SupplyVelocity®

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CASE STUDY

# Lean Manufacturing & Coaching

## ETS Lindgren

## PROBLEM / CHALLENGE

A manufacturer of energy testing, shielding and mitigation solutions needed to bring multiple acquisitions under one roof and promote Lean best practices and techniques in order to meet a rapidly growing demand.

Products form, fit and function varied greatly and ranged from small to very large electronics, specialty rooms and enclosures, and a broad assortment of radar antenna and devices. The facility had receiving and shipping constraints, and internal operations did not flow well.

The management team was relatively new and they were not well versed with how to apply Lean.

They were seeking a partner consulting firm to facilitate their Lean implementation.

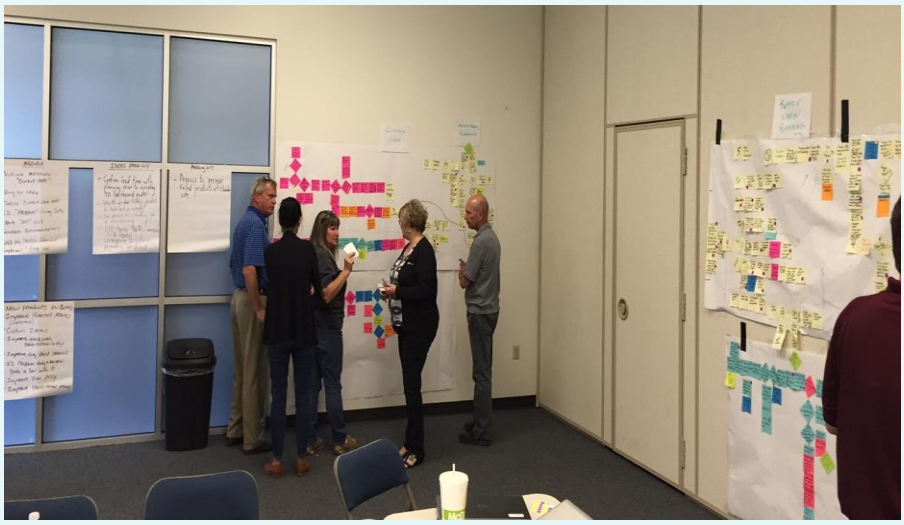
## LEAN ASSESSMENT

- **Production Planning Process Improvement**
  - Production plan was constantly changing to the extent that it was not really a plan
  - Incomplete kits was a frequent issue resulting in large amounts of WIP in incomplete kits
  - Operations personnel shifted to batching as parts were available, further disrupting scheduling, supply chain planning and on time delivery

- **Facility 5S**
  - Inadequate space for production and warehousing
  - Poor material organization
  - Excess and obsolete inventory
  - WIP and laydown/queueing areas not defined, taking up production space
  - Materials and WIP difficult to find

- **Facility Layout**
  - Poor flow between areas constrained throughput
  - Excess material handling
  - No defined queue or laydown areas
  - Constrained receiving and shipping areas, and docks

- **Filter Line Production Flow**
  - Batch production with non-linear ('hockey stick') monthly shipping
  - Inconsistent quality and throughput with no standard work instructions

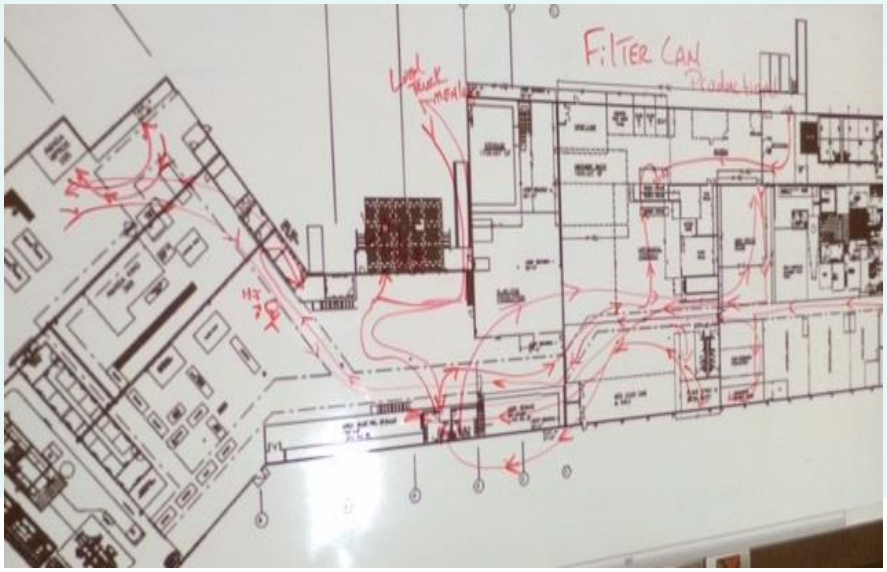


## Production Planning Process Improvement

- Mapped Current State Process
- Identified non-Lean activities
  - Production starts with incomplete kits
  - Batching (see pic below)
- Generated recommendations for improvement

