

# Compliance with emission standards

Reliable measurements, optimized performance

## ■ More stringent standards

In recent years regulatory bodies have imposed increasingly stringent standards on industry regarding emissions of pollutants into the atmosphere. Not only are the standards more rigid, companies are also faced with an increasing number of obligatory control measurements. These more stringent regulations are being applied to a range of industrial components, such as boilers, gas turbines, and incinerators. Moreover, many companies now have to obtain certifications from authorized laboratories before they will be allowed to operate.

## ■ Global optimization

Combustion is a complex sequence of processes, often resulting in pollutants . Significantly reducing harmful emissions can sometimes require the optimizing of all sub-processes simultaneously. The reduction of NOx emissions, for example, requires efficient flue gas purification. At the same time combustion parameters have to be fine tuned. This also facilitates the flue gas purification and puts down costs. This and other examples prove that an all-inclusive approach for more efficient emission reduction is the only viable solution. Separate corrective measures do not suffice. All relevant parameters and the optimization of the entire process must be taken into account.

## ■ More than just measurement

Laborelec gives you access to an extensive knowledge base about air pollutants originating from common industrial processes. Since Laborelec works in the both combustion and flue gas purification, they have the integrated expertise to provide a comprehensive insight into your installations and processes. Laborelec competencies have been recently confirmed with BELTEST-accreditation. This international acknowledgement authorizes Laborelec to deliver the requisite regulatory certificates for environmental measurements.



The technical Competence Center  
in energy processes and energy use.  
**From innovation to operational assistance.**



Together, we will figure out a cost effective way for you to control your industrial emissions so they meet required standards.

## Accredited laboratory

Laborelec has a specialized and accredited laboratory for a number of environmental measurements. With over thirty years of experience, they have mastered numerous analysis techniques. Laborelec is the laboratory of choice for industrial companies needing emission analyses of their boilers, gas turbines, or motors.

### ■ Broad range of chemical compounds

One of the strengths of Laborelec environmental measurements is the broad spectrum of chemical compounds they cover. They include among others:

- Nitrogen oxides (NO<sub>x</sub>)
- Sulphur dioxide (SO<sub>2</sub>)
- Unburned hydrocarbons (C<sub>x</sub>H<sub>y</sub>)
- Carbon monoxide (CO)
- Hydrochloric acid (HCl) and hydrofluoric acid (HF)
- Dust

We can also verify the combustion process efficiency by determining the oxygen (O<sub>2</sub>) concentration.

### ■ Advanced analyzing techniques

Laborelec has years of experience with the most sophisticated analyzing techniques. It allows them to measure even the most minute amounts of components such as those mentioned above. These techniques include:

Dosed element	Technique
O <sub>2</sub>	Paramagnetism
NO <sub>x</sub>	Chemiluminescence
CO	Non Dispersive Infrared Spectroscopy (NDIR)
SO <sub>2</sub>	Ultraviolet fluorescence (UV)
C <sub>x</sub> H <sub>y</sub>	Flame Ionization Detection (FID)



### Five reasons for you to choose Laborelec:

- you have one-stop shopping for your energy needs;
- you get access to more than 40 years of experience;
- you get rapid service with reliable solutions;
- you increase the profitability of your installations;
- you benefit from independent and confidential advice.

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