

GEA Cooling Towers with HX-Factor

Efficient technology for high-performance solutions



Heat Exchange with HX-Factor

The HX-Factor is our promise. It stands for unique expertise in heat exchange (HX = HEAT EXCHANGE) and clearly defines what lies at the Segment's core. With the HX-Factor top quality, our engineering specialists care for maximum efficiency and absolute reliability in process cooling. We offer the required experience to give our innovative and cost-reducing solutions a maximum of safety at the same time. Prominent customers throughout the world rely on us.

GEA Cooling Towers

Efficient technology for high-performance solutions



Our companies under the roof of GEA Wet Cooling Towers offer the whole portfolio of cooling towers – from smaller, ready-to-install towers to large, natural-draft cooling systems. Our Research and Development Team and our manufacturing base ensure that we deliver wet cooling towers at the highest quality level.

In Europe we have combined our activities for modular and large cooling towers. The experts of GEA Cooling Towers, together with their cooling tower colleagues at GEA Energietechnik (GET), make up one team with combined knowledge and expertise. Our customers greatly benefit from this important step.

GEA Cooling Towers has its roots in 1967, when the Dutch company CELBOUW was founded. GEA acquired 50 % of shares in Polacel in 1989, and the rest of its shares, in 1991. GEA Cooling Towers technology offers a complete portfolio for the design, manufacture, and service of cooling towers, with components from GEA 2H. Its spectrum includes small modular cooling towers (for smaller processes), mechanical-draft cooling towers (for chemical companies), and cooling towers for large air conditioning facilities (for all sizes of commercial complexes). In collaboration with GEA GET, GEA Cooling Towers now also offers field-erected cooling towers and natural-draft cooling towers for large industrial and power applications.

The history of GEA Energietechnik (GET) reaches back to the founding period of GEA, around 1920. In order to offer its customers the most cost-effective solutions for requirements in the area of re-cooling, the GET product portfolio was expanded in 1964 by adding wet-cooling technology. In 1965, GET built its first natural-draft wet cooling tower, for a 300-MW power plant in Niederaussem (Germany). Since then, GET has constructed a great number of facilities with both wet as well as dry cooling technology, to the full satisfaction of its customers.

GEA Wet Cooling is among the largest providers of technology on the cooling tower market. It is one of the very few companies to offer all sizes of towers, including modular cooling towers, field-erected mechanical-draft cooling towers, natural-draft cooling towers, fan-assisted natural-draft cooling towers, and closed-loop cooling towers.





Quelle: RWE

Natural draft cooling towers

The right choice for large cooling water flow

Natural draft wet cooling towers are designed especially for power plants and industries with large cooling water flow. Over 50 years experience with natural draft wet cooling towers – and pooled expertise of the international GEA Group – provide the basis for economic solutions that serve efficiently throughout the entire life cycle of a plant.

All work is carried out to the latest technical standards, developed by GEA Cooling Towers; such as the central clean gas discharge or the overflow bypass for reliable winter operation. The heat rejection capacity of a natural draft cooling tower for power plant applications usually amounts between 600 MW to 1100 MW.



Benefits

- Maximum cost-effectiveness over the entire life cycle.
- State of the art wit GEA cooling fills.
- Superior product quality in accordance with rigorous GEA standards.
- High degree of delivery reliability.
- Reliable project management.
- Energy efficiency.
- Low maintenance and spare parts costs.
- Highly efficient components.
- Uninterrupted continuous operation even during winter season.



Absolutely what the customer requires

Whether natural draft cooling towers or fan-assisted natural draft cooling towers.

Fan assisted natural draft cooling towers

The right choice for medium cooling water flow

Fan-assisted natural draft cooling towers are used for power stations and for process cooling applications as well. They are the right choice for medium or large cooling water flow and are also available as a hybrid alternative.

In countless projects, GEA has accepted responsibility for implementing innovations for natural draft wet cooling towers. These GEA solutions have now become generally accepted as the state of the art. These types of cooling towers are able to recool a heat loads up to 2500 MW.



Benefits

- Investment cost optimized application.
- State of the art with GEA cooling fills.
- Superior product quality in accordance with rigorous GEA standards.
- High degree of delivery reliability.
- Reduced total cost.
- Reliable project management.
- Energy efficiency.
- Low maintenance and energy costs.
- Highly efficient components.
- Optimized plot area.



