



Portfolio

Process solutions for thermal separation
and innovative environmental technologies

www.gigkarasek.com



Concentrating the Essentials

Because that's what plant engineering and process technology are all about.

Whether it's the concentration of liquids, utilization of CO₂ and industrial waste heat, or state-of-the-art IIoT solutions – GIG Karasek is your experienced partner for high-quality industrial systems and state-of-the-art process technology that is „Made in Austria“.

We don't just take our motto „Concentrating the Essentials“ literally when it comes to our long-standing core competence in thermal separation technology.

Maximum efficiency is also important to us in the area of new environmental technologies. After all, we want to support global efforts towards sustainable industrial processes in the best possible way.

Thanks to our in-house production and quality control, as well as our modern technical center for testing, research, and development, we can meet the highest demands in plant engineering, drive technical innovation, and deliver customized solutions.

With this in mind, let's focus on the essentials together!



Want to know more?
Watch our company video!



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” Our motto „Concentrating the Essentials“ fits perfectly with our approach and the way we work. We are concentrating on the greatest possible efficiency – both in our core competencies and in new environmental technologies.”

Andreas Schnitzhofer
General Manager



” We are proud of our extensive know-how, our high-quality technologies and our highly committed employees. We offer everything from a single source to support our customers and be a valued industry partner.”

Julia Aichhorn
General Manager, owner family

On the pulse of industry

Your experienced partner for thermal separation and innovative environmental technologies

GIG Karasek is part of the Dr. Aichhorn Group and a global industrial partner specializing in thermal separation and innovative environmental technologies.

We are based in the center of Europe and operate three locations and two of our own production facilities in Austria. We also have a worldwide network of representatives, partners, and qualified subcontractors.

Over many decades, we have developed into a long-standing expert in plant engineering and have successfully completed numerous projects all over the world –

from pilot systems and skid units to turnkey plants on an EPC basis. We offer reliable after-sales service with high-quality spare parts, provide assistance with turnarounds, and support with targeted modernization measures.

With its four business areas and comprehensive range of services, GIG Karasek is ideally positioned and excels with short communication channels, customer-oriented thinking, and reliability.

Our business areas

Conventional evaporation technology



Thin-film and short-path technology



Environmental technologies



Technical center for testing and R&D

Our sites in Austria



Gloggnitz-Stuppach

2640, Neusiedlerstraße 15-19
Head office, administration, technical center, and production for conventional evaporation technology



Attnang-Puchheim

4800, Industriestraße 21
Engineering and fabrication for thin-film, short-path, and environmental technologies



Graz

8055, Brauquartier 21, 1 OG., Top 9
Process- and plant engineering for conventional evaporation technology and industrial waste heat utilization

Many years of core competence

GIG Karasek has been a globally active plant manufacturer and expert in energy-optimized thermal separation technologies for decades.

With dozens of happy customers around the world, we are a key supplier of equipment and plants that process industrial liquids through **evaporation, distillation, and drying.**

GIG Karasek technologies are used to concentrate substances, distill solvents, recover valuable substances, and dry sludges.

Our high-quality **plate- and tube falling-film evaporators** are used to evaporate moderately temperature-sensitive and low-viscosity substances.

Our **thin-film and short-path technology** is ideally suited for the thermal separation of temperature-sensitive and highly viscous media.

New environmental technologies

In 2022, GIG Karasek founded the new „Environmental Technologies“ division, with which we focus primarily on the areas of CO₂ valorization and industrial waste heat utilization.

GIG Karasek developed a **patented technology for the electrochemical conversion of captured CO₂ into chemicals and fuels** with the aim of advancing global efforts to capture and utilize carbon dioxide (Carbon Capture and Utilization, or CCU for short) in the best possible way.

At the same time, we have launched an **innovative heat pump system** that helps our customers to reuse waste heat flows for internal or external processes and save expensive primary energy.

Let's use the enormous potential of these new environmental technologies together!

Conventional evaporation technology

Customized falling-film technology for maximum evaporation rates and reliable operation

Various evaporator types and process solutions with different configurations are used to meet the individual requirements of a wide range of industries and applications.

Multiple-effect Evaporation Plants

Claim: **energy efficiency with high evaporation rates**

Functional principle

While the first evaporation stage is heated with live steam, vapor from the previous stage is used to heat the heating surfaces in the subsequent stages. As the number of effects increases, the specific live steam input gets reduced.

