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5S / Visual Workplace Handbook

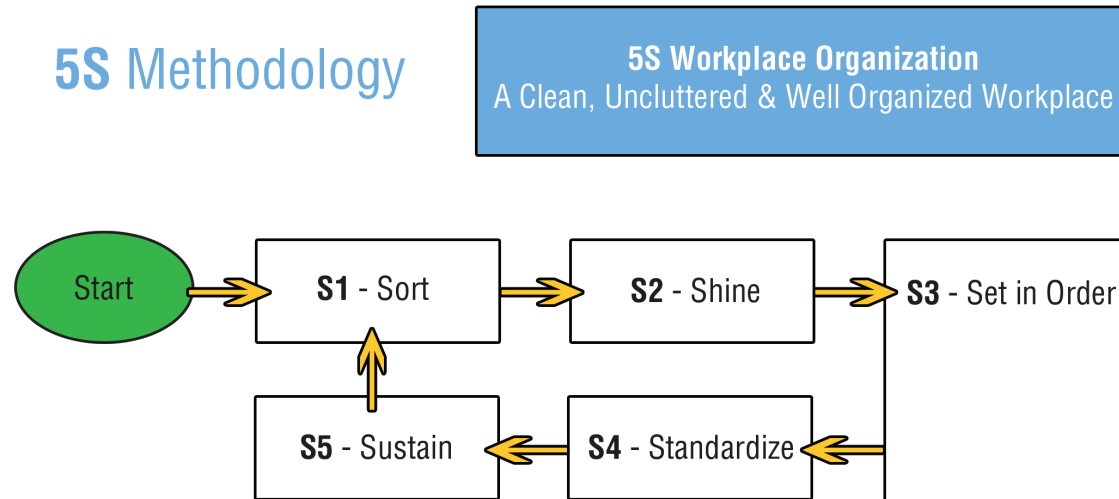
Building the foundation for continuous improvement

SORT
SHINE
SET IN ORDER
STANDARDIZE
SUSTAIN

5S WORKPLACE ORGANIZATION

5S is one of the most widely adopted techniques from the lean manufacturing toolbox. Along with Standard Work and Total Productive Maintenance, 5S is considered a “foundational” lean concept, as it establishes the operational stability required for making and sustaining continuous improvements.

The primary objective of 5S is to create a clean, orderly environment- an environment where there is a place for everything and everything is in its place. Beyond this, many companies begin their lean transformation with 5S because it exposes some of the most visible examples of waste it also helps establish the framework and discipline required to successfully pursue other continuous improvement initiatives.



Target Outcomes and Benefits

- Reduce non-value adding activity
- Reduce mistakes from employees and suppliers
- Reduce time for employee orientation and training
- Reduce search time in navigating the facility and locating tools, parts and supplies
- Reduce parts stored in inventory, and associated inventory carrying costs
- Reduce unnecessary human motion and transportation of goods
- Improve floor space utilization
- Improve employee safety and morale
- Improve product quality
- Extend equipment life through more frequent cleaning and inspection

5S produces measurable benefits. One of the surest ways to identify these benefits is to establish and track specific metrics. For example, measure the time required to locate items in the workplace before 5S and then measure the time required after the workspace has been improved. Longer term benefits can also be measured by monitoring the amount of workplace injuries reported after 5S has been implemented. Not only may workplace injuries decrease, but training costs may, too. It is easier and faster to train employees in a work area that is orderly and well marked.

Another way to measure 5S benefits in the workplace is to take pictures. Pictures are very effective at visually highlighting the improved appearance and order in the workplace. Concrete measurements are a complement to the pictures, fueling the momentum needed to sustain 5S.

WHAT IS VISUAL WORKPLACE?

Visual Workplace - also known as Visual Factory or Visual Management – is a lean concept that emphasizes putting critical information at the point of use. Visual systems and devices play a critical role in many of the most popular lean tools, including 5S, Standard Work, Total Productive Maintenance, Quick Changeover, and Kanban (Pull Production). In fact, Visual Workplace serves as the key sustaining force for these initiatives, because it ensures that lean and six sigma improvements remain clearly visible, readily understood, and consistently adhered to long after the Kaizen or rapid improvement event is over.

A visual workplace is a work environment that is self-ordering, self-explaining, self-regulating and self-improving – where what is supposed to happen does happen, on time, every time, because of visual solutions.

From “Visual Workplace, Visual Thinking” by Dr. Gwendolyn Galsworth, www.visualworkplace.com

Companies are often surprised to learn that only a fraction of their activities actually add value for their customers. It's not uncommon that 50% or more of a facility's activities are considered waste!

