Wide range of sizes

Güntner Info

GFD
V-shape coil fluid cooler

GVD
V-shape coil condenser

Up to 390 TONS
GFD / GVD Features

High motor efficiency
Increased performance

Low power consumption
Reduced footprint

Applications
Air cooled condensers
- Halocarbons, Hydrocarbons, Ammonia
Gas coolers (supercritical)
Gas compression
Pre cooler, Inter cooler, After cooler
Jacket water cooling
Fluid cooling
- Glycols, brine, synthetic
Process & Industrial cooling

Certifications
UL
ASME
PED
CRN
UL 508 Panels

Jacket water cooling
Fluid cooling
- Glycols, brine, synthetic

Process & Industrial cooling

GFD / GVD Features

GFD
Application range
Capacity
Fluid cooler
<390 THR

Certifications
UL
ASME
PED
CRN
UL 508 Panels

GVD
Application range
Capacity
Air cooled condenser
<300 THR

Certifications
UL
ASME
PED
CRN
UL 508 Panels

Sizes
Fans
Air flow direction
Induced draft vertical discharge
Direct drive airfoil impellers

Airflow direction
Fans
Air flow direction
Induced draft vertical discharge
Direct drive airfoil impellers

Dimensions
Length
Width
Height
113 - 478
91
312

Dry Weight (lbs)
2,200 - 14,000

Tubes (Std)
Options
Steel (galv.)
Al / Cu / Epoxy / St. steel

Fin (Std)
Options
Steel (galv.) / Electro-fin / Heresite

Rigging
Mounting
Built in lifting eyes
Heavy duty rigid foot mount

Competent,
Reliable
and Personal

Our commitment to continuous improvement of our products and services plays an important part in ensuring that our customers and partners enjoy continued success. Our global presence and our direct personal contact with our customers are important tenets of our company’s approach to doing business. Throughout our company’s divisions and departments, we employ energy saving product features and offer our customers full support in helping them to meet their requirements for deploying energy efficient systems.

Günther stands for innovative products that provide our customers with the highest level of quality, energy efficiency and long service life.
Fans and fan control

Both AC and EC fan motor technologies are employed in the GFD and GVD product lines. Coil surface areas and airflows are optimized to provide best capacity vs. power input ratios. Full bell mouth fan nozzles and minimal tip clearances ensure maximum impeller efficiency. Impeller diameters are engineered to minimize the noise levels generated. A wide variety of motor speeds results in the ability to select units with very low noise levels.

The efficiency ratings of EC motors typically exceed NEMA premium efficient ratings! Integrating the Güntner Motor Management (GMM) controller with these motors provides the highest efficiency ratings.

### Energy Consumption GMM

The capacity of a unit needs to achieve design temperatures at the highest ambient temperature possible. Whenever the temperature is below this point, the speed of the fan will decrease to maintain the setpoint of the leaving fluid temperature. Annual energy savings are achieved while meeting the heatload demands of your process.

### Percentage of fan speed

The fan speed will be maintained at the lowest possible rpm while maintaining the temperature setpoint. The total savings comes from a reduced power consumption that is achieved over a large percentage of annual operating time.

EC motors – technology of the future!

The Güntner Motor Management (GMM) controller also provides an efficient solution when using AC motor technology. Integrating the Güntner VFD (Sincon) or Güntner step controller with these motors allows for optimized energy consumption.

For both EC and AC technologies efficiencies are not compromised at reduced speeds.

The Güntner Motor Management (GMM) controller incorporates the following, and more:

- Remote monitoring
- Operational and fault signaling
- Modbus compatibility
- Plug and play system with automatic motor programming
- Set point change over and / or night time limiter
- Bypass operation

All wiring of motors and panels is carried out in our UL 508 certified panel shop.
Güntner ACS - Adiabatic Cooling System

Efficient cooling is an important factor for economic success in the HVAC industry and for Data Centers. Quiet operation, coupled with low investment and operational costs are important criteria when selecting coolers or condensers.