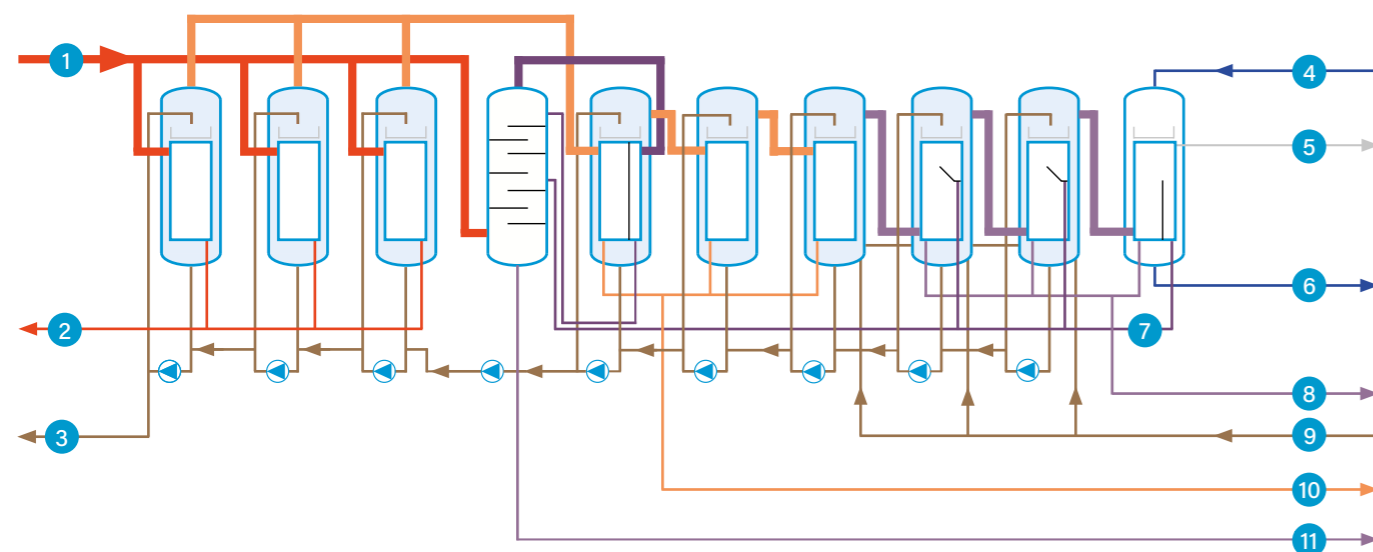
The number of stages usually depends on the specified temperature effects. The temperature sensitivity of the

medium, the maximum available heating steam pressure, and the cooling water temperature are further important parameters.

In close cooperation with our customers, GIG Karasek develops individual process solutions and system designs to optimize both energy and investment costs.

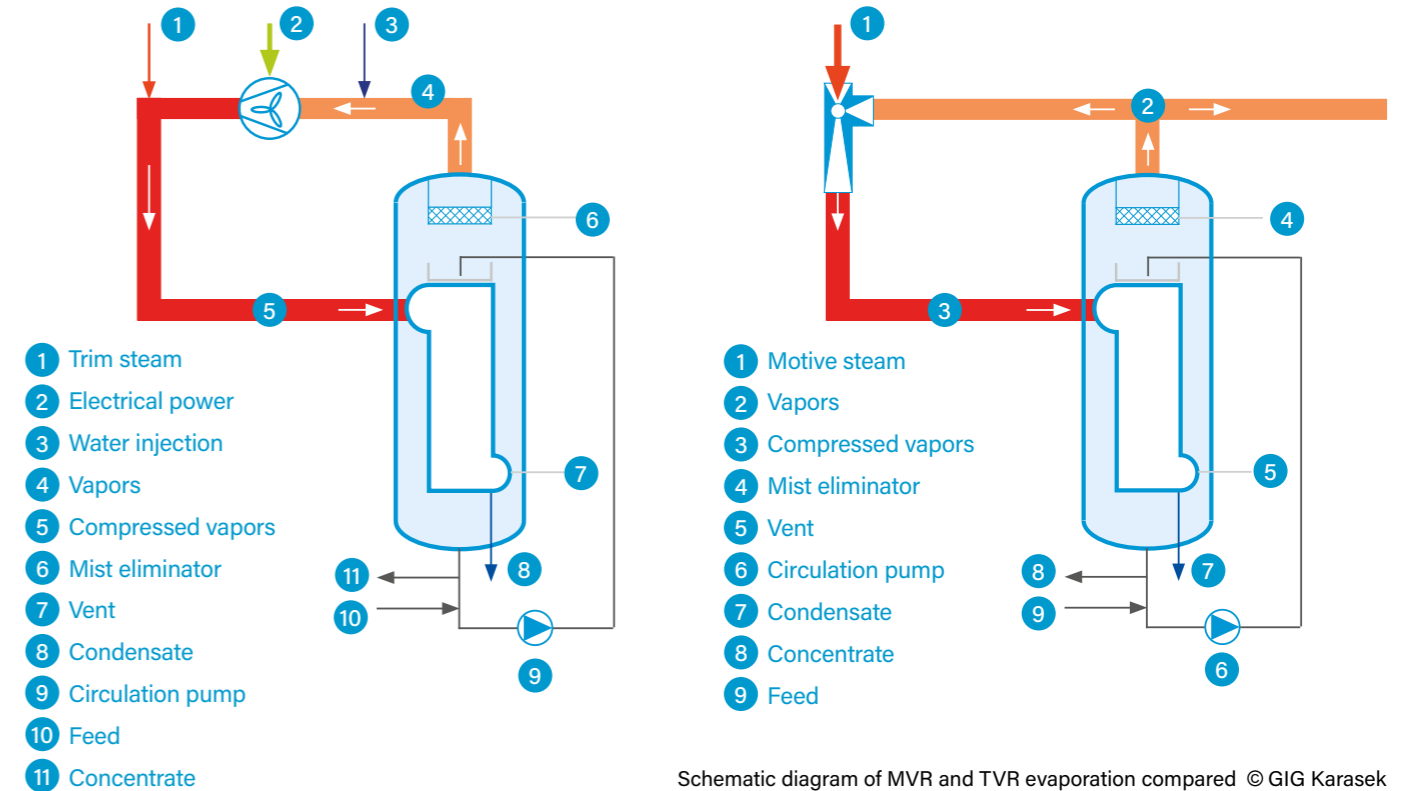
ADVANTAGES of the Multiple-effect Evaporation

