



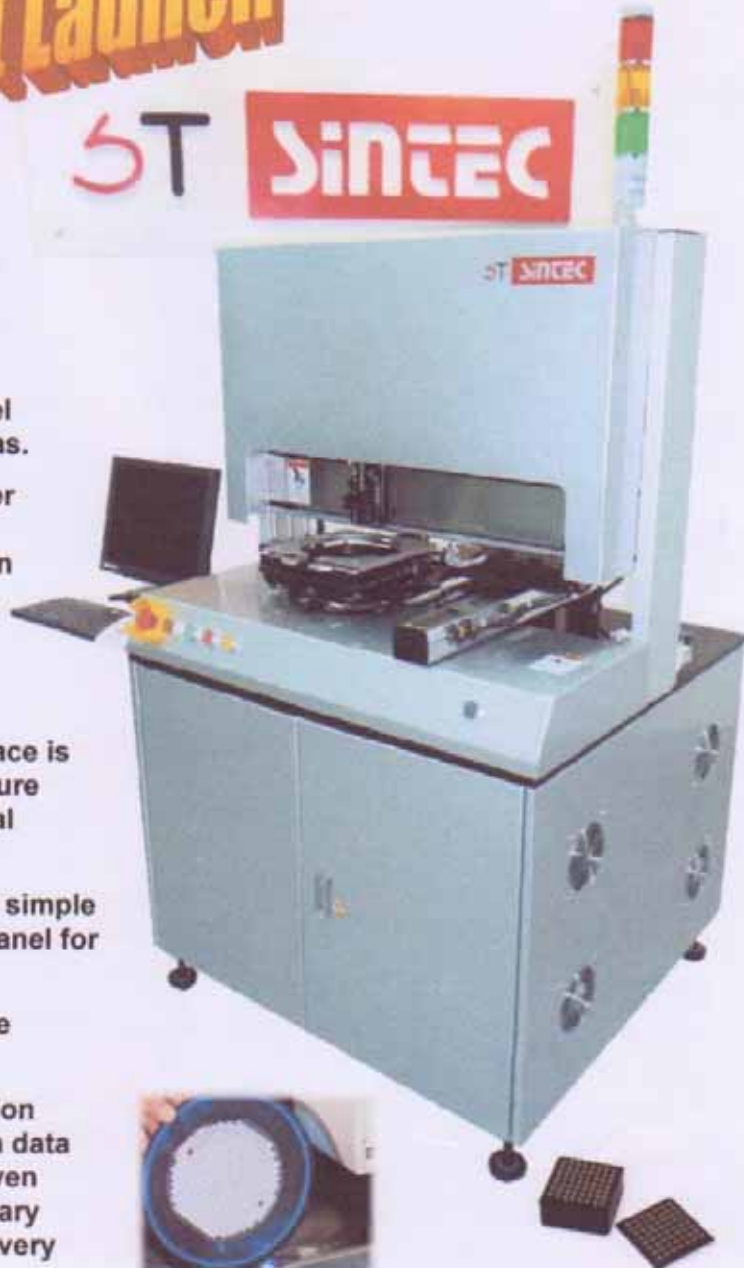
Semi-Auto Die Sorter Machine Series DS8000

New Product Launch



A highly precise and reliable Die Sorter used for delicately picking up of small dies from Wafer / Film Frame after 'Die Sawing' and sort them into Standard trays, waffle paks, gel paks or other packaging medias.

The Semi-Automated Die Sorter is competitively priced to help our Valued Customers invest in automation.



■ The high speed Pick and Place is Servo ball screw driven to ensure smooth and accurate positional accuracy and repeatability

■ User- friendly Software with simple push buttons on the Control Panel for ease of operation

■ PC based control with all the necessary sensing needs

■ Our proprietary SINTEC Vision captures all dies X/Y and Theta data and the Stepper ball screw driven Wafer Table will do the necessary positional correction prior to every pick up.



Wafer mounted on table



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Semi-Auto Die Sorter Machine Series DS8000

■ PRODUCT DESCRIPTION

The SINTEC Semi Auto Die Sorter Series DS8000 is designed with highly advanced technologies but yet competitively priced to handle 6 and 8 inches wafers. A motorized Wafer expander stretches the UV Tape to a predetermined amount to allow positive vision capture and dies pick up. Dies position will be captured by means of our proprietary vision system and will be feedback to the sturdy XY Theta table. The XY Theta table will then do the necessary positional correction to center the dies to ensure positive pick up of the dies every time.

The vision system is also capable of identifying ink dots to distinguish between 'good' and 'bad' dies. SINTEC can also provide special wafer mapping software that reads dies information directly to tell the machine which dies to be pick and sorted.

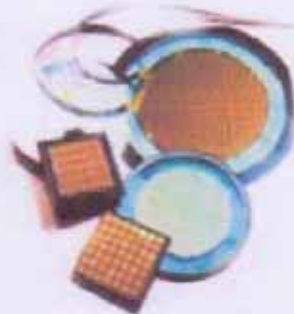
This machine is fully compliant with most industrial safety guidelines.

