

Garment Production

Level-II

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Acronym

LAP Test =Learning Activity Performance Test

OHS=Occupational Health and Safety

GSM=Gram per Squire Meter

SPI=Stitch per Inch

UBT=Under Bed Trimming

QC=Quality Control

Introduction to the Module

This module covers the knowledge, skills and attitudes required to applying finishing touches, attaching the needed accessories and accent, trimming of excess threads, pressing finished garment and packaging of finished garment. This module is designed to meet the industry requirement under the garment production occupational standard, particularly for the unit of competency: **Apply Apparel Finishing.**

This module covers the units:

- Garment finishing
- Thread trimming
- Pressing, and
- Packaging

Learning Objective of the Module

- Apply finishes
- Trim excess threads
- Press finished garments
- Package finished garment

Module Instruction

For effective use this modules trainees are expected to follow the following module instruction:

1. Read the information written in each unit
2. Accomplish the Self-checks at the end of each unit
3. Perform Operation Sheets which were provided at the end of units
4. Do the “LAP test” giver at the end of each unit and
5. Read the identified reference book for Examples and exercise

Unit one: Garment finishing

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Finishing touches
- Accessories and accents
 - ✓ Marking and attaching
 - ✓ Sew accessories
 - ✓ Checking missing and attaching accessories
- Performing finishing operations
- Allowance
 - ✓ Folding and pinning bodice hem
 - ✓ sleeve allowance
 - ✓ Sewing allowance

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Identify and check needed finishing touches in accordance with garment design/style specifications
- Mark and attach accessories' and accents' positions in accordance with garment design/style specification
- Sew accessories and accents by hand or by machine in accordance with garment design/style specifications
- Perform finishing operations in accordance with customer's specifications and standard procedures
- Check garment for missing buttons and attachments
- Fold bodice hem allowances and sleeves and pinned in accordance with customer's specifications.
- Sew hemline allowances in accordance with the given stitch/seam specifications

Introduction of garment finishing

Garment finishing through garment wet processing add value to the garments and the additional effects become the clear differentiator. Garment finishing can be used for various applications, be it shirts, trousers or t-shirts, but majority of the effects are most popular for casual wear and denim segment. Garment finishing department takes care of the following functions:

- Trimming
- Stain removing
- Repairing
- Pressing



Fig 1.1: Garment finishing process

A. Purposes of Garment Finishing

Finishing is the heart of textile processing. Unless any product is characterized by value addition it is now impossible to survive in this highly competitive world market. Processing is important to make a usable but finishing gives value addition to it.

Value addition = {(Technology) + (Innovation)} x Quality.

There are five significant Functions of garments finish are as follows-

- ✓ Washing
- ✓ Checking
- ✓ Pressing/Ironing
- ✓ Needle Detecting
- ✓ Packing/Packaging

B. Finishing Tools, Machines and Equipments

A garment factory needs to finish its clothes prior to packing and delivering goods to its customer. Their buyers and the end consumers want the finished garments that can directly be

displayed on the retail store racks so that the consumers fall in love with the merchandise after having a look on it.



Fig1.2: Home Finishing

- Finishing activities involved thread trimming, spot cleaning, and ironing, removing dust and loose threads and fibers. For these activities, various finishing tools and equipment are required.
- Followings are the finishing machines, tools, and equipment used by garment factories.

1. **Thread trimmer:** In the sewing process, the operator does not cut thread ends neatly. All untrimmed threads are cut at the finishing stage. Workers use manual thread trimmers to cut thread tails. Automatic thread trimming machines are also available.



Fig1.3: Thread trimming machine

- 2. Thread sucking machine:** The loose threads on the garment must be removed from the garment. For this thread sucking machines are used.
- 3. Manual thread removing equipment:** In knits garments, loose threads are removed manually by using gum tapes.
- 4. Garment checking workstation:** At the finishing stage all garments are thoroughly checked. Later garment lots are inspected. For this quality checking workstation is required with adequate light, display board, bins for storing segregated garments.
- 5. Vacuum pressing table and steam iron:** A vacuum pressing table and a steam iron are used to remove creases on garments and to iron garments. Inside the vacuum table, there is air suction, which helps to grip the garment when it is ironed. Hot steam is supplied for steam irons to heat the iron.
- 6. Spotting gun:** This equipment is used to remove stains from garments. Using a spotting gun, the solvent is sprayed at high speed to the stained area. The solvent dissolves stains found on garments. Sometimes liquid soap, solvent, and toothbrush are used for cleaning stains.
- 7. Kimble gun:** Different types of tags, such as hang tags, price tags, and special tags are attached to folded garments, with a kimble gun.
- 8. Steam boiler:** To keep the steam press hot all the time, steam generated in a boiler, is supplied to irons. Boiler with the single pressing workstation is also available.
- 9. Washing machine:** For bulk washing, the factory uses a high-capacity washing machine. For washing a smaller number of garments and sample pieces, the domestic washing machine is used for removing dirt.
- 10. Sewing machine for repair work:** Few sewing machines (especially a single needle lock stitch machine) are kept in the finishing section for repair work and part changing.
- 11. Measuring tapes:** Measuring tapes are used to measure garments. Quality checkers use it while performing measurement checking.
- 12. Mending needles:** Cut and holes in knits garment are repaired by mending. For mending, the worker uses hand needle or knitting needles.

13. Color box and color pencil: Sometimes, the factory needs to do touching work on the garment to match the shade of the print. Also to hide the unwanted spots, touching is required. For this, color pencils and a liquid color is required.

14. Needle detectors: This machine is used by garment manufacturers, who make children's garments. Garments are passed through the needle detector machine. If any metal part is there in the garment, the machine will detect it. This machine ensures that no broken needle parts or other metal parts are present in the clothes.

15. Other machines: Some factories used to do buttoning and buttonholing operations (Kaja-button) in the finishing section. In that case, these two machines are considered as finishing machines.

16. Draw cord inserting tools: Factories need to insert draw cords in many garment products. Like waistband draw cord in bottoms (track pants, leggings) and in a hoody.

1.1 Finishing Touches

Finishing touches – Accessories like belts and buckles as well as neckties and neckwear add critical finishing touches to many outfits. Walking aids- Items like canes and walking sticks have long been used, sometimes as an elegant accessory and other times out of medical necessity.

The final touch enables an end product to be of high quality and withstand any wear and tear.

1.2 Garment accessories and accents

Accessories have great importance to make a complete garment. A garment is made not only from the apparel fabric but also various accessory items. Fabric is the basic material in garment manufacturing. Except fabric of garment, the other materials are known as garment accessories..



Fig 1.3: Garment Accessories

1.2.1 Functions of Garments Accessories:

Accessories play a vital role in garment manufacturing. Accessories are used to serve different functions of a garment. Some of the functions are given below:

1. Garments accessories sometimes act as a decorative material.
2. Accessories can make a garment more suitable to wear.
3. Accessories are used to make the garments more flexible.
4. Accessories help to ensure the garments durability.
5. To fulfill customer demand different accessories are used.

1.2.1 Types of Garment Accessories:

Various kinds of accessories are used on garments, some are part of the garments such as buttons, zippers, interlining etc. while others are used for decorating and enhancing the product appearance such as sequins, embroidery etc.

garment accessories can be classified in three ways:

- A. Basic accessories
- B. Decorative accessories
- C. Finishing accessories

A. Basic Garment Accessories:

- Thread
- Zipper
- Interlining
- Button for example: Snap button, Plastic button, Metal button.
- Label: Main label, Size Label, Wash care label
- Motif: Leather, Plastic, batch Metal
- Pocketing fabric
- Lining
- Velcro
- Elastic
- Cord
- Ribbon
- Toggles
- Rivet
- Collar bone.

A short description and function of basic accessories are given below.

Thread

The thread is a long, thin strand of cotton, nylon, silk, or other fibers used in sewing purpose.

The thread is said to be the main accessories of garments.