- ◆ Optimized energy consumption/costs
- ◆ Highest evaporation rates possible
- ◆ Ideal for substances with a higher boiling point rise
- ◆ Improved condensate quality through condensate separation



- | | | | |
|-------------------------|------------------------|----------------|---------------------|
| 1 Live steam | 4 Cooling water supply | 7 C Condensate | 10 A Condensate |
| 2 Live steam condensate | 5 Vent gas | 8 B Condensate | 11 Clean condensate |
| 3 Thick liquor | 6 Cooling water return | 9 Thin liquor | |

Example of an extensive, 6-stage evaporation plant for the pulp industry © GIG Karasek



Schematic diagram of MVR and TVR evaporation compared © GIG Karasek

Mechanical Vapor Recompression (MVR)

Claim: **electricity as an energy source, reduction of live steam, cooling water, and CO₂ emissions**

Functional principle

Process steam (vapor) is compressed by an electrically driven compressor, its temperature and thus energy level is raised, and finally reused to heat the evaporator.

Depending on the application (boiling point increase, heat transfer) single-stage or multi-stage turbo compressors work on the principle of an open heat pump.

Mechanical vapor recompression enables a significant reduction in a plant's CO₂ footprint if electricity from renewable sources is used.

Furthermore, this system is characterized by particularly low operating costs and only minimal amounts of cooling water are required.

Thermal Vapor Recompression (TVR)

Claim: **steam as an energy source, reduction of live steam and cooling water**

Functional principle

Thermal vapor recompression uses part of the process vapor to heat the evaporator. The other part is passed on to the next stage or converted into condensate.

Steam compression for heat recovery takes place in a steam jet compressor, which is usually designed for a specific operating point. Motive steam (live steam) is required to operate a thermal vapor recompressor.

ADVANTAGES of MVR/TVR

- ◆ Reduced consumption of live steam and cooling water
- ◆ Significantly reduced operating costs in many cases
- ◆ CO₂ savings through electrical energy as the main energy source
- ◆ Gentle evaporation temperature
- ◆ Reuse of low-pressure steam possible

Plate falling-film evaporators

For high evaporation rates, low-viscosity, and highly fouling media

GIG Karasek plate falling-film evaporators are perfect for high evaporation rates, low-viscosity, and highly fouling substances.

Functional principle

The medium to be thickened is concentrated along the plate-type heating elements (lamellas), which are arranged as a bundle in the evaporator. The more volatile component is evaporated and removed from the apparatus. Optimized distribution systems are used to ensure the best possible distribution of the medium on the heating bundle and thus a high evaporation rate.

In-house production

All components are produced in our state-of-the-art, in-house production facility in Gloggnitz, Austria, and are subjected to the strictest quality controls.

GIG Karasek supplies different lamella formats and materials to meet individual customer requirements. Thanks to our specially developed lamella-forming process, we can offer optimized spot-welded and laser-welded heating elements.

