

## Mastering the “challenge” of a double shaft furnace

Production Development Project at Hellenic Halyvourgia, Velestino, Greece

The company Hellenic Halyvourgia SA is based in Greece with 2 meltshops (Athens and Velestino) and runs with an annual capacity of about 800.000 tons of reinforcing steel and wire mesh. At Velestino meltshop, the company operates a **DC-Double Shaft Furnace** with a tapping weight of 95 tons and an installed power of 850 kVA/t, which is by its design unique in the world. Due to the design of the furnace and the entire scrap quality situation, the special equipment and conditions of the process had to be revised and modified to achieve the expected results.

### THE PROJECT

In 2006 the company decided to improve the entire condition of the meltshop with the target to raise the productivity, increase the annual production and to improve the cost situation at Velestino. BSE has been awarded with a Consultancy Contract in 2006. A study of the whole meltshop was conducted by BSE, which resulted into an action plan for all specific areas for further improvements.

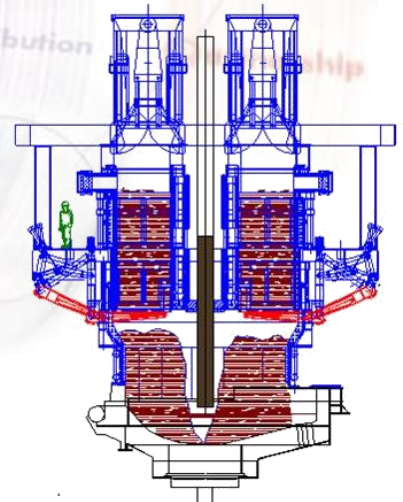


### RESULTS/BENEFITS

Since 2007 the **productivity could be raised by approximately 23%** and the annual production increased from 425.000 tons in 2006 to more than 500.000 tons in the year 2007.

For the year 2008 the target is to achieve an increase of 15% based on the production of 2007. Further improvements could be reached in the following fields:

- Tap-to-tap time: – **15,2 min/heat**
- Power-off time: – **8,4 min/heat**
- Active power input: + **3 MW**
- Specific electrical energy: – **44 kWh/t**
- Tapping temperature: – **40°C**
- Bucket volume: + **30 %**



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“Due to **continuous improvements** in the technical area as well as on the **motivation** and **organizational** part, Hellenic Halyvourgia is making steady progress in the development of the meltshop...”

presented by Andreas Metzen, Plant manager at Hellenic Halyvourgia S.A., Greece – during the Mini Mill Symposium of BSE held 16<sup>th</sup> June 2008



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