

General Description

The model SB2900 has been specially designed for the application of conformal coatings to Printed Circuit Assemblies (PCAs) by batch spraying. It features an ergonomic design to minimise operator fatigue, while providing greater control of the spray gun position and direction. This limits overspray and unnecessary material wastage.

The SB2900 can be equipped with explosion-proof UV light and/or white light and employs a hands-free, rotating table for total 360° visual inspection.

The spray chamber also has a restricted opening and downward extraction plenum chamber, thus limiting operator exposure to solvent vapour. To ensure optimum filtration efficiency, the primary, secondary and tertiary filters are all easily replaceable.

A standard 10 litre pressure pot feed system can be supplied with pre-blended material to minimise filling downtime, along with semi-automatic purging and cleaning of the sprayhead.

Also optional is a foot operated pneumatic control for automated four quadrant positioning of the turntable.

An integrated storage space beneath the booth is provided for material and purging solvent pressure pots, the spray gun and face masks, etc.

Options

- 10 litre stainless steel pressure pots for blended material and purging solvent
- Internal explosion-proof white light
- Internal explosion-proof UV light for after-spray inspection
- Automatic turntable

Construction

The SB2900 is built upon a profiled aluminium space frame mounted on adjustable feet. The plenum chamber is fabricated from 1.5 mm aluminium sheet. The inner spray booth uses 1.5 mm stainless steel forming a spray chamber 850 mm wide x 750 mm deep x 580 mm high.

The outer panels are fabricated from plastic-coated steel. A control panel and air manifold are located on the right-hand side of the booth.

The optional semi-automatic perforated steel turntable (350 mm x 350 mm) or 203 mm diameter manual turntable, both have a central spigot for easy removal and cleaning.

The SB2900 is specifically designed for optimum operator health & safety, as well as minimum material wastage during the spray coating of PCAs



The plenum chamber beneath the turntable is designed to hold the easily removable primary, secondary and tertiary filters and has a 250 mm diameter x 75 mm exhaust spigot.

The unit dimensions are 1085 mm wide x 800 mm deep x 1850 mm high (adjustable).

Accessories

- Filtered air drying cabinets
- UV inspection & rework booth
- Hygrometer (RH/temperature gauge)
- Dehumidifier

Service Requirements

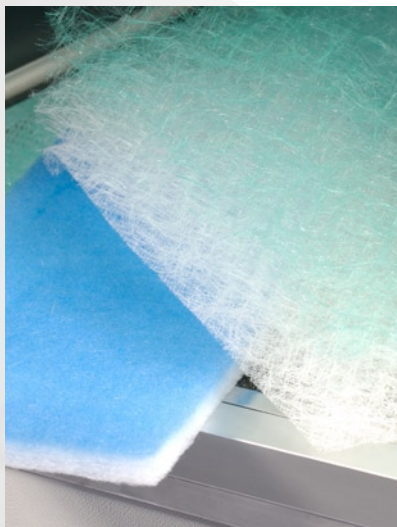
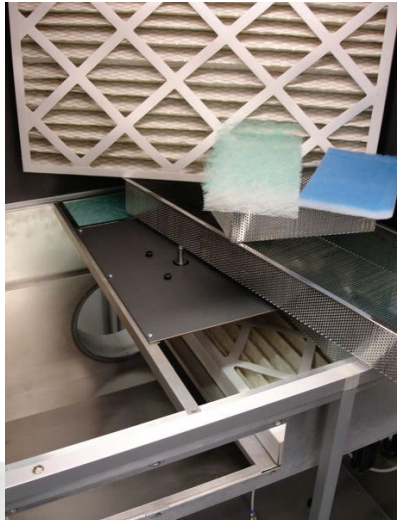
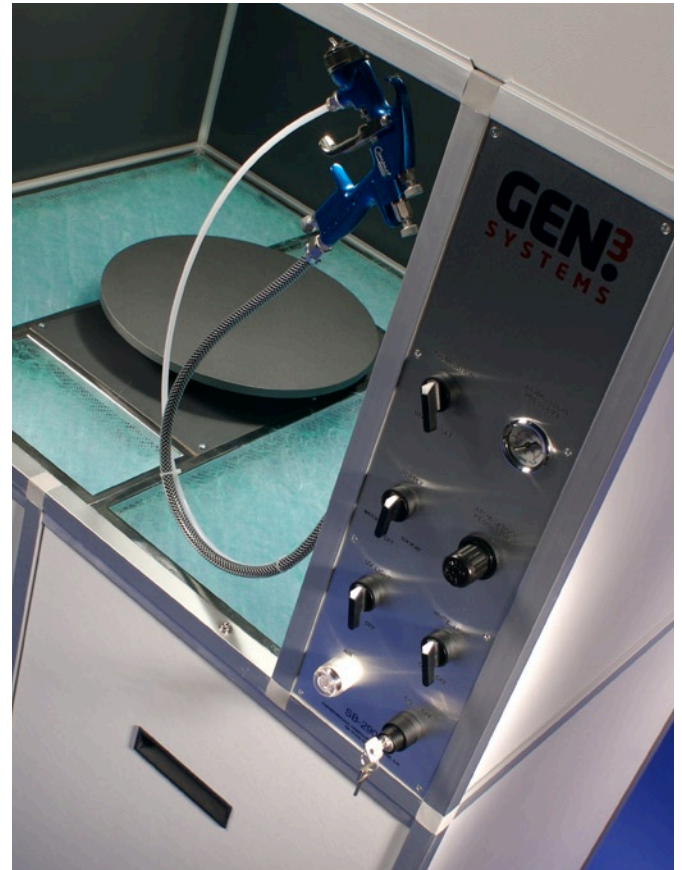
- Clean, dry, compressed air at 550 kPa (80 psi) or 5.3 bar (< 18 cfm)
- Exhaust air-ducted flow of 0.35 m³/s (750 cfm)
- Electric power single phase 220-240 V x 5 A
- Clean, dust-free room having a maximum recommended humidity of 55% RH

Operation

The unit must be connected to an exhaust ventilation system with a flame-proof motor and having a minimum airflow of 0.35 m³/s (750 cfm).

An airline connection to the rear of the machine should supply 550 kPA (80 psi) of clean, dry air.

A 5 A power supply is required for the lighting circuit. If the 10 litre pressure pot is selected then the loaded pots are placed beneath the booth and connected to the manifold.



If the semi-automatic foot control for the turntable indexing system is adopted then this is connected to the manifold. The operator passes the spray gun at an angle of 45° over the PCAs which are supported on spigots that are mounted on the turntable.

The table is then indexed through 90° and the process repeated. Upon completion the UV light is switched on and the table rotated once more so that the PCAs can be inspected.

The PCAs are then transferred to the drying cabinet for curing.

Upon completion of the work the purging solvent is switched on to clear and clean the supply lines.

The explosion proof design incorporates a special exhaust plenum to minimise material waste while permitting easy filter removal