



Everything you need to know about 5S methodology for increased safety and productivity in manufacturing.



NTG TRAINING'S COMPLETE GUIDE TO

# 5S OF LEAN MANUFACTURING

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## WHAT ARE THE 5S?

The 5s are a set of concepts in the manufacturing industry designed to improve productivity, safety, organisation and cleanliness. When used correctly and taught as an underlying principle to your team, their implementation should lead to a higher quality work environment.

The 5S derive from 5 Japanese words beginning with S, they are as follows:

### Seiri

*Sort*

To separate needed tools, parts, and instructions from unneeded materials and to remove the unneeded ones.

### Seiton

*Set in Order*

To neatly arrange and identify parts and tools for ease of use.

### Seiso

*Shine*

To conduct a cleanup campaign.

### Seiketsu

*Standardize*

To conduct seiri, seiton, and seiso daily to maintain a workplace in perfect condition.

### Shitsuke

*Sustain*

To form the habit of always following the first four S's.



# HOW WILL THE 5S BENEFIT MY BUSINESS?

If your business is interested in lean manufacturing and decides to implement a culture of 5S, there are a multitude of benefits, including:

- Improved levels of health and safety
- Higher rates, due to equipment being easy to find and access
- Lower rates of defects
- Reduced costs
- Higher levels of production and flexibility within staff
- Higher levels of employee morale
- Better utilisation of your assets
- Higher levels of customer satisfaction

Generally, when used together, the 5Ss will also make your business look smarter and more organised, which is important when trying to impress stakeholders! But it doesn't just look impressive, 5S also helps to maximise profit and efficiency.



## HOW CAN MY BUSINESS IMPLEMENT 5S

Start by identifying key areas that need the most improvement. For example, the organisation of your supplies and parts may be in disarray. Let's look at some of the problems you may have in this area:

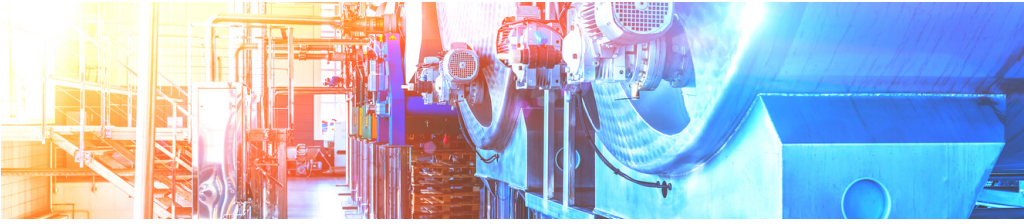
- Supplies and parts are still in original packaging or boxes, slowing down their utilisation.
- Some supplies and parts may be stocked out of reach, on top of each other and hidden at the back of shelves.
- Older inventory which is not often used is taking up prime positioning.
- Some boxes and parts are stored in the aisles, making a mess and causing a safety hazard.
- Trash from packaging is accumulating in the aisles, under the racks etc.

So how can we use 5S to improve this situation? Here are some ideas:

- When parts and supplies are received they should be immediately unpacked.
- They can then be sorted into labelled bins.
- A system can be put in place to find parts easily, whether that's using RFID tags, GEO locators or a simple alphabetical system.
- Inventory is tracked on a system with dates, so older, unused items are flagged.
- Racks are low enough to be accessed without equipment, and only stock of the same type is placed behind others.

It can seem like a big job if you've never had 5S in place, but the overall task can be tackled by breaking down your manufacturing facility into different areas and working with the management team to put procedures in place.

Usually this will need to be rolled out in tandem with a change management procedure that includes staff training. This is so that when things are changed, staff are not left confused, causing the exact opposite situation the 5S were to solve!



## AN EXAMPLE OF HOW 5S CAN BENEFIT

Increased productivity and better working practices are all well and good, but how do they actually equate to business benefits in the long term?

Let's review an example.

Imagine your business has a team of 20 operators; 10 on the day shift, and 10 on the night shift.

During the changeover, one shift crew might:

- Leave their trucks parked where they were last used, rather than in a designated bay.
- Leave their tools in the last place they used them.
- Leave their station in disarray.

This means the next shift will spend the first 10-20 minutes of their time locating equipment and tidying up.

This might not seem much, especially if it is only 10 minutes. But in reality, it can really add up. Let's do the maths!

10 Night Shift Operators are paid £10/ph each.

They lose 10 minutes a day each, as 5S is not implemented.

The business therefore spends £1 per Night Shift Operator a day, on wasted time.

Assuming the day shift operators then have the same problem...

We then spend £20 every 24 hours on wasted time.

Over a week, that's up to £140.

Over a month, that's up to £560.

Over a year, that's £6,720 of wasted productivity!

Bigger warehouses may have hundreds of staff, just imagine, if your team was 200 strong, that yearly wastage would become £67,200!

When you consider that, training staff in the principles of 5S becomes a no brainer.

Not only that, this is a very simplified example, that only takes into account the wasted time during shift changeovers. Staff often lose time throughout their own shifts due to processes and procedures not being standardised, so the true savings figure could be even higher. Remember this is only based on saving 10 minutes per day, per staff member!





## *REMEMBER, THE 5S IS A METHODOLOGY*

5s needn't be overwhelming, it is designed to be methodical. To properly execute the 5S, you can follow the steps in order:



You can follow this as a simple guide:

- **Sort** - Review items in a workspace, remove anything unnecessary and ensure they are grouped in a logical way.
- **Set In Order** - Place items in the most efficient order, match your workflow. Tools and supplies should be near to where the task involving them is carried out.
- **Shine** - Clean and perform regular maintenance. Remove debris and provide bins and cleaning equipment. Ensure machinery is in peak condition.
- **Standardize** - Set rules and regulations across the workplace to ensure staff are trained and aware of new procedures.
- **Sustain** - Perform regular reviews to ensure all the stages are maintained and upheld by the team.



## *INTERESTED IN CREATING A CULTURE OF 5S LEAN MANUFACTURING?*

At NTG Training we offer apprenticeships, staff training courses and short courses designed to equip your staff with new skills.

You can train new starters, or upskill existing staff using our Lean Manufacturing Apprenticeship Level 2. Many businesses don't realise the potential of apprenticeships for staff training! In fact:

- An apprentice can be any age
- An apprentice can be a current member of staff
- Apprenticeship training is very affordable, businesses often only pay around 5% of the total fees
- There are plenty of grants and incentives available for taking on apprentices
- Apprenticeship programs can be tailored to your needs and goals as a business

An apprenticeship could be the best investment you make for your business this year. Remember, your staff are the backbone of your business; training leads to higher productivity and job satisfaction - how can you afford to miss out?



**Have a question about  
training in  
manufacturing?**

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