Field-erected mechanical draft cooling towers

For any cooling-water flow and heat capacity

Field erected mechanical draft cooling towers (FECT) have been in use for approximately 60 years. In comparison to natural draft cooling tower types these kind of wet cooling towers get more and more interest because of their compact structure and less investment costs. Depending on the application many structural materials are available for this product which allows a flexible design to satisfy process requirements and environmental conditions securing a maximum of flexibility and availability in operating customer´s plants.

GEA designs, manufactures and installs a complete range of cooling towers based on crossflow and counterflow principle. Our extensive product know-how enable us to provide innovative solutions suppling capacity as required for nearly all requirements. As a manufacturer with our own engineering departments, we can accomplish client´s specific wishes where necessary and ensure best economical cooling solutions, whereas Capex and Opex are related to the preferred demands of the customer.

According to requirements, these cooling towers can be manufactured from a wide range of materials that have proved their effectiveness in countless applications. The full spectrum is available. Models with in-situ concrete, pre-cast concrete parts, impregnated wood, steel, fiberglass reinforced plastic as well as combinations of these materials can be used.



Concrete Cooling Towers

The main features of concrete cooling towers are their long service life and very good sound absorption. When using high-strength cement and the appropriate coating, they can also be used with aggressive cooling water.

Wooden Cooling towers

Cooling towers made of wood have proven successful for decades in all branches of industry. Together with suitable accessory materials, for example for seawater, they can be used without restrictions.

FRP Cooling Towers

Due to its outstanding technical properties and extremely high resistance to corrosion and weathering, fibreglass reinforced plastic (FRP) is increasingly replacing constructions made of traditional materials.

GEA cooling towers can be equipped with different heat exchanging fill types on a highly flexible grade. We can employ the more efficient film fills for cleaner media, or splash type fills for waters with high concentrates of solids.

While natural draft wet cooling towers are typically installed at large power stations, multi-cell cooling tower designs are often the solution of choice for industrial applications but at the same time used for power plant cooling which allows an adjustment of the cooling output to cooling load and ambient conditions.

Area of application:

For all industries, for example power plants, chemical and petrochemical industry, steel works, lumber and paper industry and air conditioning systems; for any cooling water flow and heat capacity. GEA product portfolio for field erected mechanical draft cooling towers comprises mainly:

- Project management, engineering, commissioning and erection services
- Capex/Opex optimisation considering the entire cooling system
- Design of forced-draft or induced-draft multi cell cooling towers
- Diversity of structure materials (Concrete, Wood, FRP)
- Mechanical equipment with fans of any design, aluminium or fibre reinforced plastic
- Fills of any nature, film type or splash type
- Drift elimination systems with highest efficiency
- Down-spray nozzles / low pressure water distribution systems.
- Controlled risers from e.g. concrete, polypropylene, glass fibre reinforced plastic or steel inside or outside the cells
- Noise attenuators at air inlets and on air outlets and drives/e-motors



Benefits

- Multi-cell applications are built in a line or back to back configuration.
- Besides the characteristic panels with circular shape these cooling towers can also be provided with FRP cladding.
- Standard 8ft grid (2400mm) requires less concrete pillars in water basin.
- Legs can be placed inside the water basin, below the water level.
- Low-noise measurements effectively integrated in every model.
- Our cooling tower solutions can comply to any water quality whether corresponding file type or appropriate connecting materials shall be applied.
- Axial fan provides most cost effective cooling.
- Long experience in fill selection for different industrial water applications.
- Built for continuous operation over long lifetime.

Modular cell cooling towers Polacel CMDIF

Industrial water cooling built on site

The F in the name of the CMDIF series stands for Fiberglass Reinforced Polyester (FRP). This is the main structural construction material of these modular cooling tower housings. Our standard for fastening materials is made of stainless steel. The CMDIF cooling tower has been re-engineered to be more cost-effective and provides an easier and safer erection.

These towers are used for large industrial cooling applications and are standard assembled direct on the concrete water basin. The casing consists of moulded FRP panels or cladding sheets and on the top of the cooling tower there is a walkable fan deck. The fan stack rises from the deck and can be supplied with a diffusor or a sound attenuator.

