

Specifications	FP-100 / FP-200	FP-500 / FP 600
Dimensions LxWxD	500 x 760 x 300 mm	900 x 760 x 300 mm
Board Size	max. 530 x 330 mm	max. 280 x 220 mm
Board Thickness	min. 0.5 mm x 3.0 mm	min. 0.5 mm x 3.0 mm
Maximum Warpage	1 mm up - 1 mm down	1 mm up - 1 mm down
Component Height	Top max. 20 mm Bottom max. 25 mm	Top max. 20 mm Bottom max. 25 mm
Placement Accuracy	0402 up to QFP with 0.65 mm pitch	0402 up to QFP with 0.65 mm pitch
Placement Rate	up to 800 cph	up to 800 cph
Components	Chip, Melf, SOT, SOIC, TSOP, TNT, PLCC, QFP, BGA, LCC, etc.	Chip, Melf, SOT, SOIC, TSOP, TNT, PLCC, QFP, BGA, LCC, etc.
Control	Integrated solid state control	Integrated solid state control
Feeder Characteristics	20 feeders of 8 or 12 mm tapes or an equivalent of sticker feeders in baseplate + max. 90 components in carousel	13 feeders of 8 or 12 mm tapes or an equivalent of sticker feeders + max. 90 components in carousel
Camera	Optional Colour CCD Camera	Optional Colour CCD Camera
Power-Air Equipment	110 / 220 Vac / 50-60Hz / 70 Watt / 6 Bar /85 PSI / 1,5 L/min.	110 / 220 Vac / 50-60Hz / 70 Watt / 6 Bar /85 PSI / 1,5 L/min.
Operating Temperature	15 - 40° Celsius	15 - 40° Celsius
Noise Level	Noise emission during operation < 50 dB(A)	Noise emission during operation < 50 dB(A)
Weight	20 kg	25 kg

- | Article | Description |
|---------|---|
| FP-100 | Modular Fineline pick & place |
| FP-200 | Modular Fineline pick & place with dispense |
| FP-500 | Complete Fineline pick & place |
| FP-600 | Complete Fineline pick & place with dispense |
| FM-200 | PCB holder 330 x 240mm |
| FM-0150 | Extra bar for FM-200 |
| FA-1000 | Universal motor drive with foot pedal for carousel |
| FA-1100 | Colour Camera and monitor stand for FP series (no monitor included) |
| FC-450 | Carousel with 45 Cmos bins, cover Cmos PVC + Base |
| FB-200 | Base plate for 20 feeders 20 mm |
| FT-0801 | Tape strip feeder |
| FT-0807 | Tape feeder 8 mm 7" reel |
| FT-0814 | Tape feeder 8 mm 14" reel |
| FT-1207 | Tape feeder 12 mm 7" reel |
| FT-1214 | Tape feeder 12 mm 14" reel |
| FT-1607 | Tape feeder 16 mm 7" reel |
| FT-1614 | Tape feeder 16 mm 14" reel |
| FT-2414 | Tape feeder 24 mm 14" reel |
| FT-3214 | Tape feeder 32 mm 14" reel |
| FS-0100 | Stick feeder SO-6.2/15.2mm |
| FS-2000 | Stick feeder PLCC-20 |
| FS-2800 | Stick feeder PLCC-28 |
| FS-4400 | Stick feeder PLCC-44 |



