

# Big deal for small power gen

Already proven in applications around the world, the GE5 gas turbine has evolved into the new NovaLT™5—building on the latest design advances from our highly successful NovaLT™16 development program.

NovaLT5 is a compact solution for a wide range of power generation, mechanical drive, and industrial applications. It is available in single-shaft and double-shaft configurations, both with high efficiency, extended MTBM, and significantly lower operating and maintenance costs.





### Compact and efficient

NovaLT5 gas turbine from Baker Hughes, a GE company (BHGE), is a welcome new alternative for a wide range of small power generation and mechanical-drive applications.

Both the single-shaft and double-shaft configurations are compactly designed, making them ideal for operations with challenging footprint and height restrictions.

The high exhaust temperature of the NovaLT5-1 is particularly advantageous for Heat Recovery System (HRS) operations.

### Availability and maintainability

Both models deliver exceptional uptime and enable significantly lower operating and maintenance costs than other turbines in the power class.

Maintenance plan:

- 12,000 hours: boroscopic inspection
- 24,000 hours: hot gas path inspection
- 48,000 hours: major overhaul

Maintenance can be performed at site, and the package is designed to allow engine swap in 24 hours (excluding cool-down).

## NovaLT5-1

The single-shaft design consists of a high-pressure axial compressor, combustion section, and a two-stage air-cooled turbine. It can be fueled with natural gas and/or liquid fuel and has premix burners to control emissions. The high exhaust temperature makes it well-suited to Heat Recovery System (HRS) operations.

### Axial compressor

- 11-stage axial flow
- 1 IGV + 2 VIGV stages
- 14.8:1 pressure ratio

### Combustion system

- Single, annular type
- DLN standard
- 18 fuel nozzles

### Turbine

- 2-stage axial flow (16,630 rpm)

## NovaLT5-2

The double-shaft design consists of a high-pressure module (axial compressor, combustion section, and single-stage air-cooled turbine) and a low-pressure module (two-stage uncooled turbine with exhaust section).

### Axial compressor

- 11-stage axial flow
- 1 IGV + 2 VIGV stages
- 14.6:1 pressure ratio

### Combustion system

- Single, annular type
- DLN standard
- 18 fuel nozzles

### Turbine

- HPT: 1-stage axial flow (16,630 rpm)
- LPT: 2-stage axial flow (12,500 rpm)

Key specifications		
	Single shaft NovaLT5-1	Double shaft NovaLT5-2
<b>Power (MW)</b>	5.6 (electric)	5.6 (shaft)
<b>Efficiency (%)</b>	30.7 (electric)	31.5 (shaft)
<b>HPT speed (rpm)</b>	16,630	16,630
<b>LPT speed (rpm)</b>	N/A	12,500
<b>Heat rate (kJ/kWh)</b>	11,740 (electric)	11,429 (shaft)
<b>Exhaust temp (°C)</b>	574	556
<b>Exhaust flow (kg/s)</b>	19.6	20
<b>Steam production (10 bar/a dry t/hr)</b>	14.5	N/A
<b>Emission NO<sub>x</sub>/CO<sub>2</sub> (natural gas) (in the range 50 to 100% load)</b>	<25/20	<25/20
<b>Pressure ratio</b>	14.8	14.6
<b>Mean time between major overhaul maintenance (hours)</b>	48,000	48,000

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