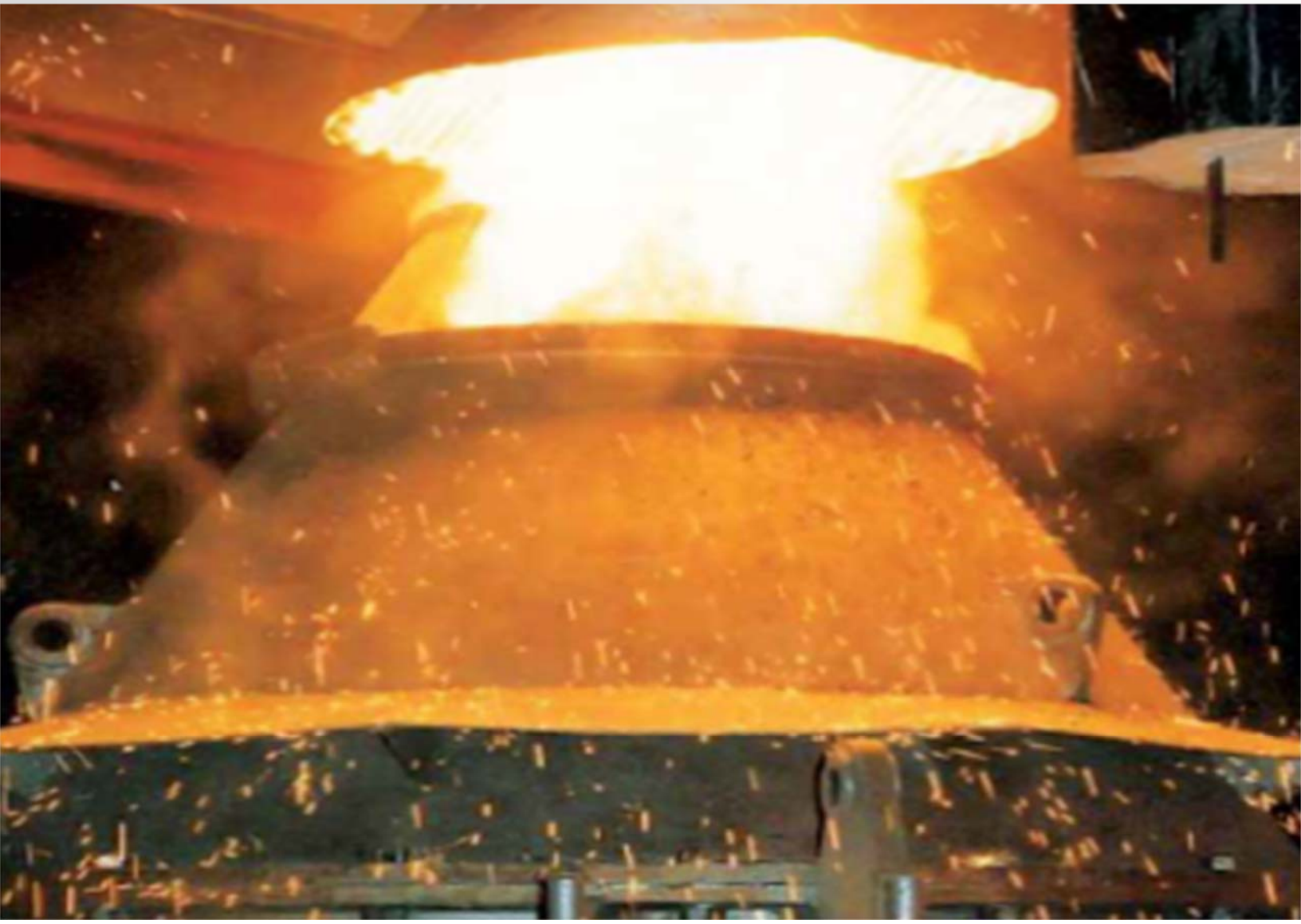
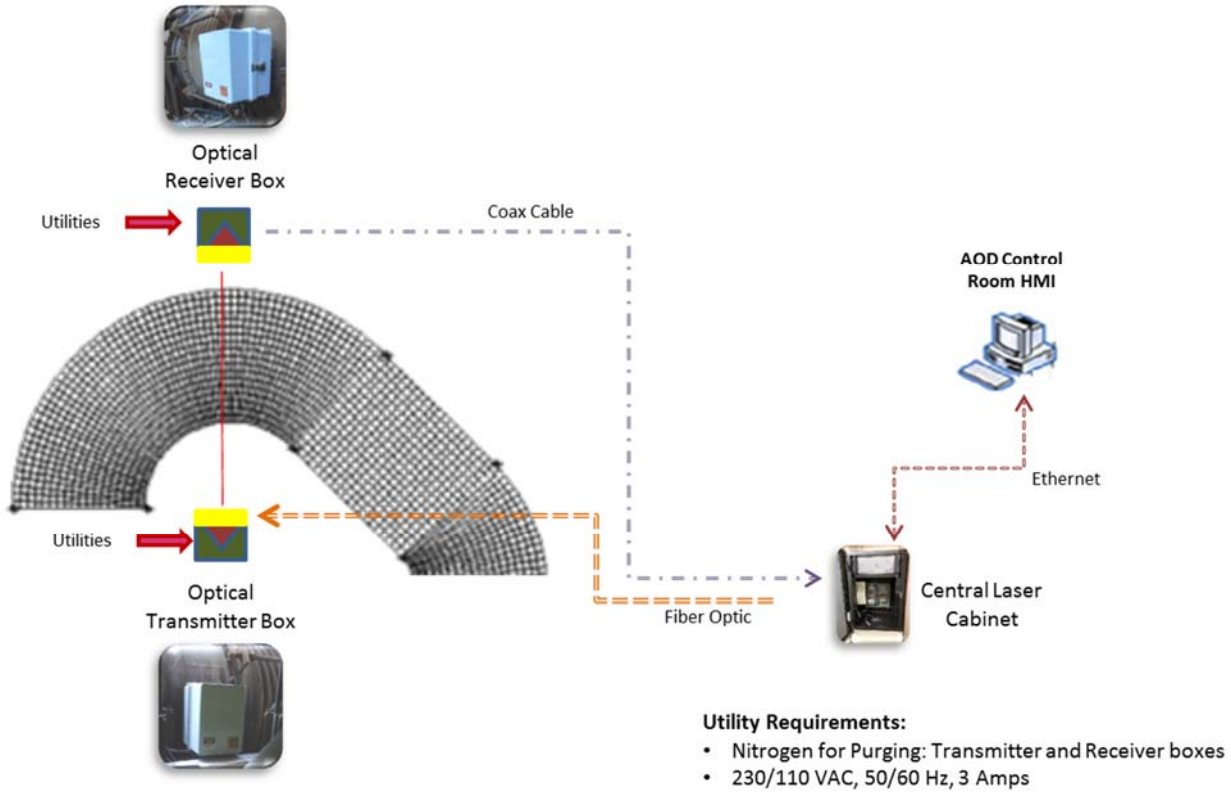
tenova



