

Title (en)

PLASMA BURNER FOR TRANSFERRED ARC.

Title (de)

PLASMABRENNER FÜR ÜBERTRAGENEN LICHTBOGEN.

Title (fr)

CHALUMEAU A PLASMA A ARC ELECTRIQUE TRANSMIS.

Publication

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Application

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Priority

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Abstract (en)

[origin: WO9201360A1] Parasitic arcs occurring in the operation of plasma burners adversely affect economic running and endanger important parts of the burner. Known counter-measures are successful only to a limited extent. Fitting the annular channel between the electrodes and the surrounding nozzle conveying the plasma gas on the inside with an electrically insulating cladding provides only partial protection. Insulating the section of the inner wall of a water-cooled nozzle adjacent the front wall from the outer section is very expensive in construction and insulation. It is therefore proposed to arrange transfer channels (43, 44) uniformly distributed around the periphery between the annular channel (17) for the plasma gas and that (33) between the nozzle end (3) and the burner casing (16) through which part of the plasma gas is diverted and used to cool the end of the nozzle and to force electrically conductive deposits of dusts and the like and back-striking plasma arcs. A sliding flange (29) on this annular channel (33) also counteracts electrical bridge formation from soiling by temperature-caused relative movements.

IPC 1-7

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IPC 8 full level

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IPC 8 main group level

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