

Title (en)

METHOD FOR DECONTAMINATING A METAL PART CONTAINING A GAS BY MEANS OF LASER IRRADIATION IN A LIQUID MEDIUM

Title (de)

VERFAHREN ZUR DEKONTAMINATION EINES EIN GAS ENTHALTENDEN METALLTEILS MITTELS LASERSTRAHLUNG IN EINEM FLÜSSIGEN MEDIUM

Title (fr)

PROCÉDÉ POUR DÉCONTAMINER UNE PIÈCE MÉTALLIQUE CONTENANT UN GAZ PAR IRRADIATION LASER DANS UN MILIEU LIQUIDE

Publication

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Application

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Abstract (en)

[origin: WO2021064304A1] The present invention relates to a method for decontaminating a metal part (1) containing a gas in a liquid medium (2) and to a device for implementing said decontamination method. The method of the invention relates to a method for decontaminating a metal part (1) containing a gas by means of laser irradiation in a liquid medium (2), comprising the following steps: placing the metal part (1) in the liquid medium (2); placing in the liquid medium (2) a glass interface (5) through which the wavelength of a pulsed laser beam can pass at a distance between 10 mm and 250 mm from the part; placing in the liquid medium (2) all or part of a system (8) for circulation of the liquid medium (2), which system is capable of directing the liquid medium (2) located between the interface and the metal part (1) along the part; applying to the metal part (1) a beam of a pulsed laser emitted at a wavelength between 1000 and 1080 nm, with a fluence between 30 and 200 J/cm², a power peak between 1.2 and 7.5 kW, and a travelling speed between 3000 and 20,000 mm/second.

IPC 8 full level

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