ADVANTAGES

- ◆ Ideal for heavily fouling media
- ◆ Highest evaporation rates
- ◆ Excellent separation of liquid and vapor phase
- ◆ Optimized spot-welded and laser-welded lamellas
 - ◆ Long service life
 - ◆ Minimal risk of fouling and corrosion
 - ◆ Energy-optimized design
- ◆ Integrated droplet separator
- ◆ Condensate separation thanks to secondary heating surface



Top: spot-welded lamella
Middle: laser-welded lamella
Bottom: lamella cross-section
© GIG Karasek

AREAS OF APPLICATION

- ◆ Concentration of black liquor, spent sulfite liquor, and waste water
- ◆ Recovery and separation of solvents and alcohols
- ◆ Volume reduction of liquid-liquid mixtures
- ◆ Separation of multi-component mixtures
- ◆ Water separation
- ◆ Concentration of the liquid phase of fermentation residues in biogas plants



Want to know more? Watch our video!



Tube falling-film evaporators

From the smallest evaporation capacities, for low-viscosity and moderately fouling media

Our tube falling-film evaporators are used in many standard applications and especially for smaller evaporation capacities.

Functional principle

The medium to be thickened is thickened via vertically aligned tube bundles. The substance forms a thin film on the inside of the tube and flows downwards with gravity.

Vaporization of the more volatile medium on the heating surface produces steam, which is channeled in the tubes in co-current with the boiling liquid.

The vapor phase is then separated from the liquid phase in the lower evaporator chamber via integrated droplet separators or cyclone separators. Steam is generally used to heat the evaporator on the shell side.

In-house production

Our tube falling-film evaporators are also produced in our workshop and tested to the highest quality standards.

GIG Karasek applies its extensive technical know-how in particular to droplet separation and cleaning of the apparatus and offers customized solutions.

ADVANTAGES

- ◆ Ideal for low evaporation rates
- ◆ Can be used flexibly for a wide range of industries and moderately fouling media
- ◆ Optimized droplet separator design
- ◆ Cost-effective cleaning
- ◆ Compact design and small footprint

AREAS OF APPLICATION

- ◆ Concentration of moderately fouling liquids and wastewater
- ◆ Volume reduction of liquid-liquid mixtures
- ◆ Recovery and separation of solvents and alcohols
- ◆ Separation of multi-component mixtures and separation of water
- ◆ Recovery of valuable materials



The tube falling-film evaporator is based on the principle of a tube-bundle heat exchanger.
© GIG Karasek

Thin-film and short-path technology

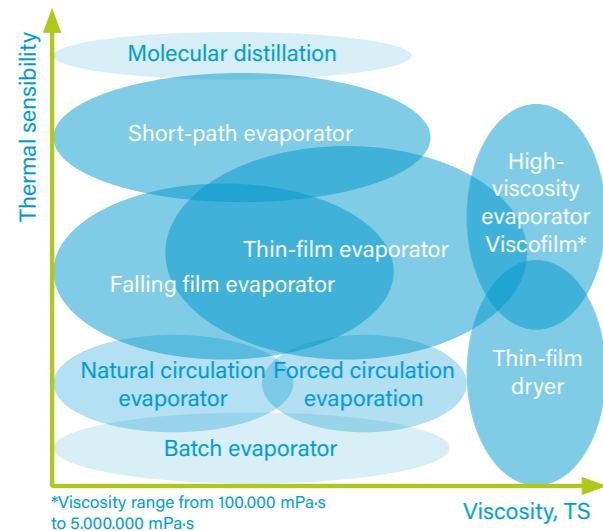
Highest evaporation rate for high-viscosity and temperature-sensitive applications

Complex tasks require special process solutions. GIG Karasek **thin-film and short-path technology** is used where traditional processes reach their limits.

GIG Karasek has focused its extensive expertise in apparatus and plant construction on perfecting thin-film technology and has established various types of evaporators for the demanding tasks in thermal separation technology.

By making the right choice or combination of technologies, we are able to process a very wide range of different substances.

Areas of application – different technologies



Installation of a short-path evaporator © GIG Karasek



Thin-film evaporator

Powerful concentration or purification of substances that are difficult to process

Our thin-film evaporators can be used for both the **concentration** and **purification** of valuable substances and deliver excellent results even when processing the most sensitive substances.

We offer a wide range of different **rotor and wiper elements** to adapt each apparatus to specific conditions.

