

**PRESENTATION  
ON**

*Lean Manufacturing Implementation  
In the Meerut Engineering Cluster,  
At Meerut, UP  
Under DC - MSME*

**A Scheme  
Under  
DC - MAME under National Productivity Council Office, Delhi**

**Presented by East West Infosolutions Delhi  
ISO 9001:2008 Organisation  
[www.consultantsindiaewis.com](http://www.consultantsindiaewis.com)**

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**Our March continues on  
the path of Self-reliance,  
Quality and excellence...**

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**LEAN MANUFACTURING  
IMPLEMENTATIONS**

**PRESENTED BY**

**DILIP KUMAR GAYEN  
PROJECT COORDINATOR**

**EAST WEST INFOSOLUTIONS**

**What is  
Lean Manufacturing?**

**Lean Manufacturing**

Lean manufacturing is a management philosophy focusing on reduction of waste through over production, waiting time, process time, transportation, inventory, motion and scrap in any business. By eliminating waste, quality is improved and production time and costs are reduced to satisfy the customer needs.

## LEAN MANUFACTURING PARADIGM

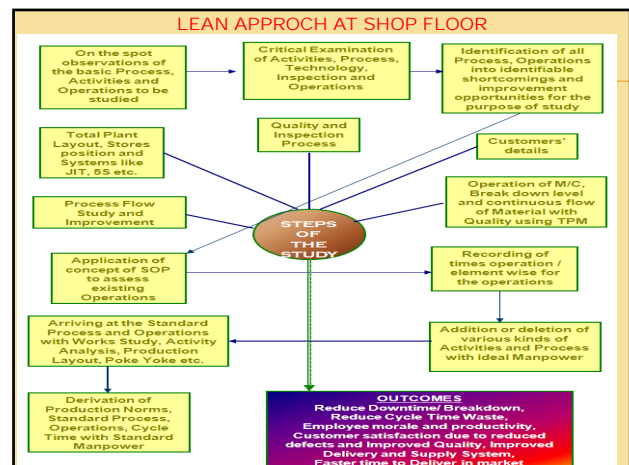
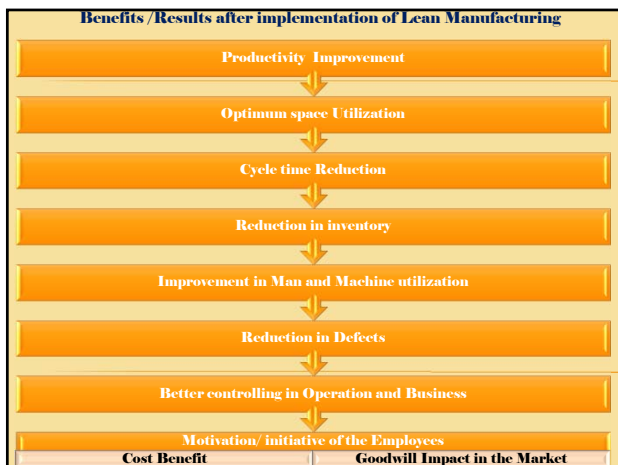
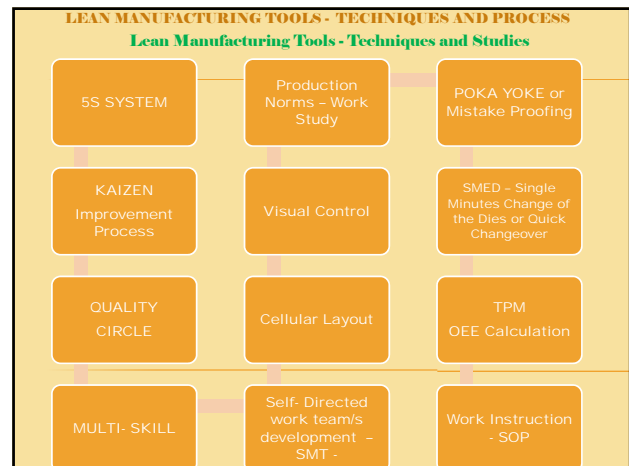
The term “**Lean Production**” is first coined by John Krafcik at International Motor Vehicle Program (IMVP) at MIT, in the 80’s.

The term was popularized by James P. Womack, Daniel T. Jones and Daniel Ross of IMVP at MIT, in their now world famous book *The Machine That Changed the World*, that was published in 1990.

