

DRAFT STUDY MATERIAL



FINISHER AND PACKER

(Qualification Pack: Ref. Id. AMH/Q2255)

Sector: Apparel, Made-ups & Home Furnishing

(Grade XI)



PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION

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Preface

Vocational Education is a dynamic and evolving field, and ensuring that every student has access to quality learning materials is of paramount importance. The journey of the PSS Central Institute of Vocational Education (PSSCIVE) toward producing comprehensive and inclusive study material is rigorous and time-consuming, requiring thorough research, expert consultation, and publication by the National Council of Educational Research and Training (NCERT). However, the absence of finalized study material should not impede the educational progress of our students. In response to this necessity, we present the draft study material, a provisional yet comprehensive guide, designed to bridge the gap between teaching and learning, until the official version of the study material is made available by the NCERT. The draft study material provides a structured and accessible set of materials for teachers and students to utilize in the interim period. The content is aligned with the prescribed curriculum to ensure that students remain on track with their learning objectives.

The contents of the modules are curated to provide continuity in education and maintain the momentum of teaching-learning in vocational education. It encompasses essential concepts and skills aligned with the curriculum and educational standards. We extend our gratitude to the academicians, vocational educators, subject matter experts, industry experts, academic consultants, and all other people who contributed their expertise and insights to the creation of the draft study material.

Teachers are encouraged to use the draft modules of the study material as a guide and supplement their teaching with additional resources and activities that cater to their students' unique learning styles and needs. Collaboration and feedback are vital; therefore, we welcome suggestions for improvement, especially by the teachers, in improving upon the content of the study material.

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Module 1	Introduction to Finishing and Packing Department in Apparel Industry
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Module Overview

Finishing and packing are the final stages of production of end-product and hence one of the most essential stages in the entire apparel manufacturing process. In the garment industry, the finishing and packing sector is responsible for garment washing, checking, final inspection, pressing, and packing etc. A proper finishing and packing of the product can increase its quality and ensure on-time order distribution. Proper finishing and packing are critical components of the entire process because buyer satisfaction is dependent on it. Packing involves wrapping, compressing, placing of goods for the purpose of protection in the different sizes of cartons and containers as per instructions. It also involves storing the packed goods in a warehouse or a store section for distribution. This prepares the finished merchandise for delivery to the customer.

The main purpose of packing the garment is to allow the garment manufacturers to transport the garment without damaging the quality of the product. This unit covers a basic introduction and structure of apparel industry, different departments of apparel industry (with special focus on finishing and packing department) and the steps involved in apparel Production.

A special focus on working of finishing and packing department is also covered in this unit. This unit also explains roles and responsibilities of a finisher and packer in detail.

Note: Packing and packaging are activities that refer to the process of wrapping or protecting products for storage, sale and transportation purposes. Packing is a part of packaging and includes preparing a product for storage and transportation whereas; packaging includes preparing a product for storage, transportation as well as sales.

Packaging is also concerned with marketing and promotion, unlike packing. Packaging is a final process in which packed goods are further packaged into boxes or cartons or any other container.

Learning Outcomes
After completing this module, you will be able to: <ul style="list-style-type: none"> • Describe structure of Apparel Industry • Explain the roles and responsibilities of a Finisher & Packer
Module Structure
Session: 1 Structure of Apparel Industry
Session: 2 Roles and Responsibilities of a Finisher & Packer

Session: 1 Structure of Apparel Industry

Apparel means any item of clothing that can be worn as an upper or lower garment like shirt, blouse, kurta, pants, trouser, pajama etc. It is one of the basic human needs. The apparel industry can be broken down into two major segments: the production of yarn and fabric from raw material (Fibre) and the transformation of these fabrics into clothing and other accessories. The textile section of the industry includes raw material (Textile fibre), converting fibre into yarn, yarn into fabric and then dyeing and finishing of the fabric. The apparel industry consists of cutting fabrics and other materials and sewing them together to create clothing/apparel or accessories including footwear, outerwear, pants, and tops etc.

Indian textile and apparel industry is one of the biggest sector to generate employment after agriculture in India and is sixth largest exporter in the world. It includes designing, manufacturing, and selling of cloths, footwear and accessories. Products include everything from basics, such as t-shirt, to luxury items, for example, cashmere sweaters and handbags.

In the present Scenario, the apparel industry is growing fast as per the fashion trends. The customers are looking forward for newer designs and stylish clothes frequently. Thus, the manufacturing units are working hard to produce garments in bulk at low cost yet having good quality. The apparel industry contributes in the employment and economic growth to a great extent. As any other product development process, apparel industry also comprises of manufacturers, wholesalers, retailers, contractors, suppliers and exporters.

An apparel industry works in an organized way from receiving orders, preparation of designs to final product development and dispatch through shipment. Selection of fabric, collection planning, drafting, cutting, sample

making, sewing, ornamentation and finishing are all done in a systematic way. The different departments of the garment industry process their job effectively in a particular line of order to ensure the development of the business or the company.

Apparel Production is categorized into two broad categories as per target markets:

1. **Apparel production for Domestic Market:** Domestic market refers to local demand of the product within the country.
2. **Apparel production for Export Market:** Export market refers to selling of the products to a foreign country or market. For ex. India exports apparels, handloom and handicrafts to countries such as USA, UK and Italy etc. It is a huge source of foreign exchange for India. This helps India to engage with foreign currency exchange in order to raise its economic profitability.

Earlier apparel or garments were sewn by hand, further came hand sewing machine and from the 18th century onwards apparel production became mechanized and gave rise to advent of textile and Apparel industries, mainly the readymade garment industries etc. Apparel production involves designing, cutting, stitching, finishing, packing apparel items as per the buyer's orders.

Apparel production is an organized activity that includes steps such as laying, marking, cutting, stitching, checking, finishing, pressing, and packing. This is the process of transforming raw materials into final goods. It will be difficult to sustain the industry if production is not up to standard if the preproduction phase of material preparation is not carried out adequately.

Many processes are involved in apparel or garment manufacturing, beginning with the idea or design concept and ending with a finished product. Product design, fabric selection and inspection, patternmaking, grading, marking, spreading, cutting, bundling, sewing, pressing or folding, finishing, dyeing and washing, quality control etc. are all a part of the apparel manufacturing process.

DIFFERENT DEPARTMENTS IN APPAREL INDUSTRY:

1. **Sampling Department:** It is one of the most important departments in an apparel industry and is responsible for preparation of samples.

It involves a research and development process in order to create new designs every season. In sampling department, the product developed is then sent to the buyer for final approval and further goes into mass-production process.



Fig 1.1 Sampling Department

2. **Merchandising Department:** Merchandising department can be called as the heart of apparel industry. All the departments are connected with merchandising department in some or the other way. Merchandising department is responsible for sourcing all the trims and raw materials needed for apparel production, development and costing, order confirmation, sampling and dispatch.

It works in close coordination with marketing and production department.

3. **Store:** The store department is concerned with receiving, issuing and preservation with maintenance of all the raw material required for continuous flow of garment production process.

It stores raw materials like fabrics, interlinings, fusings, threads and yarns, trims like zippers, buttons, patches, chinks, pins etc. It also stores any technical material required for sewing machines or other garment production related operations. Store Department is managed by store keeper or store supervisor.



Fig 1.2 Store

4. **Cutting Department (or Spreading and Cutting Department):** In this department the fabric is spread/laid on cutting tables prior to cutting. The fabric is spread in layers so that large number of pieces can be cut at one time. Layering of fabrics saves time and labour. After layering and spreading, the fabric is cut as per drafted pattern blocks of the approved samples and designs.



Fig 1.3 Cutting Department

5. **Sewing Department:** Sewing department is responsible for receiving the bundles of cut pieces of garment components from cutting section. In this department the bundles are distributed in each line of assembly. A line of assembly helps pieces of garment to fabricate them into a three dimensional form i.e. a garment. The floor of sewing department is huge and large numbers of machines of different sewing operations are kept to achieve highest level of quality and productivity.



Fig 1.4 Sewing Department

6. **Washing Department:** The garments might gather dust and stains during sewing process. Thus, after sewing the garments are sent to washing department for washing and cleaning. Some of the garments may get oil, stains from sewing machine or may catch-dust/dirt while bundling. Such garments are sent to washing department for spot cleaning wherever required. Some garment needs wash as a part of its finishing for e.g. denim jeans. In such cases, garments are washed with specific bleach and chemicals to achieve a particular kind of finish.

7. **Finishing and Packing Department:** This department is concerned with finishing and packing of the stitched apparel and other items. It also involves final checking of garments for stains and measurements. Spot removal of stains is also done during finishing. The major activities of a finishing department includes thread trimming, checking garments for stains, spot removal, adding of any trims or accessories, ironing etc. Attachment of any tags, labels, extra trims like button or sequin pouch is also done in finishing department. The placement of the tags is also predefined by the buyer. The garments are finally folded as per guidelines and packed.



Fig 1.5 Finishing and Packing Department

8. **Quality Assurance Department:** It is concerned with checking the quality of final garment as per the buyer's specifications and standards. In this department the quality assurance officer, randomly picks out packed pieces of garments from each batch to ensure the approved quality standards. If these pieces pass in all the quality inspection standards, the lot is then sent to process for dispatch formalities.

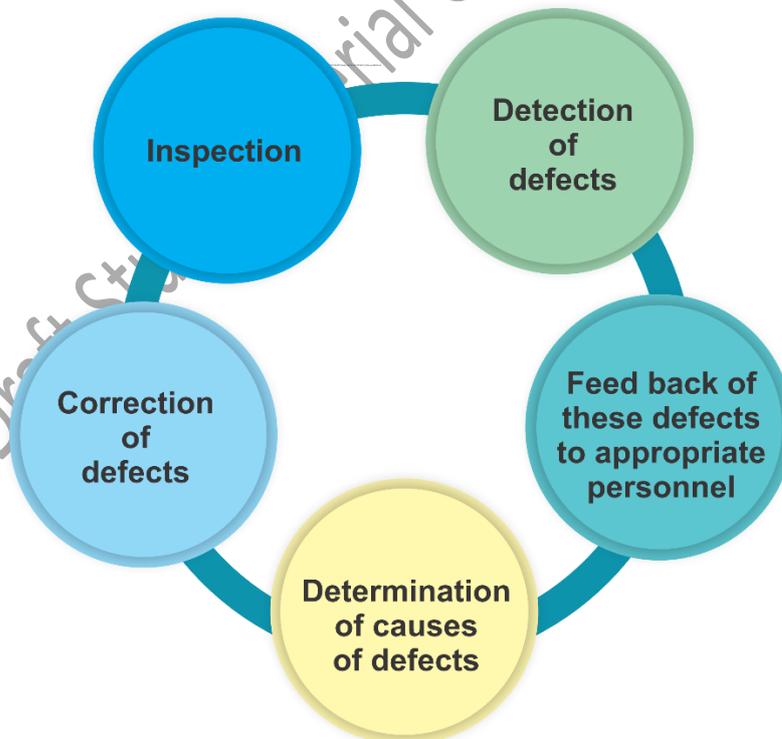


Fig.: 1.6 Quality Assurance Department

9. **Maintenance Department:** This department is responsible for maintenance and housekeeping of the factory premises. It also deals

wither pair and maintenance with smooth and efficient working of various tools and equipments used across various departments.

10. **Finance and Accounts Department:** The finance department is responsible for managing all financial affairs in the apparel/garment industry. The primary functions include budgeting, managing payment to suppliers, salary to employees, miscellaneous expenses etc.
11. **HR/Admin Department:** This department is responsible for human resources i.e. all the matters related to the employees. It deals with recruitments, payroll, appraisals, leave policies and grievances etc.

STEPS IN APPAREL PRODUCTION

Apparel production is a very crucial activity and involves many steps. Following steps are usually taken during apparel production:

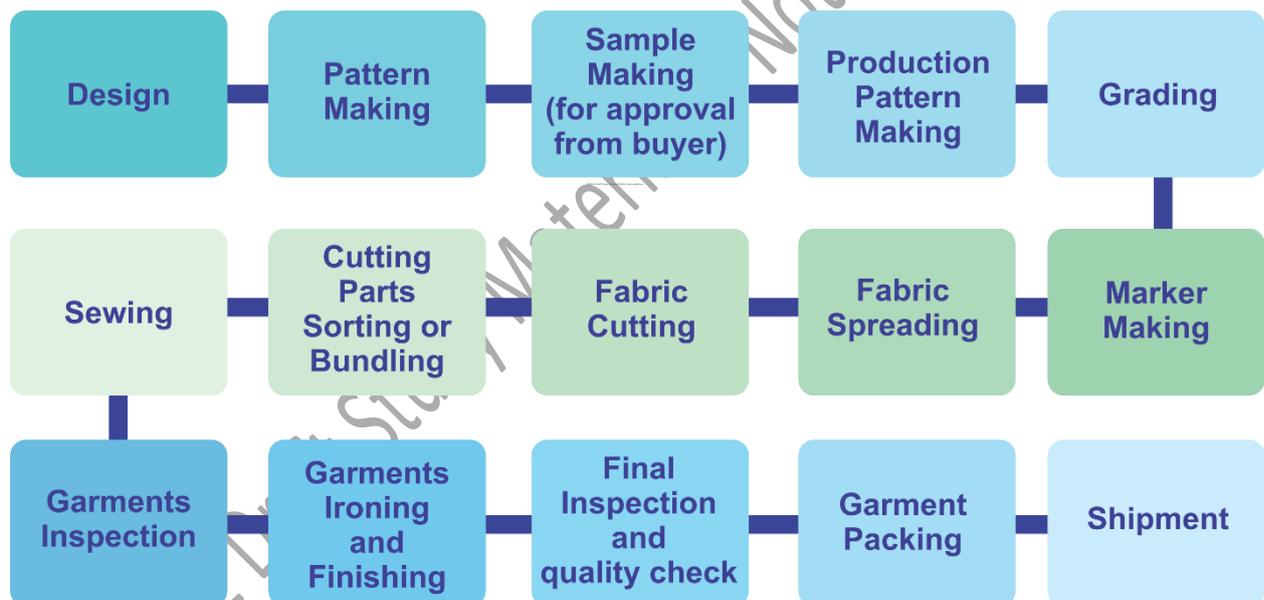


Fig 1.7 Steps in Apparel Production

Activities

Activity 1:

Prepare a creative info graphic on various departments in a garment industry and their working.

Materials Required:

1. Colored sheets
2. A4 size papers
3. Pen, pencils and coloured pens
4. Eraser
5. Sharpener
6. Ruler

Procedure:

1. Collect the required information and pictures.
2. Ask your teacher about info graphic and how to make it.
3. Organize the collected information in the form of an infographic.

Check Your Progress**A. Fill in the Blanks:**

1. Garment _____ is very crucial as it saves the product from damaging.
2. From _____ onwards apparel production became mechanized and that gave rise to advent of Textile and Apparel industries, readymade garment industries etc.
3. Product packing is also used for _____ and advertising.
4. _____ involves final checking of garments for stains and measurements.

B. Answer the following questions:

1. What do you mean by packing?
2. Name and explain any four departments of apparel industry?
3. Write the steps in apparel production?

Session: 2 Roles and Responsibilities of a Finisher and Packer

Finisher and packer is responsible for finishing, preparing as well as packing products for storage, transport and sale. The specific tasks of a finisher and packer vary according to the sector (e.g. food and beverage, medical, industrial, clothing, warehouse etc.), as different products (e.g. food, medicines, consumer goods, industrial goods) have their own different finishing and packing methods and materials.

Common finishing and packing operations include labeling, tagging, poly bagging, boxing, canning, wrapping and bagging. Sometimes packers also help in moving and shifting the packed products. It is a supporting role and comes with many responsibilities.

A finisher and packer works with packing and finishing department and is responsible for packing of finished products like apparels or garments, home furnishing articles and made-ups. He/she checks and ensures correct labels, tagging and is also responsible for suitable inner packaging.

They are also responsible choosing appropriate outer package, carton size, sealing material etc. He/she is also responsible for the packing of a variety of manufactured products. This position is a support role for several areas of manufacturing, including but not limited to; folding, quality and assembly.

1. Importance and Steps in finishing and packing process: The finishing and packing department comes after all of the other departments and is equally crucial in the final appearance of apparel and other end products. Finishing and packing is usually overstaffed because it is the final link in the value chain and all problems from previous stages must be resolved here.

The workers here mostly press, fold, and pack garments, made-ups, and home furnishing items. This may also include the addition of buttons, hooks, eyes, or trimmings, as well as the removal of loose threads. The garments are folded with a predetermined area after they have been pressed. Garments are folded in accordance with the Buyer's specifications or in a standard area.

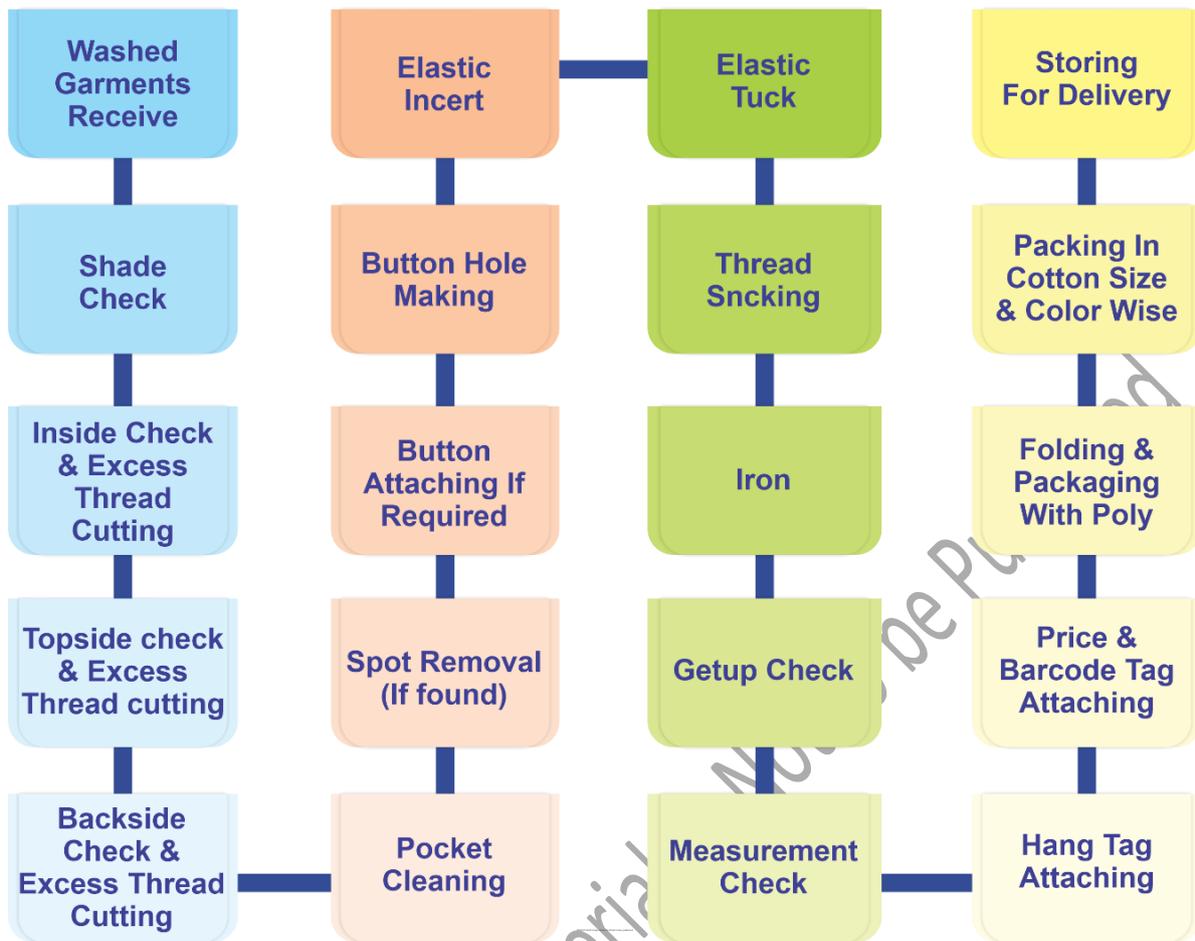


Fig.: 1.8 Importance and Steps in finishing and packing process

The steps of apparel finishing and packing are as follows-

Goods Received from Sewing Section: Initially, finished clothes are obtained from the sewing division in accordance with the order quantity. Receiving goods from the sewing department is the first stage in the finishing section.

1. **Thread Sucking by Machine:** In this step extra loose sewing threads in garments or other products are sucked by sucking machine. Threads are sucked by two systems. One which is done by hand i.e. manual system and the other is done by sucking machine.
2. **Ironing:** Ironing is an important step in finishing and packing process done by a press or iron 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 ironing, garments have to be folded.

3. **Measurement Check by QC:** During the ironing process, measurement is also checked out by the Quality Control officer.
4. **Attaching Price Tags and Accessories:** After above step, different types of tags and accessories are attached with the garments as per buyer's comment. For an export order, attaching price tags with the garments is a must.
5. **Metal Detection:** Garments are passed through into the metal detection process for checking if any kind of metal left in the garment. Most of the buyers recommend to use metal detector for more safety. Metal check is a mandatory process for any kind of kids' product.
6. **Folding:** Garments are folded according to buyer directions in a standard manner. There are many types of folding of a garment.
7. **Packing:** After folding garments are ready for packing. The size of polybag and cartons varies according to the size and ratio of the garments. Before packing, it is needed to ensure the placement of sticker in proper place.
8. **Assortment:** After packing, the garments are placed in a predetermined area by sorting according to the size and color.
9. **Cartoning:** At last cartoning is done according to buyer's comment and is properly wrapped up by the scotch tape. Some information like carton box no, size, shipping mark, destination are printed on the carton.
10. **Final Inspection:** Final inspection is an important part and last step of garments finishing. Normally final inspection is made by buyer. Buyer checks the garments according some rules like Accepted Quality Level (AQL).

Job Responsibilities, key attributes, skills and personal qualities of a 'Finisher & Packer'

A finisher and packer works in the finishing and packing department and his/her work starts after production, finishing and final inspection of the garments/apparels. He/she is responsible for packing of finished products like garments, home furnishing products like curtains, cushion covers and

other made-up articles. It's the duty of a finisher and packer to make the finished product ready for final dispatch.

Thus, a finisher and packer in an apparel manufacturing company has to check and ensure that correct labels and tags are used while packing the garments. The other things that need to be taken care of by a finisher and packer include identifying and using correct inner packing, appropriate outer package, carton size, sealing of carton etc.

A finisher and packer is also responsible for ensuring delivery and dispatch of packed products. While doing this they are also required to maintain quality parameters. The activities performed by a finisher and packer include folding of the garments, putting the inner packing, outer packing, labels, marking inner layers etc. They may also be required to place the finally packed goods in cartons or as pre-defined by the buyer.

He/she usually works in shifts depending upon the production line requirements. They report to a shift manager and carry out their work in accordance with internal procedures of the organization and various, follow regulatory compliances, safety standards and policies as applicable or decided by the management of the company.

In performing their tasks, finishers and packers may work manually or they may use automatic packing machines of various types and levels of complexity (including filling, sealing, wrapping, labeling and strapping machines), each performing a specific packing operation. In case machines are being used for packing then they monitor packing machine operations, ensuring that the machine is always loaded with the materials required, e.g. boxes, wrappings, lids, labels etc., and is also responsible for verifying the integrity and quality of the final product.

Their duties also include performing sample quality control checks on packed products and recording data in quality reports, which help to ensure production efficiency and quality targets are being met.

Computer literacy is also an integral part as the industry relies on online system. Finisher and packer should be able to identify components of tasks required to be executed in the finishing and packing process, identify and arrange tools, materials and accessories required and develop checklist for different tasks.

Primary Roles & Responsibilities of Finisher and Packer

The primary responsibilities of finisher and packer can be summarized as follows:

- Identifying any errors that occur prior to the finishing and packing process such as damaged or misplaced goods, wrong labels or wrong placement of labels, trims or accessories used and report the fault to the supervisor in charge.
- Arranging and organizing products as per packing or pre-packing requirements.
- Packing and pre-packing methods must be applied on the basis of type of products, size of order and as per the specifications and guidelines stated by the organization.
- Ensuring all items that required for finishing and packing are arranged at the appropriate area.
- Locating the appropriate bays and bins for the packages unloaded.
- Assisting the picker/binner with moving goods to specified area.
- If required, enlisting the assistance of a forklift or pallet truck operator for moving goods.
- Checking to ensure container or packing material is damage free.
- Measuring, weighing and counting products and materials.
- Examining and inspecting poly bags, containers, materials, and products in order to ensure that packing specifications are met.
- Marking and labeling containers, container tags, or products, using correct marking tools.
- Sealing and labeling each containers or materials, using glues, fasteners, nails, scotch tapes and hand tools whichever is suitable or specified.
- Ensuring all the containers for finishing and packing are clean and free from any defects or damages.
- Verifying all items are labeled and packed appropriately.
- Stacking and piling finished goods into containers.
- Verifying if the items pulled out of package are correct.
- Reviewing packing lists.
- Keeping track of inventory.
- Cleaning containers, materials, supplies or work areas, using cleaning solutions and hand tools.
- Moving product and inventory using a forklift and bin system.
- Executing and documenting quality inspections as per organizational instructions.

- Maintaining the work area and equipments in a clean and orderly condition and follow prescribed safety regulations.
- Transferring the damaged cardboard cartons for recycling.
- Performing basic visual quality inspections on products.
- Maintaining the production pace of other team members.
- Utilizing power tools and various equipments as needed to perform duties.

Finishing and department works on strict deadlines and there are a lot of people involved in these operations. Thus, a finisher and packer must possess excellent interpersonal skills and should have the ability to work in teams. They should be very vigilant and must have good eyesight to identify the defects or faults, if any, as it is the final step before the products reach to the customers. He/she should have the knowledge of various packing material and tools required in the packing operations. They should also have basic mathematical skills, to be able to make elementary calculations and they should also have basic measurement skills.

Many times finisher and packer is also required to lift and carry packages and place them in containers or boxes. Thus, they should be physically fit, agile and resilient. They should be well verse with the shop floor as they are required to move all along the shop floor while packing. Presence of mind and problem-solving approach towards challenging tasks is also one of the main qualities required for this job role.

Apart from the above skills, a packer should be punctual and report for duty timely. They should also be able to maintain a clean and hazard free work area and follow the principles of hygiene in day to day working.

A finisher and packer needs to work closely with manufacturing, finishing and dispatch department. Since he / she needs to work with many people, this job requires teamwork to achieve joint goals. Thus teamwork is a prerequisite skill for this job. The individual must be able to prioritize and execute tasks within scheduled time limits. High attention to detail is also a critical attribute. The individual should be able to maintain high concentration levels throughout his/her shift. Knowledge about customer defined and/or organization norms and tolerance for packing standards and its conformance is also required.

Knowledge to organize processes is necessary to operate efficiently and build up organizational overall performance.

A finisher and packer must also have technical knowledge about operation and handling of packing tools and equipments like sealing equipment, poly

packing, tagging, labeling, specialty packing modes, hanger packing, etc. different types and sizes of cartons, garment style and assortments related to packing. The technical knowledge will also help them predefine specifics/instructions to keep in mind while finishing and packing.

To sum the above the finisher and packer must have efficiency in work flow, must know how to pay attention to details and finally possess procedural knowledge.

Other Responsibilities:

- Taking care of the products returned by customers which may need cleaning and pressing before it is repacked for future sale.
- Finisher and Packer will be required to operate computers to check records, print labels and record stock levels.
- They are also responsible for ensuring customer receives their goods as per the specifications and guidelines stated.
- Analyze each packing method adopted, its pros and cons and its significance to the company and to the product being developed.
- Critically evaluate and apply the information gathered from observation, experience, reasoning or communication to act efficiently.

SKILLS AND PERSONAL QUALITIES NEEDED IN A FINISHER AND PACKER

- Patient and methodical and not mind repetitive work.
- Good with their hands and able to work quickly.
- Safety conscious, especially if working with machinery.
- Computer skills for certain packing processes.
- Mechanical aptitude for working with machinery.
- Able to read, write and follow instructions.
- Work well as part of a team and good communication skills.
- Reliable and a good timekeeper.
- Physically fit, especially for heavier work.

Other skills

- They should be able to work efficiently in a fast-paced environment.

- Excellent knowledge of finishing and packing procedures and standard warehouse operating procedures.
- Packers may need to have hands-on experience in operating vans, pick trucks, or forklifts to pull inventory depending on the warehouse or distribution center.
- Highly skilled in packing and picking a wide variety of items, as well as the ability to complete both manual and computerized forms and shipping documents.
- Ability to operate shipping vehicles in emergency
- Good knowledge of basic arithmetic: addition, subtraction, division and multiplication
- Excellent organizational skills
- Excellent attention to detail
- Good communication skills

Employment opportunities for a ‘Finisher & Packer’ in the apparel industry

The finishing and packing department is the last section in the garment production prior to dispatch and it plays a significant role in the final garment appearance. It mainly involves the following processes:

1. **Trimming:** It removes the extra threads from the garment at the stitched areas.
2. **Inspection:** The inspection is done as per the AQL system and mainly depends on the buyer requirements.
3. **Pressing:** This is carried out after the garment has been inspected completely and the garments are pressed or finished based on the method of their folding during packing.
4. **Tagging section:** After the completion of fabric inspection and pressing, they are sent for labelling, which includes the size labels, price tags and miscellaneous labels if any are mentioned in the specification sheet.
5. **Packing:** The packing is done in the poly bag and carton boxes. Individual packing of garments in the poly bag and folding the garments and organizing them in the carton boxes without placing them in the poly bag are the two types of packing followed in the garment industry.

