



Fully Automatic Multifunction Wafer Mounter

DFM2800

Realizes faster processing of ultrathin wafers

Realizes high yield thin wafer processing

The DFM2800 is a specialized wafer mounter for inclusion in an inline system with a backgrinder to process $\varnothing 300 \mu\text{m}$ ultra-thin wafers. It mounts wafers that have been thinned with the DGP8761 system onto dicing tape or tape frames and removes the front side protection tape in a stable process. It also supports the attachment of DAF with integrated dicing tape, which is necessary for next generation SiP (System in Package) manufacturing.



DFM2800

DGP8761

Supports ultrathin wafers less than $25 \mu\text{m}$ thick

To support the thinning requirements of $\varnothing 300 \mu\text{m}$ wafers less than $25 \mu\text{m}$ thick, the breakage risk of ultra-thin wafers is minimized by reducing the number of wafer handling steps to only twenty percent that of the existing unit. In addition, a cleaning mechanism has been installed at each handling pad/table to prevent wafer breakage caused by particle intrusion.

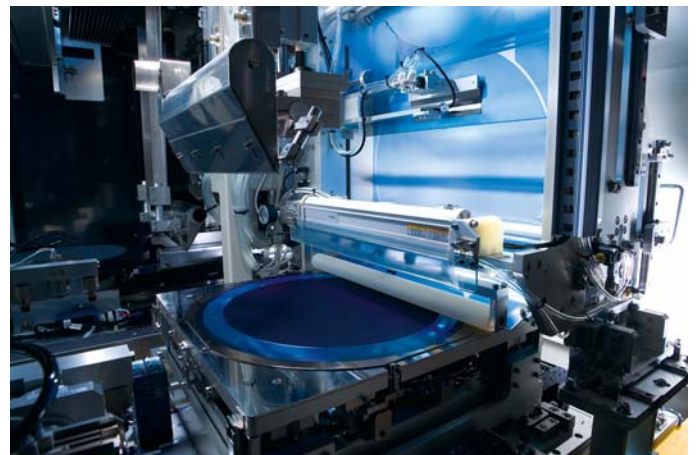
High throughput

By optimizing each handling unit, an approximate 50 % increase* is realized in the maximum throughput for continuous operation. This greatly contributes to an improvement in productivity. (Compared to the DFM2700)

*The actual throughput depends on the wafer mount process time and surface protection tape peeling time.

Robust options to support various needs

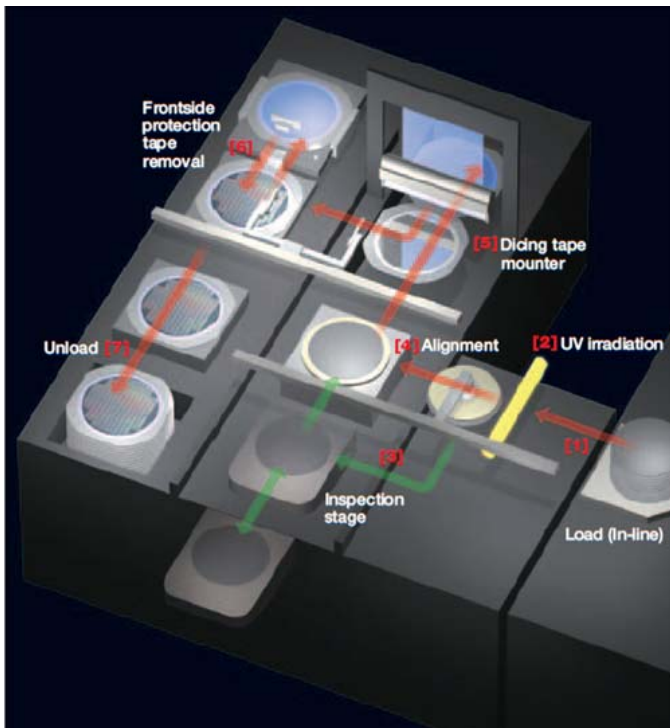
- Robot/single load port unit when using the DFM2800 as a stand-alone unit
- Internal precut mechanism for dicing tape
- Adhesion tape peeling mechanism for surface protection tape
- Wafer surface ID recognition mechanism (vision system) for barcode control after wafer mounting



Easy operation

While the equipment operation method is inherited from the DFM2700, the screen size is larger with better visibility to for a user-friendly and easy to understand operational environment. Furthermore, in an in-line system with a DGP8761, the DFM2800 is even easier to use because of unified management, which makes recipe selection and start/stop on the DFM2800 possible from the DGP8761.

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DFM2800 Operation flow

- [1] Workpiece reception from the grinder
- [2] UV irradiation to the front side protection tape on the workpiece (when the UV tape is used)
- [3] Workpiece transfer to the inspection table (when inspection is needed)
- [4] Alignment using image processing
- [5] Workpiece mounting with dicing tape or 2 in 1 DAF tape
- [6] Front side protection tape peeling from the workpiece
- [7] Tape frame storage (with mounted workpiece) in the cassette

Specifications		
Specification	Unit	
Wafer Diameter	mm	$\phi 200 / \phi 300$
Wafer attachment precision and X/Y direction (frame mount)	mm	± 0.5 or less
Wafer attachment precision and θ direction (frame mount)	deg	± 0.5 or less
Dicing tape attachment precision and X/Y direction	mm	± 1.0 or less
Machine dimensions(W×D×H)	mm	2,150×2,643×1,800
Machine weight	kg	Approx.3,100

Environmental conditions

- * Use clean, oil-free air at a dew point of -15°C or less. (Use a residual oil: 0.1 ppm. Filtration rating: $0.01 \mu\text{m}/99.5\%$ or more).
- * Keep room temperature fluctuations within $\pm 1^{\circ}\text{C}$ of the set value. (Set value should be between $20 - 25^{\circ}\text{C}$).
- * The machines should be used in an environment, free from external vibration. Do not install machine near a ventilation opening, heat generation equipment or oil mist generating parts.
- * All pressures specified above are gauge pressures.
- * As the above specification may change due to technical modifications. Please confirm when placing your order.
- * For further information, please contact your local sales representative.