## LEAN MANUFACTURING PARADIGM

Lean production is “lean” because it uses less of everything compared with mass production.

- + Less the human effort in the factory
- + Less the manufacturing space
- + Less the investment tools
- + Less the engineering effort
- + Less the time to develop new products



## LEAN MANUFACTURING IMPLEMENTATIONS

By  
East West Info solutions

Meerut Industrial Cluster Forum

## MEERUT CLUSTER

- ✗ SAI ELECTRICALS (UNIT-I)
- ✗ SAI ELECTRICALS (UNIT-II)
- ✗ DEEPIKA EXPORTS
- ✗ CECO BEARINGS LTD.
- ✗ SARU COPPERS LTD.
- ✗ ELECON CONDUCTORS LTD.
- ✗ HERITAGE PROMOTERS (P) LTD.
- ✗ MULTIMAX ENGINEERING WORKS.
- ✗ MEERUT PTFE LTD.

### Projects Undertaken

- 1) 5S upto 80% Implementation
- 2) KAIZEN
- 3) Quality Circle
- 4) SMT – Self Management Team
- 5) Multi-Skill
- 6) Layout – Modification
- 7) Production Norms – Selective Products
- 8) Line Balancing
- 9) VISUAL CONTROL
- 10) PPC – Daily and Weekly Production Planning
- 11) Training and Orientation
- 12) New Tools Design

### PROJECT/ACTIVITIES UNDERTAKEN THE MICFO

Sr. No.	PROJECTS/ACTIVITIES	ORGANISATIONS	Common BENEFITS of the PROJECT
01	5S	PTFE	<ol style="list-style-type: none"> <li>1. Best Methods House Keeping</li> <li>2. Better Space Utilisation</li> <li>3. Control the Flow of Operations</li> <li>4. Synchronization of M/c and Activities</li> <li>5. Standardisation of the Shop Floor positioning of Material, Men, Machines and Scraps etc.</li> <li>6. Identifications of Value added and Non-Value added items etc.</li> </ol>
		CECO - MRP	
		DEEPEEKA	
		HERITAGE	
		ELECON	
		SARU COPPERS	
		SAI Unit - I	
02	KAIZEN	PTFE	<ol style="list-style-type: none"> <li>1. It is world-wide popular practice to Identify the Improvements.</li> <li>2. This helps to Identify the small and large Improvement in the shop Floor and Organization</li> <li>3. All Improvements have the Long and Short Term Impact on the Cost Reduction, Productivity and Delivery.</li> </ol>
		CECO - MRP	
		DEEPEEKA	
		HERITAGE	
		ELECON	
		SARU COPPERS	
		SAI Unit - I	
SAI Unit - II			
		MULTI-MAX	

03	QUALITY CIRCLE	PTFE, CECO DEEPIKA HERITAGE, ELECON SARU COPPERS MULTI - MAX SAI - Review	<ol style="list-style-type: none"> <li>1. Make Group in the shop floor for Identifications of the Shop Floor problems – Quality, Process Planning, Improvements, Follow ups etc.</li> <li>2. Solve the Problems of the Shop Floor by the Group of QC</li> <li>3. Knowledge about the Problems and How to solve</li> <li>4. Internal Work-bonding of the Workers</li> </ol>
04	DEFECTS / REWORK REDUCTION	DEEPEEKA HERITAGE, SAI - I & II	<ol style="list-style-type: none"> <li>1. Reduction in the Defects or Improvement in Rework directly reduces the Time Production – Productivity Improvement</li> <li>2. Improves in Quality of the Products</li> <li>3. Customers' Satisfaction</li> <li>4. Reduction in Labour and Inspection Cost</li> </ol>
05	SMT	SAI - I & II MULTI - MAX HERITAGE	<ol style="list-style-type: none"> <li>1. Self- Controlling of the Shop Floor with Self-Monitoring of the Workers</li> <li>2. It is a Self-Correcting process which reduces the Supervision Time by the PM and Supervisors</li> </ol>
06	PLANT LAYOUT	SARU COPPERS PTFE CECO Process Flow Layout - DEEPEEKA	<ol style="list-style-type: none"> <li>1. Better Space Utilisation</li> <li>2. Flow of Activities</li> <li>3. Manpower and M/c Positions</li> <li>4. Internal Transportation control and reduction</li> <li>5. Motion Control and Reduction</li> <li>6. Better Work Place Layout</li> <li>7. Increase in Plant Productivity</li> </ol>

