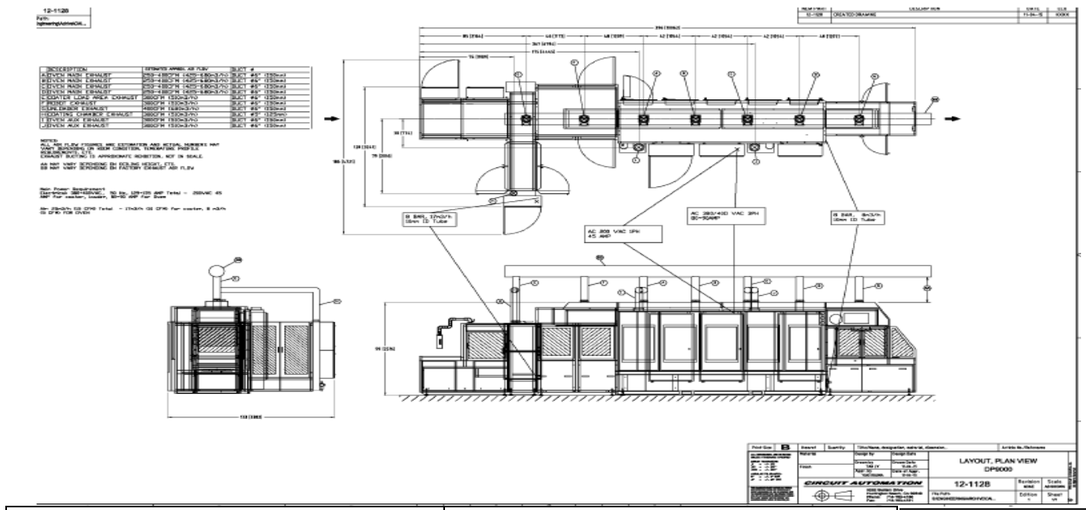
DP9000 SYSTEM



SPECIFICATIONS	DP9000 V1
Minimum Panel Dimension (width X height)	305 X 305mm (12" X 12")
Maximum Panel Dimension (width X height)	610 X 762mm (24" X 30") w/extend clamp 610 X 686mm
Minimum Thickness	0.4mm (0.016") * (Dependent on panel construction)
Maximum Thickness	3mm (0.120")
Border Requirement	8mm (.375")
Screen Frame Size (width X Height X thickness)	934 X 1361 X 38mm (37" X 53.6" a.5")
Printing Speed	Step less adjustable 2.5 - 25 cm/sec
Flood Speed	Step less adjustable 2.5 - 25 cm/sec
Maximum Machine Cycles	125pph** Both Sides Coated Simultaneously
Electrical	380-400V 3Ø 125 Amp 50Hz / 208-240 1Ø 10 Amp 50Hz
	480V 3Ø 125 Amp 60 Hz / 208-240 1Ø 10 Amp 60Hz
Pneumatic	25m³/hr. @ 6 bar (15cfm @ 90 psi) recommended
Length	940 cm (370")
Maximum Width	333 cm (131")
Height	256 cm (101")
Height Pass Height	902 -940mm (35.3 - 40.5")
Exhaust System	2500m³/hr. (1500cfm)
Weight Coater Module	2360 kg (5200 lbs.)
Oven Module	3150 kg (6900 lbs.)
Crated Dimensions System	45' high cube container

** Represents mechanical capability based on 610mm (height) panel in FPP mode.
Actual production rate may vary.

DP9000 System

Please refer to ***DP6000 FL*** ***DP6000 ML*** ***DP6000 V2***

Specific data sheets for more information and specifications for these variant models.

TAIYO CIRCUIT AUTOMATION, INC.
2675 ANTLER DRIVE
CARSON CITY, NV 89701
775.885.9959, EXT. 2
www.taiyocircuitautomation.com

