WHAT IS CLAIMED IS:

1. A grinding method of a workpiece that is a grinding method in which the workpiece is thinned to a finished thickness by using a grinding apparatus including a holding table that holds the workpiece, a grinding unit having a spindle on which a grinding wheel on which grinding abrasive stones that grind the workpiece held by the holding table are annularly disposed is mounted and a motor that rotationally drives the spindle, a grinding feed unit that causes the grinding unit to get further away and closer to the holding table, a grinding water supply unit that supplies grinding water to an upper surface of the workpiece held by the holding table in such a manner that a flow rate is adjustable, and a control unit that controls each of the units, the grinding method comprising:

a first grinding step of executing grinding feed of the grinding unit and grinding the workpiece to a predetermined thickness while supplying the grinding water with a first grinding water amount that allows suppression of wear of the grinding abrasive stones; and

a second grinding step of, after executing the first grinding step, promoting dressing of the grinding abrasive stones to prepare for rough grinding processing

of a next workpiece through executing grinding feed of the grinding unit and grinding the workpiece to the finished thickness while supplying the grinding water with a second grinding water amount that increases wear of the grinding abrasive stones and promotes self-sharpening through reduction relative to the first grinding water amount,

wherein

the grinding unit comprises

a rough grinding unit that uses a grinding wheel with a coarse grain size, and

a finish grinding unit that uses a grinding wheel with a fine grain size and grinds the workpiece ground by the rough grinding unit; and

the first grinding step and the second grinding step are executed in the rough grinding unit.

2. The grinding method according to claim 1, wherein the grinding water supply unit that supplies the grinding water to the upper surface of the workpiece held by the holding table in the manner that the flow rate is adjustable comprises

a first flow rate adjustment valve that controls the flow rate of the grinding water supplied to a grinding water supply flow path, and/or

a second flow rate adjustment valve that controls the flow rate of the grinding water supplied to a grinding water supply nozzle.

3. The grinding method according to claim 2, wherein when the first grinding water amount is changed to the second grinding water amount, the first flow rate adjustment valve and/or the second flow rate adjustment valve is/are adjusted.

4. The grinding method according to any one of claims 1 to 3, wherein the grinding apparatus includes a turntable, and the turntable is rotated, thereby

moving the holding table that holds the workpiece after rough grinding to a finish grinding region for finish grinding processing by the finish grinding unit, and

sequentially executing the first grinding step and second grinding step in the rough grinding unit for the next workpiece.

5. The grinding method according to any one of claims 1 to 4, wherein the grinding water is supplied to the upper surface of the workpiece through an in-spindle flow path that extends along an axial center of the spindle, an in-mount flow path that communicates with the in-spindle flow path and extends from the in-spindle flow

path toward an outer circumference of a wheel mount on which the grinding wheel is mounted and is opened in a lower surface of the wheel mount, and an in-base flow path that communicates with the in-mount flow path and is opened in an inner circumferential surface of an annular base of the grinding wheel.