



# Expert of Air Stripping Solutions

CO<sub>2</sub>

COV

NH<sub>3</sub>

H<sub>2</sub>S

John Cockerill Europe Environnement makes available to you the highest performing technologies for **recovering polluted liquid wastes** from your processes **into a resource efficient solution** in **numerous applications** e.g.:



Agrifood



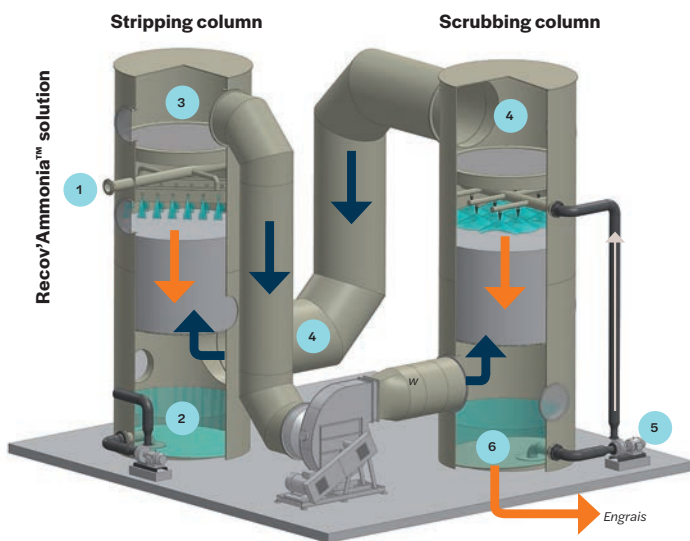
Methanization



Aeronautics



Chemical



Our business is to **define and set up the optimal treatment solution** as well as to **enhance operating parameters**.

The stripping solution consists in sorting chemical contaminants from wastewater either to allow their recycling or to facilitate their disposal. The two-step solution stands in extracting the pollutant from the liquid which is then concentrated in a solution in an economic purpose: treatment or reuse in your processes / for sale.

➡ Air flow  
➡ Liquid flow

- 1 Liquid to be treated
- 2 Treated liquid
- 3 Air to be treated
- 4 Treated air
- 5 Acid
- 6 Ammonia solution

## Internal R&D lab equipped with a stripping pilot for

- Efficiency tests
- Design optimisation
- Operating conditions upgrades
- Estimation of reagents consumptions

### Recov'Ammonia™ :

Our stripping solution dedicated to ammonia recovery

- Treatment of processing gases



## Client's process

### Methanization of beet pulp

- **Pollutants:**  
NH<sub>4</sub><sup>+</sup> at 2,4 g/L for a 102 kg/h flow
- **Liquid flow:**  
42 m<sup>3</sup>/h at 60°C and pH = 9
- **Process gas flow:**  
80 000 m<sup>3</sup>/h
- **Application:**  
Recovery of ammonia

### Pollution cut > 92%

- Ammonia concentration in the stripping effluents : < 200 mg/L
- Concentration of ammonium salts in the solution : 40% at ±2%

## Electronic

- **Pollutants:**  
NH<sub>4</sub><sup>+</sup> at 0,5 g/L for a 11 kg/h flow
- **Liquid flow:**  
22 m<sup>3</sup>/h at 65°C and pH ≥ 10
- **Process gas flow:**  
17 000 m<sup>3</sup>/h
- **Application:**  
Disposal of ammonia

### Pollution cut > 75%

- Ammonia concentration in the stripping effluents : < 123 mg/L



### John Cockerill Europe Environment

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