

Title (en)  
CONTINUOUS EXTRUSION PROCESS AND DEVICE FOR RODS MADE OF A PLASTIC RAW MATERIAL AND PROVIDED WITH A SPIRAL INNER CHANNEL

Title (de)  
VERFAHREN UND VORRICHTUNG ZUR KONTINUIERLICHEN EXTRUSION VON MIT EINEM WENDELFÖRMIGEN INNENKANAL AUSGESTATTETEN STÄBEN AUS PLASTISCHEM ROHMATERIAL

Title (fr)  
PROCEDE ET DISPOSITIF D'EXTRUSION EN CONTINU D'UNE BARRE EN UNE MATIERE PREMIERE PLASTIQUE POURVUE D'UN CANAL INTERIEUR EN SPIRALE

Publication  
**EP 1017527 B1 20020313 (DE)**

Application  
**EP 97950028 A 19971027**

Priority  
• DE 19644447 A 19961025  
• EP 9705910 W 19971027

Abstract (en)  
[origin: US6248277B1] Method and apparatus for the continuous extrusion of rods of plastic raw material. The rods contain at least one inner channel which is at least in part spiral-shaped. The raw material may be a powder-metallurgical or ceramic mass. The material is extruded through a nozzle mouthpiece and made to rotate by an arrangement of flow guiding surfaces. At least one thread made of a flexible or elastic material is entrained and gives the rod a spiral shape with a predetermined pitch. The thread is retained upstream of the nozzle mouthpiece in an eccentric position relative to the rod axis that extends through the nozzle mouthpiece. The movement of rotation of the raw material is adjusted by an outer adjusting force which modifies the angle between the arrangement of flow guiding surfaces and the longitudinal axis of the nozzle mouthpiece to adjust the position and pitch of the spiral channel.

IPC 1-7  
**B23B 51/00**

IPC 8 full level  
**B23B 51/06** (2006.01); **B21C 23/14** (2006.01); **B21C 25/08** (2006.01); **B22F 3/20** (2006.01); **B22F 5/10** (2006.01); **B23B 51/00** (2006.01); **B28B 3/20** (2006.01); **B28B 3/26** (2006.01)

CPC (source: EP US)  
**B21C 23/147** (2013.01 - EP US); **B21C 25/08** (2013.01 - EP US); **B22F 3/20** (2013.01 - EP US); **B22F 5/10** (2013.01 - EP US); **B28B 3/26** (2013.01 - EP US); **B22F 2005/001** (2013.01 - EP US); **B22F 2005/004** (2013.01 - EP US)

Cited by  
WO2011138422A2

Designated contracting state (EPC)  
AT CH DE GB LI LU SE

DOCDB simple family (publication)  
**US 6248277 B1 20010619**; AT E214317 T1 20020315; DE 19644447 A1 19980430; DE 19644447 C2 20011018; DE 59706644 D1 20020418; EP 1017527 A1 20000712; EP 1017527 B1 20020313; HK 1027774 A1 20010123; JP 2002514138 A 20020514; JP 3935961 B2 20070627; WO 9818587 A2 19980507; WO 9818587 A3 20021121

DOCDB simple family (application)  
**US 28494599 A 19990621**; AT 97950028 T 19971027; DE 19644447 A 19961025; DE 59706644 T 19971027; EP 9705910 W 19971027; EP 97950028 A 19971027; HK 00105258 A 20000821; JP 52003398 A 19971027