07	SMED/ Changeover Time	SARU COPPERS ELECON CECO	<ol style="list-style-type: none"> <li>1. Reduction in Changeover Time</li> <li>2. Transfer the Internal Time to External Time</li> <li>3. Workers/ Operators concept about the Changeover Time Reduction</li> <li>4. Utilise the Additional Time reduction time into Production Time - Increase in Productivity</li> </ol>
08	TPM	ELECON SARU COPPERS Electrical HERITAGE – Process Testing	<ol style="list-style-type: none"> <li>1. Estimation of M/c downtime</li> <li>2. Identifications of the causes of M/c downtime</li> <li>3. Action Plan for Reduction in the M/c downtime – Corrective and Preventative Actions, Down-Time Maintenances etc.</li> <li>4. Reduced downtime to Production Time – Increase in Productivity</li> </ol>
09	INVENTORY	PTFE, CECO - MRP DEEPEEKA, HERITAGE ELECON - MRP	<ol style="list-style-type: none"> <li>1. Reduction in the Huge amount of Inventory</li> <li>2. Better Inventory Planning by Identification of the Root Causes of High Inventories</li> <li>3. Connect with PPC</li> <li>4. Reduction in the Cost of Inventory and Cost of Production</li> <li>5. Save space in Stores</li> </ol>
10	PPC	SARU COPPERS SAI Unit - I, SAI Unit - II MULTI-MAX SAI ELECTRICALS	<ol style="list-style-type: none"> <li>1. Better Production Planning</li> <li>2. Better utilization of Resources</li> <li>3. Coordination from Customer's demand to Delivery and after Sales Services</li> </ol>
11	WEEKLY PRODUCTION PLANNING	ELECON HERITAGE PTFE	<ol style="list-style-type: none"> <li>1. Plan for better follow up of the Production</li> <li>2. Help in Production Planning and Control like – Materials, Outputs, Delays, Delivery and Corrective Actions</li> <li>3. This Practice have Qualitative Impact in the Production</li> </ol>

# National Workshop on "Enabling MSME to be Competitive through Quality Tools"

12	MULTI - SKILLED	SAI ELECTRICALS PTFE ELECON SARU COPPERS CECO	<ol style="list-style-type: none"> <li>1. Improve the Skill and Technical level in the Shop Floor</li> <li>2. Identification of the more skill-full Workers in the shop Floor</li> <li>3. Replacement of the Workers in absent, so that Production should not be Interrupted</li> <li>4. Less dependency of the Skilled and Specific Workers for a specific Job</li> <li>5. Long run Impact on the Production</li> </ol>
13	LINE BALANCING	SAI ELECTRICALS DEEPEEKA – Foam Section DEEPEEKA – Sword Section	<ol style="list-style-type: none"> <li>1. Balanced all activities in the Shop Floor and Production Lines &amp; Work Stations.</li> <li>2. Improve Productivity by Balancing of all Activities for Reducing Delivery Time</li> <li>3. Reduction in Waiting Time</li> <li>4. Better PPC and Delivery commitment to the Customers</li> </ol>
14	PRODUCTION NORMS	SAI Unit – I SARU COPPERS MULTI – MAX – Motion Study	<ol style="list-style-type: none"> <li>1. Norms/ Capacity of the Production of every W/S Time in the Shop Floor</li> <li>2. Cycle Time of the Operation and Activities of each designated stations</li> <li>3. Calculation of the Product Cycle Time, Total Production Time/ Production Cycle</li> </ol>
15	VSM	SAI Unit – I & II PTFE	<ol style="list-style-type: none"> <li>1. VSM helps the Management about the Visual Control of the Plant Production Time with Activity Times</li> <li>2. Better Monitoring of the Process and Operations</li> <li>3. It is a Part of Value Analysis</li> </ol>

