

GETTING STARTED WITH 5S

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This slide presentation will get you and your team on the path toward efficiency and improved production. The ideas presented here are meant to build a foundation of knowledge about 5S so that you may be successful in implementing 5S into your facility.

Change is difficult, but don't worry—we're here to help. This information will quell any anxiety and uncertainty, and give you the confidence to embark on the journey toward a better production process.



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Are you frustrated in your workplace?

Oh, this position makes me
tired!



I cannot remember what/
how to next...



Where is that document?
I cannot find it!



Why I am making mistakes
again and again



Oh time is not enough to
complete this work!



Why we cannot communicate
properly?



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Work together and do something with big positive attitude?

Implement 5S System



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WHAT IS 5S?





5S is a system of
VISUAL MANAGEMENT



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First developed at Toyota in the 1950s, 5S is a foundational method of Lean manufacturing and **REVOLUTIONIZED** the way industries conduct production



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**Implementing a good
5S program will:**



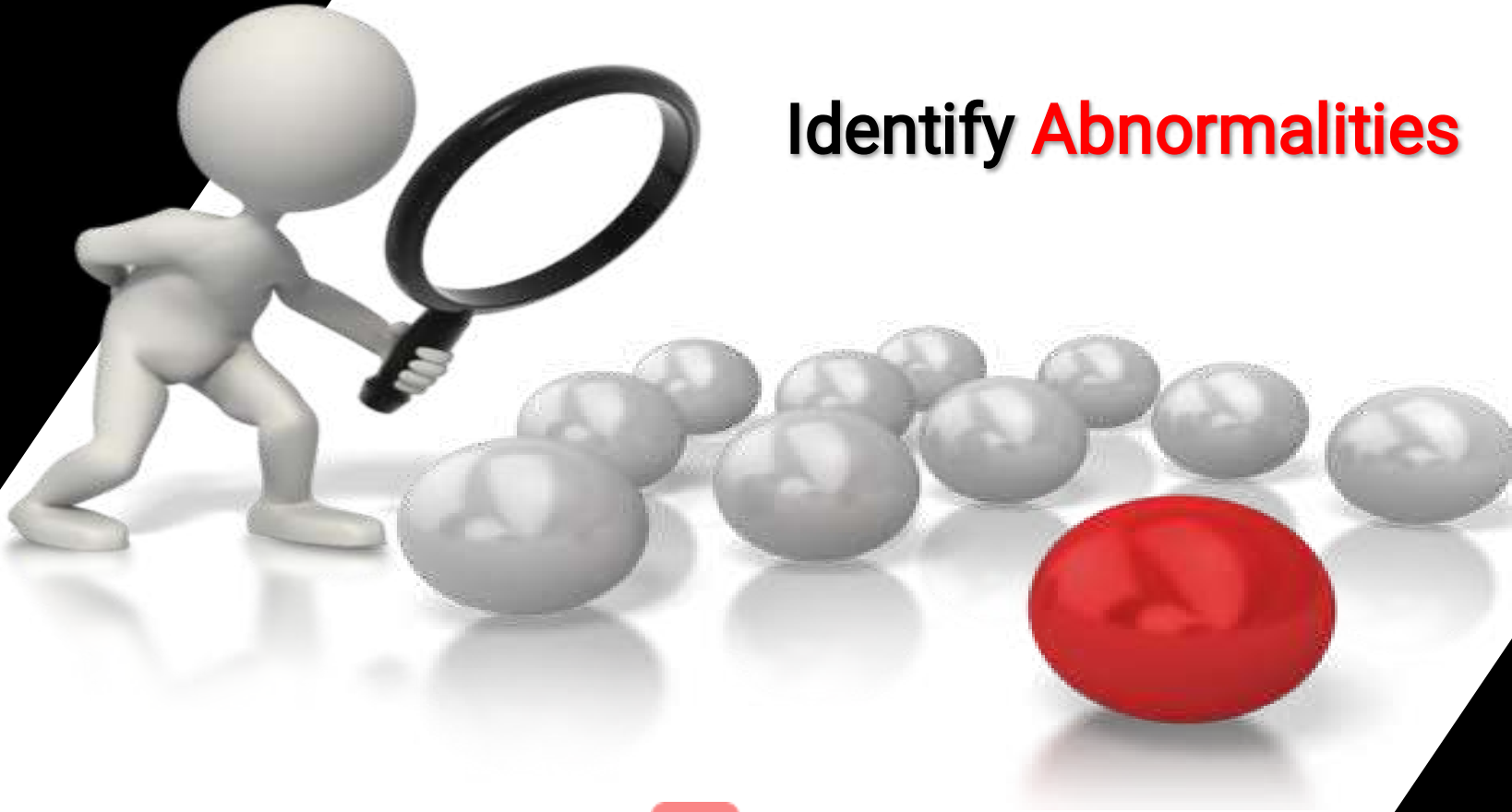
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Ensure Team work improvement
through everyone's **participation**



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Identify **Abnormalities**



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Identify **wastes** and reduce the **wastes**



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The 7 wastes

7

Over processing

6

Rework

5

Transportation

1

Overproduction

2

Inventory

3

Waiting

4

Motion



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Improve **safety**

SAFETY

The word "SAFETY" is rendered in large, 3D orange block letters. A yellow hard hat is placed on top of the letter 'A'. The entire word and the hard hat are reflected on a white surface below them, creating a mirror image. The background is white with black diagonal stripes in the corners.

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If no 5S activities, then....



Hesitate what to do



Remember what /
how to do



Looking for necessary
items



Making mistake



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Systematically **remove unnecessary steps & equipment** from production processes



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Improve **workflow**





Establish **better**
standards



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and maximize
efficiency and profit.



The five stages or “pillars” of 5S

BASICS

5S was developed thirty years ago, by Hiroyuki Hirano, to establish TQM in Japanese production companies.

The five stages or “pillars” of 5S

1 **SORT**

From the Japanese phrase: “Seiri”

2 **SET IN ORDER**

From the Japanese phrase: “Seiton”

3 **SHINE**

From the Japanese phrase: “Seiso”

4 **STANDARDIZE**

From the Japanese phrase: “Seiketsu”

5 **SUSTAIN**

From the Japanese phrase: “Shitsuke”

