

5S

THE SECRET TO  
JAPANESE SUCCESS

- WHAT PROBLEMS DO U COMMONLY ENCOUNTER AT YOUR WORKPLACE

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- HIGH ABSENTEEISM
- HIGH TURNOVER
- DEMOTIVATED EMPLOYEES
- DISORDERED/ CLUTTERED ENVIRONMENT
- MISTAKES/ERRORS

■ THE SOLUTION TO ALL THESE  
PROBLEMS IS

5S

# 5S

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## HOUSEKEEPING TECHNIQUE

PRODUCTIVITY AND SAFETY  
ENHANCEMENT TECHNIQUE

# IDEA BEHIND 5S

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- IN ORDER TO ACHIEVE HIGH LEVELS OF QUALITY, SAFETY, AND PRODUCTIVITY, WORKERS MUST HAVE A CONDUCIVE WORKING ENVIRONMENT

# WHAT IS 5S?

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- Developed by the Japanese
- Housekeeping System
- Helps Create a Better Working Environment and a Consistently High Quality Process

# THE 5S PRINCIPLES

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- SEIRI – Organisation/Sort out
- SEITON – Orderliness/Systemize
- SEISO – The Cleaning/Shining
- SEIKETSU – STANDARDIZE
- SHITSUKE - Sustain/Discipline

# DISCOVERY OF 5S

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- Thirty years ago researchers started studying the secret of success of Japanese manufacturing companies
- 5S turned out to be the most impressive "secret"
- The factories were so well organized that abnormal situations were readily apparent



# DISCOVERY OF 5S

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- Equipments were so clean and well maintained that any problem such as a loose bolt or leaking oil could be easily seen
- This passion of cleanliness and orderliness became a hallmark of Japanese organizations

# ADVANTAGES OF 5S

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- If tools and materials are conveniently located in uncluttered work areas



- Operators spend less time looking for items
- This leads to higher workstation efficiency, a fundamental goal in mass production

# ADVANTAGES OF 5S

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- A clean and tidy workplace leads to greater well being and increased motivation
- Company image improves

# ADVANTAGES OF 5S

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- Health and Safety is ensured
- Machine maintenance
- Quality
- Productivity
- Lean Manufacturing

# ADVANTAGES OF 5S

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- RESULTS IN A PLACE EASIER TO MANAGE
- SMOOTH WORKING → NO OBSTRUCTION
- NO DEVIATION, NO PROBLEMS



- B/C EVERYONE KNOWS WHERE THE THINGS ARE SPPOSEDF TO BE

# ADVANTAGES OF 5S

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- TIME SAVING
- QUICK RETRIEVAL
- ACCIDENTS & MISTAKES MINIMIZED
- INCREASES SPACE
- CREATES WORKPLACE OWNERSHIP

# ADVANTAGES OF 5S

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- FOUNDATION OF ALL QC TOOLS



- CONTINUOUS QUALITY IMPROVEMENT
- LEAN MANUFACTURING
- KINDERGARTEN OF QUALITY TOOLS & TECHNIQUES

# ADVANTAGES OF 5S

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- VISUAL MANAGEMENT SYSTEM



- VISUAL CONTROL TO SEE THE ABNORMALITIES
- SIMPLE SIGNALS THAT PROVIDE AN UNDERSTANDING OF THE CONDITION (NORMAL/ ABNORMAL)
- A LOOK AT THE PROCESS REVEALS ITS DIRECTION (RIGHT/WRONG)



# Lean Production

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- The latest incarnation of JIT
- Based on Toyota Production System.
- Waste elimination
- Widely used in automotive manufacturing & other repetitive mfg.

It's the elimination of waste Everywhere – while adding customer value...

It's a mindset & commitment to achieve a **totally waste-free operation** that's focused on your **customer's success...** achieved by simplifying and **continuously improving all processes**

# From the operations perspective

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Lean production **cuts costs & inventories rapidly to free cash**, which is critical

It also **supports growth** by improving productivity & quality, reducing lead times, and freeing huge amounts of resources.

