# YAMAHA
## Make Waves
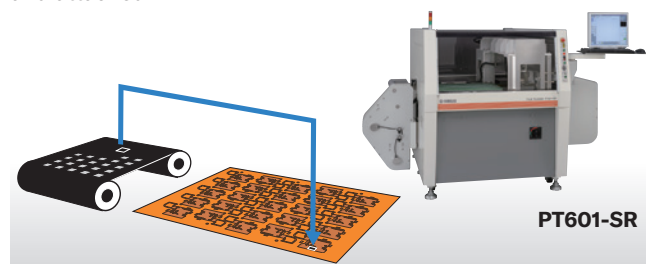
### Automatic shielding film attaching machine
## FILM PLACER

A machine for attaching EMI shielding film onto flexible PCBs. With an accuracy of ±50μm, roll film is automatically punched and attached.

PT601-SR

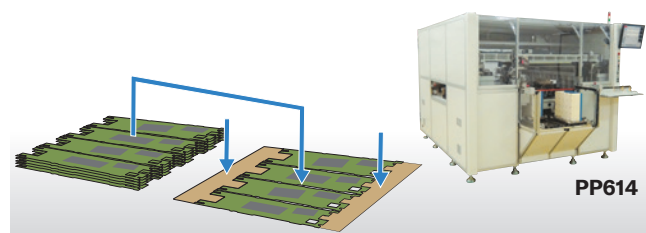#### Specifications

| Model | Accuracy | Worksheet size | Speed | Material supply |
|---|---|---|---|---|
| PT601-SR | ±50μm | 610 × 510mm | 1.5 s/piece | Roll |

### Automatic small pieces arranging machine
## TRAY SETTER

A machine for arranging small-sized pieces such as stiffeners onto a tray. Chip boards of 3 to 15 mm are arranged at high speed automatically.

PR401

#### Specifications

| Model | Accuracy | Workpiece size | Speed | Material supply |
|---|---|---|---|---|
| PR401-T | ±200μm | 15 × 15mm | 0.33 s/piece | Manual |

### Automatic HDI PCB in-frame arraying machine
## PCB PLACER

A machine for automatically arraying HDI board pieces in the frame with high accuracy. With an arraying accuracy of ±30μm, an array for the mounting process is created.

PP614

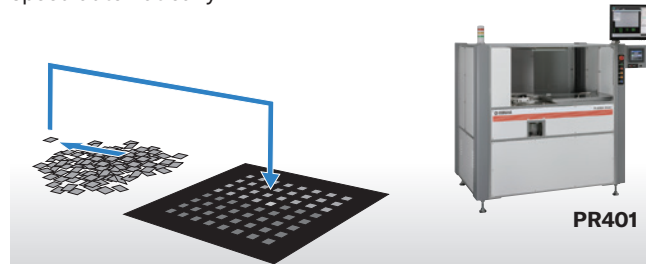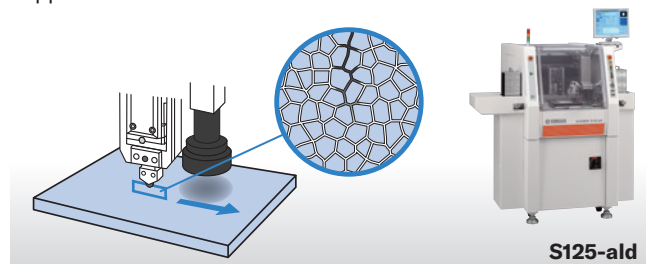#### Specifications

| Model | Accuracy | Workpiece size | Speed | Material supply |
|---|---|---|---|---|
| PP614 | ±30μm | 140 × 65mm | 7.0 s/array | Automatic |

### Automatic ceramic substrate scribing machine
## SCRIBER

A machine automatically splitting ceramic substrate. With an accuracy of ±30μm, up to 230 x 230 mm in size can be supported.

S125-ald

#### Specifications

| Model | Accuracy | Worksheet size | Speed | Material supply |
|---|---|---|---|---|
| S125-ald | ±30μm | 125 × 125mm | 500mm/s | Automatic |
| S230 | | 230 × 230mm | | Manual |

# YAMAHA

# THE PRECISION MACHINES
## PRODUCT LINEUP

Website

Inquiry

URL  https://www.yamahafinetech.co.jp/en/

YAMAHA FINE TECHNOLOGIES CO., LTD.