"If You Fail to Plan, You Are Planning to Fail" – Benjamin Franklin

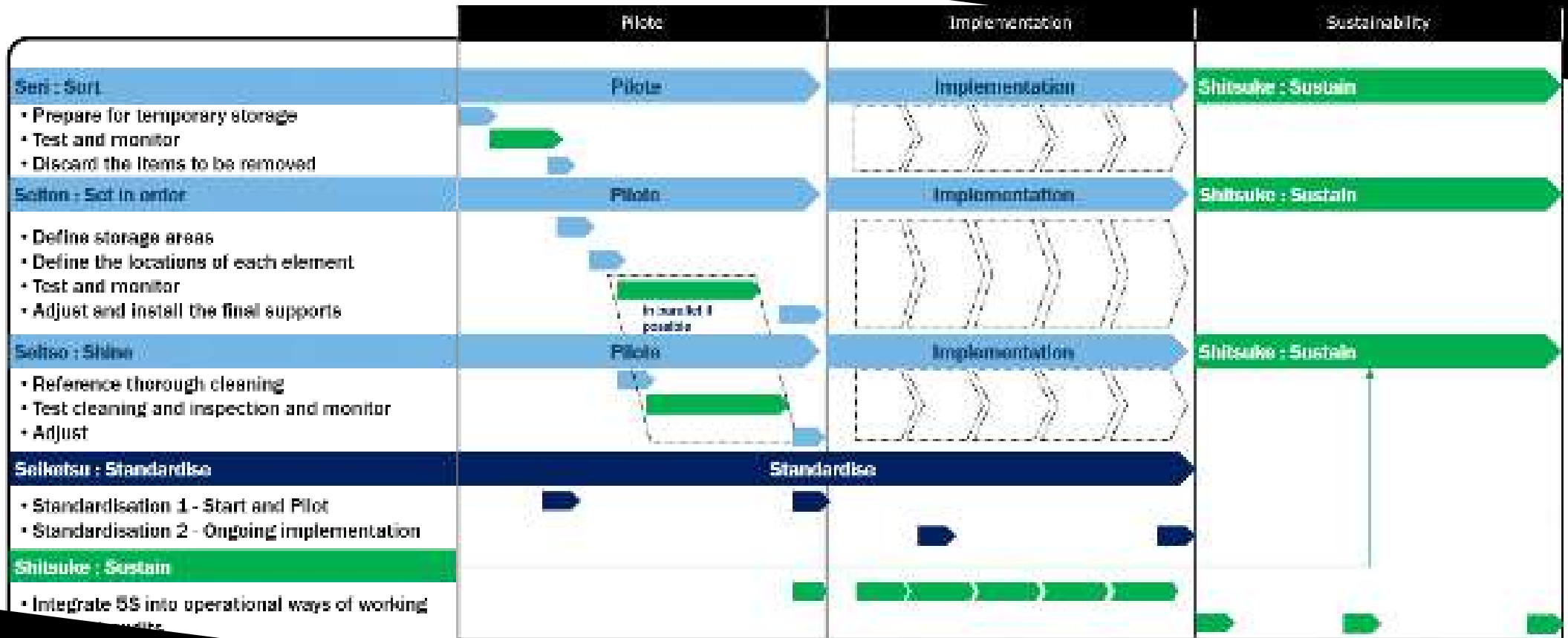
The five stages or "pillars" of 5S

Step-wise Practical Implementation of 5S



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This is a logical diagram; the lengths of the arrows are not proportional to the duration of the activities



SORT

(छंटाई)

整理

"Seiri"



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SORT calls for a full assessment of materials, only keeping items essential to completing tasks.

Separate required tools, materials, and instructions from those that are not needed. Remove everything that is not necessary from the work area.



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To start- first
Identify, then **remove**
unnecessary items
from work areas.



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**Can't decide if
something should
stay?**



Use 5S's **Red Tag System** to document how often the tool in question is actually used.



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Red Tag systems are simple: you place the tags on undecided items, and notate on the tag when the item is used.



Product shown: 55 Red Tags (CS5REDTAG) (also available in adhesive-backed style)



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**Once you have an idea of how often
a tool is used over time,**

you can decide whether or not it should stay.



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Red Tag "Holding Areas" are often used as a temporary location to store undecided items for a short period (usually 30 days or less).



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Product shown: Red Tag Holding Area Sign (WS30008-24-PVC)

S1: Sorting activities

Equipment, material, tools files, furniture etc. can be categorized based on the frequency of use!



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Examples of “Sorting”

- Place “Red tag” for categorization of items to identify unnecessary items
- Move unnecessary items(broken tools, obsolete jigs and fixtures, scrap and excess raw material etc.) to central stored area
- Free up valuable floor space (Space utilization)
- Finding abnormality of equipment and tools (Out of order, missing parts etc.)



1st S- SORT (Seiri)

1. Prepare for temporary storage-

- Designate a 5S Consultant amongst the organization.
 - Take pictures of the target area before removing its elements
 - Define a place to temporarily store the elements that will be removed
 - Prepare colour-coded labels to remove, 'maybe remove', 'replace', 'repair'.
- Prepare handling equipment if necessary: box, trolley, pallet truck, etc.

2. Perform a first sorting

- Make one for the obvious elements, by moving the targeted elements into the storage area. If the handling equipment is not suitable for sorting 'immediately', put the labels remove '.
- During this action, put the labels "maybe remove" in case of doubt
- Put labels for the other categories that are obvious (it is optional at this stage, but it is a saving for the next steps)
- List the items put in this area for follow-up

3. Test and monitor

- Install the monitoring board; define and install a visual monitoring board in the target area with three categories:
 - ❖ "Remove" with two columns :
 - one to leave comments if some people think that shouldn't be removed
 - one for those who have taken back or used an element of the area to be removed
 - ❖ "Remove maybe" with four columns:
 - The list of elements with the "remove maybe" labels
 - Confirmed
 - To be kept
 - Comments on the report
 - ❖ "Remove ideas" with two columns:
 - one to write additional ideas for parts to be removed
 - one to say why or add comments

SORT

- Give a week (or other depending on the organization) for people working on the area to comment, add parts to remove, or remove parts from the 'remove' list
- Review the board and the area 'to be removed' (if elements have been included) and lead a team meeting-

Review all categories and discuss the adjustment of lists and items to be removed

Take the opportunity to make a first team tour and ask their opinion on the approach and results of this first step.

