JIT & KanBan

JIT

- Definition
- Misconceptions
  - Stand alone approach

JIT

- Just in Time
  - Critical part of a Lean system
  - Requires
    - SMED (Single Minute Exchange of Dies)
    - TPM (Total Productive Maintenance
  - Enhanced by
    - Kan Ban
    - POUS (Point of Use Storage)

What is Kan Ban

- Kan Ban is not an inventory control system
- Kan Ban is a visual scheduling system that tells you:
  - What
  - When
  - How much

Kan Ban Benefits

- Eliminate the waste of overproduction
- Increase flexibility
- Simplify procurement
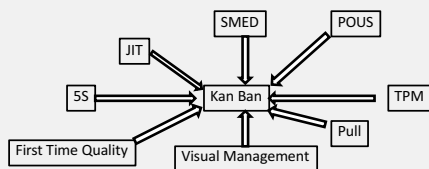- Integrate processes and tie to the customer

Other Lean Benefits

- Reduce cycle time
- Reduce WIP
- Improve Quality
- Free up floor space

Lean System

Parts of the system

- KanBans
- Dedicated Space (POUS)
- Scheduling Board

Sample Kanban Cards

Other KanBan Signals

Scheduling Board

Kan Ban Rules

- Downstream processes withdraw items from upstream processes
- Upstream processes produce only what has been withdrawn
- Only 100% defect free products are sent to the next process
- Establish level production
- KanBans always accompany the parts
- The number of KanBans is reduced over time.

Kan Ban Rules

- Downstream processes withdraw items from upstream processes

- This describes the pull system
- In practice, sometimes the upstream process delivers the items to POUS.

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Kan Ban Rules

- Upstream processes produce only what has been withdrawn
- This is the control against overproduction.
- You do not produce more than you have kanbans for.
- If you have no kanbans, you do not produce.

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Kan Ban Rules

- Only 100% defect free products are sent to the next process

- Each function is responsible for their own quality
- When there is a quality problem, production stops until it is resolved.

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Kan Ban Rules

- Establish level production
- This is not as hard as it sounds
- If your customer wants 10,000 parts in a month –
  – Produce 2500 each week
  – Or 500 each day
- Work with customers to level their orders

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Kan Ban Rules

- KanBans always accompany the parts

- The KanBan (card or tote) stays with the parts until they are used, then returned upstream to be replenished.

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Kan Ban Rules

- The number of KanBans is reduced over time.

- A KanBan System must be actively managed.

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