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APPAREL MADE-UPS HOME FURNISHING
SECTOR SKILL COUNCIL

Participant Handbook

Sector
Apparel

Sub-Sector
Apparel, Made-Ups & Home Furnishing

Occupation
Ironing

Reference ID: **AMH/Q0401, Version 4.0**
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Pressman – Stitched Items

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Shri Narendra Modi
Prime Minister of India

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for

SKILLING CONTENT: PARTICIPANT HANDBOOK

Complying to National Occupational Standards of

Job Role/ Qualification Pack: **'Pressman – Stitched Items'** QP No. **'AMH/Q0401, NSQF Level 2.5'**

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The preparation of this handbook would not have been possible without the Fashion Industry's support. Industry feedback has been extremely encouraging from inception to conclusion and it is with their input that we have tried to bridge the skill gaps existing today in the industry.

This participant handbook is dedicated to the aspiring youth who desire to achieve special skills which will be a lifelong asset for their future endeavours.

About this book

Welcome to the "Pressman – Stitched Items" training programme. This PHB is designed to provide participants with comprehensive knowledge about the principles and practices of maintaining security, ensuring vigilance, and safeguarding premises. It also focuses on planning, executing, and managing routine security tasks, conducting inspections, and verifying the integrity of individuals and documents as part of field operations.

This Participant Handbook is designed based on the Qualification Pack (QP) under the National Skill Qualification framework (NSQF) and it comprises of the following National Occupational Standards (NOS)/ topics and additional topics.

1. AMH/N0401: Carry out ironing activities in stitching and finishing operations
2. AMH/N0102: Maintain work area, tools and machines
3. AMH/N0103: Maintain health, safety and secure work place with Gender and PwD Sensitization
4. AMH/N0104: Comply with industry, regulatory,organizational requirements and Greening of Job Roles
5. DGT/VSQ/N0101:Employability Skills

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1. Introduction

Unit 1.1 - Overview of the Apparel Industry and Employment Opportunities

Unit 1.2 - Role and Contribution of a Pressman in Apparel Production

Bridge Module

Key Learning Outcomes

By the end of this module, the participants will be able to:

1. Describe the size and scope of the apparel industry.
2. Describe various employment opportunities for a 'Pressman – Stitched Items' in the apparel industry.
3. Explain roles and responsibilities of a 'Pressman – Stitched Items'.
4. Describe the apparel production process and the role that the 'Pressman – Stitched Items' plays in the process.

UNIT 1.1: Overview of the Apparel Industry and Employment Opportunities

Unit Objectives

By the end of this unit, the participants will be able to:

1. Discuss the size and scope of the apparel industry
2. List the employment opportunities for a pressman in the apparel industry

1.1.1 Apparel Industry

What is the Apparel Industry?

The Apparel Industry is the industry that makes and sells clothes and other types of clothing. It includes everything from making the fabric to stitching the clothes and selling them in shops or online. Clothes can include shirts, pants, dresses, jackets, sarees, and traditional Indian outfits like kurta and salwar.

How the Apparel Industry Works

The process starts with choosing the right materials, such as cotton, silk, wool, and synthetic fabrics. After that, the fabric is cut into different shapes and stitched together to make clothes. Designers create different styles and patterns based on customer preferences and fashion trends.

Once the clothes are ready, they are sent to shops, malls, or online stores where people can buy them. Many big brands and small businesses are involved in making and selling clothes. India has a rich history of textile and clothing production, with popular styles like handloom sarees, block prints, and embroidery being famous worldwide.

Importance of the Apparel Industry in India

The apparel industry is very important in India because it creates jobs for millions of people, including farmers who grow cotton, weavers, tailors, and shopkeepers. It also helps in earning money for the country by exporting clothes to other countries. Traditional Indian clothing like sarees, lehengas, and kurta-pyjamas are in high demand in foreign markets.

Types of Clothes in the Apparel Industry

The apparel industry includes different types of clothes:

- **Everyday wear:** Clothes like t-shirts, jeans, and dresses that people wear daily.
- **Traditional wear:** Clothes like sarees, salwar kameez, and dhotis that are worn during festivals and special events.
- **Formal wear:** Clothes like suits and blazers that are worn for office and business meetings.
- **Sportswear:** Clothes like tracksuits and shorts that are worn for exercise and sports activities.

Fig. 1.1.1: Different types of clothes

1.1.2 Size and Scope of the Apparel Industry

Size and Scope of the Apparel Industry in India

The **Apparel Industry** in India is one of the largest and most important industries in the country. It includes everything from making fabric to stitching clothes and selling them in shops or online. Clothes are made for different purposes, including daily wear, office wear, sports, and special occasions like weddings and festivals. India is known for producing high-quality fabrics like cotton, silk, and wool. The industry provides jobs to millions of people, including farmers, weavers, tailors, factory workers, designers, and shopkeepers.

India is one of the top producers of textiles and garments in the world. The Indian apparel industry is valued at **around USD 100 billion**, and it is growing every year. A large part of this industry is focused on exports, with Indian clothes being sold in countries like the United States, the United Kingdom, and the Middle East. Indian fabrics and traditional clothing styles like sarees, kurtas, and lehengas are highly valued in the international market because of their rich designs and fine craftsmanship.

Large-Scale Global Industry

The apparel industry is a huge global industry that covers the design, production, and distribution of clothes worldwide. People from different countries wear clothes designed and produced in other parts of the world. India plays a big role in the global apparel market because of its ability to produce large quantities of clothes at a low cost while maintaining high quality.

- **Design:** Designing clothes is an important part of the apparel industry. Designers create new patterns, styles, and colour combinations based on customer preferences and fashion trends. India is known for its rich cultural designs, including embroidery, block prints, and handloom patterns. International brands often look to Indian designers for inspiration.

- **Production:** After designing, the clothes are produced in factories. India has many textile mills and garment factories where workers cut, stitch, and finish clothes. Indian factories are known for their efficiency and ability to produce large volumes of clothes quickly. For example, cities like Tiruppur and Ludhiana are famous for producing knitwear and woollen garments, while Surat and Varanasi are known for silk and sarees.
- **Distribution:** After production, the clothes are sent to shops, malls, and online platforms where customers can buy them. Many international fashion brands source their clothes from Indian manufacturers because Indian-made clothes are affordable and high-quality. Large fashion houses and retailers in Europe and the US buy from Indian suppliers.

The global nature of the apparel industry means that a shirt designed in India could be manufactured in another country and sold in a different part of the world. Indian fabrics and designs are in high demand, making the Indian apparel industry an important part of the global market.

Different Types of Clothes

The apparel industry includes different segments of clothing, which are designed for different purposes:

1. **Casual Wear:** These are clothes that people wear every day for comfort and relaxation. This includes t-shirts, jeans, shorts, leggings, and casual dresses. In India, cotton is widely used for casual wear because it is comfortable to wear in hot weather. Kurtas and salwar suits are also common casual wear in India.

Fig. 1.1.2: Casual wear

2. **Formal Wear:** These are clothes worn in offices, business meetings, and formal events. For men, formal wear includes shirts, trousers, and suits. For women, it includes sarees, formal dresses, and salwar suits. Indian formal wear often includes silk sarees, embroidered kurtas, and blazers.

Fig. 1.1.3: Men's suit

3. **Sportswear:** These are clothes designed for comfort and flexibility during physical activity. Sportswear includes track pants, shorts, jerseys, and yoga pants. With the rise of health and fitness trends in India, the demand for sportswear has grown. Indian brands like HRX and Puma India are popular for their sportswear collections.

Fig. 1.1.4: Track pants

4. **Luxury Wear:** These are expensive clothes made from high-quality fabrics and designed by top designers. Luxury wear includes wedding dresses, lehengas, sherwanis, and designer sarees. In India, weddings and festivals create a large market for luxury clothing. Traditional embroidery work like zardozi, kantha, and chikankari is used to make luxury wear special and unique.

Fig. 1.1.5: Designer Wedding Lehenga

A Major Source of Jobs and Trade

The apparel industry is a major source of employment and income for millions of people in India. It provides work at different stages:

- **Farming:** Farmers grow cotton, silk, and wool, which are used to make fabrics. Cotton is one of the most important crops in India and is grown in states like Gujarat, Maharashtra, and Punjab. Silk production is famous in states like Karnataka and West Bengal.
- **Weaving and Dyeing:** After harvesting, the raw materials are processed into fabric. Weavers and textile workers spin the yarn and weave it into fabrics. India is known for its traditional weaving techniques like Banarasi silk and Kanjeevaram silk. Workers also dye fabrics in different colors and patterns.
- **Tailoring and Stitching:** Tailors and garment workers cut the fabric and stitch it into clothes. Many Indian cities have garment hubs where large quantities of clothes are produced. Tiruppur is known for making t-shirts and knitwear, while Ludhiana is famous for woollen clothes.
- **Retail and Export:** After production, clothes are sold in India and other countries. India exports clothes to countries like the United States, the United Kingdom, and Japan. Indian ethnic wear, especially sarees, lehengas, and kurtas, is popular among Indian communities living abroad.

Why the Apparel Industry Matters

The apparel industry plays an important role in India's economy and culture:

- **Economic Growth:** The industry contributes to India's GDP and helps improve the country's financial strength through exports.
- **Job Creation:** It provides employment to people from villages and cities, including many women and young workers.
- **Cultural Preservation:** Traditional Indian clothes like sarees, lehengas, and kurta-pajamas are appreciated worldwide. The industry helps keep Indian culture alive through its designs and patterns.
- **Global Influence:** Indian fabrics and designs are famous worldwide. International fashion brands often use Indian embroidery and fabric in their collections.

1.1.3 Employment Opportunities for a 'Pressman – Stitched Items'

A **Pressman – Stitched Items** is a person who works with stitched garments (clothes) to make them look neat and ready for sale. After clothes are stitched, they often have wrinkles or folds. A pressman uses steam irons, pressing machines, and other tools to remove wrinkles and give the clothes a proper shape. This helps the clothes look attractive and ready for customers. A pressman plays an important role in making sure that the final product looks neat and professional before it reaches the customer.

Fig. 1.1.6: Pressman in the Apparel industry

In India, the garment industry is very large and provides many job opportunities for pressmen. Clothes made in India are sold in local markets and exported to other countries. Therefore, there is always a need for skilled pressmen to handle the finishing of stitched garments. Pressmen work in different types of workplaces such as garment factories, export houses, fashion houses, and even small tailoring shops.

1. **Garment Manufacturing Units – Mass Production Finishing**

   Garment manufacturing units are large factories where clothes are made in large quantities (mass production). These factories produce clothes like t-shirts, shirts, trousers, dresses, and sarees. After the clothes are stitched, they need to be properly finished before packing and shipping.

Fig. 1.1.7: Garment Manufacturing

A pressman in a garment manufacturing unit works with steam irons and pressing machines to remove wrinkles and give the garments a neat appearance. For example, if a factory produces 1,000 shirts in a day, the pressman's job is to press and make sure all the shirts look clean and ready for sale. This work requires attention to detail and speed because large quantities of clothes need to be finished every day.

2. **Export Houses – Preparing Garments for International Markets**

   India exports a large number of clothes to other countries like the United States, United Kingdom, and Germany. Export houses handle the production and shipment of these clothes. Clothes meant for export need to meet high-quality standards because international customers expect neat and well-finished products.

Fig. 1.1.9: Apparel Export House in Lajpat Rai Market, India

A pressman working in an export house ensures that the clothes are properly pressed, clean, and neatly folded before packing. For example, if a batch of shirts is being sent to the United States, the pressman will make sure that all the shirts are evenly pressed and without any wrinkles. This job is important because a neat appearance increases the chances of repeat orders from international buyers.

3. **Fashion Houses – Finishing High-End Garments**

   Fashion houses create designer clothes that are often expensive and made with high-quality fabrics. These include wedding dresses, evening gowns, and party wear. Customers who buy designer clothes expect perfect finishing.

A pressman working in a fashion house carefully handles delicate fabrics like silk, chiffon, and velvet. Special care is needed because these fabrics can get damaged easily. Pressing a bridal lehenga requires precision to avoid damaging the embroidery or fabric. For instance, In the process of creating fashion apparel, Manish Malhotra's design house's production lines and creative output have brought back and preserved some of the nation's long-lost trades. A pressman working in a fashion house needs to have good skills and knowledge of different fabrics.

Fig. 1.1.10: Manish Malhotra Fashion House

4. Boutiques – Custom Garment Finishing

Boutiques are small shops that make custom clothes based on customer orders. These clothes are often made for special occasions like weddings, festivals, or parties. Since customers expect the clothes to fit perfectly and look neat, finishing is very important.

A pressman in a boutique carefully presses each garment to ensure that it looks perfect. For example, if a customer orders a tailored suit, the pressman will press the jacket and trousers to give them a sharp look. Pressing helps the garment fit better and look more professional. Attention to detail is very important in this type of work because the customer expects high quality.

Fig. 1.1.11: Boutique in Kolkata, India

5. Laundry and Finishing Units – Professional Garment Finishing

Laundry and finishing units provide professional services for clothes that need to be cleaned, pressed, and finished. These units handle different types of clothes, including casual wear, formal wear, and uniforms.

Fig. 1.1.12: Garment Production

A pressman working in a laundry and finishing unit handles large volumes of clothes daily. For example, a hotel may send uniforms and linen to a laundry unit for cleaning and pressing. The pressman ensures that the clothes are properly pressed and ready for use. This job requires handling different fabrics and using different types of pressing machines.

UNIT 1.2: Role and Contribution of a Pressman in Apparel Production

Unit Objectives

By the end of this unit, the participants will be able to:

1. Discuss the roles and responsibilities of a pressman in the apparel industry for stitched items
2. Analyse the apparel production process and the role of pressman

1.2.1 Roles and Responsibilities of a 'Pressman – Stitched Items'

A **Pressman – Stitched Items** is a person who works with clothes after they are stitched to make them look neat and well-finished. When clothes are made in a factory or tailoring unit, they often have wrinkles or lose their proper shape. A pressman's job is to remove these wrinkles and make the clothes look fresh, clean, and ready to wear.

The work of a pressman is very important because well-finished clothes look more attractive and increase the value of the product. Pressing makes the clothes look smooth and professional, which helps in better sales, especially when the clothes are for export or high-end fashion markets.

- **Pressing Clothes Using Machines**

  A pressman uses different types of machines to press clothes. These include steam irons, pressing machines, and flatbeds. The pressman needs to know how to operate these machines properly to get the best results.

  For example, when pressing a shirt, the pressman will use a steam iron to remove the wrinkles and make the collar and cuffs sharp. If the machine is not handled correctly, the fabric can get damaged or burnt.

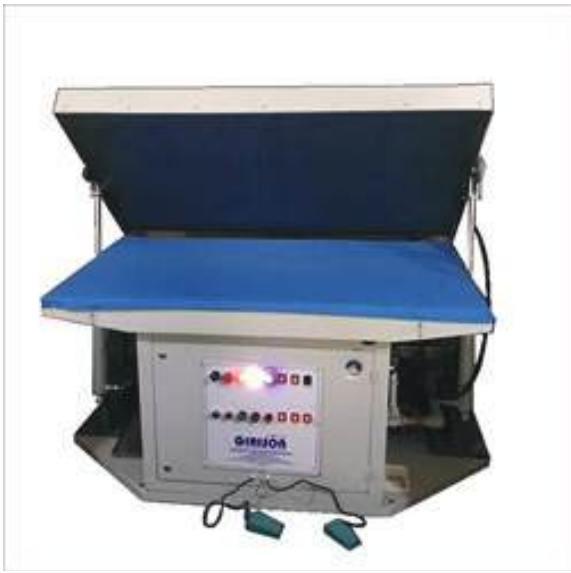

Fig. 1.2.1: Auto Flat Bed Press Manufacturer

- **Removing Wrinkles and Giving Shape**

  After clothes are stitched, they often have wrinkles or may not have a proper shape. The pressman's job is to remove these wrinkles and give the garment the correct shape using steam and heat.

  For example, after a kurta is stitched, the pressman will press it to make sure the seams are neat and the fabric looks smooth. This improves the overall look and comfort of the garment.

Fig. 1.2.2: Pressing in Garment Industry

- **Setting Temperature and Pressure According to Fabric Type**

  Different fabrics need different types of care. Cotton can handle high heat, but silk and wool need low heat to avoid damage. The pressman needs to understand the type of fabric and adjust the temperature and pressure accordingly.

