

Title (en)

PLASMA TORCH WITH A MICROWAVE TRANSMITTER

Title (de)

PLASMABRENNER MIT EINEM MIKROWELLESENDE

Title (fr)

CHALUMEAU A PLASMA AVEC EMETTEUR HYPERFREQUENCE

Publication

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Application

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Priority

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Abstract (en)

[origin: US6388225B1] A plasma torch with a microwave transmitter which, for example, is used to coat surfaces and to produce radicals. The plasma torch exhibits a minimal energy loss during the transmission of microwaves to the produced plasma flame. The plasma torch includes a waveguide for transmitted microwaves and has a coaxial conductor. An electrode is provided with a duct, and a nozzle provided on the other end of the duct, the end facing away from the waveguide, are arranged in the coaxial conductor in an essentially axial manner. The plasma flame is produced at the nozzle. A coupling element is arranged between the waveguide and the coaxial conductor. The electrode is connected to the coupling element via a mounting plate and an electrically insulating intermediate element in a gas tight, thermally insulated manner such that microwaves are permitted to pass through.

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