

# Kaizen

## A Necessary Way To Survive

A Special Webinar by APCRE exclusively for  
Leather Sector Units

**APCRE (Association for Promotion of Competitive and Responsible Enterprises), which is a registered, non-profit, pan-India organization, dedicated to the Promotion of Competitiveness among Indian industries, especially MSMEs and at the same time disseminate their Responsibility towards good, ethical and social work practices, so that, they are appropriately meeting the global supply chain requirements. The organization was started by a team of dedicated experts and trainers, across India, who were trained by UNIDO/ UNDP/ILO and other National and International organizations on their various programmes and spans across Engineering, Auto, Textile, Leather and pharma sectors. APCRE activities comprise Training, Facilitation, Assessments and hands-on implementation of various tools and techniques on Productivity, Quality, Lean Manufacturing, shop floor management, Safety, Social dialogue Programmes etc.**

- Introduction to Kaizen concept
- Philosophy behind kaizen
- PDCA Concept towards continuous improvement
- Creativity and Kaizen
- Possible application of Kaizen in Leather sector units
- Capturing the improvements and presentation
- Case studies in engineering sector

### THE WORD

**KAI MEANS – CHANGE**

**&**

**ZEN MEANS – GOOD**

**THE WORD KAIZEN MEANS  
CONTINUAL IMPROVEMENT**

**Mr.Masaki Imai – Father of Kaizen**

Human beings have not only two **Hands** to work with, but also one **Head** to think and one **Heart** to show involvement.

The emphasis of Kaizen concept is that the Creative Power of Human Beings must be tapped to bring out improvements on a steady and continuous basis.

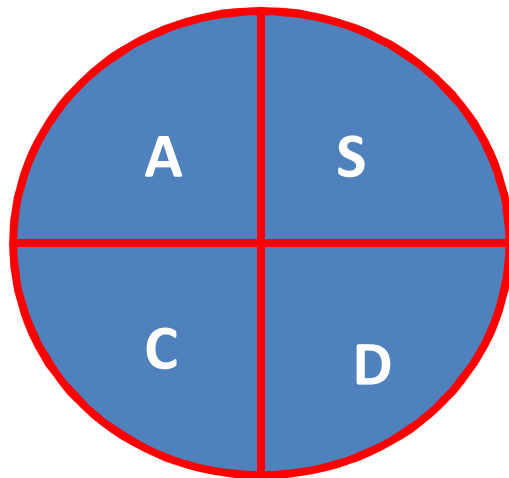
**EMPHASIS OF KAIZEN IS SMALL BUT  
STEADY AND CONTINUAL IMPROVEMENT**

## PHILOSOPHY BEHIND KAIZEN





## Plan, Do, Check & Act



## Standardize, Do, Check & Act

## MAJOR SYSTEMS OF KAIZEN

1. TQM
2. JUST-IN-TIME
3. TPM
4. POLICY DEPLOYMENT
5. SUGGESTION SYSTEM
6. SGA (Small Group Activities)



## KAIZEN ENCOMPASSES THE FOLLOWING ACTIVITIES:

- ✓ TEAM WORK
- ✓ SUGGESTION SCHEMES
- ✓ PROCESS CONTROL
- ✓ 5S, JUST-IN-TIME,
- ✓ PROBLEM SOLVING
- ✓ ZERO DEFECT
- ✓ AUTOMATION
- ✓ TPM.....ETC

## CASE STUDIES IN ENGINEERING SECTOR



**BEFORE**



**AFTER**

**Value Added Space identified and utilized - 600 Sq. ft.**



**BEFORE**



**AFTER**

**Searching time & time for Tool verification reduced to 5 minutes**



- Quality
- Environment
- Water
- Energy
- Liquid waste management
- Solid waste management
- Occupational safety and health
- Productivity
- ...any other



## Quality improvement

### Objectives

- Improving quality
- Consistency in batch-to-batch quality parameters (reducing batch to batch variations)

### Some examples

- Statistical process control (SPC)
- Calibrated machine adjustments – fleshing, setting, staking
- Moisture measurement in leather drying
- Instrument based colour matching
- Standardised lighting in colour matching
- And so on.....



