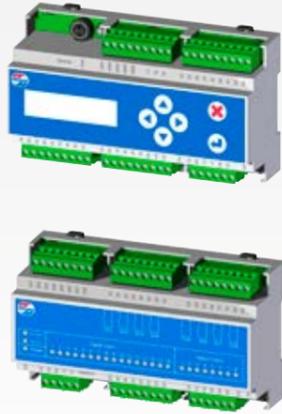
Controls

The GMM system is available for AC or EC fans. Various technologies have been implemented. There is, however, one feature common to all management systems: They are equipped with various functions which serve to enhance energy efficiency.

	AC fans				EC fans	Spraying / Humidifying			
	There are different application cases, and therefore various technologies are available for AC fans to cover all application possibilities.				Maximum efficiency can be achieved with EC fans and the GMM EC.	A spraying system or a humidifying system can be used to increase heat exchanger performance.			
	GMM step	GMM phase cut	GMM f-drive	GMM sincon®	GMM EC	GHM spray basic	GHM spray professional	GHM pad	
Energy efficiency	Cooling circuit ●●○○ Speed controller ●○○○	Cooling circuit ●●●○ Speed controller ●○○○	Cooling circuit ●●●● Speed controller ●●●○	Cooling circuit ●●●● Speed controller ●●●○		Cooling circuit ●●●● Speed controller ●●●●	Cooling circuit ●●○○ Speed controller ●●○○	Cooling circuit ●●●● Speed controller ●●●○	Cooling circuit ●●●● Speed controller ●●●●
Control	Precision ●○○○ Sound ●○○○ Investment costs ●○○○	Precision ●●●○ Sound ●●●○ Investment costs ●●●○	Precision ●●●● Sound ●●●● Investment costs ●●●○	Precision ●●●● Sound ●●●● Investment costs ●●●○		Precision ●●●● Sound ●●●● Investment costs ●●●○	Precision ●○○○ Sound ●○○○ Investment costs ●○○○	Precision ●●●○ Sound ●●●○ Investment costs ●●●○	Precision ●●●● Sound ●●●● Investment costs ●●●○
Investment	Service life ●●○○ ●○○○	Service life ●●○○ ●●○○	Service life ●○○○ ●●○○	Service life ●○○○ ●●○○		Service life ●○○○ ●●○○	Service life ●○○○ ●●○○	Service life ●○○○ ●●○○	Service life ●○○○ ●●○○
									
	not so good	very good							



GMM step



The GMM step is a step control system for AC external rotor or standard motors. Two types are available: a basic GMM step version with up to four steps, and a professional version enabling an add-on of up to nine steps. To ensure uniform utilization of the fans, there is a special “fan cycling” function whereby the fan which has the fewest operating hours is actuated. This enhances the operational reliability and service life of the fans. Additionally, functions like switch hysteresis are included as a matter of course.

GMM phase cut



The GMM phase cut is used for voltage-controllable AC external rotor motors. This is the most cost-effective way of realising a speed controller, while achieving constant pressure conditions in the cooling circuit. Utilization is not recommended for noise-sensitive applications or applications with stringent energy efficiency requirements. High operational reliability can be achieved with this product's integrated bypass function.

GMM f-drive



The GMM f-drive is a speed controller for standard motors with a frequency converter as the power unit. The f-drive can also be recommended for noise-sensitive applications as it does not cause any control-related noise. Up to nine power units can be used. Naturally, this product is also equipped with hardware and software bypass functions, which ensure operation even if a power unit fails. The power units are monitored by the controller module.

GMM sincon®



The GMM sincon® is a speed controller for external rotor motors with a frequency converter as the power unit. This product's speciality is the downstream all-pole sine filter, which is an absolute necessity for external rotor motors. The GMM sincon® can also be recommended for noise-sensitive applications as it does not cause any control-related noise. Up to nine power units can be used. Naturally, this product is also equipped with hardware and software bypass functions, which ensure operation even if a power unit fails. The power units are monitored by the controller module.

Utilisation of the GMM sincon® ensures that compared with mains operation, the same or longer service lives can be achieved for the fans' motor winding insulation and the bearings.

GMM EC



Combining the GMM EC with highly efficient EC fans offers the ideal solution with respect to energy efficiency and noise emissions. In addition to the GMM properties mentioned above, the GMM EC is equipped with further unique functions.

With the Low Capacity Motor Management (LCMM) the system can also be operated efficiently during low partial load conditions. EC fans have a minimal speed of between 8 % and 12 % of the full load. The purpose of the LCMM is to facilitate control within the lower capacity range (e.g. 5 %) of the heat exchanger. To this end, the GMM has a function whereby the control signal is recalculated as appropriate for the number of fans and their minimum speeds, and subsequently sent to the individual fans. To avoid frequent switching on and off, a hysteresis function can be activated. Based on a comparison of the fans' operating hours (fan cycling), the GMM decides which fan is to be switched on.

Due to the automatic parameterisation or the addressing of the fans, neither special software nor particular expertise is required to start-up the system. The fans are automatically set to the values entered in the system, regardless of whether this was at initial start-up or when a fan needed replacing. The fans' usage limits are thus clearly defined and, as a result, adherence to the required heat

exchanger capacity and the maximum permissible sound levels is ensured. The thermal resistance of the power electronics in the motors is also guaranteed.

A further contribution toward increased operational reliability is the tear-off function. If a fan is blocked by ice, freedom of movement is carefully restored by repeatedly running the fan clockwise and anti-clockwise with increasing torque. This function can be set via the GMM; if it is in operation, a message is displayed.

Pre-selected fans can be shut down using the selective fan shutdown function via a digital input signal (customer signal). This function is available in all operating modes: in control and slave mode. It is particularly useful for systems with two heat exchanger coils and for partial-load operation.

Güntner Hydro Management



GHM spray

The GHM spray system is used to control the spraying of the heat exchanger with water. It regulates the spray as a function of the capacity requirement of the heat exchanger, as well as the measured temperatures and pressures. As a result, the capacity of the heat exchanger increases. The necessary information e.g. the speed is read out by the speed controller via the bus communication. If a non-Güntner speed controller is used, the speed data can be transmitted via a digital signal.

GHM pad

The GHM pad wetting controller controls the water applied to the wetting mats in the air inlet of the heat exchanger. It regulates the amount of water applied as a function of the load requirement (fan speed) of the heat exchanger, as well as the measured temperatures and pressures.

As a result, the capacity of the heat exchanger increases. The necessary information e.g. the speed is read out by the speed controller via the bus communication. If a non-Güntner speed controller is used, the speed data can be transmitted via a 0 – 10 volt signal.

Our experts
provide competent advice
for your particular application!

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