The motor is located on the fan deck outside of the fan stack and is connected with a composite shaft to the rightangle gearbox in the center of the cell. The axial fan on top of the gearbox generates a highly efficient air flow through the cooling tower.
The heart of the cooling process consists of high efficient contact fill from either film type or (semi-) splashbar grids. A low pressure water distribution system provides optimal contact between water and air. On top there is always a highly efficient drift eliminator.

The size of the models is determined by a modular configuration and the towers are available in sizes from 54 to 300 m^2 per single cell. This matches heat rejection capacities of 10 MW to 50 MW.



Modular cell cooling towers Polacel CMDI

For various capacity requirements

For large industrial cooling tower applications there is a modular constructed cooling tower from the CMDI series. This type of cooling tower is built using a more conventional configuration with an axial fan placed on a rightangle gearbox with the motor outside the airstream on the top deck of the cooling tower cell. The driveline is equipped with a flexible composite shaft.

The heart of the cooling tower contains high efficiency contact fill from either film type or (semi-) splashbar grids. A low pressure water distribution system provides optimal contact between water and air.

The size of the units is determined by a modular panel configuration; the structural frame work is from stainless steel. These cooling towers are available in sizes from 54 to 300 m^2 per single cell.

This applies to heat rejection capacities of 10 to 50 Megawatt per cell. Cooling towers of the CMDI series are mainly used in (petro-) chemical industry, steel production, paper and pulp industry, medium sized power stations etc.

Benefits:

- Large cooling tower cells custom designed.
- Axial fan provides most cost-effective cooling.
- Reliable project execution due to own engineering and production.
- Quick assembly on site due to standardized 3D modeling.
- Cells can be hoisted completely after preassembling.
- Low-noise measurements effectively integrated in every model.
- Long experience in fill selection for different industrial water applications.
- Structural strength calculated for a variety of wind loads and seismic conditions.
- Built for continuous operation over long lifetime.



Benefits

- Built for continuous operation over long lifetime.
- Proven concept.
- Standardized 3D modeling stands for an easy and reliable assembly on site.
- All models can be hoisted completely preassembled.
- Structural strength has been calculated for a variety of wind loads and seismic conditions.
- Low noise measurements can easily be integrated in every model.
- Special applications with trickle fill and heavy duty grids.

Modular cell cooling towers Polacel CMDR

Cooling with a geared motor on an axial fan

CMDR series of modular cooling towers. These models have a successful history in the market for industrial cooling tower applications. The modular built standard cells are available in a range of 14 sizes between 12 and 120 m2. Most applications are industrial water cooling between 1 and 30 MW per cell.

The smaller sizes can be delivered preassembled by the road on a low loader. Extensive assembly manuals assure easy on site mounting of all models.

The CMDR series are characterized by a compact motor gearbox combination that is mounted directly on top of the cooling tower above the axial fan.

The cooling is generated by evaporation of approximately 1% of the cooling water. The direct contact between water and ambient air is created over the surface of plastic fills. The cooling towers have a counter flow configuration, this provides the most efficient exchange of enthalpy and the coldest water.

Although modular by size the CMDR series can be adapted to the requirements of the customer with regard to noise limitations or heavy duty water conditions.



Modular cell cooling towers Polacel CMC

Pre-assembled cooling towers for HVAC and Industry

GEA Polacel cooling towers have been developed over the last 40 years. The CMC range of small modular cooling towers still set the standard for reliable and sustainable cooling of water. There is a range of 7 single cell sizes available, which are used for clean water applications up to 2000 kW per cell. The larger CMC models are also available as a 2 or 3 cell configuration and are still transportable over the road.

All wet section materials inside the CMC cooling tower are made from stainless steel, polyethylene and FRP Fiber-Reinforced-Polyester. The fan on the top of the cell generates an airflow through the contact fill inside the cooling tower were the water is cooled by evaporation. This counterflow configuration provides cold water a few degrees above the wet bulb temperature of the ambient air. The CMC series are standardized for cooling systems with clean water applications, but adaptations are possible for special configurations regarding fill and low noise equipment.

Evaporative cooling is the most efficient and sustainable way to make cold water. The axial fan has a very high efficiency that provides the lowest energy consumption per rejected kilowatt cooling. The use of highly corrosion resistant construction materials allows a high concentration factor with a minimum of water consumption. Together with the long lifecycle of the equipment the CMC cooling tower stands for a green footprint.