  For example, when pressing a cotton shirt, high heat and strong pressure are used to remove wrinkles. But for a silk saree, low heat and light pressure are used to avoid damaging the fabric. This requires good knowledge about fabrics.

Fig. 1.2.3: Pressing of a cotton shirt

- **Ensuring the Clothes Look Perfect**

  A pressman must make sure that the clothes look neat and perfect after pressing. The garment should have no wrinkles or uneven areas. The pressman checks the final look and makes adjustments if needed.

  For example, if a pair of trousers is not properly pressed, the pressman will press them again until they look sharp and clean. This helps the clothes look attractive when displayed in shops or worn by customers.

Fig. 1.2.4: Final Checkup

- **Maintaining Machines and Following Safety Rules**

  Pressing machines need regular cleaning and maintenance to work properly. The pressman is responsible for keeping the machines clean and checking for any issues. If the machine is not working properly, it can spoil the clothes or cause accidents.

  The pressman also needs to follow safety rules while using hot machines and steam. Wearing gloves and handling the equipment carefully helps avoid burns and injuries. Keeping the work area clean and organized also ensures safety.

Fig. 1.2.5: Training regarding machine handling

1.2.2 Apparel Production Process and Role of the 'Pressman – Stitched Items'

Making clothes involves several steps, starting from designing to the final delivery of the finished product. The apparel production process ensures that clothes are made properly, look good, and are ready to be sold or worn. Each step in the process is important to create high-quality garments.

A **Pressman – Stitched Items** plays an important role in the production process. After the clothes are stitched, they often have wrinkles or may not have the right shape. The pressman makes sure the clothes are smooth, well-shaped, and look perfect before they are checked for quality and packed for sale. A well-pressed garment looks more professional and appealing to customers.

- **Designing**

  The first step in making clothes is designing. Fashion designers or garment makers create drawings or digital designs of the clothes. They decide on the style, colour, fabric, and pattern.

Fig. 1.2.6: Planning out the design

  For example, if a designer wants to make a kurta, they will decide its length, sleeve style, neckline design, and fabric type. The design acts as a blueprint for the entire production process.

- **Fabric Cutting**

  Once the design is ready, the next step is cutting the fabric. The fabric is spread out and cut according to the design's pattern. Special cutting machines or scissors are used to cut the fabric accurately.

Fig. 1.2.7: Fabric Cutting Machine

  For example, if a shirt is being made, the fabric will be cut separately for the collar, sleeves, and body. Accurate cutting ensures that the garment fits well and matches the design.

- **Stitching**

  After cutting the fabric, the pieces are stitched together to make the garment. Skilled tailors or workers use sewing machines to join the fabric pieces.

Fig. 1.2.8: Stitching

For example, when making a dress, the front and back pieces are stitched together first, followed by the sleeves and the neckline. Proper stitching ensures that the garment is strong and comfortable to wear.

- **Pressing and Finishing – Role of the Pressman**

  After stitching, the garment usually has wrinkles and uneven shapes. This is where the pressman's role becomes important. The pressman uses steam irons or pressing machines to remove wrinkles and improve the shape of the garment.

Fig. 1.2.9: Finishing and pressing

- The pressman sets the right temperature and pressure depending on the fabric type.
- For cotton garments, high heat and strong pressure are used, while for silk and wool, low heat and light pressure are used to avoid damage.
- The pressman ensures that collars, cuffs, and seams are properly pressed to give the garment a neat and professional look.

For example, after a formal shirt is stitched, the pressman will carefully press the collar and cuffs to make them crisp and sharp. This makes the shirt look stylish and ready for sale.

- **Quality Checking**

  Once the garment is pressed and finished, it is sent for quality checking. In this step, workers check if the garment is properly stitched, has no loose threads, and fits well. They also check the fabric for any stains or damage.

Fig. 1.2.9: Quality checking by the Manager

  For example, if a saree has loose threads or a missing button, it will be sent back for correction. Only high-quality garments are approved for sale.

- **Packaging and Shipping**

  After passing the quality check, the garments are folded, packed, and labelled. The garments are packed carefully to avoid wrinkles and damage during transportation.

Fig. 1.2.10: Packaging the garments

  For example, shirts are folded neatly, packed in plastic covers, and put in boxes. Then they are sent to stores or customers. Proper packaging helps keep the clothes in good condition until they are sold.

Summary

- A Pressman in Stitched Items ensures that garments look neat and wrinkle-free after stitching, using steam irons and pressing machines.
- Pressing improves the appearance and value of garments, making them more attractive for sale, especially in the export and fashion industries.
- The pressman must adjust temperature and pressure according to fabric type such as high heat for cotton, low heat for delicate fabrics like silk and wool.
- The pressing process is a crucial part of the apparel production process, ensuring garments are properly shaped, well-finished, and professional-looking before quality checks and packaging.
- Pressmen also maintain pressing machines and follow safety protocols, such as wearing gloves and keeping the work area organized, to prevent accidents.
- The Apparel Industry involves the production and sale of clothing, from fabric selection to stitching and retail, and includes various clothing types like casual, formal, and luxury wear.
- India's Apparel Industry is one of the largest in the world, contributing significantly to the economy through employment, exports, and cultural preservation.
- Employment in the Industry includes roles in farming, weaving, tailoring, designing, retail, and export, with millions depending on it for livelihood.
- The Role of a Pressman is crucial in ensuring that stitched garments are wrinkle-free and presentable before reaching customers, using steam irons and pressing machines.
- Workplaces for Pressmen include garment manufacturing units, export houses, fashion houses, boutiques, and laundry/finishing units, each requiring attention to fabric handling and finishing techniques.

Exercise

Multiple-choice Question:

1. What is the main role of a Pressman – Stitched Items?
   a. Designing new garments
   b. Cutting fabric into patterns
   c. Removing wrinkles and shaping garments
   d. Stitching fabric pieces together

2. Why is temperature and pressure adjustment important in pressing garments?
   a. To make pressing faster
   b. To avoid damaging different fabric types
   c. To increase the weight of the garment
   d. To make stitching easier

3. Which of the following fabrics requires low heat and light pressure during pressing?
   a. Cotton
   b. Denim
   c. Silk
   d. Polyester

4. Which of the following is NOT a segment of the apparel industry?
   a. Casual wear
   b. Formal wear
   c. Digital devices
   d. Sportswear

5. What is the primary role of a pressman in the apparel industry?
   a. Cutting fabric for stitching
   b. Pressing and finishing garments to remove wrinkles
   c. Selling clothes in retail shops
   d. Designing new clothing patterns

Descriptive Questions:

1. Explain the importance of a Pressman – Stitched Items in the apparel production process.
2. Describe the steps involved in pressing and finishing garments and how different fabrics require different pressing techniques.
3. Explain the process of designing, producing, and distributing clothes in the apparel industry.
4. Describe the significance of the Indian apparel industry in the global market.
5. What are the different types of workplaces where a pressman – stitched items can be employed, and what are their specific roles in each?

Notes

Scan the QR codes or click on the link to watch the related videos

https://youtu.be/dSn7iz-bFN8?si=v8HImdaJKL7RjARu

Introduction to Apparel Industry

https://youtu.be/ZR3DssvCG4c?si=BP9AVqctVv7qz--W

Apparel manufacturing

https://youtu.be/SIPQiGxv9ps?si=DIfN9usmNIzjG1dq

The Role of a Pressman/Operator in Print Production

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2. Prepare for Ironing Operations

Unit 2.1 - Workplace Safety and Operational Guidelines

Unit 2.2 - Work-Related Assistance & Task Management

Unit 2.3 - Garment Types, Characteristics & Ironing Requirements

Unit 2.4 - Workplace Safety, Equipment & Finishing Standards

AMH/N0401

Key Learning Outcomes

By the end of this module, the participants will be able to:

1. State the organization's policies and procedures.
2. Describe self-responsibilities under health, safety and environmental legislation.
3. Follow the instructions on the work ticket/ job card in line with the responsibilities of the job role.
4. Describe process for offering/ obtaining work related assistance.
5. Describe different types of garments and their ironing requirements.

UNIT 2.1: Workplace Safety and Operational Guidelines

Unit Objectives

By the end of this unit, the participants will be able to:

1. List the organisation's policies and procedures in the apparel industry
2. Discuss the self-responsibilities under the health and safety
3. Analyse the standard operating procedure of the organisation
4. Identify the potential hazards with the machines and safety precautions

2.1.1 State the Organization's Policies and Procedures

Every company has certain rules and guidelines that all workers need to follow. These rules are known as **policies and procedures.** They help the company run smoothly and ensure that everyone works in a safe and organized manner. As a **Pressman – Stitched Items,** understanding and following these rules will help you perform your job better, avoid mistakes, and maintain a positive working environment. Here are some important policies and procedures you need to know:

1. **Work Timings and Attendance:** Every company has fixed working hours. You are expected to start and finish your work at the scheduled time. For example, if your shift starts at 9:00 AM, you should reach the workplace at least 10–15 minutes earlier so you can be ready to start on time.

Fig. 2.1.1: Punctuality in the garment industry

   Companies also have rules about taking breaks. There are usually short tea or coffee breaks and a longer lunch break. You should return to work on time after the break. If you are running late or unable to come to work due to illness or any emergency, you must inform your supervisor or manager as soon as possible. Some companies may require you to submit a leave request in writing or through an attendance system.

   Maintaining proper attendance is very important. If you are absent without informing, it may affect the production schedule and your salary may be reduced. If you are frequently late or absent, the company may take disciplinary action.

2. **Dress Code and Personal Hygiene:** Most companies in the apparel industry have a dress code for workers. You may be required to wear a uniform, an apron, or protective clothing like gloves, masks, and caps. This is to ensure that the garments remain clean and to protect you from possible injuries.

Fig. 2.1.2: Dress Uniforms in pressing

Maintaining personal hygiene is also very important. Since you are handling garments, you should keep your hands clean, trim your nails, and avoid wearing strong perfumes that could transfer onto the garments. Keep your hair tied back if it's long, and avoid wearing loose jewellery that could get caught in the machines. Cleanliness and proper dress give a professional look and help maintain the quality of the garments.

3. **Use of Equipment:** As a pressman, you will be using various types of pressing equipment such as steam irons, ironing tables, and pressing machines. The company will give you proper training on how to operate these machines. You should follow the instructions carefully to avoid damaging the equipment or the garments.

Fig. 2.1.3: Equipment in pressing

Make sure the machines are set to the correct temperature and pressure for the type of fabric you are handling. For example, delicate fabrics like silk need low heat, while cotton and linen can handle higher temperatures. Always switch off the machines after use and clean them regularly as instructed by the company.

If any machine is not working properly or making unusual noises, stop using it and report it to the maintenance team or your supervisor immediately. Do not try to repair the machine yourself unless you are trained to do so.

4. **Safety Rules:** Safety is very important when working with pressing machines and hot equipment. Steam and heated irons can cause burns if not handled properly. Always wear protective gloves if required and use the machines carefully.

Fig. 2.1.4: Manufacturers wearing masks during work

Make sure the work area is clean and free of any clutter to avoid accidents. Do not leave the pressing machine unattended when it is turned on. If you notice any safety issue, such as exposed wires or leaks, report it immediately to your supervisor.

If you or a co-worker get injured while working, inform the supervisor immediately and seek medical help if needed. Some companies have first-aid kits and trained staff to handle such situations.

5. **Quality Standards:** A company expects you to press garments neatly and carefully. After pressing, check the garment for any wrinkles, stains, or damage. If the garment is not properly finished, it may be rejected during the quality check, which could delay the production process.

Fig. 2.1.5: Quality checks

Make sure the creases are straight and the seams are aligned. Different fabrics require different handling – for example, wool needs to be pressed with a damp cloth to avoid shine marks. Pay attention to details and ensure that the finished garment looks clean and professional.

If you notice any defect in the garment, such as a stitching error or fabric tear, report it to the quality control team or your supervisor. Maintaining high-quality standards helps the company deliver better products and satisfy customers.

6. **Behaviour and Respect:** Professional behaviour is very important in the workplace. You are expected to treat your co-workers, supervisors, and other staff with respect. Avoid using harsh or rude language and try to work as a team. Facing any conflict with a co-worker can be resolved through peacefully or asking supervisor for help. Respect cultural and personal differences among your team members. A positive and respectful work environment leads to better teamwork and higher productivity.

   Avoid gossiping, complaining, or speaking negatively about others at work. Good behaviour creates a positive impression and helps you build good relationships with your colleagues and managers.

7. **Reporting Problems:** If you face any problem at work, such as machine breakdown, defective garments, or personal issues affecting your work, report it to your supervisor immediately. Early reporting helps solve problems faster and prevents further damage or delay.

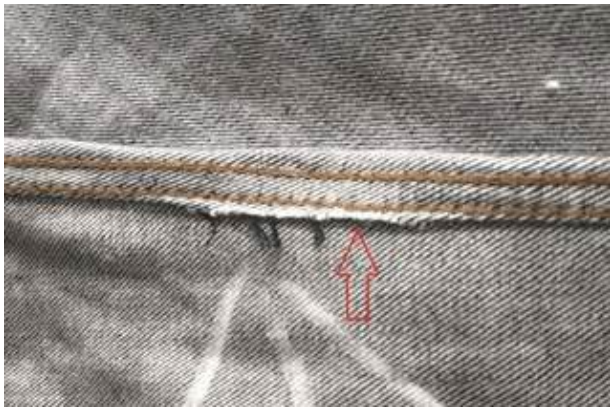


Fig. 2.1.8: Defective garments

For example, if the steam press is not working correctly or if a garment is shrinking under high heat, inform your supervisor instead of trying to fix the problem yourself. The company may have specific procedures for handling such issues.

If you have any suggestions for improving the work process, you can also share them with your supervisor. Most companies encourage workers to give feedback to improve the overall production process.

8. **Handling Materials and Waste:** Handling different types of fabrics and garments. Follow the company's guidelines on how to store and handle them. Delicate fabrics like silk and satin should be handled gently, while heavier fabrics like denim and cotton can be pressed with more pressure. Avoid wasting materials. If a garment gets damaged during pressing, report it to the supervisor instead of trying to fix it yourself. The company may have a separate process for handling damaged items. Dispose of waste materials such as fabric scraps and threads in the designated bins. Follow the company's waste management guidelines to keep the work area clean and organized.
9. **Breaks and Meals:** Every company provides fixed break times for tea, coffee, and lunch. Make sure you follow the schedule and return to work on time after your break.

   During break time, avoid disturbing others who may still be working. Use the company's canteen or break area if available. Some companies may provide free or subsidized meals, while others may have a policy for bringing your own food. Taking proper breaks helps you stay focused and energized throughout the day.

2.1.2 Self-responsibilities Under Health, Safety, and Environmental Legislation

A **Pressman – Stitched Items** plays an important role in maintaining health, safety, and environmental standards at the workplace. Following health and safety rules is necessary to avoid accidents and injuries, while protecting the environment ensures that resources are used responsibly and waste is managed properly. Companies in India follow specific health, safety, and environmental laws to create a safe and healthy working environment for all employees. Understanding and following these rules is part of the daily responsibilities of a pressman. Taking responsibility for personal safety, reporting hazards, and protecting the environment are key aspects of performing this role effectively.

1. **Following Safety Rules at Work**

   Safety rules are created to protect workers from accidents and injuries. It is important to understand and follow these rules while working with pressing machines and other equipment. Using a steam press or ironing machine requires caution to avoid burns or injuries. Hot surfaces and steam can cause serious harm if not handled carefully.

   Wearing proper safety gear such as gloves, masks, and aprons is necessary while handling equipment. Electrical equipment must be handled with care, ensuring that hands are dry and machines are properly grounded. Removing safety guards or protective covers from machines increases the risk of injury and should be avoided at all times.

   Informing the supervisor immediately about any safety issue such as a broken machine, loose wire, or slippery floor helps in preventing accidents. Working in a safe manner protects not only the worker but also others in the workplace.

2. **Keeping the Work Area Clean and Organized**

   Maintaining cleanliness and order in the work area reduces the chances of accidents and makes it easier to perform work efficiently. After pressing garments, the worktable should be cleaned and all fabric pieces, threads, and tools should be put back in their proper places.

