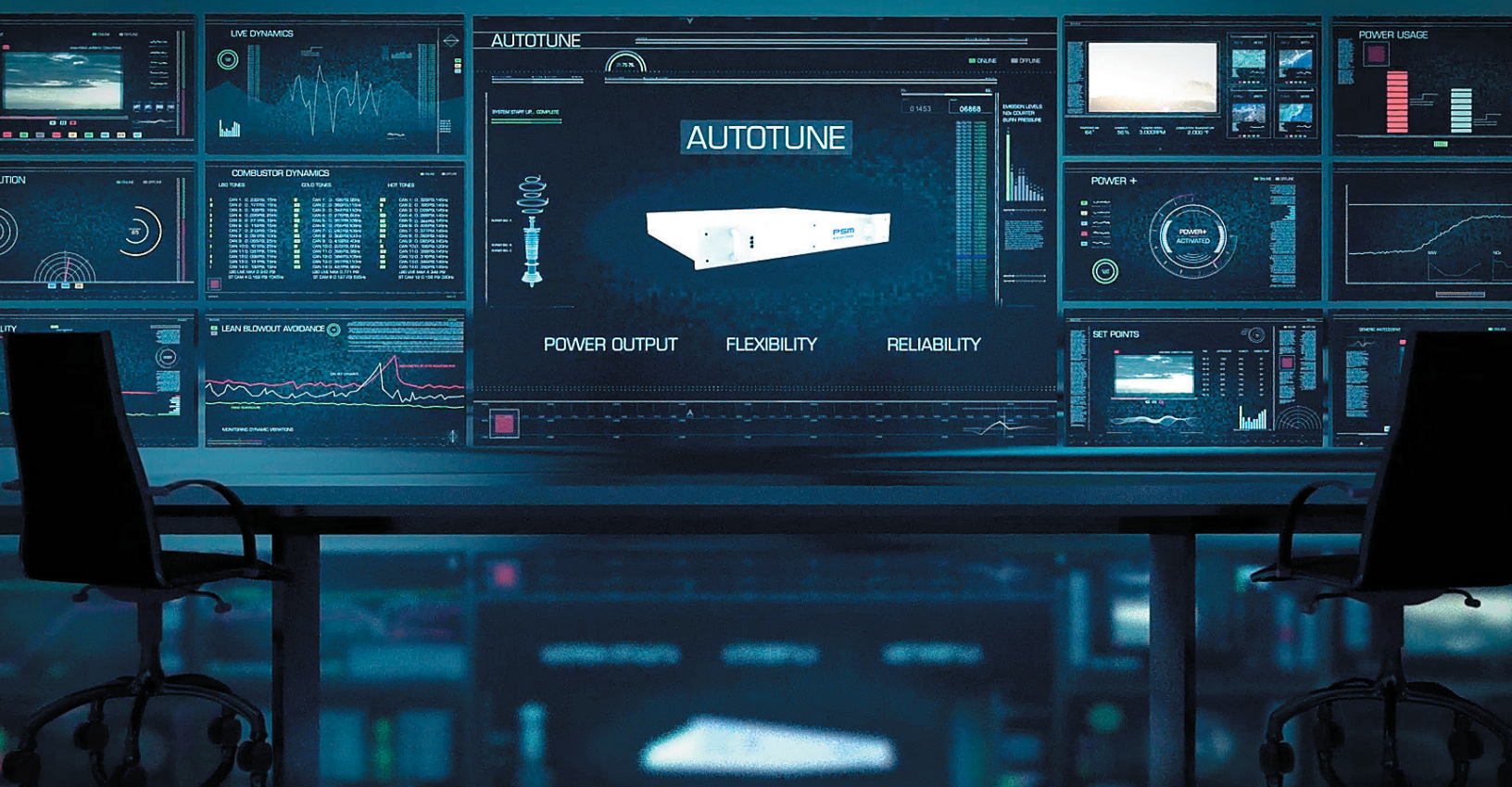




PSM Combustion AutoTune System for F-Class Gas Turbines

www.psm.com



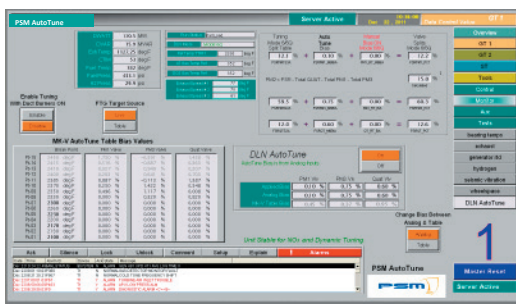
PSM's AutoTune system automatically tunes engine operating parameters to maintain emissions and combustion dynamics within specified limits under varying ambient conditions, engine deterioration, and while using a range of natural gas or liquefied natural gas. AutoTune also has optional software features to optimize unit operation from a power and heat rate standpoint.