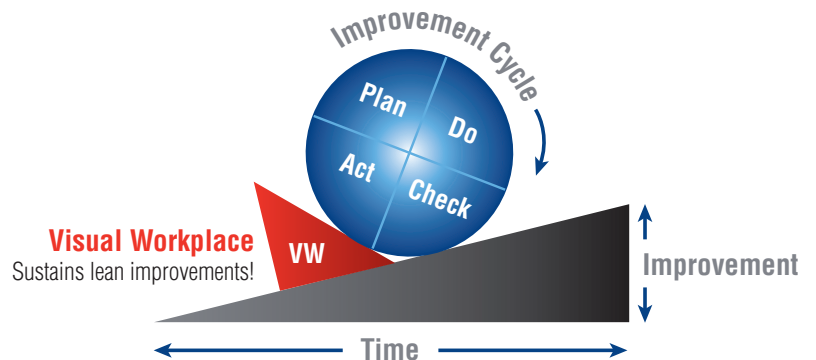
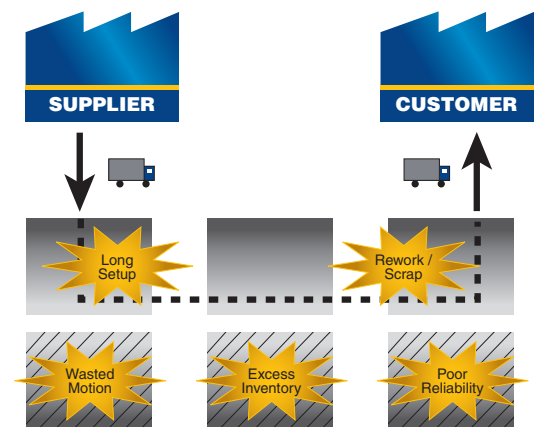
A primary cause of waste is information deficits – employees simply lack the knowledge they need to do their jobs efficiently and effectively. This leads employees to waste valuable time and motion searching, waiting, retrieving, reworking or just plain giving up! A visual workplace eliminates questions, generating significant improvements in productivity, quality, customer satisfaction, safety, and more.

Visuals Critical To Lean Success

Successful lean initiatives start by establishing a base of operational stability. After all, you can't make lasting improvements on a base of chaos. By reinforcing standards and highlighting abnormalities at a glance, visuals support the foundational concepts of 5S, Standard Work, and Total Productive Maintenance, which are used to stabilize the work environment, work methods, and equipment performance.

Once a stable operating base has been established, the next step is to implement a kaizen-style improvement program that continues to raise the bar in operational excellence. At this stage, creating a visual workplace becomes even more critical, since a continuously improving work environment is also a constantly changing one. Experienced lean practitioners know that keeping employees informed of evolving best practices and preventing the natural tendency to revert back to old habits is a major hurdle. The use of visuals helps to ensure that the new standards remain clearly visible, readily understood, and consistently adhered to by all employees long after the lean blitz or rapid improvement event is over.

VALUE STREAM MAP:



S1 – SORT

Sort refers to the practice of going through all the tools, materials, etc., in the work area and keeping only essential items. Everything else is either stored offsite or discarded. This leads to fewer hazards and less clutter.



The goal is to eliminate nonessential items from the workplace. Items are “red tagged” and stored in a local red tag area for a specific period of time, typically five days. If not reclaimed by the work group, items are then moved to one of the company’s central red tag areas. Here everyone can sift through the items to see if there is anything they need. When items have been in the central area for a specific period of time, the company disposes of them through resale, donation, recycling, or trash.

Establishing red tag criteria prevents confusion among workers and reduces wasted effort. The team should discuss and create guidelines on how to decide what stays and what goes.

Frequency of use is the fundamental red tag criteria. To that end, a team may ask the following questions:

- What is this?
- When did you last use it?
- Is it critical or unique for the department?
- If its inventory, is this the minimal amount needed to keep up with the production schedule?

In order to implement S1-Sort, there are action steps that need to be taken in order to guarantee success.

- Select a 5S application area and take “before” pictures.
- Review sorting criteria – recommended criteria are frequency of use, criticality, and quantity needed for production.
- Create a red tag area – mark off a corner or space to identify it as the local red tag area.
- Tag, record, and move items to the red tag area – keep records so that the company can track assets.
- Take “after” pictures of the uncluttered work area and red tag area.
- Items not reclaimed by the work group within a set amount of days are moved to the company’s central red tag area.

