This White Paper defines LEAN manufacturing and describes valuable techniques including 5S and the potential impact on organizational results. Simple and inexpensive tools and methods that contribute to waste reduction, increased efficiency and dramatic improvement in worker satisfaction.
The Philosophy of the Orderly Workplace:
LEAN Manufacturing

If you're reading this, you've probably tried to organize before. You've worked towards a cleaner workplace, and you might have even succeeded – for a short period of time, anyway.

But regardless of past efforts, you're now ready to see permanent change in the way you work. You're ready to create a more profitable workplace that makes it nearly impossible for bad habits to continue any longer.

What is Lean Manufacturing?

Lean Manufacturing is nothing new. It’s a business model that emphasizes eliminating non-value added activities (waste) while delivering quality products on time at least cost. And quite frankly, much of it is common sense. But if it’s so common, why has it never worked for you before, despite your best efforts?

The key is the system, and being able to follow it long-term. It’s not enough to want a clean workplace. It’s not enough to make small changes that are soon forgotten.

“Lean” is a widely used term that covers many industries and many influencers. There’s limitless ways in which you can make your workplace a lean one. Your willingness to customize the system to suit you and your employees is what will make it work. When you ask your employees what kind of changes would make their workday “leaner,” you invite self-autonomy and cooperation to your business.
When employees have say in the way their workspaces are designed, they put themselves into their work. They take pride in the way they use the systems and have more efficient workdays.

You could design workstations to suit your needs without input from your employees. You could impose guidelines that they’ll simply have to follow. But you won’t be able to use the system as intended; to design a workplace that is conducive to waste-free work.

**Why does Lean Manufacturing work?**

The first question to consider is, “What are the benefits of Lean Manufacturing?” There are a great number of benefits to you as an organization, and they include:
When cleanliness, order and organization are built into your workplace, it’s nearly impossible for employees to not have a very productive day. Errors are caught more quickly, as they’ll stick out plainly in contrast to a clean, Lean workplace. Less time is wasted looking for tools and putting materials away.

A poorly designed, unclean workplace naturally slows everyone down. Mistakes are easier to make and more frequent. Stability is rare. Production fluctuates, making administrative duties and planning much more difficult.

Even the messiest of workers hate to work in a disorganized space. Nobody intends to have a workplace that isn’t optimal for working. The hardest part of going Lean is the time between the implementation and the development of habits. When the novelty of the Lean system wears off, old habits reemerge and the workplace can easily deteriorate to a former state.

The Lean system is designed to make the transition into new habits go much more smoothly. Without it, there’s a strong chance your workplace will never see serious change.

You might be concerned that your business cannot afford to take time to train employees to adopt the new system. You might wonder how expensive it would be to optimize your workstations and create a Lean workplace.

The truth is, you cannot afford to waste any more time or materials on mistakes and miscommunications that happen when your company is not systemized for success. You cannot afford to have the growth of your business stunted by waste. The time and costs that you’ll spend now will pay off again and again in the future, long after the new habits have stuck.
Off to a Lean Start

Transitioning from a wasteful workplace to a Lean one can take a few weeks or months that you might not be able to afford to lose in the short term. This is especially true if you’ll have to reorganize, retrain and renovate your company from scratch. It will take the involvement of all of your departments and participation from all of your employees.

The switch can be seamless with the help of an experienced Lean consultant, who can be as involved or uninvolved in your workplace as you like. Typically, your consultant will work by selecting a single department to focus on. Rather than reinventing your entire company, your consultant will implement strategies with a few individuals, who may be assigned to teach the new strategies to other employees in a “train the trainer” activity.

Once the primary trainers have understood and practiced Lean strategies in their work area, the consultant will usually take a more passive role in the change. They’ll be available for advice and direction, but they won’t necessarily train your entire company unless you require a highly involved transition.

