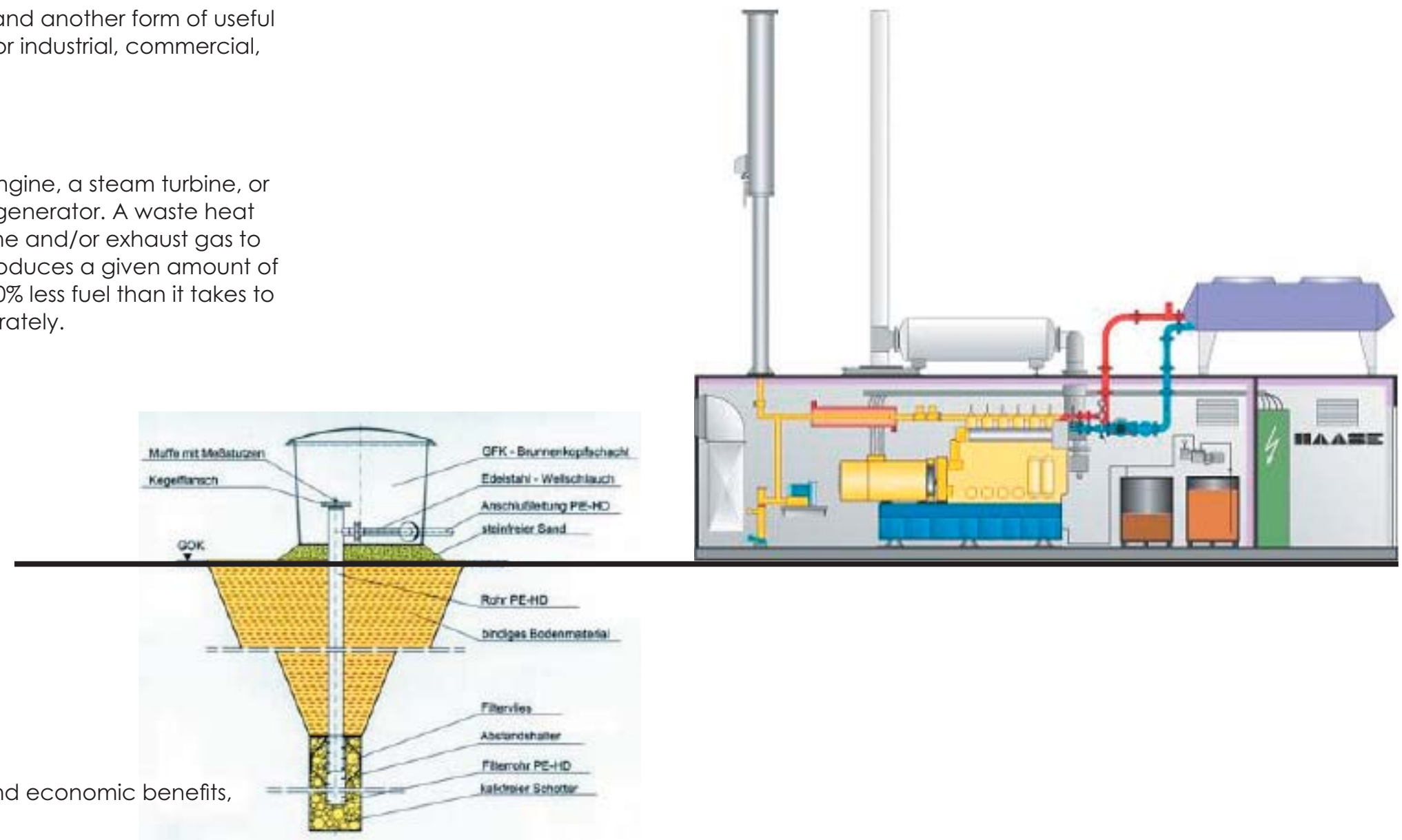


COGENERATOR (combined heat and power - CHP)

A generating facility that produces electricity and another form of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes.

COGENERATOR TECHNOLOGIES

A typical cogeneration system consists of an engine, a steam turbine, or a combustion turbine that drives an electrical generator. A waste heat exchanger recovers waste heat from the engine and/or exhaust gas to produce hot water or steam. Cogeneration produces a given amount of electric power and process heat with 10% to 30% less fuel than it takes to produce the electricity and process heat separately.



COGENERATION BENEFITS

Cogeneration offers energy, environmental, and economic benefits, including:

Reducing environmental impact -

Because of its improved efficiency in fuel conversion, cogeneration reduces the amount of fuel burned for a given energy output and reduces the corresponding emissions of pollutants and greenhouse gases.

Conserving limited resources of fossil fuels -

Because cogeneration requires less fuel for a given energy output, the use of cogeneration reduces the demand on the limited natural resources—including coal, natural gas, oil.

Saving money -

By improving efficiency, cogeneration systems can reduce fuel costs associated with providing heat and electricity to a facility.

DIMENSIONING OF THE COGENERATOR

Current energy consumption per inhabitant per year 3000 kW/h

25.000 inhabitants x 3000 kW /h = 75.000.000 kW/h

Cogenerator with 350 m³/h produces 720 kW/h:

720 kW/h x 24 h x 365 d = 6.307200 kW/h

75 GW / 6,31 GW - required:

12 pieces

The gas wells usually have to be arranged at a distance of 70 m over the entire landfill area.