

Title (en)
A device for manufacturing a cutting insert green body and a method of compacting powder into a cutting insert green body by means of said device

Title (de)
Vorrichtung zur Herstellung eines Schneideinsatz-Grünkörpers und Verfahren zum Verdichten von Pulver im Schneideinsatz-Grünkörper durch diese Vorrichtung

Title (fr)
Dispositif de fabrication d'un corps vert d'insert de coupe et procédé de compactage de poudre dans un corps vert d'insert de coupe au moyen dudit dispositif

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EP 3015196 A1 20160504 (EN)

Application
EP 14191177 A 20141030

Priority
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Abstract (en)
A device for manufacturing a cutting insert green body by compacting a powder, said device comprising: a die (7) for receiving said powder, at least one punch for compacting said powder received by said die (7), and a powder-filling device (12) for filling powder into the die (7), wherein, in an upper surface (13) of at least one part of the die (7), the die (7) comprises an upper opening (14) through which said powder is introduced into the die (7) and through which or towards which said punch may be forwarded into the die (7) for the purpose of compacting powder introduced into the die (7), wherein said upper opening (14) is defined by an edge (15) that presents a curvature other than planar. The upper surface (13) of the die (7) presents a path that, at least in on direction (x), extends rectilinearly from a laterally offset point on said upper surface (13) to said upper opening (14) and covers said upper opening (14) and intersects said edge (15) that defines said upper opening (14), wherein said path has a predetermined non-planar profile in a cross section perpendicularly to said direction (x), and the powder-filling device (12) has a bottom surface that at least partially presents a profile corresponding to said non-planar profile of said path.

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Citation (applicant)
EP 2164657 A1 20100324 - TAEGU TEC LTD [KR]

Citation (search report)
• [XYI] JP S59166601 A 19840920 - SUMITOMO ELECTRIC INDUSTRIES
• [X] SU 1708514 A1 19920130 - RESPUB INZH TEKHN TS POROSHKOV [SU]
• [Y] SU 1752510 A1 19920807 - VNI PI TUGOPLAVKIKH METALL [SU]
• [A] JP 2000326100 A 20001128 - HITACHI POWDERED METALS
• [A] JP 2009142833 A 20090702 - KOBAYASHI IND

Cited by
JP6354893B1; JP2016135495A; US11666966B2; JP2016135494A; CN110709193A; KR20200013666A; EP3636368A4; WO2018221497A1

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