# Calibrated machine adjustments





## Productivity enhancement

### Objectives

- More production with less input
- Lean manufacturing

### Examples

- Statistical process control
- Benchmarking of productivity parameters for the whole tannery as well for departments, machines etc.
- Ergonomic improvements in production halls
- Material handling equipment

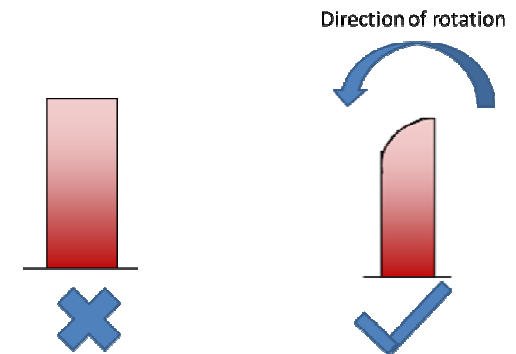
# Ergonomics





# Yield improvement by mechanical operations

- Direction of fleshing, setting, toggling, etc.: From backbone to belly
- Fleshing and setting – important for hides
- Use of efficient toggling – skins
- Use of rotary staking machines

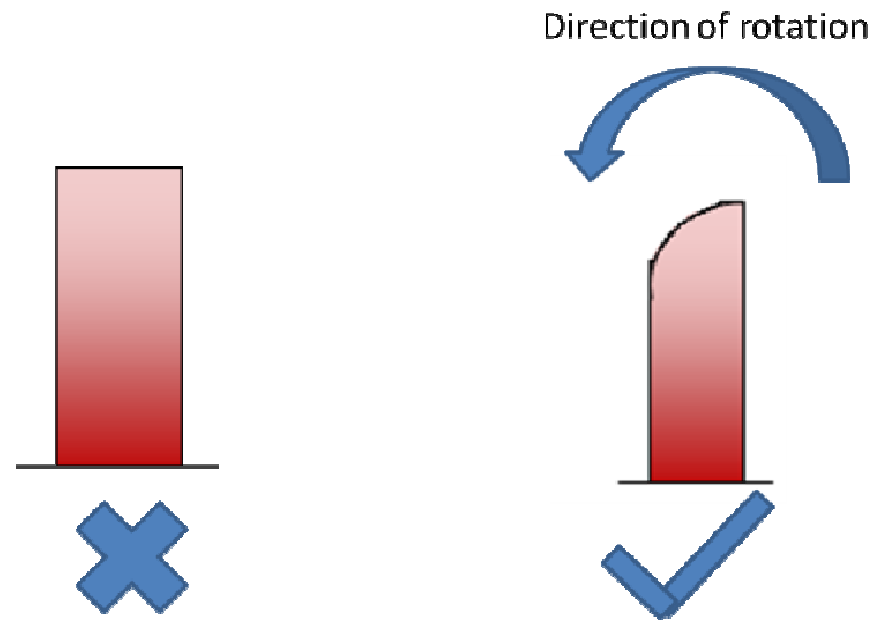


Cross section of cylindrical blade



# Profile of setting machine bladed cylinder – smooth curve

- Yield improvement
- Noise reduction



Cross section of cylindrical blade

## **Environment**

**Objective:** Reducing environmental footprint

## **Water conservation**

- Measurement of water
- Process modifications
- Reuse / Recycling sectional streams
- Recovery of process water from effluents
- And so on....

