

BIOGAS/SEWER GAS

## EXHAUST GAS HEAT RECOVERY IN A BIOGAS CHP UNIT



### BIOCONSTRUCT GMBH

Wellingstraße 66, 49328 Melle, Germany

At the "Riemsloh school" satellite site, the residual heat from the exhaust gas of a CHP unit (2G agenerator 212) is utilised by means of a BOMAT exhaust gas heat exchanger cascade. The two BOMAT O3-KK-1064-MT-4-9-6 exhaust gas heat exchangers from the modular Profitherm series are installed in the bypass on the exhaust gas side. The extracted heat is fed into a buffer cylinder.

<b>Heat source:</b>	2G agenerator 212, 400 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>	2x O3-KK-1064-MT-4-9-6 (year of manufacture: 2023)
<b>Exhaust gas temperature:</b>	approx. 200°C (upstream of HE) ➔ approx. 70°C (downstream of HE)
<b>Coolant temperature:</b>	approx. 60°C (upstr. of HE) ➔ approx. 65°C (downstr. of HE)
<b>Heat recovery per year:</b>	approx. 420,000 kWh
<b>CO<sub>2</sub> reduction per year:</b>	approx. 84,000 kg
<b>Plant construction:</b>	bioconstruct GmbH

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

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