The apparel industry is one of the fast-growing industries in India. The apparel industry plays a vital role in the country's economy. There are wide ranges of career opportunities in the apparel industry. One can choose

many career options in different departments of this industry. Finishing and packing department also offers great opportunities to enter this sector and make a standard of living. Some of the areas in which there is always a requirement of finisher and packer are given below:

- Apparel production house (export houses)
- Buying house
- Retail
- Design house
- Textile mills
- Embroidery unit
- NGOs
- Government funded Skill development centres

Other than this the student can start their own business related to packing and export once they have knowledge of working of an apparel industry. As per some reports, there is a multi-fold growth of the domestic market both in retail and production. With the Indian economic growth, cloth consumption per consumer will be rising up in coming years. To supply these demands, apparel industry and its various departments will also grow. It will result in the job advancement for each level of employees from worker level to CEO. According to the education level and professional training undergone one can choose best possible career path.

The role of a finisher and packer in the apparel industry is crucial for ensuring that garments are prepared, inspected, and packed for distribution to customers. While it might not be as visible as design or marketing, it is an essential part of the supply chain that directly impacts the quality of products reaching consumers. Here are some insights into the other career opportunities for finishers and packers in the apparel industry:

Quality Control Specialist: Finishers and packers play a pivotal role in maintaining the quality of apparel items. Quality control specialists are responsible for meticulously inspecting garments to ensure they meet established quality standards. They identify defects, irregularities, or inconsistencies in the finished products and either rectify these issues themselves or liaise with the relevant departments to address them. This role requires attention to detail, knowledge of industry quality standards, and the ability to maintain consistency in the finished products.

1. **Packing and Shipping Coordinator:** Packing is the final step before products are sent to retailers or consumers. A packing and shipping coordinator oversees the packing process to ensure that garments are appropriately folded, tagged, and packed according to the specified guidelines. They might work with various packing materials and methods to ensure items are protected during transit. This role involves organization, time management, and coordination with logistics and distribution teams to ensure timely and accurate shipments.
2. **Team Lead or Supervisor:** As a finisher and packer gains experience and demonstrates leadership qualities, they can advance to a supervisory role. Team leads or supervisors manage a group of finishers and packers, ensuring that production goals are met, quality standards are maintained, and processes are optimized for efficiency. They might also be responsible for training new team members, scheduling shifts, and implementing process improvements.
3. **Process Improvement Specialist:** In any manufacturing or production environment, there's always room for improvement. Process improvement specialists in the apparel industry focus on identifying bottlenecks, inefficiencies, or opportunities for streamlining the finishing and packaging processes. They analyze workflows, suggest changes, implement new techniques, and monitor the impact of these changes on productivity and product quality.
4. **Compliance and Sustainability Officer:** With increasing emphasis on ethical practices and sustainability in the apparel industry, there's a growing need for professionals who can ensure that finishing and packing processes align with environmental and ethical standards. Compliance and sustainability officers work to ensure that materials used in packing are eco-friendly, that waste is minimized, and that workers are treated ethically throughout the supply chain.
5. **Cross-functional Collaboration:** A career in finishing and packing can also serve as a stepping stone to other roles within the apparel industry. Professionals who start as finishers and packers often gain insights into different aspects of the production process. This experience can be valuable if they decide to transition into roles such as production management, supply chain coordination, or even design and development.

While the role of a finisher and packer may seem straightforward, it is an integral part of the apparel industry that offers various career opportunities. Whether one chooses to specialize in quality control, packing coordination, process improvement, or sustainability, the skills and knowledge gained in this role can open doors to advancement and growth within the broader industry.

Activities

Activity 1:

Prepare a chart on roles and responsibilities of finisher and packer

Materials Required:

1. Chart paper
2. Glue
3. Pen, pencils and coloured pens
4. Eraser
5. Sharpener
6. Ruler

Procedure:

- Visit an industry
- Observe the working of finishing and packing department
- Observe the role of a finisher and packer of that department
- Make a chart with all the points related to roles and responsibilities of a finisher and packer.

Check Your Progress

Fill in the blanks:

1. Finisher and packer arranges and organizes products as per _____ and _____ requirements.
2. _____ is the process of application of heat, pressure and moisture to remove wrinkles, shape or crease garment or garment components into the geometric forms proposed by the designer.
3. Finisher and packer should be very vigilant and must have _____ to identify the defects or faults.

4. Buyer checks the garments in the final inspection according to_____.

Answer the following questions:

1. Explain briefly roles and responsibilities of a finisher and packer?
2. Describe importance and steps in finishing and packing process?
3. List out attributes and personal qualities of a packer?

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Module 2	Basics of Finishing, Packing and Package Design
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Module Overview

The garment industry needs to finish its clothes prior to packing and delivering goods to its customer. The buyers and final 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. After stitching, the raw garments are passed through various finishing processes and handled carefully prior to packing. Finishing activities involved thread trimming, spot cleaning, and ironing, removing dust, loose threads and fibers. For performing these activities, various finishing tools and equipment are required. In this unit we will discuss technical terms and materials associated with different types of finishing and packing processes, basic functions, levels and types of packing in apparel industry and package design.

Learning Outcomes

After completing this module, you will be able to:

- Identify and Describe Tools, Materials and Technical Terms Associated with Finishing and Packing Processes
- Identify and describe the basic functions and levels of packing in apparel industry
- Explain requirement of packing and package designs

Module Structure

Session: 1 Describe Tools, Materials and Technical Terms Associated with Finishing and Packing Processes

Session: 2 Basic Functions and Levels of Packing in Apparel Industry

Session: 3 Requirement of Packing and Package Designs

Session: 1 Tools, Materials and Technical Terms Associated with Finishing and Packing Processes

A finisher and packer should arrange all types of tools prior to finishing and packing operations. Finishing activities involved thread trimming, spot cleaning, and ironing, removing dust and loose threads and fibers. For these

activities, various finishing and packing tools and equipment are required. Following are the finishing machines, tools, and equipment used by the apparel industry:

1. **Thread trimmer:** The operator does not correctly trim thread ends during the stitching process. At the finishing stage, all untrimmed threads are clipped. Thread tails are trimmed with manual thread trimmers by workers.
2. **Thread sucking machine:** The loose threads on the garment must be removed from the garment before further finishing and packing process. For this thread sucking machines are used.



Fig.: 2.1 Thread sucking machine

3. **Manual thread removing equipment:** In knit garments, loose threads are removed manually by using gum tapes.
4. **Garment checking workstation:** At the finishing stage, all garments are thoroughly checked. 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 iron garments to remove creases. Inside the vacuum table, there is air suction, which helps to grip the garment when it is ironed.
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.



Fig.: 2.2 Spotting gun

7. **Kimble gun:** Different types of tags, such as hang tags, price tags, and special tags are attached to folded garments, with the help of a kimble gun.



Fig.: 2.3 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.



Fig.: 2.4 Needle detectors

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 drawcords in many garment products. Like waistband drawcord in bottoms (track pants, leggings) and in a hoody. A long needle or a device is used for inserting draw cords.

Some Other Tools and equipments:

1. Measurement tape
2. Ironing table
3. Packing table
4. Adhesive tapes
5. Pins- ball pins, u-pins, plastic clips

6. Scissors
7. Thread sucker
8. Weight scale
9. Carton staple machine
10. Tape gun
11. Sealing Equipment
12. Butter paper, chart/card sheet if required in certain type of product packing e.g. formal shirt.



Fig.: 2.5 Tools and equipments

- 1) **Technical Terms Associated with Finishing and Packing Processes:** Some important technical terms associated with finishing and packing are as follows:
 - 2) **Adhesive tapes:** Tapes which form a bond between two surfaces and help to seal cartons, polybags etc.
 - 3)

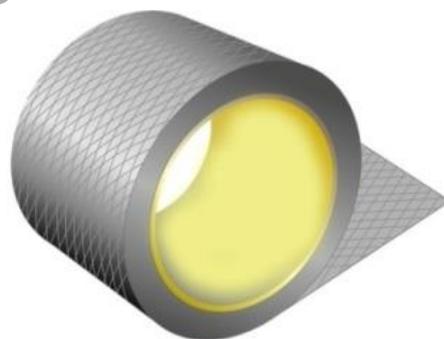


Fig.: 2.6 Adhesive tape

- 4) **Abrasion resistance:** The ability to withstand the effects of repeated rubbing, scuffing and scratching.
- 5) **Absorbent packing:** The inclusion of such material while packing that will help to take up any kind of liquid resulting from leakage of the product.

- 6) **Accelerated test:** This test is conducted in laboratory to evaluate the performance of the package in adverse conditions e.g. extreme exposure to chemicals, temperature, rough handling, falling from height etc.
- 7) **Active Packaging:** The features of the package that are designed to protect the contents of the package under any circumstances.
- 8) **Active Tagging:** These tags are digital tags that run on batteries which may be replaceable from outside or can be fixed inside the product packaging e.g: Temperature control package.
- 9) **Aerosol:** These are gas/air light containers which are designed to hold the product and propellant gas under pressure. The packs have a valve that when processed by a finger, pressure releases the product.
- 10) **Air bubble film:** This film is made of two polyethylene films sealed together in such a way so that small round spaces trap air inside them. The air trapped in film helps to bear any sudden pressure or jerk which may damage the product.
- 11) **Artwork:** This artwork is usually a mechanical design printed on a heavy paper or light cardboard. It is usually black and white in colour. These artworks are stuck on the package to visually indicate any instructions to follow while handling the product e.g. This side up.
- 12) **Antistatic:** A form of protective packaging which combats static discharge to safeguard items stored within.
- 13) **Artwork:** The logo or design was given to or created by the packaging designers to be printed onto the packaging line.
- 14) **Assembly:** A line to put together all the parts and components in order to make the finished product.
- 15) **Barrier Material:** Any packaging material that is designed to eliminate the passage of gas, moisture and other environmental constituents to the packaged product.
- 16) **Barcode:** A code consisting of bars or lines of varying thicknesses and some numbers under it. This needs to be scanned by radio frequency identification device to know the information coded in it. A barcode normally tells us about the unique identification number of the

product, its price and other related information. Each country has a separate barcode.



Fig.: 2.7 Barcode

- 17) **Bins:** Different bins or containers used for storage of labels, hang tags, packing material as well as finished products to be packed.



Fig.: 2.8 Bins

- 18) **Blister packaging:** According to the size and colour ratio, the garments/products are packed in a single polybag.
- 19) **Board:** Thick and heavy sheets of paper in varying thicknesses and material such as cardboard, fibreboard etc. used as separators in a big package box or for creating small compartments.
- 20) **Backing Liner:** A compressible paper material which, compensates for any irregularities on the surface which is sealed. This compressible material (usually pulp or news board) is usually adhered to the liner and provides a better finish (appearance), water resistance and extra strength.

- 21) **Banding:** A banding machine will secure numerous items (e.g. packaging boxes) in order to allow them to be more easily handled. Also referred to as strapping.
- 22) **Barrier Material:** A packaging material designed to eliminate the passage of gas, moisture and environmental constituents.
- 23) **Carton:** Any container or box made of corrugated paper. It is also called as box. Its material is heavier and thicker than the paper boxes.



Fig.: 2.9 Carton

- 24) **Closure:** It refers to any technique or device that is used for sealing the package and mostly includes tapes, woven plastic tapes, flat metal tapes, zip locks, staples, glue etc.
- 25) **Collapsible:** A box or paper bag that can be folded down flat. Collapsible bags and boxes are easier to transport and store. These boxes are also reusable.



Fig.: 2.10 Collapsible

- 26) **Corrugated:** A paper or a box having series of parallel ridges and grooves.



Fig.: 2.11 Corrugated materials

- 27) **Dimensions:** The length, depth and height of the bags, boxes or any such packaging material.
- 28) **Dividers:** Any material used to separate and provide cushioning to packaged products within a container or a box. They can be made of paper or cardboard or laminated paper.
- 29) **Drop Test:** A test used to identify the capabilities of the subjected packaging. It will be dropped from a certain height to test the durability and ensure that the product inside survives without being damaged.
- 30) **Dunnage:** The name of materials used in containers to protect goods and their packaging from moisture, contamination and damage. Can also be used for separation of products during “in plant” handling.
- 31) **E-Commerce packaging:** Packaging designed and used to keep the products safe during transit and shipping. While online shopping, the first interaction consumer has is with the packaging provided by the brand for the product. This can break or make an impression on the consumer. The quality of package in e-commerce shopping plays a very important role.

- 32) **Flat-Pack:** Packaging which is flat to minimise transportation and shipping cost. This is mostly used in Sport wear, Shirt and Trouser.
- 33) **Internal dimensions:** The inside measurements of a package case or box. This is used to help the box match correctly with the product. Sometimes the boxes are lined with thick inner wall for extra protection of the products which make the boxes look bulkier but have less space inside. Hence, internal dimensions of the boxes are utmost important.
- 34) **Labels:** Small, informative document attached to garments or apparels containing information about the brand, fiber content, washing instructions, ironing instructions etc.



Fig.: 2.12 Label

- 35) **Outside view:** This refers to the view or look of a package design from the outside. This deals with the placement of the outer stickers (which contain details of the sender and receiver, date, weight and dimensions), artworks and other details which are clearly visible.
- 36) **Pallet boxes:** These are large boxes used in industries. These are called so because they are fixed to or on top of pallets, which can be used to ship products in bulk.



Fig.: 2.13 Pallet boxes

- 37) **Paper boxes:** As the name suggests these are boxes made with different type of papers such as recycled paper, corrugated paper, laminated paper. They come in various sizes and shapes as per the garment or apparel item to be packed.
- 38) **Recyclable:** Packaging material that can be recycled rather than disposing it as a waste. The packaging material returns to the factory after transfer of products and sent to packaging material manufacturing unit where they recycle it and new fresh boxes are made using the same material. This helps to reduce wastage and support green environment.



Fig.: 2.14 Recyclable Box

- 39) **Transit:** Transporting goods from one place to another.
- 40) **Transit damage:** Any damage incurred upon the product during transit.
- 41) **Virgin Material:** A material that has not been reused or recycled and is an original manufacture. Ex. Virgin plastic.

Activities

Activity 1: Prepare a PowerPoint presentation or a chart on various tools and materials used in finishing and packing section with pictures.

Materials Required:

- 1) Chart paper
- 2) Pen, pencil, coloured pens and markers
- 3) Eraser, sharpener
- 4) Scale

Procedure:

- 1) Collect required information.
- 2) Organize the collected information in PPT or chart whichever is feasible to you.
- 3) Decorate it with pictures and graphics.
- 4) Get it corrected by your teacher.
- 5) Discuss and present in the class.

Activity 2:

Organize a discussion about barcodes and its use in garment industry in your class. Collect information prior to the discussion. Prepare a report about barcodes.

Materials Required:

- 1) A-4 size papers
- 2) Pen, pencil, coloured pens and markers
- 3) Eraser, sharpener
- 4) Scale

Procedure:

- 1) Collect required information.
- 2) Organize the collected information in a chart.
- 3) Decorate it with pictures and graphics.
- 4) Get it corrected by your teacher.

- 5) Discuss and present in the class.

Activity 3:

Organize a quiz taking questions from the technical terms associated with finishing and packing.

Materials Required:

- 1) Pen, pencil
- 2) Eraser, sharpner
- 3) Buzzer or anything to indicate that the team knows the answer

Procedure:

- 1) Divide the class into two groups.
- 2) Teacher will ask the questions related to packing terminology.
- 3) Groups will have 30 seconds to answer.
- 4) The group which will press the buzzer first will get the chance to answer and if answer is correct, 2 points will be given to that group.

Check Your Progress**Fill in the Blanks:**

- 1) _____ is the ability to withstand the effects of repeated rubbing and scratching.
- 2) A _____ is a type of packaging material that is designed to eliminate the passage of gas, moisture and other environmental constitutes to the packaged product.
- 3) A box or paper bag that can be folded down flat is known as _____

Question Answers:

- 1) List various tools and materials used in finishing and packing operations?
- 2) What do you mean by blister packaging?
- 3) What is flat packing and artwork?
- 4) Briefly explain pallet boxes and E-commerce packaging?

Session: 2 Basic Functions and Levels of Packing in Apparel Industry

Packing refers to covering and enclosing products for protecting them during transit, distribution, storage, sale, and use.

This is the final process in the production of garments, which prepares the finished merchandise for delivery to locations specified by the buyer. Garment packing is one of the key components in order to draw the attention of customer towards the brand. After completing the entire manufacturing process, apparels are required to be packed. After packing, it is placed in cartons as per instructions and then it is stored in a store section before it is delivered to the respective buyer or customer.

The plastic bags are most commonly used for garment packing either at the completion of production or when they arrive at the finished goods stores. Apparels such as shirts and underwear are usually bagged and boxed immediately after final inspection and enters the stores in pre-packed form. Other hanging garments like jackets, dresses, suit sets and skirts are usually bagged when they enter the stores. A carton package made of quite strong corrugated material is normally preferred while transporting the boxed or hanging garments in bulk form. The packed garment boxes are sealed by contact adhesive paper tape or bound with a plastic tape. After packing, it is placed in cartons as per instructions and then it is stored in a store section before it is delivered to the respective buyer. For apparel retailers, packing the products is as significant as the product itself. Customer satisfaction is the key to build a brand and for generating a 'feel good factor' and ensuring customer retention or loyalty, presentation of the products is of utmost importance. In this session we will discuss basic functions and levels of packing.

In many situations the packing may be more important than the product it contains. Sometimes a product is bought by a customer only because of its attractive packing. Packing is one of the lowest cost and highest control areas of marketing activity. Packing development includes protection of contents, consumer convenience, trade appeal and Consumer sales appeal. Pack design is important to the retailer who may decide to accept or reject a pack just on the basis of its design rather than its contents such as its dimensions or 'stackability'. Packing is hence the 'silent salesman' in the self-serviced world.



Fig.:2.15 Packing

Packing involves decisions about labels, inserts, instructions for product use, graphic design, as well as decisions about the sizes and types of physical containers for individual product items with the outer package.

Three main functions of packing are:

- 1) **Protection:** The basic objective of packaging for industrial goods is to protect the product while in transit. Packing protects the product and its quality, features, utility, etc. from being damaged or contaminated during transportation, storage, and consumption.
 - **Natural deterioration:** It is caused by the interaction of products with water, gases and fumes, microbiologic organisms like bacteria, yeasts and moulds, heat, cold, insects and rodents.
 - **Physical protection:** The packing is also used for physical protection, which include improving shock protection, internal product protection and reducing shock damage caused from vibration, snagging, friction and impact.
 - **Waste reduction:** Packing also serves to reduce the amount of waste specifically in case of improper methods of packing or not packing or covering the goods any way. Packaged goods generally are more-convenient, cleaner as they are covered with polythene which makes it easy to clear.
- 2) **Cognizability:** Packaging must also make the particular brand recognizable and appealing to buyers. It is important that the colour and design of a package attract the attention of the customers and thus, play a major part in promotional strategy.
- 3) **Storage and usage:** Packing also facilitates the storage and handling of products.
- 4) **Containment:** Once the packing is done it is consolidated for shipping. This involves consolidation of unit loads for shipping. The process starts with spots of adhesives that stick them together,

stretchable and non-stretchable straps of steel and plastic, plastic films and paper or corrugated wraps which helps to surround an entire pallet of product. Packed cartons/boxes are then transferred to ships, trains and flatbed trucks by giant cranes.

- 5) **Information:** All the information about the products which a consumer must know is mentioned on packing. Product information like type of product, material, weight, name and address of manufacturer, shipper is also mentioned on the package.
- 6) **Promotion:** In packing, attractive colours, logos, symbols and captions are used to promote the product that can influence customer purchase decision. It becomes a part of company's trade, marketing, wholesaling and retailing programme. Specific type of packaging for specific products can also become identity of product and brand.
- 7) **Differentiates the product and makes it stand out:** Packing makes it easier for the customer to identify and differentiate it from other products. Moreover, attractive packages have a property to stand out and attract customers towards it.
- 8) **Provides customer convenience:** Packing also makes it convenient for the customer to carry, transport, and use the product.
- 9) **Acts as a communication medium:** Packing helps communicate the brand identity, brand message, and product and company information to the customer through different kinds of labels attached.

The main role of packing is safeguarding products until they are purchased. The package can also be innovatively used once the product is purchased. Uncommon shapes, attractive look and other new features of packages are intended to provide benefits to retailers and/or consumers and, as a result, selling points for marketers.

Levels of Packing

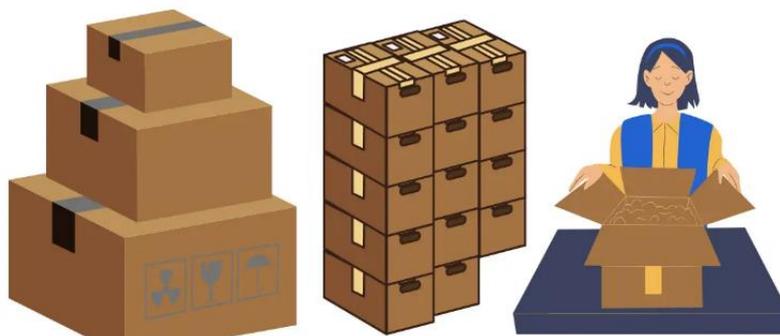


Fig.: 2.16 Levels of packing

The type of packing used depends on the type, value, fabric and destination of the garments or other end products. Mass-produced garments from a clothing manufacturer, wholesaler or warehouse, which require rapid packing by hand or using a machine, are usually packed into plastic bags or on to hangers covered by a plastic bag. Clothing to be transported to a wholesaler or warehouse, usually involves taking garments from rails or shelves and packing them into pallets or crates. Clothes sent by mail order or internet retailers, need to be packed individually and sent to customers with the relevant paperwork. Usually, packing can be categorized into three types depending upon its usage and purpose. These types are:



Fig.: 2.17 Type of Packing

Primary Packing

It refers to first level of packing. It is in close contact of the product and mostly touches the products. The main idea behind primary packing is to provide protection to the product as well as to provide information to the customer and attract customers. This type of packing is often intended for the retail customer and hence it is also referred to as consumer unit or retail unit. Primary packing makes it easier for consumers to handle products and also makes the products look more appealing. It can also be used for conveying printed information about the products to consumers. Primary packing carries company's logo and information and hence can be used for branding.



Fig 2.18 Primary Package

Functions of Primary Packing

Following are the basic functions of primary packing:

1. **Physical Protection:** It helps in protecting the product against any kind of physical damage which may be caused due to mechanics jerks, electrostatic discharge, shaking, compression. temperature etc.
2. **Acts as a Barrier against Critical Issues:** It safeguards the product from weather elements such as moisture, dust, contaminated air, germs, oxygen, etc. Permeation is given due importance while designing the package. Moreover, some packages involve desiccants for absorbing the moisture or oxygen for extending the shelf life of the product.
3. **Enhances Convenience:** It also enhances the convenience of handling, distributing, storing, displaying, selling, opening and closing, using, supplying, reusing, recycling, and disposing the product.

Secondary Packing

The secondary packing is used for shipping products. The products are already in primary packing when secondary packing is done. This type of packing is used outside of primary packing to group a certain number of products. The number of products packed in secondary packing is called as stock keeping unit or SKU. For ex. shirts packed in primary package that is a polybag and cardboard box are then packed in secondary package which is a carton. So the polybag and cardboard box for each shirt are primary package and the carton in which individual shirt polybags or boxes are packed is the secondary packing.

Sometimes secondary packing is also used for display in the store window. Its main goals are to protect products, help in product identification or differentiation, and also help in product branding.



Fig.: 2.19 Secondary Packing

Functions of Secondary Packing

Secondary packaging has following functions:

1. **Branding and Display:** It plays an essential role in the marketing strategy regarding a product, especially when display packaging is practiced by the company.
2. **Agglomeration or Containment:** It helps in agglomeration and containment. Many a times, small products are grouped and placed together to ensure efficiency. For example, a single box containing hundred small handkerchief boxes would be difficult and costly to handle separately.
3. **Logistics:** It also helps in grouping numerous products together in one pack for ensuring easy handling, efficient delivery, usage, and storage. Thus, secondary package should:
 - Be capable of holding considerable number of primary packaged products.
 - Ensure case of safe shipment to the retailers/consumers.
 - Be capable of protecting the primary packing during storage.

Tertiary Packing

This is the outermost layer of packing that is most often used by warehouses and manufacturers to ship the products (which are already wrapped in secondary packing). The primary goal of tertiary packing is to protect shipments during transit. This type of packing is rarely seen by end-users and includes pallets, wood crates, banding groove lumber, strapping, stretch wrap, etc.

Examples of tertiary packaging include the pallets used for keeping bulk shipments. It also includes corrugated pads used to separate layers of boxes and stretch wrap used for securing carton stacks. Metal containers carry the pallets and cartons. In addition to help in preventing damages, it consequently facilitates the handling, storage and transport of goods. An example of tertiary packaging is a stretch-wrapped pallet containing a quantity of cardboard boxes (secondary packaging) to enable efficient product shipping.



Fig 2.20 Tertiary Packing

Functions of Tertiary Package

Following are the basic functions of tertiary packing:

1. **Protection:** The main function of tertiary packing is to ensure the safe shipment of the products. Almost every mode of transportation may face unanticipated accidents, shocks, jerks, etc.; the tertiary package protects the product against them. It also safeguards the product from the weather elements such as moisture, high temperature, rain etc.
2. **Versatility:** Tertiary packing should be designed by keeping in mind that the product would pass through several points before reaching to its end user. Hence, it experiences loading-unloading, reloading, re-packing, storage, etc., several times. Therefore, tertiary packing should be versatile in nature so as to ensure smooth movement of products through these stages.
3. **Customized Solutions:** Tertiary packing of certain product should be customized as per the product's specific needs such as its size, dimension, and consistency. The intention here is to make packaging light weight, strong, easy to carry, and compact.

Packing is regarded as a crucial marketing element because it serves as the primary distribution, storage, and sales tool and can be a component of the product itself or an external container constructed of various materials. Packing is an important consideration for both the supplier and the buyer. While the seller utilizes it to distribute, store, and promote products, the customer uses it to identify and use products.

Activities

Activity 1:

Visit apparel stores and malls; meet the store inventory manager to collect information and pictures of different types of primary packing used for apparels and types of secondary or tertiary packaging that they receive from various brands. Collect information and write it in your file with pictures.

Materials required:

1. Packing material
2. File and A4 size papers
3. Pen, pencils, markers etc.
4. Eraser sharpener, scale

Procedure:

1. Divide class in smaller groups of 2 or 4.
2. Select the shops of one mall that cater to different brands.
3. Fix a meeting with the store inventory manager to discuss- primary, secondary and tertiary packaging materials used by their shops and brands.

Check Your Progress**Fill in the Blanks:**

1. _____ is caused by the interaction of products with water, gases and fumes, microbiologic organisms like bacteria, yeasts and moulds, heat, cold, insects and rodents.
2. _____ is used outside primary packing to group a certain number of products.
3. _____ refers to first level of packing.
4. Packing also serves to reduce the amount of _____.
5. Once the packing is done it is consolidated for _____.

Answer the given questions:

- 1) Describe functions of packing in detail.
- 2) What is different levels of packing? Explain.

Session: 3 Requirement for Packing and Package Designs

In the apparel industry, the requirement of packing and package design holds paramount importance, serving as a pivotal bridge between manufacturers and consumers. Efficient packing not only safeguards the garments during transit but also contributes to brand recognition, customer satisfaction, and sustainability efforts. The packaging must ensure the protection of garments from potential damage, such as wrinkles, tears, or moisture, maintaining their pristine condition upon arrival.

Package design in the apparel industry goes beyond mere protection; it acts as a visual representation of the brand's identity. The design elements, including logos, colors, typography, and graphics, communicate the brand's values, aesthetics, and overall appeal. A well-thought-out package design creates a memorable unboxing experience, enhancing customer engagement and potentially leading to repeat business.

Moreover, as environmental concerns grow, sustainable packaging solutions have gained significance. Brands are opting for eco-friendly materials and minimalist designs that reduce waste and promote recycling. A balance between aesthetics, protection, and eco-friendliness is crucial in the contemporary apparel packaging landscape.

In essence, the requirement of packing and package design in the apparel industry encompasses safeguarding products, reflecting brand identity, enhancing customer experience, and aligning with sustainability goals. It's a fusion of practicality and creativity that plays a pivotal role in shaping consumer perceptions and fostering brand loyalty.

Requirement of Packing

Following are the requirements of good packing:

Package Design: The design of any packing is significant. The package design, including its shape, size, colour, and material, influences both the reputation of the company's products and consumer beliefs. Design is really crucial in encouraging customers. As a result, an appealing packaging design is essential.

Packaging Materials: The correct packing material must be chosen carefully for good packing. The product's ability to protect itself is

determined by the quality of the packing material. A corporation can consider packing materials such as plastic, glass, paperboard, cellophane, metal, styrofoam, and so on.

