Title (en)

PROCESS AND DEVICE FOR THE CONTINUOUS PRODUCTION OF CYLINDRICAL RODS WITH AT LEAST ONE INTERNAL HELICAL CHANNEL, AND SINTER BLANK MADE BY THIS PROCESS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR KONTINUIERLICHEN HERSTELLUNG VON ZYLINDRISCHEN STÄBEN MIT ZUMINDEST EINEM INNENLIEGENDEN, WENDELFÖRMIGEN KANAL, UND NACH DIESEM VERFAHREN HERGESTELLTER SINTERROHLING

Title (fr)

PROCEDE ET DISPOSITIF DE FABRICATION CONTINUE DE BARRES CYLINDRIQUES COMPORTANT AU MOINS UN CANAL INTERIEUR HELICOIDAL, ET EBAUCHE FRITTEE REALISEE SELON CE PROCEDE

Publication

EP 0634959 B1 19970326 (DE)

Application

EP 93908925 A 19930407

Priority

- DE 4211827 A 19920408
- DE 4242336 A 19921215
- EP 9300860 W 19930407

Abstract (en)

[origin: WO9320961A1] The description relates to a process for the continuous production of cyclindrical rods (24) with at least one and preferably a plurality of internal helical channels (26) of predetermined cross-section uniformly distributed around the periphery. This process is used especially in the production of a sintered metal or ceramic blank in which the plastic compound forming the blank is pressed out of a nozzle mouth (14), with the compound (12) flowing along the axis (44) of the helically twisted pin (40, 42) journal secured on a nozzle mandrel. To simplify the process and eliminate as far as possible the dependence of the result of extrusion on the extrusion process parameters, there is a rotatable cooling channel former in the nozzle aperture having at least one helically pretwisted pin (40, 42) rigidly attached to a shaft (30) at least at the securing point, thus being dimensionally stable. The helical pretwist exactly corresponds to the shape of the helix of the internal channels (26) to be formed in the blank. Thus a constant rotary impulse defined by the pitch of the helix is imposed on at least one pin (40, 42) by the plastic compound (12) flowing along its axis (44) essentially over its entire length, with the result that the compound (12) cannot be plastically deformed in the nozzle mouth (26).

IPC 1-7

B21C 23/14

IPC 8 full level

B28B 3/20 (2006.01); **B21C 23/14** (2006.01); **B22F 3/20** (2006.01); **B22F 5/10** (2006.01); **B28B 3/02** (2006.01); **B28B 21/52** (2006.01); **C04B 35/64** (2006.01)

CPC (source: EP)

B21C 23/147 (2013.01); **B22F 3/20** (2013.01); B22F 2005/004 (2013.01); B22F 2998/00 (2013.01)

Designated contracting state (EPC)

AT CH DE DK FR GB IT LI LU NL SE

DOCDB simple family (publication)

WO 9320961 A1 19931028; AT E150675 T1 19970415; DE 59305967 D1 19970430; EP 0634959 A1 19950125; EP 0634959 B1 19970326; JP 2004339610 A 20041202; JP 3662249 B2 20050622; JP H08502015 A 19960305

DOCDB simple family (application)

EP 9300860 W 19930407; AT 93908925 T 19930407; DE 59305967 T 19930407; EP 93908925 A 19930407; JP 2004149701 A 20040519; JP 51795593 A 19930407