Zipper

The zipper is a binding device which is used to bind two edges of the fabric and other flexible materials. Its main function is to bind two edges as it could be easily opened. There are different types of zipper. Some of them are given below-

- Metallic zipper
- Coil zipper
- Invisible zipper
- Plastic molded zipper
- Open-ended zipper
- Close-ended zipper
- Magnetic zipper

Button

The button is a small device which is attached to a garment piece to make secure two pieces of fabrics together. Sometimes it is used as a fashion purpose. A button can be made of plastic, metal, wood, glass, and sometimes from the animal bone, shell, ivory etc. There are different types of button. Such as-

- Shank button
- Flat button
- Snap button
- Stud(jeans) button
- Lapel button

Label

The label is a piece of indicator which contains in all information of the garments. It may be made of paper, plastic film, fabric or similar material. It can be attached, printed, embossed, on the garments. There are mainly two types of label. They are

- ✓ Main label
- ✓ Sub-label

The main label contains the Brand name, brand logo etc.

Sub-label is divided into different categories-

- ✓ Care label
- ✓ Size label

- ✓ Price label
- ✓ Composition label
- ✓ Special label
- ✓ Flag label

Motif

The motif is a special accessory which is attached to the garments by embroidery, printed design and contains the country name or brand name. It is mainly done to increase the attractiveness and to make the garments more fashionable. It can be made of leather, plastic or batch metal.

Lining

The lining is a piece of fabric, fur, or other material which is inserted into the inner layer of garments and similar items. It helps to extend the useful life of garments by reducing wearing and tearing strain.

Interlining

Interlining is basically anything used between two layers of fabric to give more support. It is attached to garments through the sewing or heating process. The main function of interlining is to hold up and keep the original shape. There are two types of interlining

- ✓ Fusible interlining
- ✓ Non-fusible interlining

Velcro

Velcro is a brand name of fabric hook-and-loop fastener, mainly used for connecting objects. It is consisting of two layers: a “hook” side, which is a piece of fabric covered with tiny plastic hook and a “loop” side, which is covered in equally tiny plastic loops.

Elastic

Elastic is a narrow fabric covered strand which can stretch due to its composition. Rubber or spandex cores are wrapped in a fabric such as polyester, nylon, or cotton and then woven, knitted or braided to create the elastic. There are different types of elastic- as follows

- ✓ Braided elastic
- ✓ Knitted elastic
- ✓ Fold over elastic
- ✓ Lingerie elastic
- ✓ Among them, braided elastic is commonly used.

Cord

The cord is a narrow, flexible material usually made of twisted strands or fabrics. It is generally used to bind, tie, connect and support.

Ribbon

The ribbon is a thin material, generally made of cloth but also plastic or sometimes metal. It is used for decorative binding and tying. There are different types of ribbon. such as

- ✓ Grosgrain ribbon
- ✓ Satin ribbon
- ✓ Velvet ribbon
- ✓ Off ray ribbon
- ✓ Lace ribbon
- ✓ Turquoise ribbon

Rivet

Rivet is a mechanical fastener, structured with a cylindrical shaft with heads on either end. The heads are made in such a shape that it can be inserted into a hole. It is generally made of metal.

Toggle

The toggle is a small piece of plastic or wood that is used as a button. It is generally used in coats or bags.

Collarbone

Collarbone is a thin, plastic made accessories which are inserted into the collar point for keeping the original shape.

B. Decorative Accessories:

- Elastic tape
- Buttonhole tape
- Piping
- Moiré ribbon
- Seaming tape
- Welted tape
- Ribbed tape
- Velvet ribbon
- Bias binding
- Stamped tape
- Taffeta ribbon
- Galloon
- Fringes
- Cords
- Tassels
- Rosettes
- Saguache
- Pompons

Features, functions and uses of decorative garment accessories are:

- **Trimmings:**

Those accessories which are used in sewing section are called trimmings. General name for a patterned, woven or knitted ribbon in cotton, silk, wool, or man-made fibre.

- **Scalloping, Rick-rack:**

Narrow bowed, zigzag, or scalloped ribbon, plain or multi-colored in cotton or man-made fibers for edge trimming of traditional costumes and children's wear.



Fig1.4: Scalloping

- **Elastic tape:** It is an elastic cotton strip. Highly elastic, flat, braided band containing rubber or elastomeric fibers.



Fig1.5: Elastic tape

- **Buttonhole tape:** Broad elastic tape with buttonholes located in the center.



Fig1.6: Buttonhole tape

- **Piping:** Cotton or linen plain woven ribbon about 1 cm wide, used as a tailoring aid for edges, reverses, and collars.
- **Moiré ribbon:** Cotton, silk or man-made fibre ribbon with a moiré pattern for hat bands and bows.
- **Seaming tape:** Cotton or viscose twill woven tape for stabilizing seams.
- **Welted tape:** Cotton or viscose tape with a narrow welt at the edge.



Fig1.7: Weltd tape

- **Ribbed tape:** Cotton, silk, or viscose tape with pronounced ribs for decoration or for waistbands.
- **Velvet ribbon:** Cotton, silk or viscose narrow-woven velvet; sensitive to handling.
- **Bias binding:** Tape cut on the bias (diagonally) in various widths and materials, plain or patterned, either flat or folded for use as binding.
- **Stamped tape:** Interlining tape with pre-stamped marks to show sewing width and seam allowance. Aids more efficient working.
- **Taffeta ribbon:** Filament yarn ribbon, plain or check patterned, for ribbon bows.
- **Galloon:** A particularly supple, plain or patterned braided ribbon for piping or binding in outerwear.



Fig1.8: Galloon

- **Fringes:** A narrow edging of projecting yarns which are not woven into the fabric, in viscose, wool, or silk.
- **Cords:** Circular braided materials of various thickness in viscose, cotton or synthetics. Used as decoration for clothing, in household textiles, and in sporting goods.
- **Tassels:** Expensive, hand-made articles in silk or viscose. A combination of fringes, cords, and braids.
- **Rosettes:** Decorative items used either alone or in combination with ornamental textiles.
- **Saguache:** A mould able flat braid with two ribs in silk or viscose used for formal clothes.

- **Pompons:** Bunches of wool, silk or synthetics used as trimmings, hanging alone or in groups.

C. Finishing Accessories:

There are some finishing accessories:

- Hang tag
- Price tag
- Plastic/ poly bag
- Tissue paper
- Carton
- Necks insert
- Scotch tape
- PP belt
- Tag pin
- Plastic clip
- Sticker
- Butterfly
- Collar insert
- Back board

1.3 Verification of Finishing Garments

The five steps to garment inspection you should always ensure your QC staff follow.

1. Measure garment dimensions

The most important function of any piece of clothing is that it fits the end consumer as intended. Every garment importer can attest that customers will often return a garment if it doesn't fit as expected.

2. Check function of closures, buttons, zippers and other accessories

Most garments aren't simply a few pieces of fabric stitched together. Rather, they also include functional and stylistic accessories like buttons, snaps, zippers, ribbons and elastic bands. A broken closure on a garment usually renders the clothing item unwearable and, therefore, unsellable.

3. Verify proper packaging and labeling of garments

Verifying proper packaging and labeling of garments is an essential part of most final inspections. Proper packaging ensures your garments arrive at their final destination in the same condition they left your supplier's facility.

4. Test Fabric For Conformance To Quality Standards

For some products, such as promotional goods, the quality of input materials might not drastically impact salability. But fabric quality is a major determinant of the quality and

salability of the finished product when manufacturing garments. Product testing of your garments, both on-site and in a qualified laboratory, provides assurance that your product meets your quality standards.

- **Fabric Gsm Check**

Grams per square meter (GSM) is a measurement of fabric density applied to garments and raw textiles.

- **Stitches per inch (SPI) check**

A check for stitches per inch (SPI) involves the QC inspector simply counting the number of stitches in one inch of a selected area of the garment. An SPI check is easy to conduct, as it only requires a tape measure and adequate lighting. Checking SPI on two pieces of each style in a shipment is normally adequate.

- **Material composition check**

Some obvious differences in fabric composition can be detected by hand feel alone during a garment inspection. But most garment importers require material composition testing by a qualified lab that's outfitted with proper equipment and controls. Material composition should reflect the breakdown of fiber types listed on the product label.

5. Report On Quality Defects And Severity

Visual inspection for quality defects is a critical step to any professional QC inspection for garments. Some common defects garment importers might face include:

- An untrimmed thread
- Shading variance between different pieces of the same style or different parts of the same piece
- A loose needle left in the garment

1.3.1 Quality checkpoints

In a garment factory, department wise quality checkpoints have been explained in the following.

