

AE94.3A

AirFlex Compressor Upgrade

The **AirFlex Compressor Upgrade**, based on Ansaldo-proven technology, is designed to increase flexibility in operation and maintenance, with an improved power output due to higher air mass flow.

Its light scope of work, with a reduced outage time, make the AirFlex a cost-effective upgrade.

The AirFlex Compressor Upgrade can be installed with the MXL2 upgrade to reach the maximum performance gain.

Compressor B&V: 3D aerodynamic redesign of first 6 stages with new blades and vanes



Front and mid-section vanes improved design for highly flexible operation due to increased part robustness, and lifetime

Your Gas Turbine

The new AirFlex Compressor Upgrade is applicable up to AE/V 94.3A Rating 2010 and up to SGT5- 4000F Version 7. It is fully compatible with **MXL** and **MXL2**. The implementation can be performed during an extended hot gas path inspection.

Standard Scope

- Fully retrofittable, limited impact on standard outage scope: no rotor and casing parts rework or replacement
- Reduced outage time since the new parts can be replaced without the rotor unstacking
- Compressor B&V: 3D aerodynamic redesign of first 6 stages with new blades and vanes
- Front and mid-section vanes improved design for highly flexible operation due to increased part robustness and lifetime
- Blow-off system upgrade: line rerouting to match the new compressor operational parameters

Technical Features

- Latest design, highly retrofittable, and still compatible with your power plant
- Optimized performance gain for existing power plant
- Increased mass flow with a performance gain in open and combined cycles
- Designed to meet the present and future operational scenarios (high cycling, increased performances, and aging of the fleet)



Airflex and MXL2 Technical Features

- Combination of increased air mass flow and enhanced combustor and turbine B&V from the latest rating
- Up to +0.8% efficiency improvement at the base and part load
- Reduced carbon footprint
- Reduced maintenance cost
- Hydrogen co-firing ready

Customer benefit

Power increase

Efficiency recovery (aging)

MXL2 turbine upgrade combination effectiveness improvement

Performance and flexibility maximization with AutoTune

Long-lasting performance and

Designed for flexible operation, faster start-up, low minimum load

Long-lasting performance and predictive maintenance in combination with APEx

Better maintenance plan

Increased design robustness and manufacturing process improvements

Airflex Performance Gain*

MODE	Performance	Upgrade GT	Upgrade 1+1 CC
M/XL Mode	Power [MW]	Up to 11 MW	Up to 15MW

Reliability

Airflex + MXL2 Performance Gain*

MODE	Performance	Upgrade GT	Upgrade 1+1 CC
M Mode	Power [MW] Efficiency [%]	Up to 30 MW Up to 0.5%	Up to 45MW Up to 0.8%
XL Mode	Maintenance Step [EOH]	+16,000	+16,000

^{*} Reference values in ISO conditions, specific data to be evaluated case by case



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