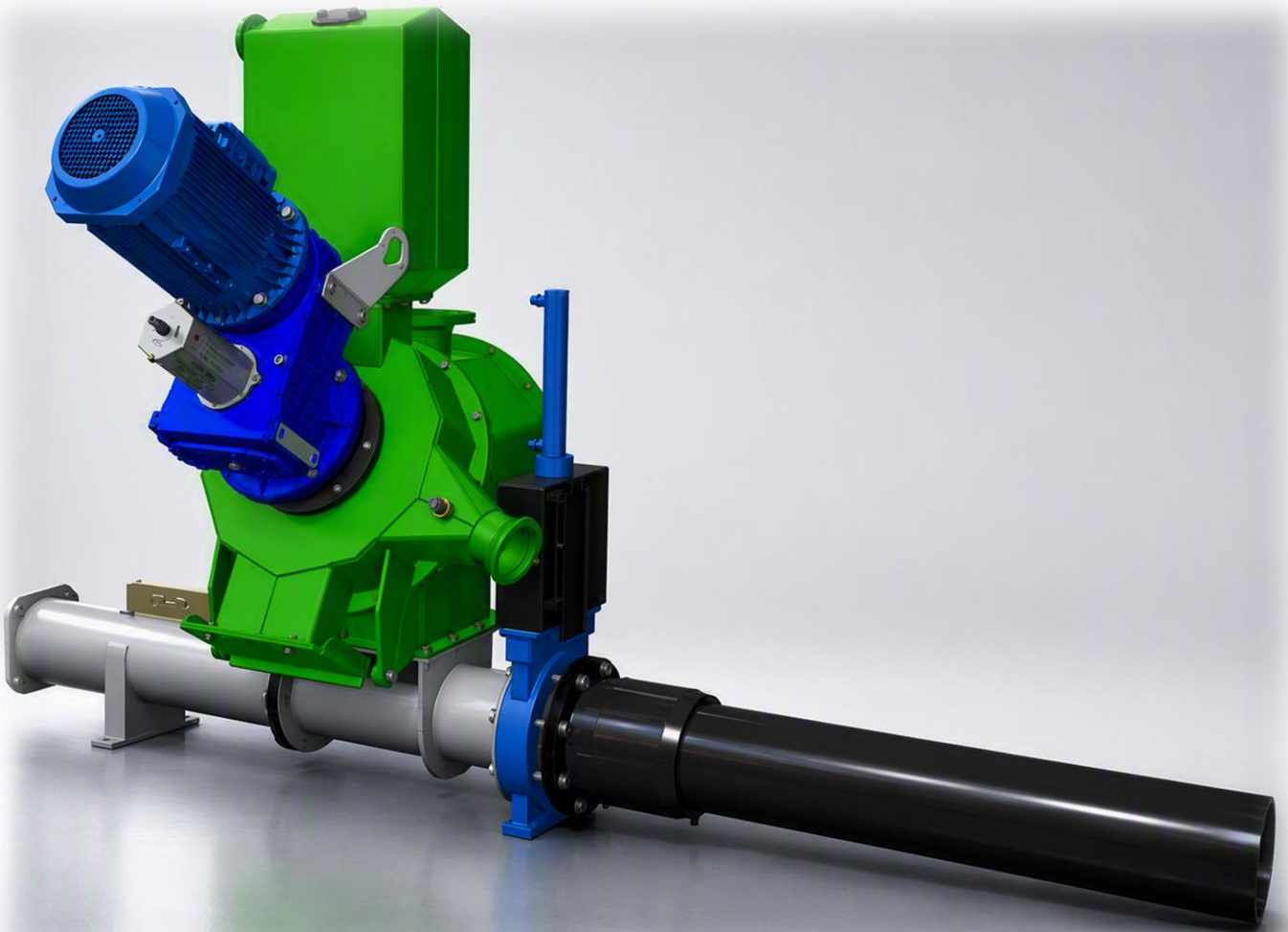


FeedCore™

Homogenisation unit for
biogas plants



DEMECA

FeedCore™ is equipment designed for shredding and homogenising feedstock at biogas plants. It makes biomass feeding reliable and efficient.

