

Abstract

Method for cutting a multiplicity of slices from workpieces by means of a wire saw during a sequence of cut-off operations

5 A method for cutting a multiplicity of slices by means of a wire saw from workpieces during a sequence of cut-off operations divided into initial cuts and follow-on cuts, wherein the wire saw comprises a wire array of moving wire sections of a saw wire and an actuating device, and the wire array is tensioned in a plane between two wire guide rollers, wherein each of the two wire guide rollers is supported between a fixed
10 bearing and a floating bearing. The method comprises,

during each of the cut-off operations, feeding the respective workpiece by means of the actuating device through the wire array along a feed direction perpendicular to a workpiece axis and perpendicular to the plane of the wire array in the presence of a working fluid and hard materials, which act abrasively on the
15 workpiece, which comprises

during each of the cut-off operations, feeding the workpiece through the wire array with simultaneous axial movement of the floating bearings by adjusting the temperature of the fixed bearings with a cooling fluid in accordance with the specification of a temperature profile, which specifies the temperature of the cooling
20 fluid in dependence on a depth of cut and correlates with a first correction profile, which specifies the travel of the floating bearings in dependence on the depth of cut; and

feeding the workpiece through the wire array while simultaneously moving the workpiece along the workpiece axis by means of an actuating element in accordance
25 with the specification of a second correction profile, which specifies the travel of the workpiece, wherein the first and second correction profiles are opposed to a shape deviation; and

determining the shape deviation during each of the cut-off operations and/or before each of the cut-off operations.

30 Drawing relating to abstract: Figure 1