

Title (en)
Plasma cutting torch

Title (de)
Plasma-Schneidbrenner

Title (fr)
Torche de coupage plasma

Publication
EP 2375876 A1 20111012 (EN)

Application
EP 11161876 A 20110411

Priority
IT BO20100224 A 20100412

Abstract (en)
A plasma cutting torch (1) extending about a main axis (X) and comprising an electrode (1), a nozzle (2), having a plasma outlet orifice (12), coaxial with the electrode (1), a diffuser (200) acting between the electrode and the nozzle; the torch comprising a gas feed system (4) for feeding gas into the plasma generation chamber (3) which is delimited by the electrode (1), the nozzle (2) and the diffuser (200) which comprises a plurality of channels (207) for putting the feed system (4) and the chamber (3) in fluid communication; labelling "A1" the distance, measured according to the direction (X), between an outlet section of the channels (207) and an inlet section of the orifice (12) and labelling "B1" the distance, measured according to the main axis (X), between an end section of the electrode (1) and the inlet section of the orifice (12), the ratio between "A1" and "B1" is greater than or equal to 3 and is less than or equal to 4.5, that is to say: $3 \leq \frac{A1}{B1} \leq 4.5$.

IPC 8 full level
H05H 1/34 (2006.01)

CPC (source: EP US)
H05H 1/34 (2013.01 - EP US); **H05H 1/3468** (2021.05 - EP); **H05H 1/3478** (2021.05 - EP)

Citation (applicant)
• IT BO20060156 A 20060303
• US 5591356 A 19970107 - SAKURAGI SHUNICHI [JP], et al
• US 5444209 A 19950822 - CRAWMER DARYL E [US], et al
• US 5170033 A 19921208 - COUCH JR RICHARD W [US], et al
• US 2007284340 A1 20071213 - JORGENSEN MORTEN [US]

Citation (search report)
• [XY] US 5591356 A 19970107 - SAKURAGI SHUNICHI [JP], et al
• [X] US 5444209 A 19950822 - CRAWMER DARYL E [US], et al
• [Y] US 2007284340 A1 20071213 - JORGENSEN MORTEN [US]
• [Y] US 5170033 A 19921208 - COUCH JR RICHARD W [US], et al

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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EP 2375876 A1 20111012; EP 2375876 B1 20161102; IT 1399320 B1 20130416; IT BO20100224 A1 20111013; PL 2375876 T3 20170428

DOCDB simple family (application)
EP 11161876 A 20110411; IT BO20100224 A 20100412; PL 11161876 T 20110411