DESIGN SYSTEMS, INC. Manufacturing Engineering & Consulting

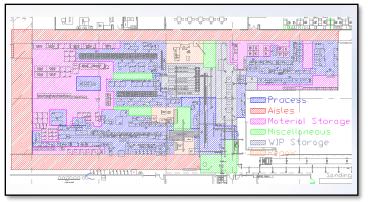
Manufacturing Process & Layout Evaluation AEROSPACE & TRANSPORTATION MANUFACTURER

Project Description

A multinational aerospace and transportation company contacted Design Systems, Inc. (DSI) to study their Lower Unit assembly operations. The study included a review of their current process flow and an analysis of space allocation. Based on the results of the study, DSI recommended shortand long-term improvement measures, an implementation plan, and a manufacturing strategy incorporating lean principles.

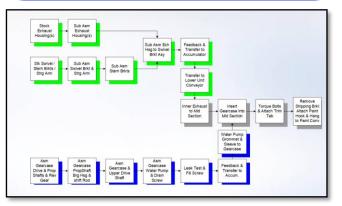
Client Objectives

- Update current AutoCAD layout
- High level process flow (part family level and general process)
- High level station layout with major operation identified
- List of short term and long term improvements regarding anticipated cost savings, throughput increases, safety and quality improvements, staffing, material inventory and WIP reductions
- Recommend a manufacturing strategy using lean manufacturing principles



PROJECT OUTCOMES

- Increased production volume capacity by 50% with two additional operators to Material Handling.
- Reduced non-value added activities of assembly operators.
- Reduced Work in Process Inventory.
- Decreased floor space requirement by 3,494 sq. ft.
- Improved material display and restocking to assembly lines via flow racks and Kanban cards
- Improved responsiveness to changeovers in assembly lines with plant wide "Pull" System
- Minimized impact of change through phased implementation procedure.



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