Placement of Label: Label placement is also an important aspect of good packing. The importance, size, information, placement, and presentation style of the label placed on the box should be determined by the organisation. The brand and organisation names must be accurately stated on the label. The label must clearly communicate information about the packing as well as helpful data.

Convenience of Usage: The product packing should be pleasant and beneficial to all stakeholders, including the producer, distributor, and, finally, the consumer. Packages that are easy to operate and utilise are the most popular with customers.

Guarantee of Economy: A decent package should be cost-effective. The company can calculate the per-unit and total cost of packaging. The total cost as well as the cost per unit of packing are determined by the purpose and level of packing. As a result, packing should not cause any issues for the organisation.

Assurance of Adjustability: Adjustability in packing is also a key requirement. A perfect package is one which can contain any form of product.

Package should be Pollution-less: Social responsibility of a company should always remind it to consider any negative impact caused by its packaging on the environment. Few packing inks made of metals are non-biodegradable and thus hazardous for the environment. A new concept of green packaging, less injurious in nature, is being evolved by companies to curb environmental pollution.

Designing a package is a crucial step in the packing process. As we have already discussed in earlier sessions that packing affects the buying behavior of the buyer or customer, it may contribute to increase the sales or may contribute in decrease of the sales. A well-designed package also contributes in the efficient functioning of the supply chain. The label and the markings on the package have all the required information in detail that helps to communicate with people at various levels without meeting or explaining about the package in person. Clear communication at every juncture is an amalgamation of a functional as well as efficient packaging.

There are designated designers who design such packages to achieve a clear communication at every point of its contact. These designers also pay extra attention to the aesthetics of the package. The choice of colour, font styles, font sizes, placement of the labels/stickers and artworks holds utmost importance.

Role of Packing

Packing performs very important roles, some of which are discussed below:

1. **Utilitarian Role:** Packing helps in enhancing the utility value of the product to its customers in the following ways:
 - Eases brand identification.
 - Enhances convenience of using product by keeping the product clean and intact.
 - Helps in protecting the product against spoilage, damage, spilling, and evaporation while it travels from manufacturer to end user.
 - Facilitates easy handling and safety of stock present in the retail stores.
2. **Profit Role:** The effective packing prevents the products from damaging. This helps in cutting down the unnecessary costs that may have been incurred in these activities; therefore, it, indirectly helps in increasing profits. Customers that place a higher value on packing are willing to pay a little more for it. As a result, the package aids in raising additional revenue.
3. **Buying and Marketing Roles:** Packing is an integral component of the marketing function and should be considered during the initial stage of the marketing plan. Apart from this, it is involved in the buying function and many other functions of the organisation. It also plays an important role in enhancing the sales of the brand or products.
4. **Communication Role:** Packing serves as a medium of communication by becoming a part of communication mix, especially through sales promotion and advertising, in the following ways:
 - **Product Identification and Differentiation:** Product identification and differentiation are aided by packing. In today's world where it is tough to distinguish two actual products, distinctive packaging aids in distinguishing one product from another.

- **Communicate Product Message:** Package conveys the message of the product and encourage people to buy it.
- **Product Promotion:** It helps in promotion of the product when the customer is about to make a purchase and also influence the buying decision of the consumers. With the help of packing, new products can easily be identified after which the customer can ask about the product from the dealer and make the purchase.
- **Enhances the Attractiveness of the Product:** Packing plays an essential role in enhancing the attractiveness of the product. The products which look attractive in the display at the retail store immediately attract the attention of the people due to their pleasing appearance.



Fig.: 2.21 Attractiveness of products

ELEMENTS OF A GOOD PACKAGE DESIGN

- 1) **Colour Palette:** Every industry and brands have their own developed logos and colour themes define in the logo. It is always a good option to pick the same colour scheme as depicted in the brand logo them. It will not only make it aesthetically appealing but will also save the time of the designer to choose from other colour option that go well with the brand logo. Colors are associated with certain human emotions and sentiments. Therefore, choosing correct colours to create or evoke the particular emotion in the customer is also important.
- 2) Many brands believe that clothes should empower people all around the world irrespective of their colour, caste or creed to express their emotions and get the most out of the experiences they live so these brands may use different color theme for their package design for e.g a brand may has green coloured package with a white font in which green colour may symbolize nature and white for peace.

- 3) **Font style and size:** The fonts used while package designing are preferred to be legible, clear and less decorative. This helps to communicate the information in an effective way. The size of the fonts also must be appropriate enough to be read from a distance of one meter. The brand name and logo font can be bigger in size as compare to the font of information given.
- 4) **Amount of information:** The amount of information just enough to learn about the brand, type of product number of product, any extra care to be taken while handling the package and contact information of sender and receiver is more than required. The package should not be cluttered with too much un-necessary information.
- 5) **Design aspect of the package:** The package must be designed appropriately for the product it is going to be used for. For eg, a window box for inner wear will not be as effective, but a window box for kids wear or infants clothing hamper will be apt. Effective choice of font style, font size and colour. The designs need to be practical and realistic for mass production in terms of shape, construction and designing. Extra fine artworks for pallet boxes would not be suitable but these will go well with the paper box packing done at primary stage.

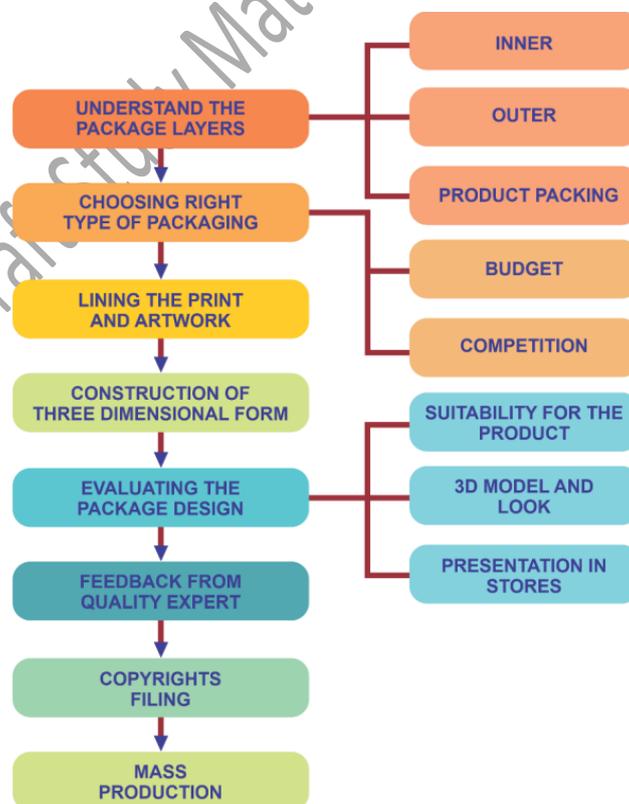


Fig.: 2.22 Steps of Package Designing

The package design can be developed depending on the brief of brand philosophy. The package as is a representation of the brand the type, style and design speaks a thousand words, and conveys in said emotions.

Few of these are discussed as under:

1. **Luxe:** This is a term 'luxe' is used for luxurious products made by high end brands. Eg. Designer clothing brands



Fig.: 2.23 Packaging for luxury brands

2. **Bold:** Such packages are designed to be firm and sturdy to hold the body and shape of the garments like bags and purses, shoes, hats, watches, ties, wallets etc.



Fig.: 2.24 Firm packaging

3. **Charming:** Such packages are fun and play full and are used for kids wear, pre-teen clothing etc.



Fig.: 2.25 Charming Design package

4. **Casual:** These kinds of packaging are done for teen casual clothing for giving a cool look.



Fig.: 2.26 Charming Design package

5. **Nostalgic:** These packages can be theme based. Such products give a retro feel to the products. High end brands prefer theme based packing for their clients.



Fig.:2.27 Nostalgic Package Design

6. **Crisp:** Such packaging also is used by high end brands where their clients demand sophistication. The products have a minimalistic approach towards their designing and crisp packing helps to go in harmony with the same.



Fig.: 2.28 Crisp Package Design

VARIOUS FORMS OF PACKAGE DESIGN

Package design involves the designing and creation of product's container and how it will appear to the consumers who intend to buy the product. It involves making the product look presentable along with ensuring that it protects the product as well. Package designs can be classified as follows–

1. **Merchandise Packaging:** The merchandise package is the unit the consumer receives when he selects the product. From the consumers point of view the merchandise package should:
 - **Identify the product:** Transparent plastic film is used makes it easy to identify and attract the consumer.
 - **Enhance the appeal of the product:** The manner in which the product is packaged geometrically is a big factor in enhancing the appeal of the garment.
 - **Attract the consumer to the package:** Attractive Colour and design on the package are other aspects that are used to identify, enhance and attract the customers towards the product.

Protect the product quality until the consumer uses the item.

2. **Vacuum Packaging:** Vacuum packing method is used for different purposes and under this method, the package's free spaces and air spaces remove systematically resulting in creating vacuum between package and garment. Vacuum packaging works by reducing the moisture content of the garment; 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.



Fig.:2.29 Vacuum Packaging

The garment is encased in a plastic film sack; after which the air in the sack and garment are vacuumed out as the garment is compressed within. This is sealed at the end of the vacuum and compression cycle.

The functions of vacuum packaging are to:

- 1) **Reduce shipping bulk:** After removing air and free spaces of package, the volume will be reduced. So, it is easy to increase number of shipping packages.
- 2) **Reduce the shipping weight:** After removing air of package weight will be reduced. Then shipping cost is reduced according to low weight per package.
- 3) **Prevent accumulating dust:** According to the vacuum there is no connection with air of environment. So, dust will not come in to package.
- 4) **Prevent entering moisture in to garment:** According to the vacuum there is no connection with air of environment. Then atmospheric moisture will not come in to the package.
- 5) **Prevent from fungi, mildew effects:** According to the vacuum there is no connection with air of environment. So, fungi and mildew need atmospheric air to grow. And there are no fungi and mildew occur on packed garment.
- 6) **Prevent garments occurring creases:** According to the vacuum, garment not facing to another surface. Then will not crease.
- 7) **Minimize storage spaces for retailer:** According to the vacuum packing, free spaces between garment and package are reduced. This effect has an advantage and it is easy to store large number of packages in the low spaces of retail shop.

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 and anything with bulk that can be easily compressed.

3. 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 may be divided into two classes with respect to the protection.

- **Closed containers carrying garments**

- Without a covering merchandising package (an open merchandising package)
- Covered completely individually by a merchandising package (closed merchandising packages)

- **Open containers carrying garments**

A. In open merchandising packages,

B. In closed merchandising packages.

Suits or dresses transported without individual covers on hangers, suspended from portable hanger racks, are examples of open merchandising packages carried in open containers. Cartons with hanger racks “Hanger Pack” are examples of closed containers designed to carry the garments in open or closed merchandising packages.

Shipment Packaging can have features that add benefits in distribution, handling, stacking, display, sale, opening, reclosing, use, dispensing, reuse, recycling, and ease of disposal.

Classification of Packaging Based on Customer Requirement

- 1) **Poly-bag packing:** In this type of packing, products are packed into a poly bag before placing them into cartons box to prevent any kind of damage to the products. Products may be packed individually or in group in a poly bag and its ratio will be specified by the customer.
 - i. **Single piece packing** – In this type, a single product is packed into the polybag. It can be decided on the basis of delicacy of the workmanship or as per buyer’s requirement.
 - ii. **ii. Blister Packing:** In this type of packing, two or more products are packed into a polybag on the basis of size and colour ratio. These poly bags are then placed into a carton box.
- 2) **Packing without polybag:** In this method, the products are just folded (if garment) and arranged in the carton boxes without placing them in the polybag. When it comes to pack multiple garments or other products into carton boxes, colour and sizes are considered as main criteria for differentiating packing method. Different ways of packing are as follows:

i. Solid Packing: In this method of packing, the carton box will include products of a single color and same size. For example, 20 embroidered *kurtas*

of a similar color (For ex: Red), similar design and the similar size say S will be put in one carton box.

ii. Assorted packing or Ratio packing:

- 1) **Ratio Packing:** This method is mainly used for garments. In this method, the carton box includes garments of the same color but of different sizes according to the ratio.

For example, S : M : L : XL = 5 : 7 : 7 : 5.

- 2) **Mixed Packing:** In this method the carton box can include garments of different colours but of same size or garments with different colors and also different sizes.

Many times, as per the requirement of the customer or other aspects related to item, transportation, expenses, etc. following methods are used for packing:

1. First garment is folded flat as per specific dimension and then packed into a polybag.
2. Garment is folded and directly packed into individual cardboard box instead of packing into poly bag.
3. Garments are not folded at all – full garment is packed into a polybag with a hanger attached and then it is placed in the carton.
4. Garments are not folded and not packed into individual polybag. Instead these are directly packed into carton boxes. Later in retail shop, garments are placed in racks using hangers.

Garment packing based on the folding method:

Traditionally garments are folded prior to packing. Folding of garments are done as following:

1. First garments are folded flat as per specific dimension and later packed into a polybag.
2. Garments are folded and packed into individual cardboard box instead of packing into poly bag. Like men's shirts are packed in a cardboard box.
3. Garments are not folded at all – full garment is packed into a polybag in a hanger and placed in the carton.
4. Garments are not folded and not packed into an individual polybag. Garments are directly placed into carton boxes. Later in retail shop garment are placed in racks using hangers.

5. Crashed fold – garments like shorts, boxers, cargo pants crashed folded and items of different colors are packed into a poly bag.

One might have seen many other ways of packing garments. In export manufacturing, packing method is followed as instructed by the buyer. In case of a brand, the owner/designer can design their packing method based on product type or follow the market trend for packing of particular types of garments.

Activities

Activity 1:

Prepare a chart on different types of package design.

Materials required;

1. Chart
2. Pen/pencil
3. Pencil colours
4. Glue

Procedure:

1. Collect different pictures of package design.
2. Prepare a chart about package design using information and pictures creatively.
3. Present it in the class.

Check Your Progress

Fill in the Blanks:

1. The _____ must clearly communicate information about the packing as well as helpful data.
2. A decent package should be _____.
3. _____ and differentiation are aided by packing.
4. The _____ is the unit the consumer receives when he selects the product.
5. Vacuum packaging works by reducing the _____ of the garment. (moisture content)

6. In _____ two or more products are packed into a polybag on the basis of size and colour ratio.

Answer the given questions:

1. Explain types of package design and role of packing.
2. What are the types of packing based on customer requirements.
3. Explain merchandise, vacuum and shipment packing.

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Module 3**Executing Finishing and Packing Tasks****Module Overview**

Finishing and packing are the final procedure of preparing clothing for sale. As a result, it is one of the most crucial stages in the entire garment manufacturing process. In the garment industry, the finishing and packing division is responsible for garment cleaning, checking, final inspection, pressing, packing, and so on. A proper finishing and packing technique can increase garment quality and ensure on-time order distribution. A good finishing and packing can improve sales at the retailer's end. When considering mass garment manufacturing for the international and domestic markets, we must consider final article packing, transportation of goods from the manufacturing house to a retail shop, and easy distribution of colour and size to the retailers.

Learning Outcomes

After completing this module, you will be able to:

- Describe garment measurements, defects and quality control procedure in finishing and packing department
- Explain folding, pressing/ironing, different tags and labels used in finishing and packing department
- Describe finishing agents, types of garment stains and job card

Module Structure

Session: 1 Garment Measurements, Defects and Quality Control Procedure in Finishing and Packing Department

Session: 2 Garment Folding, Pressing/Ironing, Different Tags and Labels Used in Finishing and Packing Department

Session: 3 Finishing Agents, Types of Garment Stains and Job Card

Session: 1 Garment Measurements, Defects and Quality Control Procedure in Finishing and Packing Department

- 1) **Garment measurements:** The measurement of garments in the finishing department is a very important task for any finisher and packer because it can lead to order rejection in case of any measurement defect. The finisher and packer must have the knowledge of garment measurements

and should inform the concerned authority or person in the case of measurement defects.

For preparing the garment pattern and a complete garment, perfect measurement guidelines must be needed. Sometimes only base measurement is not enough for preparing this. Measurement specification mainly comes from the buyer to get the actual size of each and every part of the garment.

Garment measuring procedures have been developed to demonstrate how and where to measure a wide range of distinct measurement points on finished garments across all product categories. When examining size criteria, measuring garments, and generating sample product, garment measurement guidelines should be followed.

Garment measurements can also help minimize production time and lower production costs. A garment measurement section in finishing and packing department is found in every reputable garment manufacturing firm. They use several critical important points of measurement to check the garments according to buyer's requirement.

Efficient clothing mass production requires a means of producing correct size garments that fit appropriately. Traditional techniques of body size measuring are time-consuming, have the potential for human error, measurement mistakes, and, most importantly, require direct contact with the body.

Terms and Abbreviations:

The terminology and abbreviations listed below are widely used in garment measurement and must be understood by a finisher and packer.

- BK = Back
- BLW = Below
- BTTM = Bottom
- BTTN = Button
- CB = Center Back
- CF = Center Front
- CNTR = Center
- FM = From
- FT = Front
- HPS = High Point Shoulder
- MSRMNT = Measurement

- SHLDR = Shoulder
- W/B = Waistband
- W/O = Without



Fig.: 3.1 Terms and Abbreviations

Preparation for Measuring Garments:

1. Smooth and flat surface table must be used.
2. Garment must be buttoned and zipped unless specified
3. Garment with non-closure must be overlapped as specified
4. Carefully remove all folds, wrinkles or creases on garment without any distort.

How to Take Garment Measurement:

Certain standards or guidelines should be observed while measuring garments to ensure that everyone involved uses the same measurement methodology or procedure. The guidelines should be in written and part of the company's quality policy. It is critical to correctly measure garments in order to obtain a high-quality garment.

Some garment measurement basic guidelines are in below:

1. Before starting garments measurement, take measurement specification sheet, measurement tools, and documentation of those measurements.
2. Take all measurements with metal ruler or fiber glass scale.

3. Take measurements with garments placed on a flat surface in a natural position.
4. Take all measurements to the nearest 1/8” using a 1/4” flexible metal tape measure or as specified by the buyer.
5. Do not pull or stretch garment at the time of measurements unless otherwise specified.
6. Take all measurements from outside edge to outside edge unless otherwise specified as inside to inside.
7. Measure garment on wearer’s left side.
8. Take measurements of openings like waist, neck, leg opening etc from inside edge.
9. For curved seams, such as rises and armholes, stand tape on edge and walk along seam to be measured.
10. When taking stretch measurements, stretch to full extension of fabric but not widely.

Measurement Techniques Knit and Woven Tops, Blouses, Blazers, Jackets, Dresses and Jumpsuits:

- 1) **Back Length:** Take the measurement straight down from high point shoulder to bottom edge of garment.
- 2) **Shoulder:** Measurement tape is placed from shoulder point to shoulder point. Straight across back, armhole seam to armhole seam.
- 3) **Chest:** Place the measurement tape 1” below under arm seam, straight across front, outside edge to outside edge.
- 4) **Waist:** Take the measurement straight across front, outside edge to outside edge.
- 5) **Seat/Hip:** Measure straight across front, outside edge to outside edge.
- 6) **Bottom:** Place measurement tape straight across bottom edge of garment, outside edge to outside edge. If vents exist, measure straight across garment, outside edge to outside edge at top vents.
- 7) **Center Back Sleeve Length:** Fold neck in half to find center, or use center back seam. Now take the measurement from center back neck to shoulder point, pivot, and follow top of sleeve line to bottom edge of sleeve, including cuff.

For the Measurement Techniques of Bottom:

- 1) **Waist:** At first garment laid flat and measure along top edge of waistband outside edge to outside edge.
 - 2) **Elastic Waist (Stretched):** Garment laid flat and face up with waistband edges even and now measure along top edge of waistband, outside edge to outside edge.
 - 3) **Hip (Pant):** Lay garment flat and let it fall naturally from waist (back may sit higher than front). Measure 4" up from crotch point on front, along curve. Measure in a "V", perpendicular to grain, from outside edge to outside edge.
 - 4) **Front Rise:** Take a measurement tape and measure along curve from crotch point to bottom of waistband.
 - 5) **Back Rise:** Take a measurement tape and measure along curve from crotch point to bottom of waistband.
 - 6) **Inseam:** Measure left leg from crotch point to bottom of hem following inseam shape.
 - 7) **Leg Opening:** Place a measurement tape on left leg straight across bottom edge, outside edge to outside edge.
 - 8) **Skirt Bottom Opening:** Garment laid on flat surface, measure straight across front edge, outside edge to outside edge. For uneven/curved hem, follow hemline. If vents exist, measure straight across garment, outside edge to outside edge at top of vents.
 - 9) **Skirt Center Back Length:** Measuring tape is placed on flat garment from bottom of waistband seam at center back, straight down to bottom edge of garment.
 - 10) **Skirt Hip:** Garment laid on flat surface and face up, measure 8" down from bottom of waistband along side seams. Measure straight across, from outside edge to outside edge.
- 2) **Quality control in finishing and packing department (Standard Operating Procedure)**

Quality control of finished garments is an inspection performed prior to the shipment of merchandise to the client and is performed when at least 80% of the order has been packed for shipping. This approach aids in the detection of problems and minimizes the possibility of consumer complaints.

The inspection process normally comprises the following steps: visually assessing the garment for evident faults, confirming the labelling, and counting the units in the production lot.

Why the final inspection is important?



Fig.: 3.2 Inspection items

- From buyer perception, the best quality product increases its brand value to the consumer.
- From the manufacturer's perception, the best quality product increases its industry reputation and creates opportunities to get more orders from the buyer.

The final quality inspection process is the passport for the garments shipment. The garments are shipped only if the inspected garments meet all requirements for the product during the inspection.

In finishing, following standard operating procedures can be followed for the apparel industry:

- All Sewn Garments are to be received into finishing section after washing.
- Washed garments are to be checked for shade acceptance in a standard light box as per buyer approved all shade standard. If a lot fails in AQL to meet shade acceptance, then it will be sent back to washing for rewash.
- After passing shade of Garments and thread trimming, quality checking starts as per style-wise sequence but must maintain a size-wise bundle.
- Excessive WIP (Work in Process) and dumping more than one bundle stacking in one layer is not allowed in any operation of finishing.

- Any defective garments will not pass from any operation without alteration and QC pass.

Finishing Quality Control Standard of Garments

1. Pull test as per customer requirement
2. 100% Garments quality inspection and thread trimming
3. 100% Garments key point measurement
4. 100% pressing as per customer requirement
5. Quality audit is to be done before moving garments to pack
6. Specific written instruction for every operation with garments form mockup as visual instruction for ironing, attaching the sticker, measurement, quality inspection, folding, and packing.
7. Approve trim card for every style with all finishing trims and accessories.
8. 100 % of garments metal detection is to follow to ensure garments free from a needle, sharp tools, and any types of metal as ensured product quality.
9. Packing of garments as per customer Stock Keeping Unit (SKU) and assortment requirement.

Finishing AQL Auditors audit garments before moving garments to packing area from every bundle. If the audit pass, garments will move forward for packing. If Audit fails, an auditor will give back garments to the Quality checkpoint area to recheck. AQL Auditor will re-audit after complete recheck. When a purchase order is already 80% packed, an auditor audits the entire lot according to the buyer's final audit sampling policy to check the quality of the packed garments before the final audit. If the Pre-final audit fails, then the full purchase order will be rechecked.

3) Garment defects:

Garment defect is any nonconformance of the product against specified requirements. Defects are the deviation of customer requirements. A defect in garments is a product not properly sewn and finished or, something unwanted found in garments. Defects are classified into 3 categories, they are Critical, Major & Minor. It is expected from a finisher and packer to have knowledge about these defects to report to their supervisor and thus saving the reputation of the company.

Classification of Garments Defects

Critical Defects: A Critical Defect is described as anything that could potentially be hazardous to the consumer, violate the laws of the country of sale, or render the product UNSALEABLE, resulting in the order being cancelled. Broken needles, sharp edges, incorrect style, incorrect country of origin, incorrect fibre content, insects, bad odour etc. any defect related to product safety is considered a critical defect.

Some examples of critical defects in garments are:

1. Presence of a needle or other sharp object included in the packaging of the finished good due to the cutting and sewing processes involved in the manufacturing of the garment.
2. Blood stains on the garment due to the presence of a sharp object which might pierce a worker accidentally during work.
3. Broken button
4. Mould on a garment
5. Improperly secured loose trims and fasteners
6. Drawstring near head or neck in infant and kids wear
7. Thread or trims which are extensively long or loose
8. Missing warning labels

Major Defects: A defect that is likely to prevent the product from being fit for purpose and/or may affect the product's durability. A fault of this type would generate a customer return. (Example – Skip stitches, Broken Stitches, Open Seam, Wrong Size, etc.)

Some examples of major defects in garments -

1. Open seams
2. Holes
3. Broken stitches
4. Incorrect colours or designs on the product
5. Damaged fabric
6. Bubbling due to fusing
7. Zipper defects
8. Button not well attached
9. Incorrect SPI

10. Main label spot

Minor Defect: A defect that may or may not result in a customer complaint or a customer rejecting a product in favor of one of higher quality. If the garments are not hindering the aesthetic view and product defects are not visible from a specific distance then it is a minor defect.

1. Misprinting of the label on a shipping carton
2. Untrimmed threads, missing stitches or uneven stitching on a garment
3. Minor variation in shading between garment pieces
4. Variation of care label quality or content
5. Dirt material that can easily be washed off

Activities

Activity 1:

Collect 10 clothes from your wardrobe and make a measurement chart of each cloth.

Materials Required:

1. Practical File
2. Pen/Pencil
3. Measuring tape
4. Iron

Procedure:

- Take at least 10 garments (you can take 5 menswear and 5 womenswear) and iron it if there is any crease or fold.
- Take measurement of each garment as discussed in the session
- Write it in your file
- Discuss with your teacher in class

Check Your Progress

Fill in the Blanks:

1. _____ are the final procedure of preparing clothing for sale.
2. The finisher and packer must have the knowledge of_____.
3. Garment measurements can also help minimize_____and lower production costs.
4. CB stands for_____.
5. Take measurements of openings like waist, neck, leg opening etc. from_____.
6. A defect that is likely to prevent the product from being fit for purpose and/or may affect the product's_____.

Write short answers for the following:

1. Explain types of defects.
2. Describe garment measurement.
3. Explain about quality control in finishing and packing section.

Session: 2 Garment Folding, Pressing, Tags and Labels Used in Finishing and Packing department

Finishing and Packing is the final process in the production of garments, which prepares the finished merchandise for delivery to the customer. After pressing, attaching the tags and labels and folding of garments at the final stage, the garments are poly-packed dozen-wise, colour wise, size ratio wise, bundled, wrapped, compressed, and packed in the carton. The carton is marked with important information in printed form which is seen from outside the carton easily.

All packing should be done as per the specific requirements of the individual purchase order as well as the governmental regulations of the destination country. The Finisher and Packer is responsible for the correct and adequate packing of the materials for it to reach the destination undamaged and in good condition. In this session we will discuss about Pressing/ironing of the garments, folding of some basic garments: Shirt, T-shirt, Pant, Garment folding and packing machines, Types of folding: stand up, semi-stand up, flat and hanger and introduction to different tags and labels.

1. Pressing or Ironing: Important Finishing Process for Apparel

The most important finishing process in the apparel industry is pressing or ironing, which involves treating a cloth to heat and pressure with or without steam to remove undesired wrinkles and give the garments a flat appearance. Pressing or ironing is also used to create creases in clothing wherever necessary. Pressing is the most crucial activity for a finisher and packer before folding and packing clothes in the garment manufacturing sectors.



Fig.: 3.3 Important Finishing Process

Basic Components / Parameters of Pressing:

To obtain perfect pressing quality, four key characteristics must be regulated to ensure the best performance: heat, moisture, pressure, and vacuum cooling.

The importance of each parameter is discussed below:

1. **Heat:** Most pressing activities require heat to soften the fibres and so maintain the garment shape. Temperature selection is crucial as wrong temperature settings can harm fibres and yarns.
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 stabilisation. Different fibers require different amounts of moisture. For example, natural fibres such as cotton and wool and regenerated cellulose fibres such as bamboo viscose and viscose rayon require the presence of moisture in the steam, and therefore steaming tables are usually preferred. On the other hand, synthetic fibres require heat to promote swelling and therefore relaxation of the structure. Excessive moisture may cause fabric shrinkage and colour bleeding.
3. **Pressure:** During pressing, pressure is used on the garment to ensure optimal crease retention and permanency. Excessive pressure may cause wrinkles or clothing deformation.
4. **Vacuum:** Vacuum is applied at the completion of the pressing operation. This draws cool air through the clothing, lowering the temperature, decreasing moisture content, and boosting shape retention. This is especially crucial for wool and wool blend clothes, but it also applies to cotton and viscose blends with synthetic fibers like polyester and nylon.

