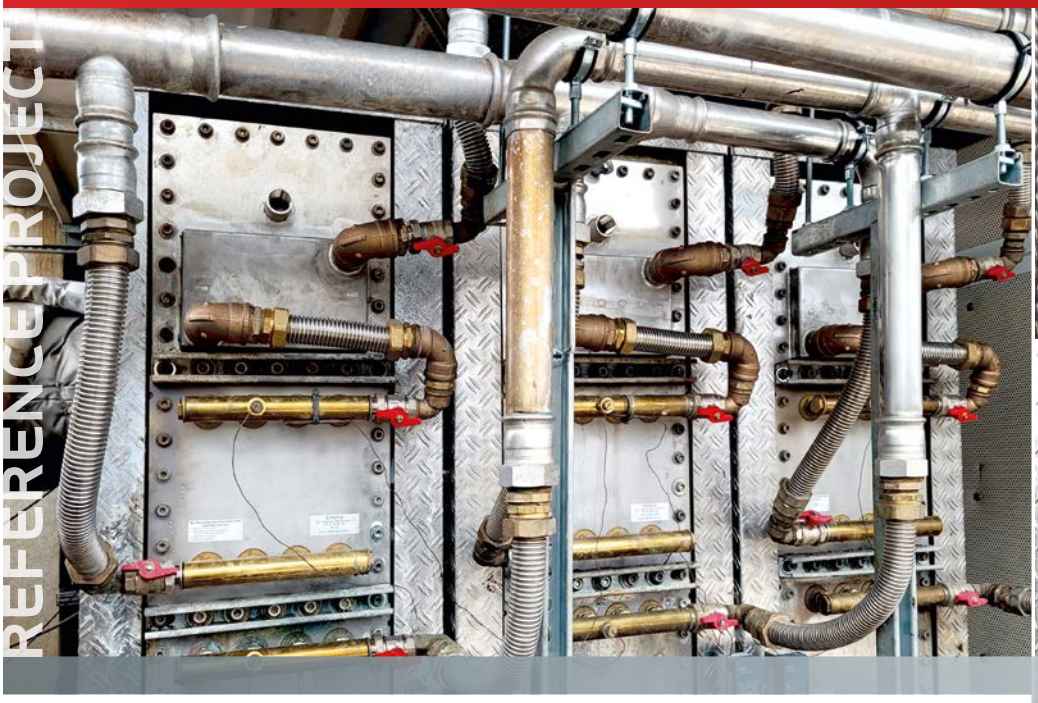
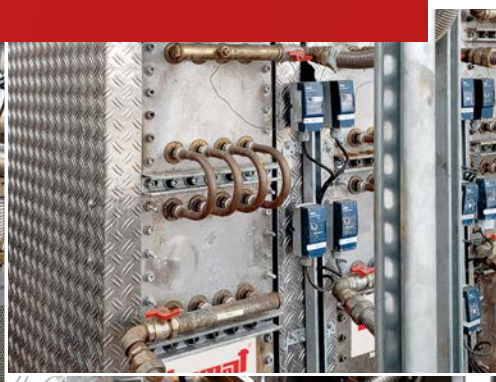
BIOGAS/SEWER GAS

UTILISING HEAT IN THE EXHAUST GAS FROM A BIO-GAS CHP UNIT. HIGH TEMPERATURE AND CONDEN-SING EXHAUST GAS HEAT EXCHANGERS IN ONE UNIT

REFERENCE PROJECT





ENERGIEHOF REINHOLD GAILE

Im Ösch 10, 88299 Leutkirch im Allgäu, Germany

The hot exhaust gases from the biogas CHP are utilised by three Bomat exhaust gas heat exchangers from the modular Profitherm series 03M1064. The exciting feature here is that high temperature and condensing exhaust gas heat exchangers are combined in a single unit. The top charging units in both of the AWT 03M1064 devices serve as high temperature exhaust gas heat exchangers and are integrated in the motor circuit. The bottom two charging units are condensing exhaust gas heat exchangers and are integrated in the heating circuit for raising the return temperature.

Heat source:	Schnell Genset type L12V21.1B0 – 500 kWel
Fuel:	○ Fuel oil ○ Natural gas ○ Sewer gas ● Biogas
Exhaust gas heat exchanger:	3x 03M1064 mod. Profitherm (year of manufacture: 2020/2023)
Exhaust gas temperature:	approx. 470 °C (upstream of HE) ➔ approx. 75 °C (downstream of HE)
Coolant temperature (HT):	approx. 86 °C (upstream of HE) ➔ approx. 93 °C (downstream of HE)
Coolant temperature (LT):	approx. 57 °C (upstream of HE) ➔ approx. 66 °C (downstream of HE)
Heat recovery per year:	approx. 1,200,000 kWh
CO_2 reduction per year:	approx. 240,000 kg

➔ Estimated payback period **less than 3 YEARS.**

MADE IN GERMANY

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