

## **An Effective Approach for the Simulation of the Cooling Process of Steel Strips on Run-out Tables**

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The cooling process of steel strips on an industry run-out table (ROT) is simulated using an 1D model. In this model, the water bank information is not handled and the ROT directly consists of the jetlines. The simulation creates an advantage to study independently the spacing of jetlines on the cooling effect. In addition, a novel approach is used for time stepping in this study. First, five numbers of time steps are defined for different cooling zones and each number can be determined according to the accuracy requirement and the strip speed. Thus, the time step size is not constant and the total number of time steps can be reduced. Second, each time step is identified with a flag to indicate its belonging to the different zones. With this approach, tracking is not needed and none of the water cooling zones will be jumped over. The predicted coiling temperatures of 1D model simulations are in good agreement with the field measurements.

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