SGT-800 core engine is available with different ratings and standard options for hot and cold climates.

1. Compressor
   15-stage compressor with variable guide vanes on the first 3 stages. A hot-climate option available for increased power and efficiency.

2. DLE combustion system
   Robust dual-fuel (gas/liquid) Dry Low Emission (DLE) combustion system for low environmental footprint and excellent gas fuel flexibility.

3. Turbine
   A highly efficient 3-stage turbine design offering optimal performance and lifetime. High exhaust energy giving excellent cogeneration/combined cycle characteristics.

Proven reliability, flexible solutions, low emissions and excellent performance make the SGT-800 the perfect choice. Typical applications include both simple and combined cycle plants for industrial or oil and gas power generation, as well as combined heat and power (CHP) generation.

**Key benefits**
- 47.5 – 57.0 MW(e) power output
- >40% simple cycle efficiency
- >58.5% combined cycle efficiency
- More than 325 units sold
- More than 5 million fleet hours
- High reliability and availability
- Low lifecycle costs
- Robust dual-fuel (gas/liquid) DLE combustion system
- On-load fuel changeover capability
- Excellent fuel flexibility
- High content of inert gases, hydrogen and heavy hydrocarbons
- Low emissions over a wide load range
- Capable of single-digit NOx and CO

**High efficiency**
- Outstanding in combined cycle
- Excellent steam-raising capability
- High electrical efficiency
- Hot climate option

**Customer service and maintenance**
- Flexible standardized time- and cycle-based maintenance concepts
- Up to 60,000 equivalent operating hours (EOH) between major overhauls
- On-site maintenance or modular overhaul
- Option for off-site maintenance with 48-hour core engine exchange
- Maintenance-friendly design
- 24/7 support including emergency service and specialist helpdesk
- Full field service, diagnostic support, and remote monitoring

**Important features**
- Robust industrial design for high reliability and easy maintenance
- Dual-fuel DLE combustion system for low emissions and high fuel flexibility
- High operational flexibility including 10-minute start capability and fast load-following for grid support or island mode operation

For power generation applications

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SGT-800 Classic package
The gas turbine and gearbox are placed on a single base frame or with the gearbox directly on the foundation. The mechanical auxiliary systems are mounted on a separate skid placed close to the gas turbine inside the enclosure.
• Modular and flexible package design
• Easily transported and installed at site
• On-site maintenance inside the package

SGT-800 Single Lift package
A single-lift driver unit (i.e., skid-mounted gas turbine, gearbox and mechanical auxiliary systems) or as a complete skid-mounted train (including the generator) for 3-point mount installations, e.g. for power barges.
• Single-lift capability and small footprint
• Short installation and commissioning time
• 48-hour core engine exchange optional
• Available with a special US-adapted option

Simple cycle power generation

<table>
<thead>
<tr>
<th>Power output</th>
<th>Simple cycle power generation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>47.5 MW(e)</td>
</tr>
<tr>
<td>Fuel</td>
<td>Natural gas, other gases within specification, liquid fuel (Diesel No.2) and dual fuel (gas and liquid)</td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Gross efficiency</td>
<td>37.7%</td>
</tr>
<tr>
<td>Heat rate</td>
<td>9,547 kJ/kWh</td>
</tr>
<tr>
<td>Turbine speed</td>
<td>6,608 rpm</td>
</tr>
<tr>
<td>Pressure ratio</td>
<td>20.1 : 1</td>
</tr>
<tr>
<td>Exhaust gas flow</td>
<td>132.8 kg/s</td>
</tr>
<tr>
<td>Exhaust temperature</td>
<td>541°C (1,007°F)</td>
</tr>
<tr>
<td>NOx emissions</td>
<td>≤15 ppmvd</td>
</tr>
</tbody>
</table>

Combined cycle power generation

<table>
<thead>
<tr>
<th>Power output</th>
<th>Combined cycle power generation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SCC-800 1 x 1</td>
</tr>
<tr>
<td>Net plant power output</td>
<td>66.6 – 80.7 MW(e)</td>
</tr>
<tr>
<td>Net plant efficiency</td>
<td>53.8 – 58.0%</td>
</tr>
<tr>
<td>Net plant heat rate</td>
<td>6,693 – 6,207 kJ/kWh</td>
</tr>
<tr>
<td>Number of gas turbines</td>
<td>1</td>
</tr>
</tbody>
</table>

Physical dimensions

<table>
<thead>
<tr>
<th>Approx. weight</th>
<th>Classic package</th>
<th>Single lift package</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>285,000 kg (628,300 lb)</td>
<td>305,000 kg (672,400 lb)</td>
</tr>
<tr>
<td>Length</td>
<td>20.8 m (68 ft)</td>
<td>22.0 m (72 ft)</td>
</tr>
<tr>
<td>Width</td>
<td>7.3 m (24 ft)</td>
<td>4.7 m (16 ft)</td>
</tr>
<tr>
<td>Height</td>
<td>6.6 m (22 ft)</td>
<td>5.3 m (17 ft)</td>
</tr>
</tbody>
</table>

SGT-800 performance

Above performances at ISO conditions, natural gas fuel