

Title (en)
Induction reheating furnace with travelling field.

Title (de)
Induktionswiedererwärmungssofen mit Wanderfeld.

Title (fr)
Four de réchauffage à induction à champ glissant.

Publication
EP 0020215 A1 19801210 (FR)

Application
EP 80400644 A 19800512

Priority
FR 7913428 A 19790523

Abstract (en)
[origin: US4339625A] An electric furnace for induction heating of metallic products comprises a planar inductor providing a sliding magnetic field, the inductor being incorporated in a pair of transversely spaced walls defining between themselves a space into which the product to be heated is inserted, a layer of refractory material at that side of each wall which borders the space and an independent cooling screen sandwiched between each wall and the respective layer of refractory material, in which the screen is constituted by a plurality of parallel, adjacent metal tubes out of mutual contact with each other to define between themselves electrically insulating spaces, preferably filled with electrically insulating material, and in which the tubes extend normal to the flow of the primary current through the inductor. Preferably at least one of the walls together with the respective refractory layer and screen is movable toward and away from the other wall to accommodate metal products of different widths in the space.

Abstract (fr)
Four électrique à géométrie variable, pour le chauffage par induction de produits métalliques, dans lequel le dispositif chauffant est un inducteur plan à champ magnétique glissant, constituant une grande paroi latérale mobile du four et équipé sur sa face active d'un revêtement réfractaire. Selon l'invention, le four comprend des moyens de protection thermique de l'inducteur (11) constitués par un écran refroidissant (20) interposé entre la face active (18) de l'inducteur et le revêtement réfractaire (19), et dans lequel circule un fluide de refroidissement. L'invention permet, non seulement une protection thermique efficace de l'inducteur, mais également une amélioration du rendement de chauffage global du four.

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H05B 6/02

IPC 8 full level
H05B 6/22 (2006.01); **H05B 6/02** (2006.01)

CPC (source: EP US)
H05B 6/02 (2013.01 - EP US); **H05B 6/104** (2013.01 - EP US)

Citation (search report)

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DOCDB simple family (application)
EP 80400644 A 19800512; CA 352511 A 19800522; CH 390880 A 19800520; DE 3064098 T 19800512; DK 218980 A 19800520; FR 7913428 A 19790523; JP 6660480 A 19800521; US 15099280 A 19800519