

**PROTEC**

Underfill Inline System

# AMU-1000

Automatic Mobile Underfill System

## Features

- Fully automatic for unassisted in-line IC encapsulation and underfill production.
- High quality guarantee  $\pm 1\%$  3 sigma in constant pressure viscosity
- Vision system options to reliably locate dispensing sites in both wirebonded die and flip-chip orientations.
- The 3 dimensions position embodiment by checking X-Y-Z-R
- Syringe air:1-80psi electrical control. (parameters setting)
- Automated, integrated needle prime, purge and clean station simplifies needle maintenance.
- Industry-standard windows based software environment minimizes operator training.
- Increment(Absolute) Encoder servo system for self-position
- Mechanical and laser non-contact Z-axis height detection to compensate for substrate variations.
- Automation options including low fluid alarm and low pressure sensor support high yield production environments.

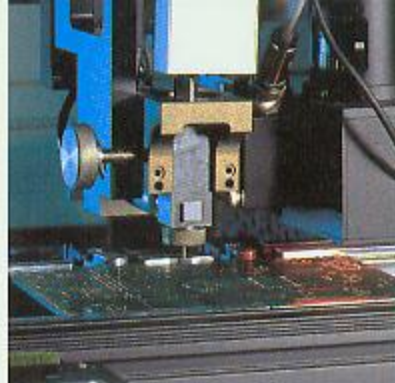


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## Automatic Mobile Underfill System

We had manufactured this equipment to harden effectively in hardening process strongly attaching after having underfilled with epoxy below BGA to protect shocks of BGA device soldered in mobile phone PCB, but modifying to support the below issues.



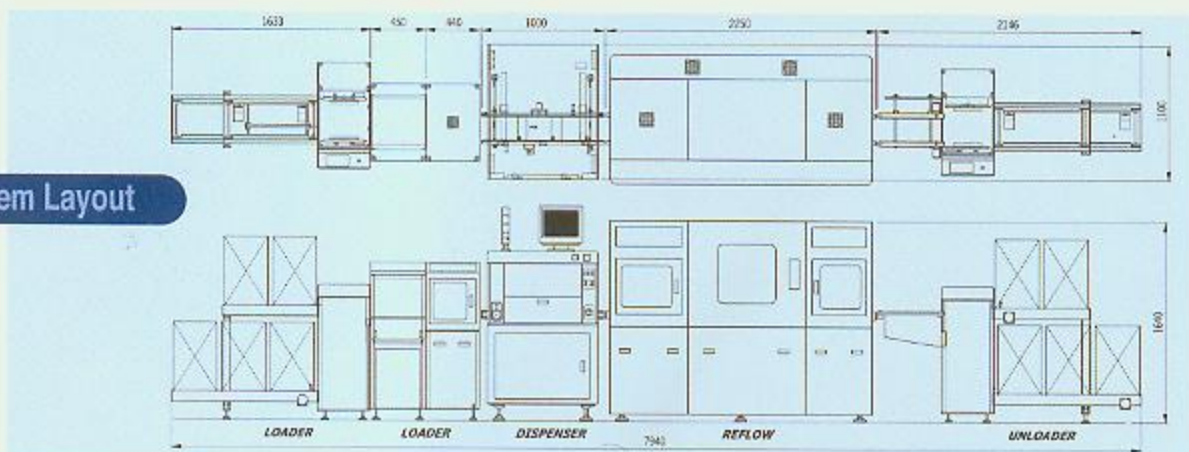
### Process Step



### Specification

Machine	Specification
<b>Loader</b>	Magazine Stack : standard - the upper (2ea), the lower (3ea) Power : AC220V [±5%] 50Hz-60Hz Air : 5 kgf/cm <sup>2</sup> System operation : PLC System PCB Transport Direction : Left to Right
<b>Inverter</b>	Power : AC220V [±5%] 50Hz-60Hz System operation : PLC System PCB Transport Direction : Left to Right
<b>Dispenser</b>	Power : AC220V [±5%] 50Hz-60Hz Air : 5 kgf/cm <sup>2</sup> Robot Stroke : X axis -300mm, Y axis-490mm Working Area : MAX - X axis 200mm- Y axis 200mm System operation : Windows NT Workstation
<b>Reflow</b>	Power : AC220V [±5%] 50Hz-60Hz Air : 6 kgf/cm <sup>2</sup> PCB Conveyor width Repeatability : ±0.5 Magazine Stack : standard - the upper (2ea), the lower (3ea)
<b>Unloader</b>	Power : AC220V [±5%] 50Hz-60Hz Air : 5 kgf/cm <sup>2</sup> System operation : PLC System PCB Transport Direction : Left to Right

### System Layout



\* Specifications are subject to change without notice for improvement.

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