

# Total AFR™ Management

## Total control of all essential combustion parameters

An air-fuel-ratio control strategy plays a fundamental role in the safe and profitable operation of firing systems in heaters, boilers and furnaces. Especially in modern low-NOx burners the air-fuel-ratio has serious impact on the combustion quality. Inefficient conditions caused by an inadequate air-fuel-ratio result in high loss on ignition, emission problems, reduced boiler efficiency and material stress.

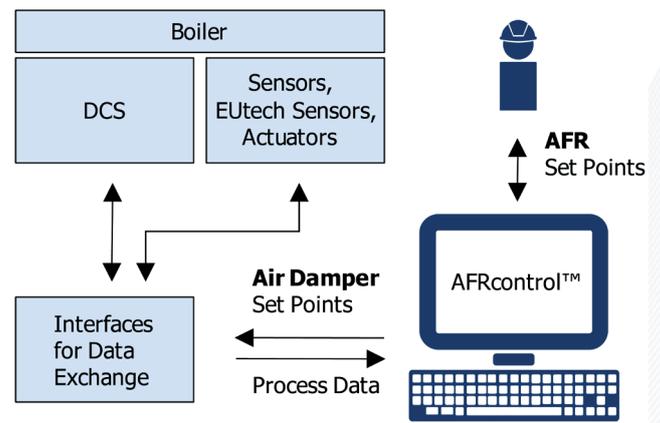
Total AFR™ Management is a real-time air-fuel control system that considers all relevant parameters to exploit the full potential of power plants. It enables the direct adjustment of the air-fuel ratio, which is the key-driver of combustion. Using physical and model-based measurement data of e.g. coal flow, air flow, coal fineness etc. based on DCS data and EUtech sensors, the secondary air dampers are adjusted to the desired air-fuel-level. Securing correct air-fuel-ratio values, the combustion process can be optimized reaching higher efficiency, lower emissions and reduced slagging.

### Air-fuel-ratio Control

- Continuous and optimal air-fuel-ratio control
- Simple integration into existing DCS
- Real-time and online parameter changes
- Air and coal flow measurement using EUtech sensors
- Integration of EUcontrol, overall combustion optimizer (optional)

### Benefits

- Direct profit through proper air-fuel-ratio settings
- Relief of control room personnel
- Clean and reliable combustion process
- Positive effects on availability and maintenance
- Applicable to all boiler designs

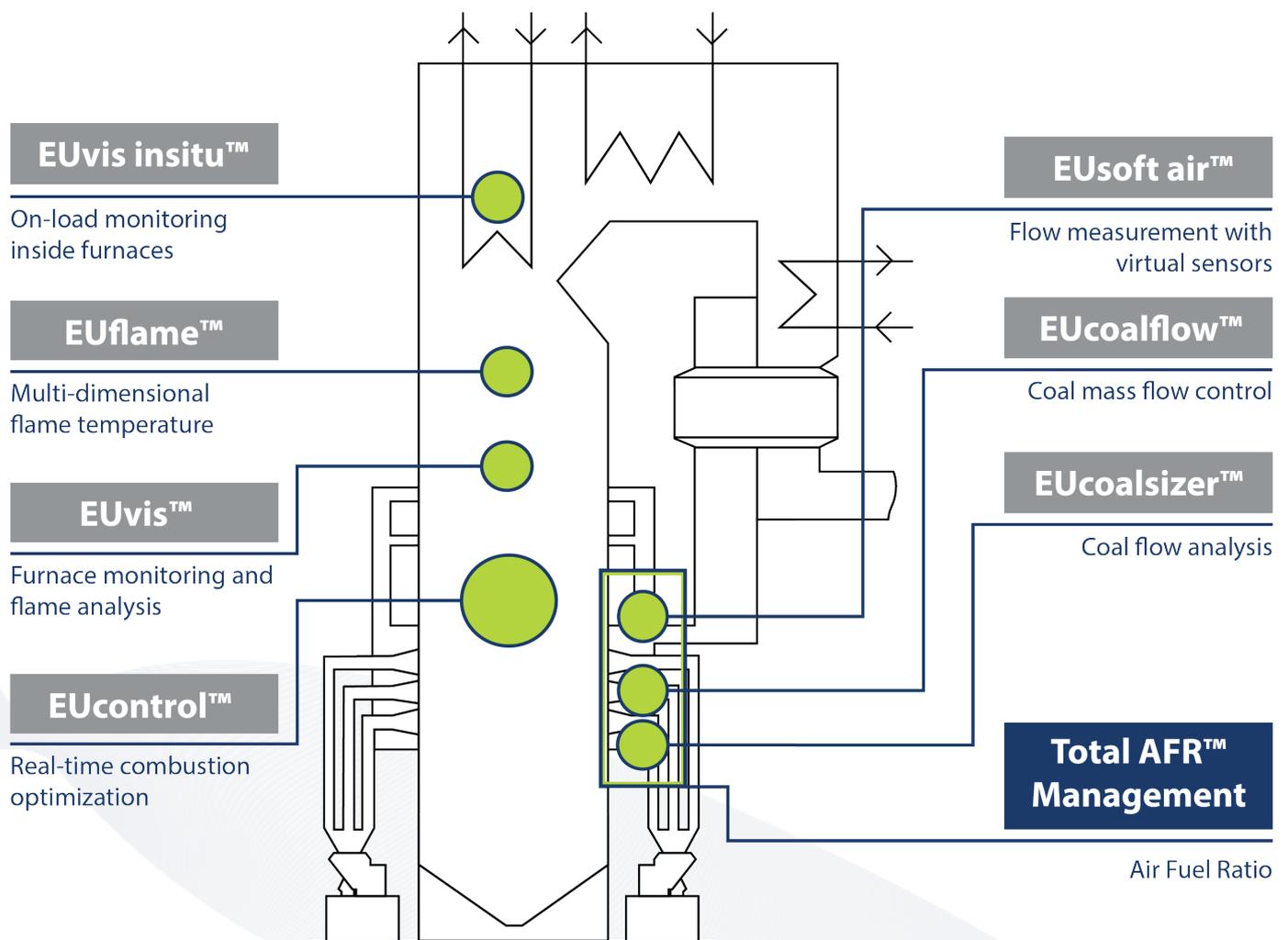


Total AFR Management system set-up



# EUtech Scientific Engineering GmbH

EUtech Scientific Engineering was founded in 1999. The company has established itself nationally and internationally as a successful engineering company in the areas of test stand engineering, simulation, automation and measuring technology. In addition to engineering services in all development phases, we offer turnkey test stands, software-based development tools and measurement systems for the power generation industry. With our innovative model based approach we optimize operations and increase the efficiency of power plants by stepping through the three phases: Measurement - Control - Optimization.



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