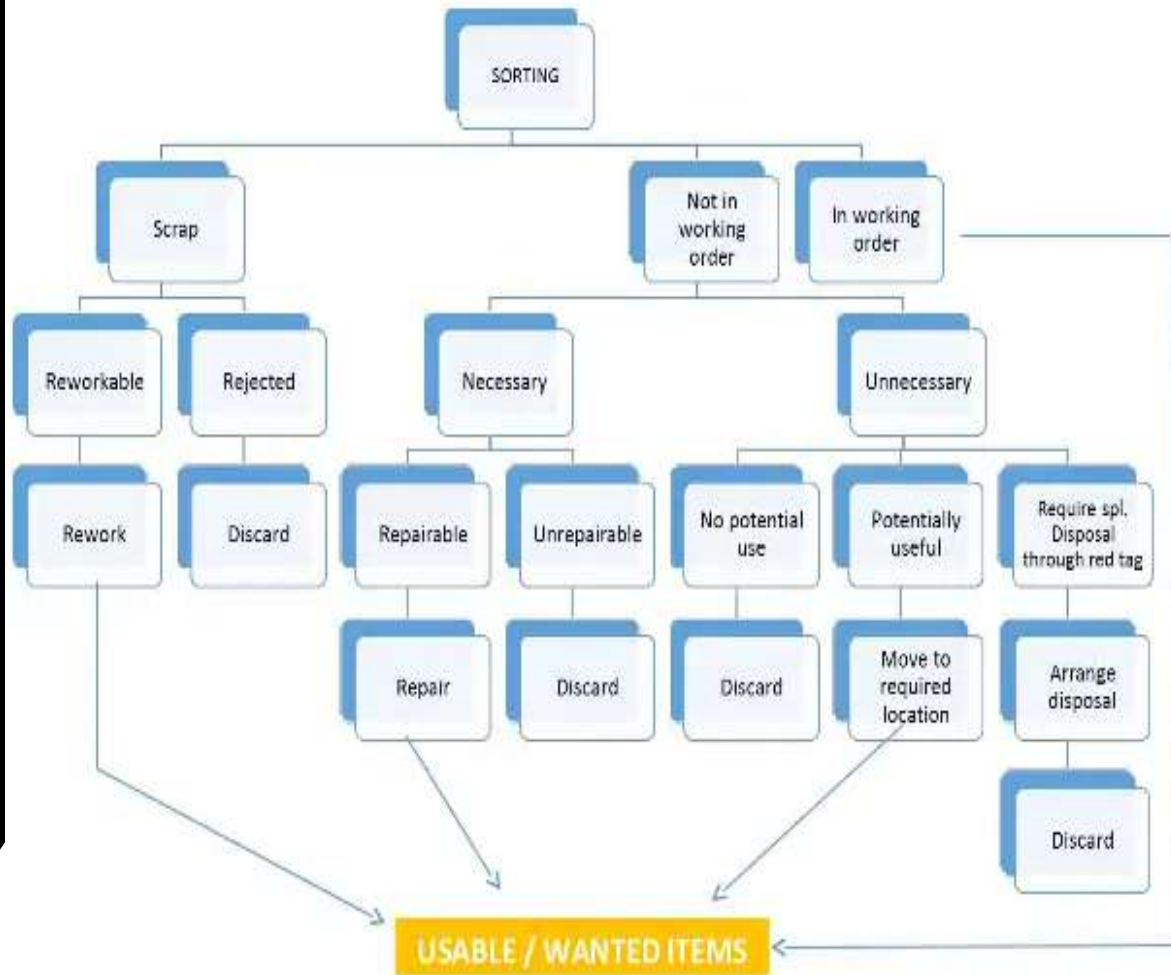
Estimate the savings of the removed items (estimate the frequency and cost of purchase if they remain in the list of items used)

4.Finalise: discard the items to be removed

1S : Sort

Degree of Need	Frequency of Use	Storage Method
Low	<ul style="list-style-type: none">• Things you have not used in the past year• Things you have used once in the last 6-12 months	<ul style="list-style-type: none">• Throw them out• Store at a distance
Medium	<ul style="list-style-type: none">• Things you have only used between 1-6 months	<ul style="list-style-type: none">• Store in a central place in the workplace
High	<ul style="list-style-type: none">• Things used once a week• Things used daily• Things used hourly	<ul style="list-style-type: none">• Store near the work site or carry on the person





1. Seiri – Sort out

Stratification management and dealing with the causes

Typical Activities	Location	Action by
<ul style="list-style-type: none"> Throw away things that are not needed Deal with causes of dirt leaks and noise Organize cleaning the floors and housecleaning Treat defects, leakage and breakage Organize the storage of parts and files Policy of "One is best" <ul style="list-style-type: none"> one set of tools/stationery one page form/memo one day processing one stop service for customer one location file 		





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1st S-Sort Before After Condition

Before



Red Tagging

After



Red Tag for 1st S

NO. _____

5S RED TAG

Name: _____

Date: _____

Item Description: _____

Location: _____

Use: _____

CATEGORY

Tools

Equipment

Material

Spare Parts

Others

Once the Sort stage is complete, your workplace
will be **free of unnecessary clutter** and will
immediately see **improved productivity**.



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SET IN ORDER

(सुसज्जित करना)

整頓

"Seiton"



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SET IN ORDER organizes items that survived Sort stage in a way that makes tasks easier to complete.

Sort and organize all tools, equipment, files, data, material, and resources for quick, easy location, and use. Label all storage locations, tools, and equipment.



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Organize tools in clearly-defined way in an order that makes sense to processes.



Edit with Wondershare PDFElement



Product shown: Foam Tool Organizers:
(FTK2736BKR)

Label printers can be used to make your system.

