



BOSCH
Invented for life

Fit for the future

Reference Report Bosch Industrial

Bosch heating boiler for testing and training at LAMTEC

The LAMTEC training centre is not only a professional hub, where expert knowledge about optimising combustion processes is shared. Using a new Bosch heating boiler system and firings from well-known burner manufacturers, the company also develops and tests innovations for pioneering sensors and systems in the field of firing technology.

Highly efficient combustion processes in boiler systems require smooth interaction with intelligent firing technology. For instance, flue gas sensors continuously optimise the combustion process, thereby contributing to fuel savings. LAMTEC is an expert in O₂/CO controls, as well as additional systems such as flame monitoring and burner control units. The business, based in Walldorf in Germany, develops and produces firing components with the aim of achieving outstanding system availability and optimum efficiency. At the same time, the company aims to continue reducing harmful substances in firing and heating processes.

Before new or enhanced devices and functions are placed on the market, LAMTEC tests the products under realistic conditions. It creates the optimal environment to do this by equipping its in-house

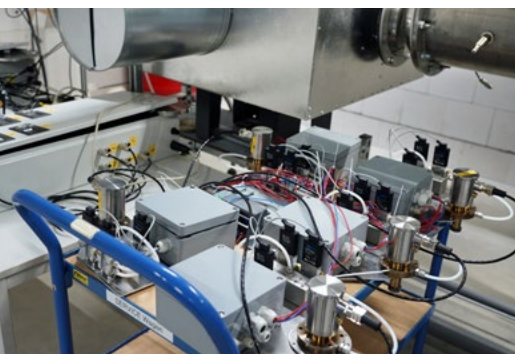
testing and training centre with innovative boiler and firing technology. The UNIMAT UT-L heating boiler from Bosch that is used here operates using natural gas and has proven to be a reliable source of heat in a wide range of industrial and district heating sectors. Its particularly high efficiency, combined with its compact, future-ready design with options for CO₂-neutral operation using hydrogen or biofuels are just some of the features that help the UT-L stand out from the crowd. The boiler is equipped with a flue gas heat exchanger and can be used universally with a range of different firings. LAMTEC is currently using the system to test a prototype of a new measurement system, the LT4, which is intended to meet SIL 2-level or SIL 3-level safety requirements for monitoring CO and O₂ components in flue gas as an independent device.

However, the system is not only used to develop and test new ideas, but also to provide practical training for users. LAMTEC uses the Bosch boiler in between 20 and 30 training sessions every year, concentrating on burner control, measurement systems and flame monitoring. The use of the modular burner control appliance CMS, for instance, enables the company to simulate all control-related optimisations live on the firing. The equipment used on the training system also includes an NO_x transmitter with a

combi-sensor, which enables simultaneous measurement of the O₂ concentration and nitrogen oxide (NO_x). From standard settings to emissions monitoring, all the way to the performance of complex process applications, LAMTEC helps the participants in its trainings courses to optimise combustion processes.



Modern low-NO_x burners, in combination with the corresponding boiler furnace, achieve particularly low nitrogen oxide emissions. This is not just relevant to conventional fuels, but also when using hydrogen, for example. At the same time, it is particularly important to set stable operating points for these firings. During commissioning and maintenance, Bosch customer service engineers ensure this and the perfect interaction between components, burner and boiler. LAMTEC sensors and control units ensure that the set parameters remain stable during continuous operation. The firing components are included in many of the modular industrial boiler systems from Bosch. Their use enables operators to achieve extremely high combustion efficiency and maximum thermal capacity. This reduces both the amount of energy used and the emissions.



Bosch Industriekessel GmbH
Nuernberger Strasse 73
91710 Gunzenhausen
Germany
Tel. +49 9831 56-253
Fax +49 9831 56-92253
sales@bosch-industrial.com

Bosch Industriekessel Austria GmbH
Haldenweg 7
5500 Bischofshofen
Austria
Tel. +43 6462 2527-300
Fax +43 6462 2527-66300
sales-at@bosch-industrial.com

info@bosch-industrial.com
www.bosch-industrial.com
www.bosch-industrial.com/YouTube

© Bosch Industriekessel GmbH |
Pictures only examples |
Subject to modifications | 02/2022 |
TT-IN/MKT_en_RB_LAMTEC_01