Aerospace Electrical Manufacturing Engineering & Industrial Means
i-Workbench
Fully deployed and operative Industrial Production System

i-Workbench

Lean electrical harness manufacturing system

*i-Workbench* simplifies, enhances and speeds up cable manufacture providing direct access to the workstation’s information system through digital interactive production orders.

- Fully digitalised process and 100% industry 4.0 compliant
- Interactive equipment
  - Overhead optical projectors
  - Operator tablets
  - Barcode reader and Bidi
- Smart interactive software for full deployment in the manufacturing process:
  - Dynamic illumination
  - Projection of supporting data: standards, models, database info and diagrams/drawings
  - Quality record storage and analysis
  - Production control activity in real time
  - Dynamic software with incident display system

Industrialised system

Low visual fatigue for operators
Highly-experienced engineers with thorough knowledge about methods, processes and tools

- Easy and immediate introduction of design changes to enable an extremely low time-to-market with little or no scrap material

- Designed for the operator:
  - System developed in teamwork with the shop floor operators
  - Low visual fatigue: images are reflected directly on the board from the overhead optical projectors with ultraviolet filters, avoiding radiation effects on the eyes
  - Automatic calibration though photoelectric optics and sensors
  - Progressive and interactive data display enable low training/experience requirements

Benefits

- i-Workbench is a smart factory industrial mean
- Extraordinary cost savings: reduced preparation and touch times; fully synchronised data set; right-first-time
- Time saving during development: easy incorporation of changes
- Robust hardware

Projection of drawings on a 1:1 scale

Image format 5x1 m scalable up to 20 m

Non-interpolated actual resolution (1 mm)

Interactivity with user

Ruggedised board for tools

i-Workbench by AERTEC Solutions
An optimum solution for efficient cable manufacturing improving cost, quality and speed