FeedCore™ enables professional feedstock pre-treatment cost-effectively at biogas plants of all sizes, from small plants to industrial scale. It can also be used to process materials outside biogas processes, for example industrial side streams.



Less downtime and lower maintenance costs



Fewer losses caused by process disruptions



More stable and predictable production



Ability to use a wide range of raw materials



Better yield from existing process equipment



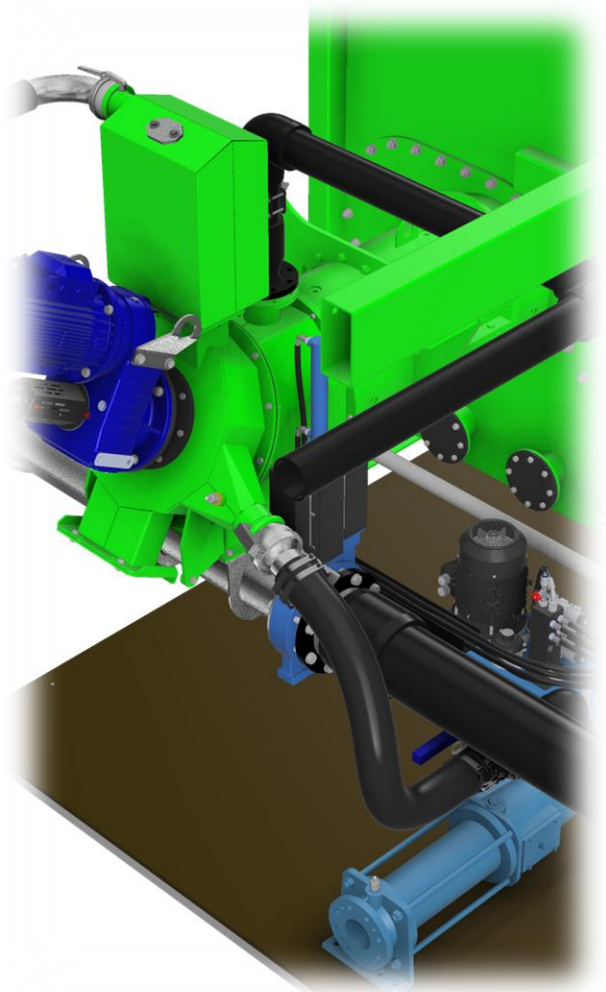
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FeedCore™