Fig. 2.1.9: Pressmen ironing apparels maintaining cleanliness

   Leaving tools or wires on the floor increases the risk of someone tripping and getting hurt. Work equipment such as the ironing machine or steam press should be stored properly after use to avoid any accidental burns or damage. Waste materials should be disposed of in the correct dustbins to avoid clutter and maintain cleanliness in the work area.

   Keeping the work area clean also improves work efficiency and reduces the chances of mistakes while working. A clean and organized workspace creates a safer and more productive environment for everyone.

3. **Handling Chemicals and Hot Equipment Safely**

   Handling chemicals and hot equipment carefully is necessary to avoid injuries and health issues. Chemicals used for stain removal or fabric treatment should be used only after reading the instructions carefully. Wearing protective gloves and masks while handling chemicals prevents skin burns and breathing problems.

Handling Chemicals in the workplace

Storing chemicals properly after use prevents accidental spills and fumes. Mixing different chemicals can create harmful reactions and should be avoided unless instructed by the supervisor. Any chemical spill or leak should be cleaned immediately and reported to the supervisor.

Steam press and ironing machines become extremely hot during use. Touching hot surfaces without proper protection can cause burns. Allowing the machine to cool down before cleaning or moving it reduces the chances of burns. Informing the supervisor if the machine is overheating or not functioning properly helps in avoiding bigger accidents.

4. Reporting Accidents and Unsafe Conditions

Reporting accidents and unsafe conditions helps in preventing future accidents and improving overall safety. Informing the supervisor immediately after an accident, such as a burn or a cut, ensures that proper medical care is given quickly.

Damaged machines, exposed wires, slippery floors, or improper handling of chemicals should be reported to the supervisor without delay. Ignoring such issues increases the risk of accidents and can lead to serious injuries.

Fig. 2.1.10: Damaged machines

Helping others by pointing out unsafe work practices or correcting mistakes in handling equipment contributes to maintaining a safe workplace. Taking responsibility for personal safety and encouraging others to follow safety rules creates a safer environment for everyone.

5. **Protecting the Environment**

   Protecting the environment is an important responsibility of every worker. Reducing waste and using materials carefully helps in conserving resources and reducing pollution. Fabric scraps, paper, and plastic should be disposed of in the correct bins to enable proper recycling.

   Using electricity and water responsibly reduces waste and lowers costs for the company. Turning off lights, fans, and machines when not in use helps in saving energy. Fixing water leaks and electrical issues promptly prevents resource wastage.

   Chemicals and dyes should be disposed of properly to avoid environmental pollution. Informing the supervisor about any improper disposal or environmental hazard helps in maintaining a clean and safe working environment.

6. **Taking Care of Personal Health**

   Maintaining good health helps in performing work efficiently and safely. Long hours of standing and working with heavy equipment can cause muscle strain and fatigue. Taking short breaks, stretching, and maintaining proper posture helps in reducing physical stress.

   Drinking enough water and eating healthy food ensures that the body has enough energy to work properly. If feeling unwell or uncomfortable due to heat, steam, or chemicals, informing the supervisor helps in getting proper medical care.

   Participating in health and safety training sessions conducted by the company provides useful tips on staying healthy and working safely. Learning about first aid and emergency response procedures helps in handling medical emergencies at work.

7. **Cooperating with Co-Workers**

   Cooperating with co-workers and supporting them in following safety rules helps in creating a safe and efficient workplace. Helping new workers understand safety rules and guiding them in handling equipment properly improves overall safety.

   Encouraging co-workers to follow proper procedures while handling chemicals, machines, and waste improves teamwork and reduces the chances of accidents. Helping others in maintaining cleanliness and order in the work area makes the workplace more organized and efficient.

   Respecting others' safety and reporting any unsafe practices to the supervisor helps in creating a culture of safety and cooperation at work. A supportive and responsible team environment improves work efficiency and reduces the chances of mistakes and accidents.

2.1.3 Standard Operating Procedure of the Organisation

A **Standard Operating Procedure (SOP)** is a set of simple rules that explain how to do a job properly and safely. It helps in doing the work step-by-step in the correct order. Following the SOP makes sure that the work is done correctly, on time, and without mistakes. It also helps in keeping the workplace safe and organized.

1. **Starting the Workday:** It is important to start the work on time. Upon reaching the workplace, attendance should be marked in the register or through a biometric system. Wearing the proper work uniform, gloves, and shoes helps in working comfortably and safely.

Before starting the work, the pressing machine and other equipment should be checked to make sure they are working properly. If there is any issue with the machine, it should be reported to the supervisor immediately. Keeping the work area clean and organized before starting helps in working efficiently.

2. **Preparing for the Pressing Work:** Before starting to press the garments, the correct machine settings should be selected based on the type of fabric. Reading the work instructions carefully helps in understanding the type of fabric and the pressing method to be used.

   Filling the steam press with the right amount of water and making sure the machine is heating up properly prevents work delays. Keeping pressing tools like cloth covers and spray bottles ready before starting makes the work easier and faster.

Fig. 2.1.11: Press clothes for preparation

3. **Pressing the Garments:** Placing the fabric properly on the pressing board ensures that the garment is pressed evenly. Adjusting the heat and pressure according to the type of fabric helps in avoiding burns and wrinkles.

Fig. 2.1.12: Garment Pressing

Using steam or dry press as mentioned in the work instructions gives a clean and smooth finish to the garment. If any garment is damaged while pressing, the supervisor should be informed immediately. After pressing, the garment should be checked for wrinkles or uneven areas. If needed, the garment should be pressed again.

4. **Handling and Storing Finished Garments:** After pressing, the garments should be folded or hung properly to prevent wrinkles. Garments should be stored in the correct place according to the work instructions.

Fig. 2.1.13: Material Handling

Keeping the finished garments away from moisture, dust, and direct sunlight helps in maintaining their quality. Labelling the garments properly helps in organizing them and avoiding mix-ups.

5. **Cleaning the Work Area and Equipment:** After finishing the work, the pressing machine and tools should be cleaned properly. Turning off the machine and unplugging it from the power source ensures safety.

   The worktable and floor should be cleaned to remove any dust, fabric pieces, or water. Waste materials should be thrown in the dustbin to keep the area clean and safe.

6. **Reporting Issues and Problems:** If the pressing machine or any tool is not working properly, it should be reported to the supervisor immediately. If any materials like water or spray bottles are running low, the supervisor should be informed.

   Any injury or accident during work should be reported immediately so that proper care can be provided. Reporting problems on time helps in avoiding work delays and maintaining safety.

7. **Following Safety Rules:** Safety rules should be followed while working with pressing machines and hot surfaces. Wearing protective gloves helps in avoiding burns. Keeping hands and fingers away from the pressing surface when the machine is in use prevents injuries.

   The work area should be dry and free from clutter to prevent slipping and falling. Using the equipment properly and avoiding damaged tools ensures personal safety and smooth work.

8. **Maintaining Quality Standards:** Each garment should be checked after pressing to ensure it is wrinkle-free and properly finished. If any mistake is found, it should be corrected immediately. Maintaining proper temperature and pressure settings for different types of fabrics ensures good quality finishing. Following the company's quality guidelines helps in meeting customer expectations.

9. **Ending the Workday:** At the end of the workday, the machine should be switched off and unplugged. Tools and supplies should be cleaned and stored in their proper place. Recording the day's work in the register or system helps in keeping track of completed tasks. Informing the supervisor before leaving ensures that any pending work is handled properly.

2.1.4 Potential Hazards Associated with the Machines and the Safety Precautions that must be taken

Working with machines in the apparel industry can be risky if proper care is not taken. Machines used for pressing stitched items are powerful and can cause injuries if not handled correctly. Understanding the possible dangers and following safety rules helps in working safely and avoiding accidents.

Potential Hazards Associated with Machines

- **Burns and Scalds**

  Pressing machines produce high heat and steam to remove wrinkles from fabrics. If the hands or skin come in contact with the hot-pressing surface or steam, it can cause burns and scalds.

- **Electric Shocks**

  Pressing machines run on electricity. If the machine is not properly maintained or if there are loose wires, it can cause an electric shock. Touching the machine with wet hands increases the risk of electric shock.

- **Moving Parts and Pinch Points**

  The moving parts of the machine, like the pressing plate, can trap or pinch fingers and hands if they are not kept away while operating the machine.

- **Slips and Falls**

  Water or steam leaking from the machine can make the floor wet and slippery. This can lead to slips and falls, causing injuries.

- **Fire Hazards**

  If the machine overheats or the wires are damaged, it can cause a fire. Using damaged or faulty machines increases the risk of fire accidents.

Safety Precautions to be taken

- **Wearing Protective Gear**

  Wearing heat-resistant gloves while using the pressing machine protects the hands from burns. Wearing closed-toe shoes and proper work clothes helps in avoiding injuries.

Fig. 2.1.14: Heat-resistant gloves for pressing apparels

- **Checking the Machine Before Use**

  Before starting the work, the machine should be checked for loose wires, damage, or leaks. Any issue should be reported to the supervisor immediately. Using a damaged machine is dangerous and should be avoided.

Fig. 2.1.15: PAT testing for machine handling

- **Keeping Hands Away from Hot Surfaces**

  Hands and fingers should be kept away from the hot-pressing plate and steam outlet while the machine is in use. Using tongs or cloth to adjust the fabric prevents burns.

Fig. 2.1.16: Keeping hands away technique during pressing

- **Avoiding Wet Hands While Operating the Machine**

  Hands should be dry while operating the machine to prevent electric shock. If the machine or the floor is wet, the machine should not be used until it is dry.

Fig. 2.1.17: Operating the pressing machine

- **Maintaining a Clean and Dry Work Area**

  The work area should be kept clean and dry to avoid slips and falls. Any water or steam leakage should be wiped off immediately. The machine's power cord should not be left on the floor to avoid tripping.

Fig. 2.1.18: Dry area during pressing

- **Switching Off and Unplugging the Machine**

  After finishing the work, the machine should be switched off and unplugged from the power source. This prevents overheating and accidental starting of the machine.

- **Fire Safety**

  If the machine starts overheating or sparks are noticed, it should be switched off immediately, and the supervisor should be informed. A fire extinguisher should be available nearby to handle fire emergencies.

Emergency Response

In case of an accident, the machine should be switched off immediately. If someone is injured, first aid should be provided, and the supervisor should be informed. If there is a fire, the fire alarm should be activated, and emergency services should be contacted if needed.

UNIT 2.2: Work-Related Assistance & Task Management

Unit Objectives

By the end of this unit, the participants will be able to:

1. Follow instructions on work tickets/job cards in line with job responsibilities.
2. Establish and review work targets with the supervisor, checking for special instructions.
3. Seek clarification on work-related tasks, following protocols for obtaining information.
4. Identify reporting formats for work-related risks/problems and contact persons for resolving issues.

2.2.1 Instructions on Work Tickets or Job Cards in Line with the Job Responsibilities

In the apparel industry, pressing plays a crucial role in enhancing the final appearance, fit, and quality of stitched garments. Among pressmen working in stitched items, adherence to work tickets or job cards is essential to ensure consistency, precision, and compliance with industry standards. Work tickets provide detailed instructions regarding fabric type, ironing requirements, temperature settings, pressing techniques, and quality checks. Pressing is not merely about smoothing wrinkles; it involves carefully handling different fabrics to maintain their structural integrity, applying the correct amount of heat and pressure, and ensuring garments are free from defects like shine marks, burns, or shrinkage. Pressmen must follow standard operating procedures (SOPs) to execute their tasks efficiently, ensuring the garments are prepared for final packaging or further processing.

The key responsibilities of a pressman for along with practical examples for each step have been provided below:

1. **Understanding Work Tickets/Job Cards**

   Work tickets or job cards serve as a blueprint for pressing tasks. They contain essential details regarding fabric type, garment specifications, and specific ironing requirements. A pressman must read and interpret these instructions carefully before beginning the task. Key aspects for understanding the work tickets/job cards include the following:

   - **Fabric Type Identification:** Different fabrics require different ironing techniques. For example, cotton requires high heat with steam, while silk must be pressed at a lower temperature to prevent damage.
   - **Pressing Type:** Work tickets indicate whether the garment requires under pressing (preliminary pressing before sewing), rough pressing (midway pressing), or final pressing (the last step before packaging).
   - **Special Instructions:** Some delicate fabrics, such as wool or velvet, require pressing with a protective cloth to prevent shine marks. Work tickets may also specify the need for pressing accessories like Teflon shoes for irons to avoid scorching.

   Example: A job card for a formal suit jacket might state fabric to be Wool-blend; pressing type: Final pressing; special instruction is to use a steam press with a protective cloth to avoid fabric shine.

2. **Preparing for Ironing Tasks**

   Before beginning the ironing process, pressmen must ensure they have the correct equipment and that it is in good working condition. Proper preparation helps streamline workflow and maintain efficiency. Key aspects in this step include the following list:

- **Checking Equipment:** Ensure that ironing machines, vacuum tables, and steam press systems are functioning correctly. A faulty steam boiler can lead to inconsistent pressing results.
- **Safety Checks:** Inspect steam pipes, iron soleplates, and thermostats to prevent hazards like burns or overheating.
- **Sorting Garments:** Organize garments according to pressing requirements to optimize workflow. Delicate fabrics should be pressed separately from thick fabrics like denim to avoid temperature mismanagement.

Example: A pressman handling denim jeans and chiffon blouses should first press all the heavy-weight garments (denim) before switching to lighter fabrics. This prevents cross-contamination and ensures heat settings are adjusted accordingly.

Fig. 2.2.1: Ironing Denim Jeans

3. Following Standard Operating Procedures (SOPs)

Every garment type has unique pressing requirements, and adherence to SOPs ensures that the ironing process is conducted safely and efficiently. Key aspect includes:

- **Setting the Correct Temperature:** For example:
  - **Cotton:** 180-220°C
  - **Silk:** 110-150°C (with a protective cloth)
  - **Polyester:** 140-160°C (to avoid melting)
- **Preventing Damage:** Using the right technique is crucial. For instance, wool jackets should be pressed using a vacuum table to maintain shape, while pleated skirts require careful steaming to keep pleats crisp.
- **Handling Garment Structure:** Garments like suit lapels or shirt collars need careful pressing to ensure a sharp look without distorting the shape.

Example: While pressing a branded cotton dress shirt, the pressman must use medium-high steam to eliminate creases, avoid over-pressing the seams to prevent seam impressions and steam burst function usage to remove stubborn wrinkles effectively.

Fig. 2.2.2: Pressing a cotton shirt

4. Ensuring Quality Control

Quality control is a crucial step to ensure that garments are free from ironing defects before being sent for packaging or further processing. Key aspects are as follows:

- **Inspecting Garments:** Check for wrinkles, burns, water stains, or shine marks.
- **Reworking Defective Garments:** If an ironed item does not meet standards, it must be re-pressed or corrected immediately.
- **Sorting Ironed Garments:** Place completed garments neatly in designated bins or racks to prevent re-wrinkling.

Example: A pressman ironing saree for export must ensure that the pleats are symmetrical, fabric does not have shiny press marks from excessive heat and the garment is folded correctly after pressing to maintain its elegance.

Fig. 2.2.3: Ironing of a saree

5. Safety and Maintenance

Since ironing involves high temperatures, steam, and mechanical equipment, following safety protocols is mandatory to prevent workplace hazards. Key aspects involve the following:

- **Operating Equipment Safely:** Always place irons upright when not in use to prevent accidents.
- **Storing Tools Properly:** After work, ensure irons, steaming equipment, and vacuum tables are switched off and stored safely.

- **Reporting Malfunctions:** Any defective steam boilers, loose electrical connections, or overheating issues must be reported immediately.

Example: If a pressman notices a leaking steam hose, they must stop working immediately to prevent burns, inform the supervisor and request a maintenance check and use an alternative iron if available to continue work without delay.

Fig. 2.2.4: Steam or Condensate Leakage during pressing

6. **Documentation and Reporting**

Maintaining proper records ensures accountability and helps in troubleshooting any errors in the pressing process. Key aspects for this step are as follows:

- **Recording Work Details:** Pressmen may be required to log the number of garments pressed per shift or report any damaged garments.
- **Escalating Issues:** If there are inconsistencies in work tickets or unclear pressing instructions, they must be clarified with supervisors.
- **Reporting Equipment Issues:** Any ironing machine faults or safety concerns should be documented and reported for maintenance.