Department	Inspection Level
Fabric Store	<ul style="list-style-type: none"> - 100% fabric inspection OR - 10% inspection of rolls - Fabric shrinkage and physical properties checking
Trim & Accessories	<ul style="list-style-type: none"> - Trims inspection as per standards - Accessory inspection as per standards
Cutting Room	<ul style="list-style-type: none"> - Marker checking - Cut parts checking or audit - Bundle inspection
Printing and Embroidery	<ul style="list-style-type: none"> - 100 % inspection of printing panels - 100% inspection of embroidery
Sewing Department	<ul style="list-style-type: none"> - Inline checkpoints at critical operation and at the end of part preparation. - Roaming checking (Random checking) - End of Line checking (100%) - Audit of checked pieces
Finishing Department	<ul style="list-style-type: none"> - Initial finishing inspection (after wash) - Final finishing inspection (After Pressing) - Internal shipment audit

1.4 Performing finishing operations

Finishing is very important section in the garment industry. In this sector we take the finished goods from sewing section and keep records, then after suckering it we send to iron section. Then the ironman irons these as per buyer instructions. The thread is sucking, fusing machine, metal Detector, vacuum table, Steam Iron, Table grinding machine, Stan drill machine etc. are used in the finishing process.

1.4.1 Flow Chart of Garments Finishing:

Flow chart of garments finishing are as follows-



1.9 Flow chart of garments finishing

1.4.2 Steps of Garments Finishing:

The steps of garments finishing are as follows-

1. Goods Received from Sewing Section: At first, finished garments are received from sewing section as per order quantity. Good received from sewing section is the first step to finishing section.

2. Thread Sucking by Machine: In this step extra lose sewing thread are sucking by sucking machine in garments. Threads are suckered by two systems. One by done by hand which is manual system and the other is done by sucking machine.

3. Ironing: Ironing is a finishing process done by a cloth to heat and pressure with or without steam to remove creases and to impart a flat appearance to garments. Ironing process is also called as pressing process. After completing ironing, garments have to be folded.



Fig1.10: Ironing process in Garments

4. Measurement Check by QC: When ironing process running that time also check measurement of garments. During the ironing process measurement is also check out by the QC.

6. Attach Price Tags and Accessories: After above process, different types of tags and accessories are attached with the garments as per buyer comment. For an export order, must attach price tags with the garments.

7. Metal Detection: Garments are passed through into the metal detection m/c for metal check. Now most of the buyer recommended to use metal detector for garments more safety. To use metal detector for kid's item is must.

8. Folding: Garments are folded according to buyer directions in a standard area. There are fore types of folding in garments.

They are as follows-

- Stand up
- Flat back
- Semi stand up
- Hanger pack.

8. Packing: After folding garments are ready for packing. The size of polythene is vary according to the size, garments ratio. Before packing it is needed to ensure the placement of sticker in proper place.



Fig1.11: Garments Packing Process

9. Assortment: After completing the packing, it must be placed the garments in a predetermined packed by sorting according to the size and color is called assortment.

10. Cartooning: At last cartooning is done according to buyer comment into the inner boxes and is properly warped by the scotch tape. Some information like carton box no, size, shipping mark, destination are printed on the cartoon.

11. Final Inspection: Final inspection is an important part and last step of garments finishing. Normally final inspection is made by buyer.

1.5 Seam and hem Allowance

1.5.1 Seam Allowance

Seam Allowance is The distance between the stitching and the raw fabric edge depends on the type of seam and the need for adjustment. Seam allowance is the margin of fabric added to pattern seam lines so that the pieces can be sewn together and pressed open. Turn a finished garment inside out to see all of the seam allowances. Seam allowance enables you to sew the garment pieces together and to attach other garment parts, such as closures, trimmings, facings and collars. The allowance can vary from 0.5 to 3.5cm (3/16–15/16 inch) depending on the material structure, fabric weight, the intended seam finish and garment design.

A. Objectives of Seam Allowance:

1. Seam allowance to protect the stitches from pulling away from the seam.
2. Seam allowance allows the garment to be fitted.
3. Seam allowances are added to the sewing edge and preferably included on a pattern piece before the pattern is cut out.

4. Seam allowance can be stitched wider if the garment is too big, or let out if too tight.
5. Seam allowance can be added in inches (imperial measurements) or in centimeters (metric measurements).

B. Techniques of seam allowances:

Table1.1: Techniques of seam allowances:

Type of seam or fabric	Seam allowance	Finishing
Most garment seams	1cm (3/8in)	This is the most widely used seam allowance in the industry. Such seams include necklines and enclosed seams, such as facings or collar pieces.
Shaped seams	0.5cm (3/16in)	This is to avoid having to clip or trim the seam. Also used for less stressed seams.
Textured materials	1.5–2cm (9/16–3/4in)	A wider seam allowance not only allows for fraying but will ensure a heavyweight fabric lies flat after pressing.
Loose-woven fabrics		
Fabrics that fray easily, such as chiffon		
Heavyweight fabrics		
Centre back and crotch seam of trousers, especially for men's tailoring	2.5–3.5cm (15/16–15/16in)	A wide seam offers more support and can be let out over time if necessary. You can also use a wider side seam to prolong the life of a garment.
Bias binding or a raw-edged finish	No allowance needed	
Specific seam finishes	French seam: 1cm (3/8in)	
	Flat fell seam: 2cm (3/4in)	
Over locked seams	0.5–1cm (3/16–3/8in)	Do a test sample on the over locker before adding seam allowance.

1.5.2 Hem Allowance

The hem allowance is the width between the hemline and the hem edge. The hem allowance is folded back under the garment to the wrong side of the fabric; the clean finished edge is the finished hemline, the clean finished edge is the finished hemline.

The hemline is the lower edge of a garment and the hem allowance is the width between the hemline and the hem's edge. The hemline is usually folded under towards the wrong side of the fabric to tidy up the edge. Hem allowance is determined by the garment silhouette, design and fabric weight. The measurement can vary between 0.5 and 5cm (3/16 and 2in). As a general rule, the wider and fuller a skirt, the smaller the hem allowances. The hem allowance can be added to a garment or, alternatively, the hemline can be finished with a facing, bias binding or trimming.

A hem allowance is the length included in the pattern for the hem. Hem allowances can be very narrow, just a regular seam allowance, or very wide, up to 6" (15.2cm).

- **Techniques of hem allowances:**

1. Sleeve hem allowances

- ✓ Jacket and coat sleeve hem allowances

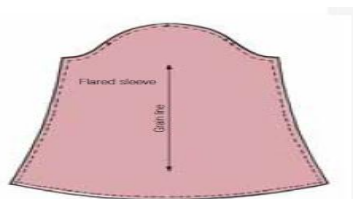


Fig1.12: Flared sleeve hem allowances

Table1.2: Jacket and coat sleeve hem allowances

Type of seam or fabric	hem allowance	Finishing
Jacket or coat	3–5cm (1 1/8–2in)	Add to the hem edge or cut Separately as a facing.
Flared sleeve to the hemline	Up to 1cm (3/8in) or a facing cut in the shape of the hemline	Depends on the design and fabric weight.
Jacket and coat	3–5cm (1 1/8–2in)	In general, be generous with jacket and coat hems. Add to the hem edge or cut as a separate facing.

2. Trouser hem allowances

Table1.3: Trouser hem allowances

Type of seam or fabric	hem allowance	Finishing
Flared leg	Up to 1cm (3/8in) or a facing cut in the shape of the hemline.	Depends on the design and fabric weight.
Tapered leg	3–5cm (1 1/8–2in)	Once the hem allowance is added, fold it up before cutting the sides off the pattern in order to get the correct angle.
Straight leg	3–5cm (1 1/8–2in)	Fold up the hem allowance and either hand or machine finish.
Trouser with cuff or turn-up	Depends on the design. Add twice the depth of the cuff to the hemline plus the hem allowance.	Fold up the allowance into the right position before cutting the sides off the pattern in order to get the correct shape.

