

RT62X

SGT-A35 Power Turbine Upgrade

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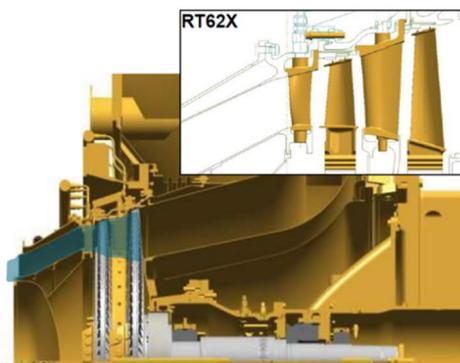
Reduce operational cost, CO₂ or enhance production output with this upgrade

Product Overview

The RT62X power turbine is designed as an upgrade of the legacy RT62 power turbine installed on over 400 Siemens Energy SGT-A35 C, G and GT units. The RT62X provides the key major benefits:

- Efficiency increase
- Power output increase
- Time between overhaul (TBO) increase

Moreover, as each benefit is independent of the other, the RT62X provides flexibility to our customers by allowing customization of benefit selection to meet their operating needs.



Technical Description

The RT62X upgrade consists of redesign of the 1st and 2nd stage blades, vanes, and honeycomb tip seals.

To enhance efficiency and time between overhaul the aerodynamic profile of the blades and vanes are redefined to decrease profile losses while the trailing edge thickness of the 1st and 2nd stage guide vanes are decreased. Improved design of honeycomb tip seals ensures the decrease in tip seal leakage and better control of tip clearance. There are no changes to the SGT-A35 gas generator or power turbine casing and exhaust.

The improved design provides up to 2% increase in power turbine blading efficiency resulting in fuel savings as well as CO₂ emission reduction for customers. In addition, the design allows for increased power output.

The additional power output is obtained via throttle push of the gas generator. The impact of this is an increase in power turbine entry temperature (PTET) which affects the overall time between overhaul of the RT62X power turbine

Features and Benefits

Customers have a choice of two options, each with unique value proposition:

Option 1 – Improved lifecycle, efficiency, and emissions

- Increase in time between overhaul (TBO) from 100,000 hours to 132,000 hours
- Reduction of fuel consumption up to 2%
- Reduction in CO2 emissions of up to 2%

Option 2 – Increase power output up to

- 2% for C/G/GT units with 132,000 hours TBO
- 4% for G units with 100,000 hours TBO
- 6% for GT units with 100,000 hours TBO
- 8% for GT units with 50,000 hours TBO

Applicability

All Siemens Energy RT62 power turbines installed on all SGT-A35 C, G and GT units

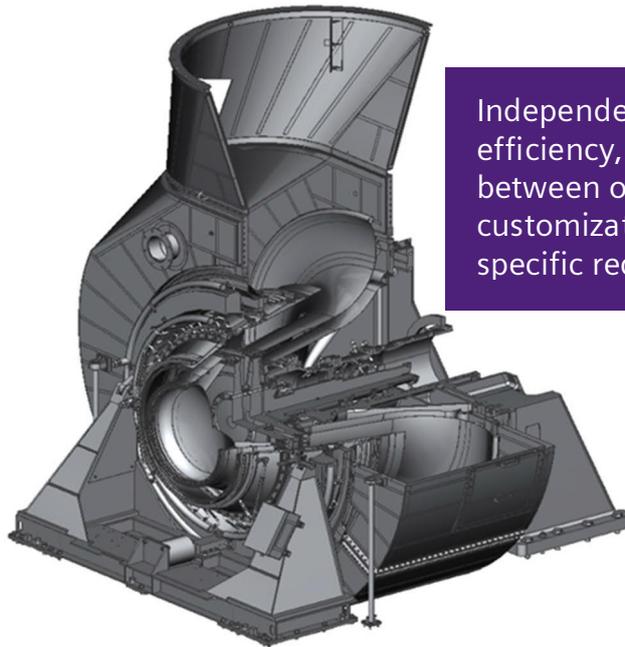
Support Services & Implementation

Implementation of the RT62X upgrade is done via a Zero Hour scope. The scope is similar to the Zero Hour scope for a legacy RT62 power turbine which is undertaken at a 100,000-hour interval.

The upgrade is executed by Siemens Energy Modernization & Upgrades (M&U) organization. It is recommended to plan for the upgrade at least 1.5-years prior to your next 100,000-hour interval

Scope of Work

The Zero Hour scope for the RT62X upgrade involves replacement of key hot gas path components, supplied in pre-assembled kits



Independent benefits of increased efficiency, power output and time between overhaul allows for customization to fit customers specific requirement

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Warwick Technology Park
CV34 6DA, United Kingdom

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