Benefits:

- Efficient cross corrugated fill for clean and industrial water applications.
- Efficient axial fan with geared motor gives reliable operation.
- Cooling tower complies to the European Legionella Legislation.
- High efficient drift eliminators provide safe operation.
- Easy access to all inner parts of the cooling tower.
- Highly Corrosion resistant construction allows use of disinfectants.
- Maintenance and service contracts.

Modular cell cooling towers Polacel Crossflow

Custom design for special applications

Benefits

- Complete cells lifted onto high buildings.
- Unique geometry of cross flow fill maximizes cooling result.
- Low profile makes crossflow cells attractive for building on roofs.
- Efficient axial fan with geared motor gives reliable operation.
- Cooling tower complies to European Legionella Legislation.
- High efficiency drift eliminators provide safe operation.
- Easy access to all inner parts of the cooling tower; cleanable floor.
- Corrosion resistant construction allows use of disinfectants.
- The crossflow arrangement minimises noise from falling water.
- Additional noise reduction with special fans and attenuation is available.
- Maintenance and service contracts.

One of the special niche markets in wet cooling is the cross flow cooling tower. The GEA specialists for cooling towers have developed a standard range of towers with this cooling principle. The crossflow cooling process is also based on the evaporation of water to the air.

In a special structural crossflow fill the water flows downward while the air flows horizontally through the fill. This flow pattern creates a matrix of changing parameters inside the cell. The longterm experience and computable models of GEA provide an optimal solution with a minimum use of energy due to the induced draught of the axial fan.

The series of XE, XT and XL cooling towers can be provided in single or multi cell configurations. This results in optimal cooling towers for every capacity, mainly in Heat-Ventilation Air Conditioning projects with a clean water supply. All wet section materials inside the crossflow cooling tower are made from stainless steel, PVC and Fiberglass Reinforced Polyester (FRP).







The Polacel series of modular cell cooling towers Gentoo

Standardized, cost-efficient for small applications

GEA designs a wide range of cooling towers for all kind of cooling processes. This leads to many customized solutions. For the small tower market, mainly HVAC using clean water, the GEA cooling tower specialists has combined all these experiences to produce a standardized small cooling tower cell. This concept combines our experience with an efficient manufacturing to produce a cost-effective standard cooling cell towers. These cells towers are the Gentoo series.

The range consists of 3 basic models each with 3 different fan capacities. These 9 different combinations cover cooling applications between 200 and 1500 kW. Each model has a fixed design according to the latest requirements, with a high efficiency film type contact fill, and drift eliminator. There is a number of additional options available.

Benefits:

- Easily transported by road or in container.
- Efficient low-cost design.
- Durable construction materials.
- Standard axial fan provides most cost-effective cooling.
- Standardization is the result of long term GEA experience.
- Short lead time to delivery.



Benefits of open loop cooling towers:

- Many options available
- Custom designed for each application
- Low noise solution (centrifugal fans are less noisy than axial fans)
- Maximum cost-effectiveness over the entire life cycle
- Implementation for any volume of cooling water required
- Highly efficient components
- Rugged design
- State-of-the-art heat transfer materials
- Energy efficiency
- Low maintenance and energy costs
- Superior product quality in accordance with stringent GEA standards
- Implementation of country specific standards
- Completely transportable tower components, fully ready for installation.

Closed loop & Open loop cooling towers

Solutions for any volume of cooling water

Closed loop cooling towers are towers in which the working fluid passes through a bundle of hot dip galvanized tubes and is cooled thanks to the evaporation of the clean water which is sprayed onto it in the counter flowing fresh air. Open loop cooling towers are towers in which the working fluid is directly cooled by the outside air counter flowing through a plastic heat exchange media. GEA provides metallic cooling towers that can either be of the forced draft type.

GEA manufactures modules to size on the basis of the data we have compiled. We produce smaller units that are delivered ready to install as well as large cooling towers delivered in sections to be assembled on site. GEA is involved in the cooling towers we supply from the first introductory discussion, through the manufacturing stage to maintenance and after sales services. We do know and understand the complete pathway, we have all the data and specifications and we can accommodate all wishes and requirements in our own field. This makes GEA a permanent source of support and partner for our customers throughout all the years that our cooling towers are in service.

