

WAFER LOADING SUPPORT, WAFER LOADING SYSTEM, AND WAFER MOUNTING METHOD FOR CMP PROCESS

ABSTRACT

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Disclosed are a wafer loading support, a wafer loading system and a wafer mounting method. The wafer loading support, which can lift, and a polishing head (6) including a plurality of pressure medium cavities (61, 62, 63) are used. In a wafer loading process, arc-shaped deformation occurs, under pressure, on an attachment film (64) of the polishing head (6); a wafer (7) on a wafer-bearing
10 base (4) of the wafer loading support is lifted to a loading position, and comes into contact with the attachment film (64), the wafer-bearing base (4) being composed of a basin-shaped bracket which is high at the periphery and low at the center; the wafer-bearing base (4) further lifts the wafer (7), such that the wafer (7) is gradually closely attached to the attachment film (64) from the center to the periphery under the pressure from the wafer-bearing base (4) and the attachment
15 film (64) so as to extrude air between the wafer and the attachment film, wherein in this process, the central region of the wafer (7) is not in contact with the wafer-bearing base (4), thus preventing the wafer (7) from being scratched in the loading process; at this time, a pressure medium cavity which is in contact with the attachment film (64) is vacuumized; and the wafer (7) and the attachment film (64), under vacuum conditions, are attached to the polishing head, and the wafer
20 (7) is transferred to the polishing head (6) to complete loading. Pressure monitoring devices in the wafer loading support and the polishing head (6) can effectively detect a loading state of the wafer.

FIG. 8