

Title (en)

PROCESS AND DEVICE FOR INDUCTIVE CROSS-FIELD HEATING OF FLAT METALLIC GOODS

Title (de)

VORRICHTUNG UND VERFAHREN ZUR INDUKTIVEN QUERFELDERWÄRMUNG VON FLACHEM METALLISCHEM GUT

Title (fr)

PROCEDE ET DISPOSITIF DE CHAUFFAGE INDUCTIF PAR CHAMP TRANSVERSAL DE PRODUITS METALLIQUES PLATS

Publication

**EP 0765591 A1 19970402 (DE)**

Application

**EP 95921684 A 19950613**

Priority

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Abstract (en)

[origin: WO9535013A1] A device for inductive cross-field heating of flat metallic goods (2, 3, 27) has at least one pair of inductors (1) having each one iron core (4-7, 22-25) provided with a groove (8, 26) for receiving a lead (9, 10, 28, 29) that extends in the transport direction. The grooves (8, 26) and leads (9, 10, 28, 29) of both inductors (1) of a pair of inductors are mirror symmetrical and the leads (9, 10, 28, 29) of each inductor (1) form two independently switchable lead systems. Each lead system has sections (15-18, 20) that extend substantially in the transport direction of the metallic goods (2, 3, 27) and whose centre lines (19) extend symmetrically to a central axis of the inductor parallel to the transport direction. The individual poles of the lead systems consist of maximum two leads (9, 10, 28, 29). Each pole of a lead system is arranged between the poles of the other lead system. A uniform temperature distribution in the goods to be heated (2, 3, 27) is achieved by synchronising and offsetting in time the moments when both lead systems are switched. The substantially symmetrical design of the inductor (1) causes similar conditions to prevail at both edges of the goods (2, 3, 27) even when the goods have various widths. By reducing the power applied by the lead system, which acts essentially on both edges of the metallic goods (2, 3, 27), the edges may thus be prevented from overheating.

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