

**MTAG**

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# Process Gas Analyzer

Real-time comprehensive measurements for process optimization

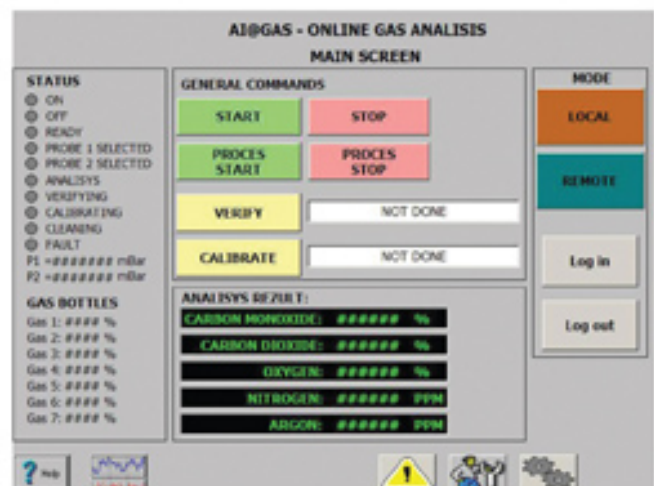
**Process Gas Analyzer** is an analytical process control tool developed, using the most modern techniques, to enable a more precise determination of off-gas composition. Specially designed to respond to the explicit conditions of vacuum processes in secondary metallurgy, PGA closely monitors the concentration of various gasses providing accurate, comprehensive measurements for process optimization.

To attain even the most complicated steel grades, the elimination and concentration of CO<sub>2</sub> and O<sub>2</sub> from the liquid steel during the forced and natural de-carburation processes are of special significance for the stage and efficiency of the process. With the use of PGA, accurate predictions of oxygen blowing end point can be achieved coupled by real-time calculations of melt carbon content and the decarburization rate ( through a level 2 process software).

Using a Quadrupole Mass Spectrometry technique for gas concentration determination, PGA has a robust and simplistic design, specially fitted for the rugged environment of today's modern steel melting shops.

## PGA at a glance:

- Provides fast ( real-time ) and accurate off-gas chemical composition
- Built simply, robustly, and cost- effectively
- Design to operate in harsh industrial environments
- Does not require a special installation room/cabinet.
- Uses Industrial grade calibration gases ( Ar, O<sub>2</sub>, N)
- Stable, reliable analysis
- On-demand calibration (For minimizing calibration gas consumption)
- Stand-alone device- ability to operate and display gas analysis without interface to other systems



## Details:

- Measurement Method : Quadruple mass spectrometer
- Mass Range : 1- 100 amu
- Precision: Better than 0.1% over 24 hours
- Resolution: >0.5 amu at 10% of peak height
- Analysis time : < 2 seconds
- Ambient Temperature: 14 – 104F
- Human interface: Touch Screen Display
- Communication Protocols: OPC client server over Ethernet
- Dimensions: ~ 2.6 x 2 x 7.2 " (441LB)
- Power: 230VAC/1800W (may vary according to customer configuration)

