**Patent claims**

1. A method for producing semiconductor wafers from a workpiece by processing the workpiece by means of a wire saw, comprising
feeding the workpiece through an arrangement of wires which are tensioned between wire guide rollers while being divided into wire groups and move in a running direction;
producing kerfs when the wires engage into the workpiece;
for each of the wire groups, determining a placement error of the kerfs of the wire group; and
for each of the wire groups, inducing compensating movements of the wires of the wire group as a function of the determined placement error of the kerfs of the wire group in a direction perpendicular to the running direction of the wires of the wire group during the feeding of the workpiece through the arrangement of wires by activating at least one drive element.

2. The method as claimed in claim 1, comprising dividing the wires into no fewer than three wire groups and at most a number of wire groups which corresponds to the number of wires of the arrangement.

3. The method as claimed in claim 1 or claim 2, comprising determining the placement error of the kerfs during the feeding of the workpiece through the arrangement of wires.

4. The method as claimed in claim 1 or 2, comprising determining the placement error of the kerfs of the wire group by measuring the position of the kerfs of the wire group by means of irradiating the kerfs of the wire group with optical radiation, IR radiation, X-radiation or γ radiation, by mechanical sensing of the kerfs or by inductive or capacitive measurement of the kerfs, and comparing the measured position with a setpoint position of the kerfs.

5. The method as claimed in claim 1 or 2, comprising determining the placement error of the kerfs of the wire group by simultaneously measuring the position of the wires of the wire group and of the workpiece relative to a fixed reference point by means of

irradiation with optical radiation, IR radiation, X-radiation or γ radiation, by capacitive or inductive measurement or by mechanical sensing, and comparing the measured position with a respective setpoint position.

6. The method as claimed in claim 1 or 2, comprising tracking changes in a wire saw-specific correction profile in the course of the processing of a plurality of workpieces, and initiating a predictive maintenance measure if the changes have reached an established threshold.

7. The method as claimed in claim 6, comprising determining the placement error of the kerfs by measuring the local geometry of semiconductor wafers which have been produced beforehand by means of the wire saw, in order to compile the wire saw-specific correction profile.

8. A wire saw for producing semiconductor wafers by processing a workpiece, comprising
wire guide rollers, between which wires are tensioned to form an arrangement of wires, which are divided into wire groups and move in a running direction;
a feed device for feeding the workpiece through the arrangement of wires while producing kerfs when the wires engage into the workpiece;
drive elements, at least one of which is assigned to each of the wire groups, for moving the wires of the assigned wire group; and
a control unit for activating the drive elements, the control unit, when there is a placement error of the kerfs of the wire groups, activating that drive element which is assigned to the wire group, so that the wires of this wire group execute compensating movements perpendicularly to the running direction.

9. The wire saw as claimed in claim 8, comprising a measuring apparatus for determining the placement error of the kerfs of the respective wire group during the feeding of the workpiece, the measuring apparatus and the control unit being part of a closed control loop.

10. The wire saw as claimed in claim 8, comprising a data memory in which a wire saw-specific correction profile is stored for the wires of each of the wire groups, and which the control unit accesses in order to activate the drive elements during the feeding of the workpiece.

11. The wire saw as claimed in claim 10, comprising a unit for tracking changes in the wire saw-specific correction profile in the course of the processing of a plurality of workpieces, and for outputting a signal for initiating a predictive maintenance measure if the changes have reached an established threshold.