



## **AMAG Technology – Manufacturing & Quality Overview**

AMAG Technology designs and manufactures industry-leading physical access control equipment at our dedicated production facility located at our UK headquarters in Tewkesbury. Our purpose-built manufacturing environment, combined with rigorous quality control processes, ensures that every product leaving our facility meets the highest standards of performance, reliability, and security.

### **Commitment to Quality**

Quality control and product testing form the foundation of our manufacturing philosophy. By maintaining complete oversight of our production processes, we provide customers with the confidence that AMAG manufactured hardware is built to perform in demanding, mission-critical environments.

This commitment also enables us to offer a market-leading warranty policy for AMAG manufactured products - exceeding the standard warranties typically associated with third-party accessories and devices.

AMAG Technology is ISO 9001:2015 accredited, and we undergo regular audits by an external certification body to ensure ongoing compliance and continual improvement of our Quality Management System (QMS).

### **Manufacturing Excellence**

Product testing and verification are overseen by AMAG's dedicated Quality Team, which includes a specialist group focused on New Product Introduction (NPI) and manufacturing test development. Every product is subjected to a comprehensive series of inspections throughout the production lifecycle.

#### **First-Off Inspection**

At the start of each new batch or following a production changeover, a First-Off Inspection is conducted. This involves a detailed visual assessment using a validated golden sample to ensure that all components, materials, and processes meet required specifications before continuing with full-scale production.

#### **In-Process Inspections**

Additional inspection and monitoring activities are carried out at critical stages of the build process to ensure ongoing consistency and quality.

#### **Automated Solder Paste Inspection (SPI)**

SPI is a high-precision optical inspection process that measures the volume, alignment, and quality of solder paste deposits before component placement. This ensures accurate solder volume on each pad and detects defects far smaller than can be identified by the human eye.



### **End-of-Line Testing**

At the completion of the manufacturing process, each product undergoes extensive final testing prior to packaging.

### **In-Circuit Testing (ICT)**

For our more complex electronic products, AMAG uses In-Circuit Testing (ICT) to verify the integrity of each PCB. ICT is an electrical test methodology that uses a bed-of-nails fixture to make contact with individual test points on a PCB. ICT validates component presence, solder joint integrity, continuity, and device programming interfaces.

As part of this process, we also program and verify firmware on the controllers. This ensures that every unit leaves the ICT stage with the correct firmware installed, communication interfaces validated, and core functions confirmed.

### **Bench Testing**

Where required, AMAG deploys bench testing as an additional semi-automated verification stage. Bench testing makes use of bespoke test fixtures, our NPI team designs and works with partners to build unique fixtures to allow for electronic testing and programming of AMAG engineered products.

### **Assembly-Level Testing**

Where products are assembled into larger configurations including cabinets and power supply units / transformers, AMAG performs earth bonding, high-voltage testing, and load simulation to ensure complete electrical safety.

### **Facility Tours**

AMAG Technology is proud to show off its manufacturing facility and regularly hosts customer visits. Contact your sales representative to arrange a tour.

### ***Company Information***

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