

# **Electromagnetic heating of the soildressing equipment**

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***Abstract.*** The magnetic permeability and, consequently, the depth of electromagnetic field penetration strongly depend by the temperature (Curie point), while the high temperature must remain on the surface, in order to obtain an efficient eddy current treatment. The electromagnetic field problem, coupled with the thermic diffusion problem is solved in this paper. The finite element method and Crank-Nicholson procedure are employed for space and time discretization, respectively.