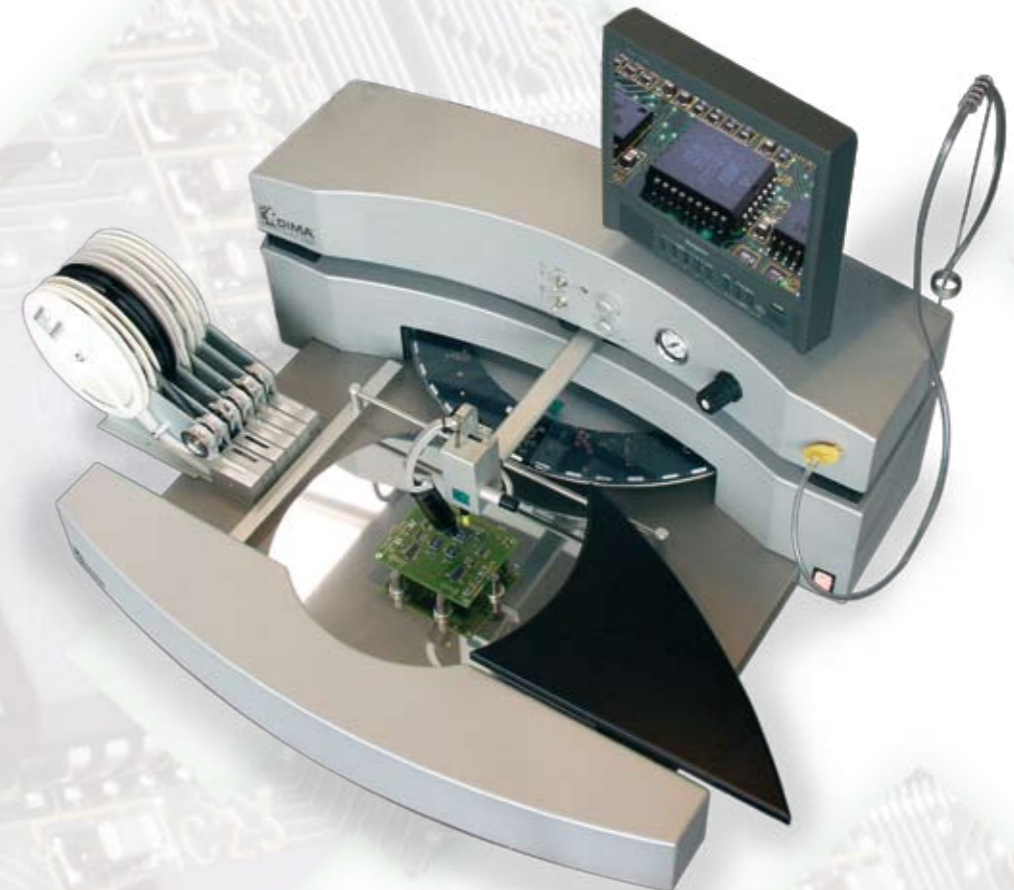
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Specifications are subject to change without prior notice.

FP0905E



The ideal complete, ergonomic and well designed manual, modular Pick and Place system



To improve your productivity

The complete manual pick & place system Fineline

DIMA was back in 1986 one of the pioneers developing equipment for SMT placement. Due to DIMA's continuing development in these SMT placement systems the Fineline range has been developed for state of the art placement of SMT components. Ease of use, ergonomics and price performance were the main criteria when developing the Fineline range. In the Fineline range of pick and place units you can choose between a system where everything is integrated into one unit (FP-500/600) or a modular system where various options can be combined with the pick and place module of your choice (FP-100/200).



Complete systems

A manual pick and place system that combines all features of today's manual pick and place machine in one system. To enable a quick changeover, the PCB is supported by a series of magnetic blocks. This allows strategic positioning, especially useful when placing double sided PCB. The PCB can rotate over 360 degrees. This allows you to support even very strange shapes of boards and to rotate them in every angle which can be very profitable for repairs or difficult dispensing jobs. An integrated carousel for up to 90 components and base for 13 feeders are included in this complete system.

Key Features

- All in one box system
- Extreme light movement because of the Easyglide guiding system
- No problems when picking round or small components thanks to the Sensatip® pick and place head
- PCB can be rotated for easy assembling
- Available with integrated dispenser
- Digital solid state control
- Large arm rest
- Everything integrated in one system
- Ergonomic design

Fineline pick & place FP-500

The FP-500 unit is configured for pick and place. The Sensatip™ pick and place head ensures that even difficult components can be picked just by touching the component.

Fineline pick & place and dispense FP-600

The FP-600 can pick and place and dispense. The unit has all features of the FP-500 but is also equipped with a dispense unit. The dispensing unit allows you to dispense solder cream, SMD adhesive, solder-mask and several other products. A digital timer combined with precision air pressure regulation, guarantees an exact and repeatable dot size. For liquids with a low viscosity the dispensing unit is equipped with a barrel vacuum that avoids leaking of dispensing fluid. The dispenser is equipped with an automatic repeat function that avoids having to press the foot pedal for every dot.

