Claims:

1. A flipping apparatus, comprising:

a bracket body, wherein a plurality of partition plates are formed on inner side surfaces of two side walls of the bracket body, carrier slots for placing wafers are formed between adjacent partition plates, and rotating shafts are formed on outer side surfaces of the two side walls of the bracket body;

a rotary driver, connected to at least one rotating shaft to drive the bracket body to rotate; and

a clamping apparatus, disposed on the side wall of the bracket body and being used to press or release the wafers placed in the carrier slots;

wherein the clamping apparatus comprises:

a housing, fixed on the side wall of the bracket body;

a piston, being slidably arranged in the housing and provided with driving force by a gas source;

a telescopic rod, being slidably arranged in the housing, and one end of the telescopic rod being fixedly connected with the piston;

a reset spring, being arranged at the other end of the housing and connected with the other end of the telescopic rod for resetting the piston and the telescopic rod;

a plurality of limiting slots, being arranged on one side of the housing and arranged along the length direction of the telescopic rod;

a plurality of limiting rods, wherein one end of the plurality of limiting rods is fixed on the telescopic rod, the other end of the plurality of limiting rods passes through corresponding limiting slot, and the limiting rods are driven by the telescopic rod to slide in the limiting slots to press or release the wafers placed in the carrier slots; and

a liquid discharge chamber for collecting and discharging liquid accumulated inside the housing.

2. The flipping apparatus according to claim 1, wherein the clamping apparatus further comprises:

a gas port, located at one end of the housing, and used to connect to the gas source; and

wherein the plurality of limiting slots are arranged at equal intervals along the length direction of the telescopic rod.

3. The flipping apparatus according to claim 2, wherein the clamping apparatus is further provided with a displacement sensor for measuring the displacement of the telescopic rod.

4. The flipping apparatus according to claim 2, wherein the partition plates of the bracket body set accommodating grooves for accommodating the limiting rods.

5. The flipping apparatus according to claim 1, wherein the bottom of the carrier slots of the bracket body set a plurality of liquid drain holes.

6. The flipping apparatus according to claim 1, further comprising:
a box body, wherein the box body is provided with a loading port.

7. The flipping apparatus according to claim 6, further comprising: an exhaust device disposed on a rear wall of the box body, wherein the exhaust device comprises a first exhaust plate, a second exhaust plate, a liquid collecting cavity and an exhaust port which are sequentially arranged along the air flow direction, the first exhaust plate is provided with a plurality of first air vents; the second exhaust plate is provided with a plurality of second air vents, a space is reserved between the first exhaust plate and the second exhaust plate, the first air vents and the second air vents are arranged in a staggered manner, and the exhaust port is configured to connect a fan.

8. The flipping apparatus according to claim 7, wherein both the second air vents and the exhaust port are arranged obliquely upward.

9. The flipping apparatus according to claim 7, wherein the first exhaust plate is arranged in an inclined manner relative to the second exhaust plate.

10. The flipping apparatus according to claim 7, wherein the bottom of the liquid collecting cavity is provided with a liquid discharge port.

11. The flipping apparatus according to claim 1, further comprising a lifting mechanism, wherein the lifting mechanism comprises a lifting rod and a support base fixed on the lifting rod, the support base is driven by the lifting rod to move up and down, and is used to assist the wafers to be transferred from a robot to the bracket body.

12. The flipping apparatus according to claim 1, further comprising a plurality of nozzles disposed around the bracket body for spraying liquid onto the wafer held in the bracket body.