Garment production

Level-I

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Introduction to the Module

This module covers the knowledge, skills and attitudes required in 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

This module covers the units:

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

Learning Objective of the Module

- Identifying and checking finishing touches
- Marking and attaching accessories and accents
- Sew accessories by Hand/machine.
- Performing finishing operations
- preparing fabric and pressing tools
- setting up, cleaning and checking Pressing machines
- Identifying faults, spots and marks
- Applying Heat/Pressure
- Sequencing press
- Packing finished garments
- Packaging standard procedure
- Labeling Garment packages
- Cleaning work station

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: Apply finishes

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

- Identifying and checking finishing touches
- Marking and attaching accessories and accents
- Sew accessories by Hand/machine .
- Performing finishing operations
- Checking missing buttons and attachments on garment.
- Folding and pinning bodice hem and sleeve allowance
- .Sewing hemline allowances

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:

- Needed finishing touches are identified and checked in accordance with garment design/style specifications
- Accessories' and accents' positions are marked and attached in accordance with garment design/style specification
- Accessories and accents are sewn by hand or by machine in accordance with garment design/style specifications
- Finishing operations are performed in accordance with customer's specifications and standard procedures
- Garment is checked for missing buttons and attachments
- Bodice hem allowances and sleeves are folded and pinned in accordance with customer's specifications
- Hemline allowances are sewn in accordance with the given stitch/seam specifications

1.1 Identifying and checking finishing touches

It is realistic to assume that however well checking or quality control procedures operate within a factory there will always be a certain percentage of garments rejected for some reason or other. The best way to carry out quality checks is by establishing a standard as a criterion for measuring quality achievement. Production results can be measured and compared to the planned quality standard. Corrective measures to be carried out if there are any deviations in the plans. Ideally, any system should detect possible deviations before they occur through forecasting. Work produced with minus defects will produce quality products, enhance economy and productivity.

When ordering a number of different sizes of garments are sure to consider how to sort these garments among shipping cartons. For example, how many women's dresses of each size small, medium, large and extra-large should each carton contain? Imagine the frustration of receiving 20 extra-small dresses and only three extra-large dresses when you intended to receive the same proportion of every size. You can prevent this problem by including assort

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

Regardless of your particular requirements, it's vital that you, your supplier and your inspection team have a clear understanding of what's expected. All relevant parties need ready access to current specifications, inspection criteria and any other quality documents. Be sure to continually update your product specifications after inspection to reflect any unforeseen quality issues found during inspection and other changes.

1.2. Marking and attaching accessories' and accents' positions

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. These have to be chosen in such a way that they complement the outer fabric both aesthetically, in terms of decoration, and practically, in terms of ensuring that the garment performs as expected in its intended end use. Various kinks 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.

1.3 Sew accessories by Hand/machine

Normally garment accessories can be classified in three ways:

1. Garment accessories/Basic accessories
2. Decorative accessories
3. Finishing accessories

A. Garment accessories/Basic accessories:

1. Thread
2. Zipper
3. Interlining
4. Button for example: Snap button, Plastic button, .Metal button.
5. Label: Main label , Size Label, Wash care label
6. Motif: Leather, Plastic, batch Metal
7. Pocketing fabric
8. Pocketing fabric
9. Lining
10. Velcro
11. Rivet
12. Collar bone

B. Decorative Accessories:

1. Elastic tape
2. Buttonhole tape
3. Piping
4. Moiré ribbon
5. Seaming tape
6. Welted tape
7. Ribbed tape
8. Velvet ribbon

C. Finishing Accessories:

There are some finishing accessories:

1. Hang tag
2. Price tag
3. Plastic/ poly bag
4. Tissue paper
5. Carton
6. Scotch tape
7. Tag pin
8. Plastic clip
9. Sticker
10. Butterfly
11. Collar insert
12. Back board
13. Necks insert

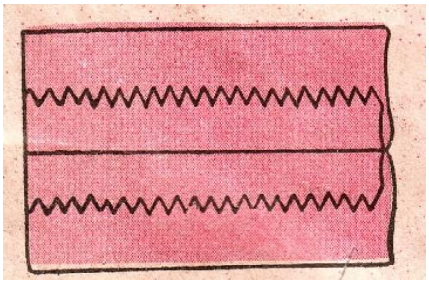
Accessories can transform a basic assortment of cuts of fabric into a fully functional and stylish piece of apparel. Most of the above garment defects related to accessories can easily be repaired or reworked before the goods have left the factory. And there's usually little danger of introducing new defects into the garment when reworking these issues. If a button is missing, the factory can simply sew one on right away.

1.4 Performing finishing operations.

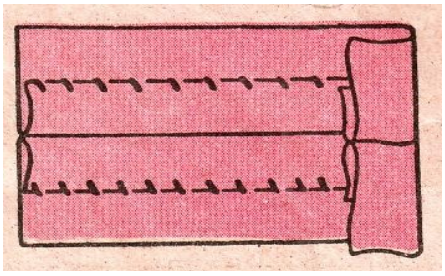
Seam finishes are most determined by the fabrics and their uses on the garments. Standard seam allowance on pattern is 5 / 8 or 1.5 centimetre wide.

1.4.1 Type of Seam Finishes

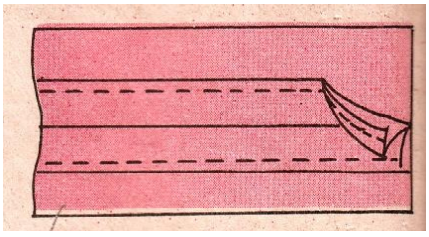
1. Pinked Seamis used for non-fray able fabrics like wool, silk, velvet, etc. Use pinking shears in trimming the edges.



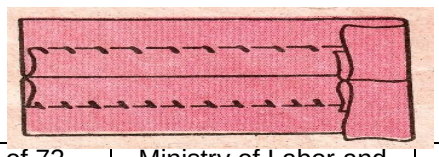
2. Overcast open seamis used in over casting the edges of seams. Blanket stitches are used in this type of seams.



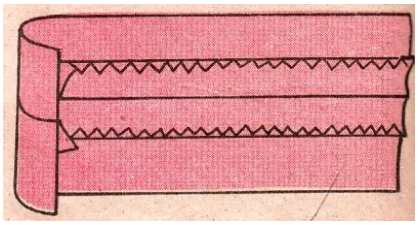
4. Edge turned and stitch seamis a stronger finish than pinking and overcast seam finishes. This is suitable for lightweight fabrics. Trim the seams and turn raw edges. Machine stitch or make running stitches on the edges.



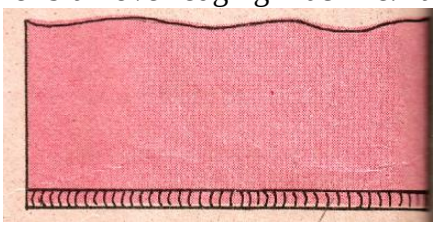
5. Overcasting stitchis a slanting or diagonal stitch over the new edge of seams to keep the cloth from ravelling.



6. Zigzag open seamis a seam finish for open seam when there is only zigzagged available.



7. Over edged seamis seam finish if there is an over edging machine. It is also known as overclocked seam.



1.5. Checking garment missing buttons and attachments

Buttons are one of the accessories of a garment most susceptible to falling off. Many manufacturers even sew an extra button to the garment or include one in the packaging for consumers as a replacement.

But that doesn't mean you shouldn't pay attention to button defects during inspection. In fact, since buttons are so susceptible to functional and durability issues, evaluating buttons and buttonhole stitching should be an even higher priority during clothing inspection.

Fatigue tests and pull tests can help you verify the function and durability of the button itself. But a button without a functional buttonhole doesn't serve much purpose. There are no particular on-site tests for the buttonhole itself. But your inspector should look out for a number of quality defects related to buttonhole stitching during garment inspection.

Generally speaking, a sewing button is usually a round and small disc which is used to fix to pieces of fabrics closed or overlapped. The same as zippers, buttons also belong to fasteners combining functionality and decoration. Buttons have a wide array of varieties, so the combination between buttons and garments needs to be well-considered depending on the style and requirement of garments.

Material

Based on materials used for buttons, buttons can fall into several types as below:

Wood/ Bone/ Pearl/ Sea shell/ Resin/ Metal/ Leather/ Plastic/ Glass/ Fabric/ Corozo/HornMatching with different attachments, manufacturing technique and the end use of

buttons, the best button for the designated garment can be stand out. Button images are refreshed by different textures, then the ornament of button improved the fineness of garments.

Shape

Now, let's focus on 6 main types of buttons classified by shape:

1. Flat buttons

Flat buttons are made from resin or natural materials with two or four holes. Because they are flat, the manufacturing process is not so difficult. Flat buttons can be mass-produced and can be sewn on by sewing machines. Flat buttons are typically used in blouse, shirt and coat.