16	WORK INSTRUCTION / VISUAL BOARD	ELECON, PTFE MULTI – MAX HERITAGE SARU – SOP SAI UNIT – I CECO, DEEPEEKA	<ol style="list-style-type: none"> <li>1. Work Instructions are the List of Operations performed by the Workers in the WS or on a Particulars Machine/s</li> <li>2. Visual Control of the M/c Operations</li> <li>3. Do and Don'ts which controls the Operations of the Operators and Workers</li> </ol>
17	TRAINING	PTFE CECO - MRP DEEPEEKA HERITAGE ELECON SARU COPPERS SAI Unit - I SAI Unit - II MULTI-MAX	<p>Completed in <u>Training - I</u></p> <p><b>Class Room</b> Concept of Lean, Kaizen, 5S, Quality in WP, 7 Wastages and Quality Circle</p> <p><b>Exercise and Case Study</b> Lean Questionnaire, Production Planning, Case Study, Supervisor-Workers Role Play</p> <p>Completed in <u>Training - II</u></p> <p><b>Class Room</b> Time Management, Team Building in the Shop Floor Continuity on Lean Manufacturing, Creativity and Innovations in the Shop Floor</p> <p><b>Exercise and Case Study</b> Selective captions Video of LAGAN for Leadership Quality in the shop Floor Creativity Exercises, Time Schedule of the Supervisors</p> <p><b>Group Discussion</b></p> <ol style="list-style-type: none"> <li>1. How you Involve the Workers in Lean Manufacturing Activities</li> <li>2. How 5S will Improve the Work Culture of your Organization</li> </ol>
18	OTHERS - Office Lean, Software PMS, POKA YOKE		This Project are Optional to the units

OVERALL IMPROVEMENTS		
Sr. No.	Areas	Improvement/ Achievements
01	5S 80% Implementation	Achieved 50% - 85% Level of 5S
02	KAIZEN	Av. 20 to 250 nos. per unit .Total = 900 nos. Kaizen Implemented in 9 Units
03	Quality Circle	Min. 2 to 22 QC Groups in the Units
04	Reduction in Defects	Av. 40 % to 90%
05	SMT – Self Management Team	2 to 7 Nos.
06	Multi- Skill	5 to 30 Workers
07	Layout – Modification	4 Units
08	Production Norms – Selective Products	4 Units for 18 to 200 Operations with 3-6 Products in each Unit
09	Line Balancing	4 Units

OVERALL IMPROVEMENTS		
Sr. No.	Areas	Improvement/ Achievements
10	VISUAL CONTROL	Almost all 9 units
11	PPC – Daily and Weekly Production Planning	Follow up of the Production with Production Time Loss
12	Training and Orientation	Total 4 Phase of Total 8 days Training with av. 6 nos. of Orientation of each units
13	New Tools Design	Total – 20 Tools like ☞ Materials Handling Tools, ☞ Working Tools Movement ☞ Die/ Mould Keeping ☞ SMED Trolley, WIP Keeping Self etc.
14	OEE Calculation	For M/c Performance Improvement through reduction in B/D
15	SMED	Time Reduction of Die Change from 6-7 Hrs to 3.5 Hrs
16	SCRAP Selling through Sorting in the Units in the 1 <sup>st</sup> Starting Phase	Rs. 15 Lakhs to Rs. 95 Lakhs with Scrap Releasing Procedures - SHORTING

Sr. No.	Areas of Qualitative Improvements
01	Goodwill of the Units
02	Culture of Continuous Improvement – KAIZEN in the Units
03	Sense of 7 Wastages in the Shop Floor and Utilisation of Time
04	Sense of Quality and Productivity among the Both Supervisors and Workers
05	Increase in the span of Control and Monitoring Supervisors
06	Basic Morale of the Workmen and Work Motivation of the Supervisors
07	Improvement in the Process of Working – More Technical Outlook
08	Increase in Work Environment – Better Cooperation & Coordination
09	More Involvement of the Workers and Supervisors
10	Upliftment of Basic Morale and Value System – Workers' Orientation

Sr. No.	Areas of Qualitative Improvements
10	Focus on Customers of the every Individuals of the Organization
11	Conscience of Growth - Overall Impact of the Organization
12	Reduction of Basic Motion of Manpower and Materials
13	Planning for Reduction in WIP
14	Waste Reduction Movement in the Organization
15	Reduction in-house Transportation
16	Sincerity in Delivery time to the Customer
17	Improvement Customers' Satisfaction

**SUGGESTIONS OF THE STUDY**

- 1) Workers' Formal Training on Shop Floor about Production, Skills, Techniques with Job Evaluation as per the Shop Floor Working Environment
- 2) Units/ SPV Individually or Jointly make a Quality and Productivity Improvement Policy - on a Periodic basis (they should also understand the difference between Productivity and Quality Tools and Techniques)

