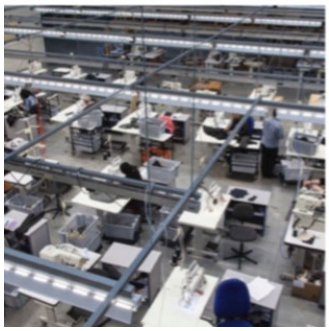
Lesson 1.4 Your Working Environment



As a Production sewing machinist, you are likely be working in a medium, small, or micro size business. You could be based in a design studio, workshop or on the production floor, depending on the size of the business.

The working environment varies across the sector, but most factories, workshops and studios are bright and clean. Increased demand for UK made products is revitalising the industry and UK factories are updating continually, improving buildings, working conditions and equipment.

The day to day working atmosphere is fast moving with a real buzz, there is a typical feeling of team working and camaraderie as everyone is working towards the same aims and production deadlines.

Equipment can range from very old reliable machinery to new, automated high-tech machinery designed to make the operations easier or faster. The way the production flows across the factory floor can vary across the industry, machinery is usually set out and arranged to follow the production sequence and this often can be influenced by lean manufacturing methods.

Lean Manufacturing

You may hear the term ‘Lean Manufacturing’ often when working in the sewn product industry. These are manufacturing methods and processes based on minimising waste whilst optimising production. Lean manufacturing methods are aimed at reducing time and waste methods are usually used in large companies, but these methods can be applied to most processes in any workplace.
Eliminating waste is the central focus of lean manufacturing and every employee needs to be actively involved by using the minimum quantity of materials,

equipment, time, energy, and space. Waste is categorised into eight areas as follows:

Lean manufacturing can influence your work as a production machinist as you may be asked to follow methods that aim to eliminate activities which waste time or resources.

Lean manufacturing is closely related to another concept called Just-in-time manufacturing (JIT manufacturing in short). Just-in-time manufacturing aims to match production with demand by only supplying products which have been ordered (no surplus stock is made).

Manufacturing Processes

You may work alone or as part of team, on one aspect within the sewing process or on various operations, this depends on the product, the company size, and the production process. It is likely that you will get involved in one, or more of the nine widely used processes listed below:

- **Make-through:** Multi skilled machinist makes the whole product right through
- **Conventional Bundling:** Machinists receive bundled work which is distributed and collected centrally.
- **Clump:** Machinists collect work, complete Operation 1 and return it for Operation
- **Progressive bundle:** Finished work is completed bundled up by the machinist and passed up the production line for the next process
- **Flexible flow:** Machinists and machines are positioned in an engineered workplace. Work is allocated to a detailed plan to obtain a balanced output.
- **Straight line:** Operations are broken down. Machinists handle just one item at a time and pass work to the next machinist for the next operation.
  Synchro flow: Components are processed separately, but simultaneously by

different sections. The parts then come together on the last section for final assembly.

- **Unit Production:** Computer controlled production line, using an overhead transport system. Operations are completed without removing the item from the hanger.
- **Modular manufacturing:** multi-skilled machinists work in teams on one or a few items at a time, moving across different machines as they work.

You will see three typical working environments in Lesson 5.

Knowledge Challenge 1.6

Lean manufacturing is about reducing and if possible, eliminating waste across eight categories. These are described below, fill in the missing words.

1.Unused _____: waste due to underutilization of people's skills and knowledge.

2.Defects: waste due to a product that fails to meet _____ expectation.

3.Inventory: waste resulting from _____products and materials that are not processed.

4.Overproduction: waste from making ____ products than customer demand.

5.Transportation: wasted time, resources and cost when _____ moving products and materials.

6.Motion: wasted ____ and effort due to unnecessary movement by employees.

7.Extra-processing: waste related to more work or a higher _____ than is required.

8. Waiting: Waste from ____ spent waiting for the previous/next process to occur.

Lean manufacturing methods can be applied to sewing operations. Identify two of the eight waste categories that a production sewing machinists job role. (Think of the areas that a production machines can control)

1. Unused Talent
2.Defects
3.Inventory
4.Overproduction
5.Transportation
6.Motion
7.Extra-processing
8. Waiting

Knowledge Challenge 1.7

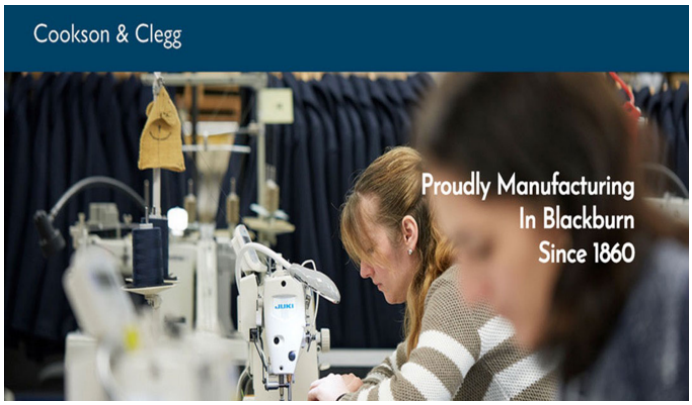
See the list of three processes below. Match them to the activities within each process.

