

Title (en)
IMPROVEMENTS RELATING TO HOT ISOSTATIC PRESSING

Title (de)
VERBESSERUNGEN IM ZUSAMMENHANG MIT ISOSTATISCHER HEISSVERPRESSUNG

Title (fr)
AMÉLIORATIONS APPORTÉES À LA COMPRESSION ISOSTATIQUE À CHAUD

Publication
EP 3441165 A1 20190213 (EN)

Application
EP 17185347 A 20170808

Priority
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Abstract (en)
A method of manufacturing a component, such as a nickel alloy turbine disc, from metal alloy powders is disclosed. The method uses a hollow canister or mould to contain metal alloy powders during a step of hot isostatic pressing, the canister having a first section and a second section, wherein the second section exerts a higher pressure on the metal alloy powders contained within the second section than the first section exerts on the metal powders contained within the first section. This may be achieved by the first section having a higher strength than the second section. The method may therefore allow different regions of the component to be produced by hot isostatic pressing at different pressures which are more appropriate for favourable mechanical property development than would be possible using known methods. A canister for use in the method and a component formed by the method are also disclosed.

IPC 8 full level
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Citation (search report)
• [XAI] EP 2551040 A1 20130130 - EADS DEUTSCHLAND GMBH [DE], et al
• [XAI] US 4329175 A 19820511 - TURNER NEVILLE G
• [XA] US 2006263231 A1 20061123 - GROH JON R [US], et al
• [A] EP 3106248 A1 20161221 - ROLLS ROYCE PLC [GB]

Cited by
CN111347045A; CN115070040A; CN115070039A

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