Productivity Improvement Policy should Include;

- ☞ Technology and Techniques available in the Market
- ☞ Market or Customer based evaluation of it
- ☞ % Training of Total Workforce and Orientation of the Workers about the Tools and Techniques
- ☞ Combination of which Techniques to be used in the Shop-Floor
- ☞ Suitable Software for PPC System to Control and Monitor the Productivity
- ☞ Fixed Production and Delivery Norms with Balancing the activities
- ☞ Layout – Shop Floor and Work Place according the Balancing of Activities

Quality Improvement Policy should Include;

- ☞ Reduction in Rework, Defects , Rejection etc. with a Target basis
- ☞ Use of no. of Specific Quality Control Tools to be used like Chats, Formats, Statistical Tools etc.
- ☞ Training the Work Force about the use, Control and Develop these Tools

**LIMITATIONS OF THE STUDY**

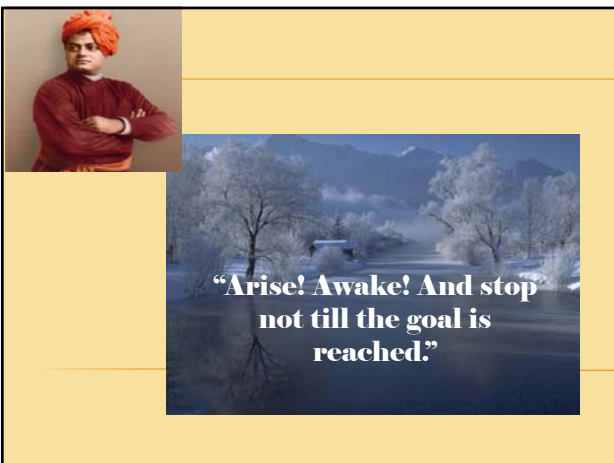
- 1) Awareness of the Units was very less about Lean Manufacturing schemes and the Procedures of Implementation
- 2) Most of the units don't Know the Meaning of Consultancy – They Treated the Consultants as a Contactor
- 3) Support of the all Units are not same, so the Improvements are not same to all the units
- 4) Units are so far not fully convinced about Importance to keep and use of Formats, Data and Records for the Improvements
- 5) Change in the Workforce during the Lean Implementation creates problem
- 6) Time Loss due to convince some of the units
- 7) In the Industry there many wrong and indistinct concept about the Tools and Techniques
- 8) Most of Supervisors and Production Managers Play dual Role to Owners and Consultants, they thought their images and capacity becomes distrustful to the Owners

**LIMITATIONS OF THE STUDY**

- 9) Most of the Units have no availability of Trained/ Qualified Technical person to Understand the Importance of Lean and most of the cases the Workers are concern about Wage (daily workers). One of the negative approach may spoil the Total Initiatives from the Consultants
- 10) When units become aware many thing can be done through Lean Initiative, their expectation became so high that everything should be solved by Lean Consultants
- 11) Consultants works with huge Risk between SPV and NPC like Delay in Payment and if your are not succeed to Implement any Plan or Report , you may not get any payment for a long time
- 12) At last it is difficult to judge the Good Work in the units, if consultants give suggestions to Implement, it is the Responsibility of the units and it's representatives to Implement It .

**There are enormous Scope of Lean Manufacturing Techniques to Improve Indian MSME Sector to Improve National Competitiveness**

**Lean is the Joint Effort MSME Ministry, NMIU-NPC, LMC and SPVs**



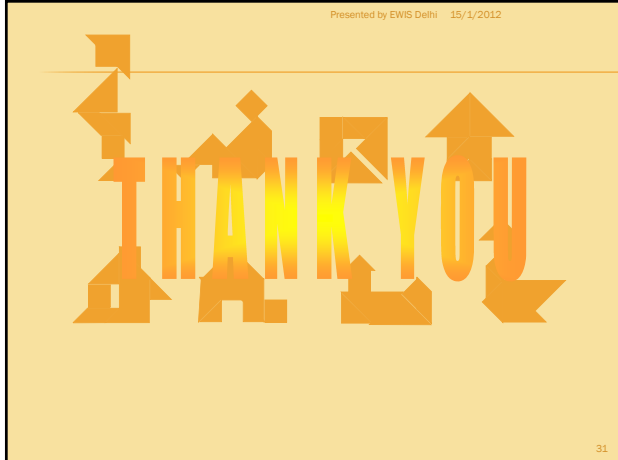
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## SAI ELECTRICAL UNIT-I