JOB AID - SORT

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| <p>Definition - Sort Eliminate nonessential items from the workplace.</p> | <p>Target Outcome An uncluttered workplace.</p> |
| <p>Action Steps</p> <ol style="list-style-type: none"> 1. Identify a 5S-project area and take “before” pictures 2. Review sorting criteria 3. Create a local red tag area 4. Tag, record, and move red tagged items 5. Take “after” pictures 6. After target time, move unclaimed items to the central red tag area | <p>Resources</p> <ol style="list-style-type: none"> 1. Red Tags 2. Red Tag Record Forms 3. Camera for “before” and “after” pictures <p>Some companies create a central storage area for 5S supplies and designate a 5S coordinator to manage supply stock.</p> |
| <p>Progress Check</p> <p>___ Team clear on workplace boundaries</p> <p>___ Red tag final approval authority identified (e.g. item can/cannot be red tagged)</p> <p>___ Sorting criteria established (e.g., frequency of use; actual quantity needed-no buffer)</p> <p>___ Time allocated for Sorting is clearly defined (e.g., one hour)</p> <p>___ Local red tag area designated with red floor marking tape or comparable boundary</p> <p>___ Red tags and red tag log form available</p> <p>___ “Before” pictures taken (remember camera angles so that pictures are consistent)</p> <p>___ Nonessential items identified and red tagged</p> <p>___ Every nook, cranny, cabinet, desk, drawer, and closet investigated</p> <p>___ Red tagged items moved to local red tag area</p> <p>___ Red tag log form updated</p> <p>___ Plans in place for items to be moved to central red tag area after target number of days</p> <p>___ “After” pictures taken</p> | |
| <p>Tips</p> <ul style="list-style-type: none"> • Go overboard on communication. Make sure management and employees in the target area are notified, when the red tagging will occur, and so forth. • Remove anything from the core work area that’s not used at least weekly. • Eliminate waste by minimizing the following: <ul style="list-style-type: none"> - Inventory: raw materials, parts, in-process inventory, and products. - Equipment: machines, jigs, tools, carts, desks, chairs, dies, vehicles, fixtures, etc. - Space: floor area in the core work area, storage racks, totes, bins, shelving, etc. • Don’t remove anything without the local work group’s approval. Zealous 5S’ers can undermine support by barging ahead insensitively. It’s better to compromise on some things than to jeopardize the 5S mission. However, be persuasive when appropriate, when something is clearly a source of waste or is used infrequently. | |

S2 – SHINE

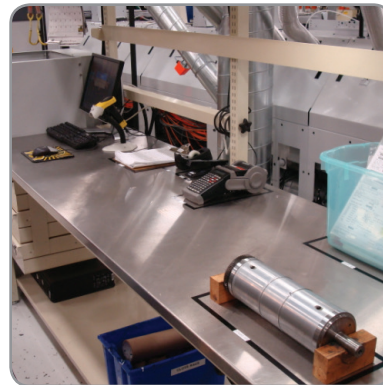
The S2-Shine step includes three primary activities which include getting the workplace clean, maintaining its appearance, and using preventative measures to keep it clean.

Shine the workplace by eliminating dirt, dust, fluids, and other debris. Each team member should be equipped with adequate cleaning supplies that have been tested to make sure the solution will not harm any equipment or work areas. Teams can clean things such as equipment, tools, work surfaces, desks, storage areas, floors, lighting, and anything else that affects overall cleanliness. A team may also paint or coat work surfaces, equipment, floors, and walls.

Treat cleaning as an inspection process. Use it to identify even tiny abnormal and pre-failure conditions. Working in a clean environment enables workers to notice malfunctions in equipment such as leaks, vibrations, breakages, and misalignments. The Shine process should not be left for a special janitorial crew. In order to make sure everyone participates and works together, each team should establish a regular schedule for routine cleaning as well as deep cleaning.

Once the work area, tools, and equipment are clean, they need to be kept that way. Continued housekeeping is one way to keep the work area clean, but the better method is to prevent things from getting dirty in the first place. Find ways to keep the workplace clean by eliminating sources of contamination. Root cause analysis, mistake-proofing, and the use of preventative measures are important to keep the workplace clean and orderly.

Equipment that is kept clean performs more efficiently, has less unscheduled downtime, and reduces costs to the company. Many organizations find that safety and productivity improve as regular maintenance and housekeeping become the norm.



Follow these action steps to guarantee success.

- Define “clean” – you may face conflicting definitions for clean within your work area. Find a definition that everyone supports.
- Get cleaning supplies – be sure to identify appropriate cleaning supplies for your work area. Some cleaning solutions may harm equipment while other cleaning instruments may harm metals, photo cells, or tooling. Consult sanitation specialists for guidance.
- Take “before” pictures – a record of your current state often generates the motivation to keep things clean.
- Clean the work area – share the work load among the group.
- Eliminate small imperfections through cleaning and inspecting activity.
- Take “after” pictures – use photographs to demonstrate your results.

JOB AID - SHINE

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| <p>Definition - Shine Remove dirt and debris, inspect equipment and eliminate sources of contamination</p> | <p>Target Outcome A clean workplace - one that shines, and that minimizes sources of contamination</p> |
| <p>Action Steps</p> <ol style="list-style-type: none"> 1. Define “clean” 2. Get cleaning supplies 3. Take “before” pictures 4. Clean the work area 5. Fix small imperfections 6. Identify contamination sources 7. Take “after” pictures | <p>Resources</p> <ol style="list-style-type: none"> 1. Cleaning supplies such as brooms, dust pans, rags, degreasers, and floor cleaner. 2. Personal protective equipment such as gloves and eye protection. Do not wear jewelry that can get caught in the equipment. |
| <p>Progress Check</p> <p>___ Team has established their definition for “clean” in the target workplace</p> <p>___ Cleaning supplies collected</p> <p>___ Housekeeping staff consulted about cleaning agents</p> <p>___ Personal Protective Equipment (e.g., gloves, safety glasses) distributed</p> <p>___ Equipment shutdown or locked out to prevent safety risks</p> <p>___ Potential safety risks (e.g., metal shavings, sharp edges) identified before cleaning</p> <p>___ “Before” pictures taken (remember camera angles so that pictures are consistent)</p> <p>___ Cleaning tasks completed</p> <p>___ “After” pictures taken</p> <p>___ Observations shared among team members about inspection activity</p> | |
| <p>Tips</p> <ul style="list-style-type: none"> • Identify target areas for cleaning. • Consider doing the initial Shine process in waves. Do a first pass that addresses the biggest challenges. Use additional passes to get successively better. • Remember that an important part of cleaning is inspection. As you get the work area clean, look for sources of potential problems and contamination. • Once dirt, dust, grime and debris have been eliminated, consider painting surfaces or sealing them with a protective coating. You’ll be amazed by the visible difference. • How will cleanliness be sustained when the initial 5S project is complete? Record key cleaning points and recommendations as you’re wrapping up the Shine process. The information will come in handy in S4-Standardize. • A thorough cleaning process includes the obvious equipment and work surfaces, but also includes parts, storage racks, tools, instruments, transportation vehicles, desks, chairs, walls, windows, closets and lighting. In short, clean everything and everywhere in the workplace. | |