## **Energy conservation**

- Optimising operations
- Renewable energy sources

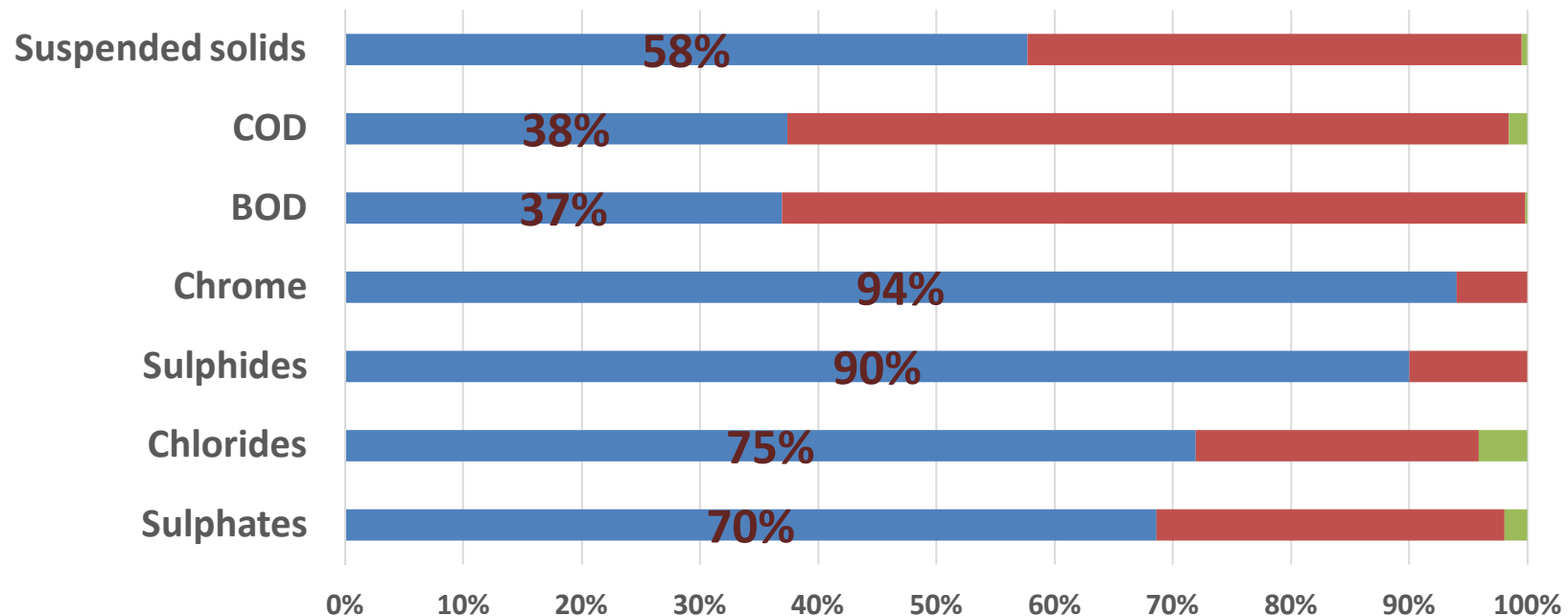
## **Liquid waste management**

- Reducing pollutants in effluents
