

Title (en)
INDUCTION OVEN FOR MELTING METALS

Title (de)
INDUKTIONSOFFEN ZUM SCHMELZEN VON METALLEN

Title (fr)
FOUR A INDUCTION POUR LA FUSION DE METAUX

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Application
EP 98925719 A 19980515

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Abstract (en)
[origin: US6163562A] PCT No. PCT/FR98/00971 Sec. 371 Date Nov. 12, 1999 Sec. 102(e) Date Nov. 12, 1999 PCT Filed May 15, 1998 PCT Pub. No. WO98/53642 PCT Pub. Date Nov. 26, 1998An induction heating device which raises the temperature of a metal to be heated for one of melting or hot machining while providing considerably energy saving, increasing yield and observing current safety standards. The device (10) uses a cavity (11) to receive the metal to be heated and at least two magnetic yokes (13) arranged around a periphery of cavity (11), each yoke supporting an independent induction coil (14). The induction coils are mounted and wound in the same direction such that a north pole, of each coil, is located on one side of the cavity and a south pole is located on an opposite side of the cavity. The inductive coils are arranged so as to generate active non null magnetic field zones and inactive zones of null magnetic fields distributed about the periphery of the cavity. An inactive zone of null magnetic fields is located between each adjacent active non null magnetic field zone. The induced current is self-enclosed thereby producing high heating power and the invention is applicable to melting, forging, reheating, transforming, and working metals by induction.

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