The result is improved emissions control, improved hardware life, and improved operability.

Why is Regular Combustion System Tuning Required?

Maintaining low NOx and CO emissions via tuning is crucial from a regulatory compliance standpoint. Over time, emissions and dynamics change due to:

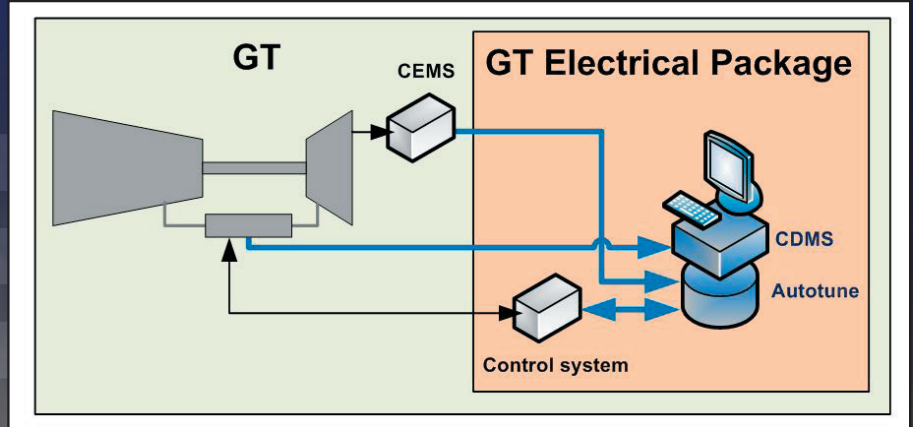
- + Weather
- + Fuel properties
- + Hardware condition



BENEFITS

The AutoTune System enhances GT operability to meet today's energy market demands.

- + Eliminates need for seasonal manual tuning
- + Reduces risk of Lean Blowout (LBO) unit trip events
- + Improves emissions control year round
- + Extends hardware life with minimized combustion dynamics
- + Improves operability during changes in gas properties (e.g. Wobbe Index variation)



SUMMARY OF FEATURES

How does AutoTune work?

Using live dynamics and emissions signals the AutoTune System will process & communicate the appropriate fuel split bias to the GT Control system to maintain dynamics and emission levels within allowable limits. Overtime AutoTune remembers the best fuel splits for different combinations of inlet conditions and loads, reducing the number of tuning events necessary.

Features

Once configured, AutoTune is autonomous.

- + Highly customizable to meet specific needs of each site
- + Contains a fully functional Combustion Dynamics Monitoring System (CDMS)
- + Built using industrial grade electronics
- + Compact, integrated, rack-mounted system with simple installation/setup

Operator Interface

- + Easy-to-use operator interface
- + Seamlessly integrated with HMI screens
- + Operator training provided

Super User Interface

- + High degree of customization possible
- + "Super User" training provided

OPTIONAL SOFTWARE COMPONENTS

Optimization for Hot Tones vs. Heat Rate

AutoTune Fuel Gas Temperature optimization for heat rate and hot tones is accomplished by constantly maintaining the gas temperature at a level to allow optimal heat rate, but may be lowered to decrease hot tones to acceptable levels to preserve hardware life.

Power+

Operator Selectable Option to have AutoTune maximize power output while maintaining emissions and dynamics within limits. Enabling Power+ takes advantage of existing NOx and Dynamics margin, especially during the summer months, resulting in maximum power.

Optimization for LNG

AutoTune will monitor the variation in gas composition, modulate gas temperature and compensate as required.

Proven Results

Years of proven commercial experience on MkV and MkVI 7FA gas turbines, over a wide range of ambient conditions.

Currently available for Mark V, Ve, VI, Vle, Ovation, and TXP control systems.

Contact your PSM Sales Representative for more information.
Call: **561.354.1100** or email: **sales@psm.ansaldoenergia.com**

+ Americas

Company Headquarters and Sales for Gas Turbines
1440 West Indiantown Road
Jupiter, Florida 33458 USA
Phone: +1 561 354 1100

+ Europe/Africa

Sales for Gas Turbines
Phone : +41 585 058 593

+ Middle East

Sales for Gas Turbines
Phone : +31 26 497 5941

www.psm.com