



# AIREC

WWF Climate Solver

## Case Story

### Biogas Upgrading Plant

The Malmberg COMPACT™ Gas Refinery (GR) Serie is an unique concept to allow standard bio-gas refinement plants to offer the highest gas quality.

The Malmberg Compact Gas Refinery System for biogas up-grading is based upon water scrubber technology. It is pre-fabricated and mounted in a special container.

The system is optimized to ensure best performance at low energy input and maximum heat recovery.

More information is available at [www.malmberg.se](http://www.malmberg.se).

A critical component in the system is the biogas coolers. Malmberg has chosen Airec as supplier of the biogas cooling heat exchangers due to the high efficiency, compact design and low pressure drop. Several successful installations are in operation in Sweden, Germany and Austria.

The Airec heat exchanger system by Malmberg is designed for up to 1 250 Nm<sup>3</sup>/h raw biogas. The system includes cooling with glycol water in 2 steps. Normal performance data is to cool the raw biogas from 150 to less than 15°C and condensing over 40 l/h water with a total effect of around 100 kW.



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