

Title (en)
FRAME FOR A CARTRIDGE FOR A PLASMA ARC CUTTING SYSTEM, METHOD OF COOLING THE PLASMA ARC CUTTING SYSTEM AND METHOD OF MANUFACTURING THE FRAME

Title (de)
RAHMEN FÜR EINE KARTUSCHE FÜR EIN PLASMALICHTBOGENSCHNEIDSYSTEM, VERFAHREN ZUM KÜHLEN DES PLASMALICHTBOGENSCHNEIDSYSTEMS UND VERFAHREN ZUR HERSTELLUNG DES RAHMENS

Title (fr)
CADRE POUR CARTOUCHE POUR SYSTÈME DE DÉCOUPE À L'ARC PLASMA, PROCÉDÉ DE REFROIDISSEMENT DU SYSTÈME DE DÉCOUPE À L'ARC PLASMA ET PROCÉDÉ DE FABRICATION DU CADRE

Publication
EP 4351280 A3 20240710 (EN)

Application
EP 24159468 A 20191107

Priority
• US 201862756996 P 20181107
• EP 19836670 A 20191107
• US 2019060318 W 20191107

Abstract (en)
A frame for a replaceable, unitary consumables cartridge configured for installation into a plasma arc torch. The frame includes a hollow body adapted to receive a translatable contact start electrode. The body has an internal surface and an external surface and includes: a substantially cylindrical metallic core; an electrically insulative overmolded plastic casing at least substantially surrounding a circumference of a distal end of the substantially cylindrical metallic core; and a set of flow passages fluidly connecting the external surface of the hollow body and the internal surface of the hollow body, the flow passages offset to impart a swirling fluid flow pattern to a plasma gases passing therethrough.

IPC 8 full level
H05H 1/34 (2006.01)

CPC (source: EP US)
H05H 1/3423 (2021.05 - EP US); **H05H 1/3468** (2021.05 - EP)

Citation (search report)
• [A] KR 20180040645 A 20180420 - HYPER THERM INC [US]
• [A] US 2016050740 A1 20160218 - ZHANG YU [US], et al
• [A] US 2015319836 A1 20151105 - SANDERS NICHOLAS A [US]
• [A] US 2013043224 A1 20130221 - LEITERITZ NATHAN GERALD [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

DOCDB simple family (publication)
WO 2020097365 A1 20200514; CN 112913335 A 20210604; CN 112913335 B 20240412; EP 3878244 A1 20210915; EP 3878244 B1 20240228; EP 3878244 C0 20240228; EP 4351280 A2 20240410; EP 4351280 A3 20240710; JP 2022504056 A 20220113; JP 7411646 B2 20240111; MX 2021003748 A 20210514

DOCDB simple family (application)
US 2019060318 W 20191107; CN 201980072920 A 20191107; EP 19836670 A 20191107; EP 24159468 A 20191107; JP 2021518000 A 20191107; MX 2021003748 A 20191107