- Increased efficiency in effluent treatment

## **Solid waste management**

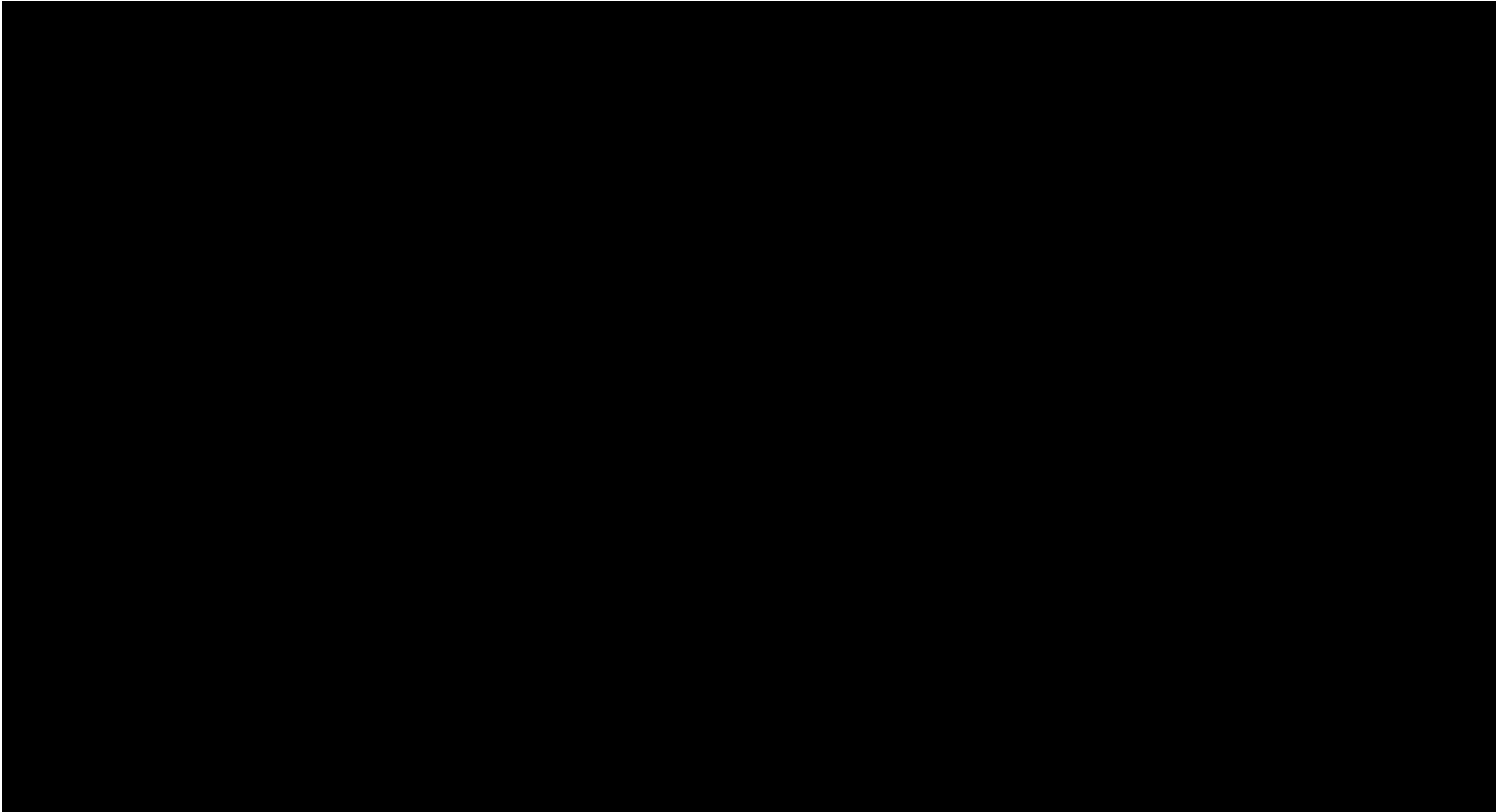
- Geometrization – early trimming
- Trimming optimization
- 5R Hierarchy, e.g.