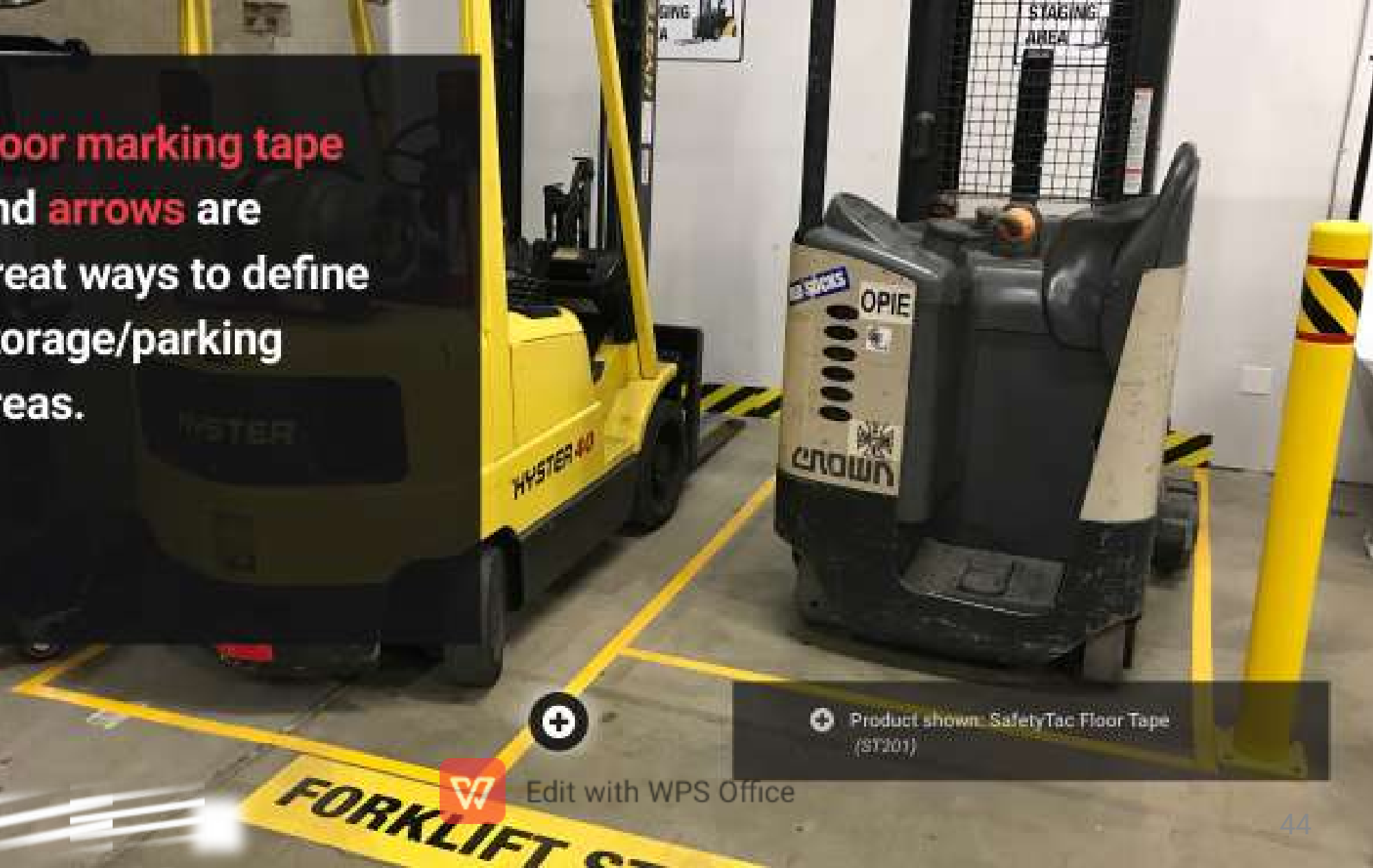
PRO X

Product shown: LabelTac[®] Pro X Industrial Label Printer (LTPX)



Easy with Wondershare Office

Floor marking tape and arrows are great ways to define storage/parking areas.



Product shown: SafetyTac Floor Tape (ST301)



S2: Setting activities

Think not only "beautification."
Need to consider workflow and
arrange items



Have consensus among
co-workers on where and
how to organize necessary
items



Use 5S tools for proper
Organization of items
such as

- Labeling
- Color coding
- Numbering
- Zoning etc.



Arrange them
properly based on
"Can see, Can
take-out, Can
return"
Philosophy



SET ACTIVITIES

**AUGUST
2021**

PROCESS

**SEPTEMBER
2021**



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2nd S- SET IN ORDER (Seiton)

1. Define storage areas-

- Make a list of the elements to be stored for each sub-area (workshop, office, etc.) of the treated area
- For each element, ask the people who use them how often they are used (prepare columns day, week, month, month, quarter, year, never to facilitate work); note the subpart of the treated area
- Estimate the volume of parts for each periodicity with one detail per sub-area
- For each frequency, identify possible storage locations in the area using the following guidelines:
 - The closer the storage place is to the place of use, the more frequently it is used: every day, next to the person; every week, in the surrounding area...
 - The size of the site must be well dimensioned with more space than not enough (ease of search)

- Do not put the same type of element in two different places... but limit travel if two remote teams use the same elements
 - Review why the two teams are distant; this can mean a redefinition of physical flows and workstations (a reason to deploy the 5S in a broader integrated Lean approach)
 - Otherwise, it will be necessary to choose the best solution (to be discussed with the teams) between duplicating the tools or increasing the travel
- Involve teams in the choices

2nd S- SET IN ORDER (Seiton)

2. Define the location of each element within each area

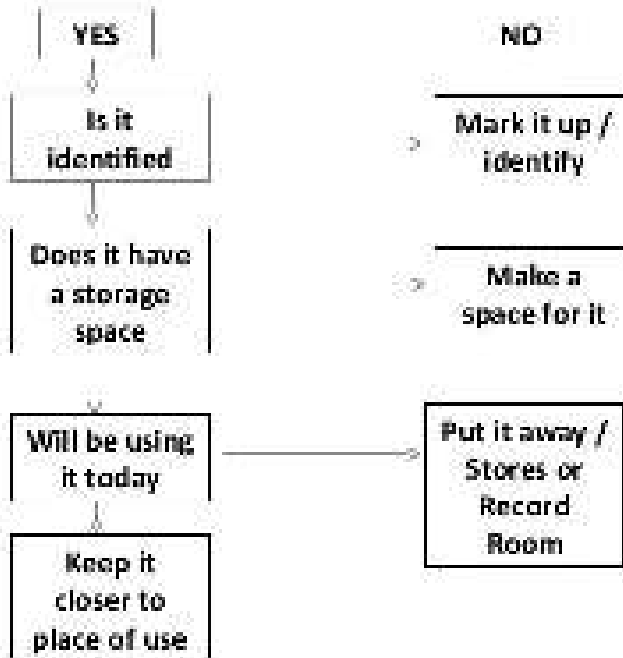
- Collect the elements by search/use logic and according to specific constraints (safety, humidity...)
- Identify the necessary storage supports, standard (cabinet...) or to be manufactured (template...)
- prefer modular and flexible supports; one thing is for sure, there will be changes!
- If possible, do not purchase anything, or have any manufactured before the next test phase
- Further involve teams in the choices, especially for workstation elements

3. Test and monitor

- Define and implement monitoring means to obtain user feedback and start measuring the change (search and travel time, productivity...)
- It is easy to get feedback for daily use and there will be at least two weekly iterations but higher uses will be more random, so monitoring may need to be done later if the test phase is too long.
- Store each element in its place as defined and operate for at least two weeks.

4.. Adjust and install the final supports

USABLE ITEMS



Arrangement based on frequency of use



2. Seiton – Systematic Arrangement

Functional storage and eliminating the need to look for things

Typical Activities	Location	Action by
<ul style="list-style-type: none"> Everything has a clearly designated name & place 30-second retrieval and storage Filing standards and control Zoning and placement marks Eliminate covers and locks First in, first out arrangement Neat notice boards (also remove obsolete notices) Easy-to-read notices (including zoning) Straight-line and right angle layout Functional placement for maintenance, parts, tools etc 		

2nd S Implementation

2S : Set in Order - Office Desk



An office desk before and after conducting 5S Sort, Set In Order and Shine. Clutter and unused items have been removed leaving only what is needed.

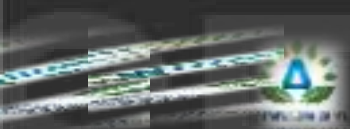
2S : Set In Order - Examples



Edit with WPS Office



Set in Order enables workers to perform more productively and without the frustration of not being able to find the tool they need.