• Progressive bundling	Sewing Machinists receive bundled work which is distributed and collected centrally.
• Straight line	Finished work is completed bundled up by the sewing machinist and passed up the production line for the next process
• Conventional Bundling	Sewing operations are broken down and Sewing Machinists handle just one item at a time and pass work to the next machinist for the next operation

Lesson 5 Industry Insights

To look at the manufacturing processes in action, we have followed the making of a product in three different companies. The footage will take you from the receipt of the order, through the manufacturing process to packaging and distribution.

Community Clothing/ Cookson & Clegg



Cookson & Clegg based in Blackburn and founded in 1860, as suppliers of military outerwear to the armed forces during the latter of the 20th century. Today the firm manufactures outerwear, in both traditional woven and modern technical fabrics for many of the UK's finest premium clothing brands. Community Clothing is a social enterprise based at Cookson and Clegg, making quality affordable clothing. Garments are made from the highest quality, sustainable natural materials. During the Covid-19 crisis the company switched production temporary to NHS scrubs. To meet urgent demand products were turned around quickly; with samples being made the same day that technical specifications were received, samples were signed off quickly and the first production pieces were distributed just two days later.

Watch the video below to see how a surgical gown goes through the production process from design/development, cutting, sewing, finishing, and packing ready for distribution.

https://vimeo.com/580206957/bff5927ab3

Knowledge Challenge 1.8

1.What year was Cookson and Clegg established?

- 1860
- 1945
- 1960

2.Whose job is it to make the prototype/sample product?

- The Sample Machinists
- The Sewing Machinists
- The Cutter

3.Who writes the product information onto out the docket and attaches the docket to the bundle?

- Sewing room Supervisor
- The Cutter
- The Sample machinist

Clare de Lune

Clare de Lune is a family run business that produces beautiful nursery bedding collections. Each season the design team research lifestyle trends and colours to create new products under the Clair de Lune brand and sell via their own website or through major retailers such as Boots, John Lewis, and Amazon. The majority of products are manufactured in South Manchester, where the company have been in business for over 75 years and employ a highly skilled local workforce of around 60 staff.

Watch the video and follow the production of one of Clare de Lunes most popular products, a beautiful, dressed Moses basket. See it in production, from receipt of the order, through planning, cutting, sewing, finishing, dressing, and packing ready for distribution.

https://vimeo.com/580204412/1aadabbf26

Knowledge Challenge 1.9

1.How many years has Clare de Lune been in business?

- 55 years
- 75 years
- 100 years

2.What production method do the sewing machinists use to make products at Clare de Lune?

- Progressive bundling

- Straight line
- Make through

3.If a needle breaks when sewing a product and the pieces of the needle cannot be found what happens?

- The product is passed on to be packed and distributed
- The product is passed as a second or reject
- The product is disposed of immediately

Herbert Parkinson

Herbert Parkinson is part of the John Lewis Partnership. The factory is based in Darwin, Lancashire and since 1953 has been a shining example of UK design, quality, and craftsmanship. There over 250 staff based on site, all of whom are partners, which means they are part owners.

The skilled workforce produces bespoke curtains and blinds from specific measurements (with a seven day turn around) and ready- made collections offering a choice of fabrics, weights, colours, and heading types. Quality is key and many products are hand-pinned and finished.

Watch the video below to see how a cushion order is processed from receipt of the order to fabric sourcing, sampling, cutting, sewing, finishing, and packing ready for distribution.

https://vimeo.com/580206509/262248d4be

Knowledge Challenge 1.10

1.Herbert Parkinson use SOPs to communicate how to carry out processes. What do the initials S.O.P stand for?

- Sewing Operation Programme
- Standard Operating Procedure
- Stitch Over Product

2.What happens if the quality department find a stitching fault on a product?

- The product is binned
- The product is returned to the sewing machinist for repair
- The product is packed and distributed

3.Herbert Parkinson's Sewing machinist have production targets that are shown on a Production board in the workshop. Are these targets:

- Daily Targets
- Hourly Targets
- Weekly Targets

