

Title (en)

DEVICE FOR THE HIGH-PRECISION MACHINING OF THE SURFACE OF AN OBJECT, ESPECIALLY FOR POLISHING AND LAPPING SEMICONDUCTOR SUBSTRATES

Title (de)

VORRICHTUNG ZUR HOCHGENAUEN BEARBEITUNG DER OBERFLÄCHE EINES OBJEKTES, INSBESONDERE ZUM POLIEREN UND LÄPPEN VON HALBLEITERSUBSTRATEN

Title (fr)

DISPOSITIF POUR L'USINAGE HAUTE PRECISION DE LA SURFACE D'UN OBJET, EN PARTICULIER POUR LE POLISSAGE ET LE RODAGE DE SUBSTRATS SEMICONDUCTEURS

Publication

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Application

**EP 04704541 A 20040123**

Priority

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Abstract (en)

[origin: WO2004067228A1] The aim of the invention is to machine the surface of objects using a universal device, as economically as possible and in a significantly reduced amount of time, even in the event of process variations, material non-homogeneities etc., with high reproducible precision. To this end, the pressure distribution on the surface, which is decisive for the machining process, is determined by temporarily weighting the object to be machined - said object being fixed to a receiving surface (17) - and measuring the thus occurring change in position of the receiving surface (17) by means of actuator-sensor elements (18) in a space-resolved manner. Correcting variables for the local deformation of the receiving surface (17) are generated for the actuator-sensor elements (18) from the calculated pressure distribution. The invention can generally be applied to the surface machining of objects beyond the lapping or polishing of the above-mentioned semiconductor substrates.

IPC 8 full level

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CPC (source: EP US)

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