

ABSTRACT OF THE DISCLOSURE

APPARATUS FOR APPLYING AN URGING FORCE TO A WAFER

A wafer pressurizing apparatus capable of improving the polishing accuracy of a wafer while excluding influences on a pressure sensor of a rotational force and a horizontal force created during a wafer polishing operation. The apparatus includes a carrier (1) adapted to rotate about its own axis of rotation while maintaining a surface of the wafer (200) in contact with a surface plate (210), a cylinder (300) for urging the carrier (1) against the surface plate (210), a pressure sensor in the form of a load cell (LS) for sensing an urging force applied to the wafer (200) and generating a corresponding output signal (V), and a controller (6) for controlling the urging force of the cylinder based on the output signal (V) from the load cell (LS). The carrier (1) comprises a holder (2) for holding the wafer (200), a pressure receiving member (3) disposed in confrontation with the holder (2) for receiving the urging force of the cylinder (300), and two annular flat spring members (4a, 4b) disposed between the pressure-receiving member (3) and the holder (2) so as to be deformable only in a direction perpendicular to the surface of the wafer (200). The load cell (LS) is disposed between the pressure-receiving member (3) and the holder (2).

FIGURE 1