



# Step by Step Guide

**SORT - SET IN ORDER - SHINE - STABILISE - SUSTAIN**



Mining · Healthcare · Aerospace · Automotive · Food · Chemical · Electronics · Oil & Gas · Warehousing



## INTRODUCTION

5S is the name of a workplace organisation method that uses a list of FIVE Japanese words:

**seiri, seiton, seiso, seiketsu, and shitsuke.**

Transliterated or translated into English, they all start with the letter “S”.

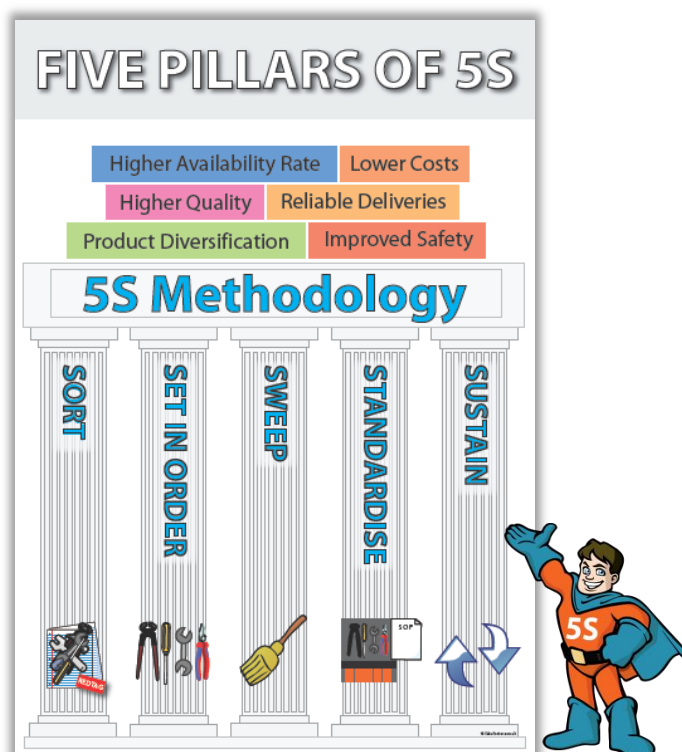
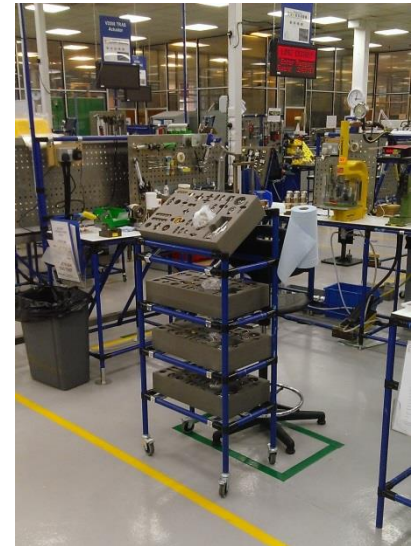
The 5S's describes how to organise a work space for efficiency and effectiveness by identifying and storing the items used, maintaining the area and items, and sustaining the new order.

5S was developed in Japan. It was first heard of as one of the techniques that enabled what was then termed 'Just in Time Manufacturing'.

5S was developed by **Hiroyuki Hirano** within his overall approach to production systems.

Many Western managers coming across the approach for the first time found the experience one of enlightenment. They had perhaps always known the role of housekeeping within optimised manufacturing performance and had always known the elements of best practice.

However, Hirano provided a structure for improvement programs. He pointed out a series of identifiable steps, each building on its predecessor. Western managers, for example, had always recognised the need to decide upon locations for materials and tools and upon the flow of work through a work area; central to this (but perhaps implicit) is the principle that items not essential to the process should be removed – stored elsewhere or eliminated completely. By differentiating between Seiri and Seiton, Hirano made the distinction explicit. He taught his audience that any effort to consider layout and flow before the removal of the unnecessary items was likely to lead to a sub-optimal solution.