Example: A pressman working in a garment factory in India might maintain a daily record like:

- **Total shirts pressed:** 250
- **Defective garments requiring rework:** 5
- **Issues reported:** Steam pressure low in boiler

2.2.2 Establishing Review Work Targets with the Supervisor

Establishing review work targets with a supervisor in the Indian apparel industry, especially for pressmen working on stitched items, requires clear communication and structured goal-setting. The proper way of establishing work targets with the managers and supervisors can be done effectively as described below:

Fig. 2.2.5: Apparel pressmen

1. **Understanding Workload and Expectations**
   - Discuss daily/weekly production targets based on order volumes.
   - Identify the type of stitched items (shirts, trousers, dresses) and the expected pressing time per unit.
   - Set realistic efficiency goals considering fabric type, garment complexity, and machine capacity.
2. **Setting Key Performance Indicators (KPIs)**
   - **Output Targets:** Number of garments pressed per hour or shift.
   - **Quality Standards:** Ensure no burn marks, creases, or damage.
   - **Time Management:** Minimize delays between pressing and next production stage.
   - **Error Reduction:** Reduce garment rework due to improper pressing.
3. **Scheduling Regular Reviews with Supervisor**
   - Daily or weekly check-ins to assess progress.
   - Feedback sessions to address challenges like fabric issues, machine malfunctions, or workload imbalance.
   - Adjusting targets based on seasonal demand or urgent orders.
4. **Identifying Training and Improvement Areas**
   - If targets aren't met, assess skill gaps and provide training on machine handling or pressing techniques.
   - Introduce workflow optimizations, such as better garment stacking or steam control methods.
5. **Implementing Performance Incentives**
   - Bonus for exceeding targets while maintaining quality.
   - Recognition programs for consistent performers.

Given below is a structured sample work target sheet for pressmen in the Indian apparel industry:

Work Target Review Sheet

Employee Name: _____

Designation: Pressman

Supervisor: _____

Date: //____

Garment Type	Order Type	Expected Pressing Time per Unit (min)	Total Target per Shift	Actual Output
Shirts	___	___	___	___
Dresses	___	___	___	___
Trousers	___	___	___	___
Other: ___	___	___	___	___

Table 2.2.1: Workload and Target Expectations

KPI	Target	Actual Performance	Remarks
Garments Pressed/ Hour	___	__ _	_ _ _
Quality Issues (%)	≤ _____%	__ __ _%	_ _ _
Rework Rate (%)		__ __ _%	_ _ _
Delays in Processing	No delays	__ __ _instances	_ _ _

Table 2.2.2: Key Performance Indicators (KPIs)

Review	Feedback/Challenges Identified	Action Plan	Next Review Date
//____	_____	_____	//____

Table 2.2.3: Review Meeting with Supervisor

Training Needed	Scheduled Date	Completion Status
Machine Handling	//____	✕ / ✕
Pressing Techniques	//____	✕ / ✕
Workflow Optimization	//____	✕ / ✕

Table 2.2.4: Training and Skill Improvement

Performance Metric	Incentive Criteria	Achieved?	Bonus/Recognition Given
Exceeding Output Target	>110% Output	✗ / ✗	₹ _____ / Certificate
Zero Quality Issues	100% Quality	✗ / ✗	₹ _____ / Award

Table 2.2.5: Performance Incentives

Supervisor's Remarks & Signature:

Employee's Acknowledgment & Signature:

This sheet helps track progress, identify areas of improvement, and ensure accountability.

Checking up on special instructions

Maintaining garment quality, fulfilling customer requirements, and preventing production faults in the Indian apparel business all depend on strict adherence to specified instructions. Before starting their work, pressmen who handle stitched items should thoroughly go over any special instructions pertaining to fabric sensitivity, crease placement, protective pressing techniques, and customer needs. Workers may guarantee that clothing meets high standards, reduce flaws, and expedite the finishing process effectively by methodically reviewing and confirming these instructions. Addressing issues and guaranteeing adherence to all criteria are made easier with regular contact with supervisors and quality control teams. The steps for pertaining special instructions are given below:

Fig. 2.2.6: Steps for special instructions

In the Indian apparel business, verifying customized instructions is an essential step in guaranteeing superior garment finishing. Pressmen can reduce mistakes and increase productivity by closely examining fabric specifications, pressing methods, buyer-specific instructions, and quality standards. Consistency and adherence to production criteria are maintained through regular contact with supervisors and quality control teams. In addition to enhancing clothing display, a methodical approach to confirming unique instructions enhances customer happiness and brand reputation.

A Special Instructions Checklist in table format for tracking compliance with pressing requirements in the Indian apparel industry has been provided below as an example:

Employee Name: _____

Designation: Pressman

Supervisor: _____

Date: //____

Instruction Type	Details/Requirements	Checked? (✓/✗)	Remarks/Issues Noted
Fabric Type Consideration	Heat sensitivity, steam level, pressing method	☐	_____
Crease & Fold Placement	Specific fold patterns or creases required	☐	_____
Protective Cover Use	Use of cloth/Teflon shoe for delicate fabrics	☐	_____
Buyer-Specific Guidelines	Any unique buyer finishing requirements	☐	_____
Quality Standards	No burn marks, correct smoothness	☐	_____
Label & Tag Compliance	Correct positioning & intact labels	☐	_____
Packaging & Final Check	Proper folding, bagging, or hanger use	☐	_____
Supervisor Approval	Verified by supervisor/QC team	☐	_____

Table 2.2.6: Special Instructions

Supervisor's Remarks & Signature:

Employee's Acknowledgment & Signature:

This checklist ensures all special instructions are followed before the garments proceed to the next stage.

2.2.3 Clarifications on Work-Related tasks

Pressmen are essential to the final look and quality of sewn clothing in the Indian apparel industry. Clarifying work-related tasks and responsibilities is crucial to preserving efficiency and reducing errors. A seamless workflow and adherence to production standards are ensured by clear communication between pressmen, supervisors, and quality control teams. Key areas for a work-related task that needs to be clarified includes the following provided in the table:

Key area	Tasks to clarify	Details	Examples
Understanding Fabric and Garment Specifications	 Fabric type and heat tolerance	Identify whether the fabric is cotton, silk, polyester, denim, etc., and confirm appropriate pressing temperatures.	Silk requires low heat with a protective cloth, while denim needs high heat and pressure.
	 Pressing techniques	Understand the pressing requirements for different stitched items like shirts, trousers, and dresses.	Trousers need sharp crease lines, while T-shirts require smooth, wrinkle-free pressing.
	 Special handling for delicate garments	Follow specific guidelines for pressing high-value or delicate fabrics to avoid damage.	Velvet should not be pressed directly; use a steam-only method.
Workload Distribution and Daily Targets	Define garment targets per shift	Set clear expectations on the number of garments to be pressed per shift.	100 shirts or 75 trousers per shift, depending on complexity.
	Task allocation	Ensure fair distribution of work to prevent production bottlenecks.	One pressman handles trousers while another focuses on dresses.
	Adjust workload for priorities	Modify schedules based on urgent deliveries and order priorities.	An export order with a deadline takes priority over regular production

Key area	Tasks to clarify	Details	Examples
Pressing Techniques and Quality Standards	 Heat settings and steam levels	Use the correct temperature and steam pressure to avoid burns or shrinkage.	Cotton shirts can handle high steam, but polyester must be pressed with controlled heat.
	 Crease and fold placement	Ensure proper crease alignment based on garment design.	Formal trousers require a sharp centre crease, while casual pants may not.
	 Quality checks	Garments should be free from wrinkles, stains, and pressing marks before passing to the next stage.	Inspect each item under good lighting to ensure even pressing.
Handling Special Instructions and Custom Orders	 Brand-specific finishing requirements	Confirm unique requirements before beginning work.	A premium brand may require extra soft pressing to maintain fabric texture.
	 Trims, labels, and packaging	Verify details related to branding and presentation.	Ensure that stitched labels remain intact after pressing.

Key area	Tasks to clarify	Details	Examples
	 Supervisor approval	Seek approval before making any pressing modifications.	If unsure about a crease style for a new design, confirm with the supervisor.

Table 2.2.7: Clarifications of work-related tasks for Pressman

Efficiency, quality, and safety must all be maintained through clear task explanations in the apparel businesses. Pressmen can improve garment finishing standards by knowing fabric specifications, establishing reasonable workload goals, using appropriate pressing procedures, and following particular instructions. While adherence to safety and maintenance procedures guarantees a smooth operation, effective communication with supervisors and quality control teams aids in the rapid resolution of problems. Tasks that are clearly defined result in more productivity, fewer mistakes, and better overall clothing quality, which boost customer happiness and business success.

Protocols for obtaining information

Pressmen are essential to the Indian garment industry because they make sure that stitched clothes are properly finished before they are packaged and distributed. They need accurate and current knowledge of fabric handling, pressing methods, quality standards, and manufacturing requirements in order to carry out their duties efficiently. By following the right procedures, this information may be obtained, which maintains workflow efficiency, lowers rework, and guarantees garment consistency. Key protocols for obtaining information is included in the figure below:

Referring to Work Orders and Production Sheets

Consulting with Supervisors and Line Managers

Coordinating with Quality Control (QC) Teams

Checking Brand or Buyer Specifications

Using Standard Operating Procedures (SOPs) and Manuals

Participating in Training and Briefing Sessions

Maintaining Proper Documentation and Logs

Table 2.2.8: Basic Protocols for obtaining information

The steps that need to be taken up by the pressman for maintaining the guidelines are as follows in order to obtain information:

- Check garment details such as fabric type, pressing temperature, and special handling instructions.
- Verify production priorities, batch numbers, and delivery deadlines.
- Seek clarification on unclear instructions, pressing techniques, or special garment handling.
- Confirm modifications in pressing standards based on customer requirements.
- Obtain quality guidelines to ensure finished garments meet required standards.
- Report pressing defects and get instructions for corrective measures.
- Review brand-specific requirements for crease placement, garment smoothness, and finishing touches.
- Ensure compliance with export or high-end garment standards.
- Follow prescribed guidelines for different fabrics and stitched items.
- Refer to machine operation manuals for correct settings and maintenance.
- Attend daily briefings to stay updated on production targets and changes in garment handling.
- Undergo training sessions on new fabrics, pressing techniques, and safety measures.
- Record any deviations in pressing instructions or fabric reactions.
- Document machine issues and report to the maintenance team for timely resolution.

Pressmen must adhere to defined criteria in order to acquire pertinent facts because different garments require varied pressing temperatures, crease placements, and finishing processes. This entails following standard operating procedures (SOPs), adhering to buyer specifications, cooperating with quality control teams, consulting supervisors, and reviewing work orders. In addition to enhancing individual performance, efficient communication and information retrieval significantly raise production quality and customer satisfaction levels. Pressmen may guarantee that clothing is finished in accordance with brand and industry standards while reducing errors and preserving workplace productivity by closely adhering to these procedures.

UNIT 2.3: Garment Types, Characteristics & Ironing Requirements

Unit Objectives

By the end of this unit, the participants will be able to:

1. Describe different types of garments and their ironing requirements.
2. Explain various parts of garments (pockets, collars, cuffs, sleeves, etc.).
3. Identify characteristics of different materials and their impact on garment care.
4. Explain the process of moulding garments to body contours and ensuring proper shaping.

2.3.1 Types of Garments and its Ironing Requirements

Prior to being delivered to customers, ironing is essential for improving the finished appearance of stitched clothing. Pressmen are in charge of making sure every garment is precisely finished and free of creases, wrinkles, and fabric damage. Diverse ironing methods and temperature settings must be used to preserve the quality and longevity of clothing because diverse types of fabrics, structures, and intended uses exist.

	Fabric Types	Ironing Requirements
 **Shirts (Formal & Casual)**	Cotton, Linen, Polyester Blends	Using medium to high heat for cotton and linen; lower heat for polyester blends. Apply steam to remove wrinkles and press collars, cuffs, and plackets neatly. Ensure sharp creases where required.
 **Trousers (Formal & Casual)**	Wool, Cotton, Synthetic Blends	Using high heat with steam for cotton and wool. Apply a crease press for formal trousers. For casual styles, use a light press to maintain a natural look.

	Fabric Types	Ironing Requirements
 **Dresses & Kurtis**	Cotton, Rayon, Chiffon, Silk	Use low to medium heat depending on fabric sensitivity. Steam pressing is ideal for delicate fabrics. Avoid direct contact with iron for silk and chiffon; use a pressing cloth.
 **Sarees & Ethnic Wear**	Silk, Georgette, Cotton, Banarasi, Chiffon	Use low heat for delicate fabrics like silk and georgette. For cotton sarees, medium heat with steam is suitable. Avoid harsh pressure to maintain fabric drape.

	Fabric Types	Ironing Requirements
 **T-shirts & Polo Shirts**	Cotton, Lycra, Polyester	Use medium heat with light steam. Avoid excessive pressure to preserve fabric elasticity and prevent shine on synthetic materials.
 **Jackets & Blazers**	Wool, Velvet, Tweed, Polyester Blends	Use steam pressing to maintain shape. Avoid direct pressing on velvet and wool; use a pressing cloth. Light hand pressing is recommended for structured garments.
 **Denim (Jeans & Jackets)**	100% Cotton, Denim Blends	Use high heat with steam. Press seams and creases firmly. Avoid over-ironing to retain natural texture.

	Fabric Types	Ironing Requirements
 **Children's Wear**	Cotton, Fleece, Jersey, Polyester	Use low to medium heat depending on fabric. Apply gentle steam to avoid damaging soft materials. Ensure a smooth, comfortable finish without stiff creases.

Table 2.3.1: Types of garments and its ironing requirements

The best practices for ironing the different material of garments are as follows:

- **Use the Right Temperature:** Always check the fabric care labels before ironing to ensure that the appropriate heat setting is used. Different fabrics require different temperatures; for example, cotton and linen can withstand high heat, while delicate fabrics like silk and polyester need a lower temperature to prevent damage.
- **Apply Steam Carefully:** Steam is an effective way to remove wrinkles and enhance fabric smoothness, but it must be adjusted according to the fabric's sensitivity. Some materials, such as wool and synthetic blends, respond well to steam, while others, like silk and chiffon, require minimal steam to avoid water spots or shrinkage.
- **Protect Delicate Fabrics:** When ironing delicate fabrics, always use a pressing cloth or a Teflon shoe attachment to prevent direct heat contact. This precaution helps avoid scorching, fabric shine, and potential burns, especially on fragile materials such as satin, velvet, and georgette.
- **Follow Brand-Specific Guidelines:** Many apparel brands have specific ironing and finishing requirements, such as precise crease placements or smooth, wrinkle-free finishes. It is essential to follow these guidelines to maintain consistency in garment quality, especially for export or high-end clothing.
- **Avoid Over-Pressing:** Excessive heat or prolonged pressure can weaken fabric fibres, cause shine marks, or alter the shape of the garment. It is important to use smooth and controlled movements while ironing to prevent fabric distortion and ensure a professional finish.

Depending from the design specifications, garment construction, and fabric composition, several ironing techniques are needed. Sturdy materials like cotton, denim, and wool require greater heat with strong pressing, whereas delicate textiles like silk, chiffon, and georgette require low heat and mild steaming. While casual clothing like T-shirts and jeans need a more relaxed press to preserve their natural texture, formal items like shirts, pants, and blazers require crisp creases for a polished look. Additionally, to maintain their drape, stitching, or decorations, traditional Indian clothing such as kurtis, sarees, and ethnic wear needs to be handled carefully.

