



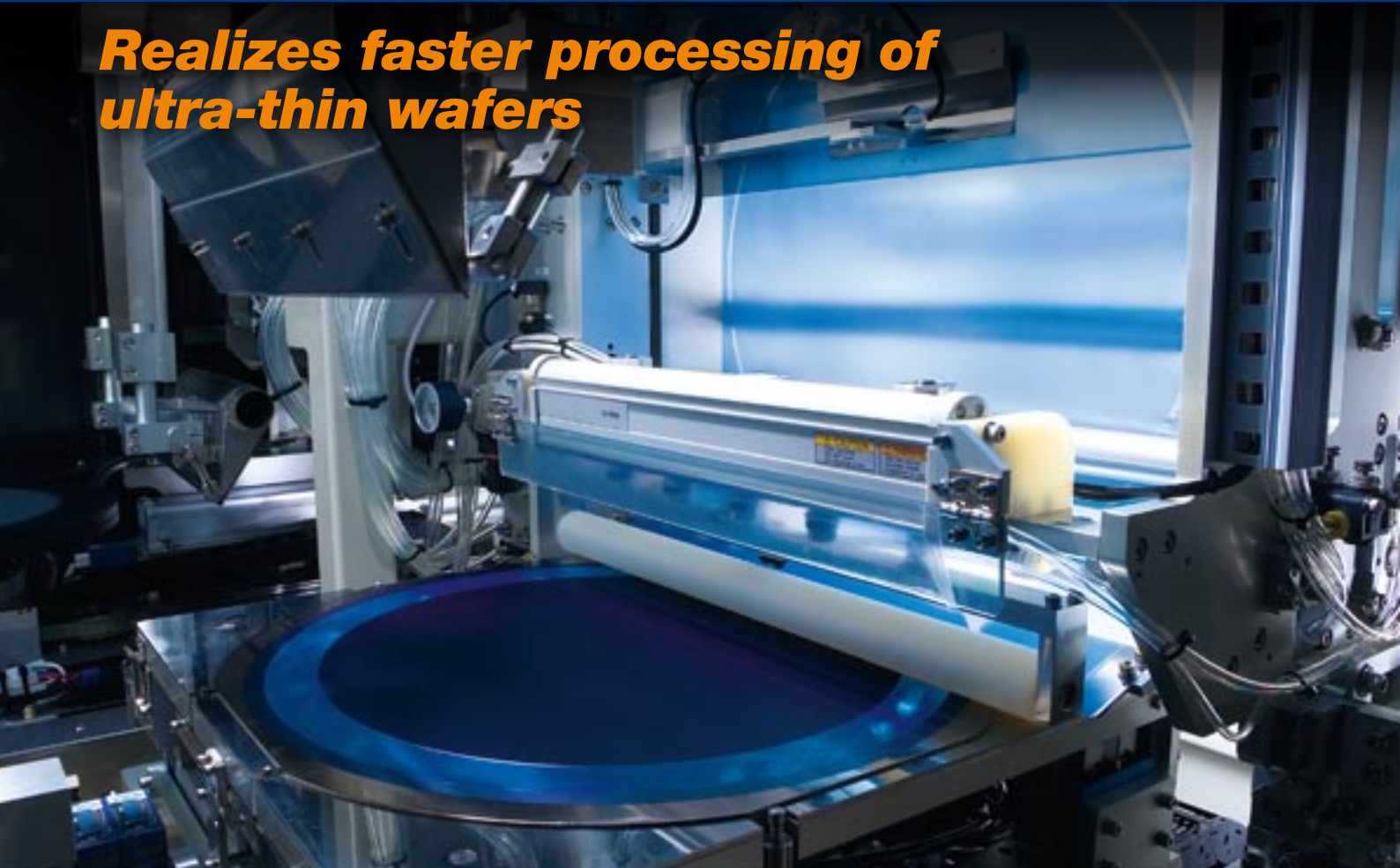
**DISCO**

Kiru · Kezuru · Migaku Technologies



# Fully Automatic Multifunction Wafer Mounter **DFM2800**

**Realizes faster processing of ultra-thin wafers**



### **Achieves high yield thin wafer processing**

The DFM2800 is a specialized wafer mouter for an in-line system with a back grinder to process  $\phi 300$  mm ultra-thin wafers. It mounts the wafers that have been thinned with the DGP8761 system onto dicing tape and tape frame and then removes the frontside 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.