Your Lean consultant may evaluate your workplace from time to time after the initial transition. They may help your system stay up to date with changes in production. Outside help will also promote accountability. Your Lean consultant will give you an objective viewpoint and an expert source for bespoke adjustments that suit your workplace as your business grows.
The 5 S’s of Lean Manufacturing

Lean manufacturing depends on the 5 Ss, which you’ll soon become familiar with. Each step is essential in making your workplace more efficient, reduces or eliminates clutter and time wasted by employees looking for information, tools and equipment.

5S also instills pride in employees about their place of work, and ensures that the facility is “tour-ready”, always ready for a customer or client to see. The process of 5S is often described as “A place for everything, and everything in its place”.

- **Sort**: When in doubt, move it out – Red Tag technique
- **Set in Order**: A place for everything and everything in its place
- **Shine**: Clean and inspect or Inspect through cleaning
- **Standardize**: Make up the rules, follow and enforce them
- **Sustain**: Part of daily work and it becomes a habit
Sort:

If it’s not necessary, get rid of it or put it away.

The first “S” is Sort. This means sorting out which items are necessary in your workplace versus those which are not.

Clutter and disarray is commonly made up of items that are simply distracting. They take up room that could be used for storing more useful items, and they slow down your employees both physically and mentally.

Sometimes, you’ll become almost immune to the clutter around you. You’ll get so used to stepping over piles of materials and unused equipment that it will seem invisible. But when you look at your workplace with fresh eyes, you’ll notice something. Looking at clutter is fatiguing. It alters your mood and makes you less productive on a subconscious level. Imagine how your employees feel!

As you begin to transition to the Lean manufacturing philosophy, the first thing you’ll do is get rid of any tools, materials and documents that add no contribution to the value you provide for your customers. Of course, some items aren’t used often, but shouldn’t be discarded. A designated storage bin or closet for rarely useful items will keep clutter out of the workplace.

It’s better to have tools with multiple functions than tools that do only one thing. Sometimes, multi-tools wear out faster because they’re used often, or they cannot do the job as well as a single-use tool. At other times, it’ll be worth it to invest in a high-quality tool that can handle many jobs without sacrificing quality of work.
Some items can be cleared away immediately, such as outdated sticky notes and dried-out markers. Large pieces of equipment and heavy materials require individual trips. The best way to handle items to be discarded later is to use the Red Tag System.

**What’s the Red Tag System?**

The Red Tag System is just what it sounds like. You’ll have a neat stack of red paper tags. You or a manager will take a tour of the workplace, and when you notice something is causing unneeded clutter, you’ll fit it with its own red tag. The tag denotes where the item should go, who is responsible for it, and how it should be handled.
“Sort” is similar to spring-cleaning, but you’ll work on it constantly. At first, you’ll have a lot of trash to get rid of at once. As time goes on, you and your employees will make a habit of red-tagging items the moment they become redundant.

**Set:**

**Have everything in working order.**

You can’t expect your employees – or you, for that matter, to perfectly implement every aspect of the Lean manufacturing philosophy every day. Humans are imperfect, so that’s why we have systems. The more perfect the system, the closer you and your employees can be to making perfectly executed changes. Set means reorganizing the workplace to be fully optimized for work.

Tools that are used several times every day should be kept in closest proximity. They could be kept on your person, on a tool belt or in a holster.
When frequently used tools are out of reach, you’ll waste time and money looking for them.

Tools that are used less often should still be within easy reach, but the most often used item should take priority. Items that are rarely used should be kept out of sight; if they’re not often used, they are distracting and take away from the quality and productivity of your workplace.

**Why labels work**

Everything should have a place. Labels are a major companion to Set because they make organizing easy, even for new and unacquainted workers. Besides, it’s much easier to obey new working standards when you have labels and designated spots for every tool. You’ll be much more likely to abide. It’s more difficult to lazily stuff a hammer in a nails drawer when the drawer is labeled “nails.”