2.3.2 Various parts of the Garments

Pressing is a crucial finishing process that enhances the garment's appearance and ensures a professional finish before packaging and distribution. Pressmen must focus on different parts of a garment to ensure they are wrinkle-free, properly shaped, and meet quality standards. Each section of a garment requires specific ironing techniques to maintain fabric integrity and design accuracy. The key garment parts and it pressing requirements have been provided in the table below:

Garment Part	Pressing Requirements	Common Garment Types
 **Collar**	Press the underside first, then the top, ensuring a crisp and even finish. Use a pressing cloth for delicate fabrics.	Shirts, Blouses, Kurtas
 **Cuffs**	Iron inside first, then the outer surface. Ensure button areas and edges are smooth.	Shirts, Blouses, Jackets
 **Sleeves**	Start from the shoulder seam and press downwards. Avoid sharp creases unless specified.	Shirts, Kurtas, Jackets, Dresses

Garment Part	Pressing Requirements	Common Garment Types
 **Placket (Front Opening)**	Press carefully along the buttonholes and seams, ensuring the fabric lies flat without puckering.	Shirts, Kurtas, Dresses
  **Body (Front & Back Panels)**	Smooth out wrinkles evenly without stretching the fabric. Use steam to enhance softness in delicate fabrics.	Shirts, Kurtis, Dresses, T-shirts
 **Side Seams**	Press with minimal pressure to maintain natural garment drape. Avoid excessive creasing.	Trousers, Shirts, Dresses
 **Pockets**	Press carefully to ensure they lay flat and do not create bulk. Use light steam on structured pockets.	Trousers, Jackets, Kurtas

Garment Part	Pressing Requirements	Common Garment Types
 **Waistband**	Apply firm pressing for a structured look, ensuring evenness. For elastic waistbands, use light steam.	Trousers, Skirts, Jeans
 **Hems & Bottom Edges**	Press evenly to maintain smoothness. Avoid double creases or visible marks.	Sarees, Dresses, Trousers
 **Pleats & Folds**	Use precise pressing to maintain defined lines. Apply steam and light pressure to set pleats permanently.	Skirts, Dresses, Formal Trousers
 **Darts & Stitching Areas**	Press open seams flat or to one side, following garment construction guidelines. Use a steam burst for smooth finishing.	Jackets, Blazers, Formal Wear

Table 2.3.2: Various parts of garments

Best practices for pressing the different garment parts include the following:

- **Start with Less Visible Areas:** Always begin pressing with areas that are less visible, such as the underside of the collar or inside seams, before moving on to the outer sections. This helps prevent accidental shine marks or fabric distortion on prominent areas of the garment.
- **Use Appropriate Ironing Tools:** Utilize the correct ironing tools, such as sleeve boards for sleeves, pressing cloths for delicate fabrics, and steam irons for efficient wrinkle removal. Using the right equipment ensures precision and prevents damage to different fabric types.
- **Adjust Pressure Based on Fabric Type:** Apply light pressure when pressing delicate fabrics such as silk, chiffon, or georgette to avoid scorching or shine marks. For structured garments like blazers and formal trousers, use firm pressure to achieve a crisp and professional finish.
- **Follow Garment Design Requirements:** Ensure that pleats, folds, and creases are pressed according to the garment's stitching pattern and design specifications. Proper alignment of design elements enhances the overall appearance and maintains consistency in garment finishing.
- **Check for Symmetry and Balance:** After pressing, carefully inspect the garment to ensure that both sides match in smoothness and finish. Any uneven creases, distortions, or asymmetrical folds should be corrected before moving the garment to the next production stage.

Pressing is an important finishing procedure in the Indian apparel business, ensuring that garments seem polished and professional before they reach clients. Understanding the individual pressing requirements for various garment pieces allows pressmen to improve the overall quality and durability of the finished items. Following recommended practices, including as beginning with less visible parts, using the appropriate tools, changing pressure based on fabric type, and keeping symmetry, will help an individual to create a consistent and faultless finish. Proper pressing techniques not only improve the visual appeal of garments, but they also help to increase consumer satisfaction and brand reputation in domestic and export markets.

2.3.3 Characteristics of Different Materials and its Influence on the Garment Care

Different fabrics have unique characteristics that influence garment care, especially during pressing. Pressmen must understand the fabric properties, heat tolerance, moisture absorption, and wrinkle resistance to ensure proper finishing without damaging the garment. The right approach to temperature control, steam application, and handling techniques helps maintain fabric integrity and enhances the final appearance.

Fabric Type	Key Characteristics	Influence on Garment Care & Pressing
 **Cotton**	Natural fibre, breathable, highly absorbent, wrinkles easily	Requires high heat with steam to remove wrinkles. Avoid over-drying as cotton retains moisture, which helps in smooth pressing.

Fabric Type	Key Characteristics	Influence on Garment Care & Pressing
 **Linen**	Lightweight, breathable, strong but wrinkles easily	Needs high temperature and steam to smoothen creases. Use a pressing cloth to prevent shine.
 **Silk**	Delicate, smooth texture, prone to water stains and heat damage	Requires low heat and minimal steam. Press on the reverse side using a pressing cloth to avoid fabric burns and shine marks.
 **Wool**	Warm, resilient, retains shape well but can shrink with excessive heat	Use medium heat with steam. Always press with a pressing cloth and avoid excessive pressure to maintain texture.
 **Polyester & Synthetic Blends**	Wrinkle-resistant, retains shape, sensitive to high heat	Requires low to medium heat. Avoid direct contact with high-temperature irons to prevent melting or shine. Use a Teflon shoe for protection.

Fabric Type	Key Characteristics	Influence on Garment Care & Pressing
 **Denim**	Thick, durable, absorbs moisture, prone to fading	Needs high heat with steam. Press seams and folds firmly while avoiding excessive pressure on printed or dyed areas.
 **Rayon & Viscose**	Soft, lightweight, drapes well but is prone to shrinkage	Use low heat with light steam. Press on the reverse side to avoid shine and water stains.
 **Chiffon & Georgette**	Sheer, delicate, lightweight, prone to stretching	Requires low heat with no direct contact. Use a pressing cloth or steam lightly from a distance to avoid fabric distortion.
 **Velvet**	Soft pile texture, prone to crushing and shine marks	Avoid direct pressing. Use steam from a distance or press on the reverse side with minimal pressure.
 **Satin**	Smooth, glossy finish, prone to snagging	Requires low heat with a pressing cloth to prevent shine. Press lightly on the reverse side.

Table 2.3.3: Different materials and its influence on pressing

Impacts of fabric characteristics on garment care for pressmen are as follows:

- **Temperature Sensitivity:** Delicate fabrics like silk and chiffon require low heat, while sturdy materials like denim and linen need high temperatures for effective pressing.
- **Steam Usage:** Natural fibres such as cotton and wool absorb moisture and respond well to steam, whereas synthetics may get damaged with excessive steam.
- **Fabric Texture Preservation:** Velvet, satin, and wool require special handling to prevent crushing, shine, or texture distortion.
- **Avoiding Fabric Damage:** Using the correct pressing techniques, such as pressing cloths, steam bursts, and controlled pressure, helps prevent scorching, stretching, or unwanted creases.
- **Following Manufacturer Instructions:** Always check fabric care labels and brand specifications to ensure garments are finished according to required standards.

By understanding fabric characteristics and applying the correct pressing techniques, pressmen in the Indian apparel industry can enhance garment quality, reduce defects, and improve production efficiency while maintaining high industry standards.

2.3.4 Process of Moulding Garments to Body Contours

Moulding garments is a pressing process used in the textile industry to shape and contour fabric to mimic the natural curves of the body. This process uses heat, steam, pressure, and specialized pressing tools to improve the fit, structure, and drape of the garment. It is usually applied to tailored and structured items such as blouses, suits, trousers, and dresses. Moulding garments is essential due to the following reasons:

It improves the fit and comfort of garments.

- They enhance the aesthetic appeal by maintaining shape and structure.
- They ensure smooth draping without unwanted creases or wrinkles.
- It helps in maintaining permanent shaping in structured garments like suits and jackets.

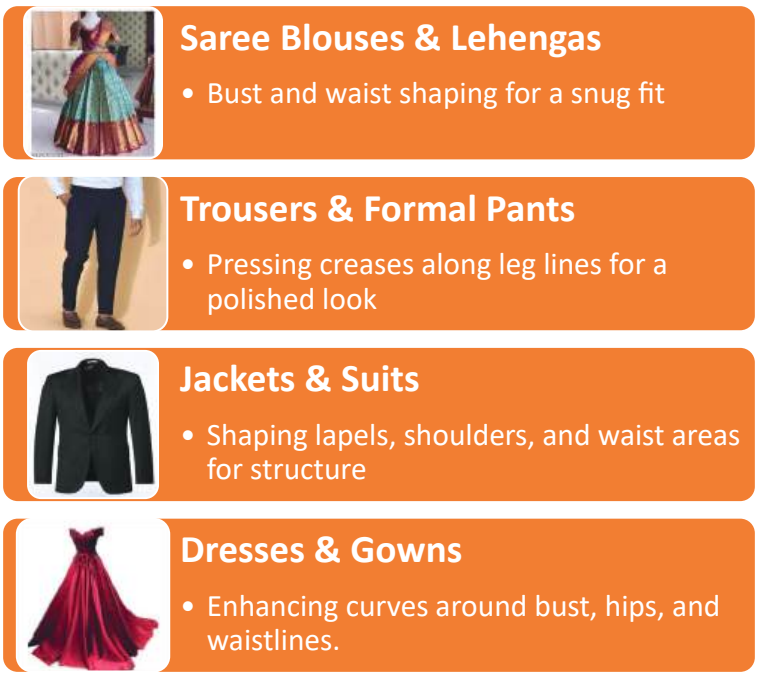


Fig. 2.3.1: Common Applications of Moulding

Moulding garments to body contours is an essential pressing technique used to enhance the fit, shape, and structure of stitched garments. Pressmen play a crucial role in shaping the fabric using heat, steam, and pressure to ensure the garment follows the natural curves of the body. This process is particularly important for tailored garments, structured wear, and form-fitting apparel such as blouses, suits, saree blouses, dresses, and trousers.

Step	Process Description	Application in Garments
Fabric Relaxation Using Steam	• Before pressing, the fabric is gently steamed to soften fibres and make them more flexible for shaping.	• Used in woollen suits, blouses, and structured garments to ease tension in the fabric.
Identifying Key Contour Areas	• Areas such as bust, waist, hips, shoulders, and sleeve curves are marked for shaping.	• Important for tailored garments like saree blouses, fitted kurtas, and formal jackets.
Pressing with Curved Moulds or Forms	• Specialized ironing boards (such as tailor's ham, sleeve boards, and contoured pressing pads) help press curved areas without flattening the shape.	• Used in pressing darts, princess seams, and shoulder lines to maintain their natural curves.
Controlled Heat and Steam Application	• Heat and steam are applied in short bursts to avoid fabric shrinkage or distortion while allowing the fabric to take shape.	• Essential for delicate fabrics like silk and georgette, as well as structured materials like wool and denim.
Pressing in Sections to Maintain Form	• Each contour area is pressed separately rather than applying pressure across the entire garment. This prevents uneven shaping or fabric stretching.	• Used for shaping waistlines, bust darts, and hip curves in dresses, trousers, and fitted jackets.
Cooling and Setting the Shape	• After moulding, garments are left to cool to set the structure and retain their shape for longer wear ability.	• Important for structured garments like formal suits, lehenga blouses, and fitted skirts.

Table 2.3.4: Steps of Moulding Process

Best practices for moulding garments to body contours are the following:

- **Use Specialized Pressing Tools:** Utilize tailor's ham, curved ironing boards, and pressing rolls for precise shaping.
- **Apply Steam Carefully:** Excessive steam can loosen fibres too much and cause loss of structure; controlled steam application ensures better results.
- **Avoid Over-Pressing:** Too much pressure can flatten shaped areas, making the garment lose its natural fit.
- **Follow Fabric-Specific Techniques:** Some fabrics, like wool and denim, hold moulded shapes better with steam, while delicate fabrics need gentler handling.
- **Check Symmetry and Alignment:** Ensure that the left and right sides of the garment match perfectly for a professional finish.

Moulding garments to body contours is a vital step in garment finishing, ensuring a well-fitted and aesthetically pleasing final product. Skilled pressmen use heat, steam, and pressure techniques to enhance the natural drape and structure of the fabric, making the garment comfortable and flattering for the wearer. By following industry-standard pressing methods, the Indian apparel sector maintains high-quality garment production, catering to both domestic and global fashion markets.

Ensuring proper shaping in iron requirements

Proper shaping during ironing and moulding is essential to maintain the fit, structure, and aesthetic appeal of stitched garments. Pressmen play a critical role in shaping garments using heat, steam, and pressure to enhance their form and ensure a professional finish. Proper ironing techniques help define garment contours, set creases, and improve the overall wear ability of clothing.

Factor	Description	Application in Garments
Correct Temperature Control	Different fabrics require specific heat settings to prevent damage while achieving the desired shape.	Wool (medium heat), cotton (high heat), silk (low heat).
Effective Steam Application	Steam helps relax fibres, making the fabric easier to mould into desired shapes.	Used in structured garments like blazers and saree blouses.
Use of Moulding Tools	Special ironing tools like tailor's hams, sleeve boards, and curved presses aid in shaping curved garment sections.	Bust shaping in blouses, sleeve pressing in formal shirts.
Gradual Pressure Application	Excessive pressure can flatten fabric texture, while light pressing helps maintain structure.	Used for delicate fabrics like silk and georgette.
Cooling and setting	After shaping, garments are allowed to cool to retain their pressed form.	Prevents creases from disappearing in trousers, jackets.

Table 2.3.5: Factors for Ensuring Proper Shaping in Ironing

Ensuring proper shaping in ironing and moulding is a crucial step in garment finishing within the Indian apparel industry. Skilled pressmen use precise heat, steam, and pressure techniques to enhance garment contours, improving both fit and visual appeal. By following best practices and using specialized ironing tools, they help maintain high-quality standards in stitched apparel production.

Case Study: Moulding and Pressing Techniques in the Indian Apparel Industry – A Case of Raymond Ltd.

Introduction: Raymond Ltd., one of India's leading textile and apparel brands, is known for its high-quality tailored garments, including formal suits, trousers, jackets, and ethnic wear. To ensure superior garment finishing, the company integrates advanced moulding and pressing techniques in its manufacturing units. This case study explores how Raymond applies these techniques to enhance garment fit, structure, and appearance.

Company Overview:

- **Company Name:** Raymond Ltd.
- **Industry:** Textile & Apparel Manufacturing
- **Products:** Formal suits, jackets, trousers, ethnic wear
- **Manufacturing Locations:** Maharashtra, Gujarat, Karnataka

Fig. 2.3.2: Raymond Logo

Moulding and Pressing techniques at Raymond are as follows:

1. **Fabric Preparation and Steam Relaxation:** Before cutting and stitching, fabrics undergo a pre-conditioning process where steam is applied to relax the fibres. This step is crucial in maintaining shape retention, especially in wool-based fabrics used for suits and trousers.

Fig. 2.3.3: Steam Relaxation

2. **Contour Moulding in Tailored Garments:** Raymond's pressing department uses specialized pressing equipment such as tailor's hams, sleeve boards, and vacuum pressing tables to shape key areas like:
   - **Shoulders and lapels of suits:** Ensuring structured, sharp edges.
   - **Waistbands and pleats of trousers:** Creating a smooth and polished finish.
   - **Bust and waist areas in ethnic wear:** Moulding to enhance the fit for kurtas and Nehru jackets.

Fig. 2.3.4: Contour Moulding

3. **Heat and Pressure Application:** Using high-pressure steam presses, Raymond ensures that garments hold their shape while preventing fabric shrinkage. The pressing temperature is adjusted based on fabric type:
   - **Wool and suiting materials:** Medium to high heat with controlled steam.
   - **Cotton and linen fabrics:** High heat with firm pressing for crisp creases.
   - **Silk and synthetic blends:** Low heat with light pressure to prevent shine marks.
4. **Quality Control and Finishing:** After moulding and pressing, garments are carefully inspected for symmetry, balance, and fabric distortion. Defective pieces are reworked to maintain Raymond's premium quality standards.

Fig. 2.3.4: Raymond Garment Pressing

Factor	Impact on Garment Quality
Fit and Shape Retention	Structured fit in suits, trousers, and jackets
Fabric Longevity	Prevents fibre damage, ensuring durability
Enhanced Aesthetic Appeal	Creases and contours give garments a premium look
Reduced Rework & Defects	Lower garment rejection rates in quality checks

Table 2.3.6: Impact of Moulding and Pressing Techniques

Conclusion: Raymond Ltd. successfully integrates moulding and pressing techniques in its garment production to ensure high-quality, well-structured, and durable apparel. The company's focus on heat control, steam application, and contour shaping allows it to maintain its reputation as a premium clothing brand in India and global markets.

