

Title (en)

DEVICE AND METHOD FOR THE ADDITIVE MANUFACTURE OF A THREE-DIMENSIONAL WORKPIECE

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ADDITIVEN FERTIGUNG EINES DREIDIMENSIONALEN WERKSTÜCKS

Title (fr)

SYSTÈME ET PROCÉDÉ DE FABRICATION ADDITIVE D'UNE PIÈCE TRIDIMENSIONNELLE

Publication

EP 4247622 A1 20230927 (DE)

Application

EP 21819384 A 20211122

Priority

- DE 102020214692 A 20201123
- EP 2021082464 W 20211122

Abstract (en)

[origin: WO2022106678A1] The invention relates to a device (1) for the additive manufacture of a three-dimensional workpiece (10), comprising: a build chamber (2); at least one printing head (3); a receiving device (4) for receiving the three-dimensional workpiece (10); an air-circulation system (12) for controlling the temperature of and conveying a gaseous fluid (7); and an adjustment device (5) comprising an x-y axis system (15), which has a printing-head receptacle (25), and comprising a z-axis system (35). The device is characterised in that the air-circulation system (12) comprises: a device (6) for controlling the temperature of and conveying a gaseous fluid (7); an inlet device (40) having at least two inlet openings (43) connected to the build chamber (2); and an outlet device (50), wherein the outlet device (50) is integrated in the z-axis system (35) and can be adjusted therewith. The invention also relates to a method for the additive manufacture of a three-dimensional workpiece (10) using a device (1) according to the invention for the additive manufacture of a three-dimensional workpiece (10).

IPC 8 full level

B29C 64/25 (2017.01); **B29C 64/232** (2017.01); **B29C 64/236** (2017.01); **B29C 64/295** (2017.01); **B29C 64/364** (2017.01); **B33Y 30/00** (2015.01)

CPC (source: EP US)

B29C 64/209 (2017.07 - US); **B29C 64/232** (2017.07 - EP US); **B29C 64/236** (2017.07 - EP US); **B29C 64/245** (2017.07 - US);
B29C 64/25 (2017.07 - EP US); **B29C 64/295** (2017.07 - EP); **B29C 64/364** (2017.07 - EP); **B29C 64/371** (2017.07 - US);
B29C 64/393 (2017.07 - US); **B33Y 30/00** (2014.12 - EP US); **B33Y 50/02** (2014.12 - US)

Citation (search report)

See references of WO 2022106678A1

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)

WO 2022106678 A1 20220527; CN 116669931 A 20230829; DE 102020214692 A1 20220525; EP 4247622 A1 20230927;
US 2023415420 A1 20231228

DOCDB simple family (application)

EP 2021082464 W 20211122; CN 202180078515 A 20211122; DE 102020214692 A 20201123; EP 21819384 A 20211122;
US 202118253560 A 20211122