Functional principle

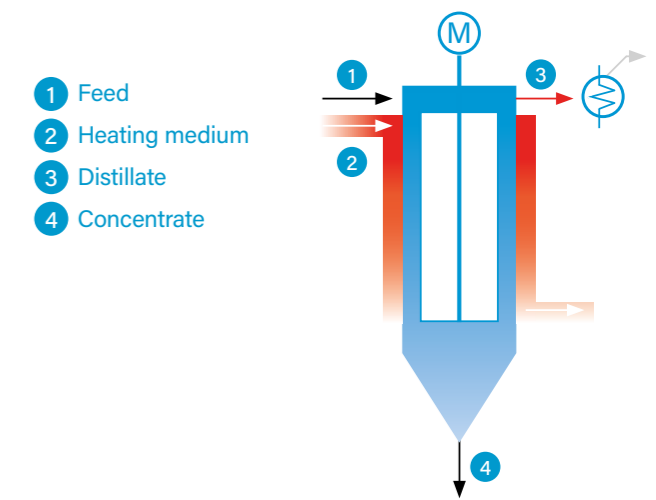
The thin-film evaporator consists of an internal rotor and a cylindrical heating surface that is heated from the outside with steam or thermal oil. The medium is distributed around the circumference of the head with a distribution ring and flows down the heated evaporator wall.

Special wiper elements ensure an even distribution of the medium and create a liquid film. Turbulence forms on the wiper blades, ensuring both efficient heat transfer and continuous renewal of the liquid film. This means that the medium only comes into contact with the heating surface for a short time and is exposed to a minimal temperature load.

This gentle evaporation process achieves the highest product quality.

ADVANTAGES

- ◆ Constantly renewed liquid film
- ◆ Optimized retention time of the product
- ◆ Short downtimes for assembly, maintenance, and inspections
- ◆ Rapid spare parts service
- ◆ Improved heat transfer thanks to optimized wiper design
- ◆ Lower risk of corrosion
- ◆ For selected rotor types, no lubrication of the lower rotor bearings is necessary
- ◆ Custom design – optimum heating surface; rotor type according to requirements



Thin-film evaporator – skid unit © GIG Karasek



Want to know more? Watch our video!



AREAS OF APPLICATION

- ◆ Concentration of ...
 - ◆ structurally viscous substances
 - ◆ highly viscous substances
 - ◆ temperature-sensitive substances
- ◆ Distillation of low-boiling media
- ◆ Special applications such as reboilers for rectification systems
- ◆ Purification by distilling valuable products from high boilers

Thin-film dryers

Gentle drying and high product purity when processing heat-sensitive media

GIG Karasek manufactures both **vertical and horizontal thin-film dryers**, which are primarily used when gentle drying of heat-sensitive media is required.

As our dryers are based on the principles of our proven thin-film evaporator technology, our thin-film dryers are both powerful and economical. They are mainly used in the waste water, (oleo)chemical, and food industries.

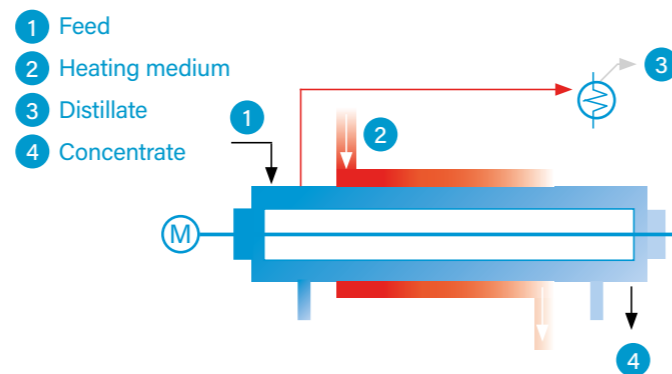
Functional principle

The medium to be dried is distributed continuously around the entire circumference of the heating wall. Special wiper elements continuously renew the contact between the substance and the heating wall and ensure that the product flow continues.

As the solid rotor blades do not touch the heating jacket (defined gap), incrustation or blockage of the heating surface is avoided and liquid substances can be dried to powder form despite the gentle process.

ADVANTAGES

- ◆ High product purity
- ◆ Minimal product loss
- ◆ Highest dry matter content
- ◆ Gentle drying thanks to short dwell time and permanent product circulation
- ◆ Hardly any deposits on the heating surfaces due to mechanical cleaning
- ◆ Reduced maintenance work thanks to clever design of the bearing and shaft seals



Horizontal thin-film dryer © GIG Karasek



Want to know more? Watch our video!



AREAS OF APPLICATION

- ◆ Slurry
 - ◆ Sewage sludges
 - ◆ Process- and industrial sludge
 - ◆ Municipal sludge
- ◆ Chemical products (precursors or intermediates)
- ◆ Saline solutions
- ◆ Moist solids
- ◆ Suspensions
- ◆ Pastes

Short-path evaporators

The shortest route to maximum evaporation performance when distilling and separating special media

The GIG Karasek short-path evaporator has a particularly wide range of applications in the field of gentle evaporation of sensitive substances.