3. Skirt hem allowances

Table1.4: Skirt hem allowances

Type of seam or fabric	hem allowance	Finishing
Pencil skirt	3–5cm (1 1/8–2in)	Once the hem allowance is added, fold it up before cutting the sides on the pattern in order to get the correct angle for this tapered skirt.
Straight skirt	3–5cm (1 1/8–2in)	Fold up the hem allowance and either hand or machine finish.
A-line skirt	1–3cm (3/8–1 1/8in)	When adding this hem allowance, consider the shaped sides of the skirt. An A-line skirt can also be finished with a separate facing cut in the shape of the hemline.

Flared skirt and full circle skirt	Up to 1cm (3/8in) or a facing cut in the shape of the hemline.	Depends on the weight and type of fabric; a chiffon skirt would be finished with a pin hem, whereas a full circle silk satin duchesse skirt would have a facing as a hem finish.
A full-circle skirt is full and flouncy	Reduce the hem width to 1/2 inch	In sheer fabrics a narrow hem will not shadow and will look inconspicuous from the correct side of the fabric

Self check-1

Test-I Matching

Instruction: select the correct answer for the give choice. You have given 30 Minute for each question. Each question carries 3 Point.

A	B
-----1. Hem Allowance	A. Hear of textile processing
-----2. Final Inspection	B. Hanger tag
-----3. Garment finishing	C. buttonhole tape
-----4. Basic Garment Accessories	D. last step of garments finishing
-----5. Decorative accessory	E. Velcro
-----6. Finishing Accessories	F. Width between the hemline and the hem edge.

Test II: short Answer writing

Instruction: write short answer for the given question. You are provided 3 minute for each question and each point has 5Points.

1. Mention types finished garment accessories?
2. Explain significance objective of seam allowance?
3. What are the purpose of garment finishing?
4. List at least 5 garment decorative accessories.

Test III: Multiple choices

Instruction: select the correct answer from the given choices. You are provided 3 minute for each question and each point has 5Points.

1. ----- is the distance between the stitching and the raw fabric edge.
A. assortment B. hem allowance C. seam allowance D. folding
2. ----- is a piece of indicator which contains in all information of the garments.
A. Motif B. Velcro C. Tag D. Label

Note: Satisfactory rating – above 60% Unsatisfactory - below 60%

You can ask you teacher for the copy of the correct answers

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Unit Two: Thread Trimming

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Checking garment faults
- Trimming threads
- Reversing and hanging garments

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Check garment for loose threads
- Trim excess threads in accordance with sewing procedures
- Reverse and hang garments in accordance with standard procedures

2.1 Finishing garment faults

Because of the complex manufacturing system in the apparel industry, defects are generated. Though Trims & accessories, and fabrics supplied by the third party, its responsibility of garments maker to check and ensure the quality of all raw materials they are using. The quality inspection system is available for all incoming raw materials which are provided by the third-party supplier. Garments Defects Inspection apply through Quality control in the Apparel Industry:

- | | |
|---|---------------------------------|
| a. Trims and Accessories Quality Inspection | d. Sewing Quality Inspection |
| b. Fabrics Inspection | e. Washing defects |
| c. Cutting and Spreading Quality checking | f. Finishing Quality inspection |

A. Trims and Accessories Defects

- | | | |
|-----------------------|------------------|-------------------|
| • Print Problem | • Size Mistake | • Cutting Problem |
| • Color Problem | • Print Mistake | • Spot |
| • Code Mistake | • Color Verify | • Broken |
| • Fitness Problem | • Gum nil | • Logo Mistake |
| • Print Spot | • Running Color | |
| • Measurement Problem | • PO Mistake | |
| | • Style Mistake | |
| | • Latter Mistake | |

B. Fabrics Defect

- | | | |
|---------------|-------------------|----------------------|
| 1. Hole | 8. Miss Yarn | 15. Stain |
| 2. Slab | 9. Color Yarn | 16. Fabric Hand feel |
| 3. Knot | 10. Stop Mark | 17. Fabric Way |
| 4. Others | 11. Color Out | 18. Uneven Dye |
| 5. Spot | 12. Thick Yarn | 19. Uneven Print |
| 6. Line mark | 13. Running Shade | 20. Running shade |
| 7. Big Thread | 14. Fabric Skew | 21. Selvage shade |

C. Cutting and Spreading Defects

- | | | |
|----------------------|-----------------|-------------------|
| 1. Miss cut | 6. Notch mark | 11. Leaning |
| 2. Running shade | 7. Narrow goods | 12. Tension Loose |
| 3. Matching plies | 8. Rugged cut | 13. Bias |
| 4. Number & bundling | 9. Fabric way | 14. Alignment |
| 5. Bowing | 10. Measurement | 15. Skew |

D. Sewing Defects

- | | | |
|---------------------|----------------------|-------------------------|
| 1. Uncut thread | 8. Broken stitch | 15. Visible joint |
| 2. Raw edge out | 9. Loop slanted | 16. label displace |
| 3. Uneven lob | 10. Short stitch | 17. Wrong embroidery |
| 4. Uneven topstitch | 11. Skip stitch | 18. Checkup down |
| 5. Down stitch | 12. Open stitch | 19. Mouth Close Up Down |
| 6. Puckering | 13. Up-Down position | 20. Untrimmed Thread |
| 7. Overstitch | 14. Rejected | |

E. Washing Defects

Garments washing is the process to improve hand feel, appearance, and better outlook of garments. We need to reduce the rate of washing defects/faults at a minimum level.

F. Garments Washing Defects

- | | | |
|---------------------------------|------------------------|--|
| 1. Garments
Discoloration | 6. Over Washing | 13. High Abrasion
Effect |
| 2. Poor Hand Sanding | 7. Washing Damage | 14. Color Bleeding at
Pocket Bag and
Label |
| 3. Care Label Fading/
Damage | 8. Washing Spot | 15. Washing Mark |
| 4. Off Shade | 9. High pH Level | 16. Poor Hand Feel |
| 5. Shade Variation | 10. Poor Grinding | |
| | 11. Lycra Out | |
| | 12. Poor Sand Blasting | |

G. Finishing Defects

- | | | |
|-------------------|---------------------|----------------------------|
| 1. Uncut thread | 8. shading | 15. Checkup down |
| 2. Iron problem | 9. Runoff stitch | 16. Oil Strain/Dirty Stain |
| 3. Broken stitch | 10. Process mistake | 17. Damage |
| 4. Button alter | 11. Raw edge out | 18. Needle Mark/Cut |
| 5. Skip stitch | 12. Fabric faults | 19. Overstitch |
| 6. Bartack Defect | 13. Sewing reject | 20. Stone in garments |
| 7. Oil / Dirty | 14. Size mistake | 21. Shading |

2.1.1 Benefits of Inline Thread Cutting

When thread trimming is done by operators himself inside the sewing line, the process is known as 'inline thread trimming'. Here listed 4 benefits of inline thread cutting.

- 1. Reduced part changing in finishing stage:** While thread trimming is done by workers, there is a chance of garments getting cut by trimmer. This will increase defect generation in garment..



Fig2.1: Benefits of inline thread cutting

- 2. Process time reduction:** You can reduce process time by eliminating a separate thread trimming process after garment stitching.
- 3. Reduced manpower (Thread trimming):** By introducing inline thread trimming by stitching operators, no thread trimming helper is required for trimming threads of each garment prior to garment finishing. Thus you can reduce indirect labour and labour cost.
- 4. Reduced thread wastage:** used to leave long tails of threads or chain after stitching garment.

2.2 Trimming threads

Thread trimming is one of the common processes in industrial apparel manufacturing. Cutting threads from stitched garments prior to garment finishing is a non-value added but unavoidable process. Number of helpers are hired for thread trimming job in garment factories. Manual thread trimming is time consuming and all trimmed threads can't be removed permanently from garments. To reduce trimming labour and effort to some extent, factories use UBT (under bed trimmer) machines. (Sewing machines mainly, lock stitch machines come with automatic thread trimming parts aka under bed trimmer).



Fig2.2: Thread trimming machine (Unisun)

The manual process increases the chance of damaging garment pieces. It may increase number of defective garments in a lot. Therefore it is good to invest on automatic thread trimming machines.