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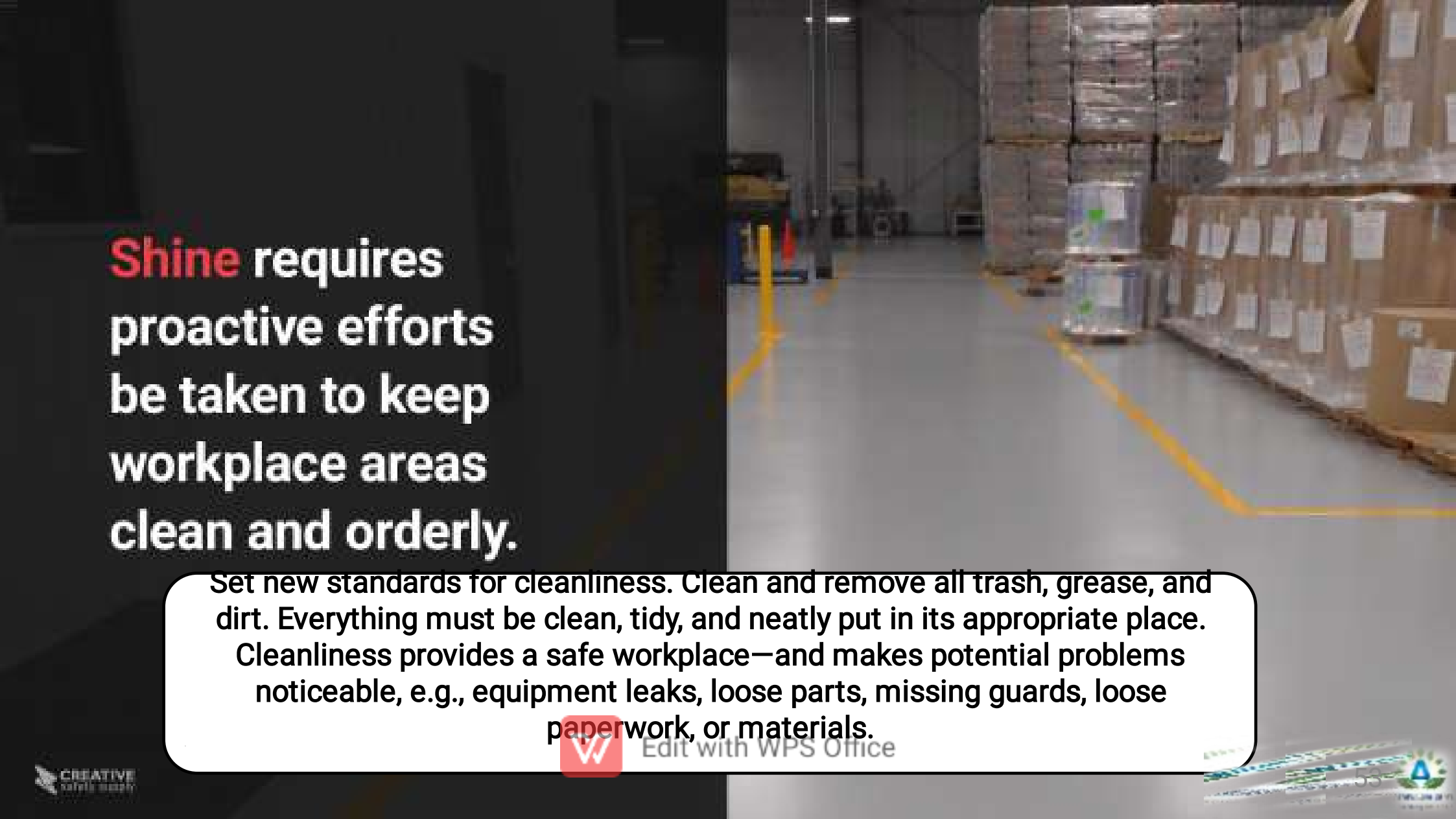
SHINE

(स्वच्छता)

清潔
"Seiso"



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Shine requires proactive efforts be taken to keep workplace areas clean and orderly.

Set new standards for cleanliness. Clean and remove all trash, grease, and dirt. Everything must be clean, tidy, and neatly put in its appropriate place. Cleanliness provides a safe workplace—and makes potential problems noticeable, e.g., equipment leaks, loose parts, missing guards, loose paperwork, or materials.



Clean all surfaces,
floor, and tools in
each area.



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Throw out expired materials, discarded parts,
and other waste.



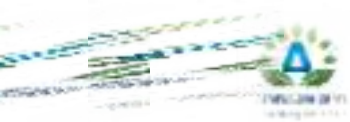
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S3: Shining activities



- Clean floor, windows and walls.
- Clean and Maintain office automation machines, medical equipment and tools, office furniture
- Develop and follow regular cleaning and Maintenance schedule
- Periodical check for changes in equipment and the service area such as: leaks, vibration, misalignment, breakage etc.
- IPC activities such as hand hygiene, waste segregation are also part of shine



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3rd S- SHINE (Seiso)

1. Do a thorough "reference" cleaning

- ❖ Take a picture of each area before cleaning
- ❖ Define cleaning and inspection instructions at the same time as cleaning:
 - Cleaning instructions: frequencies, cleaning means, people who clean and specific instructions when necessary (disassembly, safety...)
 - Inspection: In industrial (factory, warehouse, etc.) or technical (e. g. laboratory) environments, **inspection is the greatest added value** of cleaning because it helps to prevent breakdowns or work incidents
 - Doing it at the same time will allow to test the instructions during the next cleaning.
- ❖ Take reference photos
 - Photos of the result AND anomalies (if observed) for each area with details for critical elements.
 - Add them to cleaning and inspection instructions or other procedures (e. g. self maintenance)

2. Test cleaning and inspection

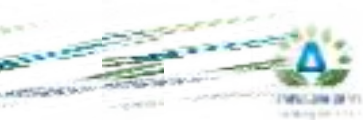
- Review cleaning and inspection instructions with area managers and adjust if necessary
- Define and implement monitoring means to obtain user feedback
- Carry out the test, if possible at the same time as the "Sort" stage in order to pool monitoring resources and reduce the pilot's total time, unless this delays the test in the "Sort" stage too much

3. Adjust

3. Seiso – Spic & Span

Cleaning as inspection and degree of cleanliness

Typical Activities	Location	Action by
<ul style="list-style-type: none">• Individual cleaning responsibility assigned• Make cleaning and inspection easier• Regular sparkling cleaning campaigns• Cleaning inspections and correct minor problems• Clean even the places most people do not notice		