2. Shank buttons

Shank buttons are a kind of buttons without holes on the face. There has a protruded loop or hole in the back, which is used for attaching buttons to the fabric. The protruded loop can be molded directly from the button material, such as glass buttons and resin buttons. Also, it can be a separated piece fixed into button unit.

3. Stud buttons

Stud buttons are widely used in jeans. Stud buttons have two parts and are pressed onto fabric with a special machine. Some patterns or logos are usually engraved on the face of jeans buttons for individuality.

4. Toggle Buttons

Toggle buttons have a unique elongated oval shape with a hole in the center to hold it in place. Besides, they are usually matched with rope loops to function. Toggle buttons are often selected for thicker coats and duffel jackets, etc.



5. Decorative Buttons

These buttons are not only a fastener, but also a fancy decoration item. In some cases, they maybe only offer decorative function, such as lapel buttons, cuff links with non-functional and brooch. Decorative buttons usually have irregular shapes that can intersperse garments.



6. Snap Buttons

They are divided into four parts from the top down including cap, socket, stud and post. The surface of cap and socket can be carved with decorative patterns. Snap buttons are an ideal of hidden fastener.



How to classify buttonhole defects for garment inspection?

Most quality issues related to buttons are classified as “major” defects using standards. But you may choose to class them differently based on your own quality expectations. Major defects are quality issues that lower the value or usability of a product and might cause a customer to return it. Defects related to buttons can hurt sales and brand perception so most garment importers generally prefer to limit these as much as possible. Some common examples of buttonhole defects and the problems they cause are:

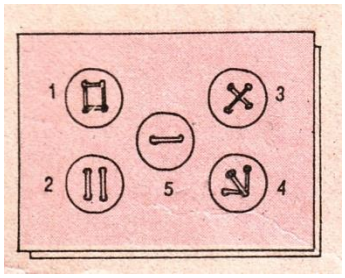
- Incomplete, skipped stitches or untrimmed threads around the buttonhole can cause the button to catch or make it difficult to fasten the garment.
- An improperly sized buttonhole can make the garment easily come unfastened or difficult to fasten at all.

Buttonholes sewn vertically when they should be sewn horizontally and vice versa can affect function and style of a garment. Buttons and Buttonholes

Buttons are the most common fastener used in different types of garments. Buttons are those with shank and with 2 or four holes. They are used as fastener or decorations.

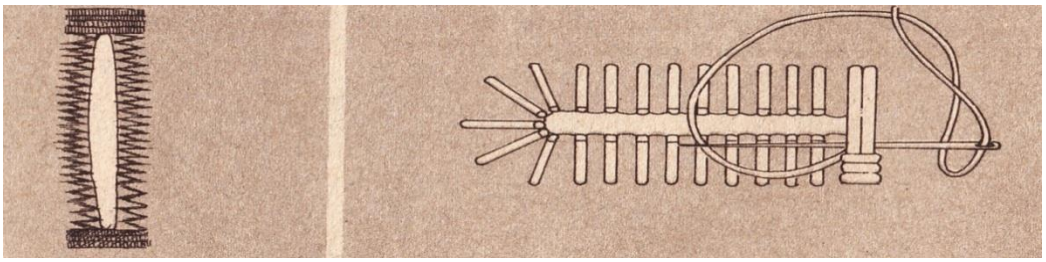
Ways of attaching Buttons

1. Square
2. Parallel
3. Cross
4. Arrow head
5. Common way



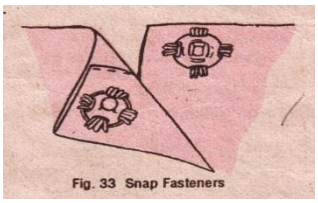
Worked Buttonholes

Ladies blouses are usually buttoned from right to left so the buttonholes should be made on the right of the blouse. Holes through which buttons pass through are called "buttonholes". If the blouse is buttoned down at the front, the buttonholes maybe placed horizontally or vertically. Horizontal buttonholes are made ½ centimetres outside the centreline. While the vertical buttonholes are made on the centre line. The mark of the exact length of buttonholes should be ¼ centimetre to ½ centimetre longer than the diameter of the button. Buttonholes should be cut crosswise or lengthwise following are thread of the material. Use sharp and pointed scissors when cutting the buttonholes. Horizontal buttonholes are made by making a fan at one end and a bar at the other end while vertical buttonholes are squared with buttonholes stitches at both ends.



II. Snaps

Snaps are used on flat surface where there is a little stain. These are commonly used for baby dresses.


Fig. 33 Snap Fasteners

III. Zipper

Zipper, otherwise known as a slide fastener, is used to close-openings in many different types of garments. It is mostly used in skirts and pants.



Zipper is made with metal teeth or coils of nylon or polyester that mesh together.

IV. Hook-and-Eye

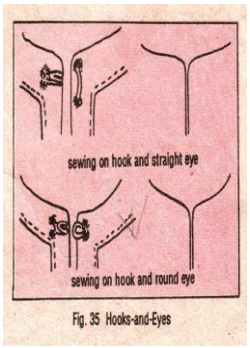


Fig. 35 Hooks-and-Eyes

Hook-and-eye is used to fasten opening which has considerable strain. Belts and neck openings use hook-and-eyes. There are two kinds of eyes – the round and straight. The round eye is used where the edges of the opening just meet, while the straight eye is used on edges laps. Sometimes a thread loop is used on a straight eye if a very flat closing is desired.

1.6 Folding and pinning body hem allowance and sleeves

After completing pressing, the garments are folded with a predetermine area. Garments are folded according to the buyer's direction, requirements in a standard area.

There are mainly 4 types available for folding shirt is given below-

- Stand up: Collar is folded with body and situated at 90 degree angle.
- Semi-stand up: Collar is folded with body and situated at 45 degree angle.
- Flat pack: Collar is spread as a whole on the body of shirt.
- Hanger pack: Shirt is packed and transported by hanging on the hanger. At the end of folding, garment are placed into a polythene packet, the size of polythene packet is permanent.

1.6.1 Folding of a Short-Sleeve T-shirt

- Fold the arms straight across back.
- Fold the shirt side seams across back of shirt.
- Fold the bottom edge of shirt about 2-inches from the bottom.
- Fold the shirt in half

1.6.2 Pant folded side-to-side

- Close zipper and waist buttons.
- Fold pant in half, with inseam to out seam keeping ends of waistband to inside of pant.
- Fold leg in thirds – fold bottom edge to above knee and fold up to waist edge.

1.6.3 Pant folded front-to-back

- Close zipper and waist buttons.
- Fold pant front to back with fold at rise
- Fold leg in thirds – bottom edge to above knee and fold up to waist edge

1.7 Sewing hemline allowance in according to the given stitch.

Hemming is a kind of stitch that holds folded edge like hem and facings.

1.7.1. Kinds of Hem

1. Blind or slip stitch is done under an edge or through a folded edge. It does not hold hem rigidly to the skirt.

2. Slant hemming is the simplest among the hemming stitches. It is for fastening bands, binding cuff etc.

3. Catch stitch is used to hold the raw edges of the interfacing and placed along fold lines. It is done in between the hem and fabric. It can be used when hemming heavy fabrics that stretch to prevent a ridge from showing on the right side of the garment.

4. Lock stitch is a type of blanket stitch done between the hem and outer fabric.

5. Machine stitch may be used in garment in which hem is not advisable to use.

1.7.2 Seam Allowance

When we sew fabric, whether as clothing or items for the home, we create a line of stitching which is known as the ‘stitch line’. This stitching cannot be sewn right on the raw edge of the fabric because the stitches would slip off.

Instead, we sew a little way in from the raw edge of the fabric, and the difference created between the raw edge and the stitched line is then known as the seam allowance.

Self check-1

I. Say true or false

1.Finishing is a beautification process of garments

2. Hook-and-eye is used to fasten opening which has considerable strain

3. Seam finishes are most determined by the fabrics and their uses on the garments

4. Pinked Semis used for non-fray able fabrics

5. Overcastting stitches used in over casting the edges of seams

II. Choice the best answer

1.Which one is pinked seam?

a) Is used for non-friable fabrics
b) Used in over casting the edge of seam
c) Is stronger finish than pinked and over cast seam finish
d) All

2. Which one is used for hook and eye?

a) Is used to astern opening which has considerable strain
b) Mostly used in skirt and pant
c) Commonly used for baby dress
d) All

3. Heming means?

a) kind of stitch that olds folded edge like hem and facing
b) are the most common fastener used in different types of garment
c) used on flat surface where there is little stain
d) none
e)

III. Give short answer

1. Write Process Flow Chart of Garments Finishing.
2. How to classify buttonhole defects for garment inspection?
3. What is folding and pinning?
4. Write types of folding shirt.

IV. List and explain kinds of hem

1. For what reason can be certain garments rejected? (5%)

2. Write garment accessories can be classified and there examples.
3. Write Types of Seam Finishes.

Directions: Answer all the questions listed below.

