



Shopfloor Kaizen - Focused on production area and supporting functions

Area	Type of issues	Type of kaizen	Kaizen Tools Involved	Expected Gains (Measurable)	Remarks	Kaizen Duration
Production Line	<ol style="list-style-type: none"> 1. Low Productivity 2. High WIP on line 3. Long Cycle Time 4. Low OTD (On Time Delivery) 5. Poor Flow 6. Waiting Time 7. Process Imbalance 	Lean Transformation (Non LEAN mode to LEAN mode)	<ul style="list-style-type: none"> - Time Observation - Takt Time Calculation - Line Balancing - Manpower Calculation - 5S - Visual Management - Hour by Hour Output Chart - Process Improvement - Layout (1 pc. Flow) - Safety - Waste Identification 	<ol style="list-style-type: none"> 1. Productivity Increase. 2. Cycle Time Reduction 3. Lead Time Reduction 4. WIP Reduction 5. Manpower Reduction 	<ul style="list-style-type: none"> - Once the line has been LEANed with all the LEAN elements working well than you can expect other issues arising that will impact the LEAN line from meeting it's set goals. The issues will be very visible and prompt immediate action due to the LEAN setup in the line. Based on the issues e.g. high down time, we will have to setup a separate kaizen for TPM (Total Productive Maintenance) kaizen to solve the issues. Pls. see below of the common issues that will arise and actions required. 	5 Days - Transformation / 5 Days - Fine Tuning.
Maintenance	<ol style="list-style-type: none"> 1. High Downtime 2. Slow Response (Repair) 3. No Back up machine 4. Poor skills (technician) 5. No proper tools 6. Lost of Output 	TPM Kaizen	<ul style="list-style-type: none"> - AM (Autonomous Maintenance) - PM (Preventive Maintenance) - OEE Calculation (Overall Equipment Effectiveness) - Predictive Maintenance 	<ol style="list-style-type: none"> 1. Reduction in Downtime. 2. Increase in OEE% 3. Increase in Output 4. Increase in Productivity 	<ul style="list-style-type: none"> - Autonomous Maintenance is performed by the operator (User), Preventive Maintenance is performed by the Maintenance staff (Owner). - Downtime issue can be caused by Man, Machine, Material or Method (4M). - Continues Improvement is required to work on the root causes of downtime. Goal is zero downtime. 	5 Days
Quality	<ol style="list-style-type: none"> 1. High Failure Rate 2. High Scrap Rate 3. Low LAR (Lot Acceptance Rate)-QA 4. (Final Inspection) 5. High Rework Rate. 6. Output / Productivity Loss. 	Quality Improvement Kaizen	<ul style="list-style-type: none"> - DMAIC tool (Define, Measure, Analyze, Improve & Control) - Ishikawa Diagram (Fish Bone) - 5 Why? - etc....." 	<ol style="list-style-type: none"> 1. Lower or Zero Failure Rate. 2. Lower Scrap Rate 3. 100% LAR (Lot Acceptance Rate (QA). 4. Lower Rework Rate. 5. Increase in Output 6. Increase in Productivity" 	<ul style="list-style-type: none"> - Quality improvement is an on-going process. If one root cause action fails to yield results than we need to work on the next root cause action and go on till all the root causes are addressed. 	4 Days
Production/ Maintenance/ Quality - Product Changeover	<ol style="list-style-type: none"> 1. High Changeover Time - Machine / Material / Man / Method. 	Changeover Optimization Kaizen	<ul style="list-style-type: none"> - Internal Preparation - External Preparation (Machine / Material / Man / Method)" 	<ol style="list-style-type: none"> 1. Reduction of Changeover Time 2. Increase Production Time 3. Increase Output. 4. Increase Productivity. 	<ul style="list-style-type: none"> " - Reduction in changeover time will also increase capacity of the line. - More products can be produced with a higher volume on the same line without investing on a new line with machines and manpower." 	4 Days