



Kaizen of Cell Set-up

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Our Strategic Principle helps put it into reality

Take on the most challenging
jobs from our customers and be
sure to make a profit

Management should hold a Kaizen Blitz event this week to reduce brake set up time

- ◆ The brakes are the constraint now for the shop
- ◆ It appears due to long, difficult, too frequent set ups
- ◆ Management has tried to improve but without the results needed
- ◆ The shop wants to change, in light of the start of the customer cell

Kaizen

- ◆ "Kai" = Change
- ◆ "Zen" = Good
- ◆ Kaizen = Good Change
- ◆ Kaizen Blitz = Fast Good Change
- ◆ Kaizen is part of Toyota (Lean) Manufacturing

Focus on Results and Improvement with Urgency

Kaizen results in...

- ◆ Waste Elimination
- ◆ Standard Operations
- ◆ Set-up time reduction
- ◆ Throughput increase
- ◆ Teamwork

Focus on Results and Improvement with Urgency

Kaizen Blitz & Methodology

- ◆ Compressed time frame – 1 day
- ◆ Clear objectives
- ◆ Teamwork
- ◆ Rely on brainpower not capital for solutions
- ◆ Quick and crude bias v. slow and elegant
- ◆ Immediate results on Day 1

Approach

- ◆ Increase Value added time (an activity that transforms material, information or services)
- ◆ Reduce Non Value added time (activities that consume time, resources or space but do not add to the value of the service, product)
- ◆ Non Value added time = Muda (Waste)

Non Value added time

- ◆ Over production
- ◆ Waiting
- ◆ Transport (moving)
- ◆ Inventory
- ◆ Motion
- ◆ Defects
- ◆ Information processing

Muda Solutions

- ◆ Organization of the work place
- ◆ Cell layout
- ◆ Standard work
- ◆ Cross training of workers
- ◆ Visual controls
- ◆ Set-up reductions
- ◆ Reduce handoffs
- ◆ Duplication of efforts

Gemba – the Workplace

- ◆ Where work is done
- ◆ Where value is created
- ◆ Where problem solving can be delegated
- ◆ Workers are in Gemba
- ◆ Management assists the Gemba workers, does not boss them

The shop floor is a classically limited process (before the start of the customer cell)

- ◆ Workers separated by sometimes long distance
- ◆ Numerous inspection processes
- ◆ Multiple employees handling and transporting product
- ◆ Substantial amount of WIP waiting to be worked on or moved

Result: poor Quality, high Cost, disappointing Delivery

Kaizen Blitz Methodology

1. Choose brake and job to analyze (biggest bang for buck)
2. Set aggressive goals for blitz
3. Select cross functional team of 6, including operators, supervision, inspection, engineering and a Team Leader
4. Review with team, lean manufacturing and Kaizen principles
5. Prepare analysis sheets
 1. Time observation
 2. Value added
 3. Standard layout

Kaizen Blitz Methodology (continued)

6. Collect data: (can start ahead of time)

Element	Quantity
Value added steps	#
Non value added steps	
Distance	
Handoffs	
Waiting time	
Process time	
Units in process	

Kaizen Blitz Methodology (continued)

7. Brainstorm solutions to reach goal
8. Go to Gemba to logic test solutions
9. Adjust solutions as needed and make changes now
10. Continue to improve
11. Other benefits are obvious; teamwork, excitement, responsiveness

Summary

- ◆ Kaizen Blitz is a way to gain immediate improvement without taking too much of critical persons' time
- ◆ Set up reduction in certain cell must be a priority now for customer cell to work
- ◆ Set up reduction effort to date has not shown many results
- ◆ Kaizen is excellent skill for management to learn and implement