Specialist for Control, Monitoring and Optimisation of Combustion Systems

LAMTEC

Sensors and systems for combustion engineering

www.lamtec.de

We work with our customers to create innovative solutions for combustion applications

We can supply you with everything you need for future-oriented combustion technology.

LAMTEC manufactures sensors and systems for combustion technology.

Our knowledge is based on over 20 years of sector-specific experience and sound market knowledge.

We stand for innovation, technology and the highest levels of product quality. Global coverage enables rapid delivery times, seamless processes and first class service for our customers.

We work with our customers on a daily basis to provide solutions to complex applications and logistical challenges.

Customer satisfaction and the highest product quality are our main objectives!

Our Portfolio

- Burner control units
- Electronic fuel/air ratio control systems
- Flame monitoring systems
- O_2 measuring and control units
- Adaptive CO control
- Sensors for detecting unburnt gaseous components (CO/H_2)
- Volumetric flow measurement devices
- Pilot burners

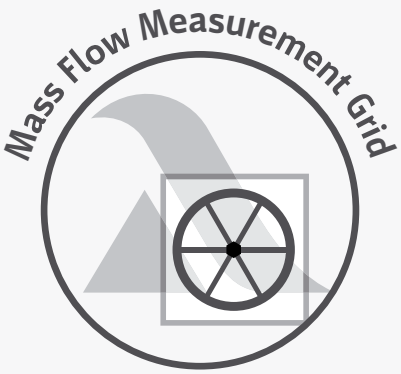
Our Products

We are market leaders in the manufacturing of analytical measuring equipment in the field of combustion engineering. We offer efficient technology with maximum functionality.

- Failsafe functioning and flexible availability
- Universally applicable
- Conforms to all relevant sector-specific standards and approvals
- Increase efficiency and energy savings
- Reduce fuel consumption, energy costs and environmentally harmful CO_2 emissions
- Compensate for combustion variables such as air temperature, barometric pressure, humidity and fuel quality.
- Increase safety

Why you should choose us

- We have the flexibility of an SME combined with global coverage
- Our name is synonymous with tried and tested products; virtually all international burner manufacturers use LAMTEC devices
- We offer on-site service and a hotline for you to speak directly to our service engineers to discuss any hardware, configuration or application queries
- Together, we solve your problems
- Continuous innovation and progressive technology, as we re-invest a significant proportion of our profits in R & D



LAMTEC Combustion Management

LAMTEC Combustion Management makes combustion simpler than ever before.

Optimised configuration and control are key requirements if burners are to be as environmentally-friendly and energy-efficient as possible, saving fuel and cutting costs.

LAMTEC develops devices that ensure precise combustion management!

What this means for you:

- Lowest possible energy use
- Maximum efficiency with minimal pollution

LAMTEC burner control units undergo continuous development to optimise and monitor oil, gas and solid fuel burners.

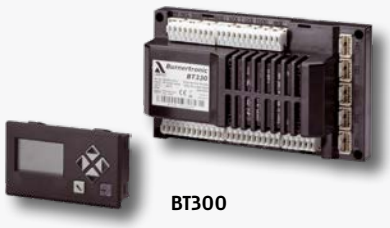
They compensate for combustion variables with high availability and failsafe functionality

Systems from basic to high end:

- Burner control and/or ratio control with up to 10 channels
- For control panel installation or mounting on the burner
- CO/O_2 control
- O_2 trim
- Valve leakage test
- Flame monitoring system
- PID load controller for burner firing rate
- Mixed firing of multiple fuels in fixed or variable ratio
- Graphic HMI
- Interfacing to third-party DCS, BMS and SCADA systems using standard Fieldbus protocols
- International approvals
- Advanced Flame Rating

Overview of our systems:

CMS



BT300

CMS in operation

Highlights

- Environmental protection thanks to reduced emissions
- Type approved
- SIL3
- Customised solutions
- Flame analysis
- Improved efficiency combined with minimised costs
- Energy savings on electricity and fuel
- Easy operation
- Short commissioning times

ETAMATIC

ETAMATIC OEM

FMS

LAMTEC Sensors and Measuring Systems

Accurate and reliable exhaust gas measurement for all fuels and applications

LAMTEC sensors and measuring systems ensure the correct measurement for optimum combustion. Our measuring systems can be used for measuring exhaust gas from virtually all fuels:

- Natural gas, heating oil (extra-light), heating oil (heavy), biomass
- Particle-laden fuel exhaust gases
- Coke oven gases, furnace gases
- Special fuels

- Permanent measured value recording of oxygen (O_2) and oxidisable flue gas components (CO/H_2)
- In-situ measurement of wet flue gas - extraction sampling not required
- No gas preparation
- Short or no recovery time with CO/H_2
- Automatic/semi-automatic calibration
- Protection class up to IP65
- Various designs for hazardous areas

Systems from basic to high end:

- Range of measuring for O_2: 0 – 21 %
- Measurement directly in wet flue gas up to 1400 °C in-situ
- Rapid reaction and setting times
- Rapid response time

The following also applies to our CO_e measurements:

- Range of measuring for CO_e: 0 to 10,000 ppm
- Not affected by ingress/tramp air
- Clear and reliable detection of non-burned residue (CO/H_2)

Overview of our systems:

LT1 with LS1

LT10

LT2 with LS2

LT3 with LS2.

Highlights

- Environmental protection thanks to reduced emissions
- Improved efficiency combined with minimised costs
- Energy savings on electricity and fuel
- Easy operation
- Short commissioning times
- Low-maintenance
- Robust
- No mechanically moving parts
- Customised solutions
- SIL

LT3 with KS1D-HT/ LT3 with LS2-HT

LT3-Ex with KS1D-Ex

CarboSen ST

LAMTEC
Flame Monitoring System

With us the flame is always in sight – flame monitoring systems for safe combustion

We offer a modular product range covering all aspects of flame monitoring systems for reliable monitoring with a high degree of selectivity and availability for the following fuels:

- Natural gas
- Extra light heating oil
- Heavy heating oil
- Lignite
- Bituminous coal
- Biomass
- Biogas
- Special gases
- Special fuels

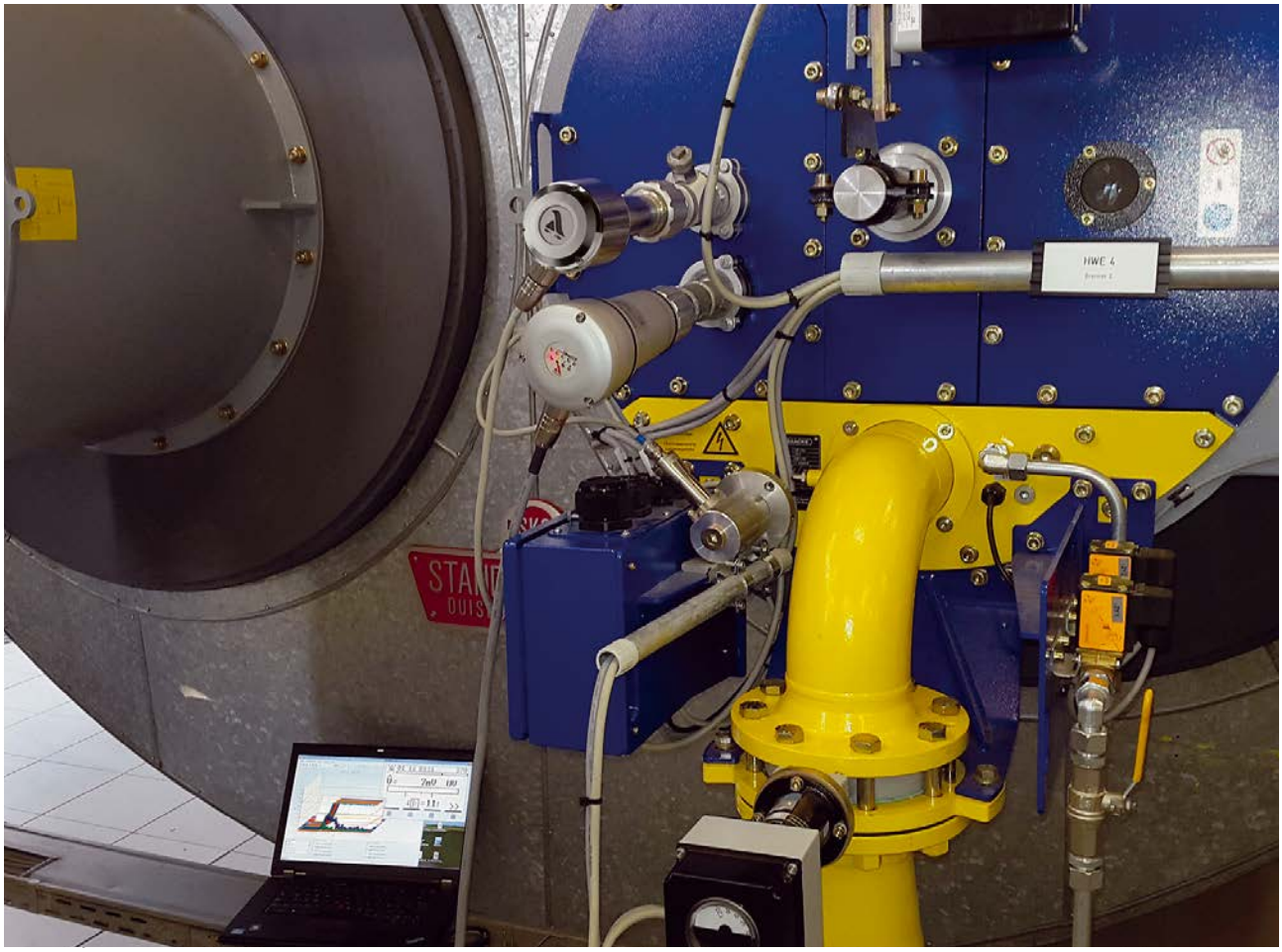
Systems from basic to high end:

- Combustion systems with and without flame and background radiation discrimination
- Single and multi-burner systems
- Combustion space monitoring
- Standard and compact models with integrated amplifiers and flame relays
- Up to three selectable operating modes/ channels
- UV & IR sensors (including dual sensor options)
- All devices are semi-conductor with self-checking electronics for continuous operation - no mechanical shutters
- Digital flame frequency evaluation
- Flame self-learning function ON/OFF
- Remote software with diagnostics function
- Option for networking multiple flame monitoring systems
- Protection class up to IP67
- Various designs for hazardous areas
- Comprehensive range of accessories
- Advanced flame rating

Overview of our systems:

F300K

F200K



BT320 mounted on a burner.

Highlights

- Simple operation and adjustment
- Very low maintenance requirements
- No wearing parts (without shutter)
- Flame rating
- Type approved and SIL3
- Continuous operation
- Safe area, Ex-Zone 1 and Ex-Zone-2

F152

F130I

FFS07/FFS08

LAMTEC
Mass Flow Measurement Grid

Measuring the volumetric flow of gaseous media with us.

The principle of the mass flow measurement grid follows the Bernoulli energy equation on which the principle of the conservation of energy is based. The entire kinetic flow energy (without friction losses) remains constant as the sum of the dynamic and static pressure.

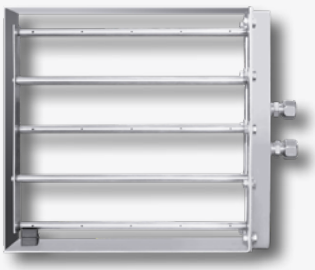
Systems from standard to bespoke

- Volumetric flow measurement of gaseous media in channels (e.g. supply air for combustion systems)
- Rectangular and round versions
- Different sizes, lengths and flange connections
- Made of stainless steel
- Calculation data for pressure transmitter included
- Optional flushing devices available for particle-laden media
- High repetition accuracy

Highlights

- Reduced upstream and downstream location requirements compared to single point systems
- Low head losses
- Low-maintenance
- Flexible thanks to customised production
- Customised solutions
- Standard and compensated temperature differential transducers available

Round mass flow measurement grid



Rectangular mass flow measurement grid

LAMTEC
Ignition and Pilot Burners

Our ignition and pilot burners make the ignition of your combustion system a reliable event.

LAMTEC ignition and pilot burners are designed for the reliable ignition of main burners in combustion systems of all kinds.

