



NETHERLANDS

Microferm

## Microferm

The Microferm is a high end farm scale digester. Thanks to an innovative working concept this digester can produce more biogas out of the same manure in a shorter time.

The components of the digester are a prefab silo, usually build with a small post-digester. The benefit of this system is the plug-and-play principle. The silo is instant ready to use. Because the gas storage is located at top of the post digester, there is very less heat loss from the silo. The post digester is not heated.

A disadvantage of this system is the high investment price. With the low electricity prices it is very hard to reach an acceptable payback period, based on electricity production. Therefore it is possible to choose for biogas upgrading in combination with the Microferm. But, this also means an extra investment of more than €300.000.

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## Key data:

Start of operation: .....2012  
Manufacturer: ..... HoSt (<http://www.host.nl/nl/vergisting/microferm/>)  
Type of plant:..... tower digester  
Location:..... The Netherlands  
Amount of gas produced (m<sup>3</sup> per year): ..... 200.000 – 260.000 m<sup>3</sup> biogas  
Amount of biomass treated (tonnes per year): ..... 6000 – 8000  
Investment costs (EUR): .....239.000  
Cost and benefit: ..... €30.000 | Benefits: €50.000 (depending on subsidy scheme)  
Payback period (years): ..... 10

## Feedstock

Liquid pig manure (tonnes per year):.....6000 - 8000  
Liquid cattle manure (tonnes per year): .....6000 - 8000

## Production data

Available area for the output of the biogas fertilizer (hectares):..... 80 ha..  
Electric power of the gas engine (kW): ..... 65  
Generated thermal energy: ..... 95 kW  
Utilization of heat:..... Process heating  
Generated electric energy (kWh):.....550.000  
Power consumption (electricity) of the plant itself (kWh):.....35.000

## Technical plant description

Operating temperature (dg): .....37  
Average retention time in digester (days): .. 6 days in fermenter. 20 in post digester  
Average expenditure of human labor (persons): .....1 hour/day  
Size of reception facility (m<sup>3</sup>):manure is pumped directly from storage beneath stable into the digester.  
Size of fermentor (m<sup>3</sup>):.....138  
Size of end storage tanks (m<sup>3</sup>): ..... 400  
CHP (kWh): ..... 65

The project BioEnergy Farm II wants to inform farmers about the benefits of micro scale digestion and give farmers a view on the feasibility of this technology for their business.

Are you curious about the feasibility of micro scale digestion on your farm?

From September 2015 we offer personal guidance at home! Our biogas experts have software tools to calculate the feasibility of micro scale digestion on your farm. Contact us!



[www.BioEnergyFarm.eu](http://www.BioEnergyFarm.eu)



#BioEnergyFarm

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