

Title (en)
MACHINING METHOD AND MACHINING DEVICE HAVING HIGH EFFICIENCY AND LOW DAMAGE

Title (de)
BEARBEITUNGSVERFAHREN UND BEARBEITUNGSVORRICHTUNG MIT HOHEM WIRKUNGSGRAD UND GERINGER BESCHÄDIGUNG

Title (fr)
PROCÉDÉ D'USINAGE ET DISPOSITIF D'USINAGE À HAUT RENDEMENT ET FAIBLE ENDOMMAGEMENT

Publication
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Application
EP 20937035 A 20201127

Priority

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Abstract (en)
Disclosed are a machining method and a machining device improving machining efficiency and preserving workpiece surface integrity. The machining method improving machining efficiency and preserving workpiece surface integrity includes: setting a workpiece (300) and a machining unit (400); and machining the workpiece (300) by the machining unit (400) at a preset machining speed, wherein the preset machining speed is not lower than a machining speed corresponding to the embrittlement of the workpiece material. The machining device improving machining efficiency and preserving workpiece surface integrity is used for executing the machining method having the same merits. The machining device includes: a base (100) used for mounting the workpiece (300) and the machining unit (400), and a driving unit (200) connected to the machining unit (400) and used for driving the machining unit (400) to the preset machining speed. By the machining method, the machining speed of the machining unit (400) is set during machining, which results in "skin effect" of subsurface damage caused by the embrittlement of the workpiece material (300) and enables the damage depth of the workpiece (300) to be confined in a shallow subsurface layer, so that the damage depth of the workpiece (300) is reduced, the workpiece integrity is preserved, and the machining quality and the machining efficiency are improved.

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