



DISCO

Kiru · Kezuru · Migaku Technologies



Fully Automatic Multifunction Wafer Mounter **DFM2700**

Fully Automatic Processing of Thin Wafers



Realizes a Safer Thinning Process with an In-line System

The DFM2700 is a tape mounter which peels off the frontside protection tape, after a 300 mm thinned wafer has been attached to a dicing ring frame. By configuring in an in-line system with a grinder or polisher (DGP8760, DFG8560, DFP8160, DFE8060), it smoothly performs all processing from the thin grinding of the wafer to attaching the wafer to the dicing ring frame and peeling off the frontside protection tape. Since no handling is carried out by the operator, it realizes stable handling and contributes to yield improvement of the thinning process.

Supports the Attachment of Various DAF

With the diffusion of SiP (System in Package), incorporating the DAF (Die Attach Film) attachment mechanism has become necessary for the stack die bonding of recent years. Inside the machine, after precut, the mounter attaches the DAF to the wafer and peels off the release film. By employing this method, the DFM2700 has realized the attachment of DAF less than 25 μm thick. In addition, the DFM2700 can also support DAF with integrated dicing tape (The wafer mount table heater mechanism is an option).



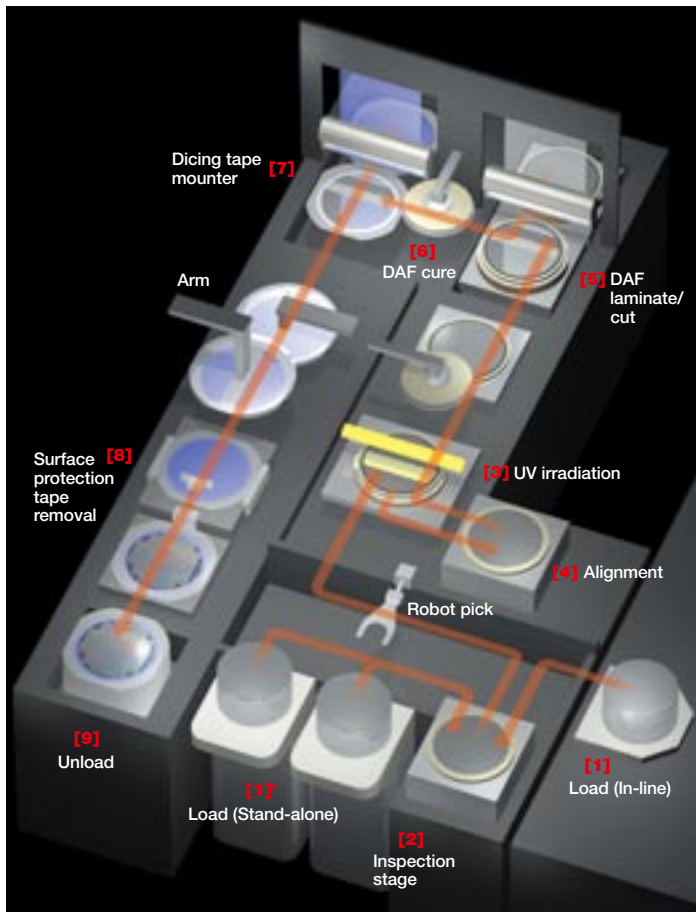
DFM2700

DGP8760



Fully Automatic Multifunction Wafer Mounter

DFM2700



DFM2700 Work flow

- [1] Workpiece receiving from the grinder or [1]' its own cassette
- [2] Workpiece transfer to the inspection table (when inspection is needed)
- [3] UV irradiation to the frontside protection tape on the workpiece (when the UV tape is used)
- [4] Workpiece aligning on the non-contact alignment table using a CCD camera
- [5] DAF (Die Attach Film) lamination to (the frontside of) the workpiece
- [6] Post-curing for the DAF laminated workpiece
- [7] Workpiece mounting to the ring frame with dicing tape
- [8] Peeling the frontside protection tape off the workpiece
- [9] Storing the ring frame (mounted with workpiece) into the cassette

Large number of Options

DISCO offers a variety of options such as a mechanism that precuts the dicing tape inside the mounter, as well as an adhesive tape peeling unit, which uses other adhesive tape, in addition to the frontside protection tape peeling system used with the standard heat seal. Also, a vision system which recognizes the ID on the frontside of the wafer makes a bar code label and attaches it to the dicing tape after wafer mounting.

Small Footprint

By combining the handling system, to transfer wafers between machines, which was necessary in the previous in-line system, with the DFM2700 internal robot, and optimizing the internal layout, a significantly smaller footprint is realized.

Available in a Stand-alone Specification

By using a regular wafer cassette or Double Slot Cassette, the DFM2700 can be used as a stand-alone machine.

DFM2700 Specifications

Power	Power Input	Single phase AC 200 ~ 240 V \pm 10% (50/60 Hz) For other than the above voltages, a transformer is necessary	
	Power consumption	kW	10
	Max. power	kVA	12
Air Supply	Pressure	MPa	0.5 to 0.8
	Pressure variability	MPa	0.03 or less
	Flow	L/min	500 or higher
Vacuum	Pressure	kPa	-80 or higher
	Flow	L/min	175
Exhaust	Main body		
	Displacement	m ³ /min	0.4 or higher
	Static pressure	kPa	0.04 or higher
	UV unit		
	Displacement	m ³ /min	2.7 ~ 5.1
	Static pressure	kPa	0.27 ~ 0.51
	DAF Post-cure section		
	Displacement	m ³ /min	4 or higher
	Static pressure	kPa	0.4 or higher
	Utilities	Machine dimensions (W x D x H) mm	2,200 x 3,700 x 1,800
Machine weight		kg	2,900

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 μ m/99.5% or more).
- Keep room temperature fluctuations within \pm 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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