

press release

The PÖTTINGER Fermenter in practice: autonomous circle economy in the yard

The PÖTTINGER Fermenter is a system for the fermentation of organic residues to produce energy. The principle of dry fermentation means that it offers a time-saving alternative requiring little space. As a result, organic residues can be quickly and easily used to generate energy and fresh compost.



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A PÖTTINGER Fermenter system is comprised of a modular system featuring three to fifteen Fermenter containers and a technology container. It is standardised, although it can be customised to any usage scenario. The technology container houses the control and pump technology required, the quantity and quality measurement of the biogas and its recycling.

The Fermenters are gas-tight, heatable containers. The optimised humidity of the fermenting substrate and temperature are measured automatically and regulated according to the needs of the micro-organisms. The system is perfectly equipped for fully automatic operation. It sends the most important information via SMS to a mobile phone. The system can also be accessed and controlled via computer.

The operator is only required to be on site for the filling and emptying of the Fermenter. This is carried out every three weeks and takes around two hours. The Fermenter containers do not have any moving parts, since absolutely no stirrers have been used. This reduces the inherent electricity requirement to 33 Watt/h (control). An average of 1.16 kW/h are required to heat the Fermenter.

End fermentation product

Due to the dry process, there is virtually no liquid fermentation product, doing away with the costly construction of a covered facility for storing fermentation waste for the required period of time. The fully fermented, solid phase is then composted and serves as a high-quality humus fertiliser for fields. This is also easier to store during the non-composting season than liquid fermentation residue.

Gas recycling

There are multiple ways of using the biogas. The classic form of recycling is to convert it into power in a combined heating and power plant with heat decoupling. This means that remuneration can be provided in accordance with the Renewable Energies Act or the plant's own energy requirements can be covered. This would come second to the original idea of the decentralised use of biogas for energy. If required, the system can be designed as a flexible biogas plant in order to satisfy new market requirements.

Recycling of stable manure

To recycle the energy from stackable, solid biomass such as cattle dung, horse or chicken manure with and without bedding, but also grass silage and agricultural waste, a dry or garage fermentation system is ideal. To be used in a liquid fermentation system, the input materials specified must be extensively pre-treated in order to keep the floating layer under control. The stirrer also consumes a large proportion of the electrical energy produced, which should actually represent part of the added value chain. The PÖTTINGER Fermenter is one such dry fermentation

system. Designed and developed for the fermentation of organic residues, it is also ideal for the use of energy recovered from solid dung.

About PÖTTINGER Entsorgungstechnik GmbH & Co KG

The forward-looking environmental technology start-up was formed in 2017 from PÖTTINGER Entsorgungstechnik GmbH with the focus on consistently utilising nature's cycle principle, establishing the sustainable recovery and storage of energy in combination with humus formation as the „missing link“ in alternative forms of energy. The innovative PÖTTINGER Fermenter system solution transforms organic residues using the efficient 3-A method into biogas and compost. Following the vision of the sole owner Klaus Pöttinger, the Fermenter's technology is designed to save our atmosphere 1 million tonnes of CO₂. Even just one installed PÖTTINGER Fermenter system helps, with a saving of around 7,500 tonnes of CO₂, and the goal being striven for can be achieved with just around 150 installed systems.

press pictures



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