I. **true or false**

1----------

2----------

3----------

4----------

5----------

II. Choice the best answer

1. ----------

2. ----------

3. ----------

III. Give short answer

1. ----------

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2. ----------

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3. ----------

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4. ----------

IV. List and explain

1. ----------

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2. ----------

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3. ----------

Operation sheet-1

Operation title:- Apply garment finishes
Purpose:- At the end of this Operation the trainees shall be able to , Identifying and checking finishing touches, Marking and attaching accessories and accents,Sew accessories by Hand/machine and Performing finishing operations

Equipment tools and material:-
- ✓ Iron
- ✓ Ironing board
- ✓ scissors
- ✓ Trimmer
- ✓ Accessories
- ✓ Hand needle
- ✓ Packaging material

Procedure:
1. Removal of unwanted creases and crinkles
2. Shaping:
3. To apply creases where necessary
4. Under pressing
5. Final pressing:
6. Folding
7. packaging

Precaution:
- ✓ Accessories' and accents' positions are marked and attached in accordance with garment design/style specification
- ✓ Accessories and accents are sewn by hand or by machine in accordance with garment design/style specifications
- ✓ Finishing operations are performed in accordance with customer's specifications and standard procedures
- ✓ Garment is checked for missing buttons and attachments

Quality criteria:

Pressing or ironing is done here to increase the beauty of garments and to impart a flat appearance to the clothing.

Lap Test-1

Name : _____Date:_____

Time started: _____ Time finished:----------

Instructions:

1**. You are required to perform any of the following:**

A.

B.

C.

2. Request your teacher for evaluation and feedback

Reference

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Unit Two: Trimming excess threads

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

- Checking garment for loose threads
- Trimming excess threads
- Reversing and hanging garments accordance to standard procedures

This guide 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:

- Garment is checked for loose threads
- Excess threads are trimmed in accordance with sewing procedures
- Garments are reversed and hanged in accordance with standard procedures
- Apply thread suction procedures

2.1 Checking garment for loose threads

Shoppers typically buy a well-made shirt or blouse off a store shelf and take for granted that there are no noticeable loose threads or other product defects. In fact, most consumers have no idea of the processes involved in garment manufacturing and the defects that can occur along the way.

But soft lines experts can appreciate the oversight needed to manufacture a single piece of clothing that's defect free. Purchasers, product developers, quality managers and others in the industry tend to be keenly aware of the margin of error common to mass producing garments. They know that pre-shipment garment inspection is vital to ensuring the goods meet their quality standards.

Product inspection of garments is a highly specialized area within the realm of quality control. It has distinct processes and specific terminology to define parts of clothing and their defects. QC inspectors and other industry professionals use these standards to ensure garments conform to importer specifications. And straying from these standards during the production and inspection process could lead to an unsellable order of garments.

Understanding the different types of quality defects for garments and how to classify them is the first step to preventing or greatly reducing them. Let's look more closely at how to classify garment defects for inspection

.

2.2 Trimming excess 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 machines. (Sewing machines mainly, lock stitch machines come with automatic thread trimming parts aka under bed trimmer). Though you use UBT machines in sewing, you may still need to trim threads from garments to get clean garments, as other machines used for stitching the garment may not have under bed trimmer and sewing operator may not be motivated to trim threads after stitching each garment.



Fig 2 Thread trimming machine

Most factories practice manual thread cutting by hand trimmer (See below image). This 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. Other

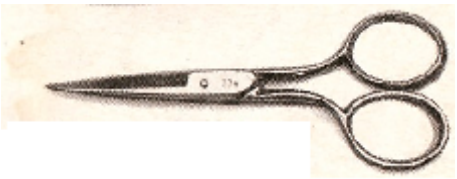
than trimming of stitching threads, one may need to trim embroidery threads and beading threads.



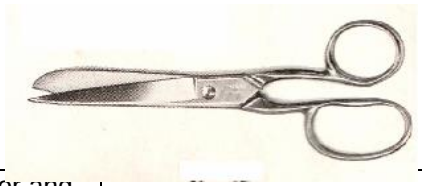
Fig 2.1 Two head thread trimmer

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.

1. **Trimming scissors** - 10 – 15 centimetre 4 – 5 inches long are convenient to use at the machine for they clip threads to hold in the ease of the seam close to the presser foot or to snip slashes.



2. **Light trimmers** are ideal for repairs, alterations, trimming seams small cutting job



2.3 Reversing and hanging garments

It is a simple garment packing method where the garments are secured in a poly bag with a hanger after pressing. Here polybag is the only material used. This type of packing can be used for all types of garments especially for blazers, coats, pants, etc.

The merits and demerits of a hanger pack are:

- Because of its simplicity it reduces the cost of packing and materials.
- All the components/panels of the garments could be seen easily without removing the bag.
- The time for packing and unpacking is less.
- Material handling is not easy.

Self check-2

1. Say true or false

1. Thread trimming is one of the common processes in industrial apparel manufacturing
2. Product inspection of garments is a highly specialized area within the realm of quality control.

II. Choice the best answer

1. ----------are ideal for repairs, alterations, trimming seams small cutting job

   a) Trimming scissors
   b) Light trimmers
   c) Pinking sheer
   d) All

2. Which one is used Mostly factories practice thread cutting?

   a) manual thread cutting
   b) Thread trimming machine
   c) Two head thread trimmer
   d) Non

IV. Give short answer

1. Write different methods of Trimming excess threads?
2. Write merits and demerits of a hanger pack

Directions: Answer all the questions listed below.

I. **true or false**

1. ----------

2. ----------

II. Choice the best answer

4. ----------

5. ----------

III. Give short answer

1. ----------

---

2. ----------

Operation sheet-2

Operation title:- Trimming excess threads

- **Purpose:-** At the end of this Operation the trainees shall be able to , Identifying and checking garment for loose threads and Trimming excess threads
- **Equipment tools and material:-**

✓ scissors
✓ Trimmer
✓ garment

Procedure:

1. Garment is checked for loose threads
2. Excess threads are trimmed in accordance with sewing procedures
3. Garments are reversed and hanged in accordance with standard procedures
4. Apply thread suction procedures

Precaution:

✓ Care must be taken in order NOT to cut the embroidered garment.

✓ You should use the right trimming scissor.

Quality criteria:

✓ All steps were completed in the correct sequence,

✓ All safety precautions were followed during trimming,

✓ All loose and protruding threads should be trimmed off according to the standard,

✓ Puckering is not allowed

Lap Test-2

Name : _____Date:_____

Time started: _____ Time finished:----------

Instructions:

1**. You are required to perform any of the following:**

A.

B.

C.

2. Request your teacher for evaluation and feedback

Reference

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Unit Three: Preparing fabric and pressing tools

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

- preparing fabric and pressing tools
- setting up, cleaning and checking Pressing machines
- Identifying faults, spots and marks
- Applying Heat/Pressure
- Sequencing press

This guide 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:

- Fabric and ***pressing tools*** are prepared according to standard operating procedures
- Pressing machines are setup, cleaned and checked in accordance with company's procedures
- ***Faults, spots and marks*** are identified and appropriate actions are taken in accordance with standard procedures
- ***Heat/Pressure*** is applied in accordance with product requirements, fabric specifications and standard procedures
- Pressing is sequenced in accordance with work specifications and standard procedures

3. Preparing fabric and pressing tools

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. But in garments industry, the works of heat and moisture are done mainly by steams or the work of pressure is done by mechanical or by manual system. If pressure is applied manually, then it is almost impossible to keep the uniformity of pressure but the uniformity of pressure can be maintained properly by the use of mechanical system.

Garments may of various types and various types of pressing are given in various types of garments. Various types of garment pressing equipment / machines are used for pressing of various types of garments. Because, pressing of all kinds of garments cannot be done by one kind of pressing machine. In some **garments factories**, multiple types of pressing machines are used for getting pressing of desired quality comparatively at small expense

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. The shape of the iron is generally triangular and the weight may be from 1 kilogram to 15 kilogram.



Running 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. As a result, the possibility of unwanted crease in the garments becomes less and the fabric dries quickly, moreover, the high quality pressing can be done comparatively in high speed. The dimension and shape of ironing bed may be of various types. If the ironing bed of special shapes is used, the ironing of the specific parts of a garment can be done very nicely and rapidly.

Very skilled operator is required for ironing of garments by steam iron with air-suction facility. Because, the measuring of the suction of steam and air and their proper use depend on the skill and honesty of the operator.

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.



Fig: 3 Steam Press

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.

In modern and automatic steam press machine, all jobs are done automatically in cyclic order by switching only once. Specially how much amount of pressure the head will apply by coming down on the buck, how much time will supply the steam and then the head will go upward from the buck, how much time the air will be sucked through the buck etc. can be given pre-setting and if requires, they can be changed also. In the old system of garments pressing, skill operator is required, because, it is very difficult to maintain that when and what switches are to be controlled regularly and properly. On the other hand, as the jobs are performed in cyclic order in the modern steam press, the job of operating of the machine is comparatively easy.

