

”The most smooth and professionally managed start-up of an EAF I have experienced in 25 years of working in EAF steelmaking”

Successful EAF Revamping Project at TMK Resita (Romania)

This quote from Mr. Makovetskiy (Senior Chief Mechanical Maintenance, TMK-Group) describing the recent start-up of the EAF at TMK-Resita (Romania) proves again that the excellence of BSE services in the field of EAF revamping, the local experience of customers and mutual enthusiasm lead to excellent results.

The project which is aimed to considerably improve the productivity of the meltshop was started with first initial discussions about targets and possible concepts in late 2005. The contract for the comprehensive revamping project - which as always valid for such BSE projects, considered for an optimized use of existing installations but modernizing what had to be upgraded - was signed in July 2008 comprising then the complete revamp of the existing EAF without touching foundations and hydraulics. A complementary order placed in December 2008 completed the scope by a S7 and WINCC based automation system for the EAF and a state of the art electrode regulation system.

SCOPE OF SERVICES

- Revamping of the 110t AC-EAF supplied in 1995/1996
- Basic / detail engineering of the new furnace, i.e. roof, upper and lower shell, panels, water-cooled elbow
- Current conducting aluminium arms 24" (with flanged electrode holders)
- Electrode regulation system (Spie)
- Chemical Energy System side wall / EBT mounted (4x Virtual Lance Burner and 3x CarbJet)
- Lance Manipulator (one lance for oxygen and carbon each)
- Temperature- and sample taking manipulator (TSM)
- Complete EAF PLC automation system with visualization (S7-400 and WinCC)
- Supervision services and start-up support

On September 1, 2009 the EAF and all components were smoothly and successfully put into operation – **in time, in budget and in expected performance.**

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Pride and gladness about the performed work and excellent results were expressed on everybody's faces at Resita!

RESULTS/BENEFITS

The main objective to considerably reduce **power-on time** i.e. to reduce the specific electric consumption was clearly achieved with a reduction of **20 min** and **80 kWh/t**. The same goes of course for the anticipated improvement of **power-off time of approx. 10 min** as a consequence of the much better overall availability of the modern EAF systems implemented by the BSE design. All data were verified during the performance test in December 2009.

The teams of TMK Resita and BSE worked together in a productive, goal-oriented and most of all partner-like way. They were opponents only once – at the mutual football game after the successful installation.