S3 – SET IN ORDER

Planning Phase

In S3 Set In Order, team members come together and share the insights they have gained during S1 and S2. They analyze the work area for additional improvement opportunities and look for ways to reduce sources of waste and error as well as to make the workplace more visually instructive. The team brainstorms potential solutions, with special emphasis on using visual resources to achieve improvement. Be sure to get feedback and approval from stakeholders (production, maintenance, safety, management, etc) before making changes.

Use the focus points below to guide efforts to redesign the workplace for improved performance.



Facilities/equipment/tools: Focus is on organizing and labeling facilities and equipment.

- Make sure utility pipes, conduits, compressed air hoses, gas cylinders and electrical systems are clearly named and labeled to simplify line tracing.
- Operator tools should be kept near the point of use, organized and labeled.
- Gauges and indicators should be marked so abnormalities can be detected at a glance.



Safety: Focus is on alerting people to potentially hazardous situations and controlling actions to prevent an unsafe condition.

- Provide hazard warnings and safe work instructions at the point of need.
- Make sure that locations for lockout/tag out devices, eye wash stations, first aid stations, and safety showers, etc., are clearly marked.
- Ensure that the proper personal protection equipment is easy to access and ready for use.



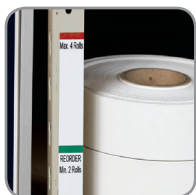
Procedures: Focus is on employee's ability to execute job responsibilities within a given workplace.

- Make certain that the latest version of work instructions and job aids are posted.
- Employ visual or auditory signals that alert operators to abnormal conditions.
- Use mistake-proofing devices to prevent human and machine errors.



Quality: Focus is on graphically or physically representing quality standards.

- Quality standards should be visually designed and properly displayed.
- Post examples of acceptable and unacceptable outputs in a common area.
- Visually display quality performance trends.



Inventory/Material Handling: Focus is on effective identification of production and MRO materials, storeroom organization, and material movement. Clearly mark:

- Line side inventories (inventory type, max/min quantity, location, etc.).
- Storerooms (shelf, rack and bin labels, restocking indicators, barcoding, etc.).
- Inventory delivery routes and replenishment procedures.

JOB AID - SET IN ORDER - PLANNING PHASE

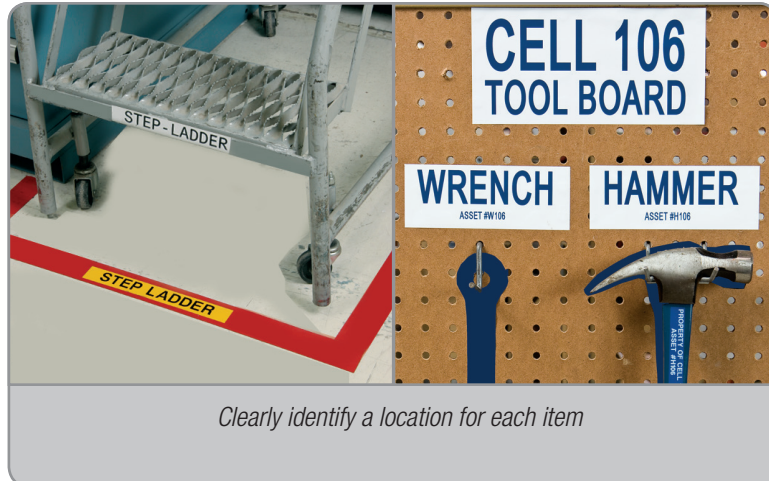
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| <p>Definition - Set In Order Evaluate the workplace and add smart workplace features.</p> | <p>Target Outcome A workplace that is visually instructive and is the source of minimal waste and human errors.</p> |
| <p>Action Steps</p> <ol style="list-style-type: none"> 1. Create a current state workplace diagram. 2. Team shares insights gained during S1 & S2 3. Evaluate current workplace 4. Create a future state workplace diagram 5. Get approval for change from stakeholders | <p>Resources</p> <ol style="list-style-type: none"> 1. Flip charts for creating current and future state diagrams 2. CAD system (optional) to draw workplace to scale 3. Camera 4. Stakeholders (i.e. production, maintenance, safety) to consider proposed changes |
| <p>Progress Check</p> <p>___ Insights gained during S1 and S2 shared among team members</p> <p>___ Improvement opportunities listed, discussed, and prioritized</p> <p>___ Waste reduction ideas (e.g., excess motion, material handling, etc.)</p> <p>___ Error reduction ideas (e.g., checklists, visual instructions, or color coding)</p> <p>___ Ideas for making the workplace more visually instructive</p> <p>___ Ideas to overcome challenges and problems identified by stakeholders</p> <p>___ Target benefits of proposed changes clearly defined</p> <p>___ Future state workplace diagram drawn</p> <p>___ “Before” pictures taken</p> <p>___ Approval from stakeholders obtained</p> | |
| <p>Tips</p> <ul style="list-style-type: none"> • Sketch ideas on flipchart or paper to build understanding and evaluate them. • Cellular workflow has many benefits. Consider it if the workplace is not currently organized that way. • Revisit the workplace to evaluate the viability of proposed changes. • Involve stakeholders (immediate work area and others) in thinking through changes. • Be sensitive to the concerns and reservations of stakeholders; they know the area best. • Quantify the impact of the changes. | |

