

CO₂ fertilizer

Flue gases as fertilizers – the Steuler ECO2PRO catalyst unit has been realising this for years. This simple, cost-effective, efficient and environmentally friendly process takes the purified exhaust gases emitted by gas engines and turbines used in cogeneration plants to produce CO₂ for use as a fertilizer for flowers and vegetables in greenhouses. The modern cogeneration plants use gas engines or turbines to efficiently generate electrical and thermal energy from natural gas. Besides CO₂ used as fertilizer, the exhaust gases produced also contain pollutants such as NO/NO₂/CO and especially ethene. These pollutants are almost completely catalytically removed by the Steuler ECO2PRO catalyst unit and converted into naturally occurring substances. The treated CO₂ extracted from the engine exhaust gas is used to directly enrich the CO₂ levels within the greenhouse and thus significantly increase the rate of photosynthesis and accelerate crop growth.



For many years now, Steuler Anlagenbau has been developing, supplying, installing and maintaining complete high performance catalyst units, including peripheral E&IC systems, that effectively break down pollutants, such as NO_x, CO and hydrocarbons, to prevent plant damage in the greenhouse.

By systematically optimizing the catalysts used and the process control systems that make up the modular system, it is possible to equip all different sizes of cogeneration plant with appropriately dimensioned ECO2PRO units. Economical, reliable plant operation is made possible thanks to the user-friendly operation of the catalyst units, which can be performed either on site or remotely over the Internet.

Our maintenance company, Steuler Catalyst Systems NL b.v., is there to ensure the safe, long-term operation of the ECO2PRO units. Steuler Anlagenbau offers all its customers a range of servicing options, from individually customized service plans to full maintenance contracts.