



The Advanced Low NOx Burner is a solution developed by Ansaldo Energia to be compliant with stricter environmental rules requiring a reduction of NOx emissions below the 30mg/Nm³ limit (15ppm). The burner, completely retrofittable on existing AE/V94.2/SGT5-2000E engines, relies on proven technologies developed in the last decades also for F class gas turbines.

How You Benefit

The Advanced Low NOx Burner package is applicable to customers with the E-class AE94.2/SGT5-2000E gas turbine series, and the upgrade installation can be performed during a Major of Hot Gas Plant Inspection Overhaul.

CUSTOMER BENEFITS

- Compliance with the most stringent environmental emission requirements
- Grid Frequency Regulation compliance of base load gradient (with advanced hydraulic IGV)

TECHNICAL FEATURES

- NOx emissions below 30 mg/Nm³
- Fast load ramp
- Improved stability in low load operation

Technical Specifications

The Advanced Low NOx Burner retrofit package consists of:

- A complete set of Advanced Low NOx burners, including premix gas distribution system (so called spider); replacement of axial swirler is not required
- Enhanced Diagnostic System, including:
 - Flame monitoring system (new generation flame detector system)
 - Enhanced humming monitoring system (New pressure transducer technology)
 - Combustion chamber real time view
- Software upgrade
- Commissioning, tuning and optimization activities on field
- Hydraulic IGV actuator (optional)

Burner Features

- The new Advanced Low NOx Burner system, including a new diagonal premixed burner design, is able to reduce NOx emissions below the 15ppm limit
- The outline dimensions are perfectly consistent with the current technology so that the Advanced Low NOx system easily fits into ANY existing configurations
- The Advanced Low NOx combustion system coupled with the enhanced hydraulic IGV actuator, allows an improvement in meeting the requirements of the grid frequency regulation rules

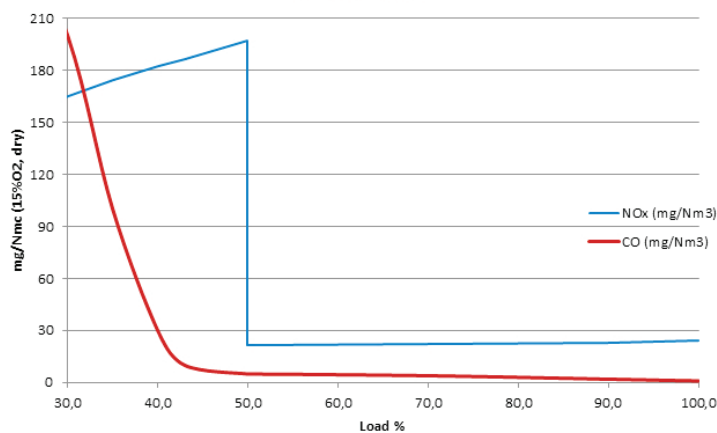


Performance

The new system allows NOx and CO pollutant emissions below 30 mg/Nm³ between 50 and 100% of base load while operating in premixed mode, compared to 50 mg/Nm³ provided by the standard HR3 burner.

	HR3 (current)	Advanced low NOx
NOx emissions (mg/Nm ³) @ 15% O ₂ , dry gasses	50	30

Expected NOx & CO Emissions with Advanced Low NOx Burner



NOx and CO diagram VS Load



Advanced Low Nox Burner.

For more information and to reach our sales Team, please go to www.ansaldoenergia.com

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