■ PRODUCT FEATURES

- ± 0.050 mm repeatable placement accuracy (X,Y axis)
- Machine is easy to set up and operate
- PC based control with all the necessary safety interlock sensors
- Easy programs set-up, selection and Production Lot Change
- Integrated solution - plug and play
- Low cost operation and ownership
- Compact size

■ OPTIONAL OUTPUT CONFIGURATIONS

- Auto Waffle Pak Tray Stacker
- Gel Pak
- JEDEC/ EIAJ Trays
- Tape and Reel
- Bins or Tubes



■ Unit Specifications

◆ Material Specification

- Die Sizes : 1.0 x 1.0mm to 10.0 x 10.0 mm
- Wafer size : 6 inches and 8 inches Wafers on FLEX Frame
- Trays Configuration : 2 x 2in or 4 x 4in Waffle Packs or GEL Packs
(Other packages and tray types and sizes please consult SINTEC)

◆ Load / Unload Configuration

- Wafer Frames : Manual Load / Unload of Wafer Frames
- Devices : Continuous Load / Unload of Waffle Packs

◆ Vision Specification

- Camera type : 256 Grey level (Standard Resolution)
- Resolution : 640 pixels x 480 pixels
- Positional Accuracy : $\pm \frac{1}{2}$ pixels
- Die alignment
- Ink Dot recognition

◆ Pick and Place Specification

- Bond force : 30 to 1000g
- Placement Accuracy : $\pm 50\mu\text{m}$
- Die Accuracy : $\pm 3^\circ$

■ Performance Specification

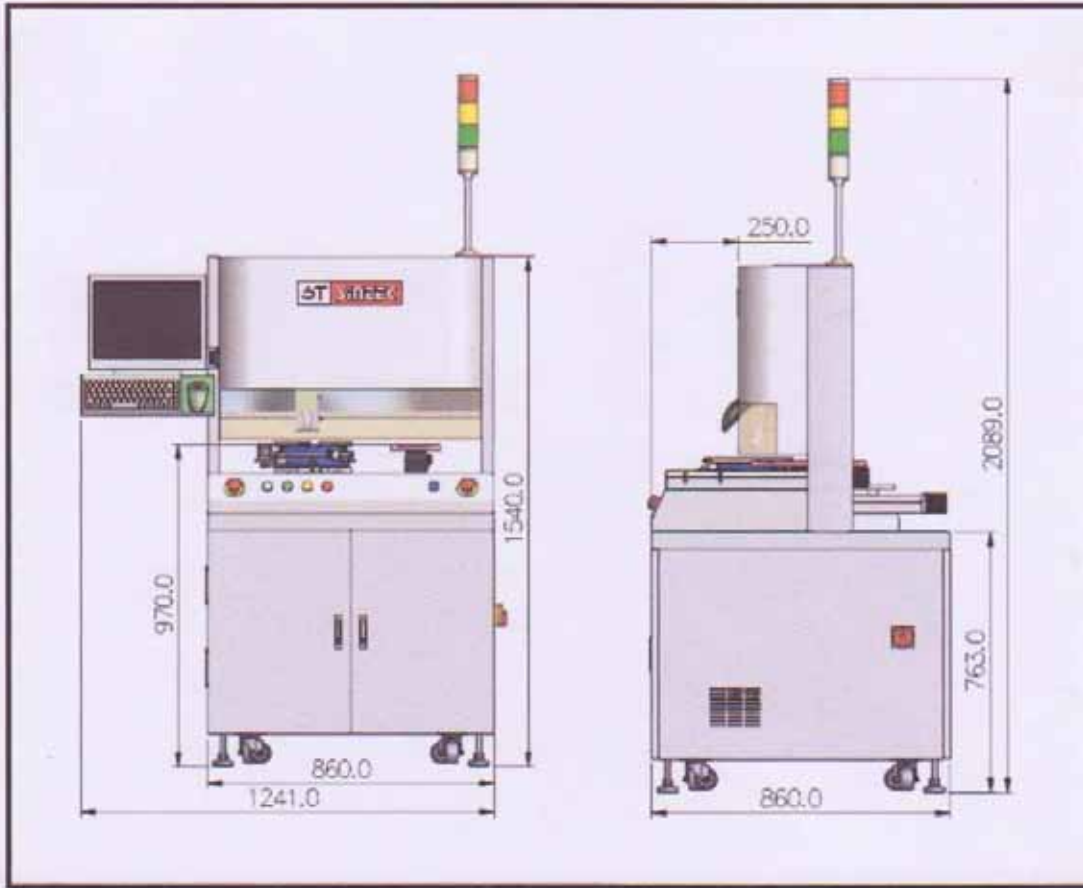
- | | | |
|--------------------|---|------------|
| □ MTBA | > | 60 min |
| □ MTBF | > | 500 hours |
| □ MTTR | < | 1 hour |
| □ MTTA | < | 5 min |
| □ Machine UPH | ~ | 4000 |
| □ System down time | < | 2% |
| □ Conversion time | < | 30 minutes |

Note:

Machine performance data may differ from different customers subjected to application studies due to materials and processes variation beyond our control.

For any other die sizes and trays outside the specifications, please contact us.

■ External Dimensions



Safety Notice: For your safety, please read the instruction manual carefully before using the product. Specifications and appearance are subject to change without prior notice