## BENEFITS OF 5S

In order to participate in the global economy and compete against companies that are advantaged by overseas production, businesses are looking to find ways to identify and reduce production wastes.

By implementing the 5S methodology correctly numerous benefits can be realised, including:

- Reduced production costs and improved production efficiencies.
- Improvements in Quality, leading to a reduction in Customer Return costs, liabilities costs, etc.
- Reduced Inventory levels and warehousing costs.
- Adaptability to new products improved, leading to increased production capability.
- Employee safety improved, reducing loss time incident costs and compensation pay outs.
- Employee moral improved, leading to increased productivity and reduced staff turnover / re-training costs.
- Increased (reclaimed) floor space providing the company with huge savings and scope for new products.

For the above reasons and more, businesses are implementing 5S, allowing for significant improvements with minimal amounts of resource.



# SORT

Sort means that you remove all items from the work place that are not needed for current production (or clerical) operations. Surprisingly, this simple concept is easily misunderstood. At first, it may be difficult to distinguish between what is needed and what is not.

Common Issues:

- People tend to hold onto parts, thinking that they may be needed for the next order (sometimes holding on to obsolete or 'out of issue' parts without realising).
- They see an inappropriate machine and think they will use it someday or somehow.

This leads to inventory and equipment tending to build up over time and start getting in the way of everyday production activities. This leads to a massive build-up of waste factory wide. This factory waste leads to numerous problems including the reduction of floor space, creation of trip hazards and damage to employee morale due to a messy work environment.

During the SORT stage of the 5S methodology, a RED TAG HOLDING AREA is set up in order to allow an evaluation of unwanted items. RED TAGS are used to identify unwanted items before placing the 'tagged items' in the RED TAG HOLDING AREA.



[BUY 5S Red Tag Holding Areas at Fabufacture](#)

## 12 STEPS TO SORT SUCCESS

The list of SORT steps below, assume Management have bought into implementing 5S at your facility.

- Step 1 - Employee Awareness and Training** – Getting your colleagues on board with 5S is vital, as they will be the people making it work and reaping most of the day to day benefits. Your facility should be immersed in 5S visuals and training materials. [>more info and related products](#)
- Step 2 - Identify the 5S Area and Team Members** – Start with one part of your facility and use this as the Pilot area. Decide on a location that is seen / walked pass by most of the people working at your facility and clearly identify the boundaries of that area. The team should be made up of people from the area, as well as a 5S (adding a Manager to the team will demonstrate that the company is serious about 5S). [>more info and related products](#)
- Step 3 - Gather Event Supplies** – These are the things you will require for the event ([See Event Kits](#))
- Step 4 - Set Red Tag Event Date and Time** – Initially, 5S sorting should be ran as ‘SORT Events’ until the other 5S pillars have been completed on the area and then daily SORT sustainment becomes the future. [>more info and related products](#)
- Step 5 - Set up a Local Holding Area** – Without a local holding area, items will not leave the work area and SORT will fail. Set up a holding area, but don’t locate it too close (items will find their way back ‘overnight’) or too far away from the work area (items will never leave the area i.e get stuffed into draws and cupboards). [>more info and related products](#)
- Step 6 - Set Red Tag Event Targets** – Post specific and measurable targets for the red tagging activity. You may also consider - ‘only items required for next 48 hours’ [>more info and related products](#)
- Step 7- Take lots of BEFORE Photos** – These photos are important, as they demonstrate to the Management that improvement process has been made - use your [Before / After Board](#). The photos will also be used for the [Recognition Board](#). [>more info and related products](#)
- Step 8- Hold Red Tagging Event** – When you are happy that the Team understands the red tagging criteria, go ahead and tag unneeded items. This should be a quick event. Set a minimum target for each team member. As soon as the item is tagged, move it to the holding area. [>more info and related products](#)
- Step 9 - Evaluate Tagged Items** - As a team, evaluate each tagged item to decide on the most appropriate disposition action (Scrap, Return to Vendor, Send for calibration, Sell / Auction, etc). Invite a person from outside of the area to challenge the team on the tagged items. [>more info and related products](#)
- Step 10 - Assign Disposition Actions** – Decide on who (name of person) will carry out the disposition action on an item. Make this information visible for everyone to see. [>more info and related products](#)
- Step 11 - Take AFTER photos** – With all the unneeded items removed from the area, take some photos to demonstrate to the Management that improvement process has been made (use your [Before / After Board](#)) and the photos will also be used for the [Recognition Board](#) later. [>more info and related products](#)