## 5S Visual Factory – Area by Area

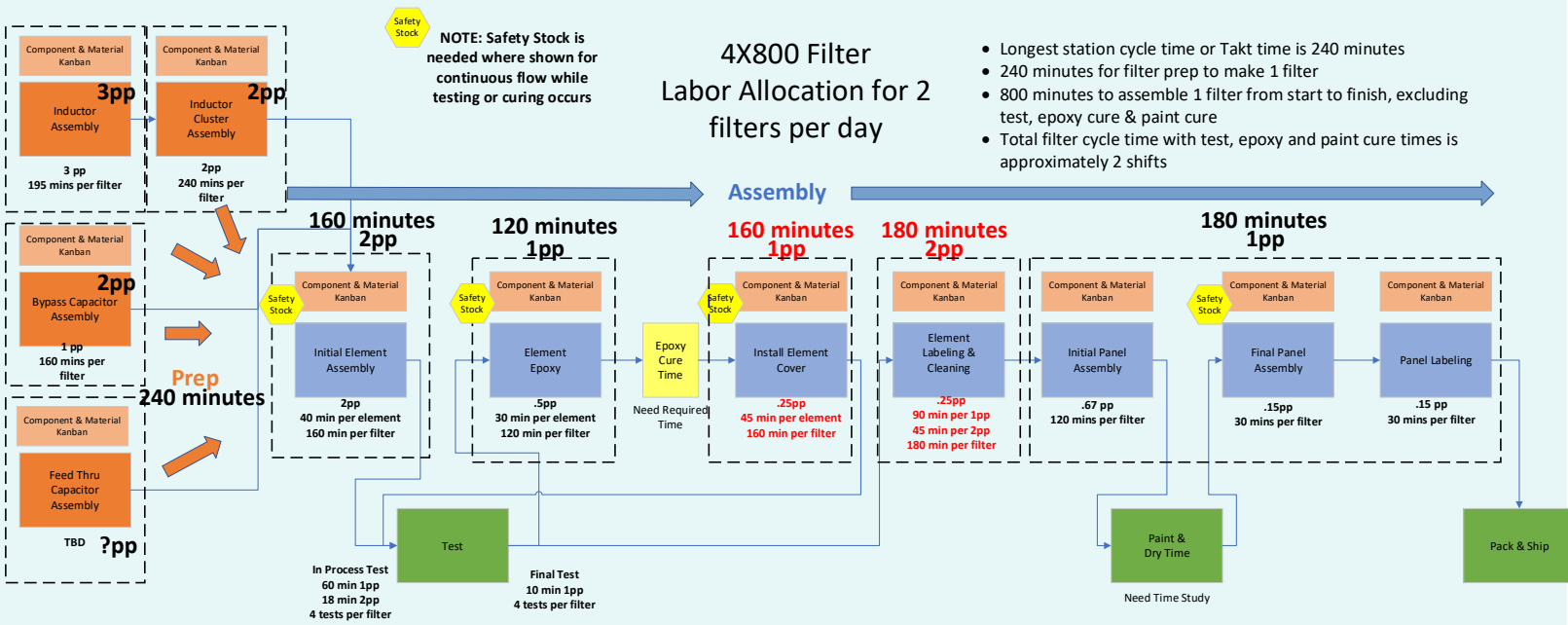
- Segmented facility into distinct 5S areas and launched
  - Obsolete inventory
  - Poor layout (limited access to doors)
  - WIP overflows into production space
  - Work flow not clear
  - WIP status not clear
  - Production planning breakdown




## Facility & Area Layout

- Spaghetti diagrammed flow through the facility between areas
- Spaghetti diagrammed flow within areas
- Leveraged area 5S to create much needed space

# Production Flow Lines for High Volume Products




## Flow Line Creation - Time Studies & Workflow Balancing

- Time studied production for higher volume SKUs
- Used video for best practice review and future SOPs and training
- Established performance metrics to meet demand

## Launch, Learn, Improve, Repeat

- Repeated the process area by area for higher volume products
  - Better area production flow
  - Better facility flow between areas
  - Fewer false starts
  - Better use of space & inventory
  - Less batching

**Partnered with senior management over multiple years to advise and oversee a long-term Lean Implementation and integration of Lean into the culture**

## RESULTS

- **Increased throughput for high volume lines by 100%, meeting expected future production rate**
- **Better On Time Delivery**
- **Improved use of space allowed new acquisitions**

*Reference: Mark Mawdsley Senior VP Global Operations*
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