

MAJOR AIRCRAFT OEM

Commercial Aviation Manufacturing & Industrial Engineering

ALTEN ADDED VALUE

- Synthesize and clearly communicate the process state, deficiencies & opportunities to the organization
- Design an improved production process
- Provide a cost/benefit assessment for proposals
- Plan the tasks needed to achieve and execute improvements

KEY TOOLS & TECHNOLOGIES

Lean Manufacturing, 5S, Gemba walk, Value Stream Map, Layout design, Line balancing, SLB, AVL2, Capacity analysis, CVAT model, SAP PAM, Skywise, Airina, BOM analysis, Data analytics, Cost assessment and ROI

KEY DATA

Team Size: 2 Engineers
Time: Since December 2024
Location: Mobile, AL
Manufacturing Engineering Services

ALTEN TECHNOLOGY

MANUFACTURING OPTIMIZATION FOR PRE-ASSEMBLY LINE EXPANSION

OVERVIEW

This project focused on optimizing the pre-assembly process within the Airbus A320 family production line to support increased demand and to introduce a second assembly line in Mobile, AL. By benchmarking global sites and analyzing current operations, key subassembly activities were identified and proposed to be transferred to the pre-assembly workshop, expanding its scope and enhancing efficiency. The proposed project included ERP and SOI (Standard Operation Instruction) updates, layout improvements, and cross-functional training. Ergonomics will be enhanced with new fixtures, trolley standardization, and an SQCDP dashboard for performance tracking. These efforts estimate a 25%-35% increase in productivity, better preparedness for ramp-up, and a finalized configuration ready for the second assembly line.

PROJECT DETAILS

- **Goal:** Optimize the A320 pre-assembly process for increased demand and a new assembly line
- **Benchmarking:** Analyze best practices from Airbus sites globally
- **Task Transfer:** Move key subassemblies to the pre-assembly workshop
- **System Updates:** Update ERP and SOIs
- **Layout Improvement:** Enhance workshop layout and material storage
- **Training System:** Introduce cross-functional training
- **Ergonomics:** Introduce new holding fixtures and trolley standardization
- **Performance:** Implement a dashboard for tracking, and visual aids for workload schedules
- **Expected Results:** Increase productivity by 25% and preparedness for ramp-up