**Step 12 - Update your Recognition Board and congratulate the team** – Congratulating your team for their efforts is a vital part of the sustainment activity of 5S SORT. Your colleagues won't continue to support 5S if they cannot see progress or are not being recognised for the work they have carried out. [>more info and related products](#)

## Then.....5S SORT Sustainment – TED

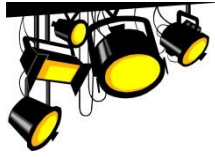


Hi! I'm TED. I can help you to keep your facility clean and organised forever with my SORT system!



## SORT TIPS:

- Don't tag people, they want to be happy.
- Be clear on the red tag criteria and make sure the team understands what they should be tagging.
- Ensure that the local holding area is close enough to the work area, but not too close, as items will make their way back. Assign a holding area manager. You may need to make it a restricted / quarantine area depending on what your company produces. Don't locate the holding area too far away, as team members may not be inclined to remove unneeded items.
- Set a target for the number of red tags per person.
- Keep a record of tags raised. If you have removed excess inventory or raw materials someone may be looking for items for production so you need to keep track.



# PRODUCT SPOT LIGHT



3MM FOAMEX A2 SIGN (QTY 1) AND 50MM WIDE FLOOR TAPE (QTY 1)





## PRODUCT SPOT LIGHT

# 5S RED TUFF TAGS

**THE TOUGHEST 5S RED TAGS AROUND!**



**WATERPROOF**



**CHEMICAL RESISTANT**



**TEAR PROOF**



**EASY WRITE**



**OIL RESISTANT**



**STRONG**



**STEP 1**

**Awareness & Training**

> BUY PRODUCTS

**STEP 2**

**Identify Team Members**

> BUY PRODUCTS

**STEP 3**

**Gather Event Supplies**

> BUY PRODUCTS

**STEP 4**

**Event Date & Time**

> BUY PRODUCTS

**STEP 5**

**Set up Holding Area**

> BUY PRODUCTS

**STEP 6**

**Set Event Targets**

> BUY PRODUCTS

**STEP 7**

**Take BEFORE Photos**

> BUY PRODUCTS

**STEP 8**

**Tag Unneeded Items**

> BUY PRODUCTS

**STEP 9**

**Evaluate Tagged Items**

> BUY PRODUCTS

**STEP 10**

**Disposition Items**

> BUY PRODUCTS

**STEP 11**

**Take AFTER Photos**

> BUY PRODUCTS

**STEP 12**

**Congratulate the Team**

> BUY PRODUCTS

**STEP 13**

**Sustain SORT with TED**

> BUY PRODUCTS



# SET IN ORDER

Set In Order is all about the old adage *“A place for everything and everything in its place”*.

Set In Order can be defined as arranging needed items so that they are easy to use and labelling them so that they are easy to find and put away.

**Step 1 - Identify the frequency of items are used** - The first step (as a Team) is to review the job (process or product) that is performed in the area and identify the frequency in which the tools and equipment are used.

- Store items together if they are used together
- Store them in the sequence you use them in
- Store items according to their function so if they do similar things store them together
- Eliminate multiple items that do the same thing and use a single one that does multiple function
- Make storage places larger than items stored there so it's easy to remove and put them back
- Make storage places accessible and comfortable to use

**Step 2 - Identify designated locations** - The most frequently used items should be placed closest to where the job is being performed and within easy reach.

- Store items together if they are used together
- Store them in the sequence you use them in
- Store items according to their function so if they do similar things store them together
- Eliminate multiple items that do the same thing and use a single one that does multiple function
- Make storage places larger than items stored there so it's easy to remove and put them back
- Make storage places accessible and comfortable to use

**Step 3 - Think Ergonomics** - Make sure to consider the principles of ergonomics when determining where to locate equipment and supplies.