When you have many small compartments, color-coding helps distinguish without the permanency of labels. You may also use color-coding to separate documents into slots that indicate their level of urgency.

**Shine:**

*Keep everything clean.*

Once you have red-tagged anything that is not used often, and set your workplace to accommodate your work, you’ll need to kick-start an upkeep program. You might have a janitorial staff, but it’s not their job to keep your employee’s personal work items in order.
Employees need to know their responsibility regarding the cleanliness of their workplaces. The working areas should be uniform. There shouldn't be desks that are messier than others. You might decide that each employee will spend the last 20 minutes of every shift cleaning and tidying up.

Each day, your workplace should be clean and presentable. As mentioned earlier it should be “tour-ready” at all times. Regardless of what day of the week it is, your workplace should look its very best.

Provide trashcans, cleaning solution and maintenance tools within reach so they will be used often. It would be difficult for employees to start cleaning each day if they have to fetch cleaning materials from a supply closet that they never visit. Keep the cleaning tools within sight, where they will be each day.
Standardize:

Set the rules you will follow.

The concepts of “clean” and “organized” are subjective. As it is, your workplace might be much more organized than your home. It might not have any obvious clutter, and any disarray might be confined to drawers and cabinets.

Provide a checklist that your employees will need to tick off at the end of their workday. A physical list of requirements makes it easy to stay consistent and it makes your guidelines much more meaningful.

So, you will need to set guidelines for yourself, your managers and your employees to follow. If you feel reluctant to pile on new duties and requirements, remember that a Lean workplace fosters peace of mind and happiness for you, your employees and your customers. Introducing guidelines in a positive way and working with your employees to create a better workplace will make all the difference.
Visual checklists, posters and flyers will keep Lean manufacturing at the front of you and your employee’s minds. Reminders should be highly visual, using diagrams and images rather than blocks of text and data. These materials should be positive, and filled with “dos” rather than “do nots.”

Guidelines need to have meaning to be effective. Employees should understand exactly why they’re put in place, and what consequences will occur if they’re not followed.

**Sustain:**

**For long-term Lean systems to stay in place.**

Sustain is the critical “S” to leading a workplace that maintains order and efficiency for years to come – instead of a few weeks, when the initial excitement and enthusiasm of using the system wears off.

Cleanliness needs to be a daily priority. It’s not something that should be worked on all at once at the end of a week or month, when dirt and clutter has had time to pile up. Your workplace should always look as clean as it did when it was first reorganized, or cleaner.

You and your supervisors or managers should make a point to check that all workstations are clean and clear each day. You should provide feedback, both positive and negative, to your employees so they can improve and keep up their efforts.
Reinforce good habits by offering rewards to employees who successfully keep up a Lean workspace. Recognize good behavior and use it as an example for your other employees. Encourage your employees to work together for a group prize, such as a pizza lunch or free breakfast.

**Safety:**

**The Elusive 6th “S”**

Some companies have added an extra S, renaming the system to the 6 S of Lean manufacturing. This extra S stands for safety.

As in, safety is a common side effect of the 5 S’s, which is obviously quite critical. A clean workplace means that safety hazards are more noticeable. Safety guidelines are less frequently overlooked when the needed equipment and protective gear are always within reach.

Employees should know how to identify a hazard and the procedures to resolve or report it. They should be reminded by visual posters on display throughout the workplace.

You may decide to use this extra S in your system if your have a high-hazard work zone or if your current safety standards need to be redesigned. As always, abide by local safety regulations. Work towards reducing physical strain with a well-designed workplace and prioritizing caution over all else.
Continuous Improvement As A Priority

Every business strives for continuous improvement. To not do so would be to allow the company to plateau, and eventually become surpassed by competitors. But as often as you’ll hear this term in the manufacturing industry, you’ll rarely see these intentions materialize into real, specific strategies.

