

Title (en)
PROCESS FOR THE VACUUM REFINING OF METAL AND ASSOCIATED DEVICE

Title (de)
VERFAHREN UND VORRICHTUNG ZUR VAKUUMRAFFINATION VON METALLEN

Title (fr)
DISPOSITIF D'AFFINAGE SOUS VIDE DE METAL ET DISPOSITIF ASSOCIE

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Application
EP 94909359 A 19940224

Priority
• RU 9400034 W 19940224
• RU 94000727 A 19940119

Abstract (en)
1. A method of vacuum refining of metal, in which the pressure of a mixture of gases above the molten metal surface is reduced to a pressure sufficient for generating partial pressures of the gases above the melt below the partial pressures of the gases in the melt, and the metal is treated by pressure pulsations with an amplitude of 0.02-0.8 MPa in a low-frequency range of 0.03-5 Hz and, and at the same time, in addition, the pressure in the medium-frequency range of 55-195 Hz with an amplitude of 0.005-0.01 MPa and the pressure in the high frequency range of 350-3500 Hz with an amplitude of 0.0001-0.001 MPa are varied. For this purpose, the device for vacuum refining of metal realizing the above method comprises a vacuum-tight container (1) having a gas-exhaust nipple (2), an ejector (3), having a housing (4), a nozzle (5) and a mixing channel (6), a unit (7) to produce low-frequency pulsations of the working gas through the nozzle (5) of the ejector (3), a unit (8) to produce medium-frequency pulsations of the gas flow rate at the inlet of the gas-exhaust nipple (2), and a unit (10) to produce high-frequency pulsations of the flow rate of the gas being evacuated from the container (1), said regulator being made in the form of a regulator of varying, in a particular case, the flow section of the nozzle (5) and consisting of an insert (20). <IMAGE>

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