

Title (en)
DEVICE FOR INDUCTIVELY HEATING METALLIC STRIPS

Title (de)
VORRICHTUNG ZUR INDUKTIVEN ERWÄRMUNG VON METALLISCHEN BÄNDERN

Title (fr)
DISPOSITIF POUR CHAUFFER DES BANDES METALLIQUES PAR INDUCTION

Publication
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Application
EP 01971634 A 20010828

Priority
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Abstract (en)
[origin: WO0219773A1] In order to carry out the optimal inductive heating of metal strips (1) of different widths, particularly in the edge area, a multiple-coil cross field inductor is provided above and below the strip (1) to be heated. The coil axes of the cross field inductor are arranged perpendicular to the strip surface. Each inductor is comprised of at least one inductor segment (2,3; 7; 15; 17), which is configured as a coil group consisting of several approximately rectangular coils (8,9,10; 16; 18) that extend predominantly transversal to the direction of conveyance of the strip (1), whereby the coils (8,9,10; 16, 18) have different stepped transversal extensions, and the coil with the largest transversal extension extends no further than up to the layer edges of the widest strip. The coil with the smallest transversal extension extends no further than up to the layer edges of the narrowest strip. Each inductor segment (2,3; 7; 15; 17) is connected to a circuit for effecting the defined clocking of its coils (8,9,10; 16, 18), and an identical inductor segment (2; 7; 15; 17) located above the strip is assigned to each inductor segment (3; 7; 15; 17) located below the strip. During inductive heating, the inventive device prevents the edges of metal strips (1) from becoming overheated regardless of strip width.

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