The moulding and pressing process plays a vital role in the Indian apparel industry, ensuring that stitched garments achieve the desired shape, structure, and professional finish. This process involves the application of heat, steam, and pressure to contour garments, set creases, and enhance their overall appearance.

Moulding and pressing are critical finishing operations in garment manufacture, ensuring a superior fit, durability, and aesthetic appeal. Skilled pressmen employ heat, steam, and precision instruments to uphold industry standards and meet consumer demand for high-quality clothing. Proper practices eliminate errors, increase efficiency, and help India's textile sector compete globally.

UNIT 2.4: Workplace Safety, Equipment & Finishing Standards

Unit Objectives

By the end of this unit, the participants will be able to:

1. Follow safety precautions while ironing and handling garments.
2. Ensure the work area and equipment are hazard-free and materials meet required specifications.
3. Interpret work instructions to select correct patterns, inserts, and folding procedures.
4. Discuss the garment alterations and ensure creases are removed or applied per customer requirements.

2.4.1 Safety Precautions in Ironing and Handling Garments

Ironing and garment handling in the Indian apparel industry require strict adherence to safety precautions to prevent injuries, fabric damage, and production delays. Pressmen work with high-temperature equipment, steam, and delicate fabrics, making safety measures essential for both personal protection and garment quality.

Safety Measure	Description	Benefit
 **Proper Use of Heat Settings**	Adjust ironing temperature based on fabric type (low for silk, high for cotton).	Prevents scorching and fabric damage.
 **Protective Gear**	Use heat-resistant gloves, aprons, and closed-toe footwear.	Reduces the risk of burns and injuries.

Safety Measure	Description	Benefit
 **Safe Steam Handling**	Keep hands and face away from direct steam output.	Prevents steam burns.
 **Workstation Organization**	Keep ironing boards stable and ensure cords are safely placed.	Prevents accidental trips and falls.
 **Regular Equipment Maintenance**	Check iron plates, steam valves, and electrical cords for defects.	Ensures safe operation and prevents malfunctions.
 **Training & Awareness**	Conduct regular safety training for pressmen.	Promotes a safe work culture and reduces accidents.

Table 2.4.1: Safety Precautions for Ironing

Best Practices for Safe Guarding Handling are as follows:

- **Allow Hot Irons to Cool Properly:** Always place irons on heat-resistant surfaces when not in use.
- **Use a Pressing Cloth for Delicate Fabrics:** Protects fabrics from direct heat exposure and shine marks.
- **Avoid Overcrowding Work Areas:** Prevents accidental iron falls and garment mishandling.
- **Report Equipment Malfunctions Immediately:** Ensures quick repairs and prevents accidents.
- **Follow Emergency Procedures:** Know the location of fire exits, first aid kits, and safety protocols.

Fig. 2.4.1: Apparel Ironing Safety

Ensuring safety in ironing and garment handling is crucial for both worker well-being and fabric quality. Pressmen must follow proper heat control, protective measures, and workstation organization to prevent injuries and damage. Regular training, equipment maintenance, and fire safety preparedness help create a secure and efficient workplace in the Indian apparel industry.

2.4.2 Hazard-free Work Area and Equipment

A hazard-free work environment is essential for pressmen in the Indian apparel industry to ensure safety, efficiency, and high-quality garment finishing. Since pressing involves working with high temperatures, steam, and electrical equipment, maintaining a safe and organized workspace minimizes accidents, fabric damage, and production delays.

Key elements of a hazard-free work environment include the following:

Creating a safe and hazard-free workspace is essential for pressmen in the Indian apparel industry. This ensures accident prevention, efficiency, and overall workplace safety. Below are the key elements that contribute to a well-maintained, risk-free pressing environment.

- **Proper Equipment Placement:** Ensuring that ironing boards, steam presses, and electrical cords are positioned correctly helps in preventing workplace accidents. Pressing machines should be placed in designated areas, and power cords must be neatly arranged to avoid tripping hazards. Unstable equipment can lead to injuries, garment mishandling, and production delays, so every workstation must be properly set up.

Fig. 2.4.2: Steam presses

- **Well-Ventilated Workstations:** Pressing and ironing generate heat and steam, which can lead to worker discomfort, dehydration, and overheating if not properly managed. A well-ventilated workspace with exhaust systems and proper airflow helps disperse heat, ensuring a comfortable environment. Adequate ventilation also reduces humidity, preventing fabric damage and mould formation in garment storage areas.

Fig. 2.4.3: Pressing Workspace

- **Non-Slip Flooring:** Slippery surfaces caused by steam condensation, spilled water, or fabric fibres can lead to dangerous slips and falls. To prevent this, work areas should have rubber mats, anti-slip flooring, or textured surfaces. Workers should also be encouraged to wipe off spills immediately and wear non-slip footwear for added safety.
- **Organized Workstations:** Keeping the workstation clean and clutter-free improves efficiency and reduces risks. Pressmen should arrange garments, pressing tools, and safety equipment in designated spots to prevent fire hazards and misplaced items. Well-organized workstations also help in quick access to tools, leading to faster and more precise garment finishing.

Fig. 2.4.4: Slippery Area

Fig. 2.4.5: Electric Pressing Tool

- **Clear Emergency Exits:** In any workspace, emergency preparedness is critical. All exits and evacuation routes should be clear and accessible at all times. Fire extinguishers, first aid kits, and emergency stop buttons must be within easy reach to ensure quick response in case of fire, electrical malfunctions, or other workplace hazards. Regular safety drills should also be conducted to educate pressmen on proper evacuation procedures.

Fig. 2.4.6: Fire Extinguishers

By following these key safety measures, pressmen can work in a secure, efficient, and hazard-free environment, ensuring both their well-being and the quality of garments produced in the Indian apparel industry.

2.4.3 Materials to Meet the Required Specifications

In the Indian apparel industry, pressmen play a crucial role in ensuring that garments meet quality standards and customer specifications. The choice of materials used in pressing, ironing, and garment handling directly impacts the final finish, durability, and presentation of stitched items. Using the right materials ensures that fabric integrity is maintained, creases are sharp, and defects such as burns or shine marks are avoided.

Category	Material	Purpose
Ironing and Pressing Tools	 Steam Irons and Press Machines	Removes wrinkles and shapes garments while maintaining fabric texture.
	 Vacuum Press Tables	Absorbs excess steam and ensures a crisp, even finish
	 Teflon Shoe Covers	Prevents heat damage and shine on delicate fabrics like silk and polyester.
Protective Materials for Delicate Fabrics		Protects delicate fabrics from direct heat while ironing.

Category	Material	Purpose
		Prevents damage to embroidered, beaded, or printed garments.
		Prevents heat marks on dark-coloured garments.
Temperature Control Aids	 Thermostats and Heat Regulators	Ensures pressing machines operate at safe temperature limits for different fabrics.
		Absorbs excess steam, preventing over-wetting and shrinkage in heat-sensitive garments.

Category	Material	Purpose
Cleaning and Maintenance Materials	 Lint Rollers and Fabric Brushes	Removes dust, lint, and fibres before and after pressing.
	 Iron Cleaner and Descaling Agents	Prevents mineral build-up in steam irons, ensuring consistent performance.
	 Anti-Static Sprays	Reduces static cling in synthetic fabrics, making handling easier.

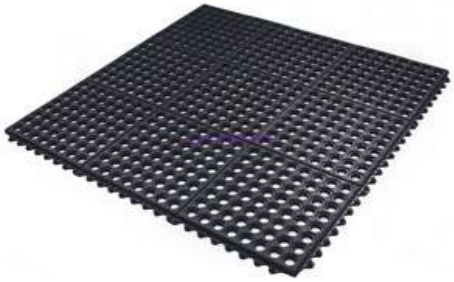
Category	Material	Purpose
Safety and Compliance Materials	 Heat-Resistant Gloves	Protects workers from burns while handling hot equipment.
	 Non-Slip Mats	Prevents accidents by providing stable footing in pressing areas.
	 Fire-Resistant Covers	Used in pressing tables to minimize fire hazards from overheating.

Table 2.4.2: Key Materials used for meeting requirements

It is essential to use the right materials for the pressing that has been provided in the bullet points below:

- **Ensures Garment Longevity:** Prevents fabric damage and maintains structural integrity.
- **Maintains Brand-Specific Finishing Requirements:** Delivers high-quality, professional-looking garments.
- **Enhances Worker Safety:** Reduces risks of burns, slips, and handling-related injuries.
- **Increases Production Efficiency:** Proper materials lead to faster ironing times, fewer reworks, and improved consistency in finishing.

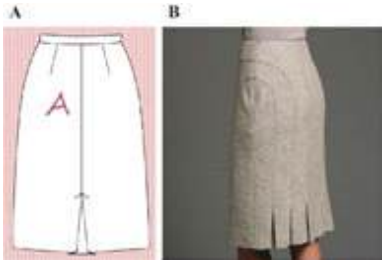
Using the correct materials in pressing and garment handling is essential for meeting industry specifications, maintaining fabric quality, and ensuring safety in the Indian apparel industry. By investing in high-quality pressing tools, protective materials, and safety equipment, pressmen can enhance efficiency, reduce errors, and achieve superior garment finishing.

2.4.4 Garment Alterations to Meet the Customer Requirements

In the Indian apparel industry, garment alterations play a vital role in ensuring customer satisfaction, proper fit, and high-quality finishing. Pressmen contribute significantly to this process by refining the final look of altered garments through precise pressing, reshaping, and adjusting creases or folds. Whether for minor modifications or major adjustments, proper ironing and finishing techniques help garments meet customer expectations.

In the Indian apparel industry, garment alterations are essential to ensure a perfect fit and customer satisfaction. Pressmen play a crucial role in refining altered garments, ensuring that they are well-shaped, wrinkle-free, and maintain their original design. Proper pressing techniques help restore the garment's smoothness, structure, and overall appearance after alterations. The key types of garment alterations and pressing techniques have been given below:

Alteration Type	Description	Pressman's Role in Finishing
 **Size Adjustments**	• Altering the garment's fit by increasing or reducing fabric at seams to accommodate different body sizes.	• Pressing seams properly to ensure a smooth, professional finish without visible seam marks or uneven stitching. Steam application is used to relax fabric tension.
 **Hem Adjustments**	• Shortening or lengthening the hemline of trousers, skirts, or dresses to match the required length.	• Ensuring the hem lies flat by using appropriate steam settings. Pressing helps remove puckering, stitch marks, or waviness caused by the alteration.

Alteration Type	Description	Pressman's Role in Finishing
 **Tapering and Reshaping**	• Modifying the garment's silhouette by adjusting the width of sleeves, pant legs, or the overall body shape for a better fit.	• Pressing helps redefine the new shape and ensures a natural drape. Pressmen use controlled steam application and directional ironing to blend the alterations seamlessly into the garment's original design.
 **Sleeve and Collar Modifications**	• Adjusting sleeve length, width, or collar shape to enhance fit and appearance.	• Shaping collars and sleeves with precise steam and heat control to maintain crisp edges and curves. Pressmen ensure that collar folds and sleeve creases align symmetrically.
 **Dart and Pleat Adjustments**	• Adding or modifying darts and pleats to improve garment contouring and give a structured appearance.	• Reinforcing pleats with sharp, symmetrical creases while ensuring darts are pressed correctly to match the garment's natural flow. Pressing eliminates bulkiness in darted areas.
 **Waistband Alterations**	• Increasing or decreasing waistband size to ensure a comfortable and snug fit for the wearer.	• Even pressing is required to prevent fabric bunching or uneven tension along the waistband. Steam is applied carefully to avoid distorting the fabric.

Alteration Type	Description	Pressman's Role in Finishing
 **Zipper and Button Placements**	• Replacing or repositioning zippers and buttons to align closures correctly or improve ease of use.	• Pressing around the zipper area to remove any stitch impressions and ensure a smooth, wrinkle-free finish. Buttonholes are pressed lightly to maintain fabric integrity.

Table 2.4.3: Types of adjustments

Significance of Pressing in Garment Alterations is as follows:

- **Restores the Original Appearance:** Pressing ensures that the garment looks factory-finished after adjustments.
- **Eliminates Stitch Marks and Wrinkles:** Steam application smooth out seams and prevents visible alteration traces.
- **Enhances Fit and Comfort:** Proper pressing techniques help the garment drape naturally on the wearer's body.
- **Improves Customer Satisfaction:** A well-pressed altered garment looks professionally tailored and ready to wear.

Garment alterations require skilled pressing and finishing techniques to achieve a flawless final product. Pressmen in the Indian apparel industry play a critical role in reshaping garments, reinforcing structure, and maintaining high-quality finishing. By using appropriate steam, heat, and pressure techniques, they help create well-fitted and aesthetically refined apparel that meets customer expectations.

Crease removal or application on the garments

Creases play a crucial role in garment aesthetics and functionality. While some garments require sharp, well-defined creases (e.g., formal trousers, pleated skirts), others need smooth, crease-free finishes (e.g., dresses, T-shirts). Pressmen are responsible for both crease removal and application, ensuring that garments meet design specifications and customer preferences.

Fig. 2.4.7: Creases in casuals and formals garment

Pressmen must carefully remove unwanted creases or wrinkles caused by storage, handling, or alterations. The following techniques are used

Method	Description	Best Used For
 **Steam Application**	Using steam irons or steamers to relax fabric fibres and release wrinkles.	 Delicate fabrics like silk, chiffon, and wool
 **Heat Pressing**	Applying a warm iron with controlled pressure to flatten stubborn creases.	 Cotton shirts, denim, and heavy fabrics.
 **Damp Cloth Method**	Placing a damp pressing cloth over the crease before ironing to prevent shine or scorching.	 Dark-coloured garments, synthetic fabrics.

Method	Description	Best Used For
 **Vacuum Pressing**	Using industrial vacuum pressing tables to remove wrinkles and maintain fabric shape.	

Table 2.4.4: Techniques to remove creases

Creases are essential for style and structure. Pressmen use precise techniques to apply and reinforce these creases effectively.

Method	Description	Best Used For
Sharp Crease Pressing	Applying firm pressure with high heat to create long-lasting creases.	 Formal trousers, pleated skirts.
Template or Guide Use	Using moulds or pressing guides to ensure uniform pleats and folds.	 Uniforms, designer garments.

Method	Description	Best Used For
Steam Setting	Using steam to define creases without making them too stiff.	 Lightweight fabrics, traditional wear.
Spray Starch Application	Applying light starch before pressing to reinforce crease retention.	 Office wear, saree pleats.

Table 2.4.5: Methods for crease handling

Key considerations to the crease handling are as follows:

- Align creases symmetrically on both sides of the garment.
- Avoid excessive starch, which can make fabric stiff and uncomfortable.
- For delicate fabrics, use low heat settings to prevent damage.

Proper Crease Handling helps in the following activities:

- Proper crease application improves the garment's overall presentation.
- Using the right techniques prevents fibre damage and discoloration.
- Well-pressed garments give a professional and polished look.
- Correct pressing methods help creases stay longer without re-ironing.

Crease removal and application are essential finishing processes in garment production. Pressmen in the Indian apparel industry must carefully remove wrinkles and apply creases using appropriate heat, steam, and pressing techniques. By ensuring precise, well-maintained finishes, they help deliver garments that meet both design requirements and customer expectations.

Summary

- Employees must adhere to company rules regarding work timings, dress code, equipment usage, safety, and behaviour to ensure a productive and organized work environment.
- Pressmen must follow safety guidelines to prevent injuries, maintain cleanliness, handle chemicals properly, and report hazards to ensure a safe and eco-friendly workspace.
- Workers must follow SOPs for starting, operating, and maintaining machines, while also taking necessary precautions against potential hazards such as burns, electric shocks, and slips.
- Pressmen are responsible for finishing stitched garments by carefully pressing them according to fabric type, pressing requirements, and quality standards.
- Key performance indicators (KPIs) such as garments pressed per shift, error reduction, and quality control help in monitoring performance, while regular feedback and training improve productivity.
- Pressmen must follow protocols for acquiring fabric details, production priorities, and special handling instructions.
- Pressmen must use appropriate heat settings, steam application, and pressing tools to prevent fabric damage and maintain garment quality.
- Moulding is a pressing process used to shape garments according to body contours, enhancing fit and comfort.
- Pressmen must follow critical safety precautions such as adjusting heat settings according to fabric type, using protective gear, maintaining a stable workstation, and ensuring regular equipment maintenance.
- Proper equipment placement, ventilation, non-slip flooring, organized workstations, and clear emergency exits help prevent injuries, fabric mishandling, and production delays.
- Pressmen refine the final garment finish by carefully pressing seams, hems, collars, and pleats after alterations.

