

## Heat recovery from high pressure gas to air

### The problem

YIT Vatten & Miljöteknik in Landskrona, Sweden, is specialized in turn-key systems for production and handling of biogas.

For Linköping Biogas AB is the system producing up to 1400 Nm<sup>3</sup>/h biogas from animal waste clean enough to operate the city buses in Linköping City.

In Enköping is household waste used as bas for the same purpose.



The biogas is corrosive. The flow is large, the pressure above 14 Bar and required efficiency is extremely high. In the process the biogas must be cooled down from over 130°C to a temperature below 40°C. In both plants were air cooling of the biogas preferred:

- Warm air could be used to distribute heat in the building.
- With outside air as cooling medium could a water cooling system with for instance dry coolers be avoided.

### The solution - AirCross with nickel brazing

YIT had without result long and intensively searched for a heat exchanger that in a compact design could handle a large gas flow with extremely high temperature efficiency. AirCross with nickel as brazing material has now both in Linköping and Enköping a history of four years problem free operation with unchanged high efficiency. Even during the warmest summer days is the biogas cooled to required temperature.