SGT-750

Industrial gas turbine

With maximized uptime, top-class performance, and a low environmental footprint offering the customer high lifetime profitability, the SGT-750 industrial gas turbine is a perfect choice for the oil and gas industry as well as industrial power generation.

The modular and flexible engine enables onshore or offshore applications, mechanical drive or heat and power.
It combines a robust, reliable design with high efficiency and low emissions. The SGT-750 offers broad flexibility with different rating options due to excellent part load capability. When running on lower load the maintenance intervals will be extended, low emissions can be guaranteed while the efficiency still is kept over 40%.

The SGT-750 has a track record of successful performance after years in operation and verified results in various applications. Units are sold for use in both power generation and compressor applications such as pipelines and liquefied natural gas (LNG).

References

Kaltex Altamira, Mexico

Combined heat and power plant
Customer: Energia MK KF, S.A. de C.V.
Scope: 1 × SGT-750 gas turbine

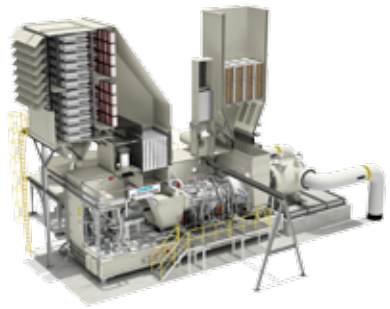
Greifswald Wingas, Germany

Combined heat and power plant
Customer: Industriekraftwerk Greifswald GmbH, Lubmin
Scope: 1 × SGT-750 gas turbine, automation & control for landfall station

SGT-750 combined heat and power plant in Altamira, Mexico

SGT-750 core engine with a free high-speed power turbine

Power generation package – also available as single lift



O&G mechanical drive package for on- or offshore applications – also as single lift

Power generation: 39.8 MW(e)
Mechanical drive: 34.0 / 41.0 MW(e)

- Maximized uptime
- High efficiency
- Low emissions

	Simple cycle power generation	Mechanical drive applications	
		41 MW version	**34 MW version**
Power output	39.8 MW(e)	41.0 MW	34.0 MW
Fuel	Natural gas, dual fuel, liquid fuel; options available for other gases within specification		
Frequency	50/60 Hz		
Gross efficiency	40.3%	41.6%	40.4%
Heat rate	8,922 kJ/kWh	8,661 kJ/kWh	8,912 kJ/kWh
Turbine speed	6,100 rpm	3,050 – 6,100 – 6,405 rpm[1]	
Pressure ratio	24.3 : 1	24.3 : 1	21.9 : 1
Exhaust mass flow	115.4 kg/s	115.4 kg/s	107.5 kg/s
Exhaust temperature	468 °C (875 °F)	452 °C (845°F)	439 °C (821°F)
NO_X emissions[2]	<9 ppmvd	<9 ppmvd	<9 ppmvd
Maintenance interval (TBO)		34 kOH / 68 kOH	45 kOH / 90 kOH

Note: All combined cycle is based on 2 pressure, no reheat. Dimensions exclude inlet filter housing and exhaust stack. For power generation, AC generator is included. For mechanical drive, driven equipment is excluded.

[1]Value shown indicates 100%-design speed of drive shaft

[2]NO_X emissions at 15% O_2 on fuel gas (with DLE)

	Combined cycle power generation	
Siemens combined cycle power plant	**SCC-750 1 × 1**	**SCC-750 2 × 1**
Net power output	51.55 MW(e)	103.74 MW(e)
Net plant efficiency	53.25%	53.58%
Net heat rate	6,760 kJ/kWh	6,718 kJ/kWh
Number of gas turbines	1	2

	Physical dimensions	
	Power generation package	**Mechanical drive package**
Approx. weight	175,000 kg (385,809 lb)	76,000 kg (167,551 lb)
Length	20.3 m (66.6 ft)	12.8 m (40.4 ft)
Width	4.8 m (15.8 ft)	4.3 m (14.1 ft)
Height	4.1 m (13.5 ft)	4.1 m (13.5 ft)