

5S

THE SECRET TO JAPANESE SUCCESS

5S

HOUSEKEEPING TECHNIQUE

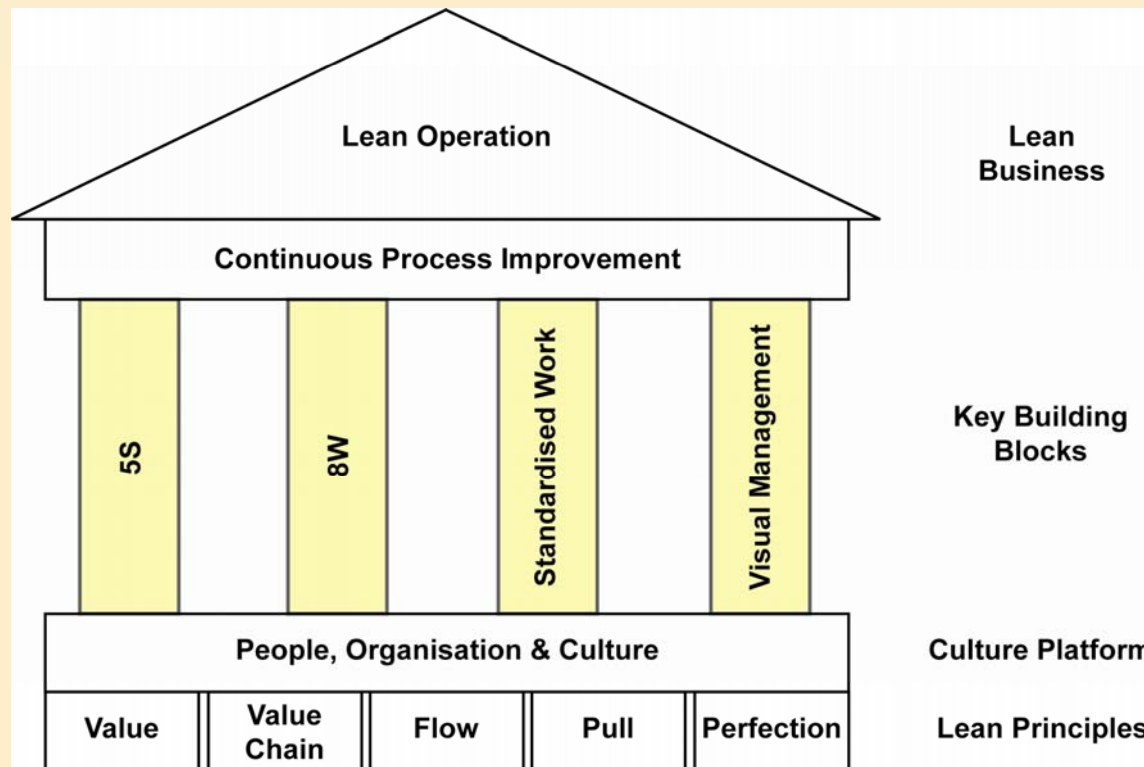
PRODUCTIVITY AND SAFETY ENHANCEMENT TECHNIQUE

IDEA BEHIND 5S

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

WHAT IS 5S?

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



The first 'building block' of lean/continuous improvement

THE 5S PRINCIPLES

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

DISCOVERY OF 5S

- 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

- 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

- 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

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

ADVANTAGES OF 5S

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

ADVANTAGES OF 5S

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



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

ADVANTAGES OF 5S

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

ADVANTAGES OF 5S

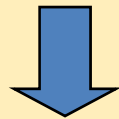
- FOUNDATION OF ALL QC TOOLS



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

ADVANTAGES OF 5S

- 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)

METHODOLOGY OF 5S

1. ORGANISATION(SEIRI)

- 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



- 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

For wavering items



- 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 Once per year	Throw away Store away from the workplace
Avg.	Once per month Once per week	Store together but offline
High	Once Per Day	Locate at the workplace

2. ORDERLINESS (SEITON)

- ONCE YOU HAVE ELIMINATED ALL THE UNNEEDED ITEMS

- NOW TURN TO THE LEFT OVER ITEMS

ORDERLINESS(SEITON)

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)

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)

- 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)

- 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)

- 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)

- 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

Some 5S Examples



After 5S -
Cleaned,
organized and

5S Examples - Sort, Set in Order



See the
difference?

1. Sort - All unneeded tools, parts
and supplies are removed from the

5S Examples - Shine



3. Shine - The area is cleaned as the work is performed (best)

The Good, Bad and the Ugly

First the Bad and the Ugly - Life



The Good



LITMUS TEST FOR 5S

- 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

Followings can be harnessed form the 5S

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

Cont.

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

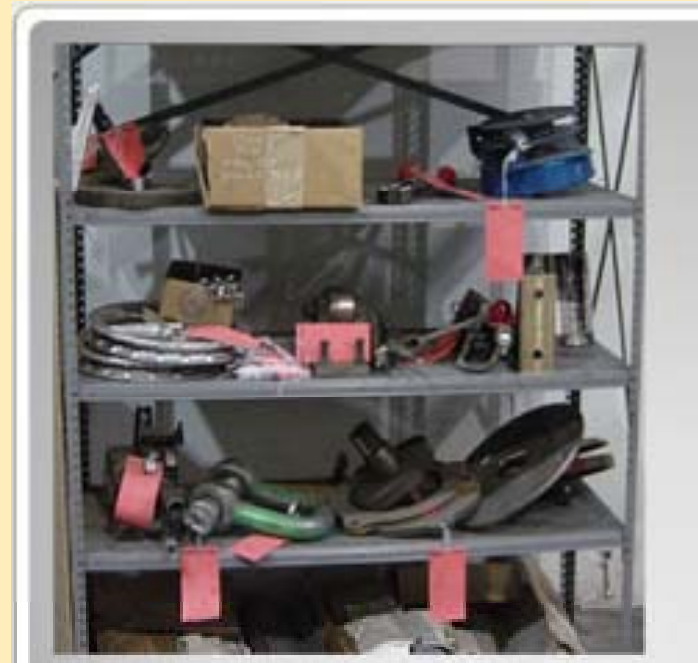
What Next ?

Setting of 5S committee

- Advisor (Dean)
- Chairman- (TDP)
 - Communicate with everyone involved.
 - Motivate work groups.
 - Ensures total participation.
 - Establishes accountability for assigned responsibilities.
- 5S Coordinator- (TP, PPK, PM)
 - Communicates with everyone involved.
 - Facilitate work group implementation activities.
 - Motivate and monitor implementation activities.
 - Ensure total participation.
 - Act as a resource for information

- Team Leader- X Leaders for X different Zone
 - Participate in work group implementation process.
 - Communicate with everyone involved.
 - Monitor progress of group activities.
- Promotion committee
 - Promote 5S campaigns.
 - Identify and recommend promotional activities.
 - Recommend and grant rewards or recognition to individuals / groups who have participated
- Audit Committee - ???

RED TAGGING



RED TAG NUMBER	
CATEGORY	1. RAW MATERIAL 4. EQUIPMENT 2. WIP 5. OFFICE MATERIALS 3. TOOLS 6. USED ITEMS
TAG DATE/BY:	
ITEM NAME	
QUANTITY	
REASON	
DISPOSITION METHOD	1. DISCARD 5. RECYCLE 2. IMPROVE 6. TRANSFER 3. SELL 7. OTHERS: 4. STORAGE
ACTION DATE	
ACTION TAKEN	