

AMFER®

Ammonia
recuperation
from manure and
digestate



AMFER®

Application

Nitrogen is an important fertilizing element in manure and digestate. Using ammonia stripping / scrubbing technology, ammonia can be separated from the manure or digestate while producing a circular nitrogen fertilizer.

The AMFER® can be used in various configurations and set-ups. A few examples are:

- Treating digestate to lower N-concentration
- Parallel over the digester to control ammonia levels
- Pre-treatment of manure before aerobic treatment

References

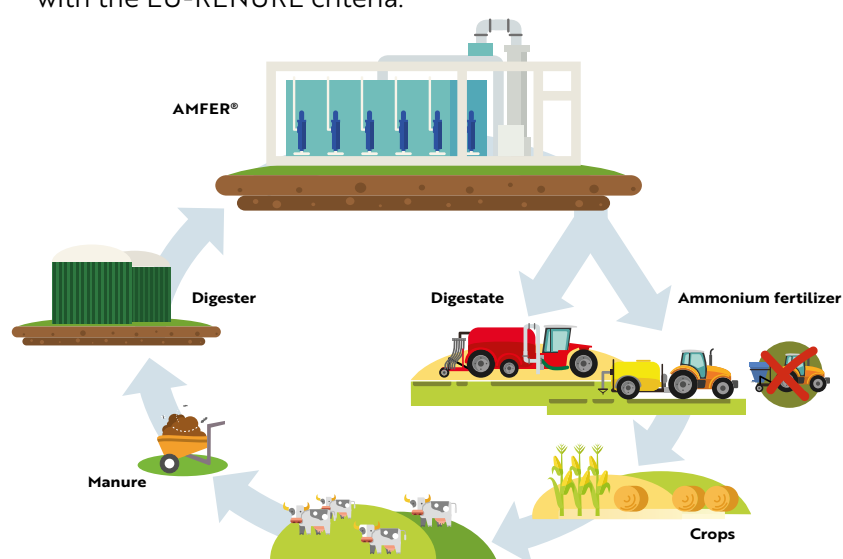
Van Alphen – Axel	NL
Bio-gas Veendam – Veendam	NL
Green Create W2V Kent – Kent	UK
GPSS - Tokyo	JP

Process

The specific design of the AMFER® stripping / scrubbing installation allows treatment of highly polluted streams, like fresh manure or unseparated digestate. But also more liquid products like liquid fractions can be processed.

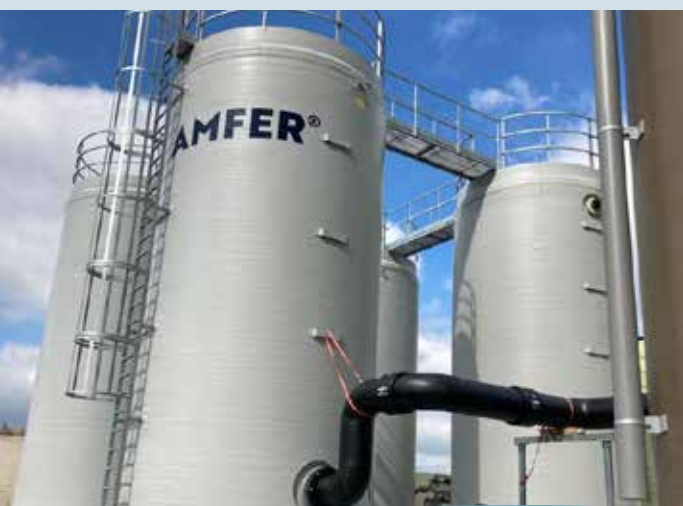
The AMFER® is available as plug-and-play container solution and as custom made modular installation.

The N-fertilizer is a liquid ammonia solution, like ammonium sulphate or ammonium nitrate. The products are compliant with the EU-RENURE criteria.



Result

Operating an AMFER® improves the biogas production of a digester, as the nitrogen inhibition is avoided. Alternatively the required arable land for spreading the manure / digestate is reduced up to 40% as nitrogen levels are lower. At the same time a high quality liquid fertilizer is produced, which can be applied in precision farming and fertigation systems.



Winner Ivan Tolpe
Award 2021

