

Type150

Technical Data *

Electric gross capacity [kW]	150
Electric net capacity [kW]	150
Electric on-site power [kW]	< 20
Rated thermal input [kW]	850
Flow / return temperature [°C]	90/70 or 80/60 **
Reference temperature flue gas [°C]	150

Dimensions and technical connections

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



Fuel

Untreated, wooden biomass
 Grain size: P16 - P45** (DIN EN ISO 17225-1:2014)
 Maximum water content: 50 %
 Maximum ash content: 2 %

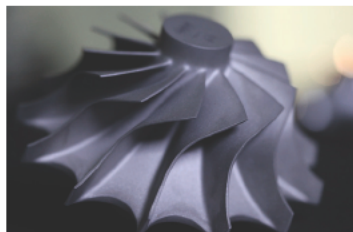
Power requirement in relation to water content*

Water content [%]	10	20	35	50
Calorific value [kWh/kg]	4,5	4	3	2,3
Fuel consumption [kg/h]	144	165	226	312
Fuel input capacity [kW]	650	659	679	718
Thermal useable power [kW]	351	359	376	410
Electric efficiency [%]	23,1	22,8	22,1	20,9
Thermal efficiency [%] *	54,0	54,5	55,4	57,1
Overall efficiency [%]	77,1	77,2	77,5	78,0
*At Hot Water 80/60 [°C]				

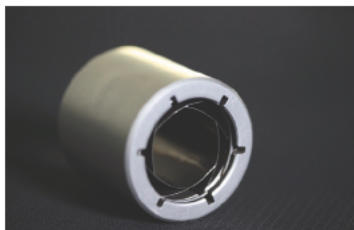
Core elements of the micro gas turbine



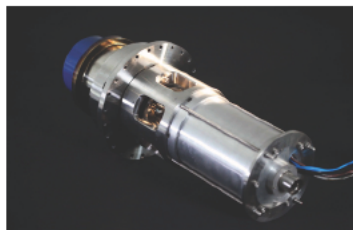
1. Compressor wheel



2. Turbine wheel



3. Air bearing



4. Powerhead

Fulfilled emission limit values***

Total dust	< 20 mg/m ³
Carbon monoxide	< 400 mg/m ³
Noise	65 dB(A) in 10 m

* At following conditions:
 Ambient air temperature: 15 °C.
 Humidity: 80%.
 Elevation: standard elevation zero.

** Customizable specific to customer requirements.

*** According to 1. German Federal Immission Control Act, Technical Instructions on Air Quality Control ("TA-Luft") and Noise prevention ("TA-Lärm"). Reference oxygen content: 13%.

Technical changes reserved.

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TECHNOLOGY

The basic principle of cogeneration of heat and power is explained quickly: When a fuel is burned, heat is generated first. In the subsequent step, this drives a turbine, that converts mechanical into electrical energy. The efficiency of energy generation is increased, since the same combustion heat generates both, usable heat and electricity.

In ClinX this principle is realized by the combination of combustion chamber and externally fired micro gas turbine. The system combines innovative technology, durable materials and German engineering. The system is characterized by robust individual components and a long product life.

