

Frame 6/1B (44 MW, 50/60 Hz geared)

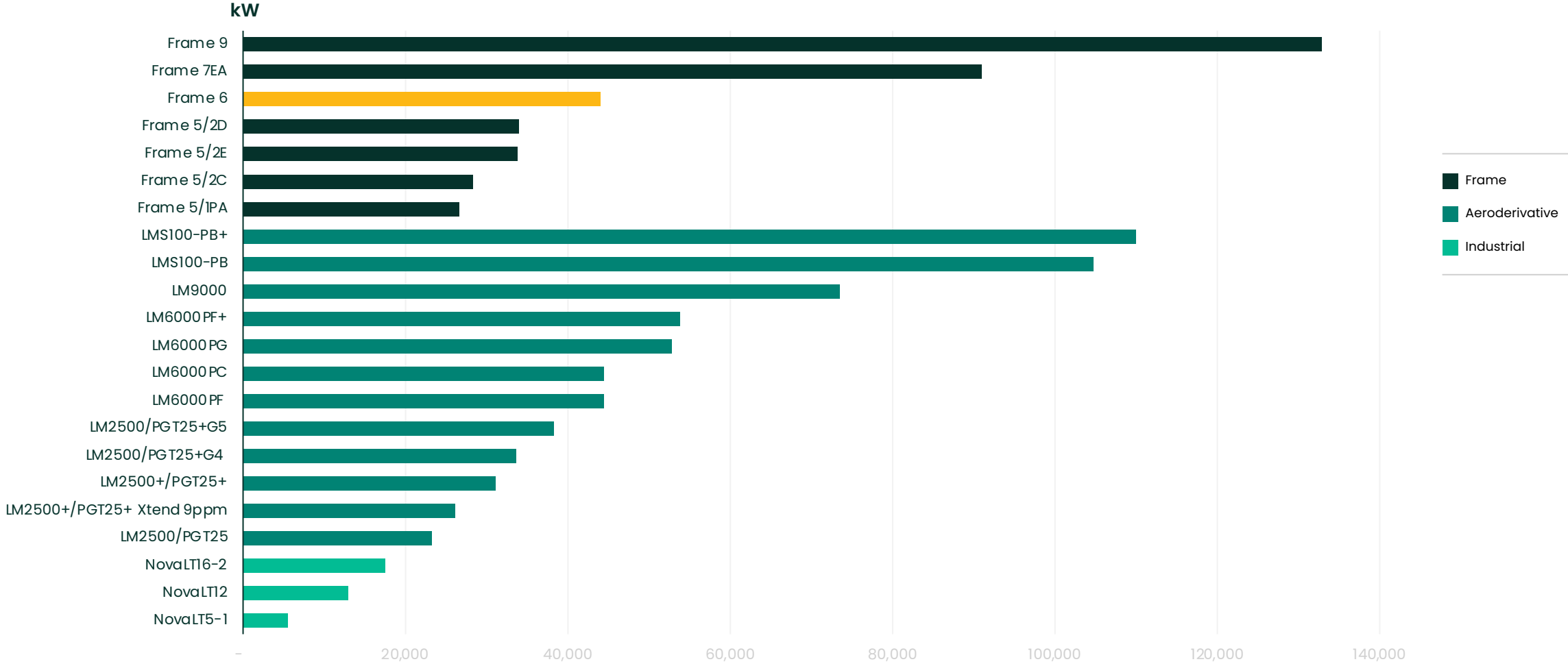
Single-shaft gas turbine with 40+ years of rugged reliability

Exclusive distributor of GE Power products for the oil and gas market

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Industry leader in gas turbine technology



Frame 6/1B

Single-shaft gas turbine with hot-end-drive generator, and proven reliability and energy efficiency

The Frame 6/1B is sized so output and exhaust energy are well suited to electricity and industrial steam applications, integration in an island network for power generation, and in an industrial complex for cogeneration. The modular design is ideal for meeting unique site layout constraints. It provides high reliability and availability in both power generation and cogeneration.

With over 1,150 units installed worldwide and more than 60 million operating hours experience, many engineering, procurement and construction (EPC) companies, operators, and maintenance teams have been working with these turbines for 30 years—continually improved by advanced technology injections through our conversions, modifications and upgrades.

Key specifications and benefits:

- Output: 44,000 kW
- Shaft efficiency: 33.5%
- The combustion chamber system is available in both standard (diffusive) and DLN1+ (Dry Low NOx) versions
- High thermal exhaust energy suitable for combined heat-power cycle
- Enhanced fuel flexibility with no impact on combustor's operability or integrity

