

# Tusimice Power Station



## 4 Gas-Gas Heaters for FGD Plant



As the untreated flue gas is very aggressive due to high content of SO<sub>2</sub>, SO<sub>3</sub>, HF and dust, the heating elements are protected with enamel as corrosion protection.

The GGHs are provided with an automatic, sensor controlled, sealing system for the upper radial seals which ensures very low leakage of untreated gas to the treated gas side.

In 1994 BWE was awarded contract from Chiyoda Corporation, Japan for the delivery of four Gas-Gas Heaters (GGH). The GGHs are major components in the four new FGD plants installed at the Tusimice II power station in Czech Republic. The power station is situated in North Bohemia close to other big power stations near huge local low-caloric brown coal mines.

The Tusimice II FGD plants use the CT-121 process and in each unit more than 1 mio. Nm<sup>3</sup>/h of flue gases are cleaned and thereby removing 58,000 tons of sulfurdioxide per year. Together with the FGD plants installed at the other power stations in region, it

contributes to the significant improvement in local air quality.

The GGH is used to preheat the treated flue gas above the 95 °C required by the legislation in order to secure the necessary lift of the flue gas. The necessary heat for this reheating is taken from the hot untreated flue gases entering the FGD plant.

The GGH is of the counterflow rotary regenerative type with a matrix of heating elements which transfers the heat by alternately being heated by the untreated gas and cooled by the treated gas.

### World leader in steam power technology

Burmeister & Wain Energy A/S has specialized in the development and design of advanced steam boiler plants for utility and biomass fired power stations.

Furthermore, BWE designs a wide range of auxiliary power station equipment such as the BWE Low-NO<sub>x</sub> coal/oil/N-gas/biomass burners, Air Preheaters and Gas-Gas Heaters.

BWE is part of the Italian STF S.p.A. Group.

Untreated Flue Gas:  
Flow, inlet 292 Nm<sup>3</sup>/s  
Temperature, inlet 180 °C  
Temperature, outlet 142 °C

Treated Flue Gas:  
Flow, inlet 322 Nm<sup>3</sup>/s  
Temperature, inlet 66 °C  
Temperature, outlet 101 °C

Dimensions:  
Type: GV 29.0 / 625

Rotor diameter 10.53 m  
Rotor height 745 mm  
Rotor speed 1.2 min<sup>-1</sup>  
Heating elements UNF+E  
Height 400 mm  
Heating surface 5,815 m<sup>2</sup>

Total weight 173 tons

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