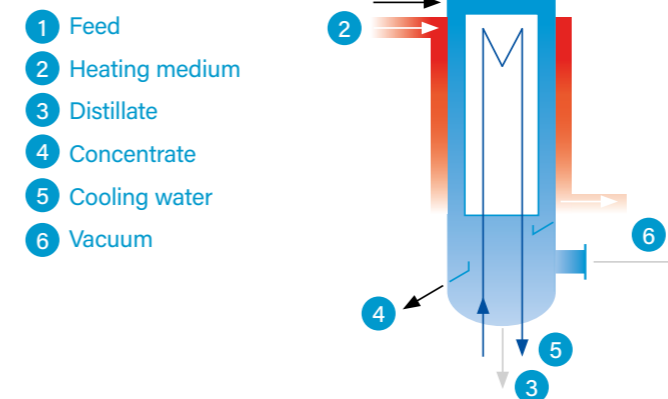
This special apparatus is primarily used for the distillative purification of many challenging substances that could not be separated using conventional methods.

Functional principle

The basic functionality of our thin-film evaporators can also be found in our short-path evaporators. The difference is a condenser integrated into the device. This principle keeps the vapor path to the condenser particularly short, minimizes pressure losses, and enables operation in fine and high vacuums.

ADVANTAGES

- ◆ Particularly gentle evaporation due to low pressure losses
- ◆ High boilers do not reach the condenser thanks to efficient droplet separators
- ◆ For the distillative purification of many challenging substances that cannot be separated using conventional thermal processes



Want to know more? Watch our video!



Short-path evaporator with integrated condenser © GIG Karasek



AREAS OF APPLICATION

- ◆ Distillation of viscous media at low process pressure (0.001 to 1 mbara)
- ◆ Production of ...
 - ◆ fatty acids
 - ◆ derivatives
 - ◆ semi-volatile flavorings
- ◆ Separation of extracts
- ◆ Distillation of ...
 - ◆ vitamins
 - ◆ oils

CO₂ valorization

Converting captured carbon dioxide into valuable industrial products with ECO2CELL

GIG Karasek has made it its mission to provide effective solutions to the global problem of immense CO₂ emissions and the associated massive impact on the world's climate.

As an expert in industrial plants and plant engineering, we focus on innovative processes for CO₂ utilization and are pioneers in the field of electrochemical conversion technology.

From problem to opportunity with ECO2CELL

GIG Karasek has developed ECO2CELL for converting captured carbon dioxide into valuable chemicals and fuels and holds the patent for this pioneering technology.

Functional principle

The ECO2CELL unit uses **CO₂**, **water**, and **electricity** in an electrocatalytic process to produce higher-value carbon compounds.

Applying an electrical voltage causes the reduction of CO₂ at the cathode and the oxidation of water to oxygen at the anode. Depending on the voltage applied and the use of different catalysts, different end products are produced.



Patented ECO2CELL Lab Plant © GIG Karasek

AREAS OF APPLICATION

- ◆ All industrial processes – especially in carbon-intensive sectors
- ◆ Cement industry
- ◆ Biogas production
- ◆ Steel industry
- ◆ Petrochemical industry
- ◆ Paper and pulp production



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Thanks to our many years of know-how in plant engineering and process technology, we have the ultimate expertise to implement customer-specific solutions for CO₂ conversion.

The success of our process is groundbreaking and has already been successfully demonstrated on a pilot scale. With our ECO2CELL Lab Plant, comprehensive tests can be carried out directly on industrial plants or in the research facility.

Our services

- ◆ Development of customized CO₂ conversion solutions
- ◆ Design and construction of turnkey plants
- ◆ Process optimization and scale-up
- ◆ Consulting

Carbon dioxide – from problem to opportunity. Let's tap into this enormous potential together!



Want to know more? Watch our video!



END PRODUCTS

- ◆ Methanol
- ◆ Synthesis gas
- ◆ Formic acid
- ◆ Ethylene
- ◆ More upon request

ADVANTAGES

- ◆ Wide range of end products
- ◆ Zero-emission technology through the use of water and electricity from renewable sources
- ◆ Easy scaling, modular design
- ◆ Mild process conditions (ambient temperature and pressure)
- ◆ Hydrogen does not need to be supplied to the process

Industrial waste heat utilization

On the path to decarbonization with the ComprivAP industrial heat pump solution

In times of global change concerning decarbonization and the availability of sustainable energy, we are stepping up our commitment to environmentally friendly industrial processes.

In energy-intensive industrial sectors, a significant proportion of the energy used is still disposed as unused waste heat in the form of exhaust steam or warm waste water. GIG Karasek offers a powerful process for tapping into the enormous potential of surplus thermal energy.

Save valuable energy with ComprivAP

Our state-of-the-art ComprivAP heat pump system is based on recovering waste heat and reusing it as green process steam. After all, steam is still the best and most

frequently used medium for transporting heat in industrial processes.