### **Supports ultra-thin wafers less than 25 $\mu\text{m}$ thick**

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



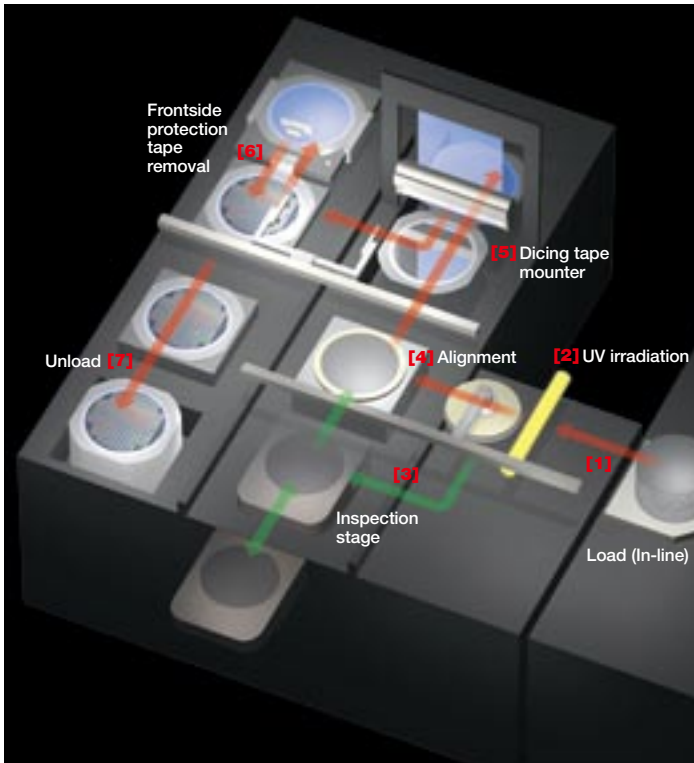
DFM2800

DGP8761



# Fully Automatic Multifunction Wafer Mounter

# DFM2800



## DFM2800 Work flow

- [1]** Workpiece receiving from the grinder
- [2]** UV irradiation to the frontside 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]** Mount workpiece with dicing tape or 2 in 1 DAF tape
- [6]** Peeling the frontside protection tape off the workpiece
- [7]** Storing the ring frame (mounted with workpiece) into the cassette

## High throughput

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

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

## Ample options to support various needs

- Robot/single load port unit to use the DFM2800 as a stand-alone machine
- Precut mechanism inside the machine for dicing tape
- Adhesion tape peeling mechanism for surface protection tape
- Wafer surface ID recognition mechanism (vision system) to realize barcode control after wafer mounting

## Easy operation

While the machine operation method is inherited from the DFM2700, the screen size is larger and the visibility clearer to enable an easier to use and understand operation environment. Furthermore, in an in-line system with a DGP8761, the DFM2800 is even easier to use because unified management, such as DFM2800 recipe selection and start/stop on the DGP8761 is possible.

## DFM2800 Specifications

<b>Power</b>	Power Input	AC 200 V ± 10 %, 3-phase (50/60 Hz) <small>For other than the above voltages, a transformer is necessary</small>
	Power consumption	kW 4
	Max. power	kVA 17
<b>Air Supply</b>	Pressure	MPa 0.6 to 0.8
	Pressure variability	MPa 0.03 or less
	Flow	L/min 800 or higher <small>(for reference)</small>
<b>Vacuum</b>	Pressure	kPa -80 or higher
	Flow	L/min 200 or higher <small>(for reference)</small>
<b>Exhaust</b>	Main body	
	Displacement	m <sup>3</sup> /min 0.4 or higher <small>(for reference)</small>
	Static pressure	kPa 0.04 or higher <small>(for reference)</small>
	UV unit	
	Displacement	m <sup>3</sup> /min 2.7 ~ 5.1 <small>(for reference)</small>
	Static pressure	kPa 0.27 ~ 0.51 <small>(for reference)</small>
<b>Exhaust unit</b>	Exhaust unit	
	Displacement	m <sup>3</sup> /min 8.0 <small>(for reference)</small>
	Static pressure	kPa 0.06 <small>(for reference)</small>
<b>Utilities</b>	Machine dimensions (W x D x H) mm	2,150 x 2,643 x 1,800
	Machine weight	kg 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 µm/99.5 % or more).
- Keep room temperature fluctuations within ±1 °C of the set value. (Set value should be between 20 - 25 °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.**



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