DC 2001

Precision Dip Coater

ENGINEERING RELIABILITY IN ELECTRONICS

General Description

The model DC2001 is a small, safe and easy to use batch dip coating system for the application of conformal coating materials and photo resists by high accuracy, precision dipping.

It features a regulated speed control that can be adjusted to precisely suit the viscosity of a wide range of materials in order to provide an extremely smooth, even coating thickness to a tolerance of just ± 5 %.

In addition, a pneumatically driven air-over-oil system enables the substrate carrier to operate in a smooth "judder free" motion during immersion and withdrawal strokes.

The speed of the immersion and withdrawal strokes is variable and can be independently programmed and controlled.

Material Viscosity monitoring is also as a standard feature, comprising a Gen3 Systems flow cup stopwatch and conversion table.

Model DC2001 Bench Precision Dip Coater

The equipment includes:

- Material Viscosity monitoring
- Argon gas manifold
- Fume extraction cover and spigot
- Lift cylinder and air-over-oil reservoirs
- Guide and dip actuator rod with low level limit dip actuator switch
- Stroke reversing valve
- Constant level re-circulating system with double diaphragm pump, weir and drain plug

The control panel includes:

- Start/Stop switch with override
- Variable speed controls, dwell timer, pump drive
- Argon gas flow meter and system air indicator, with key-switch

Scope of Supply

The DC2001 unit measures (approximately) 800 mm (32") long x 450 mm (18") wide x 1060 mm (42") high. It is built upon an aluminium box frame chassis that supports the dip tank and is surrounded by solvent resistant coated steel panels.

The control panel is mounted to the right of the active working space at eye level. The stainless steel tank is built to each client's requirements to maximum dimensions of (approximately) 400 mm (16") long x 142 mm (5.5") wide x (up to) 400 mm (16") deep. This is designed to provide up to 300 mm (12") immersion, allowing 50 mm (2") of clearance.

An integral fume hood and extraction vent are located behind the rear perforated stainless steel screen to control solvent vapour release.

The model DC2001, being totally air operated, is safe to use with all flammable liquids and can process over 100 assemblies an hour

Model DC2001 Bench batch coating system

Operation

The substrate carrier is raised and lowered by a pneumatically operated air-over-oil cylinder mechanism in order to achieve precise control of acceleration and deceleration.

The immersion and withdrawal speeds are independently adjustable from 25 to 300 mm per minute (1 - 12"/min) for immersion, and 25 to 150 mm per minute (1 - 6"/min) for withdrawal.

The dip depth can be adjusted by moving a sensor to achieve the desired height.

The system requires compressed air at 2.4 litres per second (5 cfm) at a pressure of 5.5 bar (or 80 psi).

GEN3 SYSTEMS

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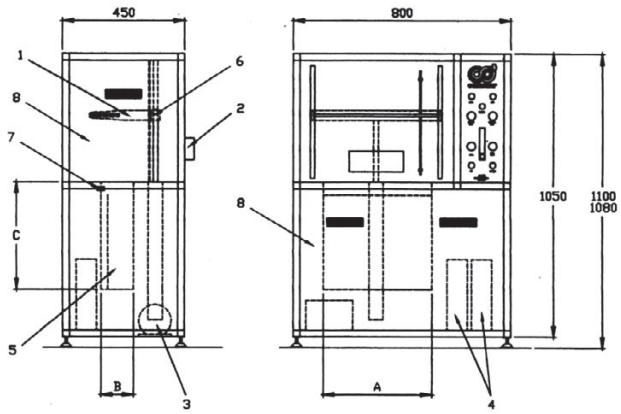
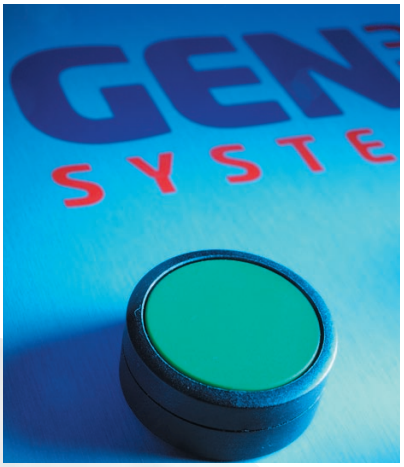
Model Ref.	Tank Dimensions (mm)					Approx. Tank Capacity (Litres)
	A	B		C		
		Overall	Effective	Overall	Effective	
DC2001-12	300	142	100	400	350	15
DC2001-14	350	142	100	400	350	18
DC2001-16	350	142	100	400	350	20

Maximum recommended tank capacity for DC2001 Bench Mounted Coater is (approx.) 25 litres.
For greater tank sizes and capacities refer to the DC2002 Floor Standing type.
Note: Tank sizes may be modified to suit individual client's requirements.



1	Support Arm	5	Dip Tank
2	Fume Extraction Spigot	6	Lifting Mechanism
3	Recirculating Pump	7	Gas Manifold
4	Air Oil Reservoir	8	Lift Out Panels

DC 2001



Production Capacity:

The quantity of substrates that can be processed in each batch will depend upon the size of each substrate, but typically will range somewhere between 50 to 100 assemblies per hour.

The tank dimensions are determined by the maximum size of substrates to be processed.

Options

- Micro filter with bypass to suit client's material
- Xylan (PTFE) coated tank
- Stainless steel catch tray

Accessories

- UV inspection & repair booth
- Drying cabinets
- Dehumidifier unit
- Ultra violet inspection lamp and stand
- Telescopic adjustable magnifier
- Hygrometer (temp/humidity) gauge
- Substrate carriers

Information required to determine machine specification

- Dimensions of substrates
- Quantity to be processed per hour
- Specification of coating material
- Viscosity of coating material
- Drying time/temperature
- Coating thickness required

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