

## **Design of cooling sections for heat treatment based on laboratory measurements of heat transfer coefficient**

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Laboratory measurements make it possible to determine the heat transfer coefficient (HTC) depending on the position and surface temperature for different cooling configurations. The HTC evaluation allows to identify the effect of different parameters on cooling. The design and setting of cooling parameters directly affects the microstructure, hardness and mechanical properties of materials. Furthermore, it is possible to use the experimentally obtained dependence of HTC on surface temperature and position both for realistic numerical simulations of cooling processes and for optimize the design of cooling sections.

The article presents examples of designs of cooling sections for heat treatment of long products (plates, rails and tubes) and sections for thin sheets cooled by very high cooling rates (1 000 °C/s). The implementation of prototypes and plant measurements for long product are presented.

### **Speaker Country**

CZ

### **Register for the Tom Bell Young Author Award (TBYAA)?**

**Primary authors:** KOTRBACEK, Petr (Brno University of Technology, Faculty of Mechanical Engineering, Heat Transfer and Fluid Flow Laboratory); Prof. POHANKA, Michal; Dr CHABICOVSKY, Martin

**Presenter:** KOTRBACEK, Petr (Brno University of Technology, Faculty of Mechanical Engineering, Heat Transfer and Fluid Flow Laboratory)

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