Tecnoimpianti

AIR WATER

FERTILISER PRODUCTION PLANTS WITH AMMONIA STRIPPING FROM DIGESTATE AND WASTEWATER

ASRP
Ammonia Stripping Recovery Process

The requirements of the Circular Economy impose the recovery of water and reusable compounds, including ammonia, which is easily separated and transformed into a concentrated liquid fertiliser or solid ammonium sulphate.

The **TECNOIMPIANTI** proposal is to optimise, on a case-by-case or tailor-made basis, the ammonia removal process and the production of ammonium sulphate by direct stripping or integrated with other technologies designed and manufactured by **TECNOIMPIANTI** and other companies in the group.

The stripping technique by means of air insufflation is based on the passage of the ammonia contained in the liquid wastewater into gaseous form.

This process is achieved by passing a stream of air through the liquid wastewater, which is gradually enriched with ammonia in gaseous form.

The ammonia gas stream thus generated is intercepted in the scrubber, which captures the ammonia present through contact with an acid solution, so as to produce a concentrated ammonium salt or, alternatively, with a further treatment system, a solid salt.

PROCESS PARAMETERS

Project flow rate: 2 – 30 mc/h

Ammonia input concentration: 500 – 10.000 ppm

Felling yields: > 95 – 98 %

Production of 36 - 38 % saturated liquid ammonium sulphate solution with a nitrogen content of more than 7 %.

The thermal and electrical energy required to activate this process can be supplied by a cogenerator, which in many cases is already present in anaerobic digestion or industrial production plants.

These implants are ideal in particular for:

- **Digestate treatment**
- **NH_3 stripping from industrial wastewater**
- **Water recovery processes to counter NH_3 accumulation**
- **Production of ammonium sulphate from composting plants**
- **Circular Economy Solutions**

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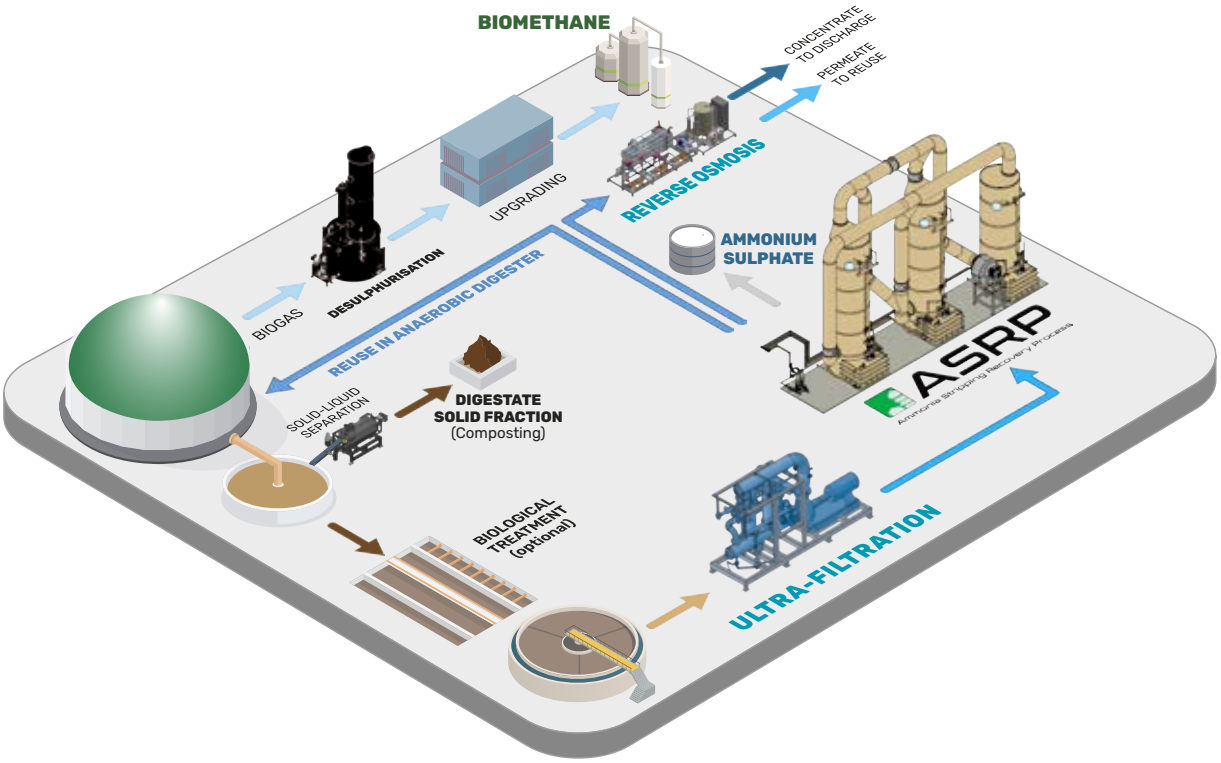