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3rd S Implementation

3-Step Approach to Cleaning

Macro

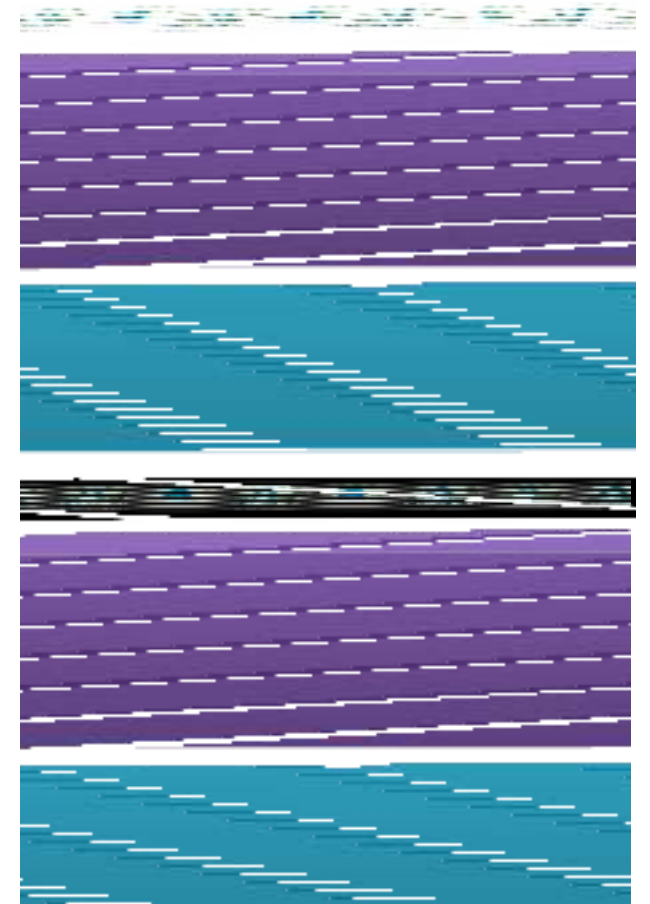
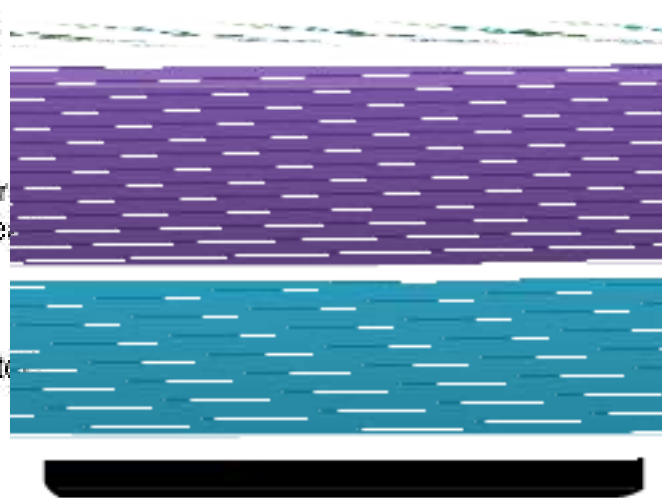
Common areas, walls, ceilings, lights, storage areas, toilets, "junk yards", shelves, filing cabinets, etc.

Individual

Individual workstations, chairs, drawers, computers, cabinets, shelves, etc. Clear away things underneath your table!

Micro

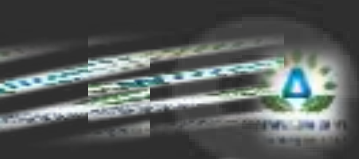
Measuring instruments, e.g. micrometers, gauges, vernier calipers, contact surfaces, etc.





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When facilities are **clean**, employees work better, faster, and have higher morale.



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STANDARDIZE

(मानकीकरण)

清掃

"Seiketsu"



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This step calls for the creation of **new standards for both organization and processes.**

Engage the workforce to systematically perform the previous steps daily, to maintain the workplace in perfect condition as a standard process. Establish schedules and set expectations for adherence.



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Create and post rules for each work area. **Standards** should be simple and visual.



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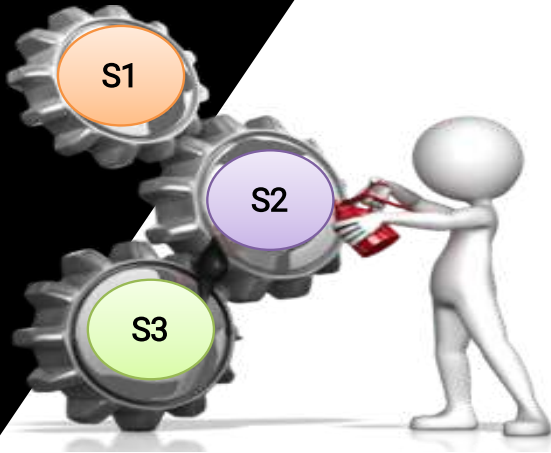
Create a **red-tag** policy, well-labeled tool organization systems, and cleaning checklists.

⊕ Product shown: 55 Red Tags (CSSREDTAG) (also available in adhesive-backed style)



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S4: Standardizing activities



Develop mechanism to standardize
S1-S3 implementation for continuation



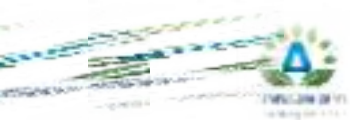
Standardization will leads equalization of activities
= "Production leveling and smoothing"

Standardization is useful for;

- Easy implementation of S1 to S3 activities
- Equalization process output
- Everyone's participation



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Example of “Standardize” activities

- ✓ Work instructions, Standard Operating Procedures (SOPs)
- ✓ Checklist development and regular usage for SOPs
- ✓ Mechanism and format development for ordering supplies, reporting etc
- ✓ Color coding for waste segregation
- ✓ Standardized common symbols

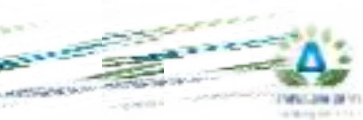


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Seiketsu - Standardization...

Visual management and 5-S standardization

Typical Activities	Location	Action by
<ul style="list-style-type: none">• Foolproofing (Poka-yoke) practices• Responsibility labels• Electrical/telephone wire management• Colour coding - paper, files, containers etc• Prevent noise and vibration• Department/office labels and name plates• Park-like environment (garden office/factory)		



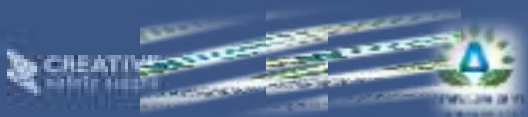
Edit with WPS Office

SUSTAIN

(स्वानुशासन)

躰

"Shitsuke"



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Take steps to **maintain processes** and standards set forth in the last stage of 5S.

Make 5S part of your culture, and incorporate it into the corporate philosophy. Build organizational commitment so that 5S becomes one of your organizational values so that everyone develops 5S as a habit. Integrate the 5S methodology into the performance management system.



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Periodically perform audits on work areas to ensure 5S practices are being **maintained.**

