Realizes a safer thinning process with an in-line system

The DFM2700 is a tape mounter which can peel front side protection tape, after a 300 mm thinned wafer has been attached to a dicing tape frame. By configuring it in an in-line system with a grinder or polisher (DGP8761, DFG8560, or DFP8160), the DFM2700 can smoothly perform all steps from the thin grinding of the wafer to attaching the wafer to a dicing tape frame and peeling off the front side protection tape. Since no handling is carried out by an operator, stable handling is possible and contributes to a yield improvement in the thinning process.

Supports the attachment of various DAF

With the increasing demand for SiP (System in Package), incorporating a DAF (Die Attach Film) attachment mechanism has become necessary for stack die bonding in recent years. Within the unit, the mounter attaches the DAF to the wafer and peels off the release film after precut. By employing this method, the DFM2700 is capable of the attachment of DAF thinner than 25 μm. In addition, the DFM2700 can also support DAF with integrated dicing tape (The wafer mounter table heater mechanism is available as an option).

Large number of options

DISCO offers a variety of options including a mechanism that precuts the dicing tape inside the mounter, an adhesive tape peeling unit for adhesive tapes which do not use the standard heat seal peeling method for front side protection tapes, and a vision system which recognizes the wafer ID on the front side of the wafer, makes a bar code label, and attaches it to the dicing tape after wafer mounting.

Small footprint

By combining the inter-unit wafer transfer mechanism, required for the previous in-line system, with the DFM2700 internal robot, and optimizing the internal layout, a significantly smaller footprint is realized.

Standalone specification

The DFM2700 can be used as a stand alone unit when used with normal wafer cassettes and DSC (double slot cassettes).
DFM2700 Operation flow

[1] Workpiece reception from the grinder or the cassette loaded at [1]'.
[2] Workpiece transfer to the inspection table (when inspection is needed)
[3] UV irradiation of the front side protection tape on the workpiece (when a UV tape is used)
[5] Lamination of the DAF (Die Attach Film) to the workpiece
[6] Post-curing of the DAF laminated workpiece
[7] Workpiece mounting to a tape frame using dicing tape
[8] Peeling of the front side protection tape from the workpiece
[9] Storage of the tape frame (with mounted workpiece) in the cassette

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Unit</th>
</tr>
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<tbody>
<tr>
<td>Wafer Diameter</td>
<td>mm</td>
</tr>
<tr>
<td>Machine dimensions(W×D×H)</td>
<td>mm</td>
</tr>
<tr>
<td>Machine weight</td>
<td>kg</td>
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</tbody>
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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.