Fineline modular systems

The range of modular systems has to be combined with at least a PCB holder. Depending on the application an extra carousel or a base plate for tape or stick feeders can be added. Technically the modular system is the same as the complete Fineline (FP-500/600).

Combinations

Above right a combination is made with a Fineline FP-200, a PCB holder FM-200 and a feeder base FB-200. On the location where now the feeder base is located you also can place a baseplate with carousel. This is a modular system that allows you to start with a basic configuration as shown below the FP-200. This system allows you to replace or add components so that you can upgrade it to a more advanced system. For those who want an out of the box complete system where you only need to add feeders there is the Fineline FP-500/600. These systems have all components mounted on one baseplate and have a fixed configuration.

Easyglide™

Each Fineline is equipped with the DIMA Easyglide™ X, Y guiding system that allows exact positioning of the pick and place head.

Sensatip™ pick & place head

The Sensatip™ pick and place head movement is extremely light and its ergonomic design ensures relaxed placing of components without having to force your hand in to an uncomfortable position. Vacuum is automatically switched on and off by touching the component with the nozzle. Pick and place nozzles can easily be changed without tools and components can be rotated over 360 degrees.



Camera

The optional camera helps with inspecting and placing components.



Fineline pick & place FP-100

The FP-100 unit is configured for pick & place only. The Sensatip™ pick and place head ensures that even difficult components can be picked just by touching the component.

Fineline pick & place and dispense FP-200

The FP-200 can pick and place and dispense. The unit has all features of the FP-100/500 but is also equipped with a dispense unit. The dispensing unit allows you to dispense solder cream, SMD adhesive, solder-mask and several other products. A digital timer combined with precision air pressure regulation, guarantees an exact and repeatable dot size. For liquids with a low viscosity the dispensing unit is equipped with a barrel vacuum that avoids leaking of dispensing fluid. The dispenser is equipped with an automatic repeat function that avoids having to press the foot pedal for every dot. All Fineline systems come with a carousel and cover.



Photo
FP-200 pick and place with dispensing, FM-200, FB-200 and feeders

Key Features

- Flexible system
- Extreme light movement because of the Easyglide guiding system
- No problems when picking round or small components thanks to the Sensatip® pick and place head
- Large PCB area
- Available with integrated dispenser
- Digital solid state control
- Large arm rest
- Different configuration
- Ergonomic design



Photo
FM-200 with FC-450 and FB-200 with additional feeders.



PCB holder

In the FM-200 you can adjust a movable bar so that it exactly fits your circuit board. Each PCB is held by separate spring loaded balls so that even if you place more small PCB's in a row, each PCB is held tight so that it does not move during dispensing or placement.

Arm rest

The triangular arm rest allows you to rest your whole arm when placing a component. This not only makes accurate placing of components possible but also covers the part of the PCB you are not working on so that you can not damage the dispensed pattern with your clothes.

Base plate

The base plate FB-200 can hold 20 feeders (20 mm wide). Feeders snap into place and can be placed or removed without any tools.

Carousel

Due to the unique design of the carousel FC-450 it has the ability to carry up to 90 different component values incorporating dual and single trays. The carousel is constructed of a high quality aluminium with an integral conductive (ESD) clear PVC cover protecting against static electricity and securing the components allowing trouble free placement.

Stick feeders

Stick feeders offer the components to the operator for easy pick up. The wheel of the stick feeder prevents the components from moving out of the stick. Rotating the wheel will advance components to the pick position. There is one stick feeder that can handle SOIC's from 6.2 to 15.2mm high. For other components specific stick feeders are available.

Tape feeders

Tape feeders are available for 7 and 14 inch reels. Depending on the size of the components several components can be picked up before you have to advance the tape. Pulling the top tape with the transport wheel advances the tape. Feeders are available for several different widths of tape. Tape strip feeders FT-0801 allow you to handle short strips of SMT tape for small and large components.