Pressing or ironing has different objectives 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

1. **Removal of unwanted creases and crinkles:** Various sorts of undesired creases and crinkles appear during the garment manufacturing process. These may occur as a result of garment washing. Here, pressing or ironing is done to remove crinkles and creases from the garments.
2. **Shaping:** In apparels, dart and seam are used for proper shaping of the wearer. Pressing also plays an important role to increase the beauty and attractiveness of the created shape by giving it a neat look.
3. **To apply creases where necessary:** In the apparel industry, pressing or ironing is sometimes also done for applying a creasing effect in the apparel parts to increase its beauty (For e.g. Pant creases, waistcoat, blazer etc.). It is also done before sewing the garment parts for correct and neat stitching.
4. **Under pressing:** Before sewing the garments, some parts need minimum pressing to sew 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:** After making the garments, pressing is done finally before folding which is called final pressing. Pressing or ironing is done here to increase the beauty of garments and to impart a flat appearance to the clothing.

In garments industries the following pressing machines are used:

Steam Iron

Normal electric irons are widely utilised in household operations. However, steam irons are being used in industry. The iron in a steam iron is heated by steam supplied either a central boiler or a small boiler. A hand-operated button controls the supply of steam. This steam is delivered to the iron from the boiler via a pipe and is let to escape through openings beneath the iron. These irons are triangular in design and weigh between 1 and 15 kg. This iron requires an ironing bed or table to press with. There should be an air suction system included with the bed. After ironing, a foot-controlled switch is pressed to activate air suctioning, which quickly removes moisture and heat from the pressed clothing. A skilled and experienced operator is necessary to operate a steam iron since the proper regulation of air and steam supply is dependent on the operator's skill so a finisher and packer should have knowledge of it.



Fig.: 3.4 Steam iron

Steam Pressing Machine

A steam pressing machine is made up of a static BUCK and a HEAD with a corresponding shape that closes onto it. As a result, the clothing to be pressed is sandwiched. It has a frame that holds the BUCK, which is often circular in shape. It also includes linkages to close the HEAD, a pipe system to give steam to the HEAD and BUCK, a vacuum system to provide suction via the BUCK, a table around the BUCK to aid in garment handling, and foot control for HEAD closure and vacuum.



Fig.: 3.5 Steam pressing machine

In the case of manually operated press, the duration of steam supply, pressure and vacuum are left to the skill and judgment of the operator.

Working process of steam pressing machine

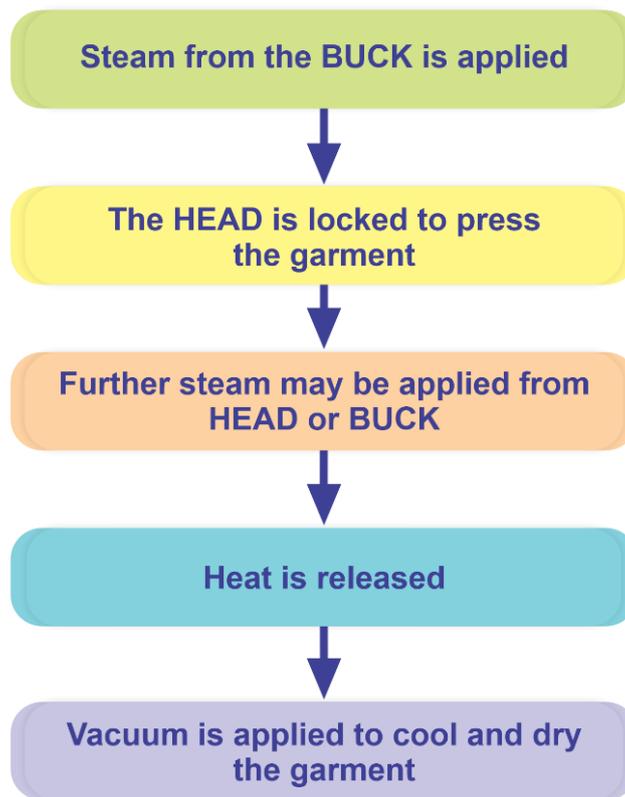


Fig.: 3.6 Working process

2. Types of folding of some basic garments:

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

Different types of folds used for garments are as follows

- Stand-up pack:** This type of packing is commonly used for shirts and hence, is termed as 'shirt packing'. For this type of packing, the garments have to be pressed prior to packing and are packed with additional packing materials like tissue paper, back support, pins or clips, inner collar plastic band etc.
- The advantages of the stand-up pack are:** It is an attractive pack which enhances the appeal of the garments to the customer. Due to its better presentation, it can also help in increasing the sales. It is also comparatively safe as it has inner and outer cartons, therefore the packed garments can be handled easily.
- The disadvantages of the stand-up pack are:** It is expensive than other types of packing as it requires more packing material. It also

involves a lot of effort as well as time. Unpacking the same needs more time and once unpacked it is tough to repack.



Fig.: 3.7 Stand-up pack material

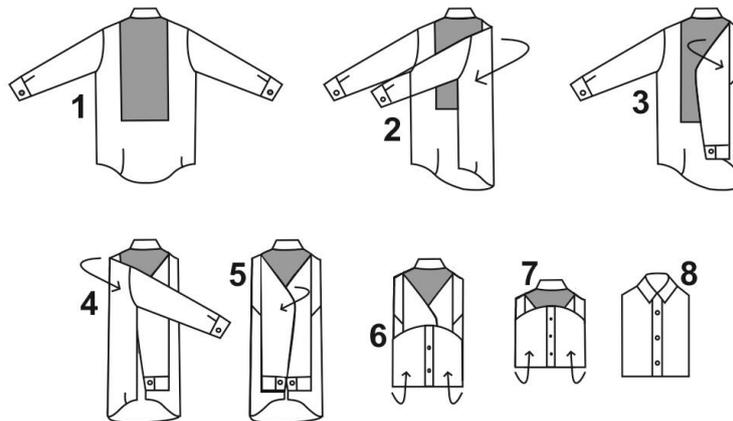


Fig.: 3.8 Stand up Packing

- d) **Flat pack:** In this packing method, the garments are pressed and folded well as like in a stand-up pack, however with less additional packing materials. It is generally normally used for ladies' garments and has a flat surface. The size of the folding is based on the garment style and specifications of the buyer. The common sizes of flat pack are 8" × 10" and 10" × 12".

The merits and demerits of flat pack are:

- It is less expensive than the stand-up pack as it requires less material.
- It is less attractive than the stand-up pack.
- For shirts it does not present the beauty of the collar portion very well.
- The disadvantages are the same as that of the stand-up pack.



Fig.: 3.9 Flat Pack

- e) **Hanger pack:** It is a simple garment packing method in which the garments are secured in a poly bag with a hanger after checking and pressing. This type of packing is especially used for blazers, coats, pants, suits etc.



Fig.: 3.10 Hanger Packing

- f) **Deadman pack:** This kind of packing is used for shirts. Here, the sleeves are folded in front of the pack and pinned with each other. Next, the garments are folded in the center. As it resembles the appearance of dead body, it is called a 'deadman pack'. It is a simple packing method using only pins or clips and polybags.

The merits and demerits of this pack are:

- The costs of packing materials and packing are less compared with other methods due to its simplicity.
- The packing and unpacking time is less.
- Garments can be examined in the packed condition.

- This type of packing enables easy handling of garments.
- This type of packing is not suitable for shirts because it does not show the collar and the collar point as in the stand-up pack; hence, it is less attractive.

3. Garment Folding and Packing Machines:

The majority of the global garment manufacturing industry did not believe in automating activities such as garment folding till now. Hundreds of workers used to spend hundreds of hours each day manually folding various types of clothing in a typical export-oriented industry, and the situation is no better today, despite the fact that automation has paved the way for improved shop-floor processes. In this digital age, there is an urgent need to discuss solutions that can lessen the excessive load of a worker in general, thereby saving significant amounts of energy. Packing machines for textile industry comes in precision design and latest technology so as to provide optimum functional support involved in packing operations.

In today's fast-paced world, automation and technological advancements have penetrated every sector of the economy, and the textile industry is no exception. Garment packing machines, a significant innovation in the textile domain, have streamlined and revolutionized the packing process, offering unparalleled efficiency, precision, and cost-effectiveness.

Traditionally, the garment packing process was a labor-intensive and time-consuming task that required skilled workers to fold, stack, and package garments manually. This method was not only slow but also prone to errors, leading to inconsistencies in the presentation and protection of the products. With the advent of garment packing machines, these challenges have been largely overcome, leading to higher productivity, reduced labor costs, and improved quality control.



Fig.: 3.11 Packing machine

Garment packing machines come in various types, catering to the diverse needs of the textile industry. One common type is the automatic folding and bagging machine. These machines take flat or unfolded garments and automatically fold them to predefined dimensions. They then place the folded garments into plastic bags or pouches, ready for distribution or retail. The precision of these machines ensures that each garment is folded uniformly, creating a professional and consistent appearance. This is especially crucial for industries that require meticulous attention to detail, such as formalwear and luxury fashion.

Another type of garment packing machine is the automated labeling and sorting system. These machines not only pack garments but also apply labels, tags, and other identifying information. This ensures that each garment is appropriately marked, reducing the chances of mix-ups or misplacement during transit. By integrating such labeling systems with packing machines, businesses can streamline the entire supply chain, from the manufacturing facility to the end consumer.

One of the most significant advantages of garment packing machines is their ability to handle large volumes of products in a relatively short span of time. This scalability is a game-changer for textile manufacturers, as it allows them to meet market demands efficiently, even during peak seasons. Additionally, the reduced reliance on manual labor minimizes the risk of injuries and fatigue-related errors among workers, creating a safer and more comfortable work environment.

Environmental concerns are increasingly driving innovation in the textile industry. Many modern garment packing machines are designed to minimize waste and energy consumption. They use eco-friendly packaging materials and optimize the use of resources, aligning with sustainable practices. This not only reduces the ecological footprint of the industry but also appeals to environmentally conscious consumers, thereby enhancing a brand's reputation.

As with any technology, the integration of garment packing machines does come with certain challenges. Initial costs, including machine acquisition and training, can be significant. Additionally, maintenance and occasional technical glitches might disrupt the packing process. However, the long-term benefits in terms of improved efficiency, reduced labor costs, and enhanced product quality far outweigh these challenges.

In conclusion, garment packing machines have transformed the textile industry by modernizing the packing process. These machines offer unparalleled efficiency, precision, and scalability, enabling textile manufacturers to meet market demands effectively. They have improved the

overall quality of packaging, reduced labor costs, and aligned with sustainable practices. As technology continues to evolve, it is likely that garment packing machines will become even more advanced, contributing further to the growth and innovation of the textile sector.



Fig.: 3.12 Garment packing machines

The use of advanced engineering concepts in these machines allows for achieving consistent output with very less downtime and maintenance cost. Packing machines for different textile products allows to handle the packing needs of many textile products. Process support is provided in form of automatic or semi-automatic case packers, sealers, loaders and other process units. In combination, these packing systems offer supporting form of

- Shrink Wrapping
- Stretch Wrapping
- Spools
- Case Sealers
- Case Erectors
- Case Packers

Performance and Accuracy

Some of the standard features that balance the performance and accuracy parameters of these packing machines include:

- Machines designed to offer competitive functional support.
- The functional parameters of the machines can also be custom tuned as demanded by the customers.
- User-friendly working interface for allowing easier handling of operations.

Automatic Folding Machine

The automatic folding machine folds clothes quickly, silently and with precision. It functions independently and requires 1 operator. It is designed to fold t-shirts, sweatshirts, sweaters, undershirts, trousers, pants, etc.

It can be very easily adjusted for the various sizes and types of clothes so that the best desired folding is achieved.



Fig.: 3.13 Automatic folding machine

The programs of the automatic folding machine are:

- Folding of a garment in half
- Single folding with a set length of the end folding
- Double folding with a set length of the end folding
- Double folding with a set length of the end folding (for very large garments)



Fig.: 3.14 folding machine

4. Tags and Labels Used in Apparel Industry

In the garment industry, tags and labels play a pivotal role in conveying crucial information and enhancing the brand identity of clothing items. These elements serve both functional and aesthetic purposes, providing consumers with essential details about the product and contributing to brand recognition.



Fig.: 3.15 Tags and labels

Care labels are among the most vital tags, offering instructions for washing, drying, ironing, and maintaining the garment's longevity. They ensure that consumers follow appropriate care procedures, reducing the risk of damage. Size labels, on the other hand, help customers choose the right fit, enhancing their shopping experience and reducing return rates.



Fig.: 3.16 Care labels

Beyond functionality, tags and labels also reflect a brand's image and values. Brand labels showcase a company's logo, reinforcing brand identity and fostering a sense of loyalty among customers. Information such as material composition and place of manufacture can influence purchasing decisions, especially for consumers who prioritize ethical and sustainable production practices.

In the early 2000s, environmental concerns led to the rise of eco-friendly labels, indicating organic materials and sustainable manufacturing processes. Today, smart labels incorporating QR codes or NFC technology enable customers to access additional product information, enhancing transparency and engagement.



Fig.: 3.17 Labels

In summary, tags and labels in the garment industry serve a dual purpose: providing essential information to consumers for care and fit, and serving as a branding tool to convey the identity and values of the brand.

A tag is a small piece of card fastened/tied to the product to provide information at a glance to the customer.



Fig.: 3.18 Tags

A tag contains brand logo, bright colourful designs, or even a strange and unique shape; which draws attention, and as a result, make the product stand out from the rest and also help customers to identify and differentiate the product. Hangtags are attached to clothing which usually contains the basic information about the item such as the size, price and brand. It also acts as a marking tool.

Hangtags are often made from 100% recycled paper, Bamboo, Basswood, Fabric, PVC, Corrugated Sheets etc. These are made in variety of shapes like Rectangle, Square, Circle, Oval, Hexagon, Star or any other special shape. Hangtag Artwork may be freehand or is prepared using graphics software. Design may be either single side or double sided which is attached using jute string, gold or silver safety pin.

A finisher and packer has to make sure that every detail of hangtag is correct like product size, price, brand colours, paper, texture, offers/discounts, social media usernames, website and methods of attaching the hangtags to the product.

Label

A label is a piece of paper, card or any metal that is attached to a product. Tags are temporarily attached or fixed to a product- generally as a marketing tool, whereas labels are stitched on the product and intend to be attached forever. Clothing labels are attached to the material with the help of some sort of adhesive, or can be printed, woven or embroidered with cotton or polyester threads on the edge of textile material. They give the general information regarding care instructions, fiber content, name and address of the company or brand, country of origin, and manufacturer, importer or dealer and the care instructions to the consumer. They help to attain satisfaction contentment in the minds of purchasers. Most commonly they are attached at the back of the neck, under the side seam, near the cuff area, or written over the selvedge of the fabric or printed onto the packaging of the product. Labels should be resistant to abrasion, washing, dry cleaning, pressing or any other mechanical processes.

Types of clothing labels:

Brand labels: Brand labels hold a logo defining company's name. These labels are designed well by using creative techniques in design, color, pattern and printing because they also act as a medium for branding and promotion.



Fig.:3.19 Brand label

Care Label: Care label is another important label for the garments. It assists the customers to know how the product should be taken care of. It indicates different types of care instruction about the garments such as Washing, Bleaching, Drying, Laundering and Ironing, maintaining it in a suggested way, the garments will achieve higher durability and their colour shade will last for longer time.



Fig.:3.20 Care label

Size label: This label indicates the size of the garment namely small, medium, large and extra-large.



Fig.:3.21 Size label

Composition Label: Composition label indicates the fabrication and composition percentage of any garments. That means, it indicates which fabrication (Cotton Slub denim, Cotton Regular denim etc.) and composition percentage (95% Cotton 5% Spandex, 100% Cotton etc.) have followed during its manufacturing.



Fig.:3.22 Composition Label

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.



Fig.:3.23 Flag Label

Various types of labels are based on materials, weaves and application options to fit all needs-

1. On the basis of techniques
 - Woven labels
 - Printed labels
 - Embroidered labels
 - Engraved labels
 - Embossed labels
2. On the basis of method of attachment
 - Tag-less heat transfers
 - Iron-On labels
 - Pressure sensitive labels
 - Sew-on labels
3. On the basis of material content
 - Leather labels
 - Fabric labels
 - Paper labels
 - Wooden labels
 - Rubber & silicone PVC labels
 - Metal labels

A finisher and packer must check the details printed on the labels like the, size and material content of the label, securely stitched, tagged, ironing or heat transfers at appropriate place of the garment, clarity and visibility of the symbols and written instructions on the care labels and wash labels.

Activities

Activity 1:

Visit an apparel industry, observe, study and make a report on different kinds of press and garment folding used in finishing and packing department.

Material Required:

1. Practical File
2. Coloured pens and pencils
3. Ruler
4. Eraser

Procedure:

1. Study and understand the details of different types of press/irons and garment folding technique used for packing in an apparel industry.
2. Collect pictures and data of the same with permission.
3. Make a report.

Activity 2

Design a Hangtag by taking help of internet and by observing different hangtags attached to your newly brought garment.

Materials Required

1. Hard sheet of any color
2. Pen/Pencil
3. Colors
4. Cord to hang

Procedure:

1. Cut the sheet in any shape you want or that you observed on many garments.
2. Write all the information that is needed on a hang tag.
3. Make a hole in it and attach it to any of your garment using the cord.
4. Show it to your teacher

Check Your Progress

Fill in the blanks:

1. _____ labels hold a logo defining company's name.
2. _____ labels are used to guide the consumer regarding care instructions related to its maintenance like washing, drying, bleaching, ironing etc.
3. _____ is commonly used for shirts and hence, is termed as 'shirt packing'.
4. A _____ is made up of a static BUCK and a HEAD with a corresponding shape that closes onto it.

Short Questions:

1. What do you understand by tags and labels used in apparel industry.

2. Briefly explain about pressing process and different types of press used in apparel industry.
3. Describe different types of folding used for garments.
4. Explain briefly about folding and packing machines used in garment industry.

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Session: 3 Finishing Agents, Types of Garment Stains and Job Card

The finishing and packing department in the garment industry plays a crucial role in ensuring the final quality and presentation of products. This department handles tasks such as inspecting garments for defects, correcting any issues in stitching or printing, and applying finishing touches like ironing or pressing. Once the garments meet quality standards, the department meticulously packs them, preparing them for shipment. Attention to detail and precision are vital in this stage to deliver flawless products to customers. The finishing and packing department act as the last checkpoint before products reach consumers, reflecting the industry's commitment to excellence and customer satisfaction. In this session Finishing agents, types of garment stains and job card will be discussed which are very essential for any finisher and packer to understand.

1. Finishing agents

Finishing agents, pivotal in the garment industry, enhance fabric quality and appearance. Softeners, like silicone, impart a smooth touch. Optical brighteners heighten color vibrancy by absorbing UV light and emitting visible light. Wrinkle-resist finishes, e.g. crosslinking agents, bolster crease recovery. Flame retardants increase fire resistance. Enzymes yield faded and worn aesthetics. Anti-static agents deter static cling. Water repellents avert moisture absorption. These agents, meticulously applied during the final stages of production, transform textiles, ensuring consumer satisfaction with improved texture, color, and functionality.

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.

Five good reasons can be attributed for finishing the garments:

1. To influence physical properties such as softness, handle, drape or fall, absorbency, creasing etc.
2. To influence appearance by altering the nature of yarn of fabric or lusture.
3. To create shrinkage and effects of shrinkage like puckering of garments.
4. To create abrasion and related effects.

5. To create a trend in fashion with consistent quality and brand image with range of finishes.

Garment Finishing Agents:

Garment finishing agents are chemicals or substances used in the textile and apparel industry to enhance the appearance, performance, and overall quality of finished garments. These agents are applied to garments after they have been manufactured and before they are sent to market. Garment finishing agents serve various purposes, including improving aesthetics, functionality, and durability of the garments. Here are some common types of garment finishing agents:

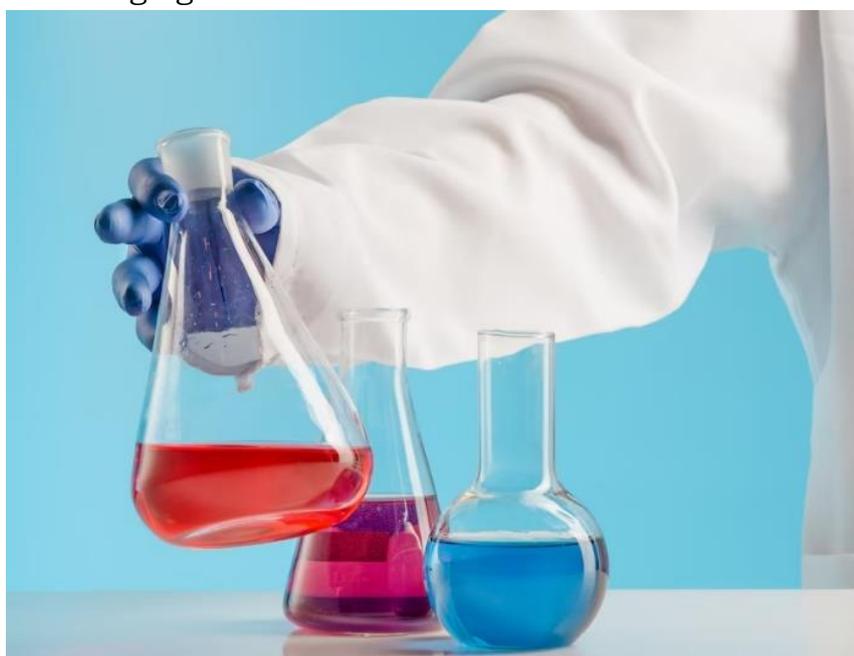


Fig.: 3.24 Garment Finishing Agents

- **Softeners:** Softeners are applied to textiles to give them a softer, smoother feel. They can also improve the drape and hand (feel) of the garment. Softeners can be silicone-based or derived from other chemicals, and they can be used on a wide range of textiles, including cotton, polyester, and blends.
- **Anti-Wrinkle Agents:** These agents help reduce wrinkling in garments, making them look more presentable even after extended wear. They work by modifying the fiber structure to resist creasing.
- **Stain-Resistant and Water-Repellent Agents:** These agents create a protective layer on the fabric that repels liquids, preventing stains and

improving the garment's longevity. They are commonly used in outdoor and active wear.

- **Color Enhancers:** Color enhancers are used to brighten and improve the color vibrancy of textiles. They can make colors appear more vivid and long-lasting.
- **Flame Retardants:** For garments that need to meet certain safety standards, flame retardant agents can be applied to reduce their flammability.
- **Antimicrobial Agents:** These agents inhibit the growth of bacteria and fungi on textiles, reducing odor and extending the freshness of garments, particularly in sportswear and active wear.
- **UV Protection Agents:** UV protection agents can be applied to garments to provide a certain level of sun protection, which is especially important in outdoor clothing and swimwear.
- **Aroma Finishes:** Aroma finishes involve adding fragrances to textile products. These finishes can provide a pleasant scent to garments and can be used in various applications, from lingerie to sleepwear.
- **Resin Finishes:** Resin finishes can add stiffness and structure to fabrics, giving them a more formal appearance. They are often used in dress shirts and other formal wear.
- **Moisture Management Agents:** These agents help to wick moisture away from the body, keeping the wearer dry and comfortable. They are commonly used in sportswear and active wear.
- **Crease Recovery Agents:** These agents help fabrics regain their shape after being stretched or wrinkled, improving the garment's overall appearance.

It's important to note that while garment finishing agents offer many benefits, some of them can have environmental and health implications. Manufacturers are increasingly focusing on developing more sustainable and eco-friendly finishing agents to minimize their impact on the environment and human health. Regulations and consumer demand are also pushing the industry toward safer and more responsible choices in garment finishing.

2. Garment Stains: Types and Remedies

Garment stains pose persistent challenges in the garment industry, impacting product quality and customer satisfaction. From ink blots to oil marks, these blemishes can arise during manufacturing, transportation, or retail stages. Stain prevention, swift detection, and effective removal are crucial to minimize losses. Manufacturers employ advanced fabrics, coatings, and packaging to reduce susceptibility, while automated quality checks enhance detection. Collaborative efforts between industry players and detergent innovators drive the development of efficient stain-removal solutions. By addressing this concern, the garment industry aims to enhance its reputation, ensuring garments reach consumers in impeccable condition, bolstering consumer trust and loyalty.

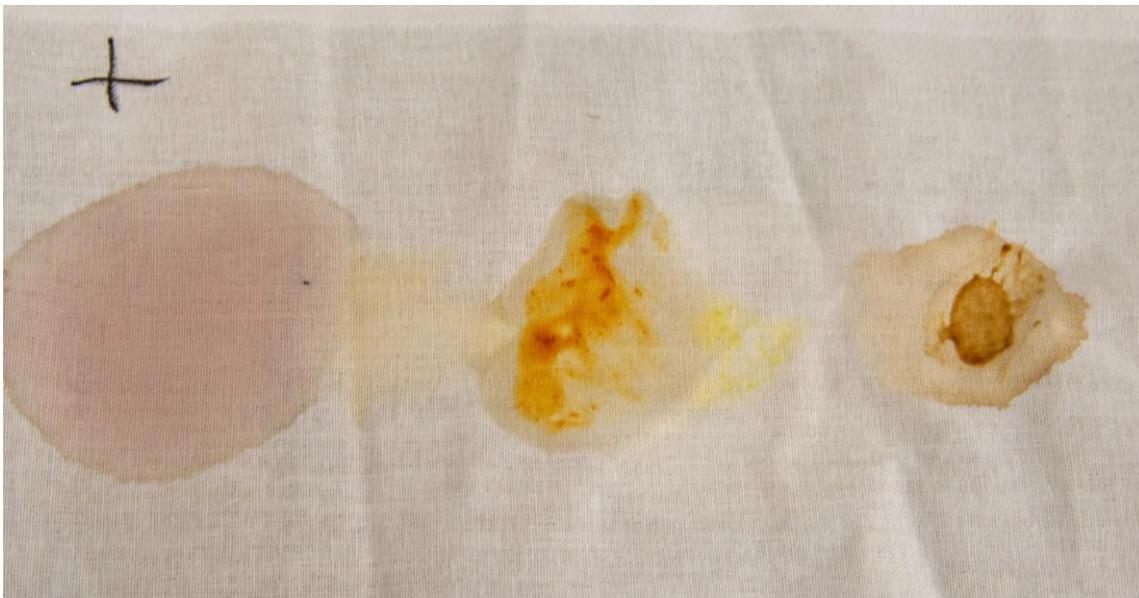


Fig.: 3.25 Garment Stains

In the finishing process of the garment industry, various types of stains can occur. These stains can be caused by different factors during manufacturing, handling, or transportation. Some common types of garment stains that can occur in the finishing process include:

- **Oil and Grease Stains:** These stains are often caused by lubricants or machine oils used during the manufacturing process. They can also be transferred from machinery or surfaces during handling.
- **Water Stains:** Water stains can occur when garments are exposed to water unevenly, causing water spots or rings on the fabric. This can happen during washing, drying, or ironing if water is not evenly distributed.

- **Dye Transfer Stains:** These stains occur when the dye from one fabric or garment transfers onto another fabric. This can happen during washing or if garments with different colorfastness are in close contact.
- **Ink Stains:** Ink stains can come from markers, pens, or printing processes. They are often difficult to remove, especially if the ink is not water-soluble.
- **Food and Beverage Stains:** Stains from food, beverages, or sauces can occur during handling or while wearing the garment. These stains can include coffee, tea, ketchup, and more.
- **Chemical Stains:** Chemicals used during manufacturing or finishing, such as bleaches, dyes, or solvents, can cause stains if they come into direct contact with the fabric.
- **Rust Stains:** Rust can occur when garments come into contact with metal objects or surfaces that have corroded. This is particularly common when garments are exposed to water or humid conditions.
- **Soil and Dirt Stains:** These stains can come from soil, dust, or dirt present in the manufacturing environment or during transportation.
- **Sweat Stains:** Perspiration can lead to yellowing or discoloration of fabrics, especially in areas prone to sweat accumulation, such as underarms and collars.
- **Resin or Adhesive Stains:** Stains from adhesives or resins used in manufacturing processes can occur if they come into direct contact with the fabric.
- **Fading or Discoloration:** Sometimes, garments can experience fading or discoloration due to exposure to sunlight or improper dye fixation during production.
- **Stains from Packaging Materials:** Packaging materials like cardboard, plastic, or paper can sometimes transfer stains onto garments during storage or transportation.

- **Bleach Spots:** Improper use of bleach or accidental exposure to bleach-containing substances can lead to discoloration or lightening of fabric in specific areas.
- **Environmental Stains:** Environmental factors like pollution, smog, or exposure to certain gases can lead to discoloration and staining on garments over time.
- **Adhesive Residue:** Stains can result from adhesive materials used for labels, stickers, or other attachments that leave residue on the fabric.

In the apparel industry, ensuring the quality and cleanliness of garments before packing is crucial to maintain customer satisfaction and uphold the brand's reputation. Stains on garments can be a common issue that needs to be addressed before the packing process. Employing effective stain removal remedies is essential to present garments in their best condition to the customers. Here are some commonly used remedies for garment stains in the apparel industry before packing:

1. **Identify the Type of Stain:** Before applying any stain removal method, it's essential to identify the type of stain. Different stains require different treatments. Common types of stains include oil-based stains, food stains, ink stains, protein-based stains, and more.
2. **Immediate Action:** The sooner a stain is treated, the higher the chance of successful removal. Garment workers should be trained to recognize stains and take immediate action to prevent them from setting into the fabric.
3. **Pre-treatment:** Pre-treatment involves applying a stain remover or detergent directly onto the stained area before washing. This helps to break down the stain and make it easier to remove during the washing process. Different types of stains may require different pre-treatment solutions.
4. **Spot Cleaning:** For small, localized stains, spot cleaning can be effective. This involves using a clean cloth or sponge soaked in a stain remover or mild detergent to gently blot and clean the stained area.
5. **Soaking:** Soaking stained garments in a mixture of water and a stain-removing solution can help to loosen and dissolve the stain. The duration of soaking will depend on the type and severity of the stain.

