

Title (en)

ABRASIVE FLOW MACHINING TOOL FOR DETERMINING MATERIAL REMOVAL FROM A WORKPIECE AND METHOD FOR DETERMINING THE CUTTING POWER OF A GRINDING MEDIUM

Title (de)

FLIESSLÄPPMASCHINE, VERFAHREN ZUM ERMITTELN EINES MATERIALABTRAGS AN EINEM WERKSTÜCK UND VERFAHREN ZUM BESTIMMEN DER SCHNEIDLEISTUNG EINES SCHLEIFMEDIUMS

Title (fr)

OUTIL D'USINAGE PAR ÉCOULEMENT ABRASIF POUR DÉTERMINER UN RETRAIT DE MATÉRIAU D'UNE PIÈCE À USINER ET PROCÉDÉ POUR DÉTERMINER LA PUISSANCE DE COUPE D'UN MILIEU ABRASIF

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Abstract (en)

[origin: WO2021019024A1] The invention relates to an abrasive flow machining tool (10), comprising a grinding medium driving device (24), which is suitable for moving the grinding medium (14) in a flow direction over a surface of a workpiece (12) and/or through the opening (16) of the workpiece (12), comprising a workpiece holder (18) for holding the workpiece (12) with two parts (20, 22) which are positionable on opposite sides of the workpiece (12), comprising a structure-borne noise sensor (36) for measuring structure-borne noise generated in a workpiece (12) as said workpiece is being machined by a grinding medium (14), and comprising an evaluation unit (38), which is suitable for determining the cutting power of the grinding medium (14) and/or the rate of material removal from the workpiece (12) on the basis of an integral value of the root mean square of the structure-borne noise, measured by the structure-borne noise sensor (36), over time. The invention furthermore relates to a method for determining material removal from a workpiece and to a method for determining the cutting power of a grinding medium.

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