



SGT-400

Industrial gas turbine

The SGT-400 is a twin-shaft gas turbine available in two different power ratings for both power generation and mechanical drive applications.

The twin-shaft arrangement allows for commonality of parts in mixed-duty installations.

The gas turbine offers the highest efficiency in its power class, incorporating the latest aerodynamic and combustion technologies.

With over 25 years of operating experience, the SGT-400 is proven in both offshore and onshore applications. Over 300 units have been sold with approximately 3 million hours operating experience.

References

■ Municipal utilities, Erlangen, Germany

Combined cycle cogeneration
Customer: Erlanger Stadtwerke
Scope: 1 x SGT-400 gas turbine and
1 x SST-300 steam turbine

■ Bulwer Island, Brisbane, Australia

Combined cycle power generation
Customer: Alstrom
Scope: 2 x SGT-400 gas turbines



The SGT-400 is available as a factory-assembled package



Twin-shaft design for both power generation and mechanical drive applications



Compact power generation package design

Power generation: 12.9/14.3 MW(e)
Mechanical drive: 13.4/14.9 MW

- Latest aerodynamic and combustion technology
- Suitable for all climates, onshore and offshore
- High power-to-weight ratio

	Simple cycle power generation		Mechanical drive applications	
	13 MW version	15 MW version	13 MW version	15 MW version
Power output	12.9 MW(e)	14.3 MW(e)	13.4 MW	14.9 MW
Fuel	Natural gas, liquid fuel, dual fuel; other fuels on request; automatic changeover from primary to secondary fuel at any load			
Frequency	50/60 Hz	50/60 Hz		
Gross efficiency	34.8%	35.4%	36.2%	36.8%
Heat rate	10,355 kJ/kWh	10,178 kJ/kWh	9,943 kJ/kWh	9,774 kJ/kWh
Turbine speed	9,500 rpm	9,500 rpm	9,500 rpm	9,500 rpm
Pressure ratio	16.8 : 1	18.9 : 1	16.8 : 1	18.9 : 1
Exhaust gas flow	39.4 kg/s	44.3 kg/s	39.4 kg/s	44.0 kg/s
Exhaust temperature	555 °C (1,031 °F)	540 °C (1,004 °F)	555 °C (1,031 °F)	540 °C (1,004 °F)
NO _x emissions	≤ 15 ppmvd at 15% O ₂ on fuel gas (with DLE)		≤ 15 ppmvd at 15% O ₂ on fuel gas (with DLE)	

	Physical dimensions	
	Power generation package	Mechanical drive package
Approx. weight	83,824 kg (184,800 lb)	40,142 kg (88,500 lb)
Length	14.0 m (46 ft)	7.3 m (24 ft)
Width	3.1 m (10 ft)	3.1 m (10 ft)
Height	4.3 m (14 ft)	4.3 m (14 ft)

Note: Dimensions exclude inlet filter housing and exhaust stack. For power generation, AC generator is included. For mechanical drive, driven equipment is excluded.