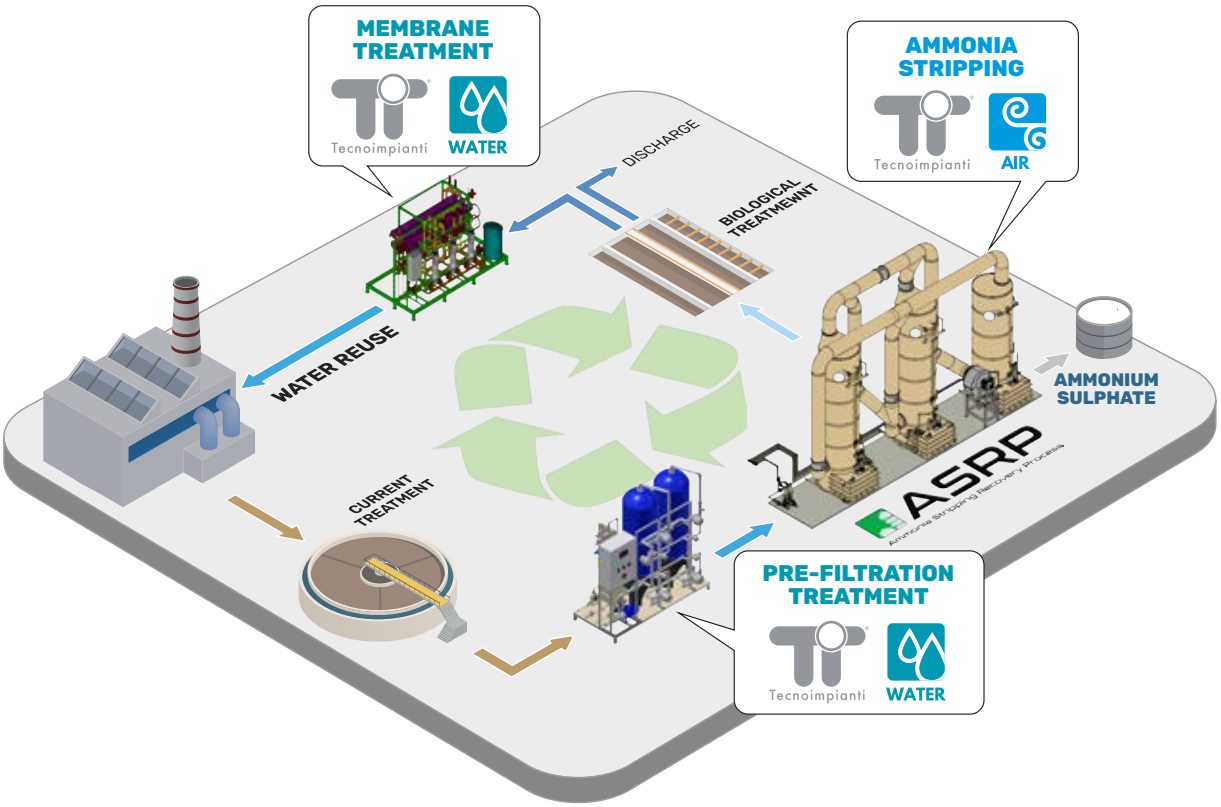

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