These types of GEA Cooling Towers are composed of:

- A pan-fan section containing all necessary hydraulic connections.
- A heat exchange section composed of:
  - A bundle of hot dip galvanized or stainless steel tubes and a spraying water pump (closed loop).
  - Honeycombed PP fill or PP rings (open loop).
  - Distribution pipes and high efficiency drift eliminators panels.
- Sound attenuators at air inlet and/or outlet (optional).



Our cooling towers' casing and integrated basin are built with freestanding hot dip galvanized steel sheets protected before assembly with the SORABOND® anti-corrosion shield, consisting of a thick coating of special epoxy resins applied after chromate treatment of the zinc surfaces and stove polymerization. Stainless steel casing panels are also available.

Official tests by independent agencies have demonstrated the very high resistance to corrosion, UV ageing, abrasion, impacts and micro-organisms of the SORABOND® coating. The SORABOND® coating, when subjected to multiple harmful effects, manifests a great tightness, flexibility and exceptional adherence.

The cooling towers' casing panels are assembled with either stainless steel nuts and bolts or hot dip galvanized for the larger sizes. Water-tightness is improved by washers, seals and mastic joints. In order to preserve the corrosion resistance of the panels, the assembly of the cooling tower excludes any welding operation. All stiffeners and connection flanges are mechanically welded and then hot dip galvanized.

According to their size, the cooling towers are either factory assembled or delivered in 2 sections to be connected on site (commonly the pan fan section and the heat exchange section; the sound attenuators if any, are supplied separately).

In order to answer to almost all the particular needs of our clients, many options are available.

With their tough design, their high resistance to corrosion, their ease of operation and maintenance, these GEA Cooling Towers are particularly designed for an intensive industrial use.

Benefits of closed loop cooling tower:

- Many options available
- Custom designed for each application
- Maximum cost-effectiveness over the entire life cycle
- Implementation for any volume of cooling water required
- Highly efficient components
- Rugged design
- Energy efficiency
- Superior product quality in accordance with stringent GEA standards
- Implementation of country specific standards
- Completely transportable tower components, fully ready for installation
- Less important volume of water to treat (only the recirculated water is concerned).
- Process fluid remains clean (not contact with the atmosphere).
- Require less maintenance than open loop cooling towers.

2H fill products

Cooling tower components and fills for agricultural engineering from GEA

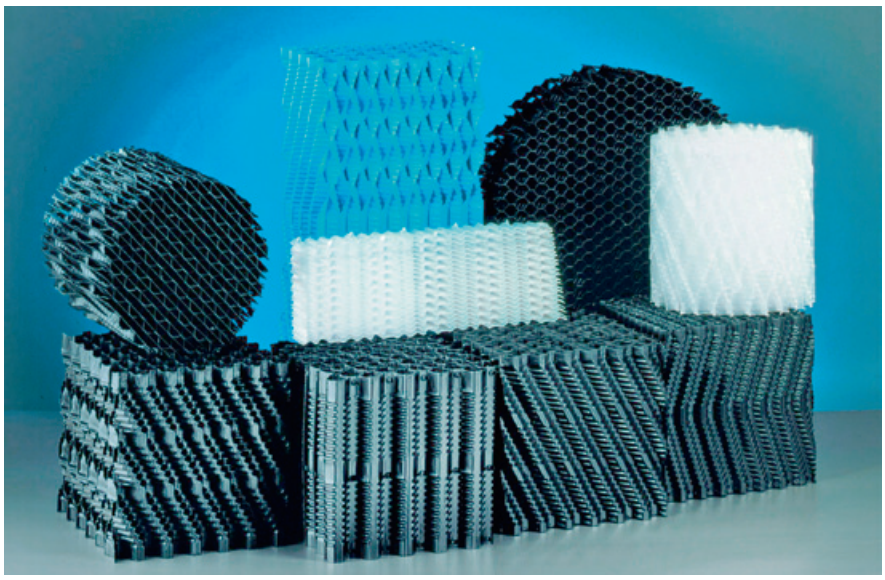
Benefits

- Unique GEA welding processes to allow to avoid solvent emissions.
- SANIPACKING®
  Anti-legionella fills and drift eliminators: a special agent inhibits the growth of bacteria on the surface of the packing and provides protection against legionella.
- Patented manufacturing processes.
- Long maintenance-free life cycle.
- Great operational reliability.
- Cooling tower for testing purposes in-house.
- Flame-resistant materials.
- Exclusive custom-made designs.