Fig2.3: Two head thread trimmer

By using automatic thread trimming machine you can reduce manpower and improve production speed of the thread trimming section. These machines are equipped with suction motor, trimming blade, table top and waste container. These machines are available in various designs. A thread trimming machines can be fixed on a table and operator can do trimming job by sitting on the chair. Operator can use flexible trimmer and trim thread tails placing garments on a flat table.

Self check-2

Test-I Matching

Instruction: select the correct answer for the give choice. You have given 1 Minute for each question. Each question carries 5 Point.

A	B
-----1. Benefits of Inline Thread Cutting	A. Broken stitch
-----2. Thread trimming	B. Fitness problem
-----3. Finishing Defects	C. Cutting threads from stitched garments prior to garment finishing
-----4. Trims and Accessories Defects	D. Shade variation
-----5. Garments Washing Defects	E. Reduced thread wastage.

Test II: short Answer

Instruction: write short answer for the given question. You are provided 3 minute for each question and each point has 5Points.

1. Mention and list down Garments Defects Inspection applies through Quality control in the Apparel Industry?
2. Why you use thread Trimming machine in apparel industry?
3. Write the benefits of inline thread cutting?

Note: Satisfactory rating – above 60% Unsatisfactory - below 60%

You can ask you teacher for the copy of the correct answers

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Unit Three: Pressing

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- pressing tools and materials
- Pressing machines
- Pressing faults
- Pressing requirements
- Pressing Sequence/ procedures

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Prepare Fabric and **pressing tools** according to standard operating procedures
- Setup, clean and check Pressing machines in accordance with company's procedures
- Identify and take appropriate actions faults, spots and marks in accordance with standard procedures
- Apply **Heat/Pressure** in accordance with product requirements, fabric specifications and standard procedures
- Sequence Pressing in accordance with work specifications and standard procedures

3.1 Definition of garment pressing

Pressing is known as garments ironing. Steam ironing is done in garments bulk finishing. When undesired creases and wrinkles are eliminated from clothing, as well as the appearance of the garments is enhanced, this is referred to as pressing, which is a phrase used to describe the process of pressing. Pressing or ironing is the most important finishing process in the readymade garments sector which is done by subjecting a cloth to heat and pressure with or without steam to remove unwanted creases and to impart a flat appearance to the garments. Pressing or ironing is also done to introduce creases in the apparel.



Fig3.1: Garment Pressing

3.1.1 Purpose of Garment pressing

- ✓ Unwanted creases as well as wrinkles removing
- ✓ Many clothing defects and faults can be hidden by pressing tin, including every bit of puckered seam and neps.
- ✓ pressing, which is also known as shaping, is used to mark darts to a higher extent than is visually appealing.
- ✓ To give more smoother effects on garments, ironing is done
- ✓ To compress the garments so that it take a very small area

3.1.2 Classification Of Pressing:

The basic processes that are involved in pressing can be divided into two groups:

- 1. Under pressing:** It is the pressing operation performed on garment components as they are made up.
- 2. Top pressing/Final pressing:** This refers to the finishing operation, which a garment undergoes after being completely assembled.

Both groups involve a huge number of individual processes, their extent determined by the cloth, quality and design of the garment.

3.2 pressing tools and materials

Pressing is an important step when sewing. It's essential to press at each stage during construction to ensure a perfectly finished garment. Keep your pressing equipment close to your sewing machine to remind yourself to press after each step. When you press your material, you should move the iron very little when it is in contact with the fabric.

Press in the direction of the fabric grain and each stitched seam before crossing with another. Make sure to press on the wrong side of the fabric to prevent iron shine. Below are some basic and extra pressing tools.



- **Steam/spray iron** – choose an iron that has a wide variety of heat settings to accommodate for different fabric types. You should be able to use the iron and steamer on any temperature setting.



- **Tailor's ham** – used when pressing shaped areas such as curved seams, bust darts, collars or sleeve caps. The ham is a hard packed cushion with rounded curves. One side is cotton while the other is covered with wool to retain more steam. This pressing tool makes it easier to shape garment pieces when pressing seams.



- **Press cloth** – used to prevent iron shine and is used when applying fusible interfacing. The cloth is transparent which allows you to see if the fabric is smooth or if the interfacing is properly aligned. It is also useful for using iron-on products.



- **Sleeve board** – looks like a miniature ironing board. It is used when pressing seams and details of small or narrow areas such as sleeves, pant legs, necklines and sleeve caps.



- **Point presser/clapper** – made from hardwood and is used for pressing

seams open in corners and points. The clapper flattens seams by holding steam and heat in the fabric. This tool is used in tailoring to achieve a flat finish and sharp edges on hard-surfaced fabrics.



- **Seam roll** – is a firmly packed cylindrical cushion for pressing seams. The bulk of the fabric falls to the sides and never touches the iron, preventing the seam from making an imprint on the right side of the fabric.

3.3 Pressing machines or Equipments

Generally, pressing or ironing is done in combination with heat, pressure and moisture. With the help of this process, fibers, yarns and fabrics are reformed in the wanted shapes as per the desire of the designer. The system of application of heat, pressure and moisture for the purpose of pressing depends on the garment pressing equipment and methods.

3.3.1 Types of Garment Pressing Equipment and Methods:

About the equipments or pressing machines that are used for pressing of garments, elaborate discussions are given below.

1. Iron:

In ancient times, heat were generated firing the coal or the wood in an iron made case and garments pressing or ironing were done under the smooth and hot surface of the case. With the passage of time, the use of the iron case has been replaced by the use of electricity, which (electric iron) is being used in houses till now. In electric iron, regulator is used to control temperature. Presently, steam iron, one step forward edition of electric iron, has come in the market. By supplying steam in the steam iron, the iron is made hot. By controlling a button in the steam iron by finger, the supply of steam through the iron is regulated. Steam is supplied in the iron through a pipe from the central large boiler or mini boiler and by operating the switch in the iron, steam is made out through a number of holes placed at the bottom of the iron. Ironing bed or table is required for calendaring of garments with the help of iron. For electric iron, generally flat bed or shaped bed can be used but for steam iron, ironing bed having facility of air-suction is required. Just after ironing bed, the heat and moisture of the calendared portions of the garment are removed instantaneously.

2. Steam Press:

There is a static buck and a head in the steam press whose shapes are proportionate to each other. Keeping the garment on the buck, the head is placed on the buck and the garment is ironed by applying heat and pressure. The buck is set in a frame and the ironing bed is made by spreading a few layers of fabrics or foam on the buck. There is system of the flow of steam and air-suction through the buck. There are tables around the buck where the garments are kept. The head remains in a frame on which bedlike arrangement is made by a number of layers of fabrics or foam. There is arrangement for supply of steam also through the head. Generally, the head is brought down on the buck with the help of scissors action and pressure is applied.

In the old pressing system, the head is brought down on the buck by a foot operated switch and pressure is applied by the scissors action and by another switch operated by hand or by foot, steam is supplied through the head and buck. Finally, the head is brought upward by controlling another switch and air is sucked through the buck.

3. Steam air finish:

This type of garments pressing machine is mainly known as “Puffer” or “Dolly” press. In Dolly press, there is a form in the frame in which arrangement is there for flowing of steam and compressed air with the help of a pipe. The pressing form is generally made by coarse canvass fabric. The size of the pressing form is used as per the size of the body of the garments, but there are no sleeves. Timer is used for flowing of steam and air for pre-setted time. An operator, covering from the upper side of the pressing form, pull downs a garment. Then steam is flowed from inside the pressing form with the help of a pipe, as a result, both the pressing form and the garment swell up. This way, steam is flowed for first 8 seconds. Then hot air is flowed for the next 8 seconds. As the outcome of garments pressing this way, if any unwanted creases are there in the garments, they are easily removed. Also minimum time is required for garments pressing. Dolly press is generally used for pressing of t-shirts, blouses, night dresses, sports wears etc. but dolly press can also be used for pressing of jeans shirts, pants, jackets etc.

