

MPI ST80/800-D Series / Pick and Place System

8-inch Die Sorting System with Precision and High Speed

Widespread Application Fields

- Widely used in the production of VCSEL / LD / PD / LED / IC / CMOS / EEL and other applications.

Highly Flexible Systems

- The ST800 series is a cost-efficient handling system capable of accommodating a wide range of different sorting configurations:
 - ✓ Tape to Tape
 - ✓ Waffle Pack / Gel Pack
 - ✓ Jedec Tray
 - ✓ Wafer to Reconstructed Wafer

8 inch Pick and Place

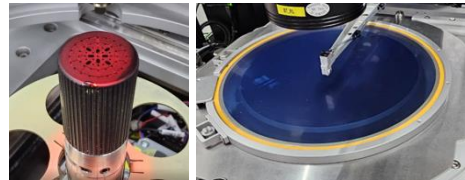
- The ST800 can perform high-speed synchronous 8-inch input and output pick-and-place operations.
- The pick-and-place head can be adapted to various sizes and materials of tips, such as rubber or steel tips, to cater to different requirements.

Precision Positioning and Preventive Misplacement

- ST800 is equipped with a high-precision positioning table to ensure accurate picking and placing.
- With input scanning positioning functionality, coordinate updating rules, and other positioning error prevention.
- Installed with a high-resolution visual system, enabling precise chip identification, and featuring well-developed teaching recognition guidelines.

Comprehensive Data Storage and Tracking

- The PnP process ensures immediate and rapid data storage, preventing data omission or damage.
- Comprehensively recording production process data to ensure traceability for retrospective analysis.



DISCO

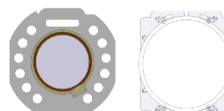
Grip Ring



Gel Pak / Waffle Pack



Grip Ring Metal Frame



Throughput and Placement Accuracy

- High speed mode with placement accuracy:
X/Y $< \pm 25\mu\text{m}@3\text{Sigma}$, Theta $< \pm 2\text{deg}@3\text{Sigma}$
- High Accuracy mode with placement accuracy:
X/Y $< \pm 10\mu\text{m}@3\text{Sigma}$, Theta $< \pm 1\text{deg}@3\text{Sigma}$
- PnP cycle time up to 180ms/per die.

Supports Various of Chip Types

- Die size range from a minimum of 150 μm to a maximum of 30mm.
- Supports a maximum thickness range from 0.1mm to 2mm.
- Supports chip types with a large aspect ratio.
- The ejector module supports multiple needles for picking large-sized chips.
- Accurate motion control and detection systems are in place to prevent chip damage.

Robust Software Support and Security.

- Customizable picking process design and modifications.
- Supports a variety of input and output file formats.(G85 、E142....)
- Supports SECS/GEM or MES system communication for production.
- Enhanced security with Win10 x64 and the ability for further upgrades.

Available Options

- Top side AVI function for defect inspection.
- Bottom side AVI function for defect inspection.
- Automatic tip cleaning to prevent material contamination.
- HEPA system for achieving a higher level of cleanroom class.(Class 100)
- Option to install an input/output loader system by the requirements.
- Supports OCR function for chip identification.

Facilities

- Power: Single Phase 220 V, 16 A, 50/60 Hz
- AIR: 6kg/cm² @ 2 LPM flow rate
- Vacuum: 0.9kg/cm² @ 10 LPM flow rate
- Dimension (WxDxH): 1276 x 1730 x 1950 mm