

Title (en)

SYSTEM FOR CONTROLLING THE TEMPERATURE OF THE CONSTRUCTION SPACE IN POWDER BED FUSION-BASED ADDITIVE MANUFACTURING INSTALLATIONS

Title (de)

SYSTEM ZUR TEMPERIERUNG DES BAURAUMS PULVERBETTBASIERTER ADDITIVER FERTIGUNGSANLAGEN

Title (fr)

SYSTÈME DE MISE EN TEMPÉRATURE DE L'ESPACE D'INSTALLATIONS DE FABRICATION ADDITIVE À BASE DE LIT DE POUDRE

Publication

**EP 4117845 A1 20230118 (DE)**

Application

**EP 21711532 A 20210310**

Priority

- DE 102020106516 A 20200310
- EP 2021056005 W 20210310

Abstract (en)

[origin: WO2021180766A1] The present invention relates to a sintering device for the additive manufacturing of metallic workpieces using a powder bed, comprising at least the components: a) irradiation unit; b) metal powder feed; c) vertically movable build platform, the build platform forming the base of the powder bed; d) process chamber walls delimiting the powder bed to the sides, the process chamber walls being formed from metal and being individually and locally selectively heatable and coolable as a function of the height from the base of the build platform, wherein a plurality of temperature sensors are arranged in or on the process chamber walls vertically spaced apart from one another. The present invention further relates to the use of a device according to the invention for the additive manufacture of metallic workpieces.

IPC 8 full level

**B22F 10/20** (2021.01); **B22F 12/00** (2021.01); **B29C 64/153** (2017.01); **B29C 64/245** (2017.01); **B29C 64/255** (2017.01); **B29C 64/295** (2017.01); **B33Y 10/00** (2015.01); **B33Y 30/00** (2015.01)

CPC (source: EP)

**B22F 10/28** (2021.01); **B22F 12/17** (2021.01); **B22F 12/20** (2021.01); **B29C 64/255** (2017.08); **B29C 64/295** (2017.08); **B33Y 10/00** (2014.12); **B33Y 30/00** (2014.12); **B22F 10/362** (2021.01); **B22F 10/364** (2021.01); **B22F 12/13** (2021.01); **B22F 12/38** (2021.01); **B22F 12/45** (2021.01); **B22F 12/90** (2021.01); **B22F 2203/11** (2013.01); **B22F 2999/00** (2013.01); **Y02P 10/25** (2015.11)

C-Set (source: EP)

**B22F 2999/00** + **B22F 12/38** + **B22F 12/17** + **B22F 12/20** + **B22F 12/90**

Designated contracting state (EPC)

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**DE 102020106516 A1 20210916**; EP 4117845 A1 20230118; WO 2021180766 A1 20210916

DOCDB simple family (application)

**DE 102020106516 A 20200310**; EP 2021056005 W 20210310; EP 21711532 A 20210310