

EXHAUST GAS PURIFICATION & CO₂ DOSING
GREENHOUSE POWER GENERATION

COdiNOx™



***hug*engineering.**
A FAURECIA COMPANY

FROM FLUE GASES TO PURE AIR

CODINOX™ CO₂ FERTILIZATION

Horticulturists worldwide are beginning to discover the benefits of using the CODiNOx™ installation. This flue gas cleaner ensures that the flue gases from a CHP (Combined Heat and Power) gas engine are converted into virtually pure air, which can then be used immediately for CO₂ fertilization. A sustainable solution that leads to noticeably higher production levels. The introduction of the CODiNOx™ system in 1993 was the first of its kind in the market. Ever since, continuous client-oriented developments have made Hug Engineering AG the world market leader for this application.

INCREASE YOUR PRODUCTION LEVELS

Using a CODiNOx™ flue gas cleaning installation offers you a considerable number of extra benefits compared to conventional CO₂ dosing techniques. A CHP using a CODiNOx™ installation will result in:



- Approximately 40% increase in production in your greenhouse
- Considerably less heat produced per kg of CO₂, resulting in less heat wastage
- Substantial savings on energy costs without any adverse effects on the CO₂ dosing
- More flexibility optimizing your own energy needs

Your Benefits with CODiNOx™

- ➔ 40% more production
- ➔ Better quality
- ➔ Cleaner environment
- ➔ Lower costs of CO₂
- ➔ More flexible energy management tools

LOWER CO₂ COSTS

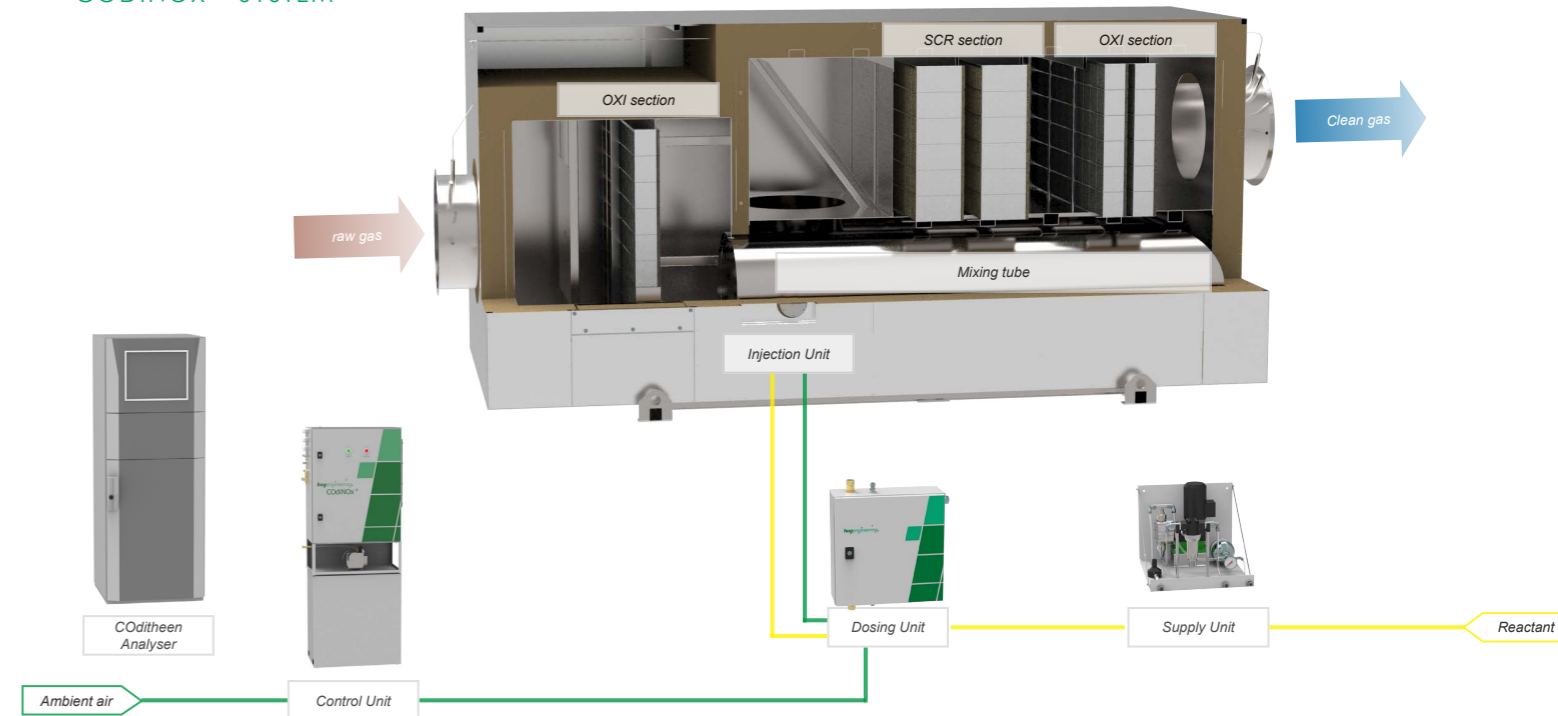
CO₂ costs take up a large portion of any firm's annual overall costs. By fitting a CODiNOx™ flue gas cleaning installation you will pay considerably less per kg of CO₂ compared to using a liquid CO₂ dosing system. Even when you allow for the extra initial and other associated costs. Would you like to find out what you could save by using a CODiNOx™ flue gas cleaning installation? We will be happy to do the calculations for you and show you your benefits.

