CLAIMS

1. A cutting apparatus comprising:

a table configured to hold a cutting target by suctioning the cutting target;

a cutting mechanism configured to divide the cutting target into individual cutting target pieces by cutting the cutting target on the table; and

a holding mechanism configured to hold the individual cutting target pieces by suctioning the cutting target pieces,

wherein the table or the holding mechanism is connected to a dry vacuum pump via a suction route,

the cutting apparatus further comprises a water separation and discharge mechanism located on the suction route and configured to discharge water via a drainage route,

the water separation and discharge mechanism includes

a first tank, and

a second tank located downstream of the first tank on the drainage route,

the first tank includes a partition plate partitioning the first tank into a region in which a connection port for the vacuum pump is located, and a region in which a connection port for the table or the holding mechanism is located,

the partition plate is partially joined to a bottom surface of the first tank, and is not joined to an upper surface of the first tank,

a gap is partially formed between a lower end of the partition plate and the bottom surface of the first tank,

each of the connection port for the vacuum pump and the connection port for the table or the holding mechanism penetrates an upper surface or a side surface of the first tank,

a gap is formed above the partition plate in the first tank, and

the water separation and discharge mechanism further includes a valve mechanism configured to change between a first state in which water flowing from the first tank into the second tank is stored in the second tank, and a second state in which water is stored in the first tank and water stored in the second tank is discharged.

2. The cutting apparatus according to claim 1, further comprising:

a control unit configured to control the valve mechanism to change from the first state to the second state each time processing is performed on one cutting target,

wherein the control unit controls the valve mechanism to change from the first state to the second state after the cutting target is subjected to a last water processing step while the cutting target is suctioned to the table or the holding mechanism.

3. The cutting apparatus according to claim 2,

wherein the suction route connects the holding mechanism and the vacuum pump to each other, and

the control unit controls the valve mechanism to change from the first state to the second state after completion of water cleaning performed on a surface opposite to a cut surface of the cutting target while the cutting target is held by the holding mechanism.

4. The cutting apparatus according to claim 2,

wherein the suction route connects the table and the vacuum pump to each other, and

the control unit controls the valve mechanism to change from the first state to the second state after completion of water cleaning performed on a cut surface of the cutting target while the cutting target is held by the table.

5. The cutting apparatus according to any one of claims 1 to 4,

wherein the valve mechanism includes a drainage valve located downstream of the second tank on the drainage route, and

the drainage valve is a check valve.

6. A method for manufacturing a cut product using the cutting apparatus according to any one of claims 1 to 5, comprising:

manufacturing a cut product by dividing the cutting target into individual cutting target pieces by cutting the cutting target on the table using the cutting mechanism.