

## Specification

### Chapter 4 Specifications of the Machine

#### 4-1 Specifications of the Machine

- Bonding method: Ultrasonic thermocompression.
- Machine accuracy  
 $\pm 2.5 \mu\text{m}$  ( $\pm \sigma$ )
- Bonding speed  
0.07 s / 2 mm wire (with loop control). Depends on device conditions.
- Bonding wire length  
Maximum 8 mm. Depends on device conditions.
- Pattern recognition unit  
Detection method: Gray scale correlation (256 gradations);  
Detection speed: 0.14 s max.; 2-point alignment (including move time)  
Detection area  
Lead side: Max. X:  $\pm 1.26$  mm Y:  $\pm 0.86$  mm  
Die side: Max. X:  $\pm 0.31$  mm Y:  $\pm 0.21$  mm  
Automatic pad / lead centering function  
RP5 function (bonding position automatic calibration function);
- Bonding area  
X: 55 mm, Y: 65 mm (when the lead frame width is 80 mm or less)
- Wire diameter  
Gold wire: 15 to 38  $\mu\text{m}$ . 2-inch double range spool.
- Number of bonding wires  
Maximum 4000 wires.
- Lead frame loader / unloader  
Magazine stacker type.
- Applicable magazine dimensions  
Length: 110.0 to 265.0 mm  
Width: 23.0 to 90.0 mm  
Height: 75.0 to 208.0 mm
- Indexer  
Center-parting type universal indexer.  
Independent settings of the front and rear rails are possible.
- Applicable lead frame dimensions  
Width: 20 to 80 mm  
Length: 95 to 262 mm  
Thickness: 0.07 to 0.3 mm
- Option: Host computer interface SECS I / SECS II HS MS  
BI function (ball and wire inspection)
- Input power supply 100 V AC  $\pm 5\%$ , 50 / 60 Hz  
Power consumption: Approx. 750 to 1500 W  
Air: 500 kPa {5 kgf /  $\text{cm}^2$ }, 60 l / minute  
vacuum: Below -74 kPa {-550 mmHg} (Gage pressure)
- Machine dimensions and mass  
700W X 700D X 1940H mm Approx. 550 kg