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 +/-5 µm at 0.5 seconds per IC (dry run) - with thermosonic processes at 0.65 seconds, including process times.

Key Features

Easy process exchange

Real-time inspection

User-friendly operation

Panasonic CONNECT

MD-P300 Flip-chip Bonder

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