

Title (en)  
METHOD AND APPARATUS FOR ADDITIVE MANUFACTURING UNDER PROTECTIVE GAS

Title (de)  
VERFAHREN UND VORRICHTUNG ZUR ADDITIVEN FERTIGUNG UNTER SCHUTZGAS

Title (fr)  
PROCÉDÉ ET DISPOSITIF DE FABRICATION ADDITIVE SOUS GAZ PROTECTEUR

Publication  
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Application  
**EP 21731940 A 20210602**

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Abstract (en)  
[origin: CA3181711A1] The invention relates to a method for additive manufacture of a workpiece under protective gas, wherein a workpiece is assembled from a sequence of workpiece contours, each of which is manufactured by selective sintering or melting of a powdery or wire-like material by applying an energy beam thereto, wherein a workpiece contour is manufactured under the effect of a protective gas consisting of carbon dioxide and an inert gas. According to the invention, the chemical composition of each workpiece contour is modified according to a specified program by variation of the composition of the protective gas. Heat treatment occurring after manufacture of the workpiece contour provides for defined mechanical and technological quality values of the workpiece contour. A workpiece having zones with defined mechanical and technological quality values is produced in this manner.

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