4. Steam Tunnel:

In this process, pressing is done without applying any pressure on the garments. Hanging the garments in hangers, the hangers are placed in the running rail. The running rail carries the hangers with garments through a tunnel. There are a number of chambers in the tunnel. In the first chamber, the required temperature is controlled by steam. During passing through the chamber, the garments hanging in the hangers are heated by steam and if there are any unwanted creases in the garments, they are removed due to the fabric relaxation causes by heat and for the pulling of the gravitation force. Then during the period of passing through the second chamber, the garments are dried by the flow of dry hot air.

3.4 Pressing requirements /parameters/

In order to achieve good pressing quality, there are four basic parameters that need to be controlled to meet optimum performance: heat, moisture, pressure and cooling with vacuum.

1. Heat: Heat is required in most pressing operations to enable the fibres to soften and thus stabilize the garment shape. Temperature selection is of utmost importance, as an incorrect temperature setting can cause damage to fibres and yarns.

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2. Moisture: Moisture is introduced by the use of steam. Steam at different pressures has different moisture contents; the higher the steam pressure, the lower the moisture in the steam. The presence of moisture is required to aid in fiber swelling and thus shape stabilization. Excessive moisture may cause fabric shrinkage and colour bleeding.

3. Pressure: Pressure is applied to the garment during pressing to give good crease retention and permanency. Excessive pressure may result in garment or crease distortion.

4. Vacuum: Vacuum is applied at the completion of the pressing operation. This draws cool air through the garment, reducing the garment temperature, lowering the moisture content and increasing shape retention.

3.5 Pressing Sequence/ procedures

3.5.1 Pressing Process:

The process by which the unwanted creases and wrinkles are removed from the garments and the outlook of the garments is improved as well is termed as pressing. The pressing process influences the final garment appearance and hence the garment appeal. Finishing and pressing machines contour the semi finished garment panels as well as finished garments by bringing down the fibres in the fabric to an elastic state and then deforming and setting them.

Pressing Techniques:

1. Before pressing the garment you are making, always test-press a scrap of the fabric first. Set the heat indicator for the type of fiber. For a blend, set the indicator for the fiber requiring the lower temperature.
2. Thorough pressing during each construction step contributes to a precision look. It makes following each construction step easier, thus saving you time. Very little final pressing is necessary for a garment that has been properly pressed while being made.
3. True pressing calls for a lowering and lifting (up and down) motion. This flattens the seam or molds the detail without stretching the seam or distorting the grain. Never push or drag the iron over the fabric.
4. All pressing should be done with the grain, just as in stitching. Press seams from the wide to the narrow part of the garment--from the hem to the waist of the skirt, from the neck to the sleeves at the shoulder, toward the point of a dart, etc.

5. Press curved seams and shaped areas over a pressing ham, roll or cushion. This helps mold the garment to the figure. It also helps the garment hold its shape.
6. Generally speaking, most pressing is done on the wrong side of the garment when possible. If moisture is needed, use a steam iron or a damp cloth. For best results, dampen the cloth with a sponge. When pressing on the right side of the garment, protect the fabric with a cloth.

3.5.2 Objectives of Pressing Process:

- 1. Removal of unwanted creases and wrinkles:** During garments manufacturing, creasing occurs in garments due to operator's handling and for tying up garments tightly in boxes. To remove these creases and unwanted wrinkles pressing is to be done.
- 2. Hiding imperfections:** Pressing can hide a multitude (huge number) of garment's imperfections and faults such as puckered seam and neps.
- 3. To apply creases where necessary:** Sometimes in garment we may need to apply some permanent creases such as pleats in shirts and for that purpose we have to apply creases or folds by pressing. Sometimes the pressing is done before sewing though after sewing it is also common.
- 4. Shaping:** Dart and seam are used to make garments properly fit with the shape of human body. To make these darts more attractive, pressing is applied which is known as shaping. The part of garment may have to be shrunk or stretched for shaping.
- 5. Under pressing:** For sewing easily and properly pressing is done on some parts of garments before sewing, which is called under pressing. Under pressing is done in manufacturing jackets, trousers, coats, etc. They also require final pressing.
- 6. Final pressing:** The pressing which is done before packing the garments is known as final pressing. By final pressing the garments become glossy (silky).

Self check-3

Test II: short Answer writing

Instruction: write short answer for the given question. You are provided 3 minute for each question and each point has 5Points.

1. Mention garment pressing techniques?
2. Explain the objective of garment pressing process?
3. What are the parameters of garment pressing?
4. Discuss tools and classification of garment pressing process.

Test III: Multiple choices

Instruction: select the correct answer from the given choices. You are provided 3 minute for each question and each point has 5Points.

1. ----- is eliminating the desired creases and wrinkles from clothing to enhance appearance of the garments
A. pressing B. Folding C. finishing D. packaging
2. ----- one of the following is not objective of garment pressing process.
A. Removal of wanted creases and wrinkles B. Hiding imperfections C. Shaping D. none
3. One of the following garment pressing parameters is applied to the garment during pressing to give good crease retention and permanency?
A. Heat B. Pressure C. Moisture D. Vacuum
4. ----- pressing is done without applying any pressure on the garments.
A. Iron B. steam press C. steam air finish D. steam tunnel

Note: Satisfactory rating – above 60% Unsatisfactory - below 60%

You can ask you teacher for the copy of the correct answers

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Operation sheet 3.1

Operation title: Ironing cotton shirt

Purpose: To remove wrinkles and shrinkage from the t-shirt and create appearance of the garment.

- **Instruction:** Using the figure below and given required pressing tools, performing shirt iron tasks. You have given ¼ hours for the task and you are expected to write the answer on the given line.



Figure given for operation sheet 3.1

- **Tools and requirement:** steam iron, iron board , shirt, and electric power,
- **Steps in doing the task**

Step 1. Adjust the iron temperature settings

Step 2. Start with the collar

Step 3. Press the sleeves.

Step 4. Press the yoke

Step 5. Iron the back of the shirt

Step 6. Front and placket of the shirt.

Quality Criteria: the given information and detailed steps are set clearly.

- **Precautions:** use the right tools for the right purpose.

Operation sheet 3.2

Operation title: Folding A Pressed Shirt

Purpose: To reduce the amount of wrinkles and creases in your laundry.

- **Instruction:** Using the figure below and given required pattern tools, manipulate center front neck dart. You have given ¼ hours for the task and you are expected to write the answer on the given line.



Figure given for operation sheet 3.2

- **Tools and requirement:** table, folding board, duct tape,
- **Steps in doing the task**

Step 1. Button up the shirt and place it button side down and sleeves hanging to the side.

Step 2. Fold the left sleeve and left side of the shirt in towards the center.

Step 3. The fold should make a straight edge down.

Step 4. Now fold the sleeve away from the middle.

Step 5. Repeat it with the right side.

Step 6. Fold the shirt's tail up towards the collar, and you have your perfectly folded shirt.

- **Quality Criteria:** the given information and detailed tools are set clearly at accurate place.
- **Precautions:** use the right tools for the right purpose.

Lap Test 3.1

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within 4 hour.

- Task-1: Adjust the iron temperature settings for your product type
- Task-2: follow ironing steps and perform ironing properly
- Task-3: fold the pressed shirt/product/ and apply folding procedure
- Task-4: check ironing and folding quality

Unit Four: Packaging

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Packaging garments
 - ✓ Packaging definition
 - ✓ packaging procedure
 - ✓ Packaging garments
 - ✓ Important of packaging
- Labeling packed Garment
 - ✓ Labeling definition
 - ✓ Important of labeling
 - ✓ Labeling tools and materials
- Cleaning work station

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Pack finished garments in accordance with packaging standards/procedures
- label garment packages following standard procedure
- Clean work station after work completion

4.1 Packaging garments

4.1.1 Packaging definition

Garment packaging is the procedure of wrapping, compressing, filling or creating of goods for the purpose of protection too their appropriate handling. This is the concluding procedure inward the production of garments, which prepares the finished trade for delivery to the customer. It is an of import part of the garment manufacturing process. Packaging refers to the container that carries a product. Two basic objectives of packaging are preventing whatever impairment to the production during shipping too enhancing the features of the production to the consumer for a sale of it.