The head and the buck are generally covered by the silicon coated cover of polyester or nylon fabrics, which in need of time, can easily be removed and cleaned. The shape of the head and the buck may be of various types, these heads and bucks of special shapes are used for pressing of jacket and trousers. Because it is convenient to press these garments very beautifully and rapidly.

In ultra-modern steam press, there are one head and a number of bucks. Both the head and the bucks are accelerated. In this situation, when the head continues to pressing, among the other two bucks garments loading is done in one and the just pressed garments are removed to the other. This type of press helps in production by making vertical movement of the head.

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.



Fig:3.1 Steam air finish/Dolly press/puffer press

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. A padded clamp is used along the button hole lines so that during pressing the holes are not de-shaped. During pressing of the garments made with **knitted fabrics** in these machines, special care should be taken so that the volume of the garments is not stretched. In dolly pressing, there is no system of giving any creases in the garments but if any creases are required then it is done by hand iron or by steam press. For the purpose of pressing of garments of various sizes, the pressing forms of similar sizes are used.

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 is any unwanted crease 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.



Fig: 3.2 Steam tunnel finishing machine

In this process, if there is any crease in the garments, they can be removed, but no creases can be created in the garments. Generally, steam tunnel is used for pressing of t-shirts or garments made with knitted fabrics.

3.1 preparing fabric and pressing tools

Pressing is an important part of sewing and is necessary to give your projects a professional finish. With the right **pressing tools**, you'll be able to press seams with ease, remove pesky wrinkles from fabric, and make sure everything looks crisp before moving on to the next step in your project.

Some people think a steam iron and ironing board is all you need. While that can be fine when you start out, as you sew more, the right ***pressing tools*** can take your sewing to the next level.

The pressing tools you use for sewing will vary depending on what project you are working on or which type of fabric you are using.

- some of the most popular and useful **pressing tools for sewing**.

1. Steam Iron



A steam iron that produces steam, is a must-have when sewing. The steam helps to remove wrinkles and relax the fabric as you sew it.

Some of the most popular steam irons for sewing are:

- Rowenta DW7180
- Panasonic NI-WL600 Cordless Steam/Dry Iron
- Black and Decker D3030
- Rowenta DW2160 (for a lower priced iron)

2. Ironing Board

Along with a steam iron, you need a surface to press your fabric. While you can use a towel or pressing mat on a bench or table, there are benefits to using an ironing board.

An ironing board provides a stable surface and has space underneath so a garment can be slipped over the end, so you only press one layer of your garment. Ironing boards often have a heat reflective layer that can heat your fabric from both sides, making it easier to press.

3. Ironing Board Cover

A good quality ironing board cover is just as important as the ironing board. A good cover will reflect the heat from your iron, essentially ironing your fabric from both sides, and absorb water to prevent water stains on your fabric. It is important to choose the right size cover for your ironing board to ensure a tight, smooth fit.



4. Pressing cloth

A pressing cloth can prevent heat damage to heat-sensitive or delicate fabric, such as fabric shine. A pressing cloth is also handy when fusing interfacing or fusible web/hem tape to prevent build up on iron. Use a scrap of lightweight plain cotton muslin or buy a ready-made pressing cloth. It's best to use a fabric that is somewhat see-through to see what you are pressing.





5. Tailor's ham

A pressing ham is used to press a curved seam and corners, such as necklines. You can also use it for pressing shaped seams (eg princess seams) and darts open.

They are typically made with cotton on one side and wool fabric on the other. You choose which side to use depending on the fabric you are pressing.

6. Seam roll



A ***seam roll*** is a firmly packed cylindrical cushion. Similar to a pressing ham, it often has wool on one side and cotton on the other. A seam roll is place inside your sewing project to make it easier to just press one layer of the fabric.

7. Sleeve board



A ***sleeve board*** is a small ironing board that helps you to press sleeves or other cylinders of fabric. The sleeve slides over the end of the ironing board so you only press one layer at a time (and avoid sewing an ugly crease where you don't want it!)

8. Iron soleplate guard



An ***iron soleplate guard*** can be attached to your iron to protect your fabric from excessive heat damage. It can be used with all types of fabrics, including cotton, linen, silk, synthetic fabrics, and leather.

It prevents shiny, scorched, or discoloured spots in fabrics caused by ironing, and small holes on its surface ensure even steaming across the whole surface of your iron.

9**. Tailor's Clapper**

A ***tailor's clapper*** is a tool that helps to create crisp seams and sharp folds in fabric. It's perfect for fabrics where the seams won't stay flat after pressing. After steam ironing the fabric, press the clapper on the fabric for a few seconds (until the fabric cools). You'll be left with a nice, crisp seam.

Alternatively, you can hold your hand on the fabric (although that can get a little hot) or place a book or other heavy object on the pressed fabric.



Some clappers also have a point presser on top, that can be used for pressing collars and other tight areas. They can also include a pin cushion too!

10. Mini iron

A mini iron is a great tool for quickly fixing small fabric projects, such as quilting or applique. This handy device can be used in situations when it's too difficult to get your full-sized iron out and set up.



11. Iron cleaner

If you're using iron-on interfacing or webbing, or sewing with temperature-sensitive fabrics, at some point you are going to melt something onto your iron or have gunk building up. That's when ***iron cleaner*** comes in handy. Check the instructions for your product, but generally, the cleaner is applied to a hot iron and then wiped off. Use a towel or other thick cloth to avoid burning your fingers



12. Pressing mitt

A ***pressing mitt*** is a heat-resistant glove. Place your hand with the glove on the inside of your item and press the iron against the glove. It's great for pressing awkward locations, like inside bags, that don't fit easily on an ironing board



13. Seam roller



14 A seam roller is a great tool for quickly pressing seams open or for pressing hems, without having the get out you iron. This works best with cottons or other fabrics that crease easily. Just give your seam a quick roll with the seam roller and continue sewing!

15. Wrinkle Releaser

A wrinkle releaser is a product that's sprayed onto fabric to reduce the appearance of wrinkles. It helps fabrics look fresh and crisp, without having to take them off the hanger or put them in a dryer.

3.2 setting up, cleaning and checking Pressing machines

Heat Press machines are the modern, no fuss way of printing art work on to fabrics, shoes, aluminum and many other substrates. Of course, when it comes to assuring the highest quality and longevity from your press, it is necessary to periodically do some preventive maintenance. Here are some quick and easy steps to take to assure a long and trouble-free life for your heat press machine.

Cleaning

- To prevent your substrates from becoming soiled, periodically wipe down the entire exterior of the machine with a clean rag. This can be done with water. For stubborn stains, use mineral spirits. Note that you can only use mineral spirits when the heat transfer press is cold.
- Clean the Teflon coated upper platen with a piece of non abrasive cloth using water or mineral spirits but only when the platen is cool. Take care not to rub off the Teflon coating.

Lubrication

- About once a month the joints and pins of the press should be lubricated with a high-temperature, non-melting grease. Your press should have come with a diagram directing you to the points of lubrication.

Silicon Lower Pad

- The silicone pad will eventually show wear and tear. This will affect the outcome of your images and must be replaced once you see dents or wear. To replace, make sure that the machine is cool before removing the lower platen from the base.
- Use a mild solvent (mineral spirits) to clean the surface of the lower platen.
- Replacing this pad will require that both the pad and the lower platen are clean and dry.
- High temperature glue is necessary to adhere the pad to the platen—follow the instructions on the adhesive package.
- Check for air bubbles before allowing the glue to dry.

A clean and well maintained heat press is a happy and well functioning machine that will bring you years of revenue and beautiful results!

3.3 Identifying faults, spots and marks and take appropriate action.

Identifying faults

For every industry or business, to get increased sales and better name amongst consumers and fellow companies it is important to maintain a level of quality. In the garment industry quality control is practiced right from the initial stage of sourcing raw materials to the stage of final finished garment. For textile and apparel industry product quality is calculated in terms of quality and standard of fibres, yarns, fabric construction, colour fastness, surface designs and the final finished garment products. However quality expectations for export are related to the type of customer segments and the retail outlets. There are a number of factors on which quality fitness of garment industry is based such as performance, reliability, durability, visual and perceived quality of the garment. Quality needs to be defined in terms of a particular framework of cost.

Sewing defects - Like open seams, wrong stitching techniques used, same colour garment, but usage of different colour threads on the garment, miss out of stitches in between, creasing of the garment, erroneous thread tension and raw edges are some sewing defects that could occur so should be taken care of.

Colour effects - Colour defects that could occur are difference of the colour of final produced garment to the sample shown, accessories used are of wrong colour combination and mismatching of dye amongst the pieces.

