



ZoloSCAN

Electric Arc Furnace Combustion Optimization

ZoloSCAN is the first laser-based, off-gas analysis system for the Electric Arc Furnace (EAF) steelmaker to simultaneously measure temperature, CO, CO₂ and H₂O in real-time. Today's EAF typically uses more than 50% chemical energy. Controlling oxy-fuel burners, along with carbon and oxygen injection is the key to success. ZoloSCAN enables near real-time, critical process feedback so injectors and other equipment can be controlled to optimize the energy and minimize costly refractory wear.

In addition, ZoloSCAN delivers precise, fast feedback of actual water content of the process off gas. Measuring true water levels with an in situ laser is the most reliable and accurate way to know if water is in the system and detect water leaks early.

Incredibly Fast Laser-Based Diagnostics And Control

You can use ZoloSCAN as both a diagnostics tool and integral process control device. The process measurements from ZoloSCAN can be integrated into any optimization or post combustion prediction model. ZoloSCAN updates measurements *every 2-3 seconds*. Comparative extractive off-gas technology updates measurements every 15-20 seconds. ZoloSCAN's large speed advantage enables process response typically more than 15 seconds faster, which results in more accurate control of all chemical energy inputs.

Benefits

- + Improved post combustion efficiency
 - Energy Savings
 - Safer Operations
- + Dynamic control of oxygen injection
 - Monitor CO/CO₂ in real time, in situ
 - Near real-time (2 second update rate)
- + Water leak detection
 - Direct measurement of H₂O in off gas
 - Rapid alert of upset conditions



ZoloSCAN delivers quantitative, actionable information rapidly that can be used for off-gas monitoring, to increase post combustion, detect water leaks, and improve EAF performance.

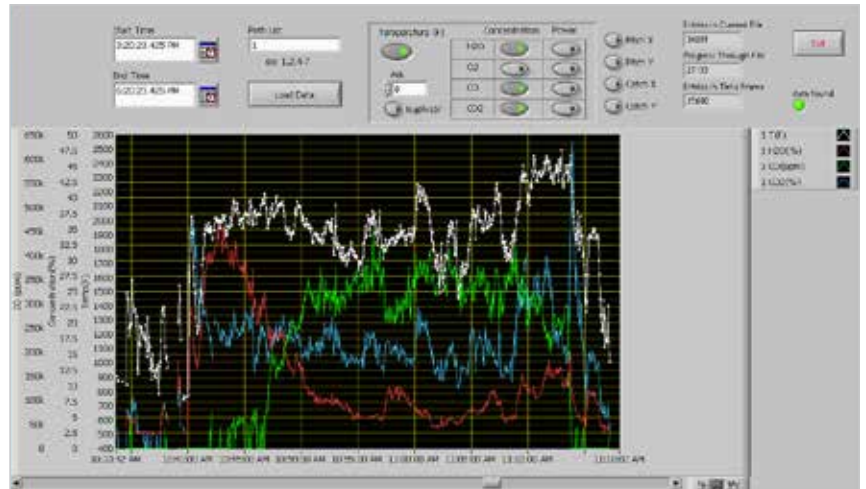


Proven Technology

ZoloSCAN utilizes a proven technique known as Tunable Diode Laser Absorption Spectroscopy (TDLAS). Zolo's TDLAS uses multiple lasers—each tuned to the unique absorption wavelength for a specific constituent. ZoloSCAN is designed for ultra-harsh combustion environments such as steel plants. In addition, it has been successfully installed on numerous petrochemical applications and over 50 coal-fired boilers around the world. Reliable, robust and low maintenance, ZoloSCAN is built for 24/7 operation in an EAF furnace.

Proven Value

ZoloSCAN provides the critical data for accurate control of chemical energy inputs and accurate water measurement for improved performance and safety. The Zolo team provides support all along the way, including installation, commissioning and startup services. We can even remotely monitor the system as long as you require.



TYPICAL EAF HEAT DATA

Find out what
ZoloSCAN
can do for you.

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