S3 – SET IN ORDER

Implementation Phase

S3's Implementation Phase includes establishing features in the workplace that make it clear that there's a place for everything and that provide visual signals to help people succeed. It focuses on the need for arranging tools and equipment in an order that promotes optimum work flow.

Having designated locations for all items in the work area enables employees to take control over their operations. Employees will be able to immediately see if things are out of place and if more materials, supplies, or tools need to be ordered.



In order to successfully implement S3, there are common actions that need to be performed.

- Place borders around equipment and objects that rest on the floor. This clearly identifies the location of equipment and also warns people passing by not to get too close.
- Use an address system to identify plant locations, storage areas, and shelf locations.
- Label tools, fixtures, jigs, etc., for easy cross-identification with storage location markings.
- Where possible, use pictures and graphics to facilitate recognition. Employees can implement this aspect of S3 by placing parts or images of parts above storage locations or creating shadow profiles on tool boards (see above image).

The steps in S3 – Set In Order: Implementation Phase include:

- Take “before” pictures. This is your last chance to capture the past before you move towards the future.
- Implement workplace changes. Plan to do...do the plan. Now is the time to implement your changes. Be sure to involve necessary company personnel, such as skilled trades, plant maintenance, engineering, quality, etc.
- Set locations by creating addresses and applying labels, markings, and color coding. Verify or create standards for colors and character size before setting in order. See the person in charge of facilities or maintenance for input.
- Take “after” pictures. Take lots of pictures – they memorialize your success and serve as a valuable company record.

JOB AID - SET IN ORDER - IMPLEMENTATION PHASE

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| <p>Definition - Set In Order Create a well-ordered, visually instructive workplace.</p> | <p>Target Outcome A workplace that is visually instructive and is the source of minimal waste and human errors.</p> |
| <p>Action Steps</p> <ol style="list-style-type: none"> 1. Take “before” pictures 2. Implement workplace changes 3. Mark locations by creating addresses and applying labeling, marking, and color-coding 4. Take “after” pictures | <p>Resources</p> <ol style="list-style-type: none"> 1. Existing plant standards for labeling, marking, and color-coding 2. Labeling supplies 3. Tape for creating borders on work surfaces and floors 4. Paint and painting supplies |
| <p>Progress Check</p> <p>___ “Before” pictures taken</p> <p>___ Plant Marking standards determined (see facility, maintenance, or operations manager)</p> <p>___ 5S team clear on plan (e.g., goals/tasks/assignments on a flipchart)</p> <p>___ Reorganization tasks completed (e.g., equipment moved, inventory relocated)</p> <p>___ Set In Order/Plant Marking and Identification supplies collected</p> <p>___ Marking and Identification tasks completed, for example:</p> <p>___ Floor borders for walkways, workways, and storage locations</p> <p>___ Work surface borders</p> <p>___ Equipment and tools labeled</p> <p>___ Inventory and finished goods locations marked and/or color coded</p> <p>___ Tanks, pipes, valves, motors, electrical panels labeled or tagged</p> <p>___ “After” pictures taken</p> | |
| <p>Tips</p> <ul style="list-style-type: none"> • Create a work area map before setting locations. Consider alternatives and draw them on the map to verify effectiveness. Consider them thoughtfully before setting locations. • Consider engaging people outside the work team in setting locations. Consult mechanics, electricians, and specialists in sanitation, safety, quality, production scheduling, and accounting in order to tap their ideas and resources. • Remember that mechanics, electricians, and technical contractors are stakeholders for your reset initiative. Make sure their interests are addressed. • Your Brady representative is also a great source for Set In Order ideas and supplies. | |

S4 – STANDARDIZE

During this phase of implementation, the team identifies ways to establish the improved workplace practices as a standard. The goal of standardization is to create best practices and to get each team member to use the established best practices the same way.

