



FINEPLACER[®] matrix rs

Future in advanced rework

advanced rework



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The FINEPLACER[®] matrix rs is a semi-automatic rework station representing the latest development from FINETECH, encompassing the “**Built to be Best**” philosophy.

With a high level of process modularity, the system supports the complete rework cycle in a platform ergonomically designed to provide a state-of-the-art technical solution, low maintenance and easy service access.

Open application architecture ensures compatibility with future technologies as users transition from R&D into OEM production.

Highlights

- Industry-leading thermal management
- Placement accuracy better than 10 µm
- Component sizes from 0.125² mm² to 100² mm²
- Board sizes up to 460 x 390 mm*
- Top heater calibration
- Closed loop force control
- Real time contrast optimization with LED lighting
- Fast conversion from rework station to die bonder
- Ergonomic and intuitive design reduces user fatigue

* depending on configuration

Features

- Automated processes
- Vision alignment system with fixed beam splitter
- Integrated Process Management (IPM)
- Real time process observation camera
- Adaptive process library
- Process transfer from system to system

Benefits

- Hands-off component placement, user independent process operation
- Outstanding placement accuracy and instant operation without adjustments
- Synchronized control of all process related parameters: force, temperature, time, flow, power, process environment, light and vision
- Immediate visual feedback reduces process development time
- Fast and easy process development
- Identical results on different machines allow central profile development, administration and distribution

Technologies

- Component removal
- Site cleaning
- Re-balling (single, array)
- Paste printing (component, PCB)
- Paste dispensing
- Flux and paste dipping
- Soldering
- De-soldering

Applications

- Soldering of:
 - BGA, μ BGA/CSP, QFN, PoP, QFP, PGA
 - Small passives, down to 01005
 - RF shields, RF frames
 - Connectors, sockets
 - Sub assemblies, daughter boards
 - Flipchip (C4)
- Through hole rework (THR)
- Pin in paste (PiP)
- THT rework
- Reworkable underfill, conformal coating
- Single ball rework
- Micro assembly applications

Technical Specifications

Placement accuracy:	10 μ m
Field of view (min) ¹ :	3.5 mm x 2.6 mm
Field of view (max) ¹ :	43 mm x 32 mm
Component size (min) ¹ :	0.125 mm x 0.125 mm
Component size (max) ¹ :	100 mm x 100 mm
Power (reflow module):	900 W
Flow range:	10 NI/min - 70 NI/min
Temperature ramp rate:	1 K/s - 50 K/s
Power (board heater):	4200 W (12 zones)
Heated area (max):	450 mm x 300 mm
Theta fine travel:	$\pm 2^\circ$
Thermocouples*:	8

* depending on configuration

¹ standard value, other values on request

Modules

Reflow module
 Board heater
 Process gas module
 Board temperature sensor (IR)
 Solder removal module
 Component printing module (DCP)
 Board printing tools
 BGA reballing module
 Dispenser support
 Flux transfer station
 Component presentation
 Process video module
 Lighting options

Notes:

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