

Title (en)

PROCESS AND APPARATUS FOR MANUFACTURING A CUTTING TOOL BY PRESSING

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG EINES SCHNEIDWERKZEUGS DURCH PRESSEN

Title (fr)

PROCÉDÉ ET APPAREIL DE FABRICATION D'UN OUTIL DE COUPE PAR PRESSION

Publication

**EP 3684528 A1 20200729 (EN)**

Application

**EP 18785830 A 20180921**

Priority

- EP 17192714 A 20170922
- EP 2018075709 W 20180921

Abstract (en)

[origin: WO2019057945A1] The present invention concerns a process for manufacturing a cutting tool, in particular a milling cutter, such as an end mill. The process comprises providing one or two partial molds. In an embodiment, two mold units are used, each mold unit comprising two openings. In accordance with this embodiment, the process comprises joining the two mold units so as to form a mold, and inserting at least one pressing punch through one of the remaining openings in order to press a metal, ceramic or carbide powder added to the mold. The pressed cutting tool can be ejected by way of a rotational ejection rod, which pushes the cutting tool out of the mold by way of a rotational, translational movement. The invention also concerns an apparatus for conducting the process.

IPC 8 full level

**B22F 3/03** (2006.01); **B22F 5/00** (2006.01); **B22F 5/06** (2006.01); **B30B 15/02** (2006.01)

CPC (source: EP KR US)

**B22F 3/03** (2013.01 - EP KR US); **B22F 5/06** (2013.01 - EP KR US); **B30B 11/02** (2013.01 - EP KR); **B30B 15/022** (2013.01 - EP KR); **B30B 15/32** (2013.01 - EP KR); **B22F 2005/001** (2013.01 - EP KR US); **B22F 2301/00** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2019057945A1

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

DOCDB simple family (publication)

**WO 2019057945 A1 20190328**; CN 111050952 A 20200421; EP 3684528 A1 20200729; IL 272990 A 20200430; JP 2020534432 A 20201126; KR 20200059253 A 20200528; US 2020269317 A1 20200827

DOCDB simple family (application)

**EP 2018075709 W 20180921**; CN 201880058400 A 20180921; EP 18785830 A 20180921; IL 27299020 A 20200301; JP 2020516524 A 20180921; KR 20207011343 A 20180921; US 201816648736 A 20180921