

workpiece with the aid of a forward feed device with a defined forward feed rate, by which the workpiece is guided through the wire gang and is thereby sliced into a multiplicity of wafers, wherein the forward feed rate is varied in the course of the method in such a way that:

- it has a value v_1 at a cutting depth of 50% of the workpiece diameter,
- next, with a value $v_2 \geq 1.15 \times v_1$, it passes through a local maximum,
- subsequently, at the time when the wire gang comes in contact with the sawing strip for the first time, it takes a value v_3 which is a local minimum $< v_1$, and
- it is then increased to a value $v_5 > v_3$.

Brief Description of the Figures

The method according to the invention will be described in detail below with the aid of figures.

Fig. 1 illustrates the geometrical quantities used to describe the invention.

Fig. 2 shows a comparison of a forward feed rate profile according to the invention with one not according to the invention.

Detailed Description of the Invention

The invention relates to a wire sawing method, as described in the introduction to the description and schematically represented in Fig. 1. Fig. 1 represents the workpiece 1, which has the shape of a circular cylinder. It is fixed on a sawing strip 2, which is in

Patent claims

1. A method for simultaneously slicing a multiplicity of wafers from a substantially circular-cylindrical workpiece, in which the workpiece, connected to a sawing strip, and a wire gang of a wire saw execute a relative movement directed perpendicularly to the longitudinal axis of the workpiece with the aid of a forward feed device with a defined forward feed rate, by which the workpiece is guided through the wire gang and is thereby sliced into a multiplicity of wafers, wherein the forward feed rate is varied in the course of the method in such a way that:

- it has a value v_1 at a cutting depth of 50% of the workpiece diameter,
- next, with a value $v_2 \geq 1.15 \times v_1$, it passes through a local maximum,
- subsequently, at the time when the wire gang comes in contact with the sawing strip for the first time, it takes a value v_3 which is a local minimum $< v_1$, and
- it is then increased to a value $v_5 > v_3$.

2. The method as claimed in claim 1, wherein the forward feed rate has a local minimum at a cutting depth of from 40 to 60% of the workpiece diameter.

3. The method as claimed in claim 2, wherein the forward feed rate has a mirror-symmetrical profile with respect to the local minimum in a cutting depth range from 30 to 70% of the workpiece diameter.

4. The method as claimed in claim 3, wherein the forward feed rate has a mirror-symmetrical profile with respect to the local minimum in a cutting depth range from 25 to 75% of the workpiece diameter.

5. The method as claimed in one of claims 1 to 4, wherein $v_2 \geq 1.2 \times v_1$.