# Automatic Micro-Hole Punching Machine (Model: SAP-200B)

The HANSUNG SYSTEMS' AUTOMATIC Micro-Hole PUNCHING MACHINE (Model SAP-200B) is designed for R & D works and small quantity sample work in the perforation of precise holes in the ceramics green tape or thin materials.

Applications: R & D Works for Multi-layer Ceramics Package., Chip Inductor,,
Multi-layered RF module. Multi-layered thick film sensor,
LTCC, Multi-layered RF module. Multi-layered thick film sensor.

### Model SAP-200B has followings features;

- Operation is simple:
- Model Changing is simple and quick:
- Punching Tool changing is quick: You can change over a complete punch assembly in less than a minute
- Hole quality is excellent: There is no puckering around the punched hole.
- The Price is right: You will be pleasantly surprised all this quality, performance and easy programming for much less than competitive system.

#### Provide Toolings:

- 1). Round Hole : from 0.15 mm (150  $\mu$ m) to 7.50 mm
- 2). Square Hole : from  $0.50 \text{ mm}^2$  to  $6.25 \text{ mm}^2$
- 3). Other combination and sizes available depending on user application. (Please, contact to us.)



**AUTOMATIC Micro-Hole PUNCHING MACHINE (Model SAP-200B)** 

## Machine Specification (Model SAP-200B)

Twin Head Type (Standard): No.1 Head Assy. – Guide Hole 3.00 mm dia.
 No.2 Head Assy. – Via Hole 0.200 mm dia.

- 1. POSITIONING SYSTEM: Punching through Numeric control. Resolution: 0.001 mm (1  $\mu$ m).
- 2. AC SERVO MOTOR & CONTROLLER.

3. PUNCHING RANGE : MAX. X-Axis 200 mm. MAX. Y-Axis 100 mm.

4. PUNCHING REPEATABILITY : MAX. ± 20μm.

The Maximum tolerance of positioning is from acceleration and de-acceleration by when LOAD: 20Kgf and Velocity: 400mm/sec.

- 5. PUNCHING speed (cycle time): 3 holes/sec..
- 6. MAXIMUM PUNCHING POINT: 1,998 point./Program. Controller can get 1,998 ponit data in one time
- 7. PUNCHING POINT INPUT:.

DATA input to over IBM personal computer over 486DX computer. DATA input by ASCII code.
DATA input by EXCELL data.

8. Communication between Personal Computer and Machine.: RS232C.

9. Software: Machine software in Window 95/98/98SE/ME/NT

10. Computer : over IBM personal computer 486DX (Option)

11. UTILITY: - Power : 110 / 220 VAC. MAX. 0.5 KW

- Compressed Shop Air: Min. 5.5 Kgf/cm2

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 $<sup>\</sup>ensuremath{^{*}}\xspace$  Above Specification will be changed without notice for machine improve .