Efficient, high-performance basic components are essential if the construction and operation of wet cooling towers are to satisfactorily fulfill both economic and ecological criteria. In addition, cooling tower components from GEA demonstrate great durability and stability. Without fatigue failure, no matter where. Cooling fills and drift eliminators made by GEA, for example, are widely used in cooling towers throughout the world. For decades, they have outstandingly satisfied an extensive variety of requirements: both as original equipment and for retrofit optimization of existing plants.

Our engineers constantly improve the efficiency of our components. For this reason as well, the GEA product portfolio includes a wide variety of packings with structures and surfaces that guarantee optimal performance even in the presence of varying cooling water qualities. The portfolio here ranges from high-performance packings with large heat exchange surface, to low-fouling fills with vertical ducts and grid structures. In addition, GEA products play a major role in helping to protect the environment: 2H PLASdek® drift eliminators, for example, reduce emissions from cooling towers, and innovative 2H SANIPACKING® offers additional dependability in controlling microbiological activity in cooling towers.

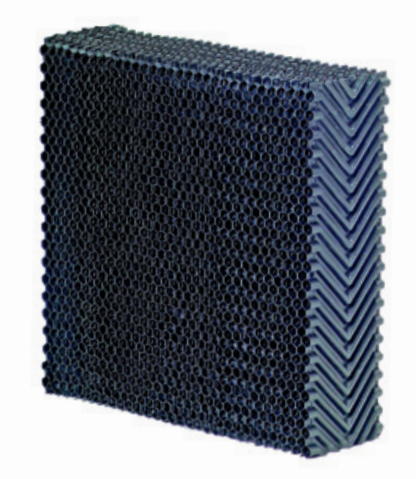
In agricultural engineering, GEA fills are used for exhaust-air cleansing, air humidification, and cooling.



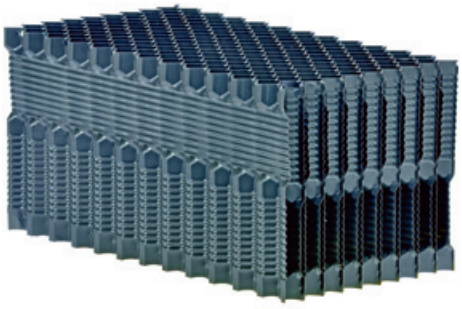
Various fills for cooling towers

Quality without compromises

Outstandingly proven over decades: GEA fills for cooling towers and agricultural engineering optimally round off our offerings. Our portfolio includes counter-flow and crossflow fills, film fills, trickle fills, splash fills, drift eliminators, air-inlet louvers, light traps, and fills for air humidifying and cooling.



Fill for evaporative plastic coolers



Special low-fouling fill, KVC/KVP 319



On the safe side

Legal regulations are becoming increasingly stringent. Our lamella clarifiers for sewage treatment, fills for potable water purification, storm water infiltration, odor-control equipment, and aquaculture are designed to satisfy all stipulations – in the future as well as now.

Water and wastewater products

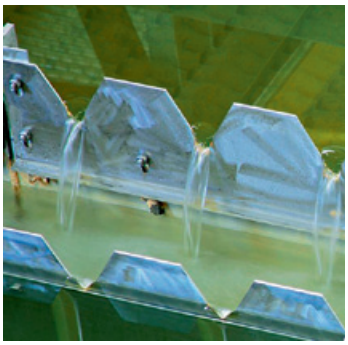
Flexible, adaptable, and advantageous

As a leading manufacturer of fills and lamella clarifiers, GEA can offer established solutions and innovative technologies for highly efficient solid separation. Flexible, adaptable and advantageous, in the long term. Our products are important components of many water treatment processes for the preparation of high quality cooling water. Engineers around the world rely on the quality, efficiency and availability of GEA products. With the on-site assembly technology, efficient systems can be built in all parts of the world.

