

**EXHAUST GAS HEAT RECOVERY  
IN A BIOGAS CHP UNIT**

REFERENCE PROJECT

**RULAND BIOGAS PLANT**

Kohlbühl 17, 92703 Krummennaab, Germany

At the site of the Kohlbühl 17 biogas plant, the waste heat from the exhaust gas of a Hagl CHP unit is utilised by means of a BOMAT exhaust gas heat exchanger. The O3-KK-1064-MT-4-9-6 exhaust gas heat exchanger from the modular Profitherm series is equipped with two charging units. It is installed in the bypass on the exhaust gas side. The extracted heat is made available to the heating network via a return temperature raising facility.

<b>Heat source:</b>	Hagl BHKW, 210 kW el.
<b>Fuel:</b>	<input type="radio"/> Fuel oil <input type="radio"/> Natural gas <input type="radio"/> Sewer gas <input checked="" type="radio"/> Biogas
<b>Exhaust gas heat exchanger:</b>	O3-KK-1064-MT-4-9-6 (year of manufacture: 2024)
<b>Exhaust gas temperature:</b>	approx. 200°C (upstream of HE) ➔ approx. 80°C (downstream of HE)
<b>Coolant temperature:</b>	approx. 55°C (upstr. of HE) ➔ approx. 62°C (downstr. of HE)
<b>Heat recovery per year:</b>	approx. 180,000 kWh
<b>CO<sub>2</sub> reduction per year:</b>	approx. 36,000 kg

➔ Estimated payback period **approx. 3 YEARS.**

**BOMAT Energiesysteme GmbH**

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