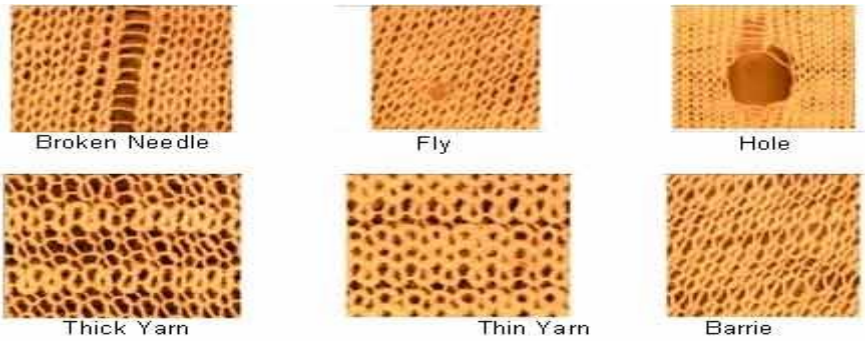
Sizing defects - Wrong gradation of sizes, difference in measurement of a garment part from other, for example- sleeves of XL size but body of L size. Such defects do not occur has to be seen too.

Garment defects - During manufacturing process defects could occur like faulty zippers, irregular hemming, loose buttons, raw edges, improper button holes, uneven parts, inappropriate trimming, and difference in fabric colours.

Various defects in garments:

- Broken buttons
- Broken snaps
- Broken stitching
- Defective snaps
- Different shades within the same garment
- Dropped stitches
- Exposed notches
- Exposed raw edges
- Fabric defects
- Holes
- Inoperative zipper
- Loose / hanging sewing threads
- Misaligned buttons and holes
- Missing buttons
- Needle cuts / chews
- Open seams
- Pulled / loose yarn
- Stain
- Unfinished buttonhole
- Zipper too short

Various Types of Defects in Knitted Fabrics



Common Denim Seam Quality Defects

Broken Stitches - Needle Cutting:

Where the thread is being broken where one seam crosses another seam (ex: bar tacks on top of waistband stitching, seat seam on top of riser seam) resulting in stitch failure.



Minimizing broken stitches due to Needle Cutting

- Use a higher performance Perma Core or D-Core thread.
- Use a larger diameter thread on operations where the thread is being cut.
- Make sure the proper stitch balance is being used. On a chain stitch seam on denim, you normally would like to maintain a 60%/40% relationship of Needle thread to looper thread in the Seam.
- Use needles with the correct needle point.
- Change the needles at regular intervals on operations where the Needle Cuts are occurring frequently.

Broken Stitches:

Where thread on the stitch line is broken during stone-washing, sand blasting, hand sanding, etc. Broken stitches must be repaired by re stitching over the top of the stitch-line.



Here the looper thread has been broken due to harsh abrasion during stone-washing.

Minimizing broken Stitches due to abrasion

- Use a higher performance Perma Core or D-Core thread;
- Use a larger diameter thread on operations where excessive abrasion is occurring
- Make sure stitches are balance properly,
- Use a Magic air entangled thread in the Looper due to its lower seam profile making it less susceptible to abrasion
- Monitor the Finishing Cycle for compliance to specs.

Unraveling Seams:

Generally occurs on 401 chain stitch seams where either the stitch has been broken or a skipped stitch has occurred. This will cause seam failure unless the seam is Re stitched.



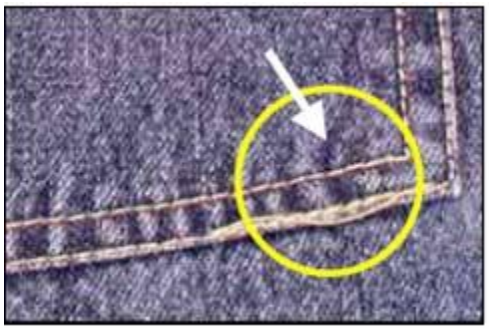
Minimizing unraveled Stitches:

- Use a high performance Perma Core or D-Core thread that will minimize broken stitches and skipped stitches;
- Insure proper machine maintenance and sewing machine adjustments;
- Observe sewing operators for correct material handling techniques.

Rest itched Seams

Where there is a "splice" on the stitch line. If this occurs on Topstitching, then the seam does not appear to be 1st quality merchandise. Caused by:

1. Thread breaks or thread run-out during sewing; or
2. Cut or broken stitches during a subsequent treatment of the finished product (I.e., stone washing).



Minimizing Rest itched Seams:

- Use a better quality sewing thread. This may include going to a higher performance thread designed to minimize sewing interruptions.
- Insure proper machine maintenance and sewing machine adjustments;
- Make sure sewing machines are properly maintained and adjusted for the fabric and sewing operation
- Observe sewing operators for correct material handling techniques.

Sagging or Rolling Pockets:

Where the pocket does not lay flat and rolls over after laundering.



Minimizing Sagging or rolling front & back Pockets:

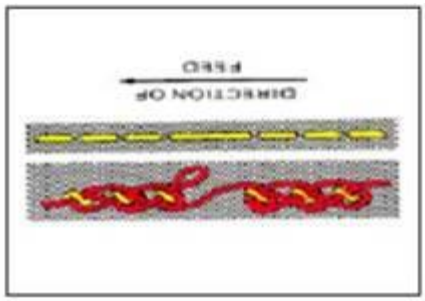
- Make sure the sewing operators are not holding back excessively when setting the front pocket.
- Make sure the hem is formed properly and that excessive fabric is not being being put into the folder that will cause the hem to roll over.
- Check to make sure pocket is cut properly and that pocket curve is not too deep.
- Use a reinforcement tape on the inside of the pocket that may help prevent the front panel from stretching along the bias where the front pocket is set.

- The type and weight of denim, along with the fabric construction, may contribute to this problem.

Skipped Stitches:

Where the stitch forming device misses the needle loop or the needle misses the looper loop. Skips are usually found where one seam crosses another seam and most of the time occurs right before or right after the heavy thickness.



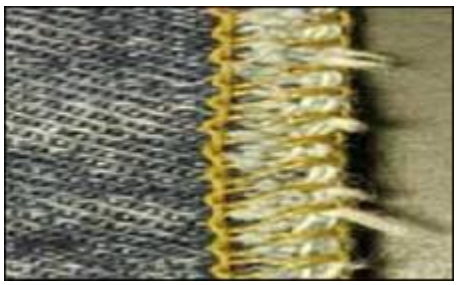


Minimizing Skipped Stitches:

- Use core spun thread.
- Use minimum thread tension to get a balanced stitch.
- Use the ideal foot, feed and plate that help to minimize flagging.
- Training sewing operators NOT to stop on the thickness.
- Make sure the machine is feeding properly without stalling.
- Make sure the machine is not back feeding.

Ragged / Inconsistent Edge

Where the edge of the seam is either extremely "ragged" or "rolls" inside the stitch.

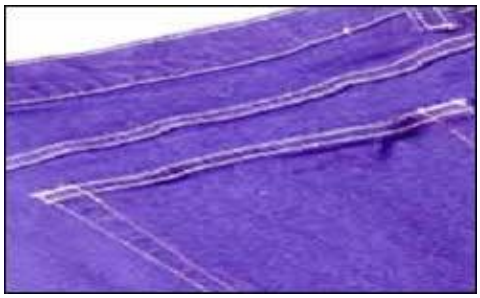


Solutions to Ragged / Inconsistent Edge:

- Make sure the sewing machine knives are sharpened and changed often;
- The knives should be adjusted properly in relationship to the "stitch tongue" on the needle plate to obtain the proper seam width or width bite.

Wavy Seams on Stretch Denim:

Where the seam does not lay flay and is wavy due to the fabric stretching as it was sewn or during subsequent laundering and handling operations.



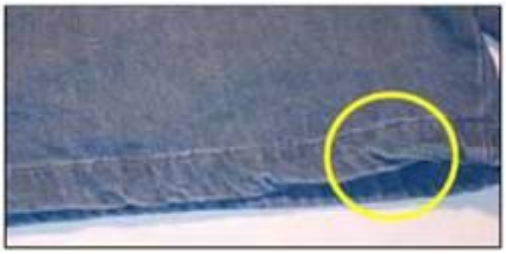


Solutions for wavy seams on stretch Garments

- Use minimum presser foot pressure
- Instruct sewing operators to use proper handling techniques and not stretch the fabric as they are making the seam.
- Where, available, use differential feed to compensate for the stretch of the fabric.

Ropy Hem:

Where hem is not laying flat and is skewed in appearance.



Solutions for Ropy Hems

- Usually caused by poor operator handling.
- Instruct the sewing operator to make sure they get the hem started correctly in the folder before they start sewing. Also, make sure they don't hold back excessively as the seam is being sewn.
- Use minimum roller or presser foot pressure.

3.4 Applying time , heat and pressure in accordance with product requirement

A successful heat transfer is all about having the right time, temperature and pressure. Those are the three main factors which influence whether or not your heat transfer will adhere or peel.

We'll start by looking at those 3 main reasons why a heat press is better than an iron, before looking at 4 more important reasons.

1. Time

Heat press machines have digital timers that are set before the press to get the exact time needed. Each manufacturer of vinyl specifies the right amount of time for their product.