Functional principle

The ComprivAP system is based on the proven **MVR (Mechanical Vapor Recompression)** technology. Process steam is drawn in by an electrically driven compressor and raised directly to a higher energy level by increasing the pressure.

Warm liquids or steam can be used as heat sources. These flows are often no longer usable per se, but still contain a considerable amount of energy.



Want to know more? Please scan the QR code.



Recovery and use of steam in a plant © Pillar



AREAS OF APPLICATION

- ◆ All industrial processes, especially low-temperature waste heat flows

ADVANTAGES

- ◆ Reduced consumption of primary energy and consequently lower CO₂ emissions
- ◆ Reduced demand for live steam and cooling water
- ◆ High potential for OPEX savings
- ◆ Uncomplicated and quick (retrofit) installation

Digitalization and IIoT

With the GIG Karasek digitalization platform to the optimum operating point of your system



© Adobe Stock

Industry 4.0 continues to revolutionize the way companies optimize their production processes and increase their competitiveness at a rapid pace.

Systems on the digital pulse of time

With the **GIG Karasek platform**, customers have the opportunity to digitalize and monitor their production processes and, above all, to bring them to the best possible operating state.

In addition, we also use various modern **smart services**, which are excellent tools for increasing efficiency and saving costs and resources.

Flexibility through pay-per-use and equipment as a service

GIG Karasek pay-per-use – flexible financing solutions that adapt variably to the respective system usage – are available to support system operators with more flexibility and lower investment risk, even in economically challenging times.



Want to know more? Read the GIG Karasek Insights!



SMART SERVICES

- ◆ Digital twin – virtual model of a plant
- ◆ Condition monitoring – monitoring and analysis of process parameters
- ◆ Predictive maintenance – for when servicing is needed
- ◆ Optimization as a service – improvement of production sequences and energy consumption

ADVANTAGES

- ◆ Increases the efficiency of the system
- ◆ Saves costs and resources
- ◆ Predictive operation – real-time information and long-term trends
- ◆ State-of-the-art IIoT (Industrial Internet of Things) platform
 - ◆ Secure data handling and strict access controls
 - ◆ Intuitive operation of the IIoT platform
 - ◆ Certified hardware devices

GIG Karasek Technical Center

State-of-the-art test infrastructure for individual tests, scale-up, and R&D

At GIG Karasek's technical center in Gloggnitz, tailor-made tests can be carried out on thermal separation technology processes and CO₂ valorization.

Optimum conditions thanks to state-of-the-art equipment

The technical center offers state-of-the-art test infrastructure that is oriented towards individual tasks. All systems can be operated with different process parameters and operating data can be generated.

Secure your planned investments and benefit from the technical center team's extensive experience. Our specialists will work out the optimum process conditions for your industrial plants or research objectives.

Analysis of a substance sample in the technical center laboratory
© GIG Karasek



RANGE OF SERVICES

- ◆ Pilot tests to sound out process parameters and product qualities
- ◆ Pilot tests with new products and substances
- ◆ Comprehensive test reports, including scale-up engineering
- ◆ Preparation of samples for customer analyses
- ◆ Contract evaporation and distillation



Want to know more? Please scan the QR code.



ADVANTAGES

- ◆ Safeguarding of planned investments
- ◆ Testing new feed flows, temperature and concentration ranges, and apparatus design
- ◆ Basis for achieving process guarantees (e.g. purity levels, final concentration, etc.)
- ◆ Optimum test conditions, state-of-the-art equipment
- ◆ High flexibility and customized trials – components can be combined and configured according to requirements
- ◆ Specialist personnel with extensive expertise
- ◆ From concept development to guidance on investment decisions



State-of-the-art equipment for testing and R&D. © GIG Karasek

AVAILABLE EQUIPMENT

- ◆ Evaporator in laboratory scale
- ◆ Thin-film evaporator
- ◆ Short-path evaporator
- ◆ Horizontal thin-film dryer
- ◆ High viscosity evaporator
- ◆ Falling-film evaporator
- ◆ CO₂ electroreduction system



GIG Karasek Technical Center, including laboratory for carrying out lab and pilot tests
© GIG Karasek

Mini-plant

Mini complete systems for trials and production of very small quantities

A complete plant on a small scale – a „mini-plant“ – bridges the gap between laboratory and production systems, but has the same functionality as a system on an industrial scale. It can be used for on-site trials at the customer’s premises and for the production of very small quantities of a specific substance.

Thermal separation on a compact scale

The mini-plant is operated under a high vacuum and is particularly suitable for evaporating temperature-sensitive, highly viscous, or explosive substances.

