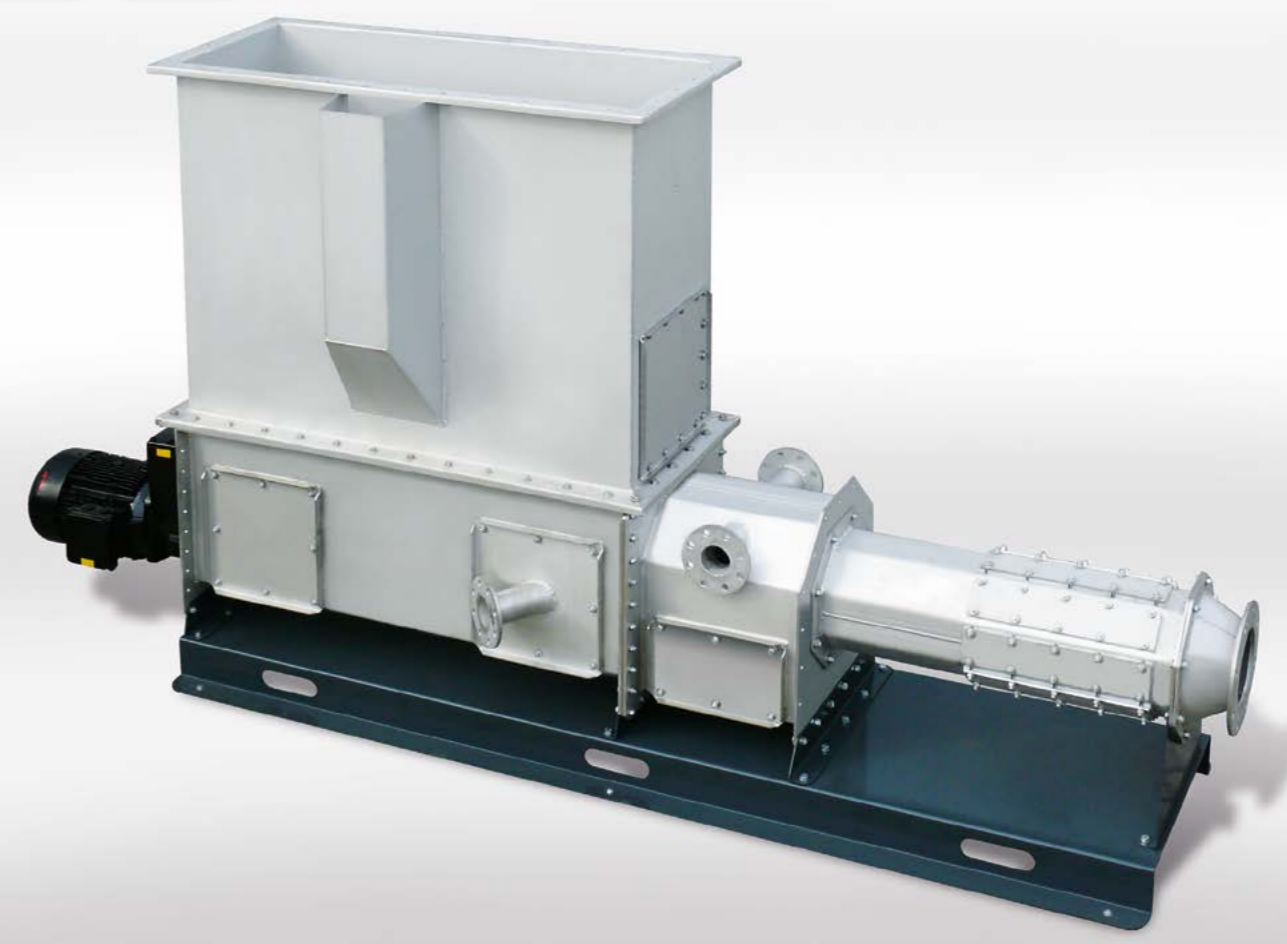




Liquid input system for biogas plants

- Agri-culture
- Waste industry

INPUT TECHNOLOGY



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Organic energy worldwide

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Video:
How the MULTIMix works



BENEFITS

MULTIMix Liquid input system for biogas plants

The importance of the digestion of various organic left-overs is on the rise. However, for the bacteria to be able to efficiently digest the biomass, fibrous substrates need to be duly processed.