Evaluations by independent test laboratories and test centres ensure that new GEA products and manufacturing processes comply with all the most important requirements. Our customers, too, benefit from reproducible performance data based on standardized test procedures.

GEA's industrial manufacturing experience – combined with in-depth knowledge of water treatment processes and environmental regulations – assists customers in their evaluation of compliance issues. GEA performs basic feasibility studies and develops a range of designs that keep operational considerations in proper focus.

In addition to water treatment in cooling towers, GEA has a long history in sewage and potable water purification, with many project references from all over the world.



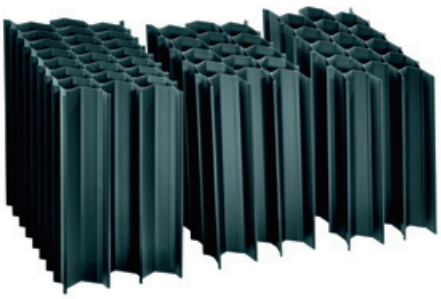
Water quality after sedimentation process

Benefits

- Comprehensive technical application consulting.
- Many years of experience in the design of reactors.
- Lower effluent discharge standards.
- Assembly at a whole range of locations worldwide.
- Reduced transport costs by assembly on site.
- Construction site supervision as required.
- In-house research and development.
- Research projects with universities.



TUBEdek® FS 41.50 for sedimentation processes



Three different types of TUBEdek® lamella clarifiers



After-sales services and maintenance

Solutions for optimal cooling performance

GEA service engineers are specialized in cooling tower maintenance. Regardless of the brand or model, our specialists know all the ins and outs of this entire technical area. The GEA service organization is also intensively involved in the latest developments. This is why we give our customers a guarantee of best possible cooling tower performance, unmatched by any other service organization.

Maintenance, overhaul, and upgrading

GEA carries out the maintenance needed in many locations and in practically any time frame. In order to offer complete solutions, Our service organization guarantees optimal performance at minimal cost with our work geared to your wishes, for maintenance that is scheduled or corrective, with or without a contract, and independent of brand or model version. GEA can offer you everything from spare parts, repairs and maintenance, up to thermal upgrades, installation, performance tests, and vibration analysis. If an overhaul or upgrade is needed, GEA can take care of the complete implementation. We can limit operational interruption to an absolute minimum as a result of thorough preparation.

Periodic inspections

Periodic inspections are the instrument for assuring you problem-free cooling tower operation. GEA offers a choice of two service models. In the case of clients with an inspection contract, our experts check cooling towers, record their findings in a detailed report, and make maintenance recommendations on this basis. If the customer has a periodic inspection and maintenance contract, we take care of all the maintenance. This is a comprehensive solution in which we adapt our maintenance program to meet your requirements and your schedule, as set down in clear agreements.



Fans in balance

If a fan is out of balance, this will have numerous negative effects. The immediate results are lower efficiency, shorter lifetime, more noise, and damage to the drive. GEA has sophisticated equipment to measure the imbalance and help to eliminate it. A regular check is a sensible preventive measure.

Parts and hire

The GEA service organization also supplies parts to your own technical services department and supports it with expert advice. The components are optimally tuned to the application. Most parts can be supplied from stock and prices are very competitive. If you need a cooling tower, either temporarily or permanently, you can also opt for hire, hire purchase, or lease. GEA can offer very flexible customized solutions here.

Capacity measurement

Even when performance remains optimal, the capacity of a cooling tower can drop unnoticed below the critical level. Additional equipment, changes in production, and other factors can play significant roles. The GEA Research Department uses mobile measuring equipment that can determine your performance with precision. The detailed report will tell you what you can expect on a particularly hot day. Independent GEA experts also measure relevant data upon completion of construction or after an overhaul. Their findings and conclusions give you an accurate picture of performance in actual practice.

Noise reduction

Noise is becoming an ever more important environmental factor. GEA engineers can make recommendations about this issue, and install equipment to ensure major reductions in noise without any loss in cooling capacity.