Exercise

Multiple-choice Question:

1. What should a pressman do if they notice a machine malfunctioning?
   a. Continue working and try to fix it themselves
   b. Report the issue to the supervisor immediately
   c. Ignore the problem and use another machine
   d. Increase the temperature and pressure to see if it works

2. What is the purpose of using a protective cloth while pressing certain fabrics?
   a. To prevent overheating the iron
   b. To avoid shine marks and fabric damage
   c. To increase ironing speed
   d. To reduce steam pressure

3. What is the main purpose of using a pressing cloth when ironing delicate fabrics?
   a. To increase the temperature for better results
   b. To protect the fabric from direct heat and shine marks
   c. To make the garment stiffer
   d. To speed up the ironing process

4. Why is proper ventilation important in ironing workstations?
   a. It helps workers breathe in steam for better fabric handling
   b. It disperses heat and reduces humidity, preventing worker discomfort and fabric damage
   c. It increases steam production for faster ironing
   d. It makes garments more resistant to wrinkles

5. Which of the following is NOT a recommended practice for ironing delicate fabrics like silk and chiffon?
   a. Using low heat settings
   b. Applying heavy pressure to remove wrinkles
   c. Using a pressing cloth to prevent shine
   d. Steam pressing lightly from a distance

Descriptive Questions:

1. Explain the potential hazards associated with pressing machines and describe the safety precautions that should be taken to prevent accidents in the workplace.
2. Explain the significance of work tickets/job cards in the apparel pressing process.
3. Explain the process of moulding garments to body contours and discuss its importance in ensuring garment fit and quality. Provide examples of garments where this technique is essential.
4. Explain the key safety precautions pressmen should follow while handling steam irons and pressing equipment.
5. Discuss the role of pressing and ironing in garment alterations.

Notes

Scan the QR codes or click on the link to watch the related videos

https://youtu.be/PP9dYoN8pTk?si=2zJ2NkLNImnTdyWM

Mechanical and Machinery hazards

https://youtu.be/_nM0u_pVceE?si=c9W5_1wqhgK2iaE7

Parts and Labour to Job Card (Work Order)

https://youtu.be/EWMZh9DavYM?si=52ZBNMX9n21nl9N7

How to Identify Fabrics & Iron it

Skill India
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3. Iron Garments to Finish Apparels

Unit 3.1 - Ironing Techniques and Apparel Suitability

Unit 3.2 - Industrial Ironing Equipment and Maintenance

Unit 3.3 - Work Process, Safety, and Quality Control

AMH/N0401

Key Learning Outcomes

By the end of this module, the participants will be able to:

1. Explain the range of ironing techniques most suited to the different types of apparel.
2. Describe various types and parts of industrial ironing table (that is, vacuum/blowing functions).
3. Explain the processes of under pressing, rough pressing and final pressing.
4. Explain various types of ironing machine and its parts.

UNIT 3.1: Ironing Techniques and Apparel Suitability

Unit Objectives

By the end of this unit, the participants will be able to:

1. Explain ironing techniques suited to different apparel and garment parts.
2. Identify and apply the appropriate ironing method based on fabric type.
3. Recognize and address common ironing defects and modifiable issues.
4. Respond to quality concerns when items do not meet production standards.

3.1.1 Ironing Techniques for Different Garments

Pressing is a crucial step in garment production, ensuring a polished and professional finish before final processing or packaging. Different types of garments require specific ironing techniques to maintain fabric integrity, enhance presentation, and meet industry quality standards. Pressmen must be skilled in handling various fabrics and garment designs to achieve the best results.

Ironing Technique	Garment Type	Key Methods Used	Impact on Garment Quality
 **Precision Pressing**	Formal Wear (Suits, Dress Shirts, Trousers)	• Steam application to relax fibres • Crease definition for sharp pleats • Layered pressing with a pressing cloth • Proper temperature control to prevent shine	Maintains a crisp, professional look and enhances durability.
 **Flat Ironing**	Casual Wear (T-Shirts, Cotton Shirts, Denim)	• Moderate steam and heat to prevent shrinking • Ironing in sections for even pressure distribution • Inside-out ironing for dark fabrics • Stretch and press technique for knits	Ensures garments retain a fresh, neat appearance without fabric damge.

Ironing Technique	Garment Type	Key Methods Used	Impact on Garment Quality
 **Gentle Pressing**	Delicate Fabrics (Silk, Chiffon, Organza)	• Low-temperature ironing to prevent heat damage • Using a pressing cloth for protection • Steaming instead of direct ironing • Minimal pressure to maintain fabric texture	Prevents damage while ensuring a smooth, luxurious finish.
 **Specialized Pressing**	Traditional & Embellished Garments (Sarees, Kurtas, Embroidered Fabrics)	• Reverse side ironing to protect embellishments • Using a padded ironing board to prevent pressure marks • Steam and hovering method for delicate embroidery • Hand-ironing pleats to maintain structure	Preserves intricate details and maintains the elegance of traditional garments.
 **Press and Hold Method**	Heavyweight Garments (Jackets, Coats, Denim Jeans)	• High steam pressure to soften thick fibres • Press and hold motion for stubborn wrinkles • Layered ironing for even heat distribution • Ironing in the direction of fabric grain to prevent distortion	Ensures smooth, structured results without flattening fabric texture.

Ironing Technique	Garment Type	Key Methods Used	Impact on Garment Quality
 **Controlled Heat Pressing**	Stretchable & Synthetic Fabrics (Lycra, Polyester, Rayon Blends)	• Low to medium heat settings to prevent melting • Quick ironing strokes to avoid overheating • Steam-assisted smoothing to relax fibres • Using a pressing cloth for polyester to prevent shine	Maintains flexibility, prevents fabric hardening, and ensures a polished look.

Table 3.1.1: Ironing Techniques in Pressing

Ironing techniques vary based on garment type, fabric composition, and design requirements. Pressmen must adapt their ironing approach to ensure garments are wrinkle-free, properly shaped, and visually appealing while maintaining fabric integrity. Mastering these techniques ensures that stitched apparel meets high-quality standards before moving to the next production stage, ultimately contributing to the overall efficiency and professionalism of the garment industry.

Ironing Techniques for Specific Garment Parts

Ironing techniques vary based on garment parts to ensure a polished and professional finish. Different fabric textures, shapes, and structures require specialized approaches to maintain quality and durability. Proper ironing of garment sections such as collars, cuffs, seams, pleats, and hemlines is crucial to achieving a well-finished look in the stitched apparel industry.

Precision Edge Pressing
- Collars

Controlled Pressure Pressing
- Cuffs

Seam Open Pressing
- Seams

Crease-Setting Pressing
- Pleats & Folds

Pressing with Light Steam
- Pockets

Soft Glide Pressing
- Hemlines

Fig. 3.1.1: Ironing Techniques in Specific Garments

The impact of specific garments on ironing techniques includes the following:

- It facilitates to form a structured, sharp look without puckering.
- Specific techniques ensure stiffness and enhances the formal look of the garment
- It assures flat, well-defined seams that improve garment structure.
- It ensures a flat, even surface without distortions.
- It keeps the pleats sharp and defined for a neat appearance.
- It provides a clean, professional finish without stretching or puckering.

Mastering ironing techniques for different garment parts ensures a well-structured and refined final product. Proper handling of collars, cuffs, seams, pleats, and hemlines enhances the durability and overall appearance of garments, meeting industry quality standards.

3.1.2 Ironing Guidelines for Common Fabrics

Different fabrics require specific ironing techniques to ensure a smooth, wrinkle-free finish without causing damage. The choice of heat settings, steam application, and pressing methods must be carefully adjusted based on fabric type to maintain garment quality. In the Indian stitched apparel industry, pressmen must follow fabric-specific guidelines to achieve professional results while preventing burns, shine marks, and shrinkage.

Fabric Type	Recommended Heat Setting	Ironing Technique	Precautions to Take
 **Cotton**	Medium to High	• Use a steam iron for better crease removal • Press while slightly damp for best results • Iron on the reverse side for dark colours	Avoid excessive heat to prevent fabric scorching
 **Linen**	High	• Use heavy steam for deep wrinkles • Press firmly but avoid excessive pressure • Iron inside out to avoid shine marks	Use a pressing cloth to protect delicate areas

Fabric Type	Recommended Heat Setting	Ironing Technique	Precautions to Take
 **Silk**	Low to Medium	• Use a dry iron (no steam) • Place a thin cotton cloth between iron and fabric • Press with light pressure to avoid crushing fibres	Never spray water directly to prevent stains
 **Polyester & Blends**	Low to Medium	• Use a low heat setting to prevent melting • Press quickly without holding the iron in one spot • Use steam sparingly to avoid excess moisture absorption	Iron inside out to prevent shine marks
 **Wool & Wool Blends**	Low to Medium	• Use a pressing cloth and steam for smooth results • Press with light strokes rather than dragging the iron • Allow fabric to cool before moving it	Avoid direct contact with the iron to prevent flattening fibres
 **Denim**	High	• Use a high-temperature setting with steam • Press on the inside to prevent fading • Stretch fabric slightly while pressing for shape retention.	Avoid pressing seams with excessive force to prevent seam imprints

Fabric Type	Recommended Heat Setting	Ironing Technique	Precautions to Take
 **Chiffon & Georgette**	Low	• Use minimal heat with a dry iron • Place a cloth barrier between the iron and fabric • Press gently with light strokes	Never apply direct heat to avoid fibre melting
 **Rayon & Viscose**	Low	• Use a dry iron with gentle pressing • Iron inside out to prevent shine • Hang garments immediately after pressing to retain shape	Avoid excessive moisture, as it weakens fibres

Table 3.1.2: General Fabrics ironing guidelines

Special Considerations for Delicate Fabrics

Delicate fabrics require extra care during ironing to prevent damage such as scorching, shrinkage, shine marks, or fibre distortion. Pressmen in the Indian stitched apparel industry must use the right heat settings, protective techniques, and proper handling methods to maintain fabric integrity while achieving a smooth finish. The following picture depicts the considerations to make for delicate fabrics while ironing:

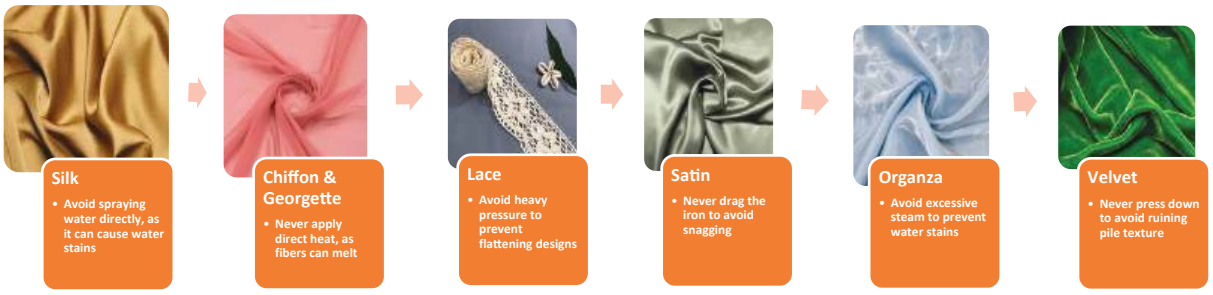


Fig. 3.1.2: Considerations for special fabrics

3.1.3 Common Ironing Defects

Ironing is a crucial finishing process in the apparel industry that enhances garment appearance and quality. However, improper techniques, incorrect temperature settings, or lack of maintenance can lead to common ironing defects. These defects can affect the final product, leading to rework, customer dissatisfaction, or even rejection of the garments. Pressmen must be aware of these defects and take necessary precautions to prevent them.

Ironing Defect	Description	Causes	Prevention Methods	Impact on Garment Quality
 **Shine Marks**	Glossy patches appear on the fabric surface, especially on dark or synthetic materials.	Excessive heat, high pressure, or ironing directly on the fabric.	Use a pressing cloth, iron on the reverse side, and reduce pressure.	Reduces garment appeal and can lead to customer dissatisfaction.
 **Scorching or Burn Marks**	Fabric gets permanently discoloured or burned.	Overheating, prolonged ironing on one spot, or using an unsuitable temperature setting.	Adjust iron temperature according to fabric type and avoid leaving the iron in one place too long.	Irreversible damage, making the garment unsellable.
 **Wrinkle Reappearance**	Wrinkles remain or return after ironing.	Insufficient heat or steam, improper handling after ironing.	Apply the right amount of heat and steam, allow the fabric to cool properly before folding or packing.	Affects the overall presentation and neatness of the garment.
 **Water Stains**	Dark or uneven spots appear on the fabric.	Leaking steam iron, excessive water spray, or hard water residues.	Use dry steam settings, check for leaks in irons, and use distilled water if necessary.	Lowers garment quality and may require re-ironing or washing.
 **Fabric Shrinkage**	Fabric reduces in size after ironing.	Excessive heat, high steam pressure, or ironing delicate fabrics at high temperatures.	Follow fabric care instructions and test heat settings before ironing.	Alters garment fit and sizing, leading to defects in production.

Ironing Defect	Description	Causes	Prevention Methods	Impact on Garment Quality
 **Seam Impressions**	Visible seam marks appear on the outer side of the fabric.	Excessive pressure while pressing seams incorrect use of steam rollers.	Use seam roll or pressing cushion, apply moderate pressure.	Affects the smooth appearance and symmetry of the garment.
 **Distorted Fabric Shape**	Garment loses its original shape or stretches unevenly.	Over-pressing, excessive steam, or pulling the fabric while ironing.	Use the correct pressing technique without overstretching the fabric.	Results in misaligned patterns or improper garment fitting.
 **Lustre Loss**	Loss of fabric sheen, especially in satin, silk, and synthetic materials.	Excessive heat or overuse of steam.	Use lower heat settings and iron on the reverse side.	Reduces fabric quality and overall garment appeal.
 **Puckering or Bubbling**	Small waves or distortions appear on the fabric surface.	Uneven pressure, improper steam application, or pressing over fused areas.	Apply even pressure; avoid excessive steam on fused fabrics.	Affects garment aesthetics and leads to rework.

Table 3.1.3: Ironing Defects

Understanding and preventing common ironing defects is essential for pressmen in the Indian apparel industry to maintain garment quality. Proper temperature control, careful fabric handling, and regular equipment maintenance can significantly reduce these defects, ensuring that garments meet high industry standards before reaching customers.

Solutions to Ironing Issues

Ironing defects can compromise garment quality, leading to rework, production delays, and customer dissatisfaction. To maintain high-quality standards, pressmen must implement proper techniques, use the right tools, and follow best practices. Below are common ironing issues and their effective solutions.

Ironing Issue	Steps for solutions
Shine Marks	• Use a pressing cloth and iron on the reverse side. • Adjust iron temperature based on fabric type.
Scorching or Burn Marks	• Reducing heat; use a damp cloth for minor burns. • Test heat settings before ironing.
Wrinkle Reappearance	• Re-press with appropriate steam settings. • Allow garments to cool properly before folding.
Water Stains	• Use dry steam settings and wipe stains with a damp cloth. • Check for iron leaks and use distilled water.
Fabric Shrinkage	• Stretch fabric gently while warm to reshape. • Use recommended ironing temperatures for different fabrics.
Seam Impressions	• Use a seam roll or pressing cushion. • Apply moderate pressure and avoid direct pressing over seams.
Distorted Fabric Shape	• Gently reshape fabric while cooling. • Avoid pulling fabric while pressing.
Lustre Loss	• Iron on the reverse side using lower heat settings. • Use a pressing cloth to prevent direct heat exposure.
Puckering or Bubbling	• Repress with controlled heat and even pressure. • Avoid excessive moisture and apply correct steam levels.

Table 3.1.4: Steps for reducing the ironing issues

By following the right ironing techniques, adjusting equipment settings, and handling fabrics with care, pressmen can effectively resolve common ironing issues. A well-trained workforce and adherence to best practices ensure garments maintain their quality, presentation, and durability before reaching customers.