Moreover, foreign matter such as stones or metal often enter the input process along with food leftovers, manure, grass or organic waste and damage components or settle in the digester.

One of the strengths of the retrofitable **MULTIMix** is the shredding of substrates, which ensures full digestion and a higher gas yield.

Furthermore, to prevent plant outages, foreign matter is separated even before the pump stage.

Use of various substrates

The use of the **MULTIMix** greatly increases the possibility of a flexible input mix.



Co-substrates: e.g. food leftovers, vegetable waste, abattoir waste



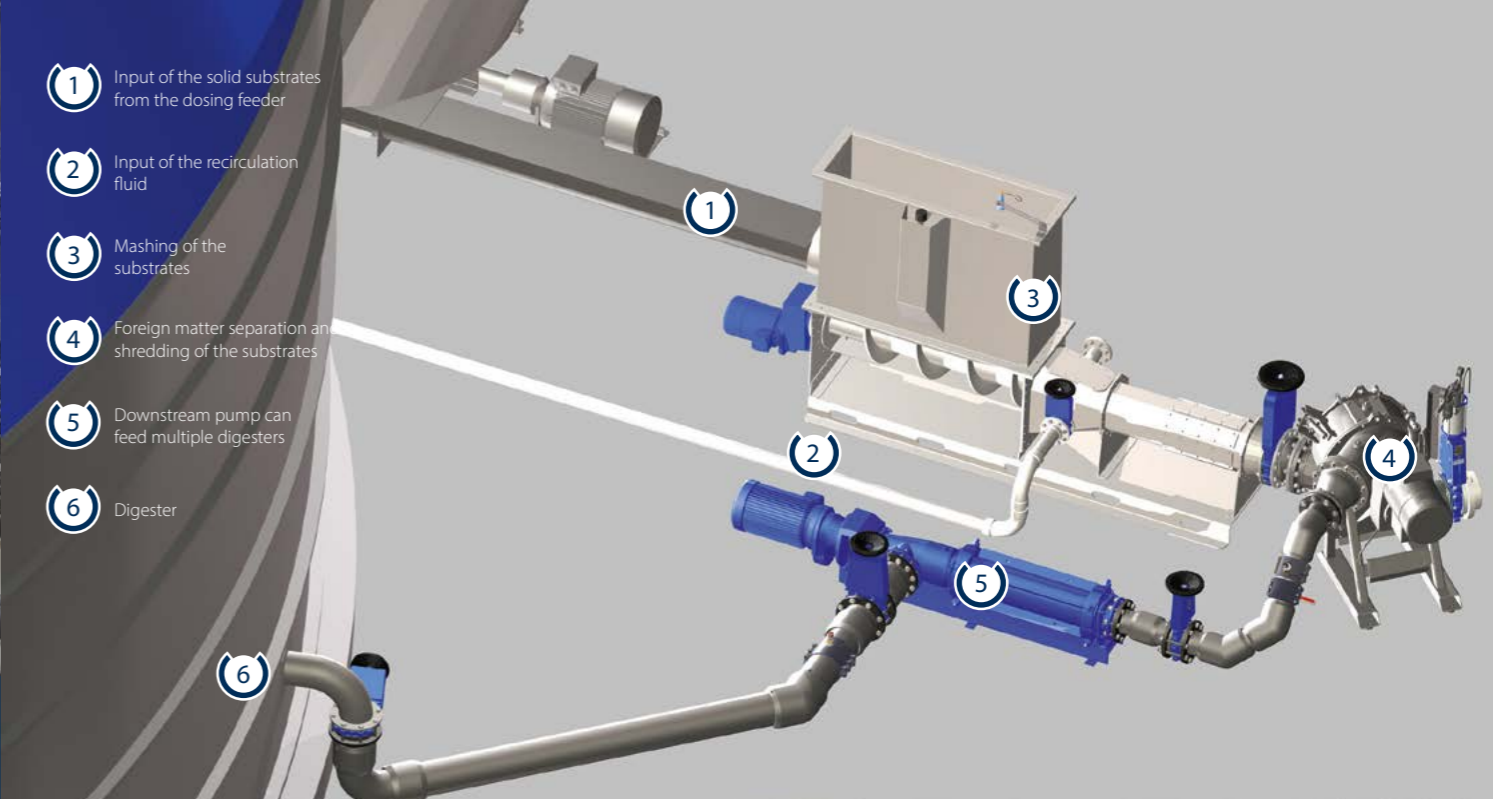
Manure and dung: All animal species supported



