



## We offer you more!

HUNING Anlagenbau GmbH & Co. KG is part of an owner-operated group of companies with more than 300 employees. Each of the firms is rooted both in agriculture and the renewable energy sector, is established in the market and has made an excellent name for itself.

- We know what is required in practice because we operate our own biogas plants.
- We have a wide range of different solids dispensers and conveyors to draw on when coming up with complete solutions and nothing is off the peg, so to speak.
- Mobile demonstrators enable you to make up your own mind about the best choice of machine for you.
- Dedicated staff are at your service 24 hours a day from the planning phase to successful commissioning and beyond.
- Our high level of in-house manufacturing ensures an independent and reliable supply of spare and wearing parts at fair prices.

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## Innovative crushing technology for use in biogas plants

The composition of the solid substrates you introduce has a major effect on the fermentation process in biogas plants. The targeted disintegration of agglomerates and crushing of solids increases the surface area, making more nutrients more readily available for the bacteria involved in the process. Furthermore, crushing facilitates faster and more homogeneous distribution in the liquid phase of the fermenter. This gives rise to key advantages for the overall process.

We have a broad range of different crushing technologies, based on which we offer you tailored solutions for the successful operation of your plant.



Crusher Separator



Impact Crusher HPZ 900



Impact Crusher HPZ 1200



Optimatic Hammer Mill

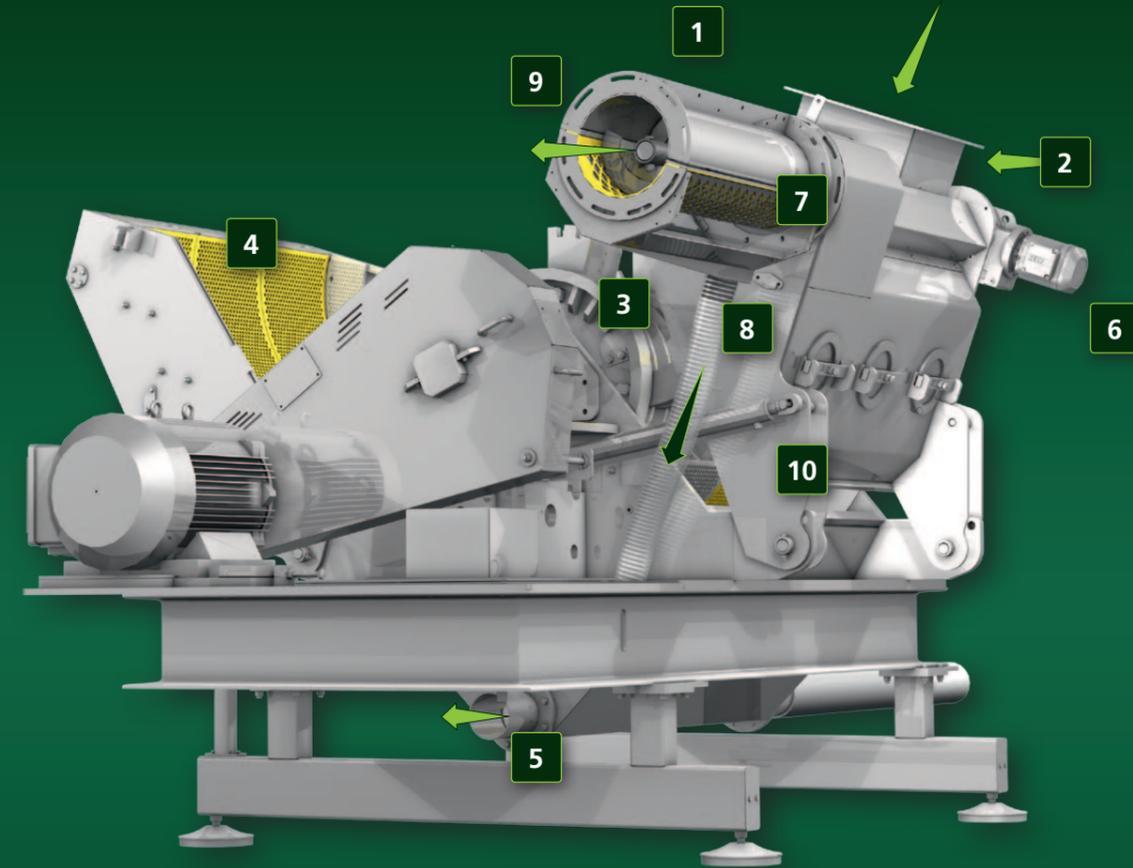
# Crusher Separator

Out-of-date food is a particular challenge for plant operators because of the high proportion of packaging. The HTZ Crusher Separator crushes the organic matter and separates the packaging material in one step. While the organic matter can go on to the fermentation process, the separated packaging can be further recycled or used as an alternative fuel. The HTZ was developed for industrial applications, where high throughput rates and robust technology are the priority.