### About the Organization

Sai Electrical has lavishly flourished since its inception in the year 1976. The profound knowledge and strong support of the honorable Managing Director Mr. Girish Kumar, company is also recognized as one of the most dependable Servo Stabilizer Manufacturers in India. Company has also gained appreciation in the market as we provide impeccable power-ware products that include High Voltage Power Transformer, Power Factor Controller and Electric Transformer.

## Product categories

- Distribution Transformer
- Auxilliary transformer
- Isolation transformer
- Servo Voltage Stabilizer



## KAIZEN IMPLEMENTED BY LMC

- Cleaning the Shop Floor at Fabrication Section
- Maintaining the system
- Determine the level of 5S
- Collection of First Phase Data
- Balancing the Fabrication work load
- Series of Discussion with marketing, store & purchase (understanding the waste in process)
- First phase Lean calculation study in office
- Cleaning the scrap yard area in front of painting section & MS Angle area
- Shifting the scrap yard
- Re-orientation of the layout for new plant according to progressive step format for painting & dimmer section
- Gangway Aisle for Fabrication section
- Shifting of Crane in existing painting section
- Deciding the workstation in Fabrication according to existing bottle neck
- Space for IQC, Store & Dispatch

- Preparing the Flow Chart for the Product for future Study
- Collection of Data & Pictures from each department in unit-1 & 2
- Identification of SMT Team
- Identification of Skills requirements and Manpower rotation with training
- Identification of Waste in Time(video recording) & Fixture requirement and preparing for various operation
- Recording of Video
- Preparing the Standard time sheet
- Identification of Defects
- Prevent the Defects
- Discussion with Design section
- Preparing the Check point at each working station

## SAI ELECTRICALS UNIT-II

- > Transformer assembly
- > Core assembly



## KAIZEN IMPLEMENTED BY LMC

- > Trolley for ratio meter so that only single person can measure the ratio
- > Pen should be with ratio register
- > four wire of ratio meter should be divided in two part
- > format for ratio to be develop
- > Trolley for oxygen and LPG gas
- > HT & LT rod to be issue in loose packing
- > Oil- gauge glass cutter should be covered with safety cover
- > name plate & name plate stand, there should be four hole on equal pitch
- > There should be an ON-OFF Switch on end point of oil pipe

- > Preparing the Flow Chart of the Product for future Study
- > Collection of Data & Pictures from each department in unit-2
- > Manpower rotation programme for skill improvement.
- > Training of SMT Team
- > Identification of Waste in Time(video recording) & Fixture requirement and preparing for various operation .
- > Preparing the Standard time sheet Identification of Defects .
- > Prevent the Defects Preparing the Check point at each working station

## DEEPIKA EXPORTS PVT. LTD.

### About the Organization

- × Deepika Exports is established in 1975. They are the manufacturers of different type of Finest Handicrafts with the strong support of the honorable Managing Director Capt D.P. Agarwal

### Product categories

- > Swords & Amount
- > Designer furniture
- > Lerp (Foam) products



## KAIZEN IMPLEMENTED BY LMC

- Sorting the needed & unneeded item in the Shop Floor from each dept as per 5 S assessment sheet.
- Make the sheet of unneeded item with financial value
- Cleaning each machine by regal paper
- Cleaning the scrap yard area
- Purchase the required tools
- Proper rack for placement of tools with locker
- Proper wire connection at each machine ( ensuring no open circuit or wiring in the plant)
- Collection of existing formats
- Format is given to the company for recording the break down record
- Format filling for maintenance manual

- Format is given to company
- Collection of Data and Pictures from each department in Unit
- Discuss about quality circle and kaizen with Top mgmt and finalization of date of the training to workers

## SARU COPPER ALLOY SEMIS PVT. LTD

### Product categories

- Copper Alloy
- Tin Bronze Alloy
- Gun Metal Alloy
- Phosphor Bronze Alloy
- Leaded Bronze Alloy
- Nickel Alloys



