

Climate-protecting EnviNOx® technology from thyssenkrupp Uhde saves up to 600,000 tons of CO₂-equivalents per year in Switzerland

- 35th unit installed, total emissions saved worldwide: 16 million t/year
- EnviNOx® technology reduces greenhouse gas emissions nearly completely

Recently, thyssenkrupp Uhde successfully commissioned its 35th EnviNOx® system, a patented technology for the reduction of nitrous oxide emissions which reduces these greenhouse gases close to zero. The process converts environmentally harmful nitrous oxide, i.e. laughing gas (N₂O) and other nitrogen oxides into nitrogen, oxygen and water. At the latest installation for Arxada in Switzerland, annual emissions of laughing gas will be reduced by at least 98%, saving up to 600,000 tons of CO₂-equivalents per year. This is a significant contribution to the country's climate targets.

"The whole chemical industry faces the challenge of protecting the climate while growing profitably. With the realization of emission reduction solutions such as EnviNOx®, we are really making an impact", says Sami Pelkonen, CEO thyssenkrupp Uhde. "We focus on the development of sustainable solutions to make existing and new plants as environment-friendly as possible – up to completely climate-neutral chemicals such as green ammonia."

More than 200 million tons of CO₂-equivalents saved in total

The EnviNOx® technology was originally developed for emission reduction in nitric acid plants and has already been installed in 35 chemical plants worldwide since the first installation in 2003. More EnviNOx® systems are already ordered from various customers and will be installed and commissioned during the next months. Since 1 kg of N₂O in the atmosphere has the same impact on global warming as 265 kg of CO₂ the currently reduced N₂O emissions of all installed EnviNOx® systems worldwide are equivalent to 16 million tons of CO₂ per year. For comparison: This is about the annual CO₂ emissions of over 9400 small passenger cars. The so far reduced emissions cumulate to more than 200 million tons of CO₂-equivalents, which is over 25% of Germany's yearly CO₂ emissions.

About thyssenkrupp Uhde

thyssenkrupp Uhde combines unique technological expertise and decades of global experience in the engineering, procurement, construction and service of chemical plants. We develop innovative processes and products for a more sustainable future and thus contribute to the long-term success of our customers in almost all areas of the chemical industry. Our portfolio includes leading technologies for the production of basic chemicals, fertilizers and polymers as well as complete value-chains for green hydrogen and sustainable chemicals. www.thyssenkrupp-industrial-solutions.com

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