6. **Enzyme Cleaners:** Enzyme-based stain removers are effective for breaking down protein-based stains like blood, sweat, and food. These cleaners contain enzymes that help to break apart the organic molecules causing the stain.
7. **Dry Cleaning Solvents:** For delicate fabrics or stains that are not water-soluble, dry cleaning solvents can be used. These solvents help dissolve and lift the stain without damaging the fabric.
8. **Testing:** Before applying any stain removal method to the entire garment, it's advisable to test the method on a small, inconspicuous area to ensure that it doesn't cause any color fading or damage to the fabric.
9. **Professional Help:** In some cases, stubborn or complex stains might require professional help. Outsourcing stain removal to a professional cleaning service can be a viable option for valuable or sensitive garments.
10. **Rinsing and Drying:** After applying stain removal methods, it's crucial to rinse the garment thoroughly to remove any residue of cleaning agents. Proper drying techniques, such as air-drying or machine drying at the appropriate temperature, should be followed to avoid setting in any remaining stains.
11. **Quality Control:** Implementing a robust quality control process is essential before garments are packed for shipping. Each garment should be inspected to ensure that stains have been effectively removed and that the overall condition meets the desired standards.

By following these remedies and incorporating a comprehensive stain removal process into the garment finishing and packing workflow, apparel manufacturers can significantly reduce the presence of stains on garments and deliver products that meet or exceed customer expectations

Preventing and removing these stains involves a combination of careful handling, quality control, proper cleaning methods, and stain-removal techniques specific to the type of stain and fabric involved. It's important for garment manufacturers to have processes in place to minimize the occurrence of these stains and ensure the final product meets quality standards

Introduction to Job-Card and Packing List

In the garment industry, a job card is an important document that contains the specifics of a clothing production task. It contains information such as the type of garment, design parameters, materials needed, quantities, and manufacturing instructions. This card serves as a communication tool between departments, providing seamless production coordination. It aids in the tracking of development, the effective use of resources, and the maintenance of quality standards. Job cards increase productivity, decrease errors, and allow a disciplined workflow in the dynamic environment of the garment industry by summarising critical production information in a clear manner.

A job card in the apparel industry is a crucial document that facilitates the efficient management of production processes. It serves as a guide for each step involved in the creation of garments, ensuring seamless coordination between various departments. The job card typically contains essential information such as the product design, specifications, quantity to be produced, materials required, and a timeline for completion.

Starting from the design department, the job card outlines the garment's pattern, size, color, any specific embellishments and packing specifications. It then details the quantity of fabric, buttons, zippers, and other materials needed, which aids the procurement team. The production schedule, mentioned in the job card, helps the manufacturing department allocate resources, manage workstations, and ensure on-time delivery.

Quality control checkpoints and specific instructions for stitching, embellishing, and finishing are also included. This ensures that each garment adheres to the desired standards. The job card can also incorporate details about any customization requested by clients.

Overall, the job card is the backbone of efficient production in the apparel industry. It streamlines communication, optimizes resource utilization, and guarantees the creation of high-quality garments that meet client expectations.

A job card is also a very important document in the process of finishing and packing so it is very important for a finisher and packer to completely understand it. The finisher and packer can make task cards by using the information given. The task cards are for daily targets and job cards are for the complete order details and specifications. These cards are used to track the work on progress. These cards can also be a part of the reports that finisher and packer create to track the process.

The job card will have directions for the finisher and packer to procure all the materials required for finishing and packing a particular. It will also have the mode and style of packing to be followed. It is must for packers to

understand the job card to understand the mode and styles required by the buyer as per the product.

Part 7 Garment Packaging/Presentation		
Style Number _____		
Label/Ticket Information		
Brand label		
Type _____	Size _____	Location _____
Wording _____		
Size label		
Type _____	Size _____	Location _____
Wording _____		
Fibre content label		
Type _____	Size _____	Location _____
Wording _____		
Country of origin label		
Type _____	Size _____	Location _____
Wording _____		
Care instructions label		
Type _____	Size _____	Location _____
Wording _____		
Performance/Marketing Information		
Hangers/Display devices		
Type _____	Size _____	Location _____
Bags		
Type _____	Size _____	Location _____
Label information _____		
Hang tag tickets		
Type _____	Size _____	Location _____
Label information _____		
Others		

Fig.: 3.26 Job card

As discussed above, the job card has all information and specifics to be followed while packing a particular assignment. This information is discussed as under:

a) Packing mode: Mode of packing can be manual or machine driven. It can also be the combination of both. In manual mode the sequence of folding is

a particular garment is explained in detail and for machine driven the settings of the machine to achieve a particular fold is mentioned.

b) Packing styles: Packing styles like stand-up pack or flat pack and its specific instructions are also mentioned very clearly in the job card.

The instructions are buyer, brand and product specific and following the instructions as directed will in time is the main objective.

The instruction includes tasks such as:

- Folding method and sequence
- Poly bag details and its styles
- Folder insertion if any
- Ironing instructions
- Label/sticker attachment instruction
- Sequence of the label to be tagged/attached
- Information details to be pasted on the labels
- Packing and stacking instructions
- Carton packing instruction
- Carton sealing instruction
- Any special instructions related to product packing
- Size of the carton
- Weight of each carton to be maintained
- Material to be used while packing certain products
- Carton sealing instruction
- Any stickers or art work to be pasted on the carton

After the finishing and packing process is complete, it is a mandate to maintain a checklist of the above points and recheck it once again to ensure that all the steps are followed and all the objectives are achieved.

Packing List

A packing list in the apparel industry is a crucial document that outlines the contents of shipments, ensuring accurate and organized delivery of garments from manufacturers to retailers or consumers. It serves as a guide for checking and verifying the items within a shipment, helping to prevent

errors, reduce discrepancies, and streamline the logistics process. The packing list not only assists in inventory management but also plays a pivotal role in maintaining customer satisfaction by ensuring that the right products are delivered in the right quantities and conditions.

The packing list typically includes essential information that facilitates efficient tracking and handling of the merchandise. At the forefront, it features the basic identification details such as the supplier's or manufacturer's name, address, and contact information, alongside the recipient's information. This establishes a clear line of communication between parties involved and aids in resolving any potential delivery-related issues promptly.

Central to the packing list are the product details. Each item's unique identifier, often the SKU (Stock Keeping Unit) or style number, is listed alongside a description of the product. This description includes factors like color, size, design, and any specific features that differentiate one product from another. Quantity is another critical aspect, ensuring that the accurate number of each item is clearly mentioned. This step is particularly significant in preventing overstock or understock situations, which can impact sales and customer satisfaction.

In addition to product details, the packing list includes information about the packaging itself. It specifies the type of packaging used—whether it's boxes, cartons, or pallets—along with the dimensions and weight of each package. This information is invaluable for shipping carriers, warehouse staff, and retailers, as it aids in determining the best way to handle, store, and transport the goods.

For international shipments, the packing list often needs to conform to specific customs regulations. It may include information required for accurate tariff classification and customs clearance, such as the country of origin, value of the goods, and applicable Harmonized System (HS) codes. This ensures that the shipment complies with import and export laws and facilitates a smooth clearance process through customs checkpoints.

The apparel industry, in particular, benefits greatly from accurate packing lists due to the nature of its products. Clothing items come in various sizes, colors, and designs, making precision essential. Mistakes or inaccuracies can lead to customer complaints, returns, and loss of business. By maintaining a meticulous packing list, companies can uphold their reputation for reliability and professionalism, which are paramount in the competitive world of fashion.

During apparel shipment, the packing list generally includes the below information's or documents:

- Name of the exporter,
- Name of the importer,
- Name of the transport company,
- Date of issue,
- Number of the freight invoice,
- Type of packaging (carton, box, barrel, bag, etc.),
- Total number of packages,
- Content of each package (Details description of the goods and number of items per package),
- Marks and numbers,
- Gross weight, net weight, and measurement of the packages.

<u>Packing List</u>													
BUYER	:												
SHIP QTY	:	8,876 PCS											
CTN QTY	:	370											
NET WEIGHT	:	KGS											
GROSS WEIGHT	:	KGS											
CTN MEAS	:												
DESCRIPTION	:	MEN'S LONG SLEEVE SHIRT 100% COTTON.											
MADE FOR	:	USA											
COLOUR	PCS CTN	SIZE										TOTAL PCS	
		14.5	15	15.5	16	16.5	17	17.5	18	18.5	19		20
Navy	24	24	24	120	120	192	192	168	168	168	144	120	1440
L.T Blue	24	24	24	120	120	192	192	168	168	168	144	120	1440
Pink	24	24	24	120	120	192	192	168	168	168	144	120	1440
Yellow	24	24	24	120	120	192	192	168	168	168	144	120	1440
Sage	24	24	24	120	120	192	192	168	168	168	144	120	1440
White	24	24	24	120	120	192	192	168	168	168	144	120	1440
Total =		144	144	720	720	1152	1152	1008	1008	1008	864	720	8640
UNASSORTED ALL COLOUR AND SIZE:												+ 236	
Total Pcs =												8876	

Fig.: 3.27 Packing list

In conclusion, a packing list is an indispensable tool in the apparel industry's supply chain management. It acts as a roadmap for shipments, guiding each step from manufacturer to retailer or consumer. With comprehensive details about the products, packaging, and often customs information, the packing list ensures that the right items reach the right destination in the right condition. In an industry where customer satisfaction and efficiency are paramount, a well-structured and accurate packing list is a cornerstone of success.

Activities

ACTIVITY 1

Identify and understand job card for packing and prepare a mock job card and get it corrected by the teacher.

Materials Required:

- 1- Sheet to make job card
- 2- Coloured pens and pencils
- 3- Ruler
- 4- Eraser

Procedure:

- 1- Study and understand the details of the job card used for packing.
- 2- Collect some pictures and data related to the job card.
- 3- Prepare your own creative job card with all the details required.
- 3- Submit to your teacher.

Check Your Progress

1. Fill in the Blanks:

2. Finishing agents, pivotal in the garment industry, enhance_____.
3. _____are applied to textiles to give them a softer, smoother feel.
4. _____are used to brighten and improve the color vibrancy of textiles.
5. _____can come from markers, pens, or printing processes.
6. Environmental factors like pollution, smog, or exposure to certain gases can lead to _____ on garments over time.
7. Starting from the design department, the job card outlines the garment's pattern, size, color, any specific embellishments and_____.
8. _____serves as a guide for checking and verifying the items within a shipment, helping to prevent errors, reduce discrepancies, and streamline the logistics process.

2. Write short answers for the following:

1. Explain the finishing agents used in apparel industry.
2. Describe garment stains and their remedies.
3. Explain job card and packing list.

Module 4**Maintaining a Clean and Hazard Free Working Area-I****Module Overview**

In the bustling realm of the apparel industry, where creativity converges with precision, the significance of a hazard-free working area and the implementation of safety-related practices cannot be overstated. The apparel industry is a dynamic and intricate sector, encompassing a multitude of processes, from design and fabrication to manufacturing and distribution. Amidst this intricate dance, the safety of workers and the assurance of a hazard-free environment stand as paramount concerns. Through a confluence of meticulous planning, stringent adherence to safety protocols, and fostering a culture of awareness, the apparel industry strives to uphold the welfare of its workforce and create an environment where innovation thrives hand-in-hand with security.

The first step toward establishing a hazard-free working area is the identification and assessment of potential risks. The diverse nature of activities within the apparel industry demands a comprehensive analysis of processes, machinery, and materials involved. This process involves a collaborative effort, wherein experts from various domains - including engineering, occupational health, and safety - join hands to scrutinize each facet of the production pipeline. From sharp-edged machinery to chemical substances used in dyeing and finishing, every element is evaluated for its potential to cause harm. Once identified, these hazards are meticulously documented, forming the basis for devising strategies to mitigate risks and create a safer working environment.

Key to achieving a hazard-free working area is the implementation of robust safety protocols. These protocols encompass a spectrum of measures, ranging from providing personal protective equipment (PPE) to imparting extensive training to the workforce. Adequate PPE, such as gloves, goggles, and ear protection, shields workers from direct exposure to potential hazards. Regular training sessions, on the other hand, empower employees with knowledge about the proper usage of machinery, handling of chemicals, and adherence to safety procedures. Such training not only prevents accidents but also cultivates a sense of responsibility among workers to uphold safety standards.

In the realm of the apparel industry, machinery and equipment play a pivotal role. To ensure the safety of workers, regular maintenance of

machinery is imperative. This includes routine inspections, timely repairs, and adherence to recommended usage guidelines. Additionally, the layout of the workspace should be meticulously planned to facilitate ease of movement, reduce congestion, and minimize the risk of tripping or collision. Well-marked emergency exits and fire evacuation plans further contribute to a hazard-free environment.

Furthermore, safety extends beyond the physical realm to encompass psychological well-being. The apparel industry, often characterized by fast-paced production cycles and tight deadlines, can impose significant mental stress on workers. Addressing this aspect is as crucial as managing physical risks. Encouraging open communication, providing counseling services, and fostering a supportive work culture contribute to maintaining a harmonious work environment that values both mental and emotional health.

In tandem with preventive measures, the industry must also adopt a proactive stance toward addressing emergencies. This involves devising contingency plans for various scenarios, from chemical spills to machinery malfunctions. Regular drills ensure that workers are well-prepared to respond effectively in crisis situations. Moreover, a well-equipped first aid station, staffed by trained personnel, stands as a cornerstone of a safe working environment. Swift and accurate medical intervention can significantly reduce the impact of accidents and injuries.

Sustainability, a growing concern across industries, also intertwines with safety in the apparel sector. Embracing sustainable practices, such as eco-friendly dyeing methods and responsible waste management, not only minimizes environmental impact but also contributes to a safer workspace. For instance, the reduction of hazardous chemicals not only benefits the environment but also reduces the risk of exposure for workers.

In conclusion, the apparel industry navigates a complex landscape, balancing innovation, creativity, and efficiency. Amidst this intricate dance, the safety of its workforce and the establishment of a hazard-free working area emerge as non-negotiable priorities. Through meticulous risk assessment, stringent safety protocols, maintenance of machinery, and a holistic approach to well-being, the industry upholds its commitment to creating an environment where employees can flourish without compromising their safety. As the industry continues to evolve, so too will its commitment to the well-being of those who breathe life into its creations

Learning Outcomes

After completing this module, you will be able to:

- Describe Operation and handling of tools and material
- Identify Proper Storage and Disposal of Waste Material

- Describe Personal hygiene and health
- Explain Potential hazards at work place

Module Structure

Session: 1 Safe Handling of Tools and Materials

Session: 2 Safe Storage of Materials

Session: 3 Personal Hygiene and Health

Session: 4 Potential Hazards at work Place

Session: 1 Safe Handling of Tools and Materials

By reducing, combining, or eliminating unnecessary movement, material handling processes can be simplified. For example, use of gravity to help in movement of material with minimum manual force. The following points should be considered:

1. **Ergonomics:** The working conditions and facilities should be adapted to support the abilities of a worker, helps in reducing repetitive and strenuous manual labour movements and also emphasize on safety practices. Moreover the work area should have plenty of space for the task to be accomplished; it should also be clean and ventilated.
2. **Unit load:** One must ensure that fewer efforts are required for movement of items. They should be carried together as a single load instead of moving many items one at a time. Thus, equipment's such as pallets, containers or totes and trolley should be used.
3. **Space utilization:** We should focus on maximizing efficient use of space within a facility. It is important to keep work areas organized and free of unwanted clutter. We should try to maximize density in storage areas without compromising accessibility and flexibility, and to utilize overhead spaces efficiently.
4. **System:** All the movements of packages and storage should be coordinated throughout the production cycle i.e. from receiving, inspection, storage, production, assembly, packaging, unitizing and order selection, to shipping, transportation and the handling of returns.
5. **Environment:** We should take into consideration the use of energy and its potential environmental impact while designing the system and including/implementing the practices of reusability and recycling

processes wherever possible. We should also try to incorporate safe practices for handling of hazardous materials.

6. **Automation:** Automation should be introduced to improve operational efficiency, responsiveness, consistency, predictability, automated material handling technologies as and when feasible or possible and wherever required.

Safe handling of tools and materials is of paramount importance in the apparel industry, where workers are constantly engaged in a wide range of tasks involving various tools and materials. Whether it's cutting, sewing, stitching, or assembling garments, the proper handling of tools and materials not only ensures the quality and efficiency of the production process but also safeguards the well-being of the workers. Adhering to strict safety protocols minimizes the risk of accidents, injuries, and occupational hazards, creating a conducive working environment.

One of the fundamental aspects of safe tool handling is proper training. All workers, regardless of their experience level, should receive comprehensive training on the correct usage of tools and equipment. This includes understanding the purpose of each tool, its potential hazards, and the appropriate safety measures. New employees should undergo thorough orientation sessions to familiarize themselves with the tools and materials specific to their roles. Additionally, regular refresher training should be conducted to reinforce safety protocols and introduce any updates in tools or procedures.

Personal protective equipment (PPE) is another essential element of safe tool and material handling. Workers should be provided with the necessary PPE, such as gloves, safety goggles, ear protection, and aprons, depending on the tasks they perform. For instance, when handling sharp cutting tools or working with potentially harmful chemicals, proper PPE ensures that employees are shielded from potential risks.

Proper tool maintenance is crucial for both safety and efficiency. Tools and equipment should be inspected regularly to identify signs of wear, damage, or malfunction. Any defective tools should be promptly repaired or replaced to prevent accidents caused by faulty equipment. Dull blades or worn-out parts can lead to unintended accidents due to increased force required during usage. Regular maintenance not only extends the life of tools but also contributes to the overall safety of the work environment.

Organization and workspace design play a role in promoting safety. Workstations should be organized and clutter-free, with tools and materials

properly stored when not in use. Clearly labeled storage areas for tools and materials help prevent confusion and ensure that workers can locate what they need without risking unnecessary accidents. Properly organized workspaces also minimize the risk of tripping, falling, or mishandling tools due to cramped or cluttered conditions.

Communication among team members is vital for safe tool and material handling. If there are changes in procedures, tools, or materials, these updates should be communicated effectively to all relevant personnel. Encouraging open dialogue about safety concerns and sharing best practices can create a culture of safety consciousness throughout the organization.

In conclusion, the apparel industry relies heavily on the skilled and diligent work of its employees, making their safety a top priority. Safe handling of tools and materials not only prevents accidents and injuries but also enhances the overall efficiency and quality of production processes. Through proper training, the use of personal protective equipment, regular maintenance, organized workspaces, and effective communication, the apparel industry can create a work environment where workers feel valued, protected, and empowered to contribute to the success of the business while staying safe.



Fig.: 4.1 Proper handling of material

Cleaning and Maintenance of tools

- Regular cleaning and maintenance of tools goes a long way in increasing the life and efficiency of tools. Thus, the output or quality of work is also ensured if we take care of our tools and equipment.
- High levels of dust interfere with efficient production and require cleaning and maintenance operations that may otherwise spoil materials and finished products. Proper cleaning procedure and maintenance protocol is an immediate, low-cost measure to enhance overall cleanliness, consistency and contamination control within workstations. Best practices should be followed with application of specific techniques of wipe down and particle control. Some of the most common contamination include solid dust, liquid, bacteria, fungus, human skin cells and hair, spills and leaks, lint, fibers, and more.
- Improved conditions usually mean increased output, higher productivity and quality. There are simple and inexpensive ways to control most of the environmental problems. Maintenance of tools often result in cost savings, productivity benefits and increased safety of workers.
- Points to be considered in cleaning and maintaining the tools are as follows
- Avoid placing the materials and tools on the floor to avoid any damages or accidents.
- Keep all the tools and material at their designated places. Make use of racks, shelves which are properly marked for this purpose.
- Keep the work area free of any unwanted material like extra set of cartons, bins etc.
- The floor should be made anti slippage with the help of anti-skid mats or tiles.
- Ensure regular cleaning all the tools after every use.
- Keep all the tools and material back into their covers after use. This will not only prevent them from dust but will also prevent any accidents or injuries.
- Allocate proper space for operation, outputs and inputs.
- A regular system of inspecting, cleaning and repairing is an essential part of cleaning and maintenance of tools.

It is very important to handle the equipment carefully and safely in the garment industry and train all workers in a manufacturing unit to follow the same effectively.

Clothing and Personal Protection

Clothing and personal protection must be worn wherever they are prescribed. Close fitting clothing should be worn near machinery with moving parts. Loosely, draped garments like scarves, dupatta, bows, ribbons and loose sleeves are dangerous use of over coat is advised to be worn in such cases. Long hair should be tied up tightly and covered with Cap. Jewellery, watches and rings should not be worn. There are personal protection equipment's such as hair protectors, ear protectors, gloves, safety glasses and shoes.

Types of Personal protective equipment

- **Latex Gloves**

Purpose: - To avoid any chemical contamination while handling Chemicals.

User Department: - Chemical Store, Washing, ETP, STP

- **Acid-Alkali Hand Gloves**

Purpose: - Used for handling Acid/Alkali

- **Chemical Splash Safety Goggle / Mechanical Safety Goggles**

Purpose: -For protection of eyes against chemicals.

- **Different types of Masks:**

- **Organic Vapour Mask**

Purpose: - For protection against organic chemical vapours.

- **Particulate Respirator**

Purpose: - For protection against chemical dust.

- **Chemical Mask**

Purpose: -Used for protection against high concentration of organic vapours.

- **Dust Mask**

Purpose: - For protection against normal dust particles.

- **Gum Boot**

Purpose: -For protection of feet while working in wet processes. (For Washing & ETP operators)

- **Ear Muff or ear plugs**

Purpose: - For protection of ears while working in high sound intensity areas.

- **Leather Apron**

Purpose: - For protection of body while working at high temperature areas.

- **Safety Helmet**

Purpose: - For protection of head against falling objects, trips or falls.

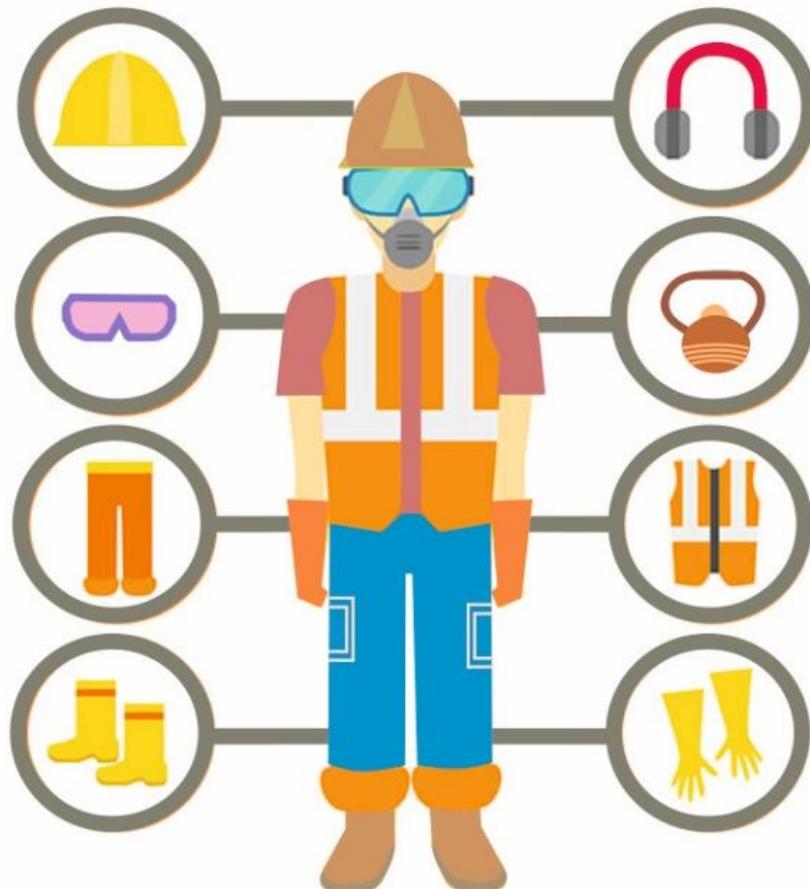


Fig.:4.2 Personal protective equipment's

Clear demarcations and sign boards:

Clear demarcation of areas is required at places where there is possibility of hazards or accidents.

Prohibited areas which are marked are as follows-

1. Storage of chemicals
2. Operation of machinery
3. Presence of water on the floor
4. Loud noise areas: areas with high sound intensity.

5. High voltage current.
6. Release of poisonous fumes or gases.

There are threats based on the nature of the operations and workers have to be trained to understand these hazards and take proper precautions.

Activities

Activity 1:

Visit an apparel industry and prepare a report on different types of tools and equipments used for finishing and packing and write about its maintenance and cleaning method used.

Materials used:

1. Register/File
2. Pens and pencils
3. Eraser
4. Ruler

Procedure:

1. Visit an apparel industry.
2. Study the tools and equipment used for finishing and packing and its cleaning and maintenance methods.
3. Prepare a report and submit the same.

Check Your Progress

Fill in the blanks:

1. Workers should be provided with the necessary _____ such as gloves, safety goggles, ear protection, and aprons, depending on the tasks they perform.
2. Regular _____ of tools goes a long way in increasing the life and efficiency of tools.
3. _____ is used for protection of feet while working in wet processes.
4. _____ is used for protection of ears while working in high sound intensity areas.

Questions:

1. Explain safe handling of tools and equipment.
2. Describe cleaning and maintenance of tools and equipment.

Session 2: Safe Storage of Materials

Safe working practices, risk assessments, maintaining standards are recommended practices in the industrial environment. The factors of risk are high since the workers constantly interact with numerous machineries, processes, and practices. The risk can be decreased by evaluating and registering them by training the workers, introducing and practicing safety measures, conducting emergency incident practice drills, displaying signboards, and ensure following of all standard procedures applicable at the workplace.

Health and safety at work is the responsibility of both employers and the employees. Manufacturers are required by law to follow strict rules and regulations to make sure that the workers are protected from possible dangers and using machinery and handling materials. The workers must follow all safety rules and instructions to keep themselves and those around them safe.

The dangers, hazards or risks involved in making a product can be identified, described and listed. This is known as risk assessment. At the workplace, it is essential to know what might cause harm or injury to people or the environment, therefore safety precautions and systems can be put in place to prevent accidents. The following precautions need to be followed-

- Carry out risk assessments.
- Display warning notices, safety rules and fire exit signs.
- Ensure that machinery, equipment, tools and materials are stored safely, have safety guards, are safe to use and are regularly tested for their safety standards.
- Ensure that chemicals used in manufacturing processes are recorded, stored and used safely and correctly. One must also ensure safe disposal or recycle of the used chemicals.
- Regular checks must be conducted for ensuring that the environment is safe with hygienic work areas and sufficient ventilation to remove dust and fumes, and has also has noise-level control systems.
- Install storage racks, shelves and containers. For heavy items use wooden pallets. For light items use overhead space by installing overhead racks along walls that are less frequently used. Gain productive space by introducing multi-level racks which saves the floor space.

- Clean and free floor space results in easy accessibility to work items and tools, and improved inventory control.
- Provide a place for each tool and work item- Consider the quantity, size, shape and weight of the necessary items in order to select the most appropriate means and place of storage.
- Identify tools that are most frequently used. Place the most frequently used tools such as spot guns and scissors which are constantly used in a location where they can easily be reached without leaning. Avoid placing materials on the floor. Provide a place for each tool and work item.

One should not lift loads that are higher than guidelines of lifting. We must make sure that the lifting operations are more efficient and safer.

Workers must ensure reporting hazards and potential risks/ threats to supervisors or any other authorized personnel.

Follow organization procedures for shutdown and evacuation when required. Workers must follow environmental control measures such as cleaning regularly and properly, do not spread dust, make local ventilation cost-effective and replace a dangerous substance with a safer one.

Guidelines for safe storage of chemicals:

- All containers, bins and bottles of chemicals should be well labelled.
- Only authorized personnel should be allowed to handle the chemicals and they should also be aware about handling instructions.
- Chemical material should always be stored in designated areas that are designed and constructed for that use.
- The storage location should be out of direct sunlight and heat.
- The chemical storage areas should also be away from high occupancy areas.
- Away from emergency exit and evacuation areas.
- The storage area where chemicals are kept should be designed with floors which are not affected by chemicals or do not absorb the chemicals.
- Mostly we require some kind of ventilation facility like a mechanical exhaust fan for providing adequate ventilation and avoid collection of highly flammable or toxic fumes in the work area in the event/time of a chemical leak or a spill.

- All chemical storage areas should be secured /locked when the factory is not in operation and only authorized personnel should be allowed to handle the chemicals.
- Operations involving smoke and heat should not be performed near the chemical storage.
- Electrical supply, switches, wiring etc. should preferably be outside the chemical storage areas.
- Equipment such as generators, boilers, etc. should not share the same space as chemical storage
- Provision of fire extinguisher should be there but these should also be kept outside the storage room and not inside.
- While storing chemicals, their nature and compatibility issues should be kept in mind. For example, chemicals which are corrosive or oxidizing in nature should not be stored with flammable material. There should be a distance of at least 5 meters between such chemicals if a separate storage is not possible.

