

18 metre giant pipes from plate for power station chimney

The spectrum of BUTTING's manufacturing possibilities is a wide one. On the one hand, our smallest weld seam is in a component of the European Ariane rocket, an orbital weld on a pipe with an external diameter of 3.17 x 0.51 mm. On the other hand, we have already produced pipes from plate of up to 3,000 mm in external diameter, or with a wall thickness of 70 mm.

The more recent BUTTING projects in the large pipe field also includes the construction of a new hard coal power station in Hamburg. Here BUTTING has supplied six pipe giants for the chimney of the auxiliary boiler equipment.



The new power station will produce 11 billion kilowatt hours of electricity a year, enough to cover almost all Hamburg's electricity needs, along with district heating for around 180,000 households.

The pipes supplied by BUTTING have an external diameter of 1,500 mm, their individual lengths vary between 6 m and 18 m, and they form part of the chimney for the auxiliary boiler equipment. The oil-powered auxiliary boilers are used when the power station is first put into service and when both blocks of the power station have to be shut down for testing or maintenance purposes.

The chimney has a total height of around 100 m, and the BUTTING pipe giants, made from material 1.4571 make up about 80 m of this. The pipes, equipped with compensators and brackets, are designed for waste gas temperatures of up to 500 °C and before being used, they are also provided on the construction site with 200 mm thick insulation. On the spot, they are then fitted individually into the existing steel construction, so that the chimney, as it were, "grows along with the steel construction". The individual pipe sections which follow one another are not screwed on, but completely welded to one another, which imposes particular demands on the on-site welders. They must weld the pipes together from within, and then can only leave them through exit gaps specially built in for that purpose.

In a further stage of construction, the pipes in the chimney will be attached to the auxiliary boilers at a later date. This task too has already been assigned to BUTTING and we will probably manufacture and deliver the job in 2010.

The power station is planned for commissioning in 2012.

BUTTING – Progress by Tradition