

Carbon capture: CO₂ capture and storage

Power plants that run on fossil fuels, as well as the waste incineration, steel, aluminum, glass, fertilizer and cement industries, have one thing in common: they are all classified as industries with high carbon dioxide (CO₂) emissions. The problem with CO₂: it absorbs infrared radiation, which increases the greenhouse effect. This, in turn, leads to global warming, severe weather events, and other environmental problems. Right now, CO₂ concentrations are increasing by about three ppm of carbon dioxide per year. "Solving our climate challenges must begin with accepting the need and urgency. All decision-makers and stakeholders must then have the courage and willingness to cooperate - and immediately implement the appropriate solutions for each emitter," says Felix Ortloff, Head of Scrubber Systems, GEA.

Carbon capture, storage (CCS) and utilization (CCU) technologies are part of the solution. Capturing CO₂ ("carbon capture") before it enters the atmosphere and then using or storing it are options that can be implemented in the short term and can make a decisive contribution to minimizing the greenhouse effect. Captured CO₂ is already being sequestered in depleted natural gas fields or used for many applications and industries, including:

- Production of carbonates or bicarbonates, for example for the chemical or food industry.
- Raw material to produce basic chemical substances such as methanol.
- Production of carbonated beverages.
- Stimulation of algae growth as feed for fish farming.

About GEA

GEA is one of the world's largest suppliers of systems and components to the food, beverage, and pharmaceutical industries. The international technology group, founded in 1881, focuses on machinery and plants, as well as advanced process technology, components, and comprehensive services. With more than 18,000 employees working across five divisions and 62 countries, the group generated revenues of more than EUR 5.1 billion in fiscal year 2022. GEA plants, processes, components, and services enhance the efficiency and sustainability of production processes across the globe. They contribute significantly to the reduction of CO₂ emissions, plastic usage, and food waste. In doing so, GEA makes a key contribution toward a sustainable future, in line with the company's purpose: "Engineering for a better world".

GEA is listed in the German MDAX and the STOXX® Europe 600 Index and is also among the companies comprising the DAX 50 ESG and MSCI Global Sustainability and the Dow Jones Sustainability Europe Indices.

More information can be found online at [gea.com](https://www.gea.com).

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