NextGen® for AOD

Reliable off-gas measurement for greater return on investment

The proprietary in-situ laser NextGen® System is a proven reliable off-gas measuring system for a variety of steel furnace applications including AOD.



NextGen® Configuration for AOD

- One optical receiver box
- One optical transmitter box
- Fibre optic and coax cable connections
- One central laser cabinet
- One HMI in AOD control room

CO/CO_2 measurements are taken and then made available to the operators via the control room HMI screens for off-gas visualization, historical data and process analysis.

Chemistry Quality for AOD, Secondary Metallurgy

Insitu real-time measurement of CO and CO_2 provides valuable information:

- To maximize the Carbon Removal Efficiency (CRE) during oxidation phase by controlling O_2 to N_2 ratio
- To define when to switch from forced decarburization phase to natural decarburization (N_2 bubbling)
- To define the optimum moment to enter the reducing phase (addition of reductant)
- To help define the final C content reached and break the vacuum

In-situ laser analysis provides the most comprehensive off-gas chemistry measurement throughout the heats that can be used to optimize the overall process.

Using additional real-time information analyzed together with the off-gas chemistry, NextGen® provides a more thorough understanding of the information gained from the CO and CO_2 measurements for the control and optimization of a particular heat.

Benefits

- Reliable start to finish heat measurement
- Reduction of Chromium oxidation, equaling savings in reducing agents (FeSi)
- Improved process heat time
- Savings for shorter vacuum time
- Reductions in process gases (O_2, N_2)
- No routine maintenance
- No loss of data (data availability >95% of time during heats)
- High accuracy and repeatability

For more information, contact us at:

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