# From the operations perspective

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For example, lean production **frees office and plant space and increases capacity** so companies can

1. Add product lines
2. In-source component production
3. Increase output of existing products without acquiring new facilities.

# KINERGARTEN OF ALL THE QC TOOLS

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- 5S IS THE STARTING POINT OF ALL THE QC TOOLS
- COULD BE SAID AS THE PRE-REQUISITE OF ALL QC TOOLS

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# METHODOLOGY OF 5S

# 1. ORGANISATION(SEIRI)

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- Decide what you need
- Remove unnecessary clutter
- All tools, gauges, materials, classified and then stored
- Remove items which are broken, unusable or only occasionally used

# RED TAG TECHNIQUE

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- GIVE STAFF RED LABELS
- ASK STAFF TO GO THROUGH EVERY ITEM IN THE WORK PLACE
- ASK IF NEEDED & THOSE THAT ARE NEEDED, IN WHAT QUANTITY
- NOT NEEDED → RED TAG IT
- STORE IN THE RED TAG AREA



**RED  
TAG**

## For wavering items

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- PLACE THE SUSPECTED ITEMS IN THE RED TAG AREA FOR ONE WEEK
- ALLOW THE STAFF TO REEVALUATE THE NEEDED ITEMS
- AT THE END OF WEEK THOSE WHO NEED ITEMS SHOULD BE RETURNED

# ORGANISATION

| PRIORITY | FREQUENCY OF USE                         | HOW TO USE                                  |
|----------|--|---|
| Low      | Less than once per year<br>Once per year | Throw away<br>Store away from the workplace |
| Avg.     | Once per month<br>Once per week          | Store together but offline                  |
| High     | Once Per Day                             | Locate at the workplace                     |

## 2. ORDERLINESS(SEITON)

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- ONCE YOU HAVE ELIMINATED ALL THE UNNEEDED ITEMS
- NOW TURN TO THE LEFT OVER ITEMS

# ORDERLINESS(SEITON)

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Organise layout of tools and equipment

- Designated locations
- Use tapes and labels
- Ensure everything is available as it is needed and at the “point of use”

# ORDERLINESS(SEITON)

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Workplace Checkpoints:-

- Positions of aisles and storage places clearly marked?
- Tools classified and stored by frequency of use?
- Pallets stacked correctly?
- Safety equipment easily accessible?
- Floors in good condition?

# 3. SEISO (CLEAN/SHINE)

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- Create a spotless workplace
- Identify and eliminate causes of dirt and grime – remove the need to clean
- Sweep, dust, polish and paint

# SEISO (CLEAN/SHINE)

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- Divide areas into zones
- Define responsibilities for cleaning
- Tools and equipment must be owned by an individual
- Focus on removing the need to clean

## 4. SEIKETSU (STANDARDISE)

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- Generate a maintenance system for the first three
- Develop procedures, schedules, practices
- Continue to assess the use and disposal of items
- Regularly audit using checklists and measures of housekeeping
- Real challenge is to keep it clean



# 5. SHITSUKE (SUSTAIN / DISCIPLINE)

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- Means inoculate courtesy & good habits
- Driving force behind all 5S
- Deming's point number 1: Constancy of purpose
- Make it a way of life
- Part of health and safety
- Involve the whole workforce\*
- Develop and keep good habits

# LITMUS TEST FOR 5S

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- 30 SECOND RULE
- ONE MUST LOCATE THE ITEM WITH IN 30 SECOND IF 5S IS PROPERLY IMPLEMENTED
- ALSO APPLIES TO THE ELECTRONIC RECORDS RETRIEVAL

# WHAT U HAVE COME ACROSS AT THE END OF DAY

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Followings can be harnessed form the  
5S

1. NEAT & CLEAN WORKPLACE
2. SMOOTH WORKING
3. NO OBSTRUCTION
4. SAFETY INCREASES
5. PRODUCTIVITY IMPROVES

# Cont.

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6. QUALITY IMPROVES
7. WASTAGE DECREASE
8. MACHINE MAINTENANCE
9. VISUAL CONTROL SYSTEM
10. EMPLOYEES MOTIVATED
11. WORKSTATIONS BECOME SPACIOUS