2. Temperature

Most household irons can get to a temperature of around 400°F. This is hot enough for most, if not all, heat transfers. But the problem with irons is that you usually don't know what temperature it's set to.

Say, for example, your transfer requires a press temperature of 345°F – which would not be unusual. Well, can you actually set the temperature of your iron for that exact setting? No, unfortunately you just have to turn it on and stick the dial to somewhere between cotton and linen.

Most heat press machines reach temperatures between 450-500°F. This is hot enough for any heat transfer that you are likely to do in the home. You can set the temperature and not worry about it!

3. Pressure

Pressure is so important when applying transfers to t-shirts. It can mean the difference between a t-shirt lasting 6 months, or lasting many years. It means the difference between properly applied heat transfer vinyl, and peeling vinyl.

The level of pressure a transfer requires is specified by the manufacturer, just like the time and temperature. Pressure is usually measured from light or soft to hard or firm.

3.5 Pressing in Sequence

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**. In the **garments manufacturing** industries, pressing is termed as ironing.

Objects of Pressing or Ironing:

Pressing or ironing has different types of objects which are mentioned below:

1. Removal of unwanted creases and crinkles,
2. Shaping,
3. To apply creases where necessary,
4. Under pressing,
5. Final pressing.

All the above points have explained in the following:

1. Removal of unwanted creases and crinkles:

Various types of unwanted creases and crinkles arise during manufacturing the **garments**. These may be formed due to the **washing** of garments. Pressing or ironing is done here to remove those unwanted crinkles and creases from the **garments**.

2. Shaping:

In the apparel dart and seam are used for proper shaping to the wearer. Pressing is done here to increase the beauty and attractiveness of the created shape by using dart and seam. In some cases, it needs to shrink or stretch of **garments** parts for shaping.

3. To apply creases where necessary:

In the **garments manufacturing** industry, pressing or ironing is done for applying a creasing effect in the apparel to increase the beauty. Also pressing or ironing is done before **sewing** the garments to increase the beauty and proper **sewing**.

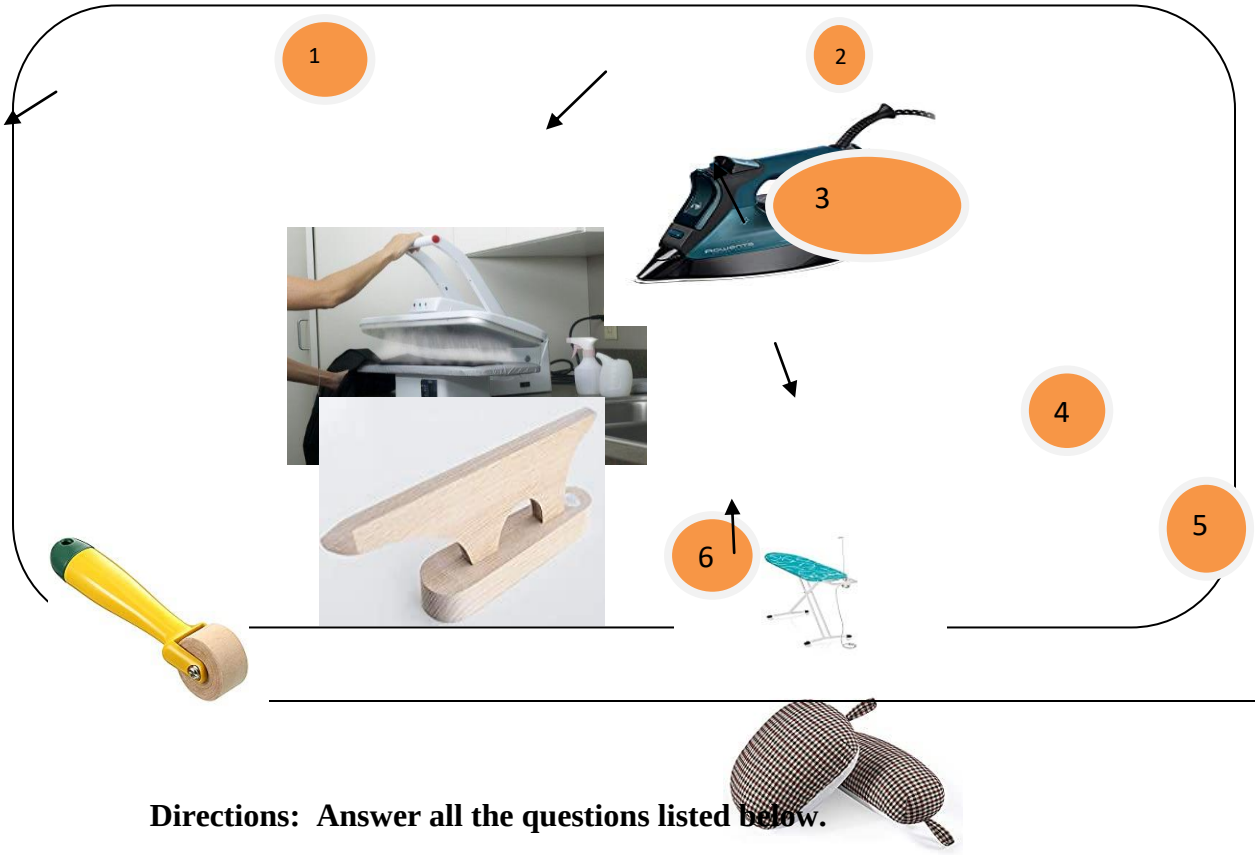
4. Under pressing:

Before sewing the garments, some parts needed minimum pressing to sewing easily and beautifully which is called under pressing. In the readymade garments industry, under pressing is done for making coats, jackets, and **trousers**.

5. Final pressing:

Self check-3

Directions: Identify the finishingtools and materials shown below and write the name of it and write your answer in the space provided before the number. Take note that the numbers shown in Figure-1 should coincide with your answers on the given number. (2 points each)



Directions: Answer all the questions listed below.

1. ----------
2. ----------
3. ----------
4. ----------
5. ----------
6. ----------
7. ----------

Operation sheet-3

Operation title:- Preparing fabric and apply pressing tools

- **Purpose:-** At the end of this Operation the trainees shall be able to , setting up, cleaning and Pressing machines and Applying Heat/Pressure
- **Equipment tools and material:-**

✧ Steam Iron

✧ Ironing Board

✧ Ironing Board Cover

✧ Pressing cloth

✧ Seam roll

✧ Sleeve board

✧ Iron cleaner

Procedure:

1. Excess threads are trimmed in accordance with sewing procedures
2. Prepare ironing board and toos
3. set garment on the ironing bord
4. Apply pressing

Precaution:

✓ Care must be taken in order NOT to iron the embroidered garment.

✓ You should use the right pressing tool.

Quality criteria:

✓ All steps were completed in the correct sequence,

✓ All safety precautions were followed during ironing,

Lap Test-3

Name : _____Date:_____

Time started: _____ Time finished:----------

Instructions:

1**. You are required to perform any of the following:**

A.

B.

C.

2. Request your teacher for evaluation and feedback

Reference

1. Jelka Geršak, 2013. 6 - Planning clothing manufacturing, Editor(s): Jelka Geršak, In Woodhead Publishing Series in Textiles, Design of Clothing Manufacturing Processes, Woodhead Publishing.

Unit Four: Package finished garment

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

- Packing finished garments
- Packaging standard procedure
- Labeling Garment packages
- Cleaning work station

This guide 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:

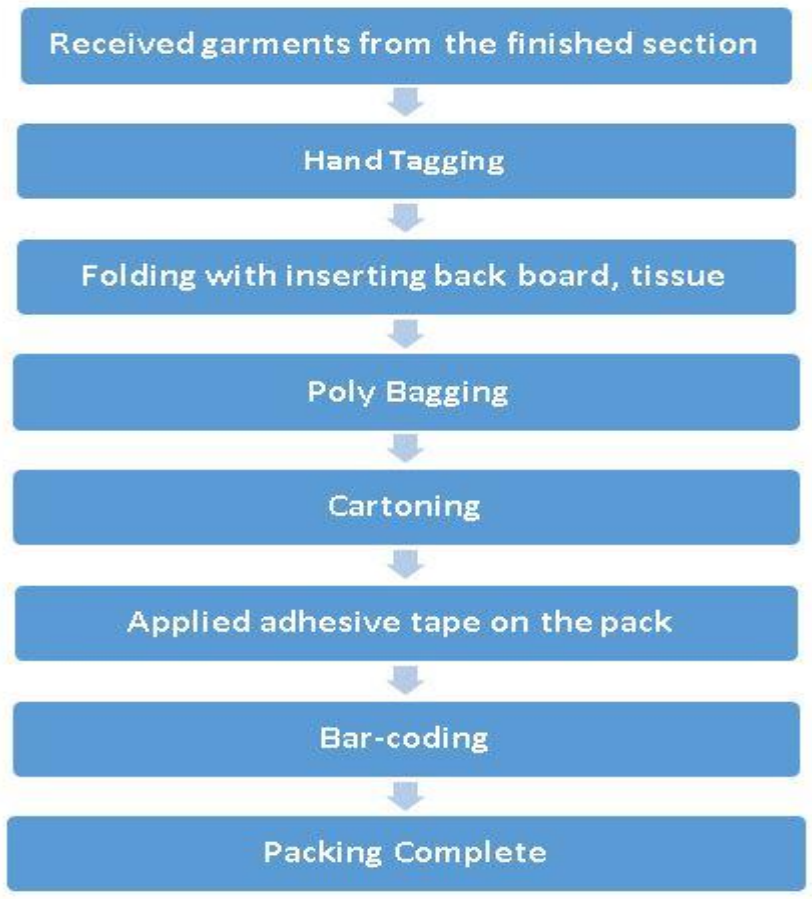
- Finished garments are packed in accordance with
- ***packaging standards/procedures***
- Garment packages are labeled following standard procedure
- Work station is cleaned after work completion

4.1. **Packing finished garments with packaging standard procedure**

Packaging means wrapping, compressing, filling or creating of goods for the purpose of protection of goods and their convenient handling.