Main applications

- Simple cycle and cogeneration
- Combined cycle (with steam turbine)
- LNG

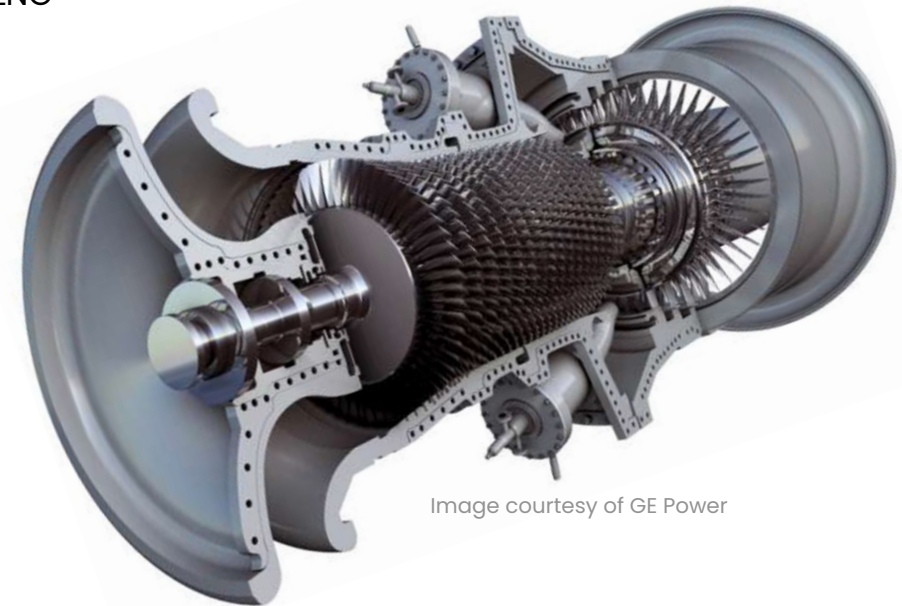
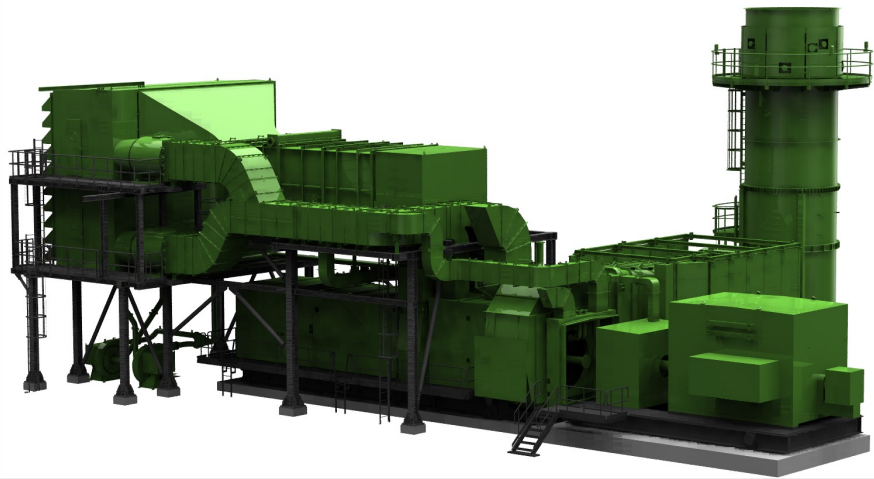


Image courtesy of GE Power

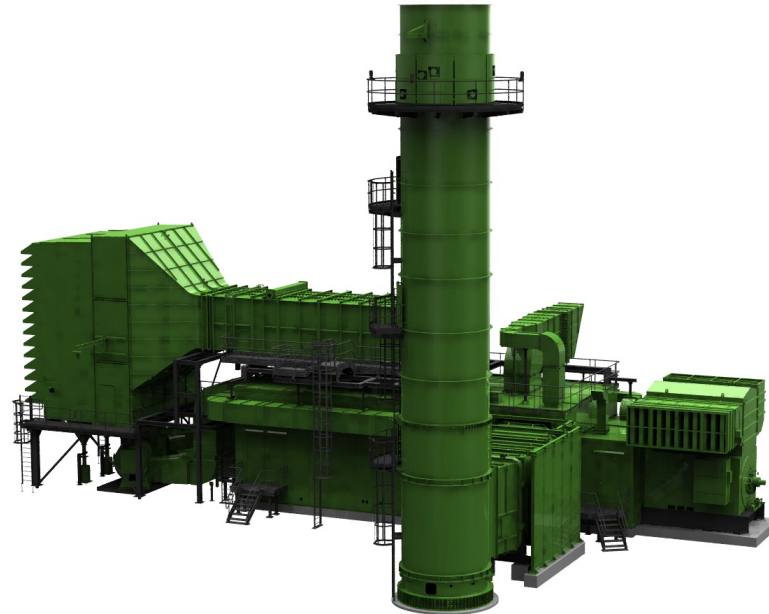
Package

Compact design

- Compact and quick to install
- Suitable for generator drive and mechanical drive applications
- Dual-base configuration for auxiliaries and engine.

