

D-VTA 200

Transportable System D-VTA 200-Mobile



A comprehensive on-line process analysis is the fundamental requirement used in several types of process plants to assist a full range of functional methods like commissioning, functional testing and plant optimization, defect analysis and predictive maintenance.

This particularly applies to high temperature processes based on fossil fuel-fired combustion systems.

Typical applications for this are Power Plants fired with any kind of fossil fuel, Waste Incinerator Plants, Biomass Incinerator Plants, Cement Clinker Production Plants, Furnaces/Ovens in Petrochemical and Steel Industries as well as in Metal and Glass Processing Plants.

For these high temperature processes the contact-free online information directly out of the combustion chamber with combustion process and temperature analysis is the determining technology for all procedural details like:

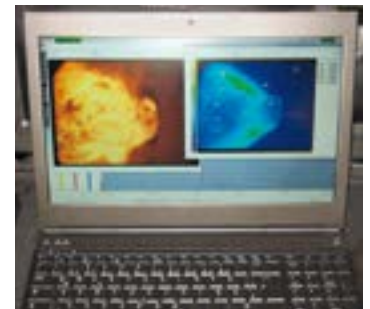
- Combustion stability and ignition control
- Combustion management and spatial temperature distribution
- Local fuel-/air ratio and efficiency
- Burnout characteristic with CO_x and loss of Ignition control
- Slagging properties and cleaning cycles
- Temperature based material stress
- Product quality in Cement, Glass, and Metal Industries



The answer to this measurement and analyzing task is the D-VTA 200-Mobile system. The D-VTA 200-Mobile system is the adaptable, not fixed stationary installed Combustion analysis system based on optical analysis of the combustion process.

The system offers an on-line inspection of the combustion system and the combustion chamber on the basis of online spatial multi point temperature measurement with Thermography and real time color video analysis directly from the furnace out of the combustion chamber with big optical opening angle and high pixel resolution. It enables the user to easily compare different combustion situations, the combustion from one furnace with another or the performance of an individual burner.

The D-VTA 200-Mobile system consists of the Thermography Software on a dedicated note-book in connection with the required Durag Sensor-Mobile, which can be either air or water cooled and is available with different viewing angles. The temperature of the sensor tip is continuously monitored and displayed in the thermography software. A tripod for the sensor and a dust/water proof case for the notebook are available (optional).



Technical Data:

Video System	Digital over GigE, standard resolution 1280 x 960 pixels
Thermography for each pixel, range	1.000 – 2.000 °C / 1,800 – 3,600 °F
Optical alignment	Sensor 0°: axially-parallel to sensor axis Sensor 45°: angled 45° to sensor axis Sensor 60°: angled 60° to sensor axis
Optical field of view	Sensor 0°: horizontal 72°, vertical 54°, diagonal 90° Sensor 45°: horizontal 48°, vertical 36°, diagonal 60° Sensor 60°: horizontal 48°, vertical 36°, diagonal 60°
Minimal wall opening for sensor	45 mm diameter
Weight of sensor	App. 12 kg
Auxiliary Power, Notebook	100 ... 240 V, 50 ... 60 Hz.
Temperature in combustion chamber	Up to 2.000 °C / 3,600 °F, depending on cooling media
Ambient temperature	Sensor housing and cable: -30 ... +80 °C / -22 ... +176 °F Dedicated notebook: +1° ... 40 °C / +34 ... 104 °F
Dedicated Notebook	15", dedicated graphic card 1920 x 1080, min. i7, SSD
Monitoring of sensor tip temperature	Continuously displayed with alarm and history
Instrument air supply, typical	15 – 50 Nm ³ /h
Optional cooling water supply	350 l/h

09/16-Specifications and descriptions: subject to change without notice

Systems for permanent installations: see brochure D-VTA 200.

Systems for permanent hazardous area installations: see brochure D-VTA 200 Ex.