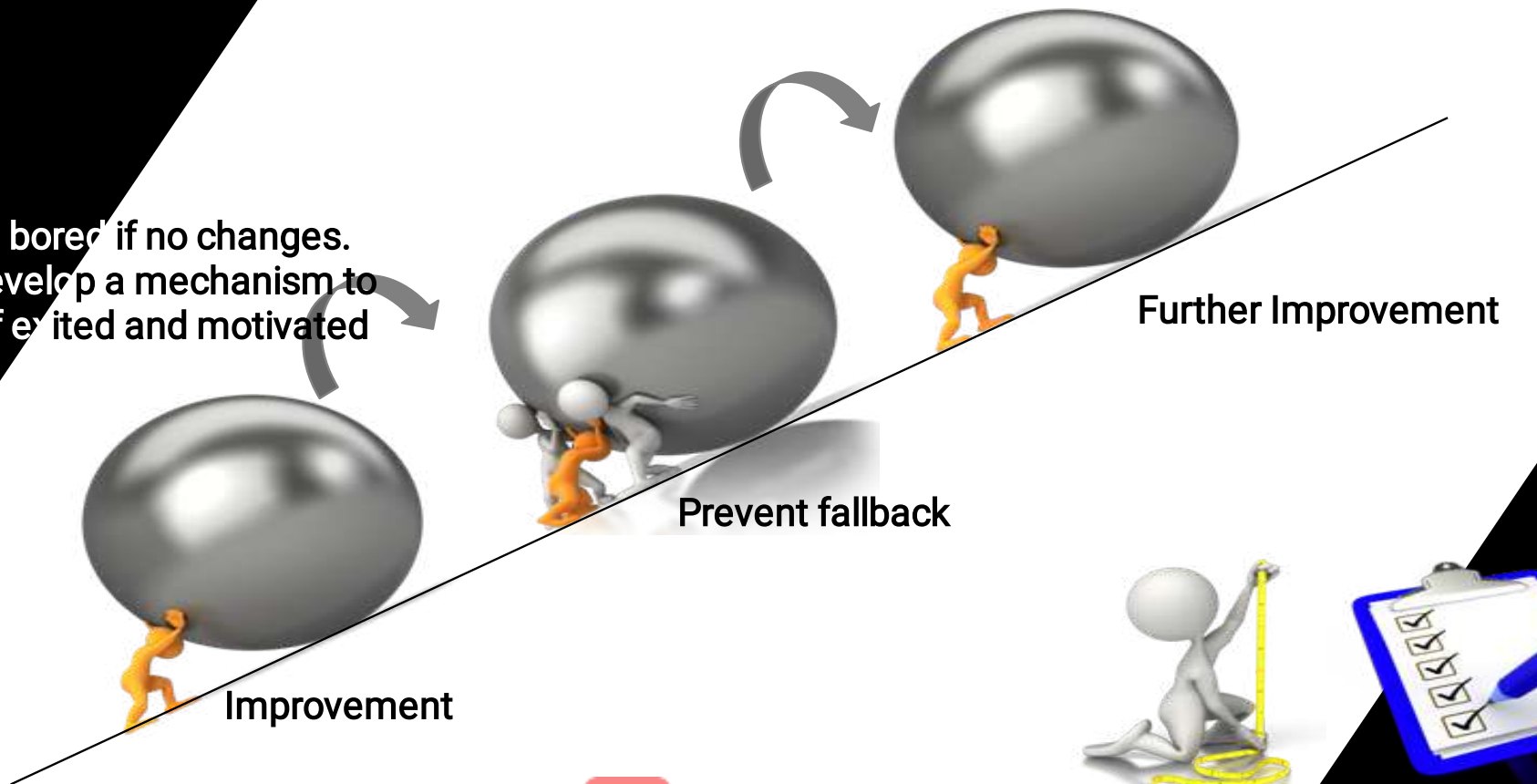
Product shown: 5S Audit Scorecard (SSA/DCARD)



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S5: Sustainability activities

People get bored if no changes.
Need to develop a mechanism to
make staff excited and motivated



Measure improvement with proper
periodical monitoring



Examples of “Sustain” activities

- Regular progress reporting
- Refresher training
- Periodical evaluation of 5S activities with proper advices for continuation and further improvements
- Appreciation, recognition and awarding on good 5S activities
- Reminder using 5S corner, new letters, good practice sheet etc.



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4th S- STANDARDIZE (Seiketsu)

This phase makes it possible to standardize the 5S method but also provides an opportunity to detect the lack of standardization in operating procedures (format, level of detail, content).

1. Inventory and Pilot Standardization

Make an inventory of the different standards in terms of operating procedures in the different areas; select or define a standard format; this phase must begin before describing the storage and cleaning procedures

- Adjust the standard at the end of the pilot and ensure that all pilot documents or tools are standardised
- Possibly standardise the other procedures, outside the 5S method.

2. Implementation standardisation

Each deployed area must apply the standards

- Nevertheless, adjustments can be made during deployment based on accumulated experience; continuous improvement begins

4th S- SUSTAIN (Shitsuke)

Sustainability starting at the pilot phase

- ❖ The sustainability actions are already starting within the pilot since it is at this point that the results measurements begin
- ❖ At the end of the pilot, an assessment is made to adjust and complete the measurement system before deployment

Sustainability during deployment

- The 5S method is integrated into the existing performance monitoring tools and operational ways of working of each deployed area: procedures, visual display, area indicators
- ❖ A progress dashboard of actions and results is consolidated as they are deployed

Sustainability after deployment

Results monitoring indicators are integrated into the management dashboards

- ❖ An audit process is defined, with a faster frequency at the beginning

5. Shitsuke - Discipline

Habit formation and a disciplined workplace

Typical Activities	Location	Action by
<ul style="list-style-type: none">• All-together cleaning• Do daily physical exercise all together• Practice pick-up components and rubbish• Wear your safety helmet/gloves/shoes etc• Public-space 5-S management• Practice dealing with emergencies• Execute in individual responsibility• Good telephone and communication practices• Design and allow the 5-S manual• Seeing-is-believing: check for 5-S environment		



Edit with WPS Office

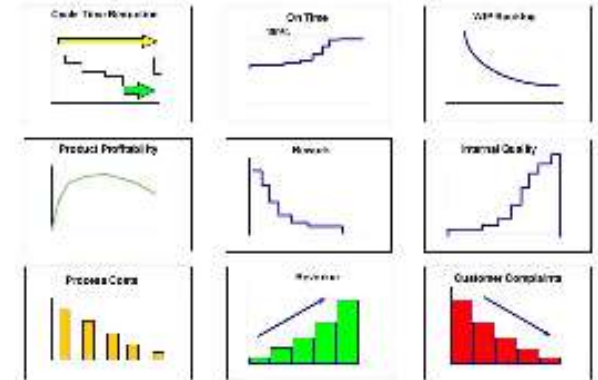
4th & 5th S Implementation

5S Audit Checklist & Results



Scoring Legend	Green 70%+	Yellow 50%-69%	Red 0-49%	# of Problems Score	1	2-3	2	1	0
Category	Item				1	2	3	4	5
SORT	Distinguish between what is needed and not needed								
	Are unneeded equipment, tools, furniture, etc. present in the area?								
	Are any Red Tagged items more than 3 weeks old?								
SEPARATE	A place for everything and everything in its place								
	Are aisle/walk ways and workstations clearly marked and identified?								
	Are jigs, fixtures, tools, equipment, & inventory properly identified and in their correct locations?								
	Are items put away after use?								
SHINE/SO or CLEANING	Cleaning and looking for ways to keep the workplace clean/organized								
	Are cleaning materials easily accessible?								
	Are equipment and work station kept clean and free of oil, grease and debris?								

Example of Visual Metrics

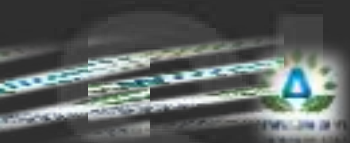


One can also use MS-Excel to prepare 5S evaluation charts. One can also maintain manual registers.



