Fluid Bed Electro-Plating Machine

AEM

Introduction

The Electro-Plating Machine Model FB201 is specially designed for electro-plating of surface mount electronic components, from 0402 to 1206 sizes. The patented fluid bed plating technology (U.S. Patent 6,228,230 B1) eliminates the use of media in plating of small parts. Such a feature reduces the electricity used in plating by 50% to 80% and completely eliminates the tedious work for media size control and maintenance. It also eliminates the problem of media and chip segregation that could reduce the plating uniformity. There are multiple cells in a tray. Each cell can be connected to or disconnected from the cathode. It provides the flexible for plating different lot size of chips and still maintains uniform plating conditions for each cell. The fluid agitation adopted in the plating machine provides uniform bath solution in the plating cells and results in dense and uniform metal deposit on the plated surface.

Photograph

Specifications

Dimension

	Inch	mm
Length	67	1710
Width	32	820
Height	37	940

Loading capacity

Chip size	Max. Loading (piece/batch)
0402 (1005)	2,500,000
0603 (1608)	366,000
0805 (2012)	90,000
1206 (3216)	54,000

Power supply for plating
HP 6551A Power Supplier:
Digital/Analog, Output 0-8V, 0-50A,
Programming accuracy 5 mV, 60 mA,
Ripple Voltage rms peak-peak – 3 mV,
Ripple Current rms – 25 mA

Typical plating time and thickness (depend on bath condition)

Material	Plating time (min/batch)	Thickness (μm)
Nickel	40-60	1.8-2.2
Solder	40-60	2.5-3.5

Weight (exclude bath solution)
470 lb or 213 kg

Loading volume for bath solution
22 gal or 82 liter

Filtration system
Continuous operation glass filled polypropylene pump with high efficiency filter

Materials
Tank – polypropylene
Anode basket - Titanium

Power
208 V, 50/60Hz, max. 30A

Option items

Stainless steel electrical heater (2kw) and PID temperature controller
Mounted pH meter