# PCB TEST AND PROCESSING SOLUTIONS FROM YAMAHA

## High-speed and high-precision Electronic Circuit Board Testing Machine

# MICRO PROBER

Industry-standard testing machines for electronic circuit boards achieving high productivity and contact accuracy simultaneously

### Features
● **High positioning accuracy ±5µm by Flying Fixture™ method**
● **Fully automated e-testing process**
● **Inspection function meeting high-level requirements**

MR262-A

### Specifications
**Sheet by Sheet model**

| Model | Test points | Worksheet size | Fixture size | Loading / Unloading |
|---|---|---|---|---|
| MR612-DM5S | Upper 2,046 / Lower 2,046 | 610 × 510mm | When rotating : φ200mm<br>When not rotating : 275 × 100mm | Manual |
| MR612-M5S | Upper 1,534 / Lower 1,022 | | | Automatic |
| MR612-A-DM5S | Upper 2,046 / Lower 2,046 | 260 ×400mm | | |
| MR262-A-DM5S | | | | |
| MR262-A-M5S | Upper 1,534 / Lower 1,022 | | | Manual |
| MR262-M5S-N | | | | Manual / Automatic |
| MR262-M5S-U | | | | |
| MR262C-M5S | Upper 1,534 / Lower 1,534 | 260 × 280mm | When rotating : φ200mm | Manual |
| MR182-A-DM5 | Upper 2,046 / Lower 2,046 | 120 × 250mm | When not rotating : 100 × 100mm | Automatic |

**Roll to Roll model**

| Model | Test points | Worksheet size | Fixture size | Loading / Unloading |
|---|---|---|---|---|
| MR262-GFR-M5S | Upper 1,534 / Lower 1,022 | 100〜260mm | When rotating : φ200mm | Roll to Roll |
| MR622-GFR-M5S | Upper 1,534 / Lower 896 | 350〜620mm | When not rotating : 275 × 100mm | |
| MT512-GFR-N | Upper 1,022 / Lower 1,022 | 300〜510mm | When not rotating : 600 × 500mm | |

**Standard specification**

| | | | | |
|---|---|---|---|---|
| Open test | Test range | 2-wire test | 10Ω〜10kΩ (0.5mA,10mA) | |
| | | 4-wire test | 1mΩ〜500Ω (10mA, 40mA, 100mA) | |
| | Open voltage | 2-wire test | DC15〜50V | |
| | | 4-wire test | | |
| Short test | Test range | | 100kΩ〜100MΩ | |
| | Open voltage | | DC50V〜250V | |

## High frequency characteristics measurement system

<span style="background:red;color:white">NEW</span> # MICRO PROBER MP SERIES

Industry-leading systems that measure the frequency characteristics of high-speed transmission PCBs precisely and automatically
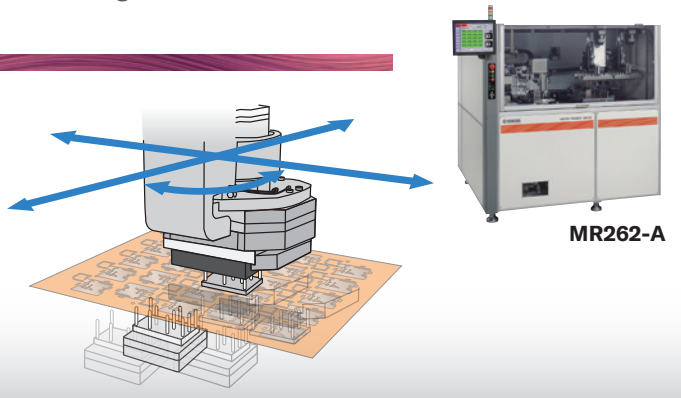
### Features
● **High repeatability and reproducibility**
● **High-speed, multi-piece-simultaneous test**
● **Can be combined with any network analyzers**
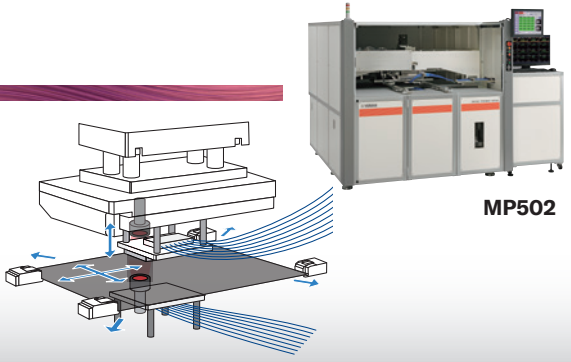
MP502

### Specifications
* Indicates repeatability of relative positioning of in-house performance tests.

| Model | Positioning accuracy* | Worksheet size | Fixture size | Loading / Unloading |
|---|---|---|---|---|
| MP502 | ±20µm | 510 × 610mm | 200 × 200mm | Manual |
| MP502-A | | | | Automatic |

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## High-speed and high-precision tooling hole puncher

# FILM PUNCHER

A wide range of sheet materials from thin to thick ones are supported. With an electric punching head, high-speed, high-accuracy punching is realized

