

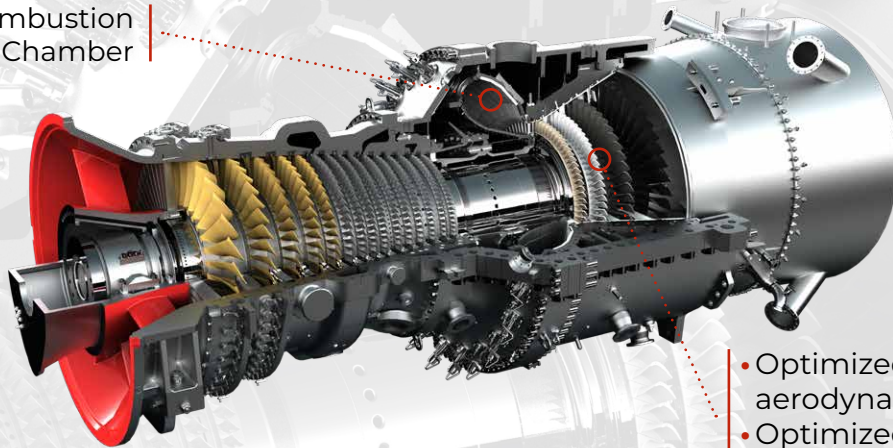
MXL2 FOR AE94.3A

In order to increase the performance of gas turbines and lengthen maintenance intervals, Ansaldo Energia has developed a number of different upgrades of the main Gas Turbine components throughout the years.

The MXL2 upgrade allows to obtain the maximum performance improvement (M-mode) and/or to extend the maintenance interval (XL-mode).

Fully retrofittable, Ansaldo Energia's solutions include an upgrades version of combustor, turbine blades and vanes, sealings and cooling systems.

Latest Design Combustion Chamber



- Optimized blade aerodynamics design
- Optimized cooling system and radial clearances

Your Gas Turbine

The new set of Hot Gas Path Parts are applicable to all versions of AE/V 94.3A and SGT5- 4000F.

This upgrade is fully retrofittable during a programmed Major Overhaul, according to technological development of newest AE94.3A, which reach 340 MW of power output and 40.3% simple cycle efficiency.

CUSTOMER BENEFIT*

- Increase of net power production up to +25MW
- Up to +0.7% simple cycle efficiency
- Up to 41 kEOH maintenance interval increase
- Reduced maintenance costs
- Reduced CO₂ emissions

TECHNICAL FEATURES

- Latest combustion chamber design
- Aero-mechanical optimized design
- Enhanced cooling system on both stator and rotor components
- Improved metallic bond coating and Thermal Barrier Coating (TBC) thickness, additional high porous TBC
- Reduction of secondary air system flow

* Reference values in new, clean and ISO conditions, specific data to be evaluated case by case.

STANDARD SCOPE

The hot gas path upgrade involves the following components:

- New combustion chamber: the new Secondary Air System UPdate "SAS-UP2"
- Replacement of turbine vane carrier with optimized cooling system
- Replacement of turbine blades and vanes (stages 1 to 4) with new design components that have an improved airfoil, cooling path, and coating
- Improved Seal Rings



MXL2 blade and vanes

GT Performance Gain*

Mode	Performance	GT Gain	1+1 CC Gain
M Mode	Power [MW]	Up to 25	Up to 45
	Efficiency [%]	Up to 0.7%	Up to 1.5%
XL Mode	Maintenance Step [kEOH]	+16	+16

* Reference values in new, clean and ISO conditions, site specific data to be evaluated case by case

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