One must ensure availability of any absorbent material near the storage area to remove/absorb any liquid chemical from the floor or other surfaces after a chemical spill or leak. Sand may be used for this purpose, although commercial adsorbent products are preferable. In addition to this, one should also ensure availability of equipments such as shovels, a container and suitable PPE protective gloves, eyewear, etc. depending upon the extent of the spill and the hazards of the particular chemical.

Proper usage of materials to minimize waste:

Some amount of manufacturing waste is always generated in almost every factory or manufacturing unit. Thus it becomes mandatory to establish and implement practices for minimizing waste generation. Different production processes in apparel and textile units such as washing/drying, warp preparation, weaving, dyeing, printing, finishing, quality control, and warehousing etc. result in waste-generation. Some types of commonly observed wastes in textile and apparel industries include fabric scraps, chemicals, untreated dye solutions, finishing agents, cutting and stitching waste etc. Wet finishing processes use up to 200 litres of water per kilogram of fibre. Thus, the largest chunk of waste in this sector is water (as per volume).

Following are the ways to minimize the generation of waste:



Fig.: 4.3 minimize waste

1. **Efficient Inventory Management:** One can reduce manufacturing waste, by controlling the excess or not required materials being used in the manufacturing or other process. Inventory should be managed efficiently and only required quantity of raw material should be procured to minimize wastage.
2. **Reduce Packing Materials:** Product packing may be redesigned to ensure that minimum amount of materials are used. Incorporation of reusable or recyclable packing content should be incorporated for packing.
3. **Recover and Reuse:** Recover waste from onsite and offsite locations. Recycling is another popular choice. Recycle materials like fabric, paper, plastic, and metal regularly, and avoid recycling hazardous materials as they rarely have any environmental benefits.
4. **Establish a Preventative Maintenance Schedule:** Regular maintenance should be performed. It is more beneficial to control the costs to prevent a breakdown instead of reacting to a breakdown later.
5. **Label and Organize the Warehouse Properly:** All the locations of inventory, tools, supplies, and assets necessary to manufacturing and other processes must be clearly marked throughout the warehouse.

This may result in decreased time being spent on searching for the right tool needed for an urgent repair. One should always replace the faded tags and repaint the floor lines regularly.

6. **Minimize Water Usage:** Industrial sludge and wastewater make up a significant portion of manufacturing waste streams. One can reduce these elements by minimizing water usage in the operations like dyeing and finishing processes. Installing a treatment system to recycle waste water can contribute to minimize this type of waste. Employees should also be encouraged to cut down on drinking water from plastic water bottles as it adds up to major portion of plastic waste generated. Switching to drinking water in glasses or promoting the use of reusable bottles in the workplace is an easy solution to the problem.
7. **Volume Reduction:** Volume reduction refers to the segregation techniques that remove the hazardous portion of waste from the non-hazardous portion. As a result of using volume reduction technique, there is a considerable reduction in the volume and the cost of waste disposal.

They can be broadly divided into two categories-waste concentration and source segregation. The former may increase the likelihood of the material being reused or recycled and the latter consists of different types of materials within the waste being treated separately so that the cloth value in the bulk can be recovered.



Fig 4.4 3R's of Waste Management

Disposal of waste at designated locations:

Proper waste disposal within the apparel industry plays a pivotal role in safeguarding the environment. The industry's rapid growth has resulted in

escalating waste generation, often encompassing fabric scraps, dye chemicals, packaging materials, and more. By adopting efficient waste management practices, significant environmental benefits can be achieved.

Implementing recycling and upcycling initiatives can reduce the accumulation of fabric remnants. Reusing scraps for new products or donating them to crafters minimizes landfill contributions. Responsible disposal of dye chemicals and other hazardous materials prevents water and soil contamination. Employing biodegradable and eco-friendly packaging materials diminishes the burden on landfills and ecosystems.

Furthermore, raising awareness and educating stakeholders about sustainable practices fosters a culture of environmental responsibility. Collaborations with waste management experts can optimize waste segregation and recycling processes. Government regulations and industry standards can also be instrumental in enforcing proper waste disposal practices.

Ultimately, embracing proper waste disposal techniques in the apparel industry not only curtails environmental degradation but also promotes a circular economy. By reducing waste, conserving resources, and minimizing pollution, the industry can contribute to a healthier planet for current and future generations

One should follow the following ways of waste disposal:

- The types and amounts of hazardous wastes generated should be identified and segregated and the waste disposal method for each category of waste should be determined.
- Sorting of waste makes sure that the recyclable items are put to correct use and not go in waste. The responsibility of keeping a track of the bins and finding a feasible solution for elimination, reduction or reuse of the waste generated should be carefully assigned to selected employees and workers and there should also be clear cut policy for this.
- Hazardous and nonhazardous wastes should not be mixed. Disposal of hazardous waste that cannot be treated or recycled should be done at a secure, permitted and designated place which has no access to the general public or any unauthorized personnel.
- Industrial shredders can be used to reduce waste by condensing cloth material, wood, rubber, and plastics to a fraction of their original size.
- Bins/Containers containing hazardous waste should always be kept covered only except when workers are transferring hazardous waste into them.

- Fabric waste from checking, cutting and sewing departments should also be stored at a designated area and should be disposed as per the disposal schedule.
- The benefits of reducing the volume of solid waste generated at a factory include a positive effect on the environment, an economic advantage to the industry and better community relations.

Activities

Activity 1:

Visit an apparel industry and study their methods and ways of waste disposal and prepare a report on the same.

Materials used:

1. Register/File
2. Pens and pencils
3. Eraser
4. Ruler

Procedure:

1. Visit an apparel industry.
2. Study the methods and ways of waste disposal, stick pictures to support the report.
3. Prepare a report and submit the same.

Check Your Progress

Fill in the Blanks:

1. _____ should be managed efficiently and only required quantity of raw material should be procured to minimize wastage.
2. Product _____ may be redesigned to ensure that minimum amount of materials are used.
3. _____ should be done of materials like fabric, paper, plastic, and metal regularly.
4. _____ should be performed. It is more beneficial to control the costs to prevent a breakdown instead of reacting to a breakdown later.

5. Industrial_____make up a significant portion of manufacturing waste streams.
6. Proper_____within the apparel industry plays a pivotal role in safeguarding the environment.

Write short answer for the following:

1. Explain about safe storage of chemicals in any apparel industry.
2. Describe managing waste and waste disposal generated in apparel industry.

PSSCIVE Draft Study Material © Not to be Published

Session 3: Personal Hygiene and Health

Personal hygiene refers to all those habits and practices which help in maintaining good health and keeping illness away. Taking daily baths, wearing clean clothes, keeping neat and tidy hair are all examples of good personal hygiene. It helps in keeping healthy and maintaining a neat and pleasant appearance.

A healthy worker is a productive worker. Poor health is the most common reason workers take a leave of absence from the workplace. Many illnesses are a result of the lack of knowledge of personal hygiene among workers and can be prevented by following simple rules of hygiene.

The incidences of various illnesses can be considerably reduced by a basic education in health and hygiene. Common health issues faced by the workers should be identified and marked clearly by the management and the workers should be trained for prevention and control of these problems.

The factory management must also remain alert and respond urgently to various health issues that can emerge. Good personal hygiene habits leads to better health and reduced illnesses. Poor personal hygiene can lead to some minor side effects, like body odour, bad breath and greasy skin. However, it can also result in more serious health issues. Hence, workers should be given mandatory training in health and hygiene related issues.

Importance of Personal Hygiene:

Personal hygiene is important mainly because it saves us from illnesses and ensures good health. It also has many other benefits. These include:

- Neat and Tidy appearance
- Improved stamina and efficiency
- Boosts self confidence
- Contributes toward motivation
- Lesser leaves and absenteeism

Unsatisfactory quality and quantity of drinking water, lack of sanitation and hygiene can cause a number of illnesses. These factors can affect individually or in combination also. The diseases caused by poor sanitation and hygiene mostly affect individual employees and are not communicable. Thus, they can be controlled but there are situations where lack of hygiene and sanitation may simultaneously affect many employees. Such a situation is difficult to control and may result in huge loss of work. The latter is often indicative of poor working conditions in the factory.

The prevention of diseases related to water, sanitation and hygiene is possible with simple control measures at the factory level. Workers must be regularly trained in hygiene and sanitation practices.

The following mentioned are few tips for dealing issues regarding good personal hygiene about workplace health and safety.

Ensuring personal hygiene and care of body:

- Hand Wash: Poor hand hygiene increase the vulnerability to bacteria and potential transfer or introduction of microbes such as viruses and fungus. Hence washing hands frequently, wearing gloves etc. should be strictly followed.
- Hands must be washed on regular intervals with an effective hand disinfectant liquid/solution.
- Wear clean uniforms/ Protective clothes during working in the area along with cap, eye glass, face mask and footwear that adequately covers their feet to protect workers and ensure their safety.

Benefits of a healthy lifestyle

The World Health Organization (WHO) defines health as “a state of complete physical, mental and social well-being”. It’s not an exaggeration when we say that health is wealth because it affects a person’s productivity, efficiency, energy and behaviour. Some of the benefits of a healthy lifestyle are increased concentration, sharp memory and it also gives an emotional boost.

Minimizing and safety risks

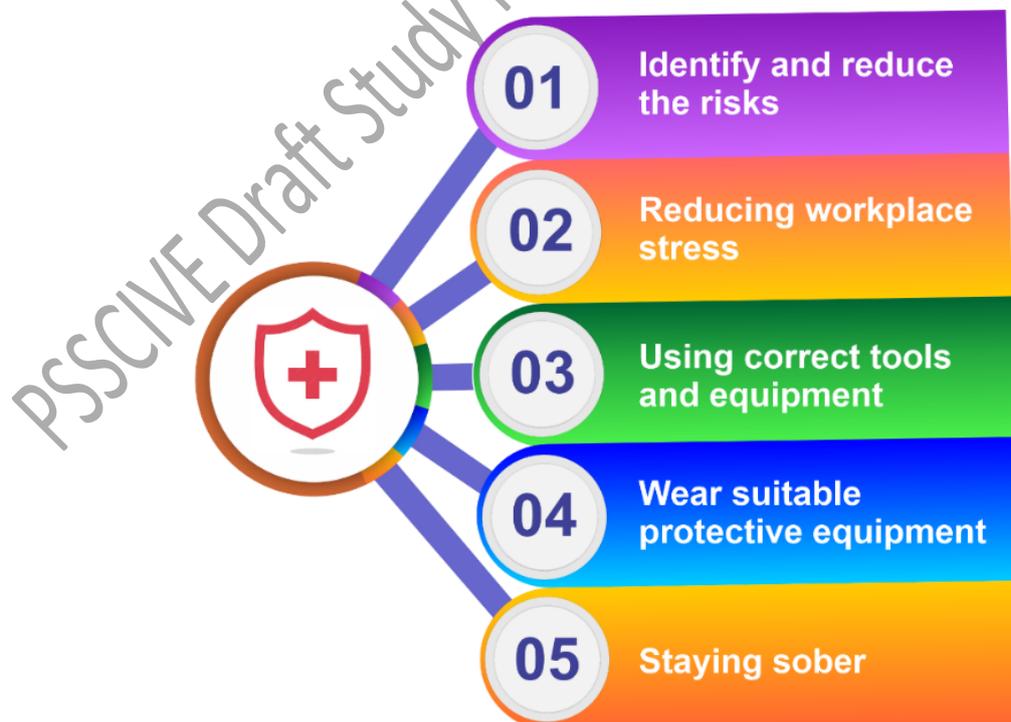


Fig.: 4.5 Minimizing and safety risks

1. **Identify and reduce the risks:** Once the hazard has been identified at the workplace, appropriate steps for reduction of risk and work-related injuries must be taken.
2. **Reducing workplace stress:** Common causes of workplace stress includes long working hours, heavy workload, job insecurity and conflicts with co-workers and seniors. Stress can lead to depression, sleeping difficulties and often lowers the ability to concentrate.
3. **Using correct tools and equipment:** Use of correct tools and equipment is advisable. For e.g to cut the extra thread of seam, use of scissors is safe and efficient than use of a blade or knife.
4. **Wear suitable protective equipment:** Correctly worn equipment such as earplugs, earmuffs, hard hat, safety goggles, gloves or full-face mask can dramatically reduce risk of injury.
5. **Staying sober:** Alcohol and drugs are a contributing factor in around three per cent of workplace fatalities. Workers should avoid indulging in such unethical practices at work.

The value of physical fitness, personal hygiene and good habits

Performance of a worker is directly related to the health of the worker. Hence it is important to train and educate the workers on good health and hygienic habits.

Physical Fitness: Physical activities have many health benefits for workers, regardless of whether or not physical fitness is a requirement for their jobs. However, a fit and healthy workforce is one of the most valuable assets of the company. Therefore, employers need to make more effort to encourage physical activity. Periodical health check-ups and workshops should be arranged by the company to maintain good health of the employees.

Personal Hygiene and Good Habits: Personal hygiene refers to the cleanliness, appearance and habits of employees. Personal hygiene and good habits doesn't only make workers look and feel good, but also makes their co-workers feel safe and comfortable. Personal hygiene improves employee's confidence and helps in maintaining employee productivity. It promotes a safe and healthy environment at the work place.

Do's and Don'ts of Personal Hygiene at the Workplace:

- Workers should clean themselves and should not indulge in littering

- Workstations should be kept clean and dust free by wiping them regularly.
- Tea and food should always be consumed at designated spaces and all the utensils and crockery should be cleaned immediately and regularly.
- Workers should be trained in proper hygiene and practices and should follow it sincerely.
- All the workers and employees should adhere to organisational hygiene policies.
- Unhygienic practices like sneezing and coughing in open should be avoided.
- Washrooms must be kept clean and workers must wash their hands thoroughly with soap after using wash rooms.

Safe Working Practices and Organizational Procedures:

Every organization Safety measure include proper training of machine operators, which is essential throughout the production line and across the workplace. Safety can be greatly enhanced by introducing automation in machinery and processes for material handling. It is highly effective particularly for heavy loads or wherever high-speed machinery is used. It is beneficial where heat, sharp blades or needles are involved. Safety devices or sensors are used to check whether machine setting is correct and to stop machinery in case of emergency.

- All Organizational policies and procedures should be followed for issues related to security, material handling, potential hazards etc.
- All compliances should be strictly followed. Special care and attention should be paid to health and safety regulations and procedures in case of fire, chemical hazards, bio-hazards, etc.
- Maintain distance from moving machinery and stay within designated areas.
- Maintain a clean, neat and orderly working area
- Proper ventilation facilities must be designed and implemented.
- Safety guards and protective clothing, gloves and footwear worn.
- Displaying educational posters is a powerful way to educate workers. It is extremely effective as it delivers a consistent message, and using pictures that are a medium of effective communication targeting a

specific behavior. Examples, which are used in garment factories include posters of lifting postures, wearing mask properly wherever required, importance of sanitation to promote good health and surroundings etc.

Safety Measures

- ❖ Workers should use and maintain personal protective equipment as instructed.
- ❖ They should also carry out their activities in line with approved guidelines and procedures
- ❖ Use and dependency on intoxicants such as liquor, cigarettes etc. should be totally avoided in workplace and a healthy lifestyle should be maintained.
- ❖ Faults and malfunctions in machinery and equipment should be reported or dealt with urgently and with utmost sincerity.
- ❖ Storage of materials and equipment should be done in line with manufacturer and organizational requirements.
- ❖ Seek clarifications, from supervisors or other authorized personnel in case of perceived risks.
- ❖ Keep checking the workplace and work processes at regular intervals for potential risks and threats.
- ❖ Workers must report risk of potential threats, accidents to supervisors or any other authorized personnel in charge.
- ❖ Workers should undertake all training and drills related to first aid, fire-fighting and emergency response very sincerely and should not do it just for the sake of formality.
- ❖ In situations where shutdown and evacuation is mandatory or compulsory, workers should follow standard organizational procedures.
- ❖ Environmental hygiene should not be neglected – regular checks of waste disposal, drainage, sewage and effluent treatment systems should be instituted.

Hazard Control:

Fig.: 4.6 Hazard control

- a) Sharp Objects: The worker should not handle broken sharp objects or broken glass by hand. Use of tongs, forceps, tweezers, magnets or other devices to pick up and discard the broken object is advisable.
- b) While disinfecting contaminated areas or equipment workers should wear protective gloves such as latex or other watertight gloves, safety glasses or goggles and cleansing wipes.
- c) If work surfaces or equipment have come in contact with blood or other body fluids for example, a worker's finger has been cut and has bled onto the equipment surface; these surfaces should be cleaned and disinfected immediately. Medical attention must be provided to the concerned worker.
- d) All the areas such as walls, floors and doors of the work areas should be wiped with clean and sterile sponges and mops. Care should be taken to wet the sponges and mops with sterile disinfectant solution in proper concentration.
- e) All exposed surfaces of equipment and glass panels should be sprayed and wiped with sterile solutions. Spillage or leaks if any should be cleaned and mopped immediately using sponge and sterile disinfectant solution.

Good Housekeeping Practices



Fig.: 4.7 Good housekeeping

Efficient production and good working environment are complimentary and go hand in hand for achieving organizational goals. A clean, orderly and attractive environment encourages tidy work habits in employees and also boosts their efficiency. Good housekeeping is more than just the cleanliness. It also involves minimizing risks which may cause accidents and hazards. Good housekeeping is mandatory in every phase of industrial operations. Indoor areas such as work area, reception, washrooms etc. as well as outdoor areas such as lounge, parking lot, garden etc. should be maintained and governed by housekeeping practices as followed in the organization: Poor housekeeping leads to a sense of chaos, accidents and also gives rise to:

- ❖ Excessive clutter of material and waste material in the working area
- ❖ Congested aisles
- ❖ Tools left on machines, which may be misplaced or lost
- ❖ Overflowing waste bins, causing unhygienic conditions
- ❖ Lockers and workrooms in disorder that may lead to various infections
- ❖ Chemicals and Acids in open containers, that may be hazardous
- ❖ Broken glass, that may be dangerous and can cause serious injuries
- ❖ Open electric wires or air lines across aisles that may be fatal

- ❖ Unclean light fittings, windows and skylights, it may cause darkness in the room.
- ❖ Accumulated piles of paper and other packing materials, which may hide some important and useful tools.
- ❖ Infestation by pests such as rodents and cockroaches

Benefits of Good Housekeeping Practices:

Housekeeping refers to cleaning and organizing a place as well as minimizing risks, accidents and hazards due to unkempt and untidy premises such as loose and dangling wires, overflowing bins and containers, slippery floors etc. Good housekeeping practices help in keeping the premises clean, systematic and hazard free and thus boost the efficiency and productivity of employees.

Some Good Housekeeping Practices:

- 1) **Regular cleaning and maintenance:** Housekeeping should not be restricted to only few occasions such as inspections and audits, meetings etc. Infact, the entire premises should be cleaned and maintained regularly and frequently.
- 2) **Repair and check of all electrical switches, wiring and supply:** All power supplies and electrical wiring and switches also fall under housekeeping and should be checked and maintained regularly with utmost sincerity.
- 3) **Aisles:** Aisles should have clearly marked floor lines to keep them segregated for work areas and storage areas. Also, these should not have any debris, scrap or boxes stacked in their way.
- 4) **Floors and walls:** These should be clean and free from dust, dirt and marked clearly with signboards and placards wherever necessary. Spilt oil and other liquids should be cleaned up at once. Walls with chips, shavings, and floors with dust, and similar wastes should never be allowed to accumulate. They should be cleaned frequently.
- 5) **Well-maintained amenities:** Facilities or amenities such as washrooms and lockers for clothing should be clean and keep up to date. Lunchroom should be clean, well-maintained and inviting.
- 6) **Waste removal:** There should be a proper waste disposal schedule along with cleaning agents and equipment. There should be adequate facilities to prevent congestion and disorder in the premises.

- 7) **Maintenance of light fittings:** A good housekeeping programme will pay attention to light fittings, its care and maintenance in the premises. It must be an integral part of such a programme. Lamp shades and lights become dirty with use and often accumulate dirt and dust around them. This reduces their efficiency and the workers are devoid of essential light which puts strain on their eyes. Simple cleaning of lamps/bulbs reflectors and tube lights is known to improve the lighting efficiency.
- 8) **Cleaning of the windows:** Clean window glass help in optimizing the availability of day light and dirty ones keep it out. Improper lighting arrangements at the workstation can lead to eye strain and accidents because of low visibility. Efficient housekeeping ensures that windows are not blocked by stacked materials, equipment or articles on the ledges and are dust free.
- 9) **Ventilation:** There should be adequate ventilation in the premises. The ventilators and exhaust fans should be clean and free from dust, cobwebs, grease etc.
- 10) **Fully functional first aid gear:** First aid facilities and equipment should be kept under spotlessly clean conditions and fully stocked so that they are always ready in the event of accidents or illness.
- 11) **Inspection of fire extinguishing equipment:** Regular inspection of all fire-fighting equipment such as extinguishers and fire hoses is vital for keeping them in good working condition. Fire protection facilities such as door and exits, automatic alarms, smoke detectors etc. must be in excellent working condition. Care should be taken to check and avoid any jammed or blocked fire exits and doors. Doors and exits should always be kept clear of obstructions.

Hazards of Poor Housekeeping Practices:

Regular and timely housekeeping has many benefits. However, housekeeping is not practiced regularly and efficiently it may pose serious problems. Some of the hazards and problems associated with poor and irregular housekeeping practices are:

- Untidy and unsafe premises
- Accidents
- Fire Hazards
- Chemical and oil spillage
- Dusty walls and windows

- Slippery floors and handles
- Jammed doors and knobs
- Unkempt, smelly washrooms and change rooms etc.
- Falling and tripping over objects lying on floors, stairs and platforms
- Accidents due to falling objects
- Wet or dirty surfaces causing slipping and falls
- Striking against items kept in undesignated or wrong locations or items piled up in stacks near aisles and exits
- Projecting nails, wire or steel rods which may cause injuries such as piercing any body part, tearing skin etc.
- All this leads to a direct bearing on the efficiency and productivity of employees and may bring down their morale too.

Activities

Activity 1:

Prepare a chart/graphic poster on importance of personal hygiene.

Material Required:

- 1) Chart Sheet
- 2) Colourful Pens & pencils
- 3) Pencil
- 4) Eraser
- 5) Ruler

Procedure:

- 1) Collect all the required information.
- 2) Prepare your chart and get it verified by your teacher.
- 3) Decorate it.
- 4) Attach the chart on the drawing board of the classroom.

Activity 2:

Prepare a skit on various hazards of poor housekeeping practices and enact it in your class. Also conduct a discussion on the same.

Procedure:

- 1) Plan your skit on any situation related to hazards of poor housekeeping practices.
- 2) Distribute dialogue and roles among all the participants.
- 3) Enact the skit in your class.

Check Your Progress**Fill in the Blanks:**

- 1) _____ is important mainly because it saves us from illnesses and ensures good health.
- 2) Hands must be washed on regular intervals with an effective _____.
- 3) Benefits of a healthy lifestyle are increased concentration, sharp memory and it also gives an _____.
- 4) Performance of a worker is directly related to the _____ of the worker.
- 5) _____ leads to a sense of chaos and accidents.

Questions:

- 1) Explain Personal hygiene and its importance in a workplace.
- 2) Describe Safe Working Practices and Organizational Procedures.
- 3) Discuss Good Housekeeping Practices.

Session 4: Potential Hazards at Work Place

Hazard is a potential source of harm that can cause temporary and permanent damage or may even prove to be fatal if neglected.

The first step towards workplace risk assessment is to identify the potential risks/hazards at the workplace. To overcome these hazards in a nominated person is appointed for conducting formal risk assessments; however, it is everyone's responsibility to be careful and mindful of possible and sudden hazards at the workplace and minimize the risk for self and for people around.

Not all hazards are obvious, and they will be unique to every workplace depending on the type of process flow. This can make it difficult to immediately identify and protect all the employees from it. Therefore it is important to study various types of hazards and knowing how to keep work area free from potential hazards.

Different types of potential hazards:

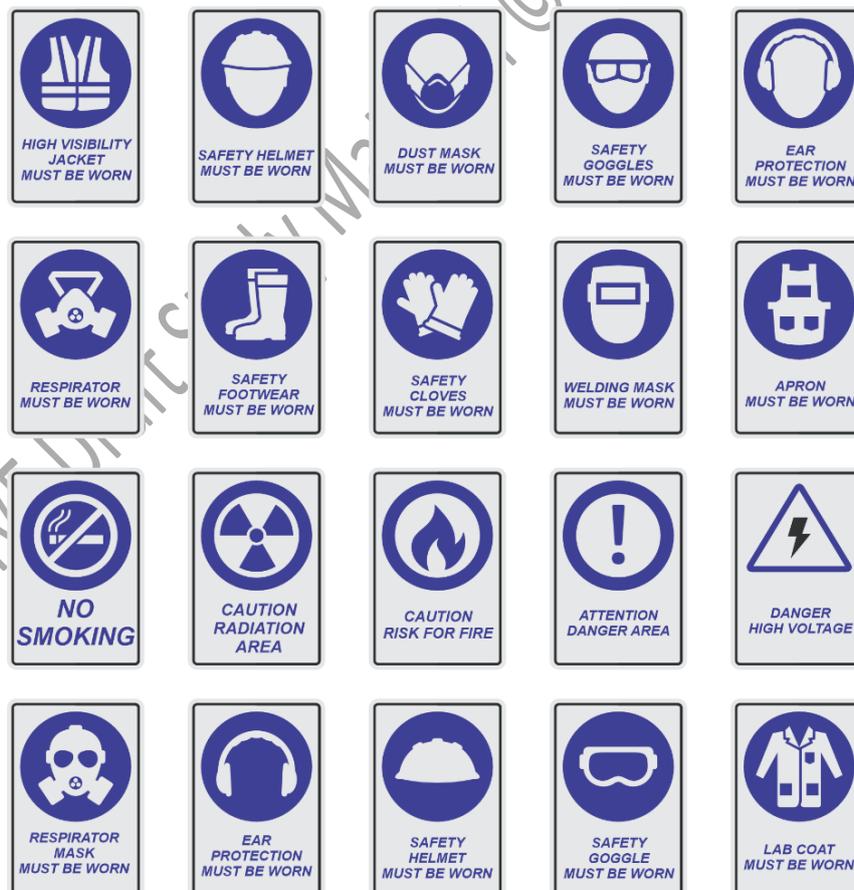


Fig.: 4.8 Potential hazards

The apparel industry plays a significant role in the global economy, providing clothing and textiles to millions of people around the world. However, this industry is not without its hazards, as the various stages of production present potential risks to workers' health and safety. To ensure a safe working environment, it is crucial to identify these hazards and implement appropriate safety measures. This article delves into some common hazards within the apparel industry and outlines essential safety measures that should be taken to protect workers.

Chemical Hazards: The apparel industry involves various chemicals, such as dyes, solvents, and finishing agents, which can pose risks to workers. These chemicals can cause skin irritation, respiratory problems, and even long-term health issues like cancer. To address these hazards:

- Provide proper training to workers about the safe handling and use of chemicals.
- Ensure the use of personal protective equipment (PPE) such as gloves, masks, and goggles.
- Implement effective ventilation systems to control chemical fumes and dust.

Ergonomic Hazards: Repetitive tasks, poor posture, and improper workstation design can lead to musculoskeletal disorders among apparel industry workers. To mitigate ergonomic hazards:

- Design workstations with adjustable components to accommodate different body types and sizes.
- Implement regular breaks and rotation of tasks to prevent prolonged exposure to repetitive motions.
- Provide ergonomic training to workers to promote proper posture and lifting techniques.

Mechanical Hazards: Machinery used in the apparel industry, such as sewing machines and cutting tools, can cause injuries if not used correctly.

- Conduct regular maintenance and inspections of machines to ensure they are in safe working condition.
- Provide proper training to workers on the safe operation of machinery.
- Install machine guards and safety devices to prevent accidental contact with moving parts.

Fire Hazards: The presence of flammable materials, such as fabrics and chemicals, increases the risk of fire in the apparel industry.

- Install fire detection and suppression systems throughout the facility.
- Maintain clear and unobstructed evacuation routes and conduct regular fire drills.
- Train workers in fire safety procedures and the use of fire extinguishers.

Electrical Hazards: Electrical equipment is widely used in apparel manufacturing, and improper use can result in electric shocks, burns, or even fires.

- Regularly inspect and maintain electrical equipment and wiring to prevent hazards.
- Ensure workers are trained to handle electrical equipment safely and know the location of emergency shut-offs.

Noise Hazards: The constant noise from machinery in the apparel industry can lead to hearing impairment and other health issues.

- Provide workers with appropriate hearing protection, such as earplugs or earmuffs.
- Implement noise control measures, such as enclosing noisy machines or using sound-absorbing materials.

Biological Hazards: In some instances, biological hazards like bacteria and viruses can be present in the apparel industry, particularly in environments with poor hygiene practices.

