

Title (en)  
TOOL FOR FINELY MACHINING BORING SURFACES

Title (de)  
WERKZEUG ZUR FEINBEARBEITUNG VON BOHRUNGSOBERFLÄCHEN

Title (fr)  
OUTIL POUR L'USINAGE DE PRECISION DE SURFACES D'ALESAGES

Publication  
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Application  
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Abstract (en)  
[origin: WO2006081954A2] The invention relates to a tool (1) which is used to finely machine boring surfaces comprising a blade plate (5) having at least four geometrically defined blades (9, 9'), whereby two are arranged on the front side (11) and two are arranged on the rear side (53) of the blade plate and at least two guide rails (35, 35') whereby one guide rail (35) is arranged opposite the blade plate (5) and one guide rail (35') of the blade plate (5), when viewed in the direction of rotation, lags by about 45°. Said blade plate (5) is inserted into a groove (33) which is formed in the peripheral surface of the tool and forms a construction angle  $\alpha$  with an imaginary diametrical line (D1) of the tool. The blade plate (5) comprises, respectively, a cutting surface (49) which is associated with a blade (9, 9') and a free surface (55) which cuts itself and the cutting lines thereof form the cut (9). The free surface (55) forms a free angle  $\beta$  with an imaginary plane (E) which is perpendicular to the central plane (M) of the blade plate and which cuts the blade. An adjusting device (29) which is used to adjust the projection of the blade plate (5) over the peripheral surface of the tool (1) is provided. Said tool is characterised in that the construction angle  $\alpha$  and the free angle  $\beta$  are adapted to one another such that the equation  $\alpha - \beta = \text{approx. } 1^\circ$ , and also an effective free angle of approximately  $1^\circ$  is adjusted.

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