| | Activity | Responsibility |
|---|---|----------------|
| 1 | Sweep the entire area at the end of the shift | See Rotation |
| 2 | Put away any material that was removed from its assigned storage location | Kevin |
| 3 | Take empty pallets out of the area and store in an appropriate location. | Team |
| 4 | Empty garbage's as needed at the end of every shift | See Rotation |
| 5 | Restock materials from overflow area when space permits | Kevin |
| 6 | Move full pallets to designated areas away from shipping dock | Team |

| Rotation Schedule | Sweeping | | Garbage Removal | |
|-------------------|-----------|-------------|-----------------|-------------|
| | Day Shift | Night Shift | Day Shift | Night Shift |
| Monday | Diego | Luis | Rudy | Norbert |
| Tuesday | Lando | Norbert | Kevin | Luis |
| Wednesday | Edwin | Curtis | Rick | Curtis |
| Thursday | Rick | Luis | Diego | Norbert |
| Friday | Ron | Norbert | Lando | Luis |

In order to standardize, roles and responsibilities must be clearly and consistently applied. This can be accomplished through visual controls such as color-coding, flow charts, checklists, and labeling to help reinforce a uniformed approach.

Managers and supervisors need to commit to the initiative in order to provide guidance, as well as to provide general support to the team. Team members in return must embrace 5S principles and practices in order to help implement these changes into their work area.

As 5S standards are adopted into each individual work area, each locale will develop unique approaches and methods to accomplishing the specified tasks and goals. Any team member working in a specific area must receive training in that specified approach and method of work. Where possible, the tools used to standardize and sustain the 5S effort should be unified across all areas of the plant.

Action steps for implementing S4 – Standardize include:

- Brainstorm ideas for making the 5S changes standard operating procedure. That may mean updating workplace procedures, checklists, job aids, diagrams and the like.
- Update documentation to reflect the changes. If your company has an ISO Coordinator, get the person involved to assure compliance with ISO requirements.
- Make sure all stakeholders are aware of the new standard – inform and educate.

JOB AID - STANDARDIZE

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| <p>Definition - Standardize Establish standards to maintain 5S improvements.</p> | <p>Target Outcome Develop procedures, checklists, and other mechanisms established to maintain a work environment that is visually instructive, has minimal waste and human error, and is clean, uncluttered, and organized.</p> |
| <p>Action Steps</p> <ol style="list-style-type: none"> 1. Brainstorm ideas for making the 5S changes standard operating procedure 2. Update documentation to reflect changes 3. Make sure all stakeholders are aware of the new standards - inform and educate | <p>Resources</p> <ol style="list-style-type: none"> 1. Support from those who can create documentation, job aids, and visual aids 2. Information and approval from those responsible for maintaining company procedures 3. Poster-making supplies for posting new standards in work areas |
| <p>Progress Check</p> <p>___ Ideas generated for establishing changes as standard operating procedure</p> <p>___ Input solicited from those who create and maintain plant documentation</p> <p>___ Documentation created or updated, for example:</p> <p>___ Workplace diagrams</p> <p>___ Flowcharts</p> <p>___ Procedures</p> <p>___ Work instructions</p> <p>___ Job aids</p> <p>___ Miscellaneous visual aids</p> <p>___ Information and/or training provided to stakeholders to assure understanding</p> | |
| <p>Tips</p> <ul style="list-style-type: none"> • Network with others engaged in the same activity. Collaborate to establish common approaches for creating documentation, visual aids, etc. • Tap your company's graphics staff or people with strong computer skills to help with visual aids. Provide them with a rough sketch or an example from a technical manual or catalog. • If your company is an ISO company, be sure to involve your ISO coordinator to assure compliance with ISO requirements for postings and documentation. <p>Having an organized facility marking program (standards for markings, color coding, etc.) is integral to 5S success. Otherwise, each 5S team does its own thing and the visible effect is a haphazard approach that could cause problems for everyone. Consult your Brady representative for guidance about an organized facility marking program.</p> | |

S5 – SUSTAIN

The purpose of S5-Sustain is to maintain the momentum generated during the initial event or project. A management auditing process should be put into practice to ensure that employees understand that maintaining the level of workplace organization is a top priority. Management audits should focus on ensuring that the routines and schedules specified in S4 Standardize are being properly maintained. The audit also provides an excellent opportunity for asking questions and providing suggestions that stimulate further improvements.

| 5S Housekeeping Score Sheet | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|--|
| Site Location Audited: Tech Support - Good Hope Facility | | | | | | | |
| Date: _____ Auditor: _____ | | | | | | | |
| | NA | 0 | 1 | 2 | 3 | 4 | Description of Area |
| Sort | | | | | | | |
| 1 | | | | | | | No old or unnecessary materials in area. |
| 2 | | | | | | | Empty / unused ribbons/materials are out of the area. |
| 3 | | | | | | | Free of unnecessary equipment, furniture and personal items. |
| Set In Order | | | | | | | |
| 4 | | | | | | | Printers, batteries and adapters are properly identified and stored in designated area. |
| 5 | | | | | | | Portable and benchtop printer cabinets are clean and organized. |
| 6 | | | | | | | Movable printer carts are in proper location. |
| 7 | | | | | | | Inventory neat, organized and identified. |
| Shine | | | | | | | |
| 8 | | | | | | | Tops of machines, cabinets free of dust and debris. |
| 9 | | | | | | | Floors are clean around the work area. |
| 10 | | | | | | | Benchtop islands are organized and free of unnecessary items. |
| 11 | | | | | | | Work station neat, clean and organized. |
| Standard | | | | | | | |
| 12 | | | | | | | Damaged or non-functional printers / equipment is removed from the area or marked for replacement. |
| 13 | | | | | | | Electrical Panel area unobstructed. |
| 14 | | | | | | | Furniture/chairs/desks are in good condition and clean. |
| Sub Total | 0 | 0 | 0 | 0 | 0 | 0 | |

