Körtings Industrial Burner Test Facilities all kinds of fuels

As a result of rising gas and oil prices the demand for lower priced alternative fuels has become a matter of continuously increasing interest to users. Körting Hannover AG reacted accordingly: in order to offer customers more flexibility and a greater availability the company designed its own test facilities. In the following you will learn more about a process which is unique in Germany and unrivalled in the field of firing special fuels.

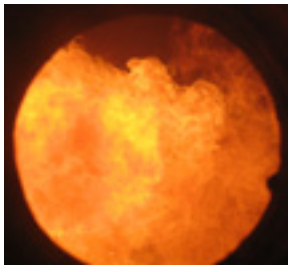
„In the past our concentration was focused strongly on the firing of wood sanding and lignite dusts“ said Körting's responsible project manager, Dr. Bendikt Roberg. „However, this increased demand required broadening to encompass a more extensive fuel spectrum“ added the specialist for firing technology.

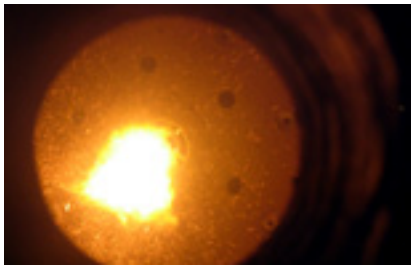
Up to now, corresponding trials at customers' plants could only be carried out under great difficulties and in coordination with the current on-site production. Körting Hannover AG did not hesitate for long. The company planned, designed and constructed its own facilities which as from 2010 are located on its own factory premises in Hannover.

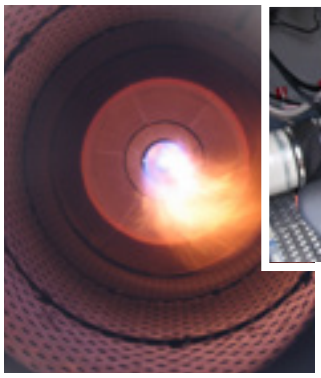
„One of the particular characteristics is the high degree of flexibility with which we can provide answers to customer-specific questions by means of the direct application of burner technology on an industrial scale“, as the engineer Mr. Roberg explained. Diverse fuels in pulverised, liquid or gaseous form can be fired under varying process conditions and analysed with regard to their ignition, firing and emission characteristics in these industrial burner test facilities. And that above all with a view to their application in industrial process heat generation and thermal utilisation. This is a novelty in Germany which has also generated much interest abroad.

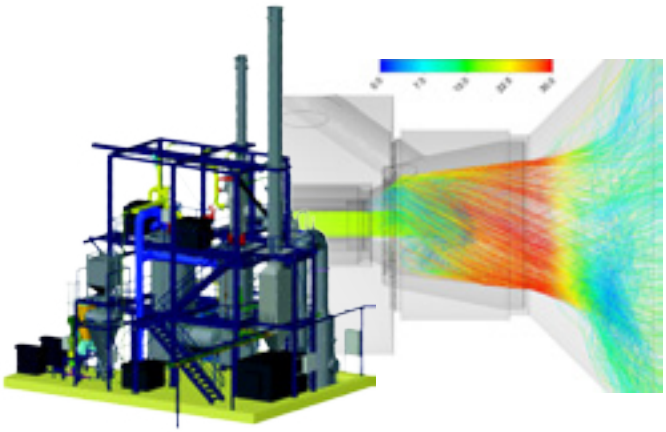
It is possible to counteract rising energy costs by using residual and waste materials or also pulverised alternative fuels (wood sanding dust/lignite dust) instead of the now applied primary energy carrier, natural gas or fuel oil. Planning engineer Marco Meyer enthused: „With these industrial burner test facilities we have the possibility of providing the required technology attuned to the respective customer requirements.“

Numerous further company-own burner developments as well as diverse firing trials for customers have been carried out since the approval and completion in 2010 and amongst these, trials with lignite dusts of differing qualities and particle sizes from suppliers and dusts resulting from renewable raw materials such as sesame dust and wheat grain residues originating from the process industry for the most part. Natural gas and fuel oil EL also belong to this.









The publically promoted development project for the trial facilities expired in 2011. The initial objectives have been achieved:

- Efficiency and emission-optimised heating systems for industrial applications
- Further development of the Körting multi-fuel burner systems as well as
- The analysing of ignition and combustion behaviour of all types of pulverised fuels

These trial facilities are now available for the further development of Körting's CKE and CKM burner systems. The focus here is on the expansion of the burner series for differing fuels (pulverised, liquid and gaseous). In October 2011 further trials were planned with a special wood sanding dust. Subsequently, oil coke was to be analysed. Customers from India and Canada have also applied to participate in firing trials. „That means we have more irons in the fire" said Mr. Meyer with a smile.

Based on the trial facilities at Körting Hannover AG BTU in Cottbus has already had trial facilities erected for the field of oxy-fuel firing. „We are very pleased with the result and the collaboration", so said Alexander Findeisen, engineer and project manager at BTU Cottbus.

At a glance

Thermal output	up to 2MW
Fuels	Natural gas/Fuel oil/Lignite dust/Wood sanding dust/ pulverised residual materials
Lined combustion chambers for process temperatures up to 1400 °C	
Hot gas generators for the generation of drying gases up to 600 °C	
Frequency-controlled carrier air, staged air, combustion air and flue gas recirculation blowers	
Fully automated via PLC and FMS/VMS firing manager with 10-channel compound control	
Flue gas Venturi scrubber with induced draught blower for low pressure operation mode.	

More than anything, companies in the field of base/raw material, the chemical and the process industry requiring large amounts of thermal energy or an innovative technology for the disposal of residual and waste materials are interested in these trials. Such companies can apply to Körting for further information or they can contact the respective agencies and representatives at home and abroad.

For further information please apply to:

Dr. Benedikt Roberg
Development manager
Thermal and Firing
+49 511 2129-372
st@koerting.de

Marco Meyer
Manager for Order Processing/
Engineering Technology
+49 511 2129-259
st@koerting.de

www.koerting.de