

Title (en)
DEVICE AND METHOD FOR HANDLING 3D POWDER PRINTING ELEMENTS

Title (de)
VORRICHTUNG UND VERFAHREN ZUM BEHANDELN VON 3D-PULVERDRUCKELEMENTEN

Title (fr)
DISPOSITIF ET PROCÉDÉ DE TRAITEMENT D'ÉLÉMENTS D'IMPRESSION À POUDRE 3D

Publication
EP 3746234 A1 20201209 (DE)

Application
EP 19711803 A 20190201

Priority
• DE 102018000814 A 20180201
• DE 2019000023 W 20190201

Abstract (en)
[origin: CA3089776A1] The invention relates to a device for treating 3D powder printing elements, in particular 3D laser printing elements and/or 3D powder bed elements, in particular produced using a plastic powder laser sintering method, comprising at least one first chamber, at least one first partial chamber and a second partial chamber, separated by at least one screen grid means, wherein the grid meshes are adaptively designed to allow compressed powder residues to pass through, a rotation means for rotating the first chamber about an axis of rotation, in particular with a rotary passage, wherein the screen grid means is inclined, in particular perpendicular, to the axis of rotation of the first chamber, a filling region for filling the 3D powder printing elements into the first partial chamber, gas medium supply means, in particular air supply means, in the first chamber, in particular in the first partial chamber, gas medium suction means, also designed to extract plastic powder residues from the first chamber, in particular from the second partial chamber, wherein the gas medium suction means are to be mounted in particular in or parallel to the axis of rotation and/or centred by the rotary means, in particular within the rotary passage.

IPC 8 full level
B08B 5/02 (2006.01); **B08B 5/04** (2006.01); **B08B 7/02** (2006.01); **B24C 3/32** (2006.01); **B29C 64/35** (2017.01); **B33Y 40/00** (2020.01)

CPC (source: EP US)
B08B 5/02 (2013.01 - EP US); **B08B 5/04** (2013.01 - EP US); **B08B 7/0035** (2013.01 - US); **B08B 7/02** (2013.01 - EP); **B08B 7/028** (2013.01 - US); **B08B 7/04** (2013.01 - US); **B24C 3/32** (2013.01 - EP); **B29C 64/35** (2017.07 - EP US); **B33Y 40/00** (2014.12 - EP US); **B33Y 40/20** (2020.01 - US); **B24C 9/006** (2013.01 - EP); **B29C 64/153** (2017.07 - US); **Y02P 10/25** (2015.11 - EP); **Y02P 70/10** (2015.11 - EP)

Citation (search report)
See references of WO 2019149305A1

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

DOCDB simple family (publication)
DE 102018000814 A1 20190801; CA 3089776 A1 20190808; CN 111801171 A 20201020; DE 112019000634 A5 20201029; EP 3746234 A1 20201209; JP 2021512802 A 20210520; US 11220058 B2 20220111; US 2021039318 A1 20210211; WO 2019149305 A1 20190808; WO 2019149305 A8 20200910

DOCDB simple family (application)
DE 102018000814 A 20180201; CA 3089776 A 20190201; CN 201980011263 A 20190201; DE 112019000634 T 20190201; DE 2019000023 W 20190201; EP 19711803 A 20190201; JP 2020542307 A 20190201; US 201916965618 A 20190201