F250DD-RTR

### Features
● **Punching at high speed (12 holes/second) with high accuracy (±20 µm) realized**
● **Model best suited for punching tooling holes for exposure and outline machining**
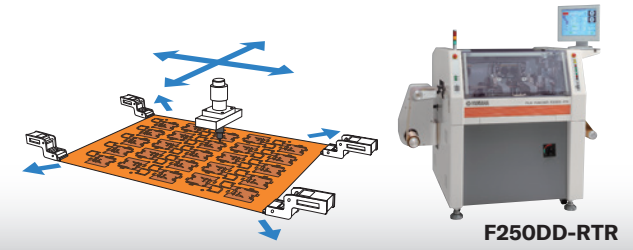● **In addition to film materials, some thick sheet products also supported**

### Specifications
**Sheet by Sheet model**

| Model | Worksheet size | Punching head | Speed | Loading / Unloading |
|---|---|---|---|---|
| F602S2 | 545 × 365mm | Electric punch head | 0.24 s/hole | Manual |
| F602SP2 | | NC punch head | 0.35 s/hole | |
| F602L2 | 545 × 600mm | Electric punch head | 0.27 s/hole | |
| F602LP2 | | NC punch head | 0.35 s/hole | |
| F602S2-ald | 500 × 365mm | Electric punch head | 0.24 s/hole | Automatic |
| F602SP2-ald | | NC punch head | 0.36 s/hole | |
| F602L2-ald | 500 × 600mm | Electric punch head | 0.27 s/hole | |
| F602LP2-ald | | NC punch head | 0.35 s/hole | |

**Roll to Roll model**

| Model | Worksheet size | Punching head | Speed | Loading / Unloading |
|---|---|---|---|---|
| F250DD-RTR | width 250mm | Electric punch head | 0.08 s/hole | Nip roll feeding |
| F250DD-GFR | | | 0.085 s/hole | Grip feeding |
| F500DC-RTR | width 500mm | | 0.11 s/hole | Nip roll feeding |
| F500DC-GFR | | | 0.115 s/hole | Grip feeding |

## High-precision outline cutting and Irregular hole puncher

# TRIM PUNCHER

Used for film materials for such work sheets as FPCs and touch panels.
Metal die punching and half-cutting are also supported.

T501P

### Features
● **±20 µm high-accuracy punching by image alignment**
● **Low-cost irregular hole punching using a compact die**
● **Both half-cutting type and die supported**

### Specifications
**Sheet by Sheet model**

| Model | Worksheet size | No. of head | Thrust | Loading / Unloading |
|---|---|---|---|---|
| T501 | 510 × 510mm | 1 head | 1.2t | Manual |
| T502 | | 2 head | 0.6t | |
| T501P | 510 × 610mm | 1 head | 5t | Automatic |
| T501P-HA | | | | |
| T901 | 900 × 900mm | | 7t | Manual |

**Roll to Roll model**

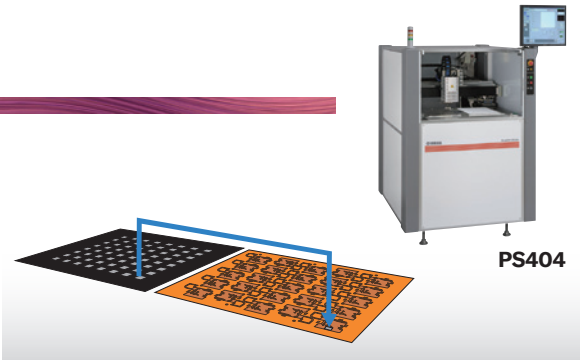| Model | Worksheet size | No. of head | Thrust | Loading / Unloading |
|---|---|---|---|---|
| T151-RTR | Width 158mm | 1 head | 2t | Roll to Roll |
| T261-GFR | Width 260mm | | 3t | Roll to Roll |
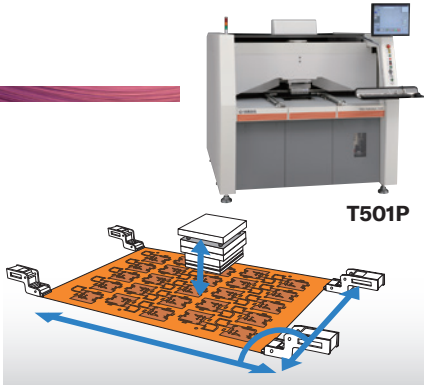
## Automatic stiffener attaching machine

# PLACER

A machine for attaching stiffeners onto flexible PCBs. With an accuracy of ±50µm, stiffeners are attached at high speeds and automatically.

PS404

### Specifications

| Model | Accuracy | Worksheet size | Speed | Material supply |
|---|---|---|---|---|
| PS404-TV | ±50µm | 250 × 400mm | 1.1 s/piece | Tray |
| PS404-FV | | 260 × 400mm | 1.3 s/piece | Tape Feeder |
| PS504 | | 300 × 500mm | 1.5 s/piece | Magazine |