



GeCo₂ SYSTEM
Powered by Entsorga

geCO₂TM SYSTEM

RESIDUAL LANDFILL BIOGAS ABATEMENT

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ENTSORGA'S geCO₂TM IS AN **INNOVATIVE PROPRIETARY SOLUTION** THAT ALLOWS TO EFFECTIVELY ABATE METHANE CONTAINED IN **RESIDUAL LANDFILL GAS** THAT CANNOT BE FURTHER HARVESTED AND THAT DIFFERENTLY WOULD BE RELEASED TO THE ATMOSPHERE.

BASED ON A **COMPLETELY NATURAL FILTRATION** PROCESS, IT IS A **SAFE AND VERSATILE** METHOD TO REDUCE ENVIRONMENTAL IMPACT OF RESIDUAL LANDFILL GAS WITHIN THE REGULATORY FRAMEWORK

ENTSORGA
GREEN TECHNOLOGY REVOLUTION



WHEN LANDFILL GAS CONCENTRATION IS TOO LOW TO ALLOW ITS HARVESTING AND CONVERSION TO POWER OR EVEN FLARING, **THE RESIDUAL BIOGAS** WITH LOW CONCENTRATION OF METHANE (<25%) ENDS UP BEING RELEASED TO THE ATMOSPHERE FOR SEVERAL YEARS. geCO₂[™] IS THE SOLUTION DEVELOPED BY ENTSORGA **TO REDUCE THESE HARMFUL EMISSIONS** WITH AN **EFFECTIVE AND LOW COST SOLUTION** HARNESSING THE NATURAL MICROBIAL ACTIVITY

MAIN FEATURES

Entsorga's geCO₂[™] is a biological biogas treatment system that occurs in two process steps:

- degradation of methane and of the odor-generating compounds thanks to the naturally occurring microbial activity within the **bio-filtering material (1)**, mostly by methanophilic bacteria and aerobic thermophilic enzymes
- further filtration thanks to a **special semi-permeable membrane (2)** which completes the reduction of methane and odors, allowing the treated air effluents to be released to the atmosphere with minimal environmental impact.

An **automatic wetting system** ensures optimal process conditions and maximum treatment efficiency.

The **bio-filtration system** is contained within a **roll-off container structure (3)**, with walls equipped with inspection points and **internal flooring (4)** with slotted tiles, to ensure aeration and homogeneous air distribution. If preferred, the geCO₂[™] can also be equipped with a **specific aspiration system** to capture biogas and convey it inside the container structure.

STRENGTHS

- **reduction of the environmental impact of landfills in the surrounding areas**, thanks to the excellent levels of methane and odor abatement (> 90%)
- **use of a natural filtration process**, which requires limited management and maintenance costs
- **maximum reliability**
- **ease to use**: movable, modular system, with easy and fast installation
- **high flexibility**, adaptable to different uses and configurations
- Allows generation of **carbon credits certificates** complying with the requirements of **international standards**.

1. BIOFILTERING MATERIAL



2. SEMI-BREATHABLE MEMBRANE



3. ROLL-OFF CONTAINER



4. INTERNAL FLOOR

