

# Material Handling Engineering

NEW ASSEMBLY LINE  
INCORPORATES LEAN MATERIAL  
HANDLING OPERATIONS



**Sandalwood**  
Engineering & Ergonomics  
Work Smarter. Work Safer.

## Case Study

### Client

Heavy Truck Manufacturer

### Project Description

A new manufacturing layout was developed for an existing warehouse facility. Lean material handling planning was used to minimize in-station material and provide flexible, kanban driven material flow for this low volume, highly complex operation. Line display layouts were developed incorporating all material display equipment. New material handling equipment requirements were designed, purchased and installed to support improved throughput capability.

### Results

- Identified station parts, quantities and containers
- Developed station material display layouts
- Identified, ordered & coordinated installation of material display equipment
- Planned & incorporated material docks, storage, flow & traffic aisles into plant layout
- Developed pull system, part delivery process & mobile equipment requirements
- Developed material handling labor requirements

Similar results were obtained in other plant launches

### Objectives

- Support low volume, high complexity product with flexible material handling operations
- Minimize line side material using lean principles
- Develop material handling equipment requirements
- Implement station material display and kanban replenishment system

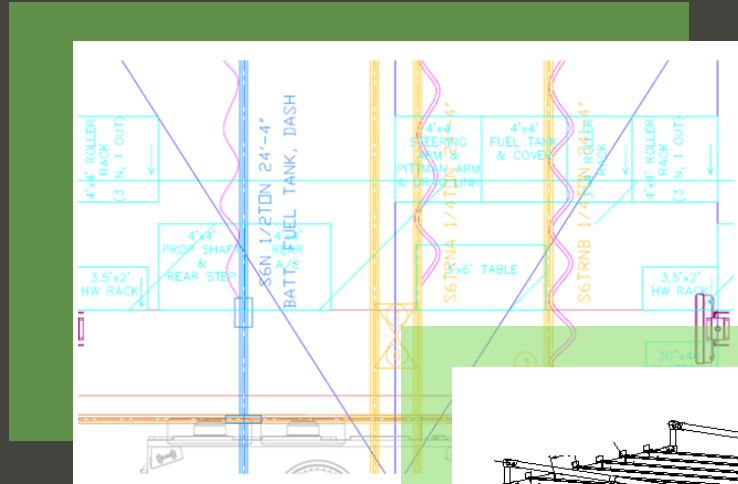


Fig 1. Work Station Material Display Layouts

### About Sandalwood

Sandalwood is an engineering and ergonomics consulting firm. Since starting in 1989, Sandalwood has designed over 3,000 projects that have executed strategic

solutions for manufacturers. By providing their knowledge, research, technology, and resources, Sandalwood supports its clients from the executive level to the factory floor so you can...

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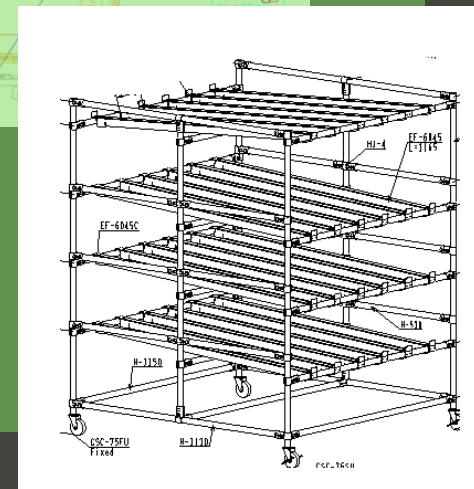


Fig 2. Material Display Racks