

عنوان مقاله:

Simulation of Temperature Distribution in Hot Strip over Transfer Table

محل انتشار:

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خلاصه مقاله:

Transfer table is an essential stage between roughing and finishing rolling stands in a hot-strip rolling mill. High temperature and long time that strip is exposed to air at this stage cause a considerable heat loss that accounts for uneven temperature distribution, non-uniform surfaces, reduced product quality and increased production costs. Using thermal shields on the transfer table is considered an efficient means of reducing energy consumption and of improving product quality. In this paper, temperature distribution and heat loss from the strip is investigated while passing through transfer table in the hot-rolling at Mobarakeh Steel Complex (MSC), Isfahan, Iran. Three cases are considered; namely, in the absence of thermal shield, in the presence of thermal shield, and with both thermal shield and heat source. The results obtained from the numerical solution indicate that the case with both thermal shield and heat source on the transfer table has the most favorable effect on reducing heat losses and even temperature distribution in the strip.

کلمات کلیدی:

Hot-Strip Rolling, Transfer table, Strip, temperature distribution, Thermal shield

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