



# VALENTIN

small digester | big benefit





VALENTIN in France

## VALENTIN – Quality, automated and profitable

The VALENTIN biogas plant offers the newest digester size in the PlanET fleet. Its small, modular design is specifically targeted toward farms that have not been able to implement larger digester projects. Like all other PlanET digesters, the VALENTIN benefits from our 20 years of experience designing and building best-in-class digesters. This plant uses the same, trusted components used in the 1,000+ digesters PlanET has built, however this design allows for quick and easy construction on site. The organic materials fed into the digester are converted into high quality biogas which can be used to run a combined heat and power unit (CHP) to produce electricity and heat or strictly as a boiler fuel substitute for heat generation.

### The benefits enjoyed by owners of VALENTIN include:

- Power sales to diversify farm revenues
- Reduction or possible elimination of electricity costs
- Elimination of all or a portion of bedding costs in the future
- Energy independence
- Weed seed destruction
- Reduction of odors from manure
- Useful heat may be produced for buildings near the digester

## Your tailored independent energy solution

### Base load renewable power

not possible with wind and solar energy plants

### Large gas storage

for ease of use

### Island mode operation

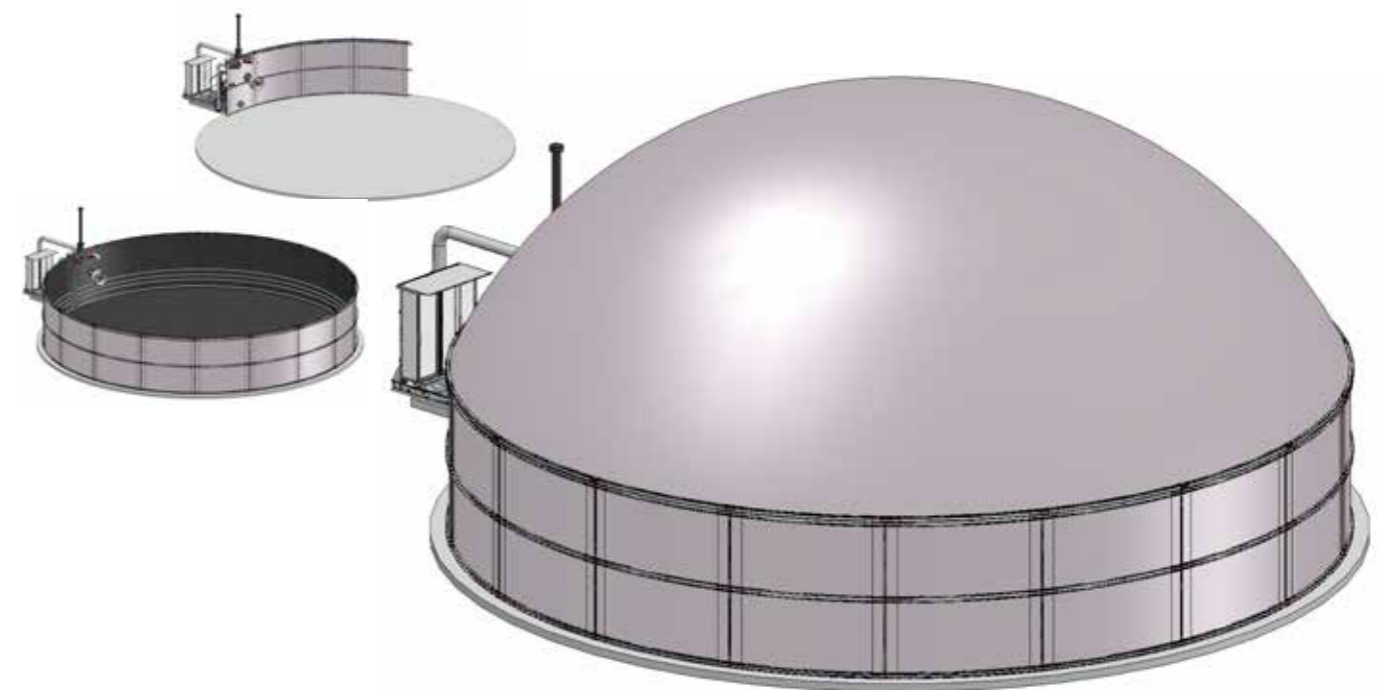
allowing independence from the grid

### 40 to 150 kWel

depending on the volume of substrate used!

### Complete disassembly

possible with approx. 90 % residual recyclability



## Additional benefits

### Land application

### nutrient improvement

through better plant availability

### Weedseed destruction

via Anaerobic Digestion



### Participation

### in Greenhouse Gas Reductions

through methane capture and destruction

# VALENTIN, *small digester | big benefit*



Components & Layout



Technical module, before and after installation

## Components & Layout

The VALENTIN biogas plant was specially designed as a small-scale plant, which can be operated in remote areas to produce electricity and/or heat, even if the farm is grid constrained or even if no power grid is available. It is highly standardized and engineered for easy integration into an existing farm and it can be assembled and commissioned without advanced tools or digester construction knowledge.

Technical module, before and after installation At most potential locations, especially on farms, there is already existing infrastructure for manure management on site. Instead of pumping the manure straight from the barn into a lagoon or storage tank, the customer just integrates an additional step to produce their own electricity.



**A technical module containing all moving parts**

**Preassembled for easy transport and installation**

## Your low risk business opportunity

**Low maintenance costs and long service life**  
20 year service life due to robust stainless steel and other durable, proven components

**Business growth**  
without additional space

**System cost**  
under 1 Mio. Dollar

**Augmenting existing farming businesses**  
of manure management/manure logistics

## Low operational effort

**Minimal daily workload**  
to check the system

**Automated operation**  
without additional manpower

# Extremely quick assembly of our VALENTIN



Day 1: Prefabricated slab by the client



12:00 pm: Position of the technical module and first wall panels



8:00 pm: Wall panels are assembled



Day 3: Inner lining of the digester



Day 4: Digester walls assembled



Day 10: Installation and commissioning of the membrane roof with gas storage. Gas and minor supply lines connected.



## PlanET: Success in figures

- 450 biogas plants worldwide
- more than 160 employees
- 5 international locations
- Plants from 40 kW to over 4 MW
- over 20 years of expertise

## Biogas experts for over 20 years

PlanET Biogas has been a pioneer in the field of anaerobic digestion for over 20 years. As creator of best in class biogas plants, we understand the optimal interaction of individual components to achieve economic success. Our extensive competence in planning, engineering, permitting, plant construction, commissioning, technical and biological service sets PlanET apart as an integrated biogas technology provider. With over 450 plants installed around the globe, PlanET is the experienced choice for your biogas development.

- **Agricultural and industrial customers**
- **Highest quality** in construction and documentation
- **Numerous utility model-protected technical solutions**
- **Biological support** helping to provide best in class biogas production
- **Continuous further development of our technical solutions** in our own research and development department



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