Energetyka Sp. z o.o., Głogów

38 t/h, KP7 steam boiler, ORG-32/80-M type

Customer: Gros-Pol, Poznań, Poland
Main contractor: Gros-Pol, Poznań, Poland
End user: Energetyka Sp z o.o., EC3 Głogów, Poland
ICS contribution: Off gas utilization system supplier, based on HTB burners and HiTAC combustion technology
ICS reference: ICS002
Capacity: 38 t/h (steam), 65 000 Nm³/h (off gas)
Commissioning: June / July 2009

Description
Project covered replacing old off gas utilization system based on off gas / coal co-fired boiler with a new gas boiler equipped with off gas / natural gas co-fired burners.

Installation
Due to low LHV (Low Heating Value) 1.5-2.4 MJ/Nm³, high moisture content and substantial solid particle contamination the utilization of copper shaft furnace (blast furnace) off gas is lead through natural gas co-firing. Combustion takes place in boiler’s combustion chamber, three HTB-DL-WG15 burners are operated. Burners are multi-fuel, staged combustion units, capable of low temperature and high temperature operation.

ICS scope of supply
- 3 x HTB-DL-WG15 – 13 700 kW (each),
- detailed engineered combustion system,
- control system functionality description,
- detailed documentation of burner piping and zone piping,
- detailed documentation of combustion chamber along with refractory lining,
- engineering support at erection and commissioning,
- guarantee boiler efficiency test.

Advantages
- off gas utilization capacity increased from 40 000 Nm³/h to 65 000 Nm³/h,
- steam production effectiveness increased from 64% to 82%,
- combustion process quality improvement,
- extremely low CO and NOx emission,
- very low natural gas consumption, about 10% of total energy supplied in natural gas
- fully automatized boiler control system.
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- combustion systems for metallurgy as well as heat treatment for steel and non-ferrous metals industry,
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