



AVAILABLE VERSIONS

Power Only (P), Combined Heat & Power (CHP)

The AE-T100NG includes the natural gas compression device (booster) installed inside the micro turbine cabinet

GENERAL

Installation	Indoor / Outdoor – Site temperature range: (-10 - +40)°C
Size (WxHxL)	(900 x 1900 / 3300* x 2770) mm (P) – (900 x 1900 / 3300* x 3900) mm (CHP)
Weight	2250 / 2750* kg (P) - 2770 / 3100* kg (CHP)
Fuel	Natural Gas (methane)

(*) indoor / outdoor layout

MICROTURBINE

Compressor type	Centrifugal, single stage
Turbine type	Radial, single stage
Type/Number of combustion chambers	1 chamber, CAN type
Pressure in combustion chamber	4.5 bar(a)
Turbine Inlet Temperature (TIT)	950°C
Number of shafts	1 (single shaft)
Rated rotational speed	70,000 RPM

ELECTRICAL DATA

Frequency output	50 Hz (60 Hz on request)
Voltage output	400 V(AC), three phases

FUEL REQUIREMENTS

Required pressure*	(0.02 - 0.1) bar(g)
Required temperature	(0 - 60)°C
Lower Heating Value (LHV)	(38 - 56) MJ/kg ≈ (27 - 40) MJ/Nm ³
Wobbe Index**	(43 - 55) MJ/Nm ³
Consumption***	333 kW ≈ 34 Nm ³ /h

(*): natural gas compressor device (booster) installed inside the micro turbine cabinet

(**): as defined in the technical description

(***): depending on natural gas LHV

PERFORMANCES

Electrical output	(100 ± 3) kWel
Electrical efficiency	(30 ± 2)%
Exhaust gas flow	≈ 0.79 kg/s
Exhaust gas temperature	≈ 270°C
Average sound pressure	≈ 72 dB(A) @ 1 m

EMISSIONS*

NO _x	≤ 15 ppm(v) ≈ 31 mg/Nm ³
CO	≤ 15 ppm(v) ≈ 19 mg/Nm ³

(*): @ full load - (100 ± 3) kW - 15% O₂

The above values are indicative, non-binding and subject to change without notice.

The AE-T100NG Micro Gas Turbine is a high efficiency energy system suitable for cogenerative (CHP) and trigenerative (CCHP) plants fired with natural gas, involving:

- the direct use of the AE-T100NG's exhaust gases;
- the production of hot/superheated water; and
- the production of saturated steam.

The AE-T100NG is installed in the following settings:

INDUSTRIAL

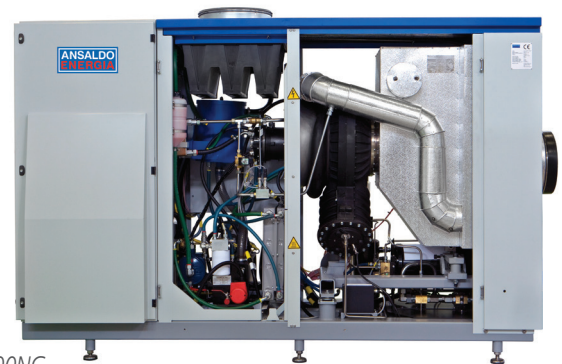
- Food: meat processing, pasta making, fruit/vegetable processing, animal feed production, milling
- Ceramics: ovens, drying systems
- Chemicals: pharmaceuticals, plastic, galvanic
- Laundries
- Paper makers
- Logistics centers: refrigerator cells

CIVIL:

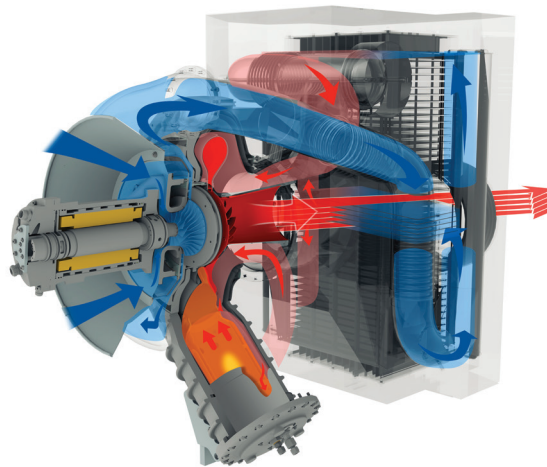
- Hospitality: resorts, hotels, wellness centers, sports centers, swimming pools
- Care / assistance: hospitals, retirement homes
- Building: premium homes, service sector (office centers/ commercial activities)

Benefits of Ansaldo Energia AE-T100 technology:

- Remote control and remote operation
- FULL SERVICE contracts stipulated directly with Ansaldo Energia and/or with authorised Partners
- Low maintenance requirements: scheduled service intervals of 6,000 operating hours
- Low acoustic emissions
- Low exhaust gas emissions without the use of reduction devices
- Operation possible in a wide range of partial load conditions
- Modular
- Designed for both indoor (technical rooms, thermal power plants) and outdoor installations.



AE-T100NG



Power Train - operating principle