ZoloSCAN is the first laser-based, off-gas analysis system for the Basic Oxygen Furnace (BOF) steelmaker to simultaneously measure temperature, O₂, CO, CO₂ and H₂O in real-time.

Determining end-of-oxygen blow is one of the most important variables in the process. Current technology utilizes in-bath periodic sampling, conventional (and slow) off-gas analysis and, in some cases, flame intensity measurements. None of these methods operate in real time and all deliver only marginal success. ZoloSCAN provides the critical gas and temperature measurements to make end-of-blow decisions in near real time. Increasing the accuracy of Carbon Endpoint prediction with ZoloSCAN by even 10% can save a steel plant more than $1 million per year.

Incredibly Fast Laser-Based Diagnostics And Control
ZoloSCAN can be used as both a diagnostics tool and process control device. The process measurements from ZoloSCAN can be integrated into any endpoint prediction model. ZoloSCAN measures within 2-3 seconds of real time, whereas comparative extractive off-gas technology can only measure within no less than 20 seconds of real time. ZoloSCAN’s fast measurement enables process control, which results in more accurate stoppage of oxygen blowing.

Benefits
- Real-time data capture
- Validated against mass spectroscopy
- Durable
  - Very low maintenance
  - Over 99% uptime
- Low lifetime cost
- Located very near BOF with rugged mechanical interface

ZoloSCAN’s in situ, real-time measurements result in minimizing over- and under-blowing, along with lower consumption of alloys and refractory.
Proven Technology
ZoloSCAN-BOF utilizes a proven technique known as Tunable Diode Laser Absorption Spectroscopy (TDLAS). This technique uses multiple lasers—each tuned to the unique absorption wavelengths 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 a BOF furnace.

Proven Value
ZoloSCAN offers improved endpoint prediction, positive valuation of ignition, and for suppressed combustion systems, accurate start and end-of-CO collection. 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.

Find out what ZoloSCAN can do for you.

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