Title (en)

METHOD AND DEVICE FOR REMOVING SUPPORTING STRUCTURES FROM AN OBJECT

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ENTFERNUNG VON STÜTZSTRUKTUREN AUS EINEM GEGENSTAND

Title (fr)

PROCÉDÉ ET DISPOSITIF D'ÉLIMINATION DE STRUCTURES DE SUPPORT D'UN OBJET

Publication

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Application

EP 22723967 A 20220505

Priority

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- AT 2022060156 W 20220505

Abstract (en)

[origin: WO2022232859A1] A device for removing supporting structures (1, 1.1-1.13) from an object (2), wherein the object (2) is an object (2) produced by an additive manufacturing process, and wherein at least one supporting structure (1, 1.1-1.13) is provided in the object (2), between a first element (3) and a second element (4) of the object (2), the supporting structure in each case having at least one connection (5) to the first element (3) and to the second element (4) and forming a vibration system (6, 6.1-6.7) together with said elements, wherein the device (100, 101) has at least one mechanical actuator (10) which is coupled to the object (2) for introducing a mechanical excitation vibration, and wherein the device (100, 101) has a controller (18) which is coupled to the at least one actuator (10) and is programmed to control the excitation vibration and to excite the vibration system (6, 6.1-6.7) with at least a resonant vibration associated therewith in such a manner that at at least one point in time the deflection of the resonant vibration exceeds the loading limit at at least one point in the vibration system (6, 6.1-6.7), characterized in that the first element (3) has a desired structure or an intermediate plate and the second element (4) of the object (2) has a base plate (7) of the object (2), and in that the device (100, 101) has a plurality of actuators (10) which are connected to the controller (18) and are mechanically coupled to the object (2), wherein the controller (18) is programmed to introduce a plurality of excitation vibrations into the object (2), said excitation vibrations being superimposed on the resonant vibration in the vibration system, with at least one of the actuators (10) being coupled to the first element (3).

IPC 8 full level

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