Systems from standard to bespoke

- High repetition accuracy, instantaneously reproducible ignition operation in all output classes
- Maximum flame stability
- Safe flame monitoring system up to SIL 3
- Modular design
- Suitable for continuous operation
- Fuels: Natural gas, LPG, propane, coke gas, refinery gas
- Protection class up to IP65
- Flame length up to 1500 mm
- Thermal rating up to 700 kW in special version up to 6 MW
- Various designs or hazardous areas available
- Coastal-climate resistant cast aluminium housing as standard
- Bespoke custom solutions possible (e.g. material)
- Maximum immersion depth 6,000 mm

Highlights

- Simple operation and adjustment
- Low maintenance requirements
- Available with optional display
- Variable length with sliding flange
- Customised solutions
- SIL 3

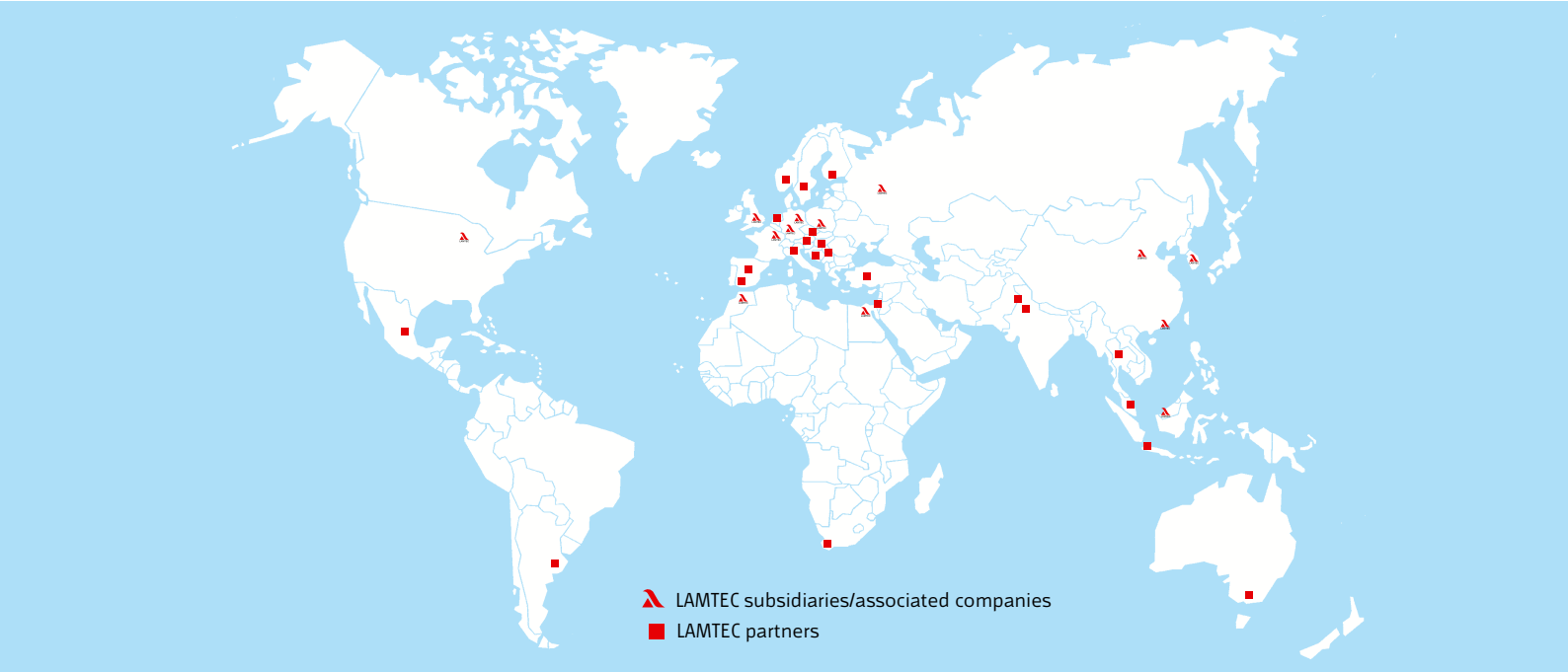
Overview of our systems:

GFI pilot burner

GFI OEM version

We make Combustion Systems safe, reliable and efficient.

We have a global presence and are always on hand for speedy and specific advice



Approvals for individual devices:

CE 0036 DVGW CERT DVGW 0085 c UL us c UL us SIL

IEC IECEx Ex EAC afnor AGA apave certification

Class I, Division 2, Group A, B, C, D

Your personal contact partner.

Using our hotline, you can quickly and easily reach a personal contact partner who has the necessary expertise for you. In addition our sales partners and service engineers are at your disposal worldwide.

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