# Possible pollution reduction



- Maximum possible reduction in cleaner tanning technologies
- Treatment level addressed in end of pipe treatment
- Remains in treated effluent

How many options available for reducing such inhouse  
pollution reduction



# Some examples - Hair save unhairing



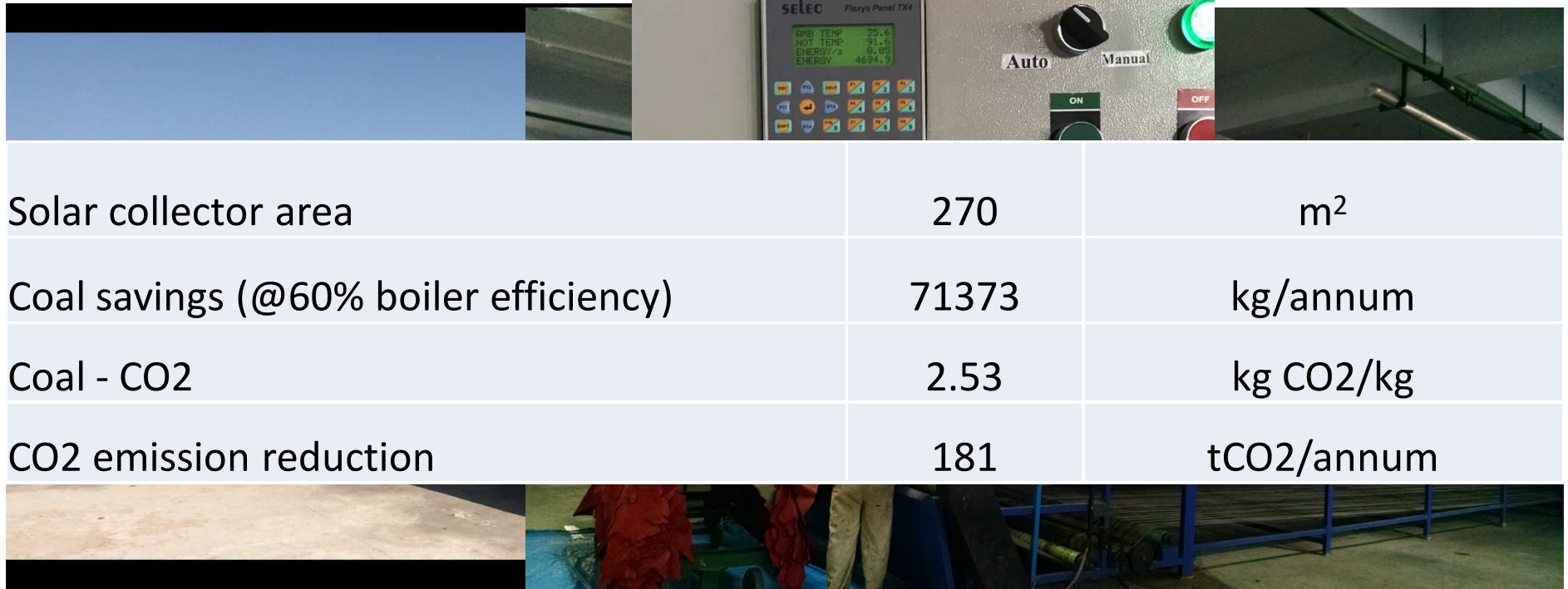
Hair filter



Microscopic  
view of grain  
of pelt after  
fleshing –  
clean surface



# Renewable thermal energy for leather



Solar collector area	270	m <sup>2</sup>
Coal savings (@60% boiler efficiency)	71373	kg/annum
Coal - CO2	2.53	kg CO2/kg
CO2 emission reduction	181	tCO2/annum

# Waste minimization- is your HVLP operate really with low pressure





**Occupational safety and health**  
**Objective:** Zero accident

**Examples can be in the areas of**  
Machine safety  
Electrical safety  
Chemical safety  
How to deal with hydrogen  
sulphide gas  
Emergency control mechanism



[illegible]

# APCRE CONGRATULATES FIRST EVER KAIZEN PRESENTATION WINNERS IN LEATHER SECTOR



## FIRST OF ITS KIND IN LEATHER SECTOR

## ONLINE KAIZEN COMPETITION ON 23<sup>RD</sup> OCT 2021

The screenshot displays a Zoom video conference grid with 17 participants. The participants are arranged in a grid with 6 columns and 3 rows. The participants are:

- Row 1: Mohamed Shabudeen, Krishnan T.G, Raghavan Kadambi, logaraj kumar, Manoharan Natarajan, TABREZ AHMED
- Row 2: Vmr Overseas, TRUEKEM TRUEKEM, Rizwan khan, Senthil kumar, Madan Kumar, I Square - Mavens
- Row 3: Bharath Venkat, faizan faizan, Raghavan Kadambi, Nachiappa L I Square, You

The bottom of the screen shows the Zoom interface with a time of 5:10 PM, a meeting ID of mpv-hebp-kce, and various control icons.

## First of its kind in leather sector



ASSOCIATION FOR PROMOTION OF COMPETITIVE AND RESPONSIBLE ENTERPRISES

### CERTIFICATE

This is to certify that **Flamingo SSi (Unit-1)**, Old Thiruthani Road, Ranipet has participated in the online Kaizen competition conducted on **23<sup>rd</sup> October 2021** and adjudged the following category by the Juries.

Category : **GOLD**



Mr. K.C. Raghavan  
(President-APCRE)



Mr. G. Rajesh  
(Competition coordinator)

Certificate No : APCRE/Competition/2021-10/1/ Kaizen

Date: 23<sup>rd</sup> Oct 2021

# INTRODUCING KAIZEN IN LEATHER SECTOR

## First of its kind in leather sector

ASSOCIATION FOR PROMOTION OF COMPETITIVE AND RESPONSIBLE ENTERPRISES

### CERTIFICATE

This is to certify that **Flamingo SSi (Unit-2)** Old Thiruthani Road, Ranipet has participated in the online Kaizen competition conducted on **23<sup>rd</sup> October 2021** and adjudged the following category by the Juries.

**Category : GOLD**



Mr.K.C.Raghavan  
(President-APCRE)



Mr. G. Rajesh  
(Competition coordinator)

Certificate No : APCRE/Competition/2021-10/2/ Kaizen

Date: 23<sup>rd</sup> Oct 2021

## First of its kind in leather sector



ASSOCIATION FOR PROMOTION OF COMPETITIVE AND RESPONSIBLE ENTERPRISES

**CERTIFICATE**

This is to certify that **KH Exports India Pvt Ltd – Tannery A Division** MBT Road, Ranipet has participated in the online Kaizen competition conducted on **23<sup>rd</sup> October 2021** and adjudged the following category by the Juries.

