

Title (en)  
RAPID MANUFACTURING METHOD AND DEVICE FOR THE SAME COMPRISING OPPOSITELY-DIRECTED PROTECTIVE GAS STREAMS  
PARALLEL TO THE POWDER LAYER

Title (de)  
GENERATIVES HERSTELLUNGSVERFAHREN UND VORRICHTUNG HIERZU MIT ENTGEGENGESETZT GERICHTETEN  
SCHUTZGASSTRÖMEN PARALLEL ZUR PULVERSCHICHT

Title (fr)  
PROCÉDÉ DE FABRICATION GÉNÉRATIF ET DISPOSITIF ASSOCIÉ, COMPRENANT DES FLUX DE GAZ PROTECTEUR DIRIGÉS DANS DES  
SENS OPPOSÉS PARALLÈLEMENT À LA COUCHE DE POUDRE

Publication  
**EP 3160669 A1 20170503 (DE)**

Application  
**EP 15729751 A 20150429**

Priority  
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• DE 2015000206 W 20150429

Abstract (en)  
[origin: WO2015197039A1] The present invention relates to a device and a method for the rapid manufacturing of components through the layered bonding of powder particles to each other and/or to a semi-finished product or substrate already produced, using selective interaction of the powder particles with a high-energy beam (13), wherein, during the bonding of the powder particles into a layer made of powder particles with the aid of the high-energy beam, a gas flow (7) which has a current direction having a directional component directed at least partially parallel to the layer of the powder particles is provided across the layer of powder particles and/or the bonding area in the layer of powder particles, wherein the directional component of the gas flow (7) directed at least partially parallel to the layer of powder particles during the bonding of the powder particles in a layer is generated in at least two directions which have oppositely-directed directional components.

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Citation (search report)  
See references of WO 2015197039A1

Citation (examination)  
• DE 102014209161 A1 20151119 - EOS ELECTRO OPTICAL SYST [DE]  
• WO 2014199149 A1 20141218 - RENISHAW PLC [GB]  
• EP 3685941 A1 20200729 - RENISHAW PLC [GB]  
• DE 102004031881 A1 20060126 - CONCEPT LASER GMBH [DE]

Cited by  
CN108883574A

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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