Next, the 5S effort needs to be expanded to other work areas. Use the 5S'ed work area as a model for emulation, and invite the original 5S team to share their ideas and experiences with employees from other work areas. Be sure to publicize success stories and provide appropriate recognition to team members. 5S newsletters, displays, and awards are excellent ways to build employee morale and motivation.

Finally, it should be reinforced that 5S is an on-going journey. Workers should be encouraged to continue to make improvements to their workplace on a regular basis. The same work area might even be scheduled for a follow-up 5S event six months or a year later. Continuous improvement must become part of the routine expectations and activities of the work day. When improvement stops, the likelihood is that workplace organization will not just stagnate, but will actually deteriorate. To avoid that, keep everyone continually looking for ways to improve their work conditions.

Action steps for implementing S5 - Sustain

- Audit to ensure that processes established during S4— Standardization continue to be maintained.
- Use the phase 1 work area as a model for other areas to match, and have the original 5S team share their insights and experiences with employees in other work areas.
- Use newsletters, displays and other communication tools to publicize successes and reward strong efforts with recognition.
- Evaluate 5S effectiveness and continue to improve. Conduct regular review meetings to identify additional 5S opportunities.

JOB AID - SUSTAIN

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| <p>Definition - Sustain Monitor, expand & refine 5S results</p> | <p>Target Outcome A workplace that automatically restores order, regulates activity, and continuously improves</p> |
| <p>Action Steps</p> <ol style="list-style-type: none"> 1. Monitor processes established during S4 - Standardize 2. Expand 5S efforts to other work areas 3. Evaluate 5S effectiveness and continuously improve 4. Recognize and reward strong efforts | <p>Resources</p> <ol style="list-style-type: none"> 1. Management audit forms 2. Resources for communication and recognizing successes (newsletters, displays, awards) 3. Presentation tools for sharing best practices with other work areas 4. Management commitment and focus on maintaining the new standards |
| <p>Progress Check</p> <p><input type="checkbox"/> Sustain methods clearly defined, with responsibilities and target dates identified</p> <p><input type="checkbox"/> Sustain actions implemented, for example:</p> <p><input type="checkbox"/> 5S teams benchmark with each other and share ideas</p> <p><input type="checkbox"/> 5S teams present projected results within the company and to others</p> <p><input type="checkbox"/> 5S team results published in company communications</p> <p><input type="checkbox"/> 5S teams visit other companies to get new ideas</p> <p><input type="checkbox"/> Company leaders conduct 5S audits to see accomplishments and opportunities</p> <p><input type="checkbox"/> Miscellaneous visual aids</p> <p><input type="checkbox"/> Ideas generated for continuously improving the company's 5S approach</p> | |
| <p>Tips</p> <ul style="list-style-type: none"> • Establish a calendar for sustaining activities and stick to it. Make it part of the company's operating discipline. • Involve employees in sustaining 5S improvements. Engage them in evaluating areas outside their workplace, providing support for other workplaces, and in visiting other companies that excel. • Establish a 5S resource center to provide 5S supplies for teams so that they can readily sustain and continuously improve their 5S results. • An active management champion and the support of all managers is vital to 5S success. | |

5S / VISUAL WORKPLACE AUDIT FORM

DEPARTMENT: _____
Number/Name

AREA: _____

Supvr: _____

AUDITOR'S NAME: _____
Name *Shift*

DATE: _____

| 1 Sort | | Score | Remarks |
|---------------------|---|--------|-----------------|
| 1 | Is all machinery and support equipment necessary? | 1 or 0 | |
| 2 | Are all tools, gages and instruments necessary or in use? | 1 or 0 | |
| 3 | Are all WIP locations necessary or in use? | 1 or 0 | |
| 4 | Are all racks, shelves, cabinets, etc... necessary or in use? | 1 or 0 | |
| TOTAL POINTS | | | Out of 4 |

| 2 Set in Order | | Score | Remarks |
|----------------|---|--------|-----------------|
| 1 | Is the location for all moveable equipment (including tools and gages) marked? (Floor Taped) | 1 or 0 | |
| 2 | Is the location for all moveable equipment labeled? | 1 or 0 | |
| 3 | Is all moveable equipment labeled? | 1 or 0 | |
| 4 | Are all parts and part containers labeled, in their designated place, and locations clearly labelled? | 1 or 0 | |
| 5 | Are all machines clearly labeled? | 1 or 0 | |
| 6 | Are the interior content of all lockers, cabinets, and drawers labeled and neatly arranged? | 1 or 0 | |
| POINTS | | | Out of 6 |

