

MXL2 FOR AE94.2

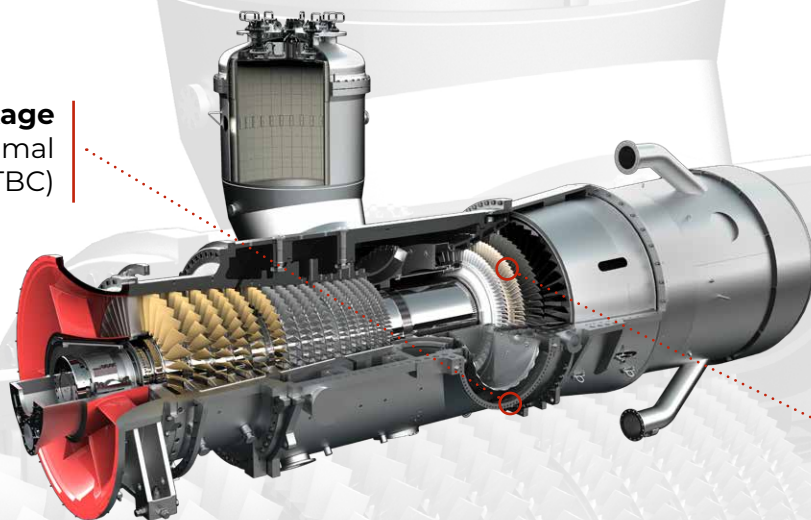
In order to increase the performance of gas turbines and lengthen maintenance intervals, Ansaldo Energia has developed a number of different upgrades of the main Gas Turbine components throughout the years.

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 turbine blades and vanes, combustion systems, sealings and cooling systems. Ansaldo Energia has released an upgraded version of its turbine blades.

Combustor Package

Extended Thermal Barrier Coating (TBC)



Turbine Package

- 3D blades
- Advanced coatings
- Advanced cooling

Your Gas Turbine

The new set of hot gas path parts are applicable to all versions of AE/V 94.2 and SGT5- 2000E.

This upgrade is fully retrofittable during a programmed Major Overhaul, without de-stacking of the turbine rotor, and according to technological development of newest AE94.2, which reach 190 MW of power output and 36.3% simple cycle efficiency.

CUSTOMER BENEFIT*

- Increase of net power production up to +13MW
- Up to 1.4% simple cycle efficiency
- Extension of the maintenance intervals up to 50 KEOH
- Suitable for upgrade in both single and combined cycle. It is possible to keep the gas turbine outflow conditions unchanged if required by external constraints
- No change required for rotor disks or secondary air system

TECHNICAL FEATURES

- Aero-Mechanical Optimized Design
- Enhanced cooling system
- Enhanced bond coating and extensive use of Thermal Barrier Coating
- Mixing chamber and inner casing with extended Thermal Barrier Coating

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

STANDARD SCOPE

- Complete new set of blades and vanes
- New set of stator sealing rings
- Controls system modifications
- Assessment of the gas turbine axial strength with possible adaptation of the journal and thrust bearing
- Combustor upgrade



MXL2 Blade and Vanes

GT Performance Gain*

Mode	Performance	GT Gain	1+1 CC Gain
M Mode	Power [MW]	Up to 13	Up to 16
	Efficiency [%]	Up to 1.4%	Up to 1.5%
XL Mode	Maintenance Step [kEOH]	+8	+8

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

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