Datacon DS9000e

Wafer to Frame Sorting up to 14,500 UPH

The Datacon DS9000e is a high speed fully automatic die sorter with output to a frame or carrier. It handles any wafer sizes up to 300 mm and can therefore reconstruct wafers to different output form factors. This enables the transition to larger wafer formats without having to reinvest in downstream packaging equipment. Besides wafers, the Datacon DS9000e handle a variety of chip carriers such as waffle pack, JEDEC tray, and Gel-Pak®.

The Datacon DS9000e offers the ultimate combination of performance, flexibility, and versatility, handling the most challenging die sorting applications.

Performance, Versatility and Flexibility
- Fully automatic wafer loading and vision alignment
- ±35 μm @ 3 sigma placement accuracy
- Small die and thin die handling
- Die inspection prior to pick and after placement
**Parallel processing for high throughput up to 14,500 UPH**
- Adjustable force with synchronized die eject and pick
- Precise force control of GaAs, GaN, Si, and thin die
- High Placement accuracy of ±35 μm @ 3 sigma
- Handles a broad range of form factors - Bare die to LED Packages

**Waffle pack, Gel-Pak**

**Automatic bar code scanning and wafer handling from cassette**

**Flexible Wafer Handling**
- 300 mm diameter wafers and smaller
- Film frame, expander grip ring
- Waffle pack, Gel-Pak® and JEDEC tray carriers
- Automated wafer loading and unloading from cassette

**Electrical Reuirements**
- Voltage: 208-430 VAC single ph.
- Power: 3 kVA

**Wafer Handling**
- Input: 300, 200, 150 mm frame
- Output: 300, 200, 150 mm frame, JDEC tray, 2” and 4” Waffle pack, 2” Gel-Pak

**Die Handling**
- Minimum thickness: 50 μm
- Minimum size: 0.2 mm
- Maximum size: 32 mm
- Die Size Range
  - 10:1 with 7x optical zoom
  - 15:1 with 12.5x optical zoom

**Placement Accuracy**
- ± 35 μm @ 3 sigma
- ± 1 degree theta

**Cleanroom Mini-Environment Enclosure**
- Optionally available
- US Federal Standard209E Class 100 (ISO 14644-1 Class 5)
- Ionizers for ESD management
- Ducted exhaust ports for facility exhaust connection

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**Machine Data**
- Width: 1594/1900 mm*
- Depth: 1422 mm
- Height: 2468 mm
- Weight: approx. 1588 kg

**Air Supply**
- 6 - 7.5 bar 140 l/min clean&dry

**Throughput**
- 14,500 UPH (150 mm / 150 mm with 10” rotary transfer)
- 10,500 UPH (300 mm/300 mm with 15” rotary transfer)

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*Without/with multi cassette elevator. **Final performance depends on user specific data.