Benefits

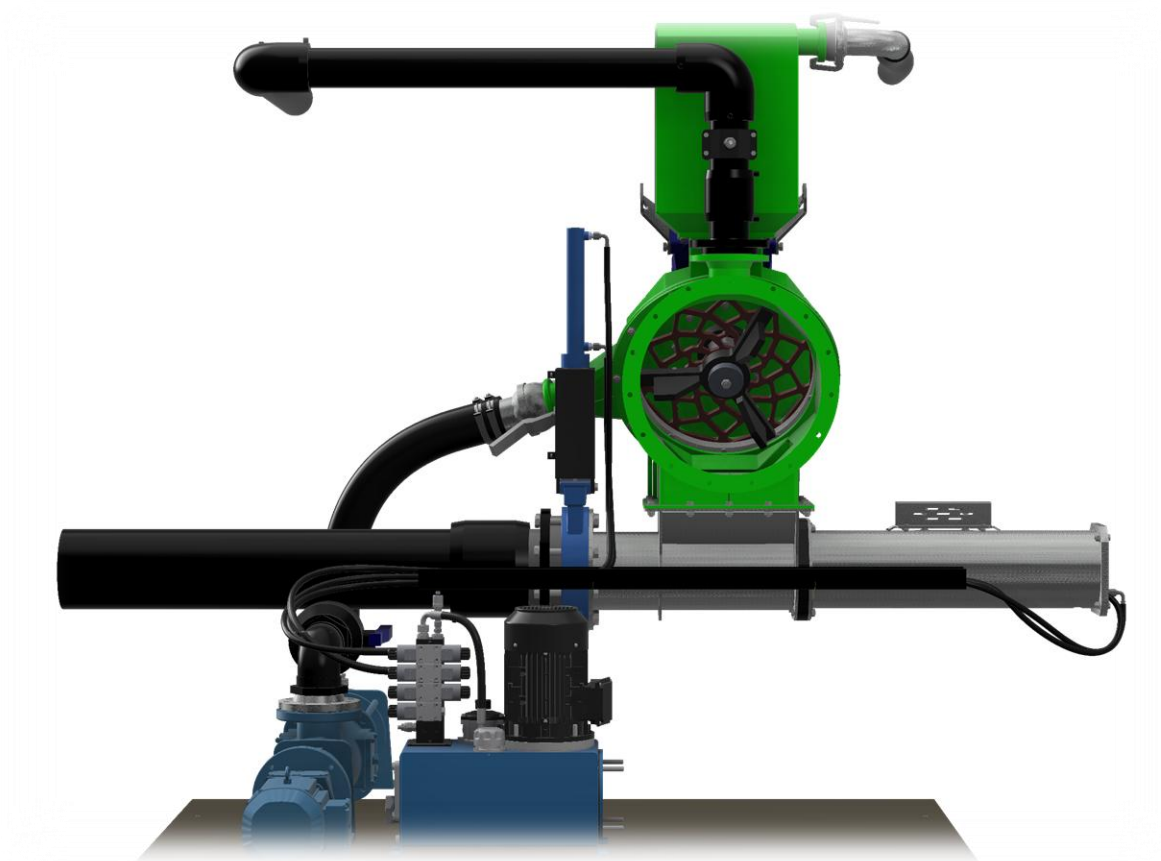
- FeedCore improves the profitability of the biogas process by shredding the feedstock efficiently and ensuring a steady, reliable biomass feed into the process. Shredding speeds up digestion, which increases gas production.
- Reliable feeding reduces blockages, downtime and maintenance needs, which raises the utilisation rate and increases gas production.
- At the same time, a steadier feed stabilises the process, lowers energy consumption relative to energy produced, and reduces losses caused by process disruptions, blockages and start-up and shutdown situations.
- FeedCore enables the use of even challenging raw materials. It delivers similar benefits when processing materials outside biogas processes, for example industrial side streams.



FeedCore™

Applications

- Shredding of solid feed material.
- Feeding pumpable mass, for example into a biogas plant.
- Solid feed material can be, for example, grass, potatoes, dry manure or food industry side streams.
- The liquid can be, for example, pumpable digestate, slurry or water.



FeedCore™

Features

- Shredding of the solid component and mixing it into liquid, homogenising it into a uniform slurry.
- Optional separation unit for stones and other heavy objects, which removes stones automatically.
- Automatic monitoring of blade wear.
- FeedCore operates together with separate transfer pumps.