- Maintain proper sanitation and hygiene standards in work areas.
- Provide adequate facilities for handwashing and personal hygiene.
- Educate workers about the importance of maintaining cleanliness and hygiene.

Safety Culture and Training: Developing a strong safety culture is vital in preventing accidents and promoting a safe working environment.

- Conduct regular safety training sessions for all workers, covering hazard recognition and proper safety procedures.
- Encourage workers to report hazards and near-miss incidents promptly.

- Involve workers in safety committees or discussions to foster a sense of ownership over safety practices.

Potential hazards risks and threats based on nature of operations:

Identifying potential hazards and risks at workplace involves finding things and situations that could potentially cause harm to people based on the nature of operations. Hazards generally arise from the following aspects of work:

- Physical work environment
- Equipment and Materials
- Working tasks and how the way they are performed

In a manufacturing unit the work process may have to face different types of hazards. Identification of each of these hazards is necessary. For example, a workplace may have moving parts, noise, hazards associated with manual tasks and psychological hazards at the workplace. Some of them can be explained as follows:

Hazard /Risk	Potential Harm/Loss
Manual Task	Overexertion or repetitive movement can cause muscular strain.
Electricity	Exposure to live electrical wires can cause shock, burns or death from electrocution.
Machinery and Equipment	Being caught by moving parts of machinery can cause fractures, bruises, lacerations, dislocations, permanent injuries or can be fatal.
Noise	Exposure to loud noise can cause temporary/permanent hearing damage
Working Environment	Falling objects, falls, slips and trips of people can cause fractures, bruises, lacerations, dislocations, concussion, permanent injuries or can be fatal.
Extreme Conditions	Heat can cause burns; heat stroke or fatigue Cold can cause hypothermia or frost bite.
Psychosocial hazards	Effects of work-related stress, bullying, violence and work-related fatigue can cause depression and anxiety.

Keeping work area free from potential hazards:

Workstations have to be kept free from any potential hazard to ensure the safety of workers and the work place. Therefore, following measures can be followed to maintain the safety and security:

1. **Environmental Control Measures:** Hazardous substances in one form or another can be found in almost all small and medium-sized enterprises. The garment industry generates a lot of dust from fabrics being cut and sewn, heat and noise from machinery. There are simple and inexpensive ways to control most of the environmental problems. Improvements often result in cost savings, higher productivity and increased safety of workers.
2. **Regular and Proper Cleaning:** Dust originates from fabrics and threads, from cutting and sewing to packing operations. It is very common to see small clothing enterprises with ceilings and walls full of dusty cobwebs.

One low-cost cleaning method is sweeping the floor carefully with an appropriate broom and accompanying dust pan to prevent dust from spreading. Spraying water on the floor before sweeping will avoid dust remaining airborne.

3. **Cost-effective Local Ventilation:** Local ventilation should only be considered as a means of reducing chemical hazards when other means have failed.

There are cost-effective ways of improving ventilation:

- **Use proper fans**

Apart from those used for ventilating workstations, fans may be utilized to remove dangerous substances from the workplace. Contaminated air can be pushed or blown outside by having more open windows.

- **Good Lighting for Quality Products**

Good lighting does not necessarily mean more light bulbs and more use of electricity. Natural lighting is usually a better option than the bulbs. But if there is difficulty in arranging for a natural lighting through windows and ventilators, it's important that the bulbs and other sources of artificial lights should be well-maintained. A good lighting arrangement is directly proportionate to an efficient workforce.

Lighting requirements are mainly affected by following factors:

- The type of operation or task to be done.

- The eyesight of the worker, if any worker has very good eyesight then they can work efficiently in dim light too but workers with poor eyesight require optimum and efficient lighting system.
- Area where the work is being done. If the work area has ample day light and clear, open windows then requirement of light is not that important. But during night shifts and in closed areas without adequate windows efficient lighting system is must.

Full use of Daylight: The higher and bigger the window, the more of day light can be accessed. It is important to paint the walls in lighter shades which not just give a sense of space to a room, but the workstation would look illuminated. In a store we should have be very careful with the light as prolonged exposure to light can cause degradation of fabric color/shade.

Activities

Activity 1:

Collect the data and make a report on potential risk and hazards of industry.

Material Required:

- 1) Practical File
- 2) Coloured pens and pencils
- 3) Ruler
- 4) Eraser
- 5) Pictures of different hazards in an industry

Procedure:

- 1) Search and collect the data and pictures of different types of hazards of an industry.
- 2) Place the pictures in the practical file and label the same.
- 3) Write the description and make a report.

Check Your Progress

Fill in the Blanks:

- 1) _____ is a potential source of harm that can cause temporary and permanent damage or may even prove to be fatal if neglected. ()

- 2) _____ can cause skin irritation, respiratory problems, and even long-term health issues like cancer. ()
- 3) Repetitive tasks, poor posture, and improper workstation design can lead to _____ among apparel industry workers. ()
- 4) The presence of _____, such as fabrics and chemicals, increases the risk of fire in the apparel industry. ()
- 5) The constant noise from _____ in the apparel industry can lead to hearing impairment and other health issues. ()

Write short answers for the following:

- 1) What do you mean by potential hazards? Name and discuss any three.
- 2) Describe measures for keeping the work area free from potential hazards.

Module 5**Compliance to Legal, Regulatory and Ethical Requirements****Module Overview**

In general, compliance means conforming to a rule, such as a specification, policy standard or laws or it simply means obeying the law. Compliance can also be defined as conformity to a given standard. All the industries, organizations, offices and manufacturing units are required to follow regulations and compliances as decided by the respective governments and countries they operate in. Garment and textile industries are no exception to this. These are also expected to maintain certain standards to operate. Compliances promote honesty and integrity within the organization and help in maintaining standards. Apart from this, compliances also ensure safety of the men, material, machines and environment. Compliance adherence in industries is also essential as it ensures an amicable working environment. Adherence to compliances is also essential for business growth, safety and wellbeing of employees and customer satisfaction. Some of the common compliances required in garment industry include working hour policy, drug and alcohol policy, child care policy, prevention of sexual harassment policy, holiday compensation, wage for leaves, equal remuneration policy, antidiscrimination policy, no child labour, health, and safety policy etc.

Legal is something which is allowed by the law and is in accordance with various laws. Legal regulations are set by the government to prevent the rights and safety of a common man and society. **Ethical** means something which is morally correct. Ethical regulations are based on human perception of right and wrong. It also means avoiding activities which are harmful for people, organization and environment. For example, in recent years customers have started demanding ethical products. **Regulatory** compliance means adherence to various laws, guidelines and specifications issued by the government. **Regulatory compliance** means following relevant laws, policies, and regulations. These differ from business to business and from country to country.

Whether a business organization / company is following these legal, ethical and regulatory compliances or not is checked at regular intervals through audits and inspections. Violating compliances is a punishable offence and may result in legal punishment such as cancellation of business license, fine, jail or any other punishment as decide by the law and the government.

Learning Outcomes
After completing this module, you will be able to: <ul style="list-style-type: none"> • Describe importance of ethics and values • Explain Environmental management procedures, security details, potential accidents and emergencies • Describe teamwork and support to supervisor
Module Structure
Session: 1 Importance of Ethics and Values
Session: 2 Environmental Management Procedures, Security Details, Potential Accidents and Emergencies
Session: 3 Teamwork and Support to Supervisor

Session: 1 Importance of Ethics And Values

Ethics are a form of self-regulation and normally contain general principles to guide behaviour. Ethics is also known as moral philosophy. It is a system of moral principles and simply means what is morally right or wrong. For ex. it is not ethical on the part of a packer to show that fabric in store is damaged when it is not and sell it secretly in the market to earn some extra money. We can also say that ethics mean the intention of doing the right or correct thing. The term ethics is derived from the Greek word *ethos* which can mean custom, habit, character or disposition. Honesty, integrity, loyalty, keeping promises are all examples of Ethics. Ethics help us in:

- living an honest and good life
- making decisions which are morally correct
- thinking about others and the society
- prevent frauds and corruption in the organization.

Values are basic and fundamental beliefs that motivate or guide actions of people and can be personal, cultural or professional. Values are closely related to ethics. A value is something we hold, something we see as important and worthy of safeguarding. There are cultural and individual differences in value. Generally speaking, 'values' mean desirable, good or worthwhile and are principles and ideals, which help us in making the judgment of right and wrong. Values determine what action is best to do. For ex. if the support staff gets sick while on duty and the packer takes on the duty of arranging the packed material in store. It then shows good values of the packer that must be met in given time.

Ethics and values are important because they are central to any company or organization and govern business operations and transactions. Together these two form the foundation of trust. Ethics and values help businesses and organizations in achieving their goals, without compromising on security, peace and well being of the society and people at large.

Benefits of Ethical and Value-based approach to Management for the Company and its Workers:

Ethical and value – based approach to management is beneficial for both, the company as well as the workers. A company which is ethical and value based is able to build an image of trust whereas the workers who follow this approach enjoy the trust and goodwill of their employers. Both these things lead to positive business environment and hence, growth in business too.

Workers who have good ethics and values have very good productivity and hence contribute more to the organisation. Such workers also respect company property and don't indulge in unions, strike etc. Workers who follow ethical and value based approach are self motivated and hence perform better.

An ethical and value based approach also results in effective organizational control and hence better productivity and efficiency of employees. Companies that follow an ethical and “values-based” approach to ethics may have an advantage in the marketplace. They enjoy healthy returns through employee and customer loyalty as well as public respect for their brand. This in turn will help in smoothly achieving business goals. It also helps in avoiding breaking of regulations and associated punishments. It helps in achieving customers' and employees' trust and loyalty. It creates an environment of respect and faith.

COMPANY POLICIES, PROCEDURES AND ITS BENEFITS



Fig.: 5.1 Policies procedures and benefits

Policies are rules and guidelines formulated or adopted by an organization or a company to reach its long-term goals.

Policies are typically published in a booklet, manual or in any other form such as a presentation that is widely and easily accessible. Company policies are guidelines which help the management and employer in ensuring employee accountability. Company policies also help in achieving health and safety of employees and provide necessary guidelines for customer interaction.

These also act as guidelines for various legal issues and regulatory requirements. Company policies help in effectively tackling of any situation that could lead to serious consequences. Example - Every company has policy for substance abuse because constant substance abuse in employees if not tackled can lead to scuffles, daily fights and reduce work efficiency.

A company policy helps achieve employee wellness, fair treatment and also ensures that a company is following laws and regulations. Procedure is a fixed manner or way in which something is done. Procedures are the specific methods which inform employees as to how the daily duties should be performed. Every department in a company or an organisation has an SOP or standard Operating Procedure. This can be in the form of a manual, file or a booklet and is followed by all the staff member including senior management, middle management and all the other workers. Most of the company decisions and working is governed by the standard operating procedure. Any deviation in SOP has to be informed and is scrutinised carefully.

Together, policies and procedures ensure that the company /or the organisation is able to achieve its goals and mission in the most efficient and smooth way.

Policies and procedures are different from each other. We can understand the difference between the two by following points:

Policies	Procedures
Policies are the guiding principles.	Procedures means how a particular task will be done, what steps to follow while doing a task.
It is general in nature and relates to overall activities in the company.	It is very specific and related to particular tasks.
It is formulated by top management in the company	It is formulated by middle and lower management in the company
Policies tell us why a thing needs to be done	Procedures tell us how a thing needs to be done.

Every company has different policies and procedures which govern their daily business operations. Company policies and procedures also protect their business interests and employees. Procedures for each business can differ depending on the products and/or services provided. Organizations need policies and procedures for a wide range of HR topics.

Some policies which are critical for businesses and are mostly followed by almost all the organizations are as follows:

- 1) **Quality Assurance Policy:** Businesses should strive to offer quality goods and services to the clients. Products offered should meet the customers' expectations and even surpass their expectations. Quality services and products establish a good reputation and build a successful business.
- 2) **Environment Policy:** All business organization should have commitment towards preservation of environment and should have practices to minimize their organization ill impacts on the environment. These practices include simple recycling process as well sophisticated practices such as water treatment, waste management techniques etc. Some of these businesses should invest in projects that are aimed to improve the environment.
- 3) **Code of conduct:** Employees should act legally, ethically, and work for the best interest of the business. Code of conduct within the business should guide employees on how to deal with a wide variety of ethical situations. Code of conduct directs employees on how to relate to each other, customers and potential business partners and networks. It is a very broad topic and may require many separate policies. These can include guidelines on drugs and alcohol use, smoking, performance management and discipline. It also helps employees in knowing what is acceptable and what is not acceptable behavior at work place in terms of behaviour.
- 4) **Corporate social responsibility:** This is a strategic decision where businesses undertake an obligation to the society. For instance, a business may offer sponsorship to the community, take care of the environment. This is not necessary for profit maximisation, but to better the welfare of the public.
- 5) **Employment:** Managing your employees and ensuring that they understand the position within the business is of critical importance. Employees need to understand how performance reviews are conducted, the process for rehabilitation, safe working conditions,

compensation to workers injured at work, non-discrimination at workplaces, and termination conditions.

- 6) **Purchasing Policy:** All business organizations depend on suppliers and vendors for their raw materials and supplies. Therefore, they must value their suppliers and treat them fairly. They must also offer fair and honest tenders to their suppliers as well as offer reasonable terms of payment. Purchasing policy helps in formalizing all these details. Employees also need to understand what are considered as work expenses, how goods for the business are purchased and what is the purchasing process.
- 7) **Use of Internet and E-mail Policy:** Internet and email is a necessary part of our daily business. Facilitating internet and email policies and procedures provide employees with guidance on what is its acceptable use. Business should also consider having guidelines on social media usage within the business. Employees should be advised against use of internet at workplace as it affects the work output.
- 8) They should be urged to reduce time spent on personal use of internet. It is the duty of the organizations to add guidelines about what should and what should not be posted on social media regarding the organization in particular and events in general.
- 9) **Equal opportunities Policy:** Businesses should offer equal employment opportunities. When hiring employees, there should be no discrimination because of color, gender, race, or disability. Guidelines should also include on how a business handles situations that include a handicap, pregnancy, or overall diversity.
- 10) **Policies and Procedures for Attendance:** These documents can include guidelines on absenteeism, vacation time, sick/medical leave, appointments and overtime. This can also include the amount of notice required before applying for time off or leaves. Organisational culture should be taken into consideration when developing these rules.
- 11) **Customer service Policy:** For a business to be successful, it is important to maintain high quality customer service. Good customer service is the key to build and maintain loyal customers.

- 12) **Policies and Procedures for Use of Company Property:** Employees are required to use company property like electronics, medical equipment, vehicles, tools and uniforms in order to perform their duties. To avoid loss and damage to company property due to misuse and mishandling by the staff many companies include guidelines on how to care for company property. These policies also include how much (if any) and what types of personal use are permitted while using company's property.
- 13) **Policies and Procedures for Harassment and Discrimination:** Harassment at workplace includes bullying, stocking, verbal and physical harassment, sexual harassment and workplace discrimination. All this can negatively affect the motivation and efficiency of employees. Thus, most of the companies nowadays have policies on harassment and discrimination. These help in keeping employees safe and guarantee fair treatment by developing policies and procedures that prohibit behaviors.
- 14) Include information on how to report harassment and discrimination and explain that the company will not retaliate for reporting.
- 15) **Policies and Procedures for Expenses:** Employees need to tour and travel for company assignments. They also need to purchase things for work. Thus, having an expense reimbursement policy is very crucial for all the organizations. This type of policy has details such as acceptable expenses, reimbursement of transportation and meals, medical reimbursements etc. These type of policies also have procedures to submit reimbursement claims in a certain time limit.
- 16) **Drug and alcohol policy:** Workload, family tensions, anxieties can lead employees to indulge in drug and alcohol consumption. If it becomes a regular affair then employee gets habituated and his/her work efficiency is greatly reduces and may negatively affect the output and culture of the organization. Thus, most of the companies nowadays have policies against such practices.
- 17) **Policies and Procedures for Health and Safety:** Health and safety of employees is crucial for every organization. Policies related to health and safety of employees includes information to deal with illness or injury at workplace, equipment safety guidelines and procedures to report an injury or accident. It also includes procedures to follow in the event of a fire or natural disaster.

Policies help in developing a good working operational model and this in turn motivates employees to perform and develop company standards. Employees refer to company policies for guidance on their roles,

responsibilities, business principles, ethics and beliefs — for compliance reasons and to ensure a healthy company culture. Written policies and procedures also help protect your company from potential legal action. After investing time and resources creating these policies, make sure employees read, understand and apply them to their daily job responsibilities.

Policies and procedures play a very important role as they define an organization's guiding principles and providing detailed task instructions. Policies and procedures form the basic structure of business operations. It's important to have clear policies, procedures and processes.

Procedures can also improve the consistency of product and service delivery by the staff. It helps in achieving optimum staff performance. These create standards and help everyone to know how to operate. For ex: If a work area catches fire then what procedure would be followed for evacuation and safety or what procedure would be followed for registering vendor complaints. Formulating and implementing formal policies and procedures can result in smooth and efficient flow of work. They communicate the values and vision of the organization, ensuring employees understand exactly what is expected of them in certain situations.

As both individual and team responsibilities are clearly documented, there is no need for trial-and-error or micromanaging. The policies and procedures must be written in a manner that the employees are able to understand them easily.

Formal policies and procedures act as guides while handling HR issues. The unavailability of written policies causes waste of time and effort to agree on course of action. With strict guidelines issued it is easy to follow the procedures and enforcing policies becomes easier. Policies and procedures controlling the way in which businesses operate. Implementing these documents also improves the way an organization looks from the outside. Formal policies and procedures help to ensure your company complies with relevant regulations. They also demonstrate that organizations are efficient, professional and stable. This can lead to stronger business relationships and a better public reputation.

REVIEWING POLICIES AND PROCEDURES:

Documents that must be reviewed from time to time regularly and updating them when necessary is the key to their success. Various laws and guidelines are amended from time to time by government and hence it becomes important for organizations too to make necessary changes in their policies and procedure to conform to amendments and latest developments. Thus to summarise we can say that:

Policies

- Are general in nature
- Helps in identification company rules
- Gives explanation of their existence
- Tells application of rules
- Describe concerned workers/ departments
- Explains enforcement of rules
- Prelists the consequences
- Are written in simple sentences and paragraph

Procedures

- Helps in identification of specific actions
- Describes situation when actions are needed
- Suggests alternatives
- Enlists emergency procedures
- Explains warning and cautions
- Provides examples and explanations
- Enlists steps to complete forms
- Are normally written using an outline format

Policies and procedures are required for maintaining consistency in the day-to-day operational activities. Policies and procedures helps in giving clarity and also state clear accountability of the person responsible for critically important activities of the company, such as, health and safety, legal liabilities, regulatory requirements or issues that have serious consequences.

Benefits of Following Company Policies and Procedures:

Policies and procedures protect business interests of the company on one hand and they also protect workers' rights on the other hand. They also provide a vision and mission to the company and thus in turn help in achieving standards of customer service. Together the two make sure that the company achieves the desired outcome in the most efficient way.

Benefits of Policies and Procedures

- Policies and procedures help the employees to understand their job constraints better, as all the key points are stated with clarity.

- It helps in saving time and resources by enabling the workforce by clear understanding of their responsibilities and keeping all of them on the same page.
- It also helps managers to exercise control by exception rather than 'micro-manage' their staff.
- Clearly written policies and procedures provide legal protection to the company.

Activities

Activity 1:

Visit any industry and enquire and study about its policies. Prepare a detailed report of the policies followed by them.

Material Required:

- 1) A4 size papers, chart papers and file covers
- 2) Coloured pen and pencils, permanent markers
- 3) Eraser and sharpner
- 4) Scale / Ruler

Procedure:

- 1) Visit any nearby industry or a company.
- 2) Meet their human resources manager.
- 3) Discuss about various policies and procedures followed by their company and also read their policy manuals and presentations.
- 4) Prepare a detailed report.
- 5) Write your observations in the form of a report in your file.
- 6) Paste related photos and pictures.

Activity 2:

Visit any industry or company. Talk to its employees and observe the working and employees. Prepare a report on the ethics and values being followed in that organisation / industry

Materials Required:

- 1) A4 papers or file

- 2) Coloured pen, pencils, permanent marker etc.
- 3) Scale
- 4) Eraser and sharpner

Procedure:

- 1) Visit any industry, organisation or head office in your vicinity.
- 2) Observe the sign boards, working of the employees and also talk to the employees to find out the working environment, various ethics and regulations followed there.
- 3) Prepare a report and write in your file.

Check Your Progress**FILL IN THE BLANKS:**

- 1) Ethics are a form of self-regulation and normally contain general principles to guide behaviour. Ethics is also known as _____.
- 2) It is not ethical on the part of a packer to show that fabric in store is damaged when it is not and sell it secretly in the market to earn some _____.
- 3) The term ethics is derived from the Greek word ethos which can mean custom, habit, character, or _____.
- 4) Honesty, integrity, loyalty, keeping promises are all examples of _____.
- 5) Values are basic and fundamental beliefs that motivate or guide actions of people and can be personal, cultural or _____.
- 6) Generally speaking, 'values' mean desirable, good or worthwhile and are principles and ideals, which help us in making the judgment of right and _____.
- 7) Ethics and values help businesses and organizations in achieving their goals, without compromising on security, peace, and well-being of the society and _____ at large.
- 8) An ethical and value-based approach to management is beneficial for both, the company as well as the _____.
- 9) A company policy helps achieve employee wellness, fair treatment and also ensures that a company is following laws and _____.
- 10) Procedures are the specific methods which inform employees as to how the daily duties should be performed. Every department in a company or an organization has an _____ or standard Operating Procedure.

Short Question Answers:

- 1) What do you mean by ethics? Give one example also.
- 2) What are the benefits of following an ethical and value-based approach to management?
- 3) What are the benefits of following an ethical and value based approach to workers?
- 4)

Long Question Answers:

- 1) Write differences between policies and procedures.
- 2) Why it is important for a company to have policies and procedures? Describe in your own words.

Session: 2 Environmental Management Procedures, Security Details, Potential Accidents and Emergencies

Every organization has an Environmental Management System (EMS) that helps it in achieving its environmental goals. This is done through consistent reviewing, evaluation, and improvement of its environmental performance. This approach reduces the risk of non-compliance and improves health and safety practices of the workers.

Basic procedures followed under EMS are as follows:

- Review of the environmental goals of the organization.
- Analysing its environmental impacts and legal requirements.
- Setting targets for reduction of harmful impacts on environment and comply with legal requirements.
- Introducing and implementing programme to meet these objectives and targets.
- Monitoring and measuring progress in achieving the objectives.
- Ensuring employees' environmental awareness and competence.
- Reviewing progress of the EMS and making necessary improvements.

Potential Benefits of implementing EMS:

- Improved environmental performance.
- Enhanced compliance
- Pollution prevention
- Resource conservation
- Increased efficiency leads to reduced costs.
- Enhanced morale of workers
- Enhanced image with public, regulators, lenders and investors.
- Employee awareness of environmental issues and responsibilities.

Layout of the plant and details of emergency exits/routes, emergency equipment and assembly points:

Plant layout is the most effective physical arrangements of machines, processing equipments and service departments. A good plant layout helps in achieving proper coordination of men, materials and machines. The adequacy of layout affects the efficiency of daily operations in any company/organisation. A plant layout involves the allocation of space and the arrangements of equipments in such a manner that overall operating costs are minimised. Plant layout is planning the path each component/part of the product is to follow through the plant.

Plant layout also affects the security and stability of the company. While deciding the layout of the plant and allocating space for various machines and operations, security should never be compromised. It should utilise the space most effectively while maintaining the security of the men, machines and the premises. It should provide workers convenience; promote job satisfaction and safety for them. A well-designed plant layout helps in achieving the following objectives.

- Proper utilisation of available floor space.
- Ease of transportation.
- Efficient utilisation of production capacity.
- Reduction in material handling cost.
- Reduction in number of accidents.
- Provide ease of supervision and control.
- Ensures employee safety and health.

Plant layout ensures the following measures of safety at the workplace.

- Firefighting equipment list and its placement.
- Fire safety plan for evacuation in case of emergency.
- Emergency evacuation diagrams (details of emergency escape/exit routes).
- Assembly points at the time of emergency.
- Appropriate placement of machineries.
- Allocation of proper space for waste disposal.
- Proper placement of First Aid Boxes in case of medical emergencies.

- Allocation of proper space for drinking water and sanitation facilities.



Fig.: 5.2 Fire Extinguishers symbol and equipment

Potential accidents, emergencies and response:

Emergencies or disasters are not at all welcome in any organization as they effect the health and life of employees and in turn also effect the business. However, the truth is that despite all the precautions and safety measures, emergencies and disaster can occur any time and anywhere. Sometimes these emergencies and disaster occur at a time when they are least expected. At such difficult times the corrective measures are necessary to overcome such situations.

An incident/potential accident that can occur during the process of production or services if left un-attended can lead to injuries, complication leading to disability, death, or prolonged hospital stay for a worker.

Awareness of incidents at workplaces is a key factor in preventing them at yours. Following are some of the most common causes of accidents at the workplace:

- 1) Heavy Lifting
- 2) Fatigue
- 3) Dehydration
- 4) Poor Lighting
- 5) Hazardous Materials
- 6) Fire Accidents
- 7) Acts of Workplace Violence
- 8) Trips and fall

- 9) Stress
- 10) Explosions
- 11) Chemical spills
- 12) Heat Waves

The best way is to prepare ourselves to respond to an emergency before it happens. Few people can think clearly and logically in a crisis, so it is important to do so in advance, when we have time to prevent any crisis as rightly said “prevention is better than cure”. Industries also run mocks or drills to train people/workers about what to do and how to act in case of emergencies.

Emergency Response Plan

The initial minutes of an emergency are very critical and require immediate action. Promptness in announcing warnings and instructions to employees for evacuation, shelter or lockdown can save their lives. Public emergency services such as police, fire department, hospitals should also be called for immediate action. All employees must be trained in first aid, emergency evacuation, fire drills etc.

Proper risk assessment should be done for developing an emergency response plan for this all potential emergency scenario should be clearly identified. An understanding of potential emergency scenarios can also help us to plan an arrange all resources and procedures required to prevent them in the first place. The emergency plan should be consistent with our performance objectives.

Development and implementation of an emergency plan is vital for every industry. This is specially required for protection of all the employees, visitors, contractors and anyone else visiting and working in the organization. This emergency plan also includes building evacuation through fire drills, sheltering practice from severe weather such as lightning, floods etc. There should also be a provision for shelter - in - place from air borne hazards such as a chemical release. Safety of life should always be the first priority is case of emergencies. Stabilization of the incident and normalization of the situation should be the second priority. Employees should be aware of the action that should be taken to stabilize untoward incident.

For example - Employees should be trained to use the fire extinguisher efficiently for controlling small fire accidents. Containment of a small chemical spill and supervision of building utilities and systems can

minimize damage to a building and can help prevent any environmental damage. A plan should be well established and resources should be on hand, or quickly available as response to any potential accident or emergency.

Different type of signboards at workplace and their application

Safety signboards are essential components within the apparel industry, serving as visual cues to communicate crucial information regarding potential hazards, safe practices, and emergency procedures. These signboards play a pivotal role in maintaining a safe and secure working environment for employees, reducing the risk of accidents and injuries. Here's an overview of safety signboards commonly used in the apparel industry:

- 1) **Caution Signs:** Caution signs are used to warn employees about potential hazards that may not result in serious injury or death but can still cause harm. In the apparel industry, caution signs might indicate areas where there's a risk of tripping, slipping, or falling. These signs are usually depicted using a yellow background with black text and symbols.
- 2) **Danger Signs:** Danger signs are used to indicate situations that could result in serious injury or death. In the context of the apparel industry, danger signs might be used to mark areas with heavy machinery, high-voltage equipment, or other life-threatening risks. These signs typically feature a red background, white text, and a bold, easily recognizable symbol.
- 3) **Emergency Exit Signs:** These signs are crucial for indicating the locations of emergency exits and evacuation routes. In the apparel industry, where factories can be large and complex, these signs guide employees to safety during emergencies like fires or other crises. They usually feature a green background with white text and a pictogram of a person exiting a door.
- 4) **Fire Safety Signs:** Fire safety signs convey information about the location of fire extinguishers, fire alarms, and fire assembly points. These signs help employees respond quickly and appropriately in case of a fire emergency. Fire safety signs are often red or green, with white text and symbols.
- 5) **Personal Protective Equipment (PPE) Signs:** PPE signs remind employees to wear appropriate protective gear when entering specific

areas. In the apparel industry, where there might be exposure to chemicals, heat, or noise, these signs play a crucial role in preventing injuries and maintaining workplace safety.

