



**High yield, high throughput ultrasonic flip-chip bonding.**

## **MD-P300 Flip-chip Bonder**

The MD-P300 Flip-chip Bonder is process-flexible, combining flip-chip and thermosonic bonding in a single, small-footprint solution. The MD-P300 contributes to the cost-effective production (high yield, high throughput) of value-added devices. The MD-P300 can achieve high speed and high accuracy bonding through its low gravity point and lightweight bonding head. The MD-P300 supports 300 mm (12") wafers, and is an ideal solution for COB hybrid assembly in combination with an in-line Panasonic SMT placement machine. The MD-P300 is capable of fast cycle times and a placement accuracy of  $\pm 5 \mu\text{m}$  at 0.5 seconds per IC (dry run) - with thermosonic processes at 0.65 seconds, including process times.

### **Key Features**

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Easy process exchange

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Real-time inspection

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User-friendly operation

## MD-P300 Flip-chip Bonder

<https://ap.connect.panasonic.com/m/y/en/md-p300-flip-chip-bonder>

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| <b>Model Number</b>         | NM-EFF1C  |
| <b>Productivity</b>         | C4: 0.65s/IC (including dipping motion)Thermosonic: 0.65s/IC (including US process time of 0.2s)          |
| <b>Placement Accuracy</b>   | XY (3σ at PFSC conditions): ±5µm  |
| <b>Substrate dimensions</b> | L 50 × W 50 to L 330 × W 330 (Heating specifications: L 330 × W 220mm)                                    |
| <b>Die dimensions (mm)</b>  | L 1 × W 1 to L 25 × W 25 (Thermosonic: L7 × W7)   |
| <b>Number of die types</b>  | Up to 12 product types (AWC specifications) nozzle type   |
| <b>Die Supply</b>           | Wafer frame 12 inches (Option: 8 inches)  |
| <b>Bonding Load</b>         | VCM head: 1N to 50N (Option: 2N to 100N)  |
| <b>Head Heating</b>         | Thermosonic: Up to 300°C  |
| <b>Substrate Heating</b>    | Constant heating, Up to 200°C (Heating bonding stage specifications: Max. substrate size L 330 × W 220mm) |
| <b>Power Source</b>         | 3-phase AC 200V ± 10V, 50/60Hz,Up to 4kVA (Up to 7kVA for heating specification)                          |
| <b>Pneumatic Source</b>     | 0.4MPa, 50L/min (A.N.R.) (Up to 150L/min for full-featured machine including cooling air)                 |
| <b>Dimensions (mm)</b>      | W 1380 × D 1640 × H 1430 (without loader / unloader)  |
| <b>Mass (Weight)</b>        | 2300kg (without loader / unloader)  |