## KAIZEN IMPLEMENTED BY LMC

- Trolley for LPG & O2 cylinder
- Tool box designing with marking and list of item
- Workstations name and no. with Do's and Don'ts
- Section name board
- Items in tools box should be segregated
- Feeding of LDO oil by mechanically
- Labeling and cleaning of Emergency exit
- Feeding of materials in Melting furnace by trolley/movable bins
- Identify and writing the causes of Oil spillage at rod drawing machine
- Visual display of oil level
- List of item in store
- Stopping water drop at casting machine

- Process study/Die change over by video Recording
- Preparing the sheet
- Format preparation for production planning and control
- Recording the Breakdown data in the excel
- Supervisors training on Brainstorming
- Problem (Casting Failure hollow pipe) rectification is to be done
- 30 mint orientation with workmen and by office staff and recording continues kaizen by senior management
- Preparing monthly Kaizen reward scheme by management and Lean team

## CECO BEARINGS LTD.

### Product categories

- Rubber bridge bearings
- Steel bridge bearings



## KAIZEN IMPLEMENTED BY LMC

- 10 min daily soft floor cleaning by worker
- Trolley for oxygen cylinder transportation
- Recording the data of store into the system
- Suggestion box in the plant
- Scrap saver at UTL machine
- Proper arrangement of items in the store
- Distribution of 5s award
- Prepare the 5s check sheet
- Tool rack for tool placement
- Recording the existing activities of employees
- Analyze the activities
- Finalizing the activities
- Recording the vendor information as per given format in purchase

- Monthly marketing and tour plan format
- Marketing performance report
- Recording of the break down data
- Preparing chart and graph
- Analyze the data
- Prepare the format
- Recording the existing skill
- Capture the pictures and the preparing existing multi skill chart
- Skill enhancement to workers through rotation and training
- Quality circle discussion
- Training on Fisher bone diagram
- Workers orientations on lean, kaizen and 5s

## ELECON CONDUCTORS

### Product categories

- Paper insulated copper strip & wire



### KAIZEN IMPLEMENTED BY LMC

- Sorting the needed & unneeded item in the Shop Floor from each dept as per 5 S assessment sheet.
- Make the sheet of unneeded item with financial value
- Cleaning each machine by regmal paper
- Cleaning the scrap yard area
- Purchase the required tools
- Proper rack for placement of tools with locker
- Proper wire connection at each machine ( ensuring no open circuit or wiring in the plant)
- Collection of existing formats.
- Format is given to the company for recording the break down record
- Format filling for maintenance manual.

- Format is given to company for multi skill chart
- Collection of Data and Pictures from each department in Unit
- Discuss about quality circle and kaizen with Top mgmt and finalization of date of the training to workers

### HERITAGE PROMOTERS PVT. LTD.

#### Product categories

- Pressed Steel Radiators for Transformer Only up to 20-25 size



### KAIZEN IMPLEMENTED BY LMC

- Sorting the needed & unneeded item in the Shop Floor from each dept as per 5 S assessment sheet.
- Make the sheet of unneeded item
- Cleaning press/notching machine to remove the dust and grease
- Cleaning the scrap under the machines
- Identify and Purchase the required tools
- 10 Mints daily cleaning before starting of the shift
- Video recording 600x300x5 fins
- Preparing the standard time sheet
- Preparing flow chart
- Leakage recording
- ✗ Format is given to the company for recording the break down record
- ✗ Format filling for preventive maintenance data

### MULTI MAX ENGG. WORKS.

#### Product categories

- Heat Exchanger
- Pressure vessels



## KAIZEN IMPLEMENTED BY LMC

- Form the 5s implementations team as per lean team format
- Marking the unused item in each sections
- Identification of the required tools at floor & Make the list of existing tools used in production
- Arrangement of items properly at one rack in store
- Making tools rack for tools placement with marking
- PM-3, PM-2 Expander Holding stand
- Dust bin and scrap box placement at required place in entire plant with same colour
- Brazing rod supporting clamp required in SS section
- SS section corner area cleaning
- Rod should be properly placed on Racks and more racks should be added
- Making partition in Template section in almirah/rack
- Draining system of coolant in drilling section should be improved also make some improvement on reuse of the coolant