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5S can revolutionize the way your business operates. **SUSTAIN** ensures 5S is a long-term best practice rather than a brief experiment.



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RESULT

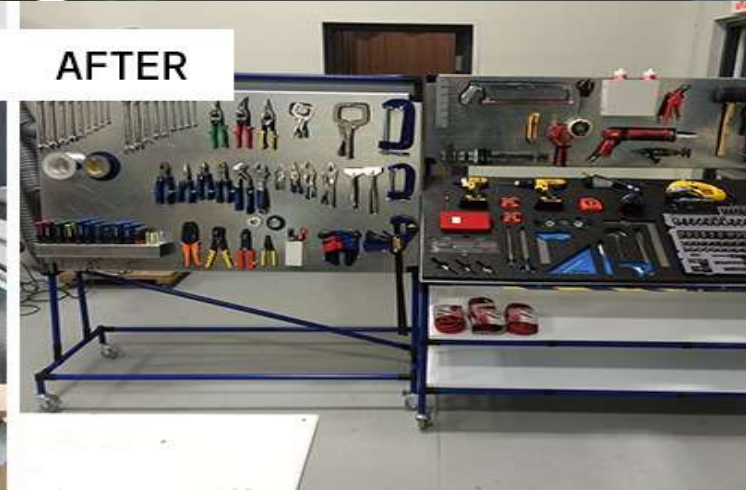


Before 5S



After 5S

RESULT



Edit with WPS Office

RESULT



Before



After

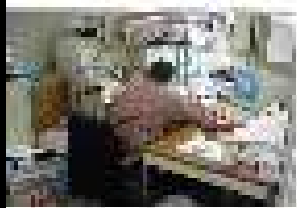


Before

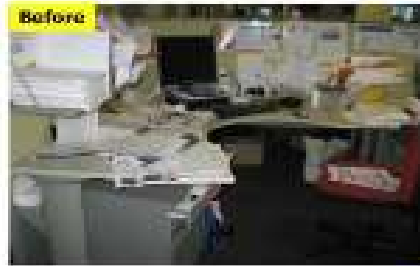


After

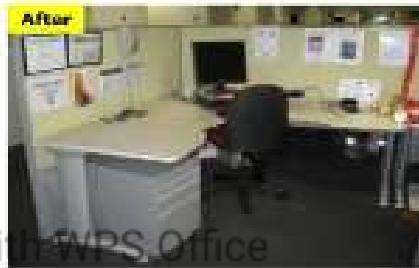
RESULT



Before

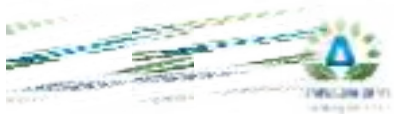


After



Before 5S

After 5S - Cleaned, organized and drawers labeled (less time and frustration hunting!)



Edit with WPS Office

RESULT

Before 5S (2009)

Disorganized items in the store. Took long time to searching items needed



After 5S (2010)

Use labeling and organize items lead to minimize time for searching items, easy to control stocks



RESULT

Before 5S

Disorganized cabinet in a ward



After 5S



Edit with WPS Office

RESULT



Using color coding for Visual control of ampules in a ward

Green means
"enough stock"

Yellow means giving warning on
"stock is getting less"

Red means giving warning on
"close to stock out and refill"



Edit with WPS Office

5S & Safety

- Wear protective clothes, goggles and shoes in the lab
- Install protective covers on equipment and machines
- Label warning signs prominently
 - High voltage, Radiation, Slippery/Wet floor, etc.
 - 'Under Test – Do Not Switch Off'

5S Publicity

- 5S publicity materials
 - Booklets, badges, brochures, cups, pens, etc.
- 5S training and education
 - Provide 5S training to managers and staff
 - 5S pamphlets
- 5S notice boards/intranet
 - 5S news
 - 'Before' and 'After' photos

5S / Clean-up Day



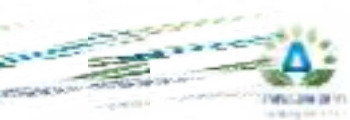
- Set aside half a day for this event
 - Best on Fridays or before a festive season or public holiday
 - Everyone in casual attire, e.g. T-shirts
- Prepare sufficient cleaning equipment, detergents, paints, etc.
- Speech by CEO on importance of 5S to all staff

5S is becoming popular for seven solid reasons

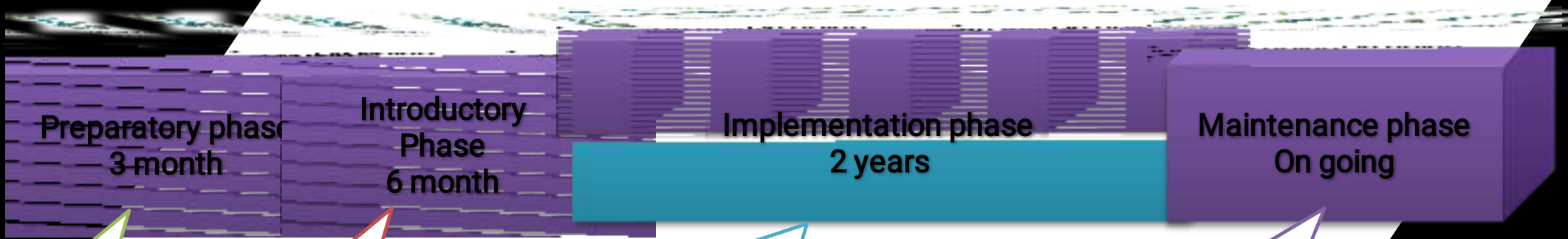
1. Visible results enhance the generation of more and new ideas
2. The workplace gets cleaned up and better organized
3. Hospital and office operations become easier and safer
4. Results are visible to everyone - insiders and outsiders
5. People are naturally disciplined
6. People take pride in their clean and organized workplace
7. As a result the company's good image generates more better



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5S-KAIZEN-TQM Phases

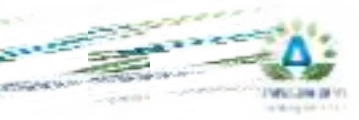


- Situation analysis
- Training of managers

- Training of staff
- Sorting
- Setting
- Shining

- Standardizing
- Sustaining
- Expansion areas to practice 5S activities

- Continue 5S cycle



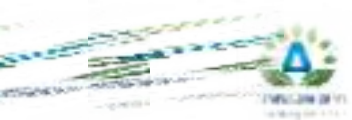
Target of 5S

Targets of Five-S include:

- ✓ **Zero** changeovers leading to product/service diversification
- ✓ **Zero** defects leading to higher quality
- ✓ **Zero** waste leading to lower cost
- ✓ **Zero** delays leading to on time delivery
- ✓ **Zero** injuries promoting safety
- ✓ **Zero** breakdowns bringing better maintenance



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So, we conclude that 5S helps in executing the basic housekeeping methods in a professional and conducive manner. I hope your all queries have been resolved regarding 5S System.

Thanks for your attention....

Any Queries