The Adiabatic Cooling System features adiabatic pre-cooling of the intake air as the latest development in Güntner’s dry cooler technology, featuring the simplicity of our air cooled dry coolers and condensers.

At peak ambient temperatures, the air entering the finned heat exchanger is pre-cooled to a temperature approaching the wet bulb temperature as it passes through the cooling pads, without any aerosol formation and no water carry over onto the finned surface. The adiabatic process significantly increases the thermal performance of the cooler or condenser, with minimal water usage.

The increased thermal performance at peak ambient conditions lowers the total cost of ownership. The reduction in compressor energy usage permits higher COP's, with a significantly reduced footprint.

Cooling towers or evaporative condensers use water as the evaporative cooling source throughout the year. The adiabatic alternative only uses water at peak ambient conditions thereby significantly reducing water costs, water treatment, chemicals and sewage charges.

The water distribution system has been strategically engineered to result in even water distribution over the entire surface area of the cooling pads, minimizing the risk of dry spots. The fluted angles within the pad ensure that the water flow is directed towards the air inlet side of the pad where most of the evaporation takes place.

Excess water distributed over the pads contributes to continuous rinsing of the pads thereby minimizing any scaling and curtailing clogging of the inlet from atmospheric dust. This subsequently prevents the accumulation of dust and dirt on the finned surface area of the heat exchanger.

The adiabatic cooling system has been designed to be a once through system, thereby minimizing any water treatment requirements. Dependent on the source water, treatment may be required to prevent scale build up on the pads. (Please refer to the Operation and Maintenance manual for water quality requirements).

Thermal performance ratings are supported by actual testing in our state of the art environmental test chamber featuring the latest technologies. (Pictured right)

<table>
<thead>
<tr>
<th>Market Segments Served:</th>
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<tbody>
<tr>
<td>HVAC Applications</td>
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<tr>
<td>Data Centers</td>
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<td>Free Cooling Operations</td>
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<td>Energy and Power Applications</td>
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<td>Organic Rankine Cycle (ORC)</td>
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<td>Chiller Applications</td>
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<table>
<thead>
<tr>
<th>Advantages:</th>
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<tbody>
<tr>
<td>Eco-Friendly</td>
</tr>
<tr>
<td>Energy efficient - reduced peak kw/hrs</td>
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<tr>
<td>Zero / minimal water treatment requirements</td>
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<tr>
<td>Lower cost of ownership</td>
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<tr>
<td>Reduced footprint</td>
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<tr>
<td>No risk of legionella</td>
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<tr>
<td>Free cooling hours extended</td>
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<tr>
<td>Fully drainable for dry operation</td>
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<tr>
<td>Attractive alternative to evaporative cooling</td>
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</tbody>
</table>
Benefits and Features:

- Reduced refrigerant inventory
- Reduced footprint
- Reduced high side working pressure for condensers and chillers
- Heat exchanger surface is always dry
- Extensive range of units to which the pre-cooling pads can be applied
- Hygienic operation:
  - There is no risk for legionella as there is no aerosol formation from the water and neither is this water recirculated.
  - This is a one-time application which reduces water quality requirements and minimizes costs for water treatment
- Significant energy savings
- Energy efficient operation
- Reduced maintenance
- Optimized for free cooling
- Increased cooling/thermal performance
- No high pressure pumps required
- No scale formation on finned heat exchanger surface
- Increased life-time of cooler and chiller
- Optional choice of EC motors
- …a greener future is in (y)our hands

Güntner ACS - Adiabatic Cooling System
Global presence

Güntner

Being your partner, we are committed to offering you global support. You will find us in all major trade centers in the Americas, Europe and Asia. We speak the language of your market and understand your local requirements and regulations.

Güntner is a leading provider of heat transfer products for the following industry segments:

- Industrial Refrigeration
- Commercial Refrigeration
- Air conditioning
- Energy, Power and Process Cooling