Packaging is an important part of the product, which has to receive a lot of attention to the people. It is concerned with designing & producing of appropriate packages for a product.

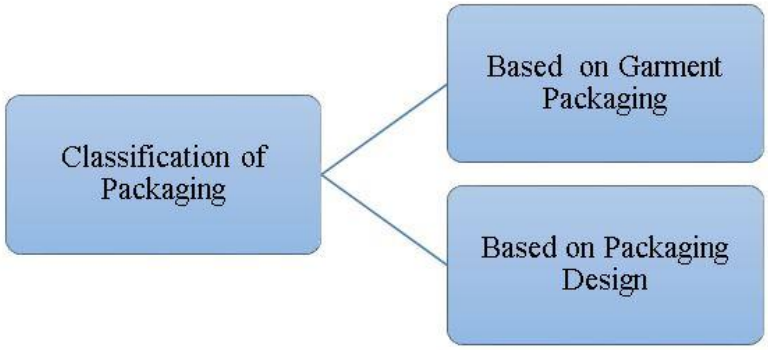
Packaging also refers to the process of design, evaluation, and production of packages. Packaging can be described as a coordinated system of preparing goods for transport, warehousing, logistics, sale, and end.
After final inspection & garments folding, the garments are poly-packed dozen-wise, color wise, size ratio wise, bundled and packed in the carton. The carton is marked with important information in printed form which is seen from outside the carton easily. Specially, it is needed to ensure the placement of sticker in proper place.



Apparel Packaging Sequence

- After folding garments are packed in polyethylene packets
- Generally polyethylene packets are of different sizes
- During packing, the position of sticker and other label should be confirmed
- After polyethylene packing , garments are kept in the sorting rack according size and color
- Then garments placed in inner box from the sorting rack according to size and color
- Packing in inner box according to work order is called is called ‘assortment’
- The packing that is done by the fixed no. of inner box in the cartoon is called cartoning or packing
- The carton is sealed with the scotch tape
- Carton bears some information on it g. carton box no. carton box size, shipping mark, destination etc.

Classification of Packaging



Based on Garment Packaging:

Different types of packaging are there for different types of garments. Following is the most used packing types –

- Stand up pack: Shirt (90° angle)
- Flat pack: Sport wear/Shirt/Trouser
- Hanger pack: Blazer, Coats, Pants
- Semi stand up pack: Shirt
- Half fold pack: Pant

Packaging Design

Merchandising packaging

The merchandise package is the unit the consumer receives when he selects the product. What functions must a merchandising package perform in order to stimulate sales of the product in the package? From the consumers point of view the merchandise package should :

- Identify the product
- Enhance the appeal of the product
- Attract the consumer to the package
- Protect the product quality until the consumer uses the item

Transparent plastic film is useful in meeting all of the requirements. Seeing the product makes it easy to identify and attract the consumer. Colour and design on the package are other ingredients that are used to identify, enhance and attract. The manner in which the product is packaged geometrically is a big factor in enhancing the appeal of the garment. The utility of the package is a big factor in attracting the consumers. The artistic value of a package is another persuader which attracts consumer.

Vacuum Packaging

The function of a vacuum packaging is:

- To reduce the shipping bulk of unfinished garments
- To reduce the shipping weight of garments shipped
- To prevent a garment from accumulating dust or objectionable odours before and during shipping
- To prevent garments from acquiring wrinkles or creases, during shipping, this will have to be removed before the retailer displays the garments
- To minimize storage space for both the manufacturer and retailer

Vacuum packaging is used not only for packing and storing garments, but also for packaging household accessories made from textiles, such as blankets, bedspreads, pillows and towels- anything with bulk that can be easily compressed.

Vacuum packaging was introduced in the 1970s by Swematex AB, of Ganghester, Sweden. (Rheemes Textile Systems, Inc., New York City, is the U.S. licensee for this equipment.) The system consists of:

- Reducing the moisture content of the garment;
- Encasing the garment in a plastic film sack; after which
- The air in the sack and garment are vacuumed out as the garment is compressed within
- Which is sealed at the end of the vacuum and compression cycle.

The moisture content is removed by passing the hung garment on a conveyor through a conditioning chamber which decreases the moisture content of the garment with hot dry.

Shipment Packaging

The shipment package performs the distributors function. It is the package the carrier receives and delivers to the retailer. It delivers the merchandise package to the retailer (or the wholesaler).

Shipping packing's may be divided into the classes with respect to the protection from

- Closed containers carrying garments

1. covered completely individually by a merchandising package (closed merchandising packages)
2. without a covering merchandising package (an open merchandising package)

- Open containers carrying garments

1. In closed merchandising packages,
2. In open merchandising packages.

In order to protect and preserve the merchandise package and its garment during the distribution process, the shipping package can be designed to do the following:

- Fusion, (2) separate, (3) brace, and (4) ward for water and dirt. A shipping package is proper when it prevents normal loads and pressures exerted on it, during the distribution process, from damaging the merchandise package or its garments.

Packaging and Shipping Equipment



Packaging Materials

- Plastic clip
- Paper board
- Wooden Boxes and Crates
- Butterfly
- Plastic collar
- Tag pin
- Ball head pin
- Poly bag
- Inner box
- Tissue paper
- Carton
- Scotch tape

Carton packaging

After packing, cartooning is done according to apparel size and color. Most used packing types are given below:

- Solid color Solid size pack
- Solid color Assorted size pack
- Assorted color Solid size pack
- Assort color Assort size pack

Types of Cartons for Garment Packaging

- Depend on Paper

1. Khaki Carton or Brown Paper
2. Duplex Carton
3. Box Carton

- Depend on Stitching

1. Gum Plating Carton

- Depend on Ply

1. 3 ply Carton
2. 5 ply Carton
3. 7 ply Carton

- Depend on Liner

1. Both Side Liner Carton
2. Out Side Liner Carton

- Depend on Size

1. Master Carton
2. Inner Carton

Carton packing may be varying according to Buyer's requirement. Carton pack may :

- 12pcs/Carton
- 24pcs/Carton
- 36pcs/Carton

4.3Labeling Garment packages

When you are designing and producing clothing, the positioning of the garment label is an important aspect of the production process. This element is identified in our How To Make a Tech Pack article, and it is a major part of the overall specifications during production. However, it's not just where the label is placed on your clothing that is important. The information that the label contains, such as care labeling and flammability information, is also significant.
Garment labeling isn't new in clothing production, but it is something to consider. It's important to ensure that you adhere to local regulations and laws such as those handed down by the Federal Trade Commission (FTC), and this simple guide will help you identify the information that is required. In addition, we'll inform you about some other details that you should include to improve your customer service.

Does Clothing Require a Label?

In short, yes. Not only does a label establish your clothing and brand identity, but it alsogives instructions that help the customer best care for the garment long after purchase. Clothing labeling is so important, in fact, that consumer protection agencies in the United States, Canada, and abroad have stringent care labeling requirements. In addition, certain independent organizations, such as the International Organization for Standardization (ISO), have their own labeling requirements that companies must follow if they wish to receive certification.



While the garment label requirements of different countries are similar in that these regulations are all in place for consumer protection purposes, there are some important differences between these requirements that you'll need to know about if you want to sell clothing or household textile items internationally. A simple tag on the inside center area of a garment reading "Made in the USA" simply won't cut it, but we'll help you navigate the complex legal framework surrounding garment care information labeling to help you transform your company name into a household name all across the globe.

Labeling Regulations and Requirements

In the United States, the FTC and CPB work together to provide clothing label requirements to both domestic and foreign textile manufacturers. These requirements are summarized below:

1. Fiber Content

In compliance with the Wool Products Labeling Act and the Textile Fiber Products Identification Act, which are collectively known as the Textile and Wool Acts, all garments sold in the United States must feature clear labeling regarding their fiber contents. These contents must be listed in descending order in terms of percentage, and it is not necessary to list non-fibrous materials in this list.