Food waste

**If separating packaging materials is your aim...**



- |  |   |
|--|---|
| 1. Raw material input  | 7. Adjustable screen unit   |
| 2. Water/centrate input  | 8. Recovery of organic substrate remains  |
| 3. Hammer mechanism  | 9. Discharge of packaging remains   |
| 4. Screen basket   | 10. Hydraulic swivelling housing covers, giving optimal access to the working chamber |
| 5. Organic, pumpable flow of material                          |   |
| 6. Spiral conveyor for discharging/conveying packaging remains |   |



Spiral conveyor for discharge of packaging material



Robust hammer mechanism with lateral screen baskets to obtain a defined degree of separation in preparation for hygienisation



HTZ with overfloor collection and spiral conveyor

# Impact Crusher HPZ 900

The Impact Crusher HPZ 900 is used to crush organic wastes and high-wear substrates with a high mineral content. Depending on the overall process, it can be operated both for individual batches or continually. The central rotor is oriented vertically and is powered by a low-noise belt drive. The work space is equipped with exchangeable wear plates. Depending on the assignment, the patented intermediate floor can be fitted to bring about a longer loading time and therefore to increase the breaking up of material.



HPZ 900 rotor with patented intermediate floor.

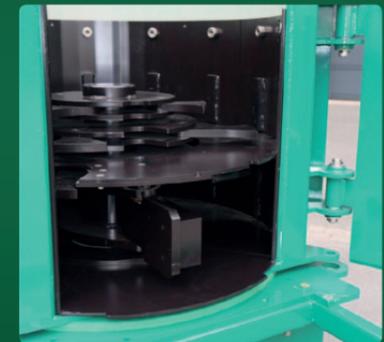


For use with high-wear substrates or organic waste...



# Impact Crusher 1200

The Impact Crusher HPZ 1200 is the HPZ 900's larger counterpart, is of a generally similar design, and can also be controlled in batch mode. The rotor is also oriented vertically and equipped with rotating arms on multiple levels for rough crushing. In the bottom of the crushing chamber are impact plates, which allow the material to be properly broken up and finely defiberised. All tools are positioned by centrifugal force, and may swing out of the work space if they are overloaded or come into contact with foreign objects. The wear plates with impact bars as well as the tools are made from wear-resistant Hardox steel.



HPZ 1200 rotor with patented intermediate floor

The HPZ 1200 can also be equipped with the patented intermediate floor, and also has a water inlet in the crushing chamber, which is capable of significantly improving crushing results. Drive powers ranging from 75 - 110 kW are available according to your use case.

# Optimatic Hammer Mill



The patented Optimatic Hammer Mill can be flexibly integrated into the solids feeding system by means of a bypass. Substrates are force fed into the milling chamber, ensuring reliable, continuous feeding into the working chamber of the machine. Oscillating hammers or cutters in the rotor ensure a high tolerance for impurities. An optional lateral stator with spring-loaded counter knives provides optimal results, especially when milling fibrous substrates. The machine is available in two sizes with a milling chamber diameter of 800 mm and 1,200 mm as well as drive outputs of 22 to 75 kW. It is available both as a mobile and stationary facility in conjunction with solids dispensers.



If it's versatility that counts...

If you're looking for flexible solutions...

## Advantages of our hammer mills at a glance:

- Higher plant output with the same fermenter volume through a reduction of the average retention time in the process
- Higher gas yield due to improved decomposition of fibrous material, such as grass silage, grass ley or solid dung
- Lower risk of floating layers in the fermenter
- Improved composition of the fermentation residues
- Relief of pressure and protection of agitators and pumps
- Reduction of agitator and pump energy consumption
- Corrosion-resistant stainless steel housing
- Easy access to the working chamber for maintenance



# Mobile crushing plant

Judge the performance and results for yourself using your own substrates under realistic conditions. The mobile crushing plant with its independent power supply can be put into operation in your business in no time at all.

Heitling Fahrzeugbau GmbH & Co.KG, another company within our group, will provide you with the ejector trailer you see here.