FeedCore™

Technical data

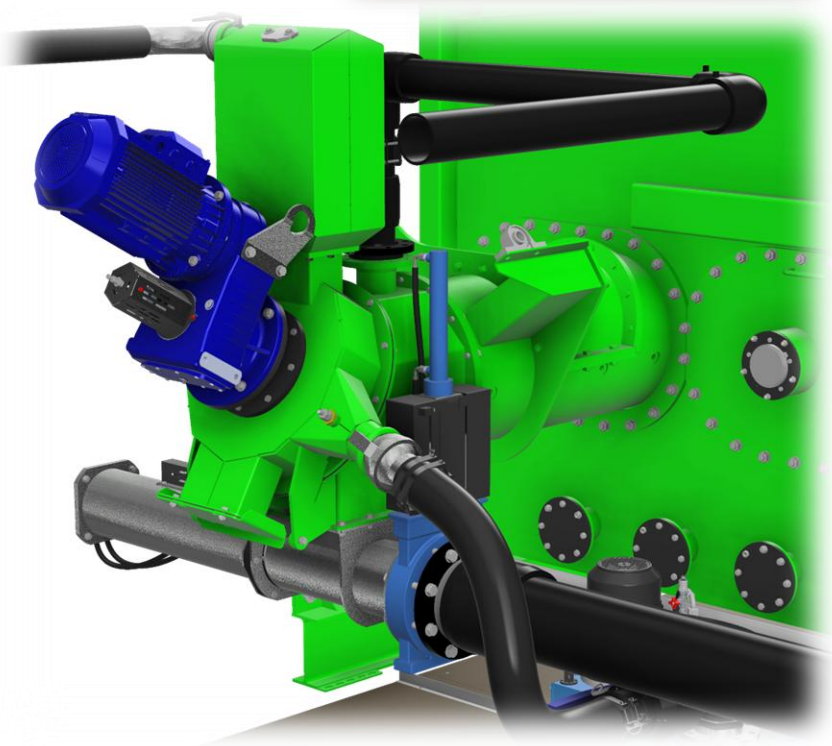
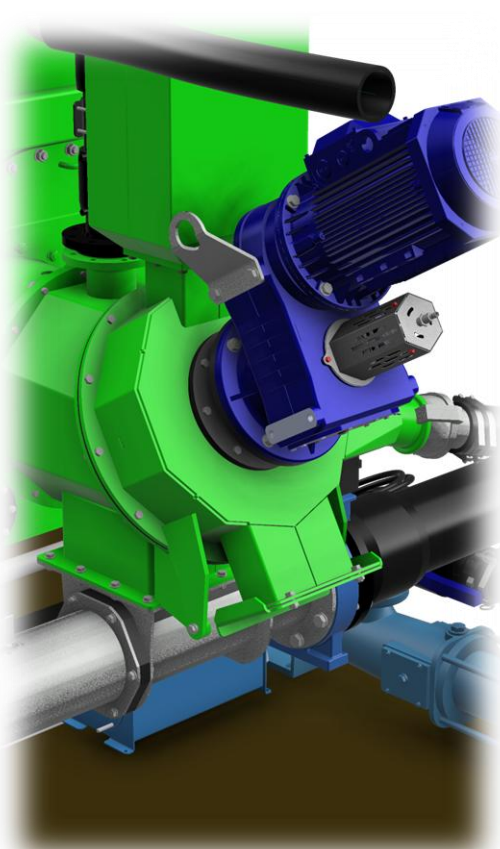
- Electric motor power 11 kW
- Electric motor rated current 21.8 A
- Blade rotation speed 246 RPM
- Liquid inlet connection: DN100 flange.
- Shredded mass outlet: 4" Bauer coupling, optionally available with a 6" Bauer coupling.
- Dry material chamber diameter 490 mm.
- Weight 365 kg without the stone removal unit. With the stone removal unit 540 kg.

Capacity example in optimal conditions with a DN100 outlet

- Chopped silage can be fed at 5 m³/h
- Enough dilution slurry is fed to make the mass pumpable. The dry matter content of the dilution slurry affects the amount required.
- The dry matter content of the shredded mass reaches 10–15%

Dimensions excluding the stone removal pipe

- Width 1520 mm
- Depth 1275 mm
- Height without the optional stone separation 1465 mm.
- Height with the optional stone removal unit 1740 mm.



FeedCore™

Operating principle

FeedCore shreds solid mass into pumpable form with the help of liquid. The liquid fraction pump feeds liquid into FeedCore and the liquid level is monitored with a pressure sensor inside FeedCore. The FeedCore cutter is started once there is enough liquid in the cutter. The mixture pump then pumps the shredded mass, for example into the reactor of a biogas plant. When the cutter, the liquid fraction pump and the mixture pump are running, solid mass is fed into FeedCore and shredding is under way.

