

Title (en)
DEVICE AND METHOD FOR PRODUCING AT LEAST PARTIALLY CLOSED HOLLOW PROFILES WITH ROTATABLE DIE HALVES AND LOW CYCLE TIME

Title (de)
VORRICHTUNG UND VERFAHREN ZUR HERSTELLUNG VON ZUMINDEST TEILWEISE GESCHLOSSENEN HOHLPROFILIEN MIT DREHBAREN GESENKHÄLFTEN UND GERINGER TAKTZEIT

Title (fr)
DISPOSITIF ET PROCÉDÉ POUR FABRIQUER DES PROFILÉS CREUX AU MOINS PARTIELLEMENT FERMÉS AU MOYEN DE DEMI-MATRICES ROTATIVES AVEC UN TEMPS DE CYCLE RÉDUIT

Publication
EP 2616197 B1 20140312 (DE)

Application
EP 11755339 A 20110912

Priority
• DE 102010037534 A 20100914
• EP 2011065726 W 20110912

Abstract (en)
[origin: WO2012034967A1] The invention relates to a device for producing at least partially closed hollow profiles from a plate by a U-O forming operation with a tool comprising at least one U-punch and at least one upper die in a first tool half. The object of proposing a device and a method for producing at least partially closed hollow profiles from a plate that ensure the production of corresponding profiles with a short cycle time and high reliability of the process is achieved by a device by providing at least two identical, at least partially U-shaped dies in a second tool half, by the U-punch and the upper die of the first tool half being simultaneously in engagement with in each case an at least partially U-shaped die during the closing of the tool, by the at least one U-punch and the at least one upper die of the first tool half and the at least two at least partially U-shaped dies of the second tool half being arranged rotationally symmetrically in relation to an axis of rotation extending in the closing direction of the tool, and by the first and second tool halves being rotatable in relation to each other about this axis of rotation, such that a rotation of the first and/or second tool half has the effect that the U-punch and the upper die can respectively be in engagement with the first or the second at least partially U-shaped die.

IPC 8 full level
B21C 37/08 (2006.01); **B21D 5/01** (2006.01)

CPC (source: EP KR US)
B21C 37/06 (2013.01 - KR); **B21D 5/01** (2013.01 - KR); **B21D 5/015** (2013.01 - EP KR US); **B21D 22/00** (2013.01 - US);
B21D 37/08 (2013.01 - KR); **B21D 43/14** (2013.01 - KR)

Cited by
EP3450041A1

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)
DE 102010037534 A1 20120315; CN 103153498 A 20130612; CN 103153498 B 20140917; EP 2616197 A1 20130724;
EP 2616197 B1 20140312; ES 2471090 T3 20140625; JP 2013537112 A 20130930; JP 5530036 B2 20140625; KR 101690707 B1 20161228;
KR 20130100287 A 20130910; US 2013186165 A1 20130725; US 9993860 B2 20180612; WO 2012034967 A1 20120322

DOCDB simple family (application)
DE 102010037534 A 20100914; CN 201180044248 A 20110912; EP 11755339 A 20110912; EP 2011065726 W 20110912;
ES 11755339 T 20110912; JP 2013528624 A 20110912; KR 20137006586 A 20110912; US 201313794041 A 20130311