**Category : PLATINUM**



Mr.K.C.Raghavan  
(President-APCRE)



Mr. G. Rajesh  
(Competition coordinator)

Certificate No : APCRE/Competition/2021-10/6/ Kaizen

Date: 23<sup>rd</sup> Oct 2021



## First of its kind in leather sector



ASSOCIATION FOR PROMOTION OF COMPETITIVE AND RESPONSIBLE ENTERPRISES

### CERTIFICATE

This is to certify that **N.M.HASHIM & CO.**, Guidyatham Road, Thuthipet, Ambur, has participated in the online Kaizen competition conducted on **23<sup>rd</sup> October 2021** and adjudged the following category by the Juries.

**Category : GOLD**



Mr. K.C. Raghavan  
(President-APCRE)



Mr. G. Rajesh  
(Competition coordinator)

Certificate No : APCRE/Competition/2021-10/3/ Kaizen

Date: 23<sup>rd</sup> Oct 2021



# INTRODUCING KAIZEN IN LEATHER SECTOR

## First of its kind in leather sector

ASSOCIATION FOR PROMOTION OF COMPETITIVE AND RESPONSIBLE ENTERPRISES

### CERTIFICATE

This is to certify that **TRUEKEM**, MGR salai, Nagelkeni, Chrompet, Chennai has participated in the online Kaizen competition conducted on **23<sup>rd</sup> October 2021** and adjudged the following category by the Juries.

Category : **PLATINUM**



Mr.K.C.Raghavan  
(President-APCRE)



Mr. G. Rajesh  
(Competition coordinator)

Certificate No : APCRE/Competition/2021-10/5/ Kaizen

Date: 23<sup>rd</sup> Oct 2021

## First of its kind in leather sector



ASSOCIATION FOR PROMOTION OF COMPETITIVE AND RESPONSIBLE ENTERPRISES

### CERTIFICATE

This is to certify that **V.M.R.Overseas** Anna salai, Nagelkeni, Chrompet, Chennai has participated in the online Kaizen competition conducted on **23<sup>rd</sup> October 2021** and adjudged the following category by the Juries.

**Category : GOLD**



Mr. K.C. Raghavan  
(President-APCRE)



Mr. G. Rajesh  
(Competition coordinator)

Certificate No : APCRE/Competition/2021-10/4/ Kaizen

Date: 23<sup>rd</sup> Oct 2021

**“Was  
Situation”**

**SECTION NAME**

**“Now  
Situation”**

**Problem Statement:**

**Root cause :**

**Action Required :**

**Standardization :**

**“Was  
Situation”**



**Chemical Stores (Finishing)**

**“Now  
Situation”**



**Problem Statement : Spillage of chemicals and contaminating the floor**

**Root cause : No effective use of seasoning containers. Inadequate house keeping.**

**Action Required : Designate place to keep WIP chemicals.**

**Standardization : Create or Modify SOP**

# CAPTURING THE IMPROVEMENTS AND PRESENTATION

## KAIZEN SHEET

*The Japanese word kaizen means "change for better",*

Doc #

MONTH : .....

<b>KAIZEN THEME :</b>		IMPLEMENTED AREA	
<b>KEY PERFORMANCE INDICATOR</b>	<b>PRODUCTIVITY / QUALITY / SAFETY / ENVIRONMENT / MORAL / COST</b>	IMPLEMENTED BY	
<b>STATUS :</b>	<b>BEFORE IMPROVEMENT :</b>	<b>ACTION TAKEN</b>	
<b>AFTER IMPROVEMENT</b>	<b>RESULT / BENEFIT :</b>		

# CAPTURING THE IMPROVEMENTS AND PRESENTATION

KAIZEN - Idea Suggestion Form			
Team member		Team leader	
Target process(es)		Target product(s)	
Picture of current condition		Picture of target condition	
Description of current condition		Description of target condition	
<i>Team leader / manager to complete</i> Estimated impact		What we learned as by implementing this idea	
Impact verified by		Opportunities for deployment	

## WHAT NEXT



- ✓ **KAIZEN CIRCLE**
- ✓ **ON SITE TRAINING ON KAIZEN**
- ✓ **TRAINING PROGRAM ON UNDERSTANDING PROBLEM SOLVING TOOLS**
- ✓ **FACILITATION FOR KAIZEN IMPLEMENTATION**
- ✓ **KAIZEN COMPETITION**

# ANY QUESTIONS PLEASE ...?



## APCRE CONTACT DETAILS

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