



ABACO Combustion Optimization System

Global combustion process optimization (balancing; efficiency; carbon-in-ash; NO_x, CO₂, CO, SO_x emissions, particles, etc.; new fuel blends consumption; fouling; slagging; corrosion) in industrial boilers and furnaces. ABACO relies on the **integration of advanced technologies** (monitoring, novel regulation and Expert System combustion control) to achieve closed-loop control of local combustion conditions.

Results:

- Boiler unit efficiency improvement (0.5% - 1.5%)
- Simultaneous NO_x reductions in the range of 15% - 40%
- Operational problems control (unburnt carbon-in-ash, CO)
- Possibility to efficiently burn lower quality or lower priced fuels
- Minimization of maintenance needs and in-furnace problems appearance: corrosion, deposits
- Significant cost-effective ratio improvements
- Fully reversible with minimum boiler modifications
- Efficiency improvement of complementary solutions concerning design modifications (burners, OFA, windbox re-design, etc.)
- Applicable for any boiler and furnace configuration or fuel nature (coal, oil, gas, biofuels)
- Improvement of reliability and safety