## **Optimal Designof Brush Roll for Semiconductor Wafer Using CFD Analysis**

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**Abstract :** This research analyzes structure of flat panel display (FPD) such as LCD as quantitative through CFD analysis and modeling change to minimize the badness rate and rate of production decrease by damage of large scale plater at wafer heating chamber at semi-conductor manufacturing process. This glass panel and wafer device with atmospheric pressure or chemical vapor deposition equipment for transporting and transferring wafers, robot hands carry these longer and wider wafers can also be easily handled. As a contact handling system composed of several problems in increased potential for fracture or warping. A non-contact handling system is required to solve this problem. The panel and wafer warping makes it difficult to carry out conventional contact to analysis. We propose a new non-contact transportation system with combining air suction and blowout. The numerical analysis and experimental is, therefore, should be performed to obtain compared to results achieved with non-contact solutions. This wafer panel noncontact handler shows its strength in maintaining high cleanliness levels for semiconductor production processes.

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