All fibers included in the garment that have functional significance must be listed, but non-functional fibers need not be listed if their concentrations in the final garment are under 5 percent each. Instead, these fibers can be declared together as a total percentage under the heading "other fibers."

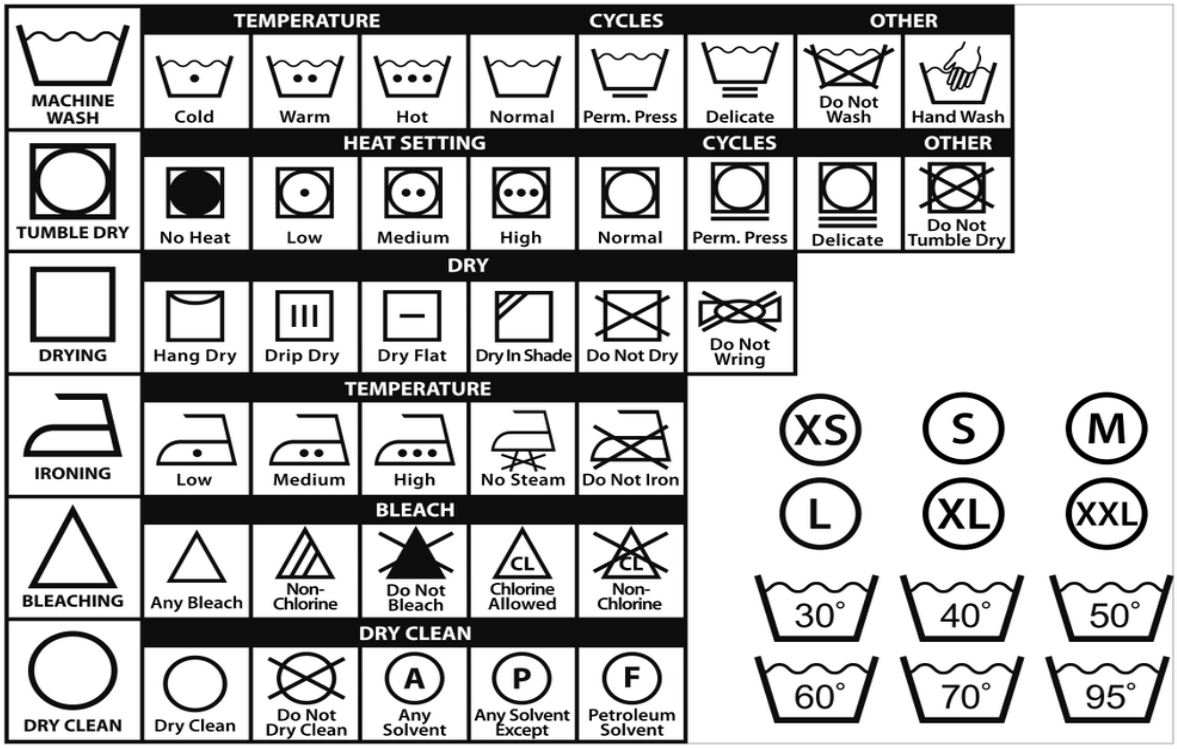
In addition, decorative items, such as braids and belts, do not need to be listed if they comprise less than 15 percent of the garment. If ornamentation on a textile product does not exceed 5 percent of its total composition, it can be omitted, but the phrase "Exclusive of Ornamentation" should be listed at the bottom of the label. Linings should be labeled separately, and all textile materials should be listed under their generic names instead of their trade names.

2. Country of Origin

The FTC requires that all clothing labels disclose the country where the clothing was created. A textile product can only be labeled "Made in USA" if it was manufactured in the USA and it is made from materials that were manufactured in the United States. If a garment was made in the United States from materials that were created in a different country, its label must state "Made in the USA of Imported Materials."

3. Washing and Care Instructions

The FTC enforces the Care Labeling Rule, which requires all textile manufacturers selling products in the United States to provide labels that inform consumers regarding the best ways to care for their products. For instance, care practices that could harm the garment must be disclosed, and suggested washing temperatures are also required. These labels must be clear, legible, and designed to last the life of the garment.



Care instructions are not a mandatory feature of clothing labels in the UK, but they are highly recommended to assist the customer in prolonging the life of the garment. Most manufacturers provide care and washing instructions on clothing during the production process as a standard

operating procedure. You can work with your supplier to make sure the information is beneficial and clear to your audience.

Depending on your intended consumer audience, you can include short, snappy care instructions such as:

- Wash inside out
- Dry flat
- Iron on reverse
- Wash similar colors together
- Reshape while damp
- Dry-clean only

4. Manufacturer Identification

This aspect of the FTC's garment labeling codes also helps you market your brand. A garment label on a textile product sold in the USA must feature the registered identification number (RN) of the manufacturer, importer, or corporate entity handling the sale of the product. All domestic textile companies and importers are required to have RNs. This number establishes dealer identity, and you can further reinforce your brand identity by including the name of the manufacturer on your garment label.

5. Label Placement

It's possible to include all of the FTC's required information on one label, or this information can be split onto separate labels. These labels must remain attached to the garment until it reaches the consumer, which means that this FTC-required information cannot be included on hang tags. If a garment has a neck, country of origin information must be located on the inside center of the neck, and other labels must be placed in easily noticed locations.

4.4Cleaning work station

After packing of garment cloths we have to clean the working area for nest job.

A clean workplace can help to achieve better productivity and protects worker's health and safety. Factories should establish systems to make sure that waste is continuously cleared up and that the workplace is kept safe, healthy and hygienic at all times.

Workstation cleaning covers an abundance of areas – after all, and ‘office’ can come in many shapes and sizes. Specifically manufactures a comprehensive range of products for the safe and efficient cleaning of all office equipment. A regular cleaning regime can guard against breakdowns and ensure that equipment

Self check-4

I. Say true or false

1. Packaging means wrapping, compressing, filling or creating of goods for the purpose of protection of goods and their convenient handling.
2. The function of a vacuum packaging isTo reduce the shipping bulk of unfinished garments
3. Packaging also refers to the process of design, evaluation, and production of packages.

II. Choice the best answer

1. Which one of the folowing is Classification of PackagingBased on Garment Packaging

A. Flat pack
B. Hanger pack
C. Semi stand up pack
D. All

2 . ---------- is the unit the consumer receives when he selects the product.

A. Merchandising packaging

B. Vacuum Packaging

C. Shipment Packaging

D. carton packaging

III. Give short answer

1. There are two clasfication of packaging what are they ?
2. List Apparel Packaging Sequence?
3. Explain Types of Cartons for Garment Packaging?
4. What does lebiling mean?
5. Write at list four Labeling Regulations and Requirements?

Directions: Answer all the questions listed below.

I. **true or false**

1. ----------

2. ----------

3.

II. Choice the best answer

1. ----------

2. ----------

III. Give short answer

1. ----------

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2. ----------

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3. ----------

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4. ----------

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5. ----------

Operation sheet-4

Operation title:- Package finished garment

- **Purpose:-** At the end of this Operation the trainees shall be able to,Identifying Packing finished garments and Packaging standard procedure
- **Equipment tools and material:-**
  - Plastic clip
  - Paper board
  - Wooden Boxes and Crates
  - Butterfly
  - Plastic collar
  - Tag pin
  - Ball head pin
  - Poly bag
  - Inner box
  - Tissue paper
  - Carton
  - Scotch tape

Procedure:

1. After folding garments are packed in polyethylene packets
2. Generally polyethylene packets are of different sizes
3. During packing, the position of sticker and other label should be confirmed
4. After polyethylene packing , garments are kept in the sorting rack according size and color
5. Then garments placed in inner box from the sorting rack according to size and color
6. Packing in inner box according to work order is called is called ‘assortment’
7. The carton is sealed with the scotch tape
8. Carton bears some information on it g. carton box no. carton box size, shipping mark, destination etc.

Precaution:

- ❖ After packing of garment cloths we have to clean the working area for nest job.
- ❖ A clean workplace can help to achieve better productivity and protects worker's health and safety.
- ❖ Factories should establish systems to make sure that waste is continuously cleared up and that the workplace is kept safe, healthy and hygienic at all times.

Quality criteria:

- ✓ All steps were completed in the correct sequence,

Lap Test-4

Name : _____Date:_____

Time started: _____ Time finished:----------

Instructions:

1**. You are required to perform any of the following:**

A.

B.

C.

2. Request your teacher for evaluation and feedback

Reference

1. J.N. Chakraborty, 2014. 29 - Garment dyeing, Editor(s): J.N. Chakraborty, Fundamentals and Practices in Colouration of Textiles, Woodhead Publishing India, pp. 365-390

2. Juran, J. M. & Godfrey, A. B., 1999. *Juran's Quality Handbook.* s.l.:McGraw-Hill. Apparel Manufacturing Terminologies | Online Clothing Study | 2020 110

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