COMPACT AND COST-SAVING

The CODiNOx™ IMCC all-in-one concept combines compact proportions with «plug and play» convenience. All flue gas components are integrated into a single housing unit. This compact unit reduces engineering and transport costs, saves space and simplifies project planning. The high degree of prefabrication reduces assembly risks on site, making your project more easily to manage.

CO₂ FERTILIZER FOR GREENHOUSE HORTICULTURE

CODINOX™ SYSTEM



picture: possible CODiNOx™ (IMCC) components

THE NO_x RAW MEASUREMENT PRINCIPLE: ANTICIPATION IS CONTROL

The NO_x raw measurement principle anticipates fluctuations in the flue gas flow from the gas engine within milliseconds. This is a major breakthrough in process control and output stability, without harming the quality or availability of CO₂. With its greater bandwidth, the raw NO_x measuring principle offers you more flexibility in terms of load profile.

CODINOX™ WORLDWIDE

Better techniques and accumulated knowledge mean that our installations meet and exceed the latest and most demanding horticultural requirements. Good to know that wherever you are in the world, our team of specialists has the expertise and experience to ensure that your installation will comply with increasingly stringent, local environmental legislation. It is no coincidence that CODiNOx™ installations are found in all leading horticultural regions worldwide.



HUG EMISSION REDUCTION: COMPETENCE, COMPACT AND COST-SAVING

CODINOX™ ALL-IN-ONE SYNERGY THROUGH CUSTOMER-ORIENTED INNOVATION

Many years of customer-oriented innovation has resulted in the CODiNOX™ all-in-one concept. This advanced system combines experience and feedback from the market with the best available techniques. The CODiNOX™ all-in-one concept is compact in size and uses the 'plug-and-play principle'. This means savings on space and installation costs, and reduces possible assembly and installation risks on site. Finally making your project much more manageable.

ABOUT HUG ENGINEERING

With over 30 years of experience with stationary, mobile and marine applications, Hug Engineering has achieved a leading position in the field of diesel particulate filters and catalytic exhaust gas aftertreatment.

This success is based on intensive, targeted R&D and a wide and flexible scope of supply in advanced emissions reduction systems – from standardized modules to customized systems, based on the customers' specifications and applicable legislation, and supplied and installed according to their individual preferences.

Since 2018, Hug Engineering is a subsidiary of French Faurecia S.A.



CODiNOX™

Exhaust Gas Purification Systems for CO₂ dosing in Greenhouses

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