

CASE STUDY AEROSPACE INDUSTRY

EGA Master
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EGA Master access control system for Aernnova's AIRBUS A350 door assembly line in Spain

In a 2 month period, EGA Master has designed, developed, manufactured and installed 14 flexible and mobile workstations for the AIRBUS A350 door assembly line. The solution included an RFID based solution that together with a laser detection mechanism eliminates any error in the selection of tooling used during the manufacturing process.

“ When we first visited EGA MASTER we just had a vague idea in mind. However, that idea soon became a real project that brought a solution to our problems under extremely demanding timescales. In record time, EGA MASTER implemented a complete line of smart workstations, designed and manufactured just for our needs. Technological know-how, ability to react quickly and adapt to changes, and especially the closeness and commitment to its clients are the main traits that best define EGA MASTER.

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Jose Manuel Guerra Verdejo
Aernnova Industrialization General Manager

The effective control of tools avoids errors that could lead to accidents and unnecessary costs

The control of parts and tooling that could become a cause of an accident is one of the challenges that the aeronautic industry faces. Its importance is reflected in the NAS 412 standard issued by the US Aerospace Industries Association (AIA), a document that outlines general practices for keeping appropriate access control systems during operations as well as maintenance and manufacturing processes.

Particularly during manufacturing, the appropriate selection of the tooling is a real problem that companies face. Similarities in the tools used could lead to human errors that create manufacturing errors that amount to hundreds of thousands of Euros.

Aernnova seeks a solution for its Airbus A350 door assembly line

The Spanish company Aernnova has recently begun the manufacturing of the doors for the Airbus A350 airplanes (it also manufactures other parts such as the elevators and components of the stabilizer), and was looking for an access control system for its new production line. The system required flexible and mobile workstations that would limit the access only to those tooling and parts related to the specific door being manufactured at a given time, not allowing access to those other tooling (very similar for the human eye) needed to work on other door models. The aim was to eliminate any probability of human error.



EGA Master implements a new access control system using RFID and laser based detection technology

EGA Master developed and implemented a bespoke solution that allows controlled access to tooling used in the assembly line, through the use of RFID cards that enable controlled opening and closing of drawers and trays. Each door being manufactured carries its own RFID card that activates the tool cabinet in each workstation, only allowing the right drawers to open. The system also includes a laser based detection system that detects errors such as a drawer that has not been fully closed, blocking any new access until the error has been corrected.

For the project, EGA Master commissioned a multi-functional team comprised of 24 professionals, and invested in a new line at the company's new premises in Jundiz for assembling and testing the workstations.

The solution delivered by EGA Master allows Aernnova to achieve considerable cost savings by reducing the so called "no quality" costs. This is due to the high costs associated with errors and quality rejections of expensive products and equipment in the aeronautic sector.

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EGA MASTER S.L.
C/ Zorrolleta 11 Vitoria 01015 SPAIN
Tel. +34 945 290 001 Fax. +34 945 290 141
info@egamaster.com www.egamaster.com