- 6) **Chemical Hazard Signs:** For apparel factories that handle chemicals for dyeing, printing, or other processes, chemical hazard signs inform workers about the potential risks associated with specific substances. These signs use recognizable symbols and color codes to indicate the type and severity of the hazard.
- 7) **First Aid Signs:** First aid signs indicate the location of first aid kits and medical facilities within the workplace. These signs ensure that employees can quickly access necessary medical supplies in the event of an injury.
- 8) **Restricted Area Signs:** These signs are used to restrict access to certain areas that pose a danger to unauthorized personnel. In the apparel industry, restricted areas might include machine rooms, storage areas with heavy loads, or areas with ongoing maintenance work.
- 9) **Machine Safety Signs:** These signs are placed on machines to provide instructions on safe usage, maintenance, and proper procedures. They help prevent accidents caused by incorrect operation or lack of awareness.
- 10) **Training and Safety Awareness Signs:** These signs serve as reminders for employees to undergo regular safety training and maintain awareness of safety protocols. They encourage a safety-conscious mindset among workers.
- 11) In the apparel industry, safety signboards serve as an integral part of the overall safety management system. They help prevent accidents, reduce downtime due to injuries, and promote a culture of safety among employees. It's important for these signboards to be clearly visible, easy to understand, and regularly maintained to ensure their effectiveness in promoting workplace safety



Fig.: 5.3 Safety Signs

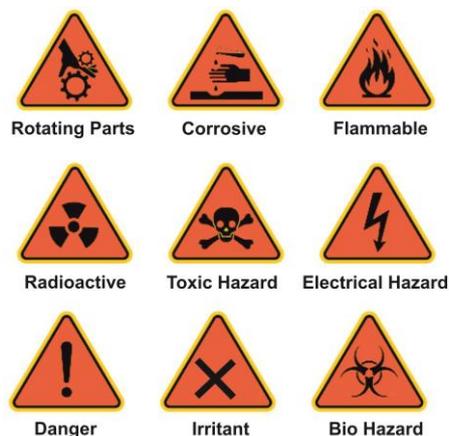


Fig.: 5.4 Warning Signs

Following table shows some types of hazards at workplace and the related safety measures which should be taken care of:

Hazards	Safety Measures
Spreading and Cutting	
Finger and hand injuries from spreading machines	Wear gloves and handle paper tags mindfully.
Finger and hand injury from moving or idle cutting devices	Ensure that the finger guard is adjusted to the correct height of the carton to be cut. Learn and use the correct handling techniques for the tool.
Finger and hand injury package lifting area.	Ensure that the two-handed control system is functioning properly. A light sensor should stop the machines when the working area is transgressed
Finger and hand injury in the press	Safety guards should be checked daily for correct operation
Burns from hot beds	Never attempt to retrieve, or adjust the position of components whilst they are being fed, or are on the bed
Finger and hands injury in feeding and unloading	A press which has to be controlled using both hands must be operated by the one person. Operators must be well trained and practiced in laying the parts on the feeding belt conveyor
Finger and hand injury during cleaning and repair work	The machine must be switched off, with plug removed and must be

	stationary before any cleaning or repair work is started
Finder injury from the needle	Correct setting of the finger guard should be checked before work starts
Pulled hair and face injury from the yarn feeder	Long hair should be gathered and pinned up or a hairnet should be worn. A safety guard should be provided for the yarn feeder
Hand and finger injury from fastening devices on hook, eyelet and rivet machines.	Correct setting of the safety guards should be checked. Training must be given in the correct handling techniques for holding and feeding materials
Eye injury from breaking needles or buttons at the button sewer, or breaking needles at the loop sewer	Proper adjustment of eye shield should be checked before work starts. Cracked or obscured shields should be replaced, or safety glasses should be issued.
Contact with Scissors and Needles	
Cuts and pricks from sharp points	Sharp pointed scissors should not be left unprotected. They should be kept in special holders (leather holsters cases) carried e.g. on a belt and stowed away properly after use.
Internal injury from swallowed items	Never store items temporarily in the mouth. There is a danger of swallowing them as a result of coughing sneezing or being startled. Place needles in the proper container or in a needle cushion.
Burns from hand irons	Hand irons should be protected from overheating by a thermostat. Non-flammable material should be used for the working area.
Finger and hand injury from the press	A machine which requires two hands to operate it must never be operated by two people never attempt to adjust the position of parts after the closing process has started a safety bar must be fitted which stops and raises the head when it is touched

Inhalation of solvent vapors, skin damage or reaction to contact with solvents	Ensure adequate ventilation, only the equipment in materials actually required for a given working shift should be present
Fire hazard	An adequate distance must be maintained at least 5 meters from any potential ignition source.
Hazardous chemicals	Safety warning instructions on the container should be observed and appropriate working method adopted
Head injury from overhead transport systems with suspended carriers	Head protection (padded hard hats) should be provided with the transporter rails pass over a walkway the floor should be marked with black and yellow warning strips
Trapped fingers when maneuvering careers over points	Safety guards should be fitted and proper training in handling method should be given
Falling from raised service platform and access points	Safety guards have to be in place. Specialized equipment should be used for servicing trolleys and proper handling procedures observed
Hand and finger injury from conveyors	Equipment must be guarded, and the safety guards must never be removed
Accidental injuries from tripping over the feet of movable hanger stands	Movable hanger stand should be found only in designated areas. They should not encroach on to marked walkways

Activities

Activity 1:

Prepare a detailed report on personnel trained in first aid, firefighting and emergency response.

Materials Required:

- 1) Practical File
- 2) Coloured pens and pencils

- 3) Ruler
- 4) Eraser

Procedure:

- 1) Visit an industry.
- 2) Prepare a questionnaire.
- 3) Interview people trained for emergency services.
- 4) Document it and prepare a detailed report of the same.

Check Your Progress**Fill in the following blanks:**

- 1) Every organization has an _____ that helps it in achieving its environmental goals. (Environmental Management System (EMS))
- 2) A good plant layout helps in achieving proper coordination of men, materials and _____. (machines)
- 3) _____ are used to warn employees about potential hazards that may not result in serious injury or death but can still cause harm. (Caution signs)
- 4) Fire safety signs convey information about the location of _____, fire alarms, and fire assembly points. (fire extinguishers)
- 5) Restricted areas might include _____, storage areas with heavy loads, or areas with ongoing maintenance work. (machine rooms)

Questions Answers:

- 1) Explain any two types of Signboards that are used (with diagrams).
- 2) Describe health and safety measures taken in a garment industry.
- 3) State some potential benefits of implementing EMS.
- 4) Write in your own words how would your response to an accident or emergency of fire breakout in a corner of the finishing and packing department.

Session: 3 Teamwork And Support To Supervisor

A team is a group of individuals working together to achieve a common goal. In the dynamic realm of the apparel industry, where trends change as swiftly as the seasons, the concept of teamwork stands as an essential pillar driving success. The intricate tapestry of this sector requires a seamless collaboration among individuals possessing diverse skills, talents, and perspectives. Teamwork in the apparel industry transcends the conventional understanding of mere cooperation; it embodies a harmonious symphony where designers, manufacturers, marketers, and distributors unite their efforts to create and deliver clothing that not only reflects style but also meets the ever-evolving demands of consumers.

At the core of the apparel industry's teamwork lies the creative fusion of designers' imaginations and artisans' craftsmanship. Designers conceptualize the trends and styles that capture the essence of contemporary culture, drawing inspiration from art, nature, and societal influences. However, it is the skilled craftsmanship of the manufacturing team that breathes life into these concepts. The synergy between designers and manufacturers is pivotal, as their collaboration ensures that the envisioned designs are translated into tangible garments with precision and finesse.

As the industry hurtles through globalization and digitalization, effective teamwork becomes the linchpin for adaptability and innovation. Marketers work in tandem with designers and manufacturers to understand the pulse of the market and identify consumer preferences. Their insights guide the development process, ensuring that the created apparel aligns with the desires and aspirations of the target audience. This interplay between creativity and market acumen exemplifies how teamwork is not only about collaboration but also about leveraging each member's strengths to achieve collective goals.

The apparel industry is a labyrinthine network encompassing supply chains, distribution channels, and retail outlets. Here, the orchestra of teamwork echoes even louder, as logistics experts, suppliers, and retailers coalesce their efforts to ensure the seamless movement of garments from the production floor to the retail shelves. A delay in any link of this chain can reverberate through the entire process, underscoring the industry's reliance on the synchronization of teams operating across different geographies and time zones.

Communication stands as the cornerstone of effective teamwork in the apparel industry. In a realm where a design tweak, a material switch, or a delivery rescheduling can have far-reaching consequences, clear and open lines of communication are non-negotiable. Regular meetings, both virtual and physical, facilitate the exchange of ideas, the resolution of challenges, and the alignment of strategies. The digital age has bestowed tools that transcend physical barriers, enabling real-time collaboration among global teams, further emphasizing the indispensability of teamwork in the modern apparel landscape.

The apparel industry exemplifies how teamwork transcends a mere organizational construct, evolving into a fundamental philosophy that drives its very essence. It unites the visionary creativity of designers, the meticulous precision of manufacturers, the strategic acumen of marketers, and the logistical expertise of distributors into a cohesive force that delivers the latest trends into consumers' closets. As the industry continues to evolve amidst technological disruptions and changing consumer behaviors, teamwork remains the linchpin that ensures agility, innovation, and collective success. In an ever-shifting landscape, the harmony of teamwork stitches together the fabric of the apparel industry's triumph.



Fig.:5.5 Policies & Procedures

In the intricate world of apparel manufacturing, the Finishing Department holds a crucial role in transforming raw garments into polished, market-ready products. This final stage requires a seamless collaboration of skilled individuals, embodying the essence of teamwork to ensure the highest quality and efficiency. From pressing to quality control, every step demands a cohesive effort to deliver garments that meet or exceed customer expectations.

- 1) **Diverse Expertise:** The Finishing Department consists of diverse roles, each with its own expertise. These include pressers, quality

inspectors, thread trimmers, and more. Teamwork thrives when each member's unique skills are acknowledged and integrated seamlessly into the process. For instance, pressers ensure that garments are properly steamed or ironed, while quality inspectors meticulously scrutinize every detail, ensuring that each garment meets established standards.

- 2) **Effective Communication:** Communication forms the bedrock of effective teamwork. Clear and open channels of communication within the Finishing Department facilitate the exchange of information, allowing team members to understand their tasks, share insights, and address any issues that arise. Regular team meetings, briefings, and updates on production progress foster a collaborative environment where everyone is on the same page.
- 3) **Mutual Dependence:** In the Finishing Department, tasks are often interdependent. For instance, a garment can only move from pressing to quality inspection once it has been properly treated. This mutual dependence necessitates a cohesive approach, as delays in one aspect of the process can ripple throughout the entire department. Recognizing their shared goals, team members naturally cooperate to ensure a smooth flow of work.
- 4) **Problem Solving:** Apparel finishing can be intricate, requiring on-the-spot decision-making and problem-solving. Teamwork in this context allows for collective brainstorming when challenges arise. Whether it's addressing a specific fabric's pressing requirements or finding ways to salvage a slightly flawed garment, a diverse team can draw upon various perspectives to arrive at innovative solutions.
- 5) **Efficiency and Productivity:** Efficient teamwork directly impacts productivity. In the Finishing Department, a well-coordinated team can significantly reduce turnaround times, ensuring that garments move swiftly from production to market. By dividing tasks strategically and utilizing each member's strengths, the team optimizes efficiency without compromising on quality.
- 6) **Quality Assurance:** Quality is paramount in the apparel industry. A robust team effort in the Finishing Department guarantees that garments leave the production line with the highest level of quality. This involves not only meeting the visual and tactile standards but also ensuring that each piece adheres to safety regulations and customer expectations.
- 7) **Adaptability:** Apparel trends and customer demands can shift rapidly. A strong team in the Finishing Department is adaptable,

ready to pivot and adjust their processes to accommodate new requirements. Whether it's incorporating eco-friendly practices or embracing new fabric technologies, a collaborative team can readily evolve with the industry.

- 8) **Employee Morale:** A harmonious team contributes to positive employee morale. When team members feel valued, supported, and engaged, they are more likely to approach their tasks with enthusiasm and dedication. This emotional investment translates to higher job satisfaction and, consequently, better results.

In conclusion, teamwork in the Finishing Department of an apparel industry is not just a strategy but a necessity. The seamless coordination of skills, effective communication, mutual dependence, problem-solving, and a shared commitment to quality all contribute to the success of this crucial stage in garment production. By fostering an environment where each team member's expertise is acknowledged and utilized, the Finishing Department ensures that every garment leaving its hands is a testament to the power of collaborative effort

Providing support to supervisor and team members for enforcement of company policies and procedures:

A collaborative and supportive work environment is crucial for a successful organization. Implementation of policies and procedures cannot be done without the support of employees. Every employee in turn must provide support and cooperation to the supervisor as well as other team members for effective implementation of company policies and procedures. This will go a long way in achieving the targets and goals set by the company / organisation. Apparel production companies have different departments such as store department, cutting department, stitching department, finishing and quality department etc. All these departments require supervisors to manage and motivate workers. A supervisor also takes care of work routines, attendance, adherence to company policies etc. For ex. in a packing and finishing department, the store supervisor is responsible for guiding and training the support staff about ironing, labeling, tagging and proper packing of material.

Supervisors are also responsible for training of new employees as well as continuous training of old staff as equipment, technology and processes keep getting renewed. They are also responsible for performance evaluation, maintaining discipline, creating and managing spreadsheets etc. However a supervisor cannot do this alone. They need the support and cooperation of their teams and employees to achieve all this.

Committed employees bring added value to the organisation through their determination, proactive support, relatively high productivity and awareness of quality. These types of employees also display positive behavior within organisations and thus are very sought after or in demand.

In any industry, the relationship between employees and supervisors forms the backbone of effective operations and successful outcomes. While the role of a supervisor entails managing teams, setting goals, and ensuring productivity, employees also play a pivotal role in supporting their supervisors. This chapter delves into the significance of employee support for supervisors and outlines strategies for fostering a collaborative and supportive work environment.

Understanding the Importance of Employee Support

- **Mutual Growth:** When employees actively support their supervisors, it leads to a reciprocal relationship of growth. Supervisors can focus on strategic decision-making and long-term planning when they have a dependable team that provides consistent support.
- **Boosting Morale:** A positive working dynamic can significantly impact morale. When employees rally behind their supervisors, it creates an atmosphere of trust, camaraderie, and motivation, enhancing overall team morale.
- **Effective Communication:** Employee support ensures open lines of communication between supervisors and their teams. This facilitates the flow of ideas, feedback, and concerns, leading to improved decision-making and problem-solving.

Strategies for Employees to Support Supervisors

- 1) **Clear Communication:** Employees should maintain transparent communication with their supervisors. Regular updates on project status, challenges faced, and potential solutions can help supervisors make informed decisions.
- 2) **Respect for Authority:** Respecting the authority and decisions of supervisors is crucial. Even in cases of disagreement, employees should express their views respectfully and constructively.
- 3) **Initiative and Pro-activeness:** Employees can take the initiative to identify areas that need attention or improvement. This proactive approach showcases dedication and a willingness to contribute beyond assigned tasks.

- 4) **Offering Constructive Feedback:** Feedback should be a two-way street. Employees should provide constructive feedback to supervisors, highlighting areas of improvement while acknowledging their strengths.
- 5) **Supporting Time Management:** Assist supervisors by being punctual, meeting deadlines, and helping them manage their time effectively. This ensures smoother workflow for the entire team.
- 6) **Skill Enhancement:** Employees can invest in developing their skills, which not only benefits their own career but also equips them to contribute more effectively to the team's goals.
- 7) **Team Collaboration:** Encourage a culture of collaboration and teamwork. When employees work well together, it lightens the load on supervisors and promotes a harmonious work environment.
- 8) **Acknowledging Achievements:** Recognize and celebrate both individual and team achievements. Acknowledging successes fosters a positive atmosphere and boosts the morale of both employees and supervisors.

Benefits and Outcomes

- 1) **Enhanced Efficiency:** Employee support allows supervisors to focus on high-priority tasks, leading to improved efficiency and productivity across the board.
- 2) **Innovation:** When supervisors receive comprehensive support, they can dedicate more time to innovation and strategic thinking, driving the industry forward.
- 3) **Reduced Burnout:** A collaborative environment lessens the burden on supervisors, reducing their chances of burnout and promoting long-term sustainability.
- 4) **Career Growth:** Employees who actively support their supervisors often gain valuable experience and exposure, positioning themselves for career advancement.
- 5) **Positive Organizational Culture:** The practice of supporting supervisors contributes to a positive organizational culture, attracting and retaining top talent.

The role of employees in supporting their supervisors is pivotal for the smooth functioning of any industry. When employees take an active role in providing assistance, communication, and collaboration, they contribute to the success of both the team and the entire organization. This chapter

underscores the reciprocal nature of this relationship and highlights how such support can lead to a thriving, innovative, and harmonious work environment

Below are some of the ways in which one can show support to the supervisor:

- Reaching workplace on time
- Keeping working area clean and hygienic
- Understanding expectations of supervisors and seniors and working accordingly
- Understanding and maintaining acceptable behaviour
- Not indulging in negative behaviour, gossip and negative practices
- Not indulge in illegal or banned work practices
- Reporting any spurious or illegal activity to the supervisor immediately
- Following proper channel while reporting deviations in company policies and procedures
- Being cordial with the team members
- Reporting accidents, damages, faults immediately.
The workers should immediately alert the supervisor and management about any serious deviations such as lapse in safety and security, workplace harassment etc in the company.

All the workers and employees must conduct themselves as per the companies or organisation's vision and mission. In order to achieve the goals or targets set by the company it is also very important to follow the company's policies and procedures. Employees or workers should avoid breaking rules

Planning and Managing Work Routines

Routines help you stay focused on the things that are most important. They bring discipline and give a smooth flow to various tasks. Having a proper work routine is known to boost the productivity and efficiency of workers and employees. Work routines help in achieving the assigned goals and daily targets in an efficient and organized manner.

Benefits of Proper Planning of Work Routines

- It gives a direction and purpose to the employees and they are able to give quality output.
- It helps supervisors in management of time and task allocation.
- It also helps the management in performance evaluation.
- It assists in proper resource allocation for the tasks.
- Work routines prevent employees from distraction and stay focused on assigned tasks.
- It helps in prioritising tasks and achieving the target in time.
- Thus work routines help in accomplishment of assigned tasks and boost efficiency and productivity of the staff.

Planning work routines as per company procedures and requirements

Every organization or company has specific procedures. Each company or organization has different goals and requirements. For ex. the requirements and procedures of an apparel/garment packaging company will be entirely different from that of a food and beverage company.

The work routines also differ from organization to organization. Thus it's very important to keep in mind the organizations policies, procedures and specific requirements while planning as well as managing work routines of the employees.

- Understand the goals and targets of the company, the resources available for achieving these goals and then plan the work routine.
- The strengths and skills of each employee should be kept in mind while planning work routines and tasks should be assigned as per the capability and efficiency of the employees.
- Due consideration should be given to recreation, entertainment and lunch breaks to keep the monotony away from work routines.
- There should be provision for time to time checking of work routines and managing last minute changes in schedule due to unforeseen causes such as sick leaves by employee, machine breakage etc.
- It should be flexible in the work routines of the employees due to unforeseen circumstances and communicate it too with workers.

Importance and benefits of punctuality and attendance

Punctuality and regular attendance are vital attributes for all employees. Employees should attend work regularly and arrive at work on time, because it affects work routine and productivity. When employees are absent or late, work and service are interrupted and an additional burden is placed on co-workers and colleagues. Unauthorized absenteeism and late arrival is liable for disciplinary action and may result in termination of employment also. Employees should inform their supervisor or concerned authority if they expect or anticipate to be late for work due to some unavoidable reason. If an employee fails to notify one's absence for a long period it can be considered as job abandonment and may result in termination of employment. Good attendance and punctuality helps in creating a professional image helps in securing a better position or role in the company

Attendance of workers and employees affects the people with whom they work. If one is present for work, completing the assigned tasks enables others to fulfill their tasks and responsibilities too. For example, if a packer charged with checking and packing items, the results could determine whether the products can be dispatched timely or not. One is consistently absent, packing and hence transportation and supply of goods will be affected and delayed. This in turn can result in loss to the company



Fig.:5.6 Punctuality and Attendance

Punctuality helps in developing a habit of regularity in behaviour and helps prevent procrastination. It enables one to be organised and on time to prevent stressful situations. One cannot be punctual unless one plans and organizes tasks smoothly. Thus, it can be said that punctuality makes us more organized and helps in managing situations in better ways. It contributes to being more productive in everyday life.

It is an important characteristic of successful people. Valuing and making productive use of time eventually leads to success. Punctuality comes with effective time management of time and completion of tasks. It is also a mark of discipline. It is a virtue that reflects regularity and organised work ethics.

These are virtues that come along with punctuality and are important elements for success. For ex. A 'Packer' who is punctual will arrive at least 15 -20 minutes prior to the start of shift, will not waste time in talking or whiling away and will use time judiciously and meticulously to pack the material systematically in given time. Also a punctual person will not leave work prior to the end of assigned/scheduled work time and without prior approval of in charge or supervisor.

A person who is punctual will not extend meal or tea time, will not indulge in workplace gossip and hence will be able to perform better and do quality work.

Benefits of Punctuality

Punctuality helps the individuals to be more productive and successful in their approach towards life. It is strongly linked with success and achievement. It is associated with happiness in every spheres of life. Inculcating punctuality in our lives helps in crossing various hurdles and challenges. Punctuality demonstrates respect for co-workers and clients and enhances time-management skills. It is a sign of professionalism and helps one to stand out as a reliable, dependable and trustworthy employee / worker. Punctuality is often the key to completing projects and assignments quickly and effectively.

Activities

Activity 1:

Visit any factory or company. Talk to their manager and find out the ways in which they manage and check the attendance and punctuality of their staff. Also research online for the latest ways of checking the attendance. Make a PowerPoint presentation using pictures as well as text.

Materials Required:

- 1) Notebook
- 2) Pen
- 3) Pencil
- 4) Eraser
- 5) Computer

Procedure:

- 1) Visit the company or browse online.
- 2) Write down the necessary points as directed in the question.
- 3) Make a power point presentation.
- 4) Present in the class and discuss about the same.

Activity 2:

Prepare a graphical chart on the importance of punctuality.

Material Required:

- 1) Chart paper
- 2) Pictures
- 3) Colour pens
- 4) Pen, pencils, markers
- 5) Eraser
- 6) Ruler

Procedure:

- 1) Read and collect material on punctuality
- 2) Collect pictures.
- 3) Write about punctuality in the chart
- 4) Paste related picture

Check Your Progress**Fill in the blanks:**

- 1) One of the ways in which employees can show support to the _____ is by reaching the workplace on time.
- 2) _____ helps in developing a habit of regularity in behavior and helps prevent procrastination.
- 3) In a packing and finishing department, the store supervisor is responsible for guiding and training the support staff about ironing, labeling, tagging, and proper packing of material.

- 4) Understanding the goals and targets of the company, the resources available for achieving these goals, and then planning the work routine is essential for _____.
- 5) A company's policy on substance abuse aims to prevent _____ among employees, which can lead to scuffles, daily fights, and reduced work efficiency.

Short question answers:

- 1) What is meant by routine? Why it is important to have routines?
- 2) What are work routines and how do they affect production cycle?
- 3) What do you mean by punctuality? Why is it important?
- 4) Why is attendance necessary in companies?
- 5) What do you mean by teamwork? Write its benefits?

ANSWER KEY**MODULE – 1****SESSION: 1****Fill in the Blanks**

1. Packing
2. 18th century
3. Display
4. Finishing and packing department

SESSION: 2**Fill in the Blanks**

1. Packing, Pre-packing
2. Ironing
3. Good Eyesight
4. Accepted Quality Level (AQL)

MODULE – 2**SESSION: 1****Fill in the Blanks**

1. Abrasion resistance
2. Barrier material
3. Collapsible

SESSION: 2**Fill in the Blanks**

1. Natural deterioration
2. Secondary package
3. Primary package
4. Waste
5. Shipping

SESSION: 3

Fill in the Blanks

1. Label
2. Cost-effective
3. Product identification
4. Merchandise package
5. Blister Packing

MODULE – 3**SESSION: 1****Fill in the Blanks**

1. Finishing and packing
2. Garment measurements
3. Production time
4. Center Back
5. Inside edge
6. Durability

SESSION: 2**Fill in the Blanks**

1. Brand
2. Care
3. Stand up pack
4. Steam pressing machine

SESSION: 3**Fill in the Blanks**

1. Fabric quality and Appearance
2. Softeners
3. Color enhancers
4. Ink stains
5. Discoloration and staining
6. Packing List

MODULE – 4**SESSION: 1**

Fill in the Blanks

1. Personal Protective Equipment
2. Cleaning and maintenance
3. Gum boots
4. Ear Muff or ear plugs

SESSION: 2**Fill in the Blanks**

1. Inventory
2. Packing
3. Recycling
4. Regular maintenance
5. Sludge and wastewater
6. Waste disposal

SESSION: 3**Fill in the Blanks**

1. Personal hygiene
2. Hand disinfectant liquid
3. Emotional boost
4. Health
5. Poor housekeeping

SESSION: 4**Fill in the Blanks**

1. Hazard
2. Chemicals
3. Musculoskeletal disorders
4. Flammable materials
5. Machinery

MODULE – 5**SESSION: 1****Fill in the Blanks**

1. Moral philosophy

2. Extra money
3. Disposition
4. Ethics
5. Professional
6. Wrong
7. People
8. Workers
9. Regulations
10. SOP

SESSION: 2

Fill in the Blanks

1. Environmental Management System (EMS)
2. Machines
3. Caution signs
4. Fire extinguishers
5. Machine rooms

SESSION: 3

Fill in the Blanks

1. Supervisor
2. Punctuality
3. Store supervisor
4. Planning work routines
5. Substance abuse

GLOSSARY

- ❖ **Air/moisture permeability:** describes a material's ability to allow water vapor to pass through it.
- ❖ **Approved sample or prototype or fit sample:** It is the first sample for garment style which is used as the base for all of the production.
- ❖ **Bulk exports:** Export garments or textile products in bulk.
- ❖ **Bursting strength:** the capacity of a material (such as a paper or textile) to maintain in continuity when subjected to pressure broadly.
- ❖ **Cognoscibility:** Capable of being perceived or known.
- ❖ **Corrugated:** series of parallel ridges and grooves so as to give added rigidity and strength.
- ❖ **Dimensional stability to heat and sunlight:** able to withstand high temperatures and UV-rays.
- ❖ **Drafting:** Drafting is the process of creating a pattern by taking measurements from a person, form, or model, in order to create a foundation, which is a pattern used as the basis for the design.
- ❖ **Fabric:** A fabric is two dimensional structure which is produced by a network of yarns and fibers.
- ❖ **Flammability:** Flammability testing determines how easily a material or finished product will ignite or burn when exposed to or used near fire or heat.
- ❖ **Forklift:** A forklift is a powered industrial truck used to lift and move materials over short distances.
- ❖ **Grading:** Grading, or pattern grading, is the process of creating a range of sizes for a single apparel style. The purpose of grading is to properly fit a pattern to a range of sizes.
- ❖ **Inspection:** Garment inspection refers to the visual examination of garment so that the final product coincides with the perceived quality standards.
- ❖ **Interlining:** Extra layer of fabric which is used to provide warmth and strength to the garment. It is sandwiched between the main fabric and the lining.
- ❖ **Inventory:** It refers to the array of material and products that are held as stock.

- ❖ **Job card:** A job card is production document, describes schedules and planning of each process as appropriate product and as per customer requirements according to customer provided schedule.
- ❖ **Lot:** It is the length of fabric that has been woven/dyed/ finished at the same time.
- ❖ **Marker:** A full scale diagram used for cutting parts and components of garment. It indicates the most fabric conscience arrangement of all the components of garment.
- ❖ **Marker Making:** a marker is a special kind of stencil that illustrates how pattern pieces of one or more garments should be cut from several layers of fabric.
- ❖ **Merchandising:** The activity of promoting the sale of goods, especially by their presentation in retail outlets.
- ❖ **Pattern:** A pattern is a guide which is used to cut parts and components of a garment from fabric for sewing operations.
- ❖ **Pattern blocks:** The block pattern is the sewing pattern previously created for the clothing style that has been perfected for a good fit. The block pattern is commonly used to efficiently build a new clothing style with minimal need for pattern revisions and corrections.
- ❖ **Pattern Making:** A pattern is the template from which the parts of a garment are traced onto fabric before being cut out and assembled. Patterns are usually made of paper, and are sometimes made of sturdier materials like paperboard or cardboard if they need to be more robust to withstand repeated use.
- ❖ **Porosity:** Porosity of a substance is defined as being full of tiny pores that moisture or air can get through.
- ❖ **Purchase Order (PO):** A legal contract between the manufacturer/ exporter and buyer
- ❖ **RFID:** Radio frequency identification tags are used to tag the material and products so that it can be easily traced through a barcode.
- ❖ **Sampling:** Sampling is a process of making a product proto-type prior to starting bulk production.
- ❖ **Shelf-life:** It is the duration for which a material can withstand environmental conditions without being affected.
- ❖ **Snagging:** Snagging is a defect caused by the pulling or plucking of yarns from a fabric surface

- ❖ **SOP:** Standard Operating Procedures refer to a step by step instruction set by an organization for a particular work.
- ❖ **Sunlight transference:** The transfer of sunlight or heat in the substance is known as sunlight transference.
- ❖ **Tearing strength:** force required to start or to continue to tear a fabric, in either weft or warp direction, under specified conditions.
- ❖ **Tensile strength:** maximum load that a material can support without fracture when being stretched.
- ❖ **Warehouse:** A warehouse is a building for storing goods.
- ❖ **Wholesaler:** a person or company that sells goods in large quantities at low prices, typically to retailers.

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