Examples of applications include the distillative purification of substances that cannot be separated using conventional thermal processes, as well as the recovery/ extraction of valuable materials.

ADVANTAGES

- ◆ On-site trials – test your product at your production site!
- ◆ Production of very small quantities
- ◆ Versatile and multifunctional use
- ◆ Plug-and-play principle
- ◆ Can be used for temperature-sensitive, highly viscous, and explosive media
- ◆ Compact size – easy to maneuver
- ◆ Continuous data recording
- ◆ IIoT (Industrial Internet of Things) features possible

Short-path evaporator mini-plant for distillative purification and recovery of valuable materials © GIG Karasek



Production

High-quality key components and high-performance high-pressure equipment with „Made-in-Austria“ quality



Cylinders with a diameter of up to 4,300 mm can be produced in Gloggnitz. © GIG Karasek

GIG Karasek manufactures its key components and special high-pressure equipment in Austria. In Gloggnitz, we focus on our falling-film evaporators and lamella production. In Attnang-Puchheim, components for thin-film and short-path technology are manufactured in particular.

Reliability through quality

Both workshops are well equipped, approved in accordance with current international design and manufacturing standards, and all our products are subjected to stringent testing procedures before being used in the plant.

Because, like our customers, we also have the highest standards when it comes to quality!

STANDARDS

- ◆ Certifications: DGRL 2014/68/EU, AD2000 HP0, EN ISO 3834-2, EN 1090-2, ASME VIII-1, CML
- ◆ Test procedures: VT, PT, MT, RT and UT

Components with a unit weight of up to 120 tons are produced in Attnang-Puchheim. © GIG Karasek

MATERIALS

- ◆ Rust/acid-resistant steel grades
- ◆ Duplex steel
- ◆ Fine-grained structural steel, low-carbon, high-temperature, and heat-resistant steels
- ◆ Plated steel grades
- ◆ All nickel-based alloys
- ◆ Titanium grades 1, 2, 7, 11

SURFACE TREATMENT

- ◆ Pickled, passivated, sanded and electropolished Ra < 0,4 µm



Targeted modernization measures

Keeping existing production systems competitive with revamping, retrofitting, and debottlenecking

Particularly when it comes to maintaining an existing production system at the highest performance level or increasing capacities, it is especially important for us to respond to the conditions in the respective plant and the targets set by our customers. Therefore we carry out a comprehensive analysis of the initial situation in advance and use simulation models to develop a modernization strategy that is precisely tailored to the customer's requirements.

Revamping

Selective maintenance and condition improvement measures offer an effective way of modernizing individual machines and systems that are getting on in years. Individual apparatuses – either from our in-house production or from other manufacturers – are professionally refurbished and reinstalled according to the „old-meets-new“ principle.

Retrofitting

If a specific conversion or retrofit of a system is required, individual existing appliances are replaced with new components or additional equipment is integrated into the system.

Lamella bundle at our production site © GIG Karasek



Debottlenecking

The reasons for unsatisfactory operation are often to be found in specific bottlenecks in the process. Through a comprehensive analysis of the overall operating conditions, GIG Karasek uncovers the problem areas and eliminates them with targeted measures.

Individual measures are necessary depending on the initial situation. Compared to a new system, however, the investment is still significantly smaller.

Regardless of which modernization strategy makes the most sense for your systems, we always focus on the ideal solution. Downtimes are kept as short as possible and the safety of the system is guaranteed at all times.

Let's work together to ensure a long life cycle for your plant and economical conservation of resources!



Installation of a new lamella bundle © GIG Karasek

WHY MODERNIZATION?

- ◆ Cost-efficient alternative to new investments
- ◆ Reduction in operating costs through increased efficiency
- ◆ Safeguarding or increasing system performance and product quality
- ◆ Conservation of valuable resources
- ◆ Compliance with current regulations
- ◆ Improving the infrastructure

RANGE OF SERVICES

- ◆ On-site assessment and inventory
- ◆ Detailed examination and inspection
- ◆ Development of a strategy/concept for meaningful modernization
- ◆ Supply of replacement equipment, replacement of obsolete components
- ◆ Installation- and commissioning monitoring (warranty for new components supplied by GIG Karasek)



Are you particularly interested in the topic of bundle replacement? Read more on our website!





We develop ♦ efficient ♦ competent ♦ cooperative ♦ proactive ♦ goal-oriented ♦ reliable customized process solutions and systems according to your requirements.

Regardless of the scope of services, our aim is to optimize your production facilities with tailor-made solutions in terms of product quality and processes. Where other companies reach their limits, we find ways to process your material flows by combining various process steps that have been developed over decades. A high level of expertise and personal all-round service make GIG Karasek your reliable partner for unique challenges.



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