The optional stone removal unit automatically and efficiently removes stones and other heavy objects from the mass being shredded. The unit checks the amount of stones in the stone pocket at regular intervals. Once enough stones have accumulated, the stone removal function is performed automatically.



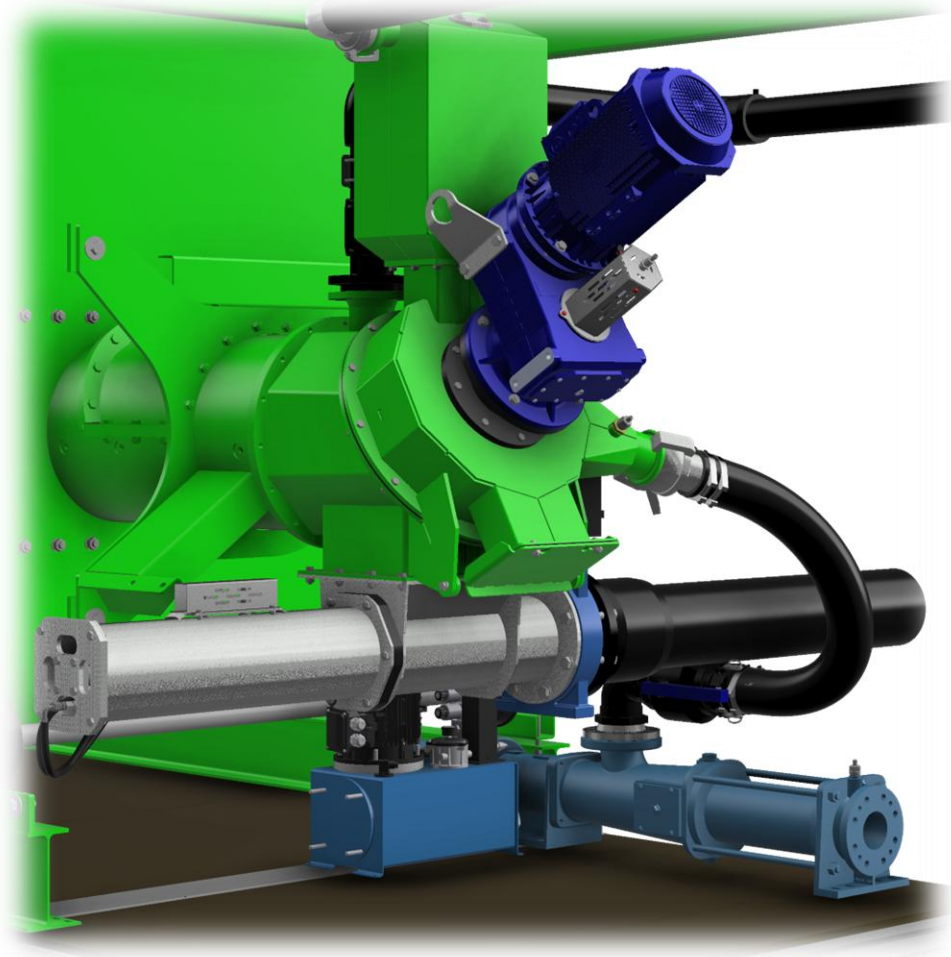
FeedCore™

Standard equipment:

- Outlet connection 4" Bauer coupling
- Liquid inlet connection DN100
- Liquid level sensor
- Automatic monitoring of blade wear

Optional equipment:

- Stone removal unit (incl. hydraulic power unit and sensors)
- Wangen KL50S mixture pump (incl. 2-metre hose and couplings)
- Outlet connection with 6" Bauer coupling



If needed, Demeca can also handle the design and manufacture of the control cabinet – ask your sales contact for more information!

Request a quote for the **FeedCore™** system!



Johannes Linna

Project Sales Representative

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