Renewable raw materials: e.g. grass & maize silage, whole plant silage, beet pulp



- Processes fibrous, sticky and soft substrates (up to 100 percent possible)
- Bacteria-oriented substrate shredding for immediate and increased biogas production
- Loading of the digester with homogeneous, mashed biosuspension
- Minimises the risk of floating and sediment layers
- Energy efficiency through reduced mixer workload, much longer pump life
- Reliable foreign matter separation upstream of the pumps reduces wear and tear
- Several tanks can be fed with only one **MULTIMix**
- The risk of obstruction of the input system is prevented by means of uncomplicated pump and control technology
- Can be retrofitted even in existing plants
- Easy to service, maintenance-friendly, few interruptions

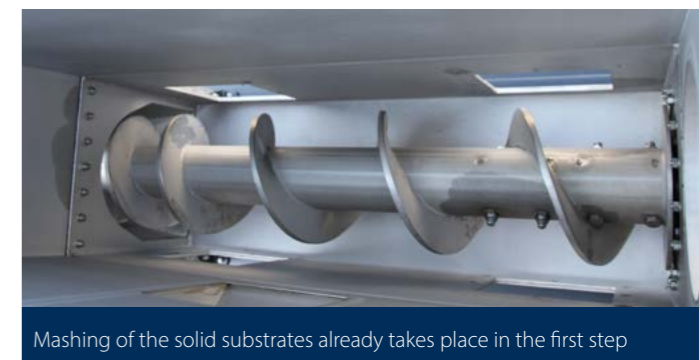


Simple structure and function

The easy-to-integrate **MULTIMix** is positioned between the solids input system and the digester. From the dosing feeder, the substrates enter the **MULTIMix**, where they are mixed with recirculation fluid from the digester. This mashing is supported by a screw system that also roughens the fibres.

Before long-fibre substrates and lumpy materials enter the macerator and are effectively shredded, an upstream process stage reliably removes foreign matter during the process prior to the input in the pump. For this, the system does not need to be opened or shut down.

Thanks to this technology, only substances that are shredded to a size suitable for the bacteria enter the digester. This enables the processing of a high share of long-fibre and sticky substances and prevents the accumulation of floating and sediment layers. The **MULTIMix** thus prevents technical outages, ensuring uninterrupted digestion of the substrates used.



Mashing of the solid substrates already takes place in the first step



The macerator ensures reliable substrate shredding and separates foreign matter after the mashing stage

Specifications

Parameter	Maize silage	Grass silage/ solid manure	Potato leftovers
Throughput	8 - 9 t/h	4.5 t/h	9 t/h
Maximum solids content (after mashing)	13 %	11 %	21 %
Substrate dimensions	up to 40 mm ø	Up to 50 mm length Lumps of up to 100 mm ø	up to 100 mm ø



Positioning of **MULTIMix** between the solids input system and the digester