- Maintain comfortable posture and position
- Minimise lifting and motion.
- Use principle of gravity instead of muscle.

Having designated locations for everything needed in the work area enables employees to exert visual control over their operations. At a glance, employees are able to see if things are in-place or out-of-place and if more materials, supplies or tools need to be ordered.

**Step 4 - Visual Controls** - Create visual cues to reinforce location of supplies and equipment by using techniques such as:

- Labels on shelves
- Tapped off sections of floor for positioning of items
- Shadow boards outlining placement of key equipment
- Colour coding
- KANBAN bins to show inventory levels
- Directional signage
- Floor tape or paint indicating pedestrian paths, off limits or hazardous areas.
- Parts dividers



Gauge Highlighting:

- **Red** - Failure mode
- **Yellow** – Warning/execute control plan
- **Green** - Normal



[BUY Tool Shadow at Fabufacture](#)

**Step 5 - Lighting** - Whilst you are improving your visual controls you may also want to think about improving the lighting in the area.

Proper workplace lighting is essential to any good business as it:

- allows employees to comfortably see what they're doing, without straining their eyes or bodies
- makes work easier and more productive
- draws attention to hazardous operations and equipment
- helps prevent costly errors and accidents

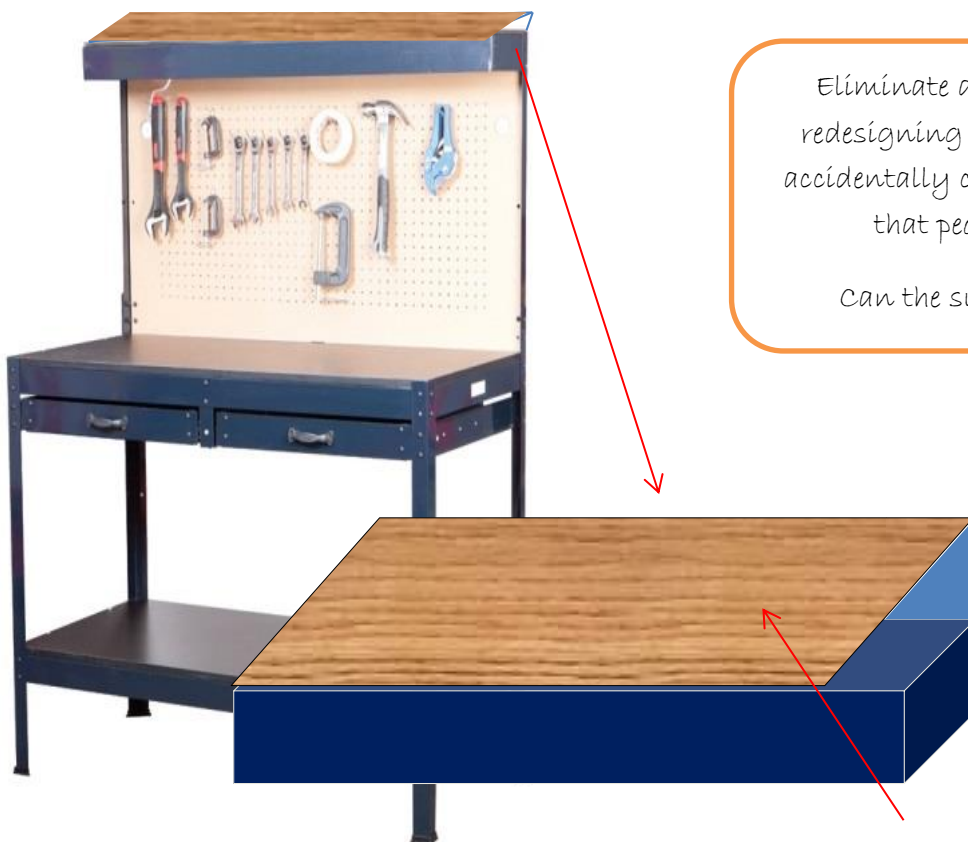
**Step 6 - Evaluate the work area space** – Review the job being performed and ask the question “ *Does the operator need that much space?* ” Often the answer to this question is NO. Two objectives can often be achieved here:

- 1) Freeing up floor space
- 2) Reducing the amount of work surface used

**Floor Space** – is an expensive asset and freeing up floor space is considered as one of the major financial quick hits that can be gained from 5S. Calculate the cost per sqm or sqft in your facility and present the financial cost saving to your management. It could even result a decision to be made to bring more work into the facility or prevent the facility from relocating in some circumstances.

**Reduction in work surface (Work benches and tables)** – This ideology works in any office or production environment. By considering the minimum (comfortable) level of work surface required, you can minimise the likely hood of people collecting ‘stuff’. If there’s nowhere to collect and hoard, then the benches and tables should stay tidy and SORT should be sustained.

In some instances, it’s even possible to eliminate traditional work bench surfaces all together.



*Eliminate accidental shelving – When redesigning work areas, be careful not to accidentally create additional flat surfaces that people can store items on.*

*Can the surface be angled / sloped?*



Sloping surface to prevent storing items

**Step 7 - Set a Visual Standard** - Once the Set In Order has been completed, take photos to show the standard in the area. Display this standard in the area so everyone can see it.



# SHINE

Shine means sweeping floors, wiping off machinery, and generally making sure everything in the factory or workplace stays clean. In a manufacturing company, Shine is closely related to the ability to turn out quality products. Shine also includes saving labour by finding ways to prevent dirt, dust and debris from piling up in the workshop.

Shine should be integrated into daily maintenance tasks to combine cleaning checkpoints with maintenance checkpoints. There are three aspects of Shine: getting the work area clean, maintaining its appearance, and using preventive measures to keep it clean

**Step 1 - Clean your work area completely** – Clean the area from top to bottom. Treat the initial clean as a kind of spring clean. Ensure that all work benches, tables, equipment and all other items are cleaned thoroughly.

**Step 2 - Maintaining its appearance** - Once the cleaning has been completed, take photos to show the new standard for cleanliness in the area. Display this standard in the area so everyone can see it.

**Step 3 - Preventive measures** – Use a cleaning (Shine) schedule with specific owners to ensure that the area is kept clean. Nominate an independent person to audit the area and give it a score.



*Painting the work area in light grey floor paint really enhances the work area, making the environment much more pleasant to work in. It also makes it easier to see what items are out of place and it's easier to keep the floor clean.*



[BUY Floor Tapes at Fabufacture](#)

# STANDARDISE

The three steps to making SORT, SET IN ORDER and SHINE activities (the three pillars or 3S) a habit are:

**Step 1** – Decide who is responsible for which activities with regard to maintaining 3S conditions.

**Step 2** – To prevent back sliding, integrate 3S maintenance duties into regular work activities.

**Step 3** – Check on how well 3S conditions are being maintained.



# SUSTAIN

Within the context of the five pillars, Sustain means making a habit of properly maintaining correct procedures.

The implementation of the sustain pillar is different from that of the Sort, Set In Order, Shine and Standardise pillars in the sense that the results are not visible and cannot be easily measured.

Commitment to it exists in people's hearts and minds and their behaviour shows its presence.

Steps you can take:

**Step 1** - Create a 5S poster with in-house examples.

**Step 2** - Develop a practical 5S auditing tool.

**Step 3** - Display 5S metrics.

**Step 4** - Develop a storyboard to display good results "a picture is worth a thousand words".

**Step 5**- 5S newsletter can be centred around in-house improvements and to communicate new 5S conditions.

**Step 6** - Setup a 5S communication board with 5S map to involve all employees.

**Step 7** - Develop in-house 5S manual that to explain examples for each of the 5S steps.

**Step 8** - If areas have been improving maybe take 10 minutes and arrange for in-house tours to show off to others great examples of 5S.