GEA Heat Exchangers

Europe

GEA Polacel Cooling Towers B.V.
Vlijtstraat 25, P.O. Box 296,
7000 AG Doetinchem, The Netherlands
Phone: +31 314 371 414
coolingtowers.hx.nl@gea.com

GEA Ergé-Spirale et Soramat SA
Siège social, Bureaux et Usine,
2, rue de l'Electrolyse,
BP 66, 62410 Wingles, France
Phone: +33 032 169 890 0
coolingtowers.hx.fr@gea.com

GEA 2H Water Technologies GmbH
Dieselweg 5,
48493 Wettringen, Germany
Phone: +49 255 793 900
2h.hx.de@gea.com

GEA Energietechnik GmbH
Dorstener Str. 18-29,
44651 Herne, Germany
Phone: +49 234 980 2711
coolingtowers.hx.de@gea.com

GEA NEMA Wärmetauscher GmbH
Friedensstrasse 3a,
08491 Netzschkau, Germany
Phone: +49 3765 492 0
Nema.hx.de@gea.com

GEA Heat Exchangers Ltd.
GEA Cooling Tower Solutions
Unit 3, Maybrook Business Park,
Maybrook Road, Minworth,
Birmingham, B76 1AL,
Dolphin House, Moreton Business Park,
Moreton on Lugg, Hereford, HR4 8DS,
United Kingdom
Phone: +44 121 352 3333
coolingtowers.hx.uk@gea.com

Middle East

GEA Polacel Cooling Towers FZCO
Freezone South 2 AA04, Jebel Ali 262513 Dubai,
United Arab Emirates
Phone: +971 488 600 20
polacel.hx.ae@gea.com

Asia

Beijing GEA Energietechnik
Unit 2008, Tower 2, Landmark Towers No. 8,
Dongsanhuan Beilu 10004 Beijing, China
Phone: +86 65907049-213
CoolingTowers.hx.cn-beijing@gea.com

Beijing GEA Energietechnik Co., Ltd.
Shanghai Office 27F, Junyao International Plaza,
No. 789 Zhao Jia Bang
Rd., Xu Hui District, 200032 Shanghai, China
Phone: +86 21 61960742
CoolingTowers.hx.cn-shanghai@gea.com

GEA Cooling Tower Technologies Pty. Ltd.
443, Anna Salai,Teynampet,
Chennai 600 018, India
Phone: +91 44 2433 4939
CoolingTowers.hx.in@gea.com

North Amercia

GEA Heat Exchangers, Inc.
Cooling Tower Solutions Division
300 Union Blvd., Suite 350,
Lakewood, CO 80228, USA
Phone: +1 303 987 0123
Coolingtowers.hx.us@gea.com

GEA Heat Exchangers, Inc.
Cooling Tower Solutions Division
17755 U.S. Highway 19 North,
#250 Clearwater, FL 33764, USA
Phone: +1 727 530 9000
Coolingtowers.hx.us@gea.com



South America

GEA Sistemas de Resfriamento Ltda.
Estrada Municipal, 691
Condomínio Empresarial Alpha Park
Indaiatuba - SP - CEP 13.337-200, Brasil
Phone: +55 19 3936 1522
coolingtowers.hx.br@gea.com

Africa

GEA Aircooled Systems (Pty.) Ltd.
PO Box 1427 Aberdein Street, Roodekop,
Germiston 1400, South Africa
Phone: +27 (0) 11 861 1500
Gas.hx.za@gea.com

GEA Nilenca (Pty) Ltd.
Aberdein St, Roodekop, Germiston
PO Box 14842, Wadeville, 1422
Gauteng, South Africa
Phone: +27 11 866 4000
Coolingtowers.hx.za@gea.com



Expect one-stop solutions

By concentrating various performance fields into a single, one-stop solution, GEA Heat Exchangers especially enables more effective control of the complex processes in heat transfer. It also speeds up order execution and simplifies preventive and remedial maintenance of heat transfer facilities. In this way, GEA creates clear and personally addressable responsibility for the entire process of project implementation. In a global, tightly meshed network, our highly qualified staff provides all key processes in industrial production and air treatment. GEA has set a new standard for efficiency, reliability, and availability in heat exchange. With production and service locations around the world, GEA Heat Exchangers offers a unique industrial network to provide excellence in engineering and expertise in local services and comprehensive support of our customers in a wide range of dedicated applications.

Excellence Passion Integrity Responsibility GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

www.gea-heatexchangers.com

© GEA Heat Exchangers. All rights reserved. 5/2013 – DY-2013-0001-GB