

## Trianel municipal utilities association More power through insulation

In the shortest possible time, G+H Insulation, in a consortium with BIS OKI Isoliertechnik, insulated the boiler, ducts, electrostatic precipitators, and pipelines of the boiler plant at the power plant in Lünen, Germany.



Insulation

Fire Protection

Noise Control

Fossil energy sources are still important pillars of electrical power generation and ensure a smooth supply of power. Hard-coal-fired power plants are an environmentally friendly and cost-effective solution over the long term. Pioneering thermal and acoustic insulation work as well as the use of the very latest technologies in the plants contribute to increasing the power output of the power plants.

### **CUSTOMER**

Trianel municipal utilities association and the IHI Corporation, Japan

### **PROJECT**

Thermal and acoustic insulation work on the boiler plant in the hard-coal-fired power plant in Lünen, Germany

### **PERIOD OF EXECUTION**

05/2011–10/2012

### **SURFACE INSULATED**

125,000 m<sup>2</sup>



The 100 m high boiler in the boiler house has 22 header boxes that can heat up to 650°C. Between them, there are large steel beams that need to stay cold in order to ensure their stability. G+H and OKI Isoliertechnik could only fulfill the high requirements of the plant in such a short time through complex scaffolding and insulation work. For thermal insulation purposes, especially of the header boxes, between five and six layers of mineral wool mats with the RAL quality mark and other insulating materials like CMS fiber insulation and Microtherm® were

used. These layers also ensure good sound absorption. G+H subsequently installed an inner stainless steel liner for the dead space and galvanized sheet metal paneling on the outside. The molded parts required for this were produced in an own on-site workshop. The consortium insulated the header boxes with a total thickness of 400 to 600 mm. Thanks to the manpower of 100 to 140 and even up to 250 installers at the peak, all work was completed professionally, on time, and to the utmost satisfaction of the customer.



## TASK

- Thermal and acoustic insulation work on a total area of 125,000 m<sup>2</sup>
- Complex engineering
- Minimize heat losses
- Maintain various temperature levels

## SOLUTION

- Mineral wool mats with RAL quality mark
- Further insulating materials such as CMS fiber insulation and Microtherm®
- Stainless steel liner on the inside, flat galvanized sheet metal and trapezoidal sheet metal on the outside
- Execution in a consortium with OKI Isoliertechnik

## ADVANTAGES

- Energy-efficient plant units
- Ability to handle all expansion in the area of the header boxes of the boiler
- Venting of exposed structural bracing
- Professional installation of insulation in the shortest possible time