

Method For Slicing A Multiplicity Of Wafers From Workpieces By Means Of A Wire Saw During A Sequence Of Slicing Operations

Abstract

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A method for slicing off a multiplicity of wafers from workpieces by means of a wire saw during a sequence of slicing operations subdivided into initial cuts and first and second subsequent cuts, where the wire saw comprises a wire web of moving wire sections of a sawing wire and a setting device, and the wire web is stretched in a plane between two wire guide rollers, with each of the two wire guide rollers being mounted between a fixed bearing and a movable bearing, said method comprising

10 during each one of the slicing operations, by means of the setting device, the feeding of the respective workpiece through the wire web along a feed direction perpendicular to a workpiece axis and perpendicular to the plane of the wire web in the presence of a working fluid and of hard substances which act abrasively on the workpiece, which comprises

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during each one of the slicing operations, the oscillating axial moving of the movable bearings of the two wire guide rollers; and

the feeding of the workpiece through the wire web with simultaneous

20 displacement of the workpiece along the workpiece axis by means of a setting element in accordance with the mandate of a correction profile which comprises an oscillating component which is opposite to the effect which the axial moving of the movable bearings has on the shape of the sliced-off wafers.

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Drawing for the Abstract: Fig.1