

Does traceability cost?

Even in the military and aerospace sectors, where the Standards demand transparency in the manufacturing process, EMS providers still need to be cost competitive.

Tim Fryer asked Jessica Amos to explain how Stonewood Manufacturing balanced these challenges



Aerospace and military markets require stringent traceability, often associated with a higher manufacturing cost. UK manufacturers need to be competitive to ensure that the 'preferred choice' for quality assured product is the UK.

Stonewood has the benefit of manufacturing at both ends of the spectrum whereby:

- We are the sole manufacturer of Eclipt hardware data encryption in volume
- We provide HMLV (High-Mix, Low-Volume) product to 3rd party commercial, military and aerospace customers
- We provide bespoke design, prototype and through life cycle management of military and aerospace products and systems.

Competitiveness has been a priority whilst obtaining our AS9100 accreditation to ensure longevity. Recent benchmarking of Stonewood product has shown that linking accreditation, MRP systems and relevant lean techniques to a well informed team enable us to remain competitive whilst providing the

reliability that is required by the military and aerospace industry.

What was the Stonewood approach to success?

Ensuring that quality and traceability is a by-product of what we do already.

Process flowing of stages and applying value stream mapping techniques provides a solid foundation. As signatories of SC21 we have adopted and embraced the lean techniques relevant to our business, identified the relevant KPI's and we actively seek strong working relationships throughout the supply chain. Implementing and fully utilising the right MRP system - in our case '123 insight' has aided our mission to manufacture and deliver quality, traceable product whilst remaining competitive.

Serial tracking throughout the manufacturing process means that every item of information about a product build cycle is captured:

- What components were used, including records of Certificates of Conformity and First Article Inspection Reports

- Which operator performed each step and the skill level of the operator
 - What equipment was used and the calibration status of that equipment
 - What test equipment was used and what the results of the test were
- Information can be recorded in real time by the operator using touch screens and scanners meaning that the overhead in data capture and the need for spreadsheets, offline systems and paper is practically zero.

Detailed history logs of each individual serial numbered product can be obtained at the end of, or at any stage of the manufacturing process from the MRP system, enabling us to provide information required by our customers without the need for lengthy paper trails,

What is the cost?

The investment in people does, of course, have 'time' associated. However, the results have a positive effect on both business improvement activities and team motivation. Signatories of SC21 should investigate funding for training requirements. With our chosen MRP system there has been minimal investment due to the fresh approach of rental licenses.

However, with the aerospace, military and medical industry sectors increasing in market share within UK manufacturing, the real question should not be 'can we afford the investment', it should be 'can we afford not to?'

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