Continuous improvement seems like a vague term, but really, it’s not. It means one specific thing in Lean manufacturing: to keep the systems updated so they’re always as close to perfect as possible. It means to actively seek out sources of waste, fatigue and inefficiency and to find solutions that cover not only the symptom of the problem, but the problem itself.

One reason many companies fail to continuously improve is because their systems are designed by administrators and managers who do not take into account day-to-day operations of employees. They’ll hire new workers, purchase new equipment, and even go so far as to successfully eliminate anything that doesn’t add to the business’ bottom line. But they won’t improve the system from the inside.
A system designed to work is one designed by your employees. And they won’t always be so forward as to point out obstacles in production. They won’t always come to you with ideas on how to improve the system and the workplace. That’s why you need to be proactive in surveying employees, discussing problems and designing solutions.

Efforts towards continuous improvement need five things: feedback, budget, timeline, execution and review.

New ideas for continuous improvement come from within the workplace. Outside opinions are a good and often necessary influence, but the business needs to formulate plans that are truly customized for the good of the workplace. Then, these ideas need to be expanded into plans, often created collaboratively in a meeting. The plan can be broken down into steps and responsibilities, assigned to teammates who can handle the responsibility and collaborate fluently.

Continuous improvement works when it’s made a priority. Too often, businesses set aside plans to improve, or don’t review their systems at all. They fall behind and wind up having to make multiple improvements at once, or allowing their systems to break down. The most important thing about continuous improvement is that it is continuous.

The 7 Wastes are at the root of all unprofitable activity.
Humans are imperfect. You cannot expect yourself or your employees to take on drastic changes in the way you work without making the necessary changes to your working environment. Inefficient working habits are difficult to break, but when you eliminate the possibility that they will occur, good, new habits will easily form.

**Make Workstations Flexible**

Eliminate permanent settings from your workplace. **Everything should be movable, adjustable and changeable.** As you introduce different materials and procedures to your place of work, you’ll have trouble having a place for everything. You should always have extra bins available to make sure nothing gets pushed aside or mixed with other items. Workstations with wheels should overtake permanent fixtures.
Adjustable accommodations, such as chairs and desks with adjustable heights, ensure that everyone can feel comfortable in their workstation, regardless of their stature. It’s impossible to work to full potential when you can’t reach the back of your desk, or when your feet don’t touch the floor. When you’re working long hours, comfort should always be a priority.

**Taking a Stand**

Sitting for very long periods of time each day puts a lot of strain on the human body. When you sit, you’re less able to concentrate on your work, and you tend to be less focused. Sitting has health risks too, as studies have shown it increases the possibility of heart disease, obesity and other detrimental effects.
Standing workstations induce improved mood and better productivity. If practical, consider eliminating chairs, or creating workstations in which employees can either sit or stand.

**Putting Trash in its Place**

Never allow trash to build up in the workplace. There’s no reason for unneeded materials to accumulate anywhere other than in a trashcan. You may have an area designated for scraps that might be used in the future. Obvious trash needs to be removed immediately, or it will become a distraction and a safety hazard.

A hole built into the workstation makes trash removal fast and easy. Employees should not have to waste time taking steps to locate, retrieve or replace a trashcan. The more your workplace is conducive to scraps and waste, the more accessible trash receptacles should be.

**Your lean workstation is just a few clicks away.**
Now that you know the importance of Lean manufacturing, and how the 5S process works to support it, you’re ready to move into the implementation of your own system. And that’s where we can come in. **ShopFlow Solutions** offers manufacturing products with Lean manufacturing philosophy in mind.

We provide the storage solutions you need to smoothly transition to a workplace that never stops improving. Check out our wide selection of storage bins, benches, cabinets, workstations and more to upgrade to a Lean workplace you’ll be proud to call your own by visiting [www.shopflowsolutions.com](http://www.shopflowsolutions.com). You can always contact us directly to discuss your needs as well.

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**Make Your Workplace Work!**