Micro-Abrasive Setup Checklist

SCH Technologies | Vaniman Systems | UK & EU

Purpose: This checklist supports safe, repeatable setup of micro-abrasive blasting systems for controlled conformal coating and Parylene removal.

Scope: Applies to manual and cabinet-based micro-abrasive systems used for PCB rework and selective coating removal.

1. Work Area and Safety

[ ] Work area is clean, dry and free from loose contamination

[ ] Local extraction or cabinet filtration is operating correctly

[ ] Operator PPE available and worn as required

[ ] Emergency stop and foot pedal operation verified

[ ] Adequate lighting and magnification available for precision work

2. ESD Control

[ ] Operator wrist strap connected and verified

[ ] Cabinet and work surface properly grounded

[ ] Conductive nozzle fitted if required for electronics work

[ ] ESD flooring and footwear compliance confirmed where applicable

[ ] PCB handling follows ESD-safe procedures

3. Air Supply

[ ] Air supply is clean, dry and oil-free

[ ] Water traps and filters inspected and drained

[ ] Regulator operates smoothly and holds stable pressure

[ ] No air leaks detected in hoses or fittings

[ ] Air pressure gauge is readable and calibrated if applicable

4. Abrasive Media

[ ] Correct media type selected for coating and substrate

[ ] Particle size confirmed for required removal rate and surface protection

[ ] Media is dry and free from contamination or clumping

[ ] Media hopper or cartridge filled correctly and sealed

[ ] Previous media fully purged if a changeover has occurred

[ ] Media batch and change date recorded if required by quality system

5. Process Parameters

[ ] Initial air pressure set within target range for coating type

[ ] Media flow adjusted for stable, consistent delivery

[ ] Nozzle size appropriate for particle size and access geometry

[ ] Stand-off distance defined and communicated to operator

[ ] Angle of attack defined for boundary control and surface protection

[ ] Test coupon or scrap board prepared for validation

6. Test and Validation

[ ] Trial removal performed on non-critical area or sample board

[ ] Removal rate acceptable and controllable

[ ] No visible solder mask erosion or copper exposure

[ ] Edge definition acceptable for subsequent recoating

[ ] No excessive dust generation or media bounce-back

[ ] Parameters adjusted and re-verified if required

7. Cleaning and Housekeeping

[ ] Media residue removed from PCB after blasting

[ ] Work area cleaned of loose abrasive

[ ] Filters and cabinet inspected after use

[ ] Waste disposed of according to site procedures

[ ] Equipment left in safe shutdown condition

8. Documentation and Release

[ ] Media type and particle size recorded

[ ] Air pressure and nozzle size recorded

[ ] Operator name and date recorded

[ ] Any deviations or issues logged

[ ] Board released for repair or recoating

Important Note: This checklist provides general technical guidance only. Final process settings, safety controls and acceptance criteria must be validated against product requirements, risk assessments and applicable standards.