

Title (en)

NET-SHAPE OR NEAR NET-SHAPE POWDER ISOSTATIC PRESSING PROCESS

Title (de)

ENDFORM- ODER ENDFORMNAHES ISOSTATISCHES PULVERPRESSVERFAHREN

Title (fr)

PROCÉDÉ DE COMPRESSION ISOSTATIQUE DE POUDRE À FINITION IMMÉDIATE OU À FINITION PRESQUE IMMÉDIATE

Publication

EP 2262599 B1 20141112 (EN)

Application

EP 09721920 A 20090320

Priority

- GB 2009000757 W 20090320
- GB 0805242 A 20080320

Abstract (en)

[origin: WO2009115821A1] A method of producing a net or near net-shape component from metal powder comprises producing an insert of accurate dimensions corresponding to the dimensions of a bore to be created in the finished component, the bore having a length of at least 750mm, supporting the insert within a mould cavity, filling the mould cavity with metal powder, subjecting the powder to isostatic pressing, and subsequently removing the material of the insert. The mould can be an independent mould that is removed after an initial step to bind the powder together into a pre-form, and the pre-form is then encapsulated in a suitable containment, such as a canister or a sprayed coating. The insert can be a metallic insert of a material, such as copper, that is subsequently removable by chemical etching. The insert can be coated with a material that is amenable to removal by etching, and to enable the insert to be extracted. A metallic insert can be coated with a material that provides a diffusion barrier to prevent the material of the insert from diffusing by atomic diffusion into the powder being consolidated during HIPing.

IPC 8 full level

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CPC (source: EP US)

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