ClinX HEAT 150

The externally fired micro gas turbine (EFGT for short) can be connected to any heat source that meets the minimum requirements. The hot process gas (approx. 950 °C) is fed into a high-temperature heat exchanger. In the parallel process, a micro gas turbine operates in which filtered ambient air is compressed by a compressor. This air is then passed through the high-temperature heat exchanger using the counterflow principle. The heated air then flows back to the microturbine, where a turbine expands and cools the air. The turbine exhaust air is fed to a mixing box and thus to the process gas. The overall efficiency of the system can be increased by recirculating the warm air.

Technical Data *

Electric gross capacity [kW]	150
Electric net capacity [kW]	130
Electric on-site power [kW]	< 20
Process heat source Input system [kW]	> 750 kW; > 1.3 kg/s; > 950°C
Flow / return temperature [°C]	90/70 or 80/60 **
Reference temperature flue gas [°C]	150

System output depending on the heat source *

Power of the heat source [kW]	**750**
Thermally usable output [kW]	392
Gross electrical efficiency [%]	19,9
Net electrical efficiency [%]	17,3
Thermal efficiency [%]	52,1
Overall efficiency [%]	72,0

Dimensions and technical connections

Dimensions	40' Container **
Foundation load	˝4 0 t
Connection to heating system	min. DN65
Voltage / Frequency	400 VAC / 50 Hz
Communication	2 Mbit/s internet connection

Fuel

At least 750 kW_th continuous
Temperature ~ 950 °C
Total dust content < 10 mg/m^3

Core elements of the micro gas turbine


1. Compressor


2. Turbine


3. Air bearing


4. Powerhead

** Under the following conditions:*

- *Ambient temperature: 15 °C.*
- *Humidity: 80%.*
- *Altitude above sea level: sea level zero*
- *Complete recuperation of the turbine exhaust air.*

*** Customizable.*

**** In accordance with TA-Lärm.*

Technical changes reserved.