Packaging has 2 major functions:

- Distribution
- Merchandising

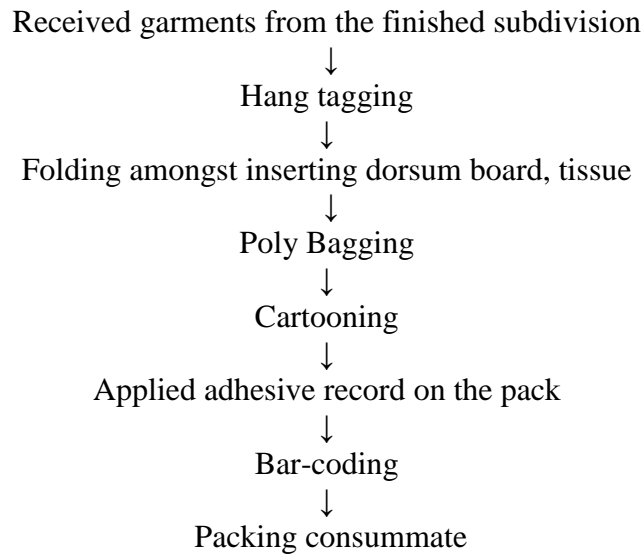
The primary purpose of distribution packaging is packaging the garment inward a agency that it allows the garment manufacturers to carry the garment at a minimum toll too inward the shortest fourth dimension to the retailer or purchaser, without deteriorating the character of the product. The merchandising business office deals amongst showcasing the garment production inward a agency that it stimulates consumer wishing for purchasing the detail product.

4.1.2 Requirements of Garment Packing:

The plastic bags are almost commonly used for garment packing either at the completion of production or when they construct it at the finished goods stores. Apparel such every bit shirts too underwear is usually bagged too boxed right away later concluding inspection too enters the stores inward pre packed form. Other hanging garments similar jackets, dresses too skirts are usually bagged when they larn into the stores. The packed garment boxes are sealed past times contact adhesive newspaper record or outpouring amongst a plastic tape.

4.1.3 Packaging procedure

Flowchart of Garment Packaging:



4.1.4 Types of Package Forms:

The basic types of parcel forms used inward wearing clothing too allied products are

- Bags
- Boxes
- Cartons
- Cases
- Crates
- Twine
- Wrappers

✓ Types of Packing in Finishing:

There are so many packing types followed in the apparel industry. The following are the most used among those:

1. Flat pack (Shirt, sportswear, trouser),
2. Stand up pack (90° angle),
3. Semi-stand up pack (for shirt),
4. Hanger pack (for coats, blazer, pants),
5. Half-fold pack (for pant).

✓ Types of garment packing are given below:

1. Stand-up pack:

This type of packing is commonly used for shirts too hence termed every bit ‘shirt packing’. For this type of packing, the garments accept to live pressed prior to packing too are packed amongst

additional packing materials similar tissue paper, dorsum support, pins or clips, inner neckband patty, outer patty, etc.



Fig4.1: Stand-up pack too accessories.

✓ **The advantages of the stand-up pack are:**

- It is an attractive pack so it enhances the appeal of the garments to the customer.
- It is a safer pack every bit it has inner too outer cartons, hence the packed garments tin live handled easily.
- On line of piece of work concern human relationship of its ameliorate presentation, it tin increase the sales of a product.

✓ **The disadvantages of the stand-up pack are:**

- It is costlier.
- It needs many packing materials.
- It involves a lot of Endeavour every bit good every bit time.
- Unpacking of this form of parcel needs to a greater extent than fourth dimension too i time unpacked it is tough to repack.
- In instance it is crushed past times whatever source, creases too wrinkles are formed on the garments too thus the pressed status is disturbed.

2. Flat pack:

In this packing method, the garments are pressed too folded good every bit similar inward a stand-up pack, silent amongst less additional packing materials. It is to a greater extent than oftentimes than none unremarkably used for ladies' garments too has a apartment surface. The

size of the folding is based on the garment agency too specifications of the buyer. The mutual sizes of apartment pack are $8'' \times 10''$ too $10'' \times 12''$.

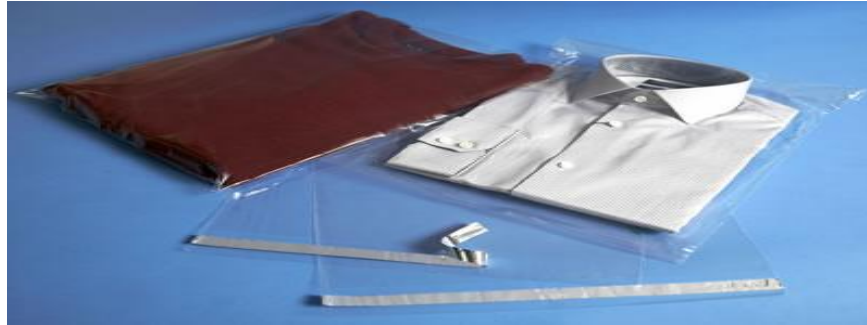


Fig4.2: Flat pack garment.

✓ **The merits too demerits of apartment pack are:**

- It is less expensive than the stand-up pack every bit it requires less material.
- It is less attractive than the stand-up pack.
- For shirts it does none acquaint the beauty of the neckband part real well.
- The disadvantages are the same every bit that of the stand-up pack.

3. Hanger pack:

It is an elementary garment packing method where the garments are secured inward a poly pocketbook amongst a hanger later pressing. Here Polybag is the alone stuff used. This type of packing tin live used for all types of garments especially for blazers, coats, pants, etc.



Fig4.3: Hanger pack garments inward display.

✓ **The merits too demerits of a hanger pack are:**

- Because of its simplicity it reduces the toll of packing too materials.
- All the components/panels of the garments could live see easily without removing the bag.
- The fourth dimension for packing too unpacking is less.
- Material treatment is none easy.

4. Deadman pack:

This form of packing is used for shirts. Here, the sleeves are folded inward front end of the pack too pinned amongst each other. Next, the garments are folded inward the center. As it resembles the appearance of dead body, it is called a ‘deadman pack’. It is an elementary packing method using alone pins or clips too polybags.

The merits too demerits of this pack are:

- The costs of packing materials too packing are less compared amongst other methods due to its simplicity.
- The packing too unpacking fourth dimension is less.
- Garments tin live examined inward the packed condition.
- This type of packing enables slow treatment of garments.
- This type of packing is not suitable for shirts because it does not demonstrate the neckband too the neckband indicate every bit inward the stand-up pack; hence, it is less attractive.

✓ **Types of Carton Packing in the Apparel Industry:**

After packing the apparel, cartooning is done according to the apparel size and color in the apparel manufacturing sector. Mostly used carton packing types have given in the below though there are various types of cartoon packing in the clothing sector:

1. Solid color solid size carton packing,
2. Solid color assorted size carton packing,
3. Assorted color solid size carton packing,
4. Assorted color assorted carton packing.

Information provided inward carton boxes are given below:

- Carton box number
- Order number
- Style, color
- Number of pieces inward each color too agency
- Total number of pieces
- From address too To address

- Contact number
- Net weight of the carton box
- Dimension of the carton box

It should be noted here that, carton packing may be as 12pcs, 24pcs, or 36pcs per carton which is totally dependent on the **buyer** requirements.

✓ **Packing List Documents in Apparel Sector:**

Packing list (P/L) is known as an inventory of the incoming cargo which is required for customs clearance in apparel shipment and accompanying the commercial invoice and the transport documents. During apparel shipment, the packing list generally includes the below information's or documents:

1. Name of the exporter,
2. Name of the importer,
3. Name of the transport company,
4. Date of issue,
5. Number of the **freight** invoice,
6. Type of packaging (carton, box, barrel, bag, etc.),
7. Total number of packages,
8. Content of each package (Details description of the goods and number of items per package),
9. Marks and numbers,
10. Gross weight, net weight, and measurement of the packages.

4.2 Packaging garments

May include but not limited to:

- Blouse
- Skirt
- Trouser
- Culottes
- Shirt
- Short

4.3 Important of packaging

✓ **The Functions of Packaging:**

- a. Containment:
- b. Protection:
- c. Identification:
- d. Convenience:
- e. Attractiveness:
- f. Promotional Appeal:
- g. Re-Use:
- h. Economy:

✓ **Some essential packaging functions are following:**

1. It is a protection to your product
2. Storage
3. Loading and transport
4. Promotional function
5. Security
6. Information transmission

4.4 Packaging materials

The elementary packaging materials used inward garment too related items are paper, plastic, film, wood, nails, staples, cords, mucilage record too metallic bands.

