What is claimed is:

1. A process chamber of a semiconductor process device, comprising a process cavity, a tray disposed in the process cavity, a first heating body, a rotating shaft assembly, and an infrared thermometer disposed outside the process cavity, wherein:

the first heating body comprises a first heating plate;

the tray is rotatably disposed on a top surface of the first heating plate;

the rotating shaft assembly comprises a rotating shaft and a temperature marker, the rotating shaft penetrates through the first heating plate, and is in rotation fit with the first heating plate, a first end of the rotating shaft is connected to the tray to enable the rotating shaft to rotate along with the tray, and a second end of the rotating shaft extends to protrude from a bottom surface of the first heating plate; and

the temperature marker is disposed at the second end of the rotating shaft, and is capable of rotating along with the rotating shaft; and the infrared thermometer is configured to detect a temperature of the temperature marker, the infrared thermometer is configured to detect the temperature marker, which rotates to a preset temperature detection position, so as to periodically obtain the temperature of the temperature marker, and the infrared thermometer calculates a rotational speed of the tray according to a number of acquisition times of the temperature of the temperature marker in a unit time.

2. The process chamber of claim 1, wherein the temperature marker comprises a plurality of blades, which are evenly arranged along a circumferential direction of the rotating shaft.

3. The process chamber of claim 1, wherein the first heating plate is provided therein with a gas flow channel, the gas flow channel comprises a gas outlet flow channel configured to convey a driving gas, the top surface of the first heating plate is provided with a gas outlet, and the gas outlet is communicated with the gas outlet flow channel and disposed correspondingly with the tray; and the tray comprises a driving part disposed at a bottom surface of the tray, and the driving gas output through the gas outlet drives the tray to rotate by pushing the driving part.

4. The process chamber of claim 3, wherein the top surface of the first heating plate is provided with at least three gas outlets, and the at least three gas outlets are evenly distributed along a circumferential direction of a central axis of the tray.

5. The process chamber of claim 4, wherein the gas flow channel further comprises a gas inlet flow channel, the gas inlet flow channel is configured to be communicated with an external gas source, so as to convey the driving gas into the gas outlet flow channel, the gas inlet flow channel is arranged on a horizontal plane, and the gas outlet flow channel is obliquely disposed relative to a vertical direction.

6. The process chamber of claim 5, wherein the gas inlet flow channel comprises an inlet sub-flow channel, a distribution sub-flow channel, and a first conveyance sub-flow channel and a second conveyance sub-flow channel, a first end of the inlet sub-flow channel is configured to be communicated with the external gas source, a second end of the inlet sub-flow channel is communicated with the distribution sub-flow channel, and the first conveyance sub-flow channel and the second conveyance sub-flow channel are respectively communicated with two ends of the distribution sub-flow channel, and are symmetrically arranged relative to the inlet sub-flow channel; and one end of each of the distribution sub-flow channel, the first conveyance sub-flow channel, and the second conveyance sub-flow channel is provided with a through hole, and the through hole is provided with a sealing member; and

the gas outlet flow channel comprises a first gas outlet sub-flow channel, a second gas outlet sub-flow channel, and a third gas outlet sub-flow channel, the first gas outlet sub-flow channel is communicated with the inlet sub-flow channel, the second gas outlet sub-flow channel is communicated with the first conveyance sub-flow channel, the third gas outlet sub-flow channel is communicated with the second conveyance sub-flow channel, and the first gas outlet sub-flow channel, the second gas outlet sub-flow channel, and the third gas outlet sub-flow channel are respectively communicated with the gas outlets in a one-to-one correspondence manner.

7. The process chamber of claim 1, further comprising a shaft sleeve, wherein the first heating plate is provided with a through hole penetrating through the top surface and the bottom surface of the first heating plate, and the shaft sleeve is sleeved

outside the rotating shaft and located between the rotating shaft and a wall of the through hole; and

a first annular step groove is disposed in the through hole, and the shaft sleeve is located in the first annular step groove.

8. The process chamber of claim 7, wherein a second annular step groove is further disposed in the through hole, and the first annular step groove and the second annular step groove are sequentially arranged from bottom to top along the through hole; and the tray comprises an annular fitting part disposed at a bottom surface of the tray, and the annular fitting part is sleeved outside the shaft sleeve and disposed in the second annular step groove.

9. The process chamber of claim 1, further comprising a second heating body, a first end cap, and a second end cap; wherein the first heating body further comprises a first arc-shaped heating member connected to the first heating plate, and a first heating cavity is formed between the first heating plate and the first arc-shaped heating member; the second heating body comprises a second heating plate and a second arc-shaped heating member, and a second heating cavity is formed between the second heating plate and the second arc-shaped heating member; and the first heating body is disposed opposite to the second heating body; and

the first end cap is disposed at a first end of the first heating body and a first end of the second heating body, the second end cap is disposed at a second end of the first heating body and a second end of the second heating body, the first heating plate and the second heating plate are disposed opposite to each other, and a process space is formed between the first heating plate and the second heating plate.

10. A semiconductor process device, comprising the process chamber of any one of claims 1 to 9.

11. A tray detection method applied to the process chamber of any one of claims 1 to 9, comprising:

starting the infrared thermometer, detecting by the infrared thermometer the temperature of the temperature marker when the temperature marker rotates to the

preset temperature detection position, periodically obtaining by the infrared thermometer the temperature of the temperature marker to periodically obtain a temperature of the tray;

comparing all temperatures of the temperature marker obtained during a detection time to determine stability of the temperature of the tray; and

calculating a rotational speed of the tray according to a number of acquisition times of the temperature of the tray in a unit time.