| 3 Shine | | Score | Remarks |
|---------------|--|--------|-----------------|
| 1 | Is the shop floor clean (including mats and grates)? | 1 or 0 | |
| 2 | Are all machines & support equipment clean & free of debris? | 1 or 0 | |
| 3 | Are the SPC benches, gage tables, & desks clean and neat (including items belonging to these locations)? | 1 or 0 | |
| 4 | Are cabinets clean and free of damage? | 1 or 0 | |
| POINTS | | | Out of 4 |

| 4 Standardize | | Score | Remarks |
|---------------|--|--------|-----------------|
| 1 | Standardized cleaning plan/schedule is posted & followed? | 1 or 0 | |
| 2 | Do gages & instruments have calibration stickers? | 1 or 0 | |
| 3 | Continuous Improvement Activities are evident and ongoing? | 1 or 0 | |
| 4 | Are all crib stock items labeled with part #'s and min/max quantities? | 1 or 0 | |
| 5 | Are the standard responses for missing tools, lower than minimum quantities or cleaning activities not followed? | 1 or 0 | |
| POINTS | | | Out of 5 |

| 5 Sustain | | Score | Remarks |
|---------------|--|--------|-----------------|
| 1 | Is all equipment (including tools & gages) in designated place? | 1 or 0 | |
| 2 | Are all display boards up to date? | 1 or 0 | |
| 3 | Are there excess parts in flow racks or in carts? | 1 or 0 | |
| 4 | Is the team auditing itself weekly and posting results? | 1 or 0 | |
| 5 | Are gages within the allotted calibration date (check at least 5)? | 1 or 0 | |
| 6 | Are all min/max quantities being correctly followed? | 1 or 0 | |
| POINTS | | | Out of 6 |

| | |
|---------------------|------------------|
| | SCORE (%) |
| TOTAL POINTS | Out of 25 |

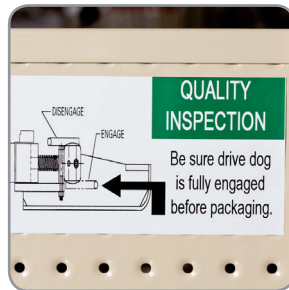
VISUAL WORKPLACE PHOTO GALLERY

The examples on these pages are designed to help you think about how visual devices can benefit different aspects of your lean initiative, improving productivity, profitability, customer satisfaction and employee morale.

Visual Organization



Visual Standards



Visual Equipment

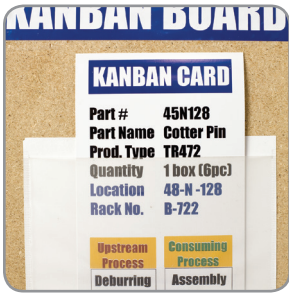


VISUAL WORKPLACE PHOTO GALLERY

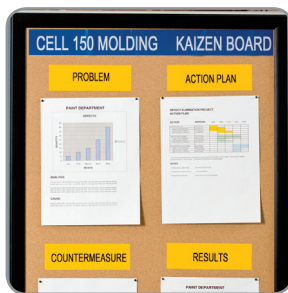
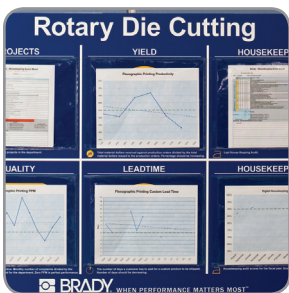
Brady Visual Workplace Solutions

Brady offers products and services that can help you implement these ideas and more. For further information, review the catalog and our website (www.bradyid.com/visualworkplace), or call us at 888-250-3089. Brady has trained representatives locally available and ready to support you with expert advice and assistance.

Visual Production / Process Control



Visual Metrics / Displays



| DATE | 3/10 | 3/17 | MRP 325 | MRP 329 |
|----------------------|------|------|---------|---------|
| BACKLOG DOLLARS | | 0 | 0 | |
| ON TIME % STOCK | 100% | 96.4 | | |
| LEAD TIME CUSTOM | .9 | .9 | | |
| ON TIME % CUSTOM | 85% | 76 | | |
| LEAD TIME CUSTOM | 2.9 | 2.4 | | |
| TOTAL LINES | 64 | 354 | | |
| CYCLE COUNT ACCURACY | | 43 | 66.7 | |
| TOTAL COUNTS | | | 6 | |
| TOTAL ADJUSTMENTS | | | 2 | |
| OPEN ORDERS COGS | 1 | | 8 | |
| QNS | | | 1 | |

Visual Safety



USA
Customer Service: 1-888-272-3946
Inside Sales: 1-888-311-077
BradyID.com

Canada
Customer Service: 1-800-263-6179
BradyCanada.ca

Mexico
Customer Service: 1-800-262-7777
Inside Sales: 1-800-262-7777 ext 177
BradyLatinAmerica.com