TAIYO
CIRCUIT AUTOMATION

TAIYO CIRCUIT AUTOMATION

GLOBAL LEADER IN LPI COATING

DP900O

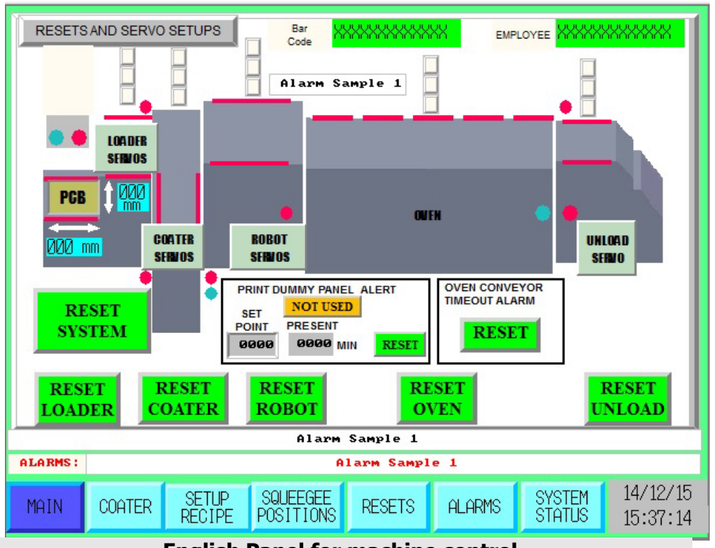
FULLY AUTOMATIC DP9000 SYSTEM

DP9000 System

The shrinking of PCB structure, conductor width and drilling hole diameter, has brought to develop the integration of the via holes with the surface soldermask outer layer feature of HDI designs. Current soldermask masking technologies have to evolved mirroring more challenging designs combining high copper circuits, higher layer counts and smaller drilled holes, filled vias and built up multilayers. Solder masking requires thinner, controllable, consistent, repeatable, superior trace encapsulation and more consistent, predictable overall coverage. Contamination such as flux residues, fibers, and debris enhances the adsorption of moisture and leads to failures and surface defects.

TaiyoCircuitAutomation has responded, introducing the ***DP9000*** Cleanliness in both room environment and in application equipment is now a critical component requirement for the application of LPI soldermask lacquer due to the shrinking geometry between components and increased density.

Advanced technology requires a **cleanroom** with a low level of environmental pollutants such as dust, aerosol particles, and chemical vapors. An ISO 6 (class 1000) cleanroom allows and only 1000 particles per cubic meter of 0.5 µm and smaller. To meet these new requirements, The ***DP9000*** was developed as a new series of equipment with improved capacities while contributing less room contamination.



English Panel for machine control

Incorporated into the ***DP9000*** is a sophisticated PLC to control the entire machine which is integrated with a PC designed to Data Log all of the critical machine functions and settings.

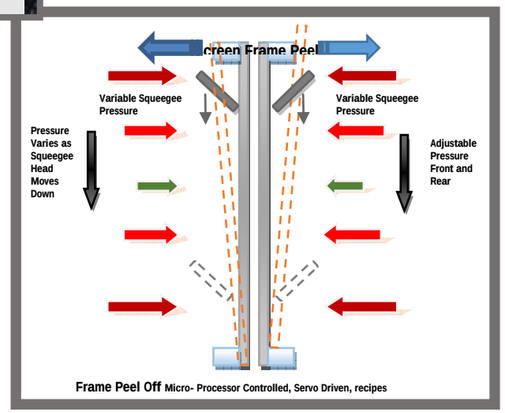
System controls and logging system supports several languages including: English, Chinese, French & German.

DP9000 commercialized many new innovations. Continuous improvement always starts by observing previous results and building from the past. Improved squeegee print heads that deliver more dynamic squeegee pressure to the point of mask transfer. These heads are more capable resulting in a wider range of Smart Print capabilities.

Improved Squeegee Head Design

Refined and improved LPI coater featuring the SPS "Smart Print System". Precise control with recipe functions reduces coating variation across the panel from the top to bottom and front to rear. ***DP9000*** has enhanced process stratagems; precisely and reliably coating the finest micro-thin flexible substrates through the thickest backpanels. Newly released, "Smart Print System" permits modulation of the selected squeegee pressure during the printing cycles. Varying the squeegee force stabilizes the Dynamic Squeegee Pressure across the substrate during coating; improving coverage and reducing mask in holes.

Recipe controlled fourth servo axis synchronizes peel off frame opening sequence and Dynamic Squeegee Pressure applied to the substrate work surface. This system is unique in its ability to modulate and sustain uniform Dynamic Printing Pressure.



Smart Print Diagram

Data Logging PC

DP9000 liquid photoimageable coating machines by now capturing critical data concerning each panel that is coated with the machine. With this now standard feature, the PLC captures the critical setup and operation data. The files are then automatically transferred to a PC in the .xls format via proprietary CAI software. The .XLS or.C format is then easily manipulated by an Excel spread sheet to allow custom printing of the data as desired, or loaded into other customer data based systems.