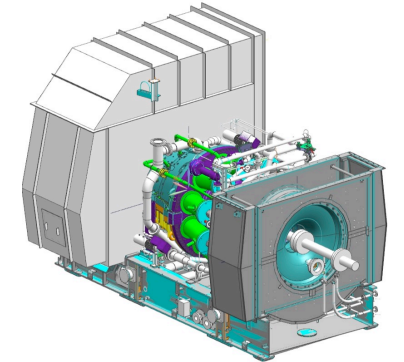


Typical on-base power-generation package

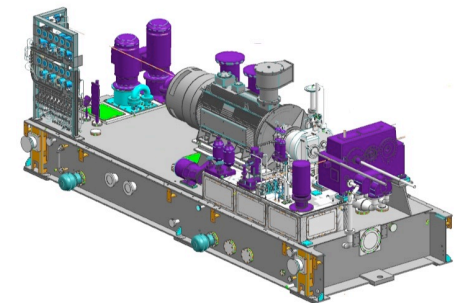


Typical off-base power-generation package

Engine



Auxiliaries



Package

Installation and maintenance

The Frame 6/1B gas turbine is delivered with an auxiliary skid that includes:

- Auxiliary gearbox and coupling
- Lubricating oil system with filters, pumps, heat exchanger, and reservoir
- Starting motor and turning device
- Hydraulic oil system with shaft-driven oil pump

Horizontal mid-split casings enable easier access to turbine components and facilitate maintenance at site.

Service/upgrades

To improve the performance of aged models, a wide range of upgrade kits are available, including:

- Power output increase MW
- Efficiency % increase
- Maintenance intervals extension
- Emissions reduction

Frame 6/1B interval extension capability

	Inspection intervals— factored fired hours (FFH)	Replace intervals— factored fired hours (FFH)
Standard or DLN combustion inspections		
Non-Extendor hardware	12,000	48,000
Extendor or CL-Extendor	24,000	48,000
Advanced Extendor	32,000	64,000
Hot gas path/major inspection without PIP	24,000/48,000	72,000/200,000
Hot gas path/major inspection with PIP or AGP and advanced Extendor	32,000/64,000	96,000/200,000

Note: Frame 6/1B gas turbine maintenance in public GER3620

Datasheet

Main architecture attributes

- 17-stage axial compressor
- Three turbine stages with air-cooled first and second-stage nozzles and buckets
- 10 combustion chambers with reverse-flow STD/DLNI+ combustion system (single-digit NOx emissions)
- Able to burn a wide range of fuels including low BTU gas and residuals; also has a fuel mix burning capability
- Dual-fuel capability with STD/DLNI+ combustion system including operation on heavy oil and up to 100% H₂ burnability with standard combustor
- DLNI+ extended gas fuel capability: utilizing off-gases provides opportunity for increased process/plant efficiency and reduced environmental footprint

On-base package (Typical dimensions and weights)

		GT skid	Aux skid	EG skid
LxWxH	m	7.1x3.6x4.4	8.6x3.6x3.5	11.0x5.8x5.0
Weight	kg	76,500	50,000	125,000

Off-base package (Typical dimensions and weights)

		GT skid	Aux skid	EG skid
LxWxH	m	7.1x3.6x4.2	8.6x3.6x3.5	6.2x3.7x3.4
Weight	kg	68,000	35,000	125,000

Power generation

		DLN
Power	MW	44
Efficiency	%	33,5
NOx	ppm	4
Exhaust	°C	551
Speed	rpm	5163

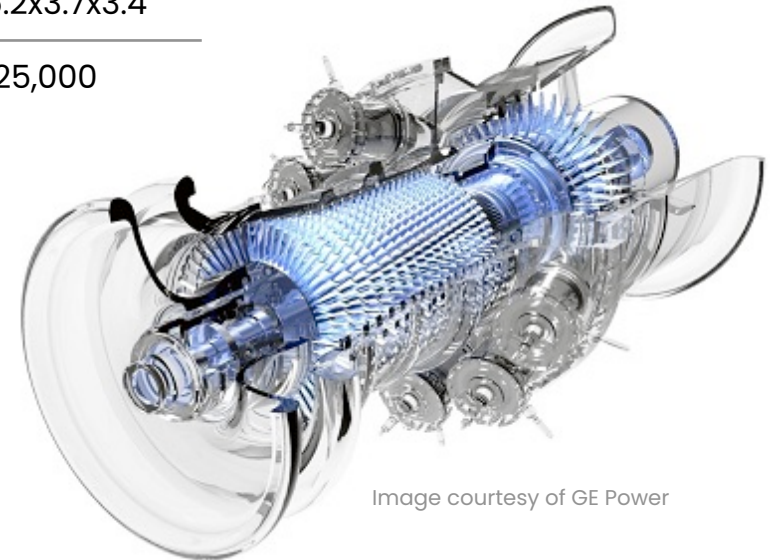


Image courtesy of GE Power

Projects

Nigeria: power plant

- Combined-cycle application
- DLN1+ dual-fuel, dual-gas system
- Water injection
- Advanced 32k hours kit-extend
- First unit with co-firing



Chad: island power plants

- Proven experience handling transient load
- Frame 6/1Bs operating in pure island mode since 2003



Russia: district heating

- Frame 6/1B operating in harsh ambient conditions down to -60°C
- District heating and hot water 65GCal/h/GT
- Flexible operation and maintenance in summer



Malaysia: LNG plant

- 25+ years in LNG application
- 25+ Frame 6/1B running in LNG plants

