

Title (en)

MEASURING DEVICE FOR OPTICALLY DETERMINING THE TEMPERATURE OF A MOLTEN METAL, AND PLUG

Title (de)

MESSVORRICHTUNG ZUR OPTISCHEN TEMPERATURBESTIMMUNG EINES GESCHMOLZENEN METALLS SOWIE VERSCHLUSSTOPFEN

Title (fr)

DISPOSITIF DE MESURE PERMETTANT LA DÉTERMINATION OPTIQUE DE LA TEMPÉRATURE D'UN MÉTAL EN FUSION ET BOUCHON DE FERMETURE

Publication

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Application

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Abstract (en)

[origin: WO2016034271A2] The invention relates to a measuring device for optically determining the temperature of a molten metal, comprising: - an optical waveguide to conduct electromagnetic radiation emitted by the metal or by the tip of the optical waveguide to an optical detector, - an optical detector for determining the temperature of the metal from an analysis of the electromagnetic radiation, - a reeling device for successively reeling off the optical waveguide from a stock and a duct, which is connected to the reeling device so that a fluid can pass through and through which fluid flows, and in which the optical waveguide is at least conducted in sections and in which the optical waveguide is transported by means of the fluid, the duct through which fluid flows and the reeling device forming a gas-tight system relative to their surroundings. The invention further relates to a plug for an outlet opening of a container which accommodates the molten metal. Said plug has a refractory rod-shaped body with an upper and a lower end, and a channel that axially extends through at least part of the rod-shaped body and leads to a surface of the lower end. In order to optically determine the temperature of molten metal an optical waveguide is conducted through the channel.

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