- Oxygen and LPG cylinder should be placed in defined area with visual board
- Place the offset of the day in defined area
- Unused item under the vessel area should be removed and cleaned
- A gas cutting trolley should be made to carry both oxygen and LPG cylinder also one should be made for movement of each
- Filling the format on job analysis
- Prepare the activity Flow chart
- Meeting on reducing the pre approval time of (DTR)
- Minimizing the PPC time and Collection of format used in the production planning & control
- Collection of data of inventory at floor, Collect existing format and data
- Orientation on Lean & 5 S By Company engineer & 5 S to every worker(30-60 Mints)
- Orientation by Lean Team (30 - 45 Mint)

## MEERUT PTFE

### Product categories

- Wire
- Cables
- Sleeves/Tubing
- PTFE Tape/ Sheets



## KAIZEN IMPLEMENTED BY LMC

- Sorting the needed & unneeded item in the Shop Floor from each dept as per 5 S assessment sheet.
- Make the sheet of unneeded item with financial value
- Cleaning the scrap yard area
- Sort under the stairs
- Proper rack for placement of tools with locker
- Proper wire connection at each machine ( ensuring no open circuit or wiring in the plant)
- Sorting should be done on the roof above wrapping section
- Collection of existing formats.
- Format is made for company for recording the daily production report
- Format is made for company for recording the daily machine loading report
- new machine position setup to minimizing transportation

- Format is made for company for recording the break down record
- Format is given to company
- Collection of Data and Pictures from each department in Unit

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## East West InfoSolutions


Established by a group of Technical & Management professionals in the years of 2004.

*EWIS has emerged as an 'Management Consultancy and Business Solutions Company' Integrating latest in Technologies and People.*

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### QUALITY POLICY

*We, Team of EWIS will continually improve the Quality of our Services in Consultancy in the areas of Management, HRD, Industrial Engineering, Institutional Development, Training and Survey to our Clients through the Study and Implementation and also facilitate our clients keeping in view their present and future Organizational Developmental requirements. We will also ensure organizational future growth and prosperity by implementation of Quality Management System in conformity with ISO 9001:2008.*

ISO 9001:2008


### Business Applications

- Organisation Strategy Management
- Efficiency Measurement
- Performance Management and Improvement
- Lean Manufacturing
- Benchmarking
- Organizational Restructuring and Process Improvement
- Quality Management Consultancy – QMS
- Employee and Customers Satisfaction Survey
- Financial Analysis

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#### Why you should choose EWIS over other companies??




- We react and get things done fast
- We are flexible and make decisions quickly to respond to client needs and solve client problems
- We have close professional relationship with all our clients
- Our low operating overheads are reflected in our charges to our clients
- We agree payment linked to project deliverables with our client
- Our expertise makes you save time and therefore cost within your company by not having to educate and implementation consultants

*We ensure complete customer satisfaction*

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Presented by EWIS Delhi 15/1/2012



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06	PLANT LAYOUT	SARU COPPERS	1. Better Space Utilisation
		PTFE	2. Flow of Activities
		CECO	3. Manpower and M/c Positions
		Process Flow Layout - DEEPEEKA	4. Internal Transportation control and reduction
07	SMED/ Changeover Time	SARU COPPERS	5. Motion Control and Reduction
		ELECON	6. Better Work Place Layout
		CECO	7. Increase in Plant Productivity
		ELECON	1. Reduction in Changeover Time
08	TPM	SARU COPPERS	2. Transfer the Internal Time to External Time
		Electrical	3. Workers/ Operators concept about the Changeover Time Reduction
		HERITAGE – Process Testing	4. Utilise the Additional Time reduction time into Production Time - Increase in Productivity
		ELECON	1. Estimation of M/c downtime
09	INVENTORY	SARU COPPERS	2. Identifications of the causes of M/c downtime
		DEEPEEKA, HERITAGE	3. Action Plan for Reduction in the M/c downtime – Corrective and Preventative Actions, Down-Time Maintenances etc.
		ELECON - MRP	4. Reduced downtime to Production Time – Increase in Productivity
		SARU COPPERS	1. Reduction in the Huge amount of Inventory
10	PPC	SAI Unit – I, SAI Unit - II	2. Better Inventory Planning by Identification of the Root Causes of High Inventories
		MULTI-MAX	3. Connect with PPC
		SAI ELECTRICALS	4. Reduction in the Cost of Inventory and Cost of Production
		MULTI-MAX	5. Save space in Stores

