



## Anaerobic Digestion (AD) Plant Serres

Greece

Client	Mil Oil Hellas S.A.
Location	Serres, Greece
Commissioned	2020
Input (feedstock)	Maize silage, triticale silage, biodiesel wastewater and glycerol
Total processing capacity	32,430 t/year (Design) up to 54,150 t/year (extreme)
Raw biogas production	880 (Design) up to 1,450 Nm <sup>3</sup> /h (extreme)
Primary Digester	1 x 4,240 m <sup>3</sup>
Post-Digester	1 x 3,560 m <sup>3</sup>
Storage Tank	1 x 8,830 m <sup>3</sup>
CHP	2 x 1,067 kW + 1 x 1,067 MW (Extension) ~ 3,2 MW <sub>el</sub>

### Maximum energy output from minimal tank volume – a 3 MW biogas plant engineered for high efficiency.

The Serres biogas plant demonstrates how advanced process engineering can achieve high energy output with a compact plant design. Developed by **Agraferm** for **Mil Oil Hellas S.A.**, the facility was designed to process about **32,000 t/year of agricultural silage and biodiesel by-products annually** in a first phase, but has allowed to increase its processing capacity up to 54,000 t/year without extending the reactor volume.

Despite relatively small reactor volumes – a **4,240 m<sup>3</sup> digester and 3,560 m<sup>3</sup> post-digester** – the plant achieves excellent biological performance and high biogas yields. Approximately **12.7 million Nm<sup>3</sup> of raw biogas per year** are converted into renewable energy through three CHP units with a total electrical capacity of **3.2 MW**, generating more than **28 GWh of green electricity annually**.

The project highlights **Agraferm's expertise in designing space-efficient, high-performance biogas plants** that reliably convert organic residues into renewable energy and valuable digestate.



Agraferm GmbH, which is based in Pfaffenhofen, Germany, designs and builds Anaerobic Digestion plants. It is one of the few full service providers of turn-key agricultural and industrial biogas plants in Europe, which operates internationally. Our portfolio includes project planning and construction as well as biological and technical services.

Agraferm biogas plants have the following distinctive features

- High reliability and maximum system availability
- A small footprint, i.e. high biogas production with a minimum of land use
- Use of robust components such as digesters, agitators and pumps, these reliable components prolong the operational life of the AD plant
- Stable digestion process
- Industrial-quality plant construction

The advantages for you

- Minimum operating costs
- Optimum level of substrate flexibility
- Minimal risk of downtime
- Maximum cost-efficiency and minimal power consumption

We are committed to the long-term success of our customers through

- Planning, construction and service from a single source
- Biological and technical support services
- Many years experience with CHP-units and biomethane gas to grid injection

# agraferm

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