


# Manufacturing

Encapsulating process capability

We provide a trusted and innovative total manufacturing capability for highly complex electronic integrated systems, sub-systems, modules and printed electronic circuit assemblies where quality is paramount. Our ethos is to add value through our people, scale, capability and engineering know-how, allowing us to provide a vital advantage to our customers where it counts.

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SCS | PDS 2060PC  
Specialty Coating Systems

  
Cookson Electronics

**BAE SYSTEMS**

### Conformal coating

Parylene deposition using Parylene plant 2060PC, for coating of conventional type PECs, microwave type substrates, antenna assemblies and high voltage electronic modules.

- Windows-driven PC for controlled process management/ monitoring throughout process cycle
- Chamber dimensions: - 55cm depth x 43cm dia
- Coating thicknesses ranging from 2 microns up to 50 microns
- Parylene dimer type DPX-C (with UV trace to aid visual inspection)
- In-line adhesion promotion (to aid production turn-around)
- In-built safety features to comply with safety, environmental and health regulations in the event of an enforced emergency shutdown
- In-built UPS (uninterrupted power supply) for protection of operators and work items in the event of an emergency shutdown.

### Vacuum impregnation using an autoclave

- Encapsulation of high voltage equipment using epoxy resins, silicone adhesives and varnishes whilst under vacuum, where the exclusion of air is paramount
- Ability to pressurise vacuum-impregnated items during the cycle up to 70psi.

### Spraying application of conventional conformal coating (varnishes etc)

- Acrylics (humiseal range)
- Polyurethanes (single pack and twin packs)
- Modified silicones (single pack)
- Modified alkyd urethanes.

### Encapsulating using all types of epoxy resins and adhesives

- General encapsulation of electronic assemblies both high and low voltage
- Addition of fillers and silicas if required.

### Vapour condensation reflow capability

- For the reflow of solders on equipment requiring components to be hermetically sealed
- Machine type ASSCON VP-6000 for high melting point solders (96 S etc) (whilst under vacuum)
- Machine type ASSCON VP-53 for low melting point solders (62 S etc) (not under vacuum).

### Mass spectrometer

- Machine-type Edwards Spectron 600T
- For checking hermeticity of fitted components, within microwave type products, using helium
- Used within ranges of  $1 \times 10^{-2}$  and  $1 \times 10^{-9}$ .



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