

# EUcoalsizer™

## Laser-based online analysis of coal particles

The coal particle size spectrum has a strong impact on the combustion process. It influences ignition delay, combustion efficiency and Lol (loss on ignition), the emission levels as well as slagging and fouling. Despite the significance of this property, there has not yet been a robust and easy to handle system for the online measurement of coal fineness inside the pipe.

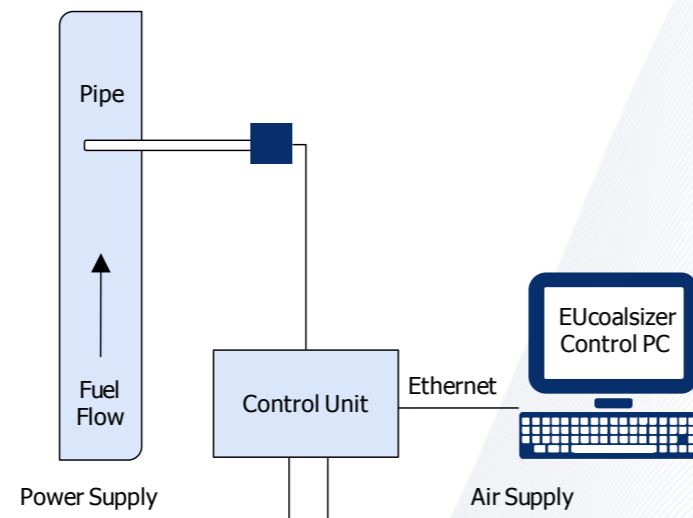
EUcoalsizer solves this problem. The system measures the particle size distribution and the coal and air flow inside a measurement volume that is placed at the tip of an insertable lance. The results are available in real-time and open up possibilities for optimization.

### Fuel Flow Analysis

- Direct reading of particle size distribution, velocity and temperature
- Continuous measurement capability
- Real performance monitoring
- Coal flow and air/fuel distribution tuning
- Spatially resolved readings (2D-distribution)
- Fast tuning of modern burners and feeders e.g. low NOx burners, dynamic feeders
- Applicable to various solid fuels e.g. hard coal, biomass, lignite

### Benefits

- Real-time mill adjustment and fuel line balancing
- Condition-based pulverizer maintenance
- Improvement of fuel consumption efficiency
- Reduction of emissions and Lol
- Combustion quality enhancement
- Advantages over isokinetic sampling method, e.g. results available online in real-time

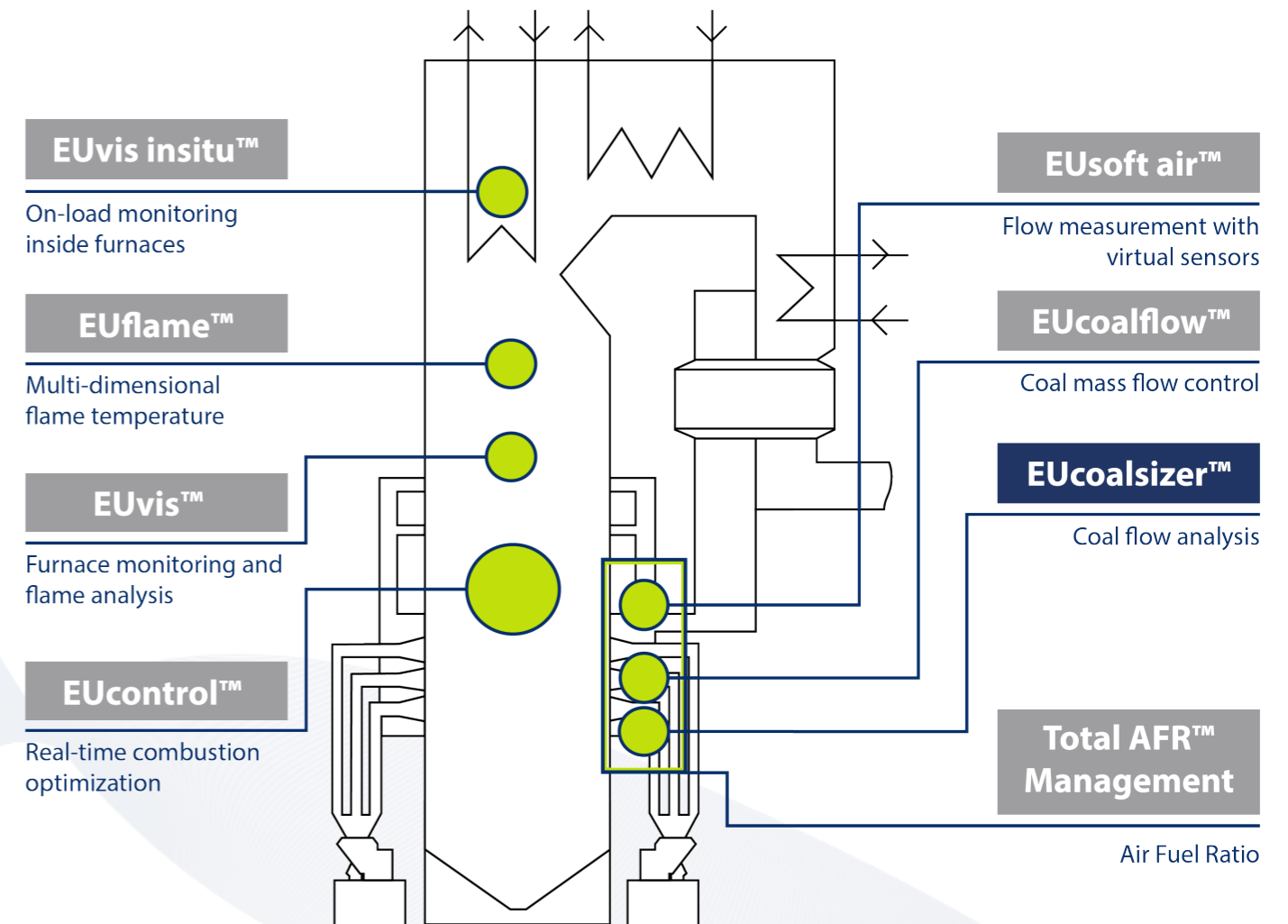


EUcoalsizer system set-up



# 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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