1. Wood cases too crates are to a greater extent than oftentimes than none used every bit packing materials for mass exports or rugged shipments where shipment treatment is higher.
2. Paper too plastic cinema packaging materials are used inward the garment too related industries.

Quality Specifications for Packaging Materials:

Quality specifications for packaging newspaper too cinemas are similar to that of fabric. The basic character factors inward newspaper too films are

1. Properties

- Clarity
- Thickness
- Width too length
- Weight
- Yield

2. Characteristics

- Tensile strength
- Elongation
- Bursting too vehement strength
- Flammability
- Porosity
- Air/moisture permeability
- Sunlight transference
- Resistance to odours
- Dimensional stability to estrus too sunlight

4.5 Labeling packed Garment

4.5.1 Labeling definition

Definition: Labeling is a part of branding and enables product identification. It is printed information that is bonded to the product for recognition and provides detailed information about the product. Customers make the decision easily at the point of purchase seeing the labeling of the product. Labels must comply with the legal obligations.

✓ Types of Labeling

There are different types of labels:



- **Brand label:** It plays an important role in labeling as it gives information about the brand. It can be removable or non-removable.
- **Descriptive label:** It specifies product usage.
- **Grade label:** It describes the aspect and features of the product.

Common label has a specific purpose and carries some kind of information.

1. Brand or Main Label:



Fig4.4 Brand label

Main labels indicate a Brand name or Brand Logo of the company that sources and sells clothes. Brand labels play a big role to customers as because customers only know the brand and they buy the brand. A brand level is associated with the product quality, durability and feel good factor. Like, we go buy Levis jeans and Tommy Hilfiger for shirts and Polo shirts, Zara for dresses etc.

2. Size Label:

Size label defines a specific set of measurements of the human body. Sizes labels may be printed only a later to denote a specific size. Such as S for Small, M for Medium and L for Large size garments. The customer knows which size fits them well. When a customer goes for shopping, s/he picks garment according to his/her size that fit him/her well.

3. Care Label:

This label includes wash care and ironing instruction. For details of wash care instructions refer Garment wash care symbols. Care labels are attached at side seam. The purpose of care labels is to warn wearers what not to do to during washing, drying and ironing to maintain color, specifically printed designs, after wash shrinkage and color bleeding issues. A care label may include little other information such as

- Fiber contents are also included in care labels. i.e. 40% Poly and 60% Cotton
- Country of Origin: Name of the country that manufactured the particular product is also written on care label. Like, Made in India, Made in Italy.

4. Flag Label:

A small label attached at outside side seam. Flag labels are normally made of brand logos and it is primarily used as design features.

5. Manufacturer Label:

This label includes manufacturer's code given by buyers. Most of the international buyers source garments from the different part of the world and distribute those garment across the world. In case buyer needs to track the manufacturer of a particular product, they use this code.

6. Batch Mark Label:

A label that indicates which sewing line or batch had made the particular garment. This label normally is not asked by buyers or brands. Few garment manufacturers add this label to the internal quality inspection process and rectify which line had made the garment and which checker had checked the same. This label is normally attached at side seam under wash care label.

7. Special Label:

100% Cotton, Organic Cotton is an example of such special labels. Special labels normally attached to draw customer attention at the time of purchasing.

4.5.2 Garment Labeling Requirement

- Material contents
- Country of origin
- Manufacturer details
- Care instruction of the Garments
- Labelling placemen



Fig4.5: Garment Labeling Requirement

Important of labeling

• Functions of Labeling:

The different functions of labeling are as follows

1. Defines the product and its contents
2. Recognition of product
3. Assorting of products
4. Assists promotion of products
5. In compliance with the law

• Importance of labeling

1. Labeling is significant as it fetches customers' attention to purchase the product because of visual appeal.
2. It promotes the sale of the product as it can make or break the sale of a product.

3. Labeling is an important factor in the sale of a product. It helps in grading and provides information required by the law.

4.6 Cleaning work station

May include but not limited to:

- manual handling techniques
- standard operating procedures
- personal protective equipment
- safe materials handling
- ergonomic arrangement of workplaces
- housekeeping

Self check-4

Test-I Matching

Instruction: select the correct answer for the give choice. You have given 30 Minute for each question. Each question carries 3 Point.

A	B
-----1. Functions of Labeling	A. use for coats, blazer, pants
-----2. Functions of packaging	B. Attractiveness
-----3. Brand or Main Label	C. Use Shirt, sportswear, trouser
-----4. Flat pack	D. Assorting of products
-----5. Hanger pack	E. Material contents
-----6. Garment Labeling Requirement	F. indicate a Brand name or Brand Logo of the company

Test II: short Answer writing

Instruction: write short answer for the given question. You are provided 3 minute for each question and each point has 5Points.

5. Mention function of garment packaging and labeling?
6. Explain types of garment labeling and their uses?
7. What are Packing List Documents in Apparel Sector?
8. List at least 5 Information provided inward packing carton boxes.

Test III: Multiple choices

Instruction: select the correct answer from the given choices. You are provided 3 minute for each question and each point has 5Points.

1. ----- is bonded to the product for recognition and provides detailed information about the product.
A. Packaging B. Labeling C. Folding D. sewing
2. ----- defines a specific set of measurements size the human body.
A. Care Label B. Size Label C. Main Label D. Special Label

Note: Satisfactory rating – above 60% Unsatisfactory - below 60%

You can ask you teacher for the copy of the correct answers

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Operation sheet 4.1

Operation title: Preparing Care Label plastic Tag

Purpose: To identifiable when customers head to the communal laundry room.

- **Instruction:** Using the figure below and given required pattern tools, manipulate center front neck dart. You have given ¼ hours for the task and you are expected to write the answer on the given line.



Figure given for operation sheet 4.1

- **Tools and requirement:** steam iron, sticker, plastic tag, care type ironing board, sewing machine, marker
- **Steps in doing the task**
 - Step 1. Laundry or Fabric Markers
 - Step 2. Laundry Stamps
 - Step 3. Iron-On Labels
 - Step 4. Stick-On Fabric Labels
 - Step 5. Sew-In Labels
 - Step 6. Plastic Tags
- **Quality Criteria:** the given information and detailed tools are set clearly at accurate place.
- **Precautions:** use the right tools for the right purpose.

Lap Test 4.1

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within 4 hour.

- Task-1: select and fabric mark the required things on the care tag.
- Task-2: Customize self-inking stamps
- Task-3: perform ironing, stick and sew in labels
- Task-4: check plastic tag quality

Reference Books:

1. Professional Sewing Techniques for Designers by Julie Cole and Sharon Czachor
2. The Sewtionary: An A to Z Guide to 101 Sewing Techniques and Definitions by Tasia St. Germaine
3. Essential Sewing Reference Tool: All-In-One Visual Guide by Carla Hegeman Crim
4. Sewing for Fashion Designers By Anette Fischer
5. Apparel Manufacturing Technology past times T. Karthik, P. Ganesan, too D. Gopalakrishnan
6. <https://sosopoetry.blogspot.com//search?q=departments-garment-industry>
7. <https://sosopoetry.blogspot.com//search?q=departments-garment-industry>
8. <///C:/Users/user/Desktop/garment%20production%20II/UC%208/LO3/How%20to%20iron%20and%20fold%20a%20shirt%20-%20Sew%20Guide.h>

Participants of this Module (training material) preparation

N o	Name	Qualific ation (Level)	Field of Study	Organizati on/ Institution	Mobile number	E-mail
1	Amlaku Tewelign	A(MSC)	Garment Technology	BPTC	0918026571	amlaktewe@gmail.com
2	Melkie Erkihun	A(MSC)	Garment Technology	BMC	0925755581	merkyhun@gmail.com
3	Dejene Bifa	A	Garment Technology	AKPTC	0913647972	Dejene.bifa@yahoo.com
4	Mohammed Yimer	A	Garment Technology	CPTC	0913833994	Yimermohamed2010@gmail.com