3.1.4 Quality Control in Ironing

Quality control in ironing plays a vital role in ensuring that garments maintain their shape, finish, and overall presentation before reaching the next stage of production. In the Indian stitched apparel industry, pressmen must follow strict guidelines to prevent defects and maintain consistency across batches. Proper ironing techniques, equipment maintenance, and thorough inspections help meet customer expectations and industry standards.

Adhering to Standard Ironing Procedures

- Following prescribed temperature and pressure settings for different fabrics.
- Using the correct ironing techniques to avoid damage and ensure garment longevity.
- Ensuring uniform pressing to prevent uneven creases and distortions.

Checking for Common Ironing Defects

- Inspecting garments for shine marks, scorching, and uneven seams.
- Identifying puckering wrinkles, or steam stains that may impact garment appearance.
- Re-ironing or reporting defects before garments move to the next stage.

Ensuring Consistency in Finishing

- Using proper steam application to achieve smooth, wrinkle-free garments.
- Maintaining uniform pleats, creases, and fabric drape for a professional look.
- Cross-checking garments within the same batch to maintain uniformity.

Maintaining Equipment for Optimal Performance

- Regular cleaning and descaling of steam irons to prevent residue build-up.
- Checking for leaks, steam inconsistencies, or damaged pressing surfaces.
- Reporting malfunctioning equipment to avoid defects caused by faulty machinery.

Conducting Final Inspections

- Performing visual checks to ensure garments meet ironing standards.
- Using quality control checklists to verify garment readiness.
- Separating defective garments and escalating them for necessary corrections.

Documentation and Reporting

- Keeping records of ironing defects and corrective actions taken.
- Reporting recurring quality issues to supervisors for process improvements.
- Ensuring compliance with industry quality assurance protocols.

Addressing customer and production issues during quality control is critical to sustaining high standards in garment manufacturing. Pressmen help to ensure smooth operations and customer satisfaction by using proper ironing techniques, finding faults early, and communicating openly with production teams. Effective quality control improves garment quality as well as eliminates rework, shortens production delays, and increases overall efficiency in the Indian apparel business.

Addressing Customer and Production Concerns

Ensuring high-quality garment production is critical in the stitched apparel sector. Pressmen play an important role in quality control by meeting customer expectations and production problems with ironing. Any flaws in ironing might result in customer discontent, extra rework, and production delays. Proper quality control procedures contribute to maintaining high standards, streamlining manufacturing, and reducing errors.

Key aspects of addressing the customer and production concerns are as follows:

Understanding Customer Expectations

- Ensuring garments meet quality standards for wrinkle-free, properly pressed finishes.
- Maintaining consistency in pressing techniques to achieve uniform appearance.
- Addressing specific requirements such as sharp creases, smooth fabric surfaces, and proper shape retention.

Fig. 3.1.3: Wrinkle-free shirt

Identifying and Resolving Pressing Defects

- Detecting common ironing issues such as shine marks, scorching, or steam stains.
- Re-pressing defective garments before they move to the next production stage.
- Separating and documenting severely damaged garments for further evaluation.

Fig. 3.1.4: Steam stains in clothes

Minimizing Rework and Production Delays

- Following standard ironing protocols to reduce defects and prevent re-ironing.
- Coordinating with supervisors and quality control teams to address pressing concerns immediately.
- Ensuring timely escalation of garments to maintain smooth production flow.

Fig. 3.1.5: Supervisors at the apparel industry

Effective Communication with Production Teams

- Reporting any recurring ironing issues to improve processes and prevent future defects.
- Providing feedback on machine maintenance needs and pressing technique adjustments.
- Collaborating with quality control inspectors to ensure consistency across all batches.

Fig. 3.1.6: Automatic Cabinet Press for Pressing Technique

Maintaining Proper Documentation and Reporting

- Keeping records of quality issues, defective garments, and corrective actions taken.
- Documenting customer complaints related to ironing defects for process improvements.
- Implementing feedback from customers and production teams to enhance ironing techniques.

Fig. 3.1.7: Quality checking

Addressing customer and production concerns in quality control is vital to maintaining high standards in garment production. By ensuring proper ironing techniques, identifying defects early, and maintaining open communication with production teams, pressmen contribute to smooth operations and customer satisfaction. Effective quality control not only improves garment quality but also reduces rework, minimizes production delays, and enhances overall efficiency in the Indian apparel industry.

UNIT 3.2: Industrial Ironing Equipment and Maintenance

Unit Objectives

By the end of this unit, the participants will be able to:

1. Describe types and functions of industrial ironing tables, bucks, and machines.
2. Explain machine setup, adjustment, and maintenance procedures.
3. Conduct test runs and adjust controls to ensure proper operation.
4. Follow reporting procedures for defective equipment and machine failures.

3.2.1 Types of Industrial Ironing Tables and Bucks

Maintaining the right shape, texture, and finishing of clothing is essential for both aesthetic appeal and quality requirements in the Indian apparel sector. Pressmen use a variety of industrial ironing tables, bucks, and pressing machines to do this. Before clothing is sent to packing or retail, these specialised equipment aid in effectively eradicating wrinkles, fixing creases, and guaranteeing a polished appearance.

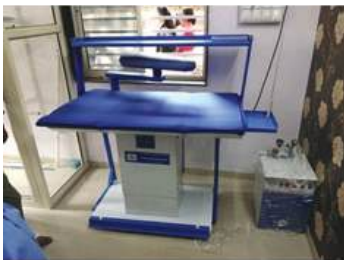
Every kind of equipment is made to meet particular production requirements, fabric types, and garment structures. The choice of the right equipment depends on factors such as:

- **Fabric Sensitivity:** Delicate fabrics like silk require controlled steam, while heavier fabrics like denim need higher pressure.
- **Garment Design:** Structured garments like blazers require specialized shaping bucks, whereas flat surfaces work well for simple designs.
- **Production Volume:** Automated and high-pressure machines enhance efficiency in large-scale manufacturing.

Industrial Ironing Tables

Ironing tables serve as the primary work surface where garments are placed for pressing. The right ironing table improves efficiency, prevents fabric damage, and enhances finishing quality.

Type of Ironing Table	Description	Key Benefits	Commonly Used For
 **Vacuum Ironing Table**	Equipped with a vacuum suction system that removes moisture and enhances heat penetration.	Faster drying, prevents fabric distortion, enhances pressing efficiency.	Lightweight fabrics like cotton, silk, and linen.

Type of Ironing Table	Description	Key Benefits	Commonly Used For
 **Steam Heated Ironing Table**	Built-in steam generators provide controlled heat and moisture.	Ideal for delicate fabrics, ensures even steam distribution.	Premium garments requiring precise steam control.
 **Air Blowing Ironing Table**	Uses air-blowing technology to inflate garments, preventing excessive flattening.	Best for structured garments, eliminates pressing marks.	Suits, jackets, and high-end apparel.
 **Flat Bed Ironing Table**	A simple, smooth surface for manual pressing with steam irons.	Suitable for basic ironing, cost-effective for small factories.	General ironing tasks in small production units.

Types of Ironing Bucks

Ironing bucks are specialized surfaces that help in pressing specific parts of a garment. They improve precision and finishing quality, especially for structured clothing items.

Type of Ironing Buck	Description	Key Benefits	Commonly Used For
 **Shirt Finishing Buck**	Specially designed for pressing shirt bodies, collars, and cuffs.	Ensures sharp creases and even pressing.	 Bulk production of formal and casual shirts.

Type of Ironing Buck	Description	Key Benefits	Commonly Used For
 **Trouser Pressing Buck**	Designed to shape trousers with precise creases.	Utilizes steam and vacuum for a polished finish.	 Denim jeans, formal trousers, and casual pants.
 934 57 57 898 **Form Finisher Buck**	Supports garments with three-dimensional structures.	Prevents fabric flattening, allows natural shaping.	 Coats, blazers, and high-end tailored garments.
 **Universal Press Buck**	A multi-purpose surface adjustable for different garment types.	Versatile and useful for varied production needs.	 Factories producing diverse apparel items.

Table 3.2.1: Types of Ironing Bucks

Industrial Pressing Machines

Pressing machines are mechanized systems that use steam, pressure, and controlled heat to efficiently press garments in bulk production. They enhance productivity, precision, and consistency.

Type of Pressing Machine	Description	Key Benefits	Commonly Used For
 **Steam Press Machine**	Uses high-pressure steam to press garments quickly and effectively.	Suitable for mass production, ensures uniform finishing.	Large-scale garment factories.
 **Pneumatic Press Machine**	Operates using compressed air pressure for even pressing.	Reduces manual effort, improves consistency.	Heavyweight fabrics like denim and wool.
 **Hydraulic Press Machine**	Uses hydraulic force for precise pressing of structured garments.	Suitable for luxury apparel, provides detailed finishing.	Suits, coats, and formalwear.

Type of Pressing Machine	Description	Key Benefits	Commonly Used For
 **Automated Robotic Pressing Machine**	Equipped with AI-driven sensors to adjust steam and pressure based on fabric type.	Minimizes human error, increases efficiency.	Large-scale, technology-driven garment units.

Table 3.2.2: Industrial Pressing Machines

The Indian apparel industry relies on a combination of industrial ironing tables, bucks, and pressing machines to maintain garment quality, enhance efficiency, and meet global manufacturing standards. The selection of the right equipment depends on fabric type, garment structure, and production scale.

- Ironing tables help in general pressing and steam application.
- Ironing bucks improve the precision of specific garment areas like collars, trousers, and blazers.
- Pressing machines provide high-speed, large-scale finishing solutions.

By leveraging the right tools, Indian garment manufacturers can ensure consistency, professional finishing, and increased productivity in the apparel industry.

3.2.2 Machine Setup, Adjustment, and Maintenance Procedures

High-quality pressing and finishing in the Indian garment industry depend on keeping industrial ironing machines in top working order. Effective operation, safety, and a longer machine lifespan are guaranteed by proper setup, adjustments, and routine maintenance. To avoid production delays and garment flaws, pressmen need to be well trained in the handling, adjustment, and maintenance of this equipment.

Setting Up Industrial Ironing Machines

Before using an industrial ironing machine, proper setup is essential to ensure safe and efficient operation. Below are the step-by-step setup procedures:

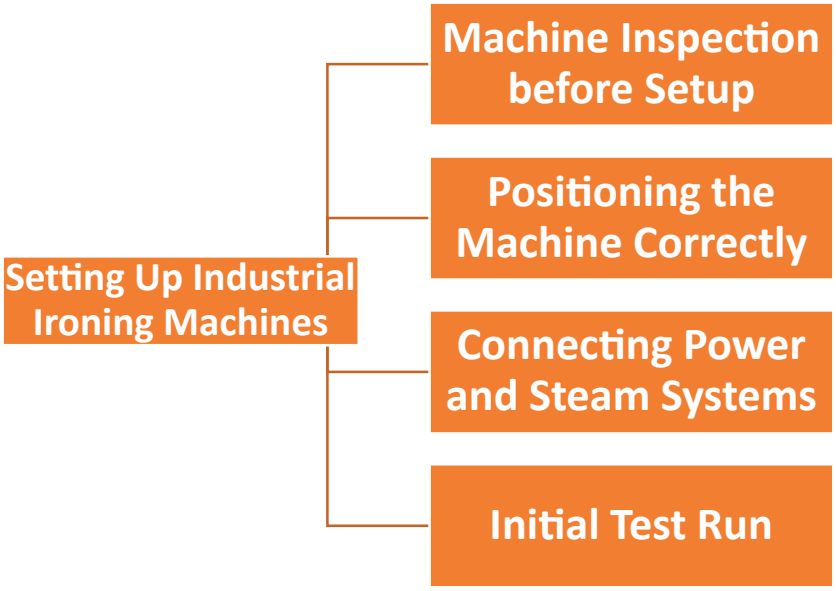


Fig. 3.2.1: Process of industrial ironing machine set-ups

There are some key essentials that a pressman needs to consider while setting up the ironing machines which includes the following bulleted points:

- Check for any **visible damage** or loose parts before plugging in the machine.
- Ensure the **steam, water, and electrical connections** are properly secured.
- Inspect the **ironing surface, vacuum system, and steam nozzles** for blockages or debris.
- Verify that all **safety features,** such as automatic shut-off and temperature controls, are functional
- Place the machine on a **stable, level surface** to prevent wobbling or uneven pressing.
- Ensure there is **adequate ventilation** around the machine to prevent overheating.
- Keep all **power cords and steam pipes organized** to avoid workplace hazards.
- Plug the machine into a **regulated power supply** with the correct voltage settings.
- Connect the steam generator to a **clean water source,** ensuring proper filtration.
- Test the **steam pressure and temperature settings** before starting work.
- Run the machine without fabric to check **steam flow and heat consistency.**
- Adjust settings if necessary and confirm that **all parts are functioning properly.**
- Lubricate necessary moving parts to **prevent friction and wear.**

Adjusting Machines for Optimal Performance

Once the machine is set up, adjustments must be made based on fabric type, garment structure, and pressing requirements.

1. **Temperature and Steam Control**
    - Adjust the temperature settings based on fabric type
        - Low heat for silk, chiffon, and synthetic fabrics.
        - Medium heat for cotton, linen, and blended fabrics.
        - High heat for denim, wool, and structured garments.
    - Modify steam pressure to prevent fabric damage, ensuring proper moisture control.
    - Use Teflon shoe attachments for delicate fabrics to prevent shine or burns.

2. **Pressure and Timing Adjustments**
   - Adjust the pressing pressure based on garment thickness:
     - Light pressure for soft, flow-y fabrics.
     - Medium pressure for formalwear and uniforms.
     - Heavy pressure for structured suits and coats.
   - Set the dwell time (time fabric remains under heat) to avoid over-pressing.
3. **Vacuum and Airflow Optimization**
   - Fine-tune the vacuum system to remove excess steam and moisture.
   - For delicate garments, use air-blowing features to maintain garment shape without flattening.
4. **Testing for Quality Assurance**
   - Conduct a test press on a sample fabric before beginning bulk production.
   - Inspect for any creases, burns, or uneven pressure marks.
   - Make final micro-adjustments to ensure consistent performance.

Routine Maintenance Procedures

Regular maintenance extends the life of pressing machines and ensures smooth, uninterrupted operations. Below are the essential maintenance steps:

Maintenance Tasks	Activities
Weekly Preventive Maintenance	Descale the boiler using anti-scaling agents to remove mineral build-up. Lubricate moving parts to prevent mechanical wear. Inspect the vacuum system and clean any accumulated dust or debris. Ensure that safety sensors and emergency shut-off features are functional.
Monthly Deep Maintenance	Conduct a full inspection of electrical components and replace worn-out wiring if needed. Check temperature sensors and thermostats for accurate readings. Remove and clean steam nozzles to prevent clogging and ensure smooth steam flow. Test the efficiency of pressing plates and replace them if signs of wear are detected

Table 3.2.3: Maintenance Procedures

1. **Troubleshooting Common Issues**

Issue	Possible Cause	Solution
Machine not heating properly	Faulty thermostat or heating element	Check and replace faulty parts
Steam leakage	Loose or damaged steam hoses	Tighten or replace hoses

Issue	Possible Cause	Solution
Excessive moisture on fabric	Vacuum system malfunction	Clean and repair the vacuum system
Burn marks on fabric	Incorrect temperature setting	Adjust temperature and use protective coverings

Table 3.2.4: Common machinery issues

Proper setup, adjustments, and maintenance of industrial ironing machines are essential for consistent garment quality and efficient production in the Indian apparel industry. By following structured maintenance routines, pressmen can:

- Ensure smooth machine operation with minimal downtime.
- Prevent common pressing defects such as burns, wrinkles, and steam stains.
- Extend the lifespan of equipment, reducing costs for garment factories.
- Enhance workplace safety by identifying and resolving potential hazards.

Regular training and adherence to machine care protocols allow the apparel industry to maintain high production efficiency, reduce defects, and meet global quality standards.

3.2.3 Conducting Test Runs

Garment finishing is a critical stage that enhances the appearance, texture, and durability of stitched items before they reach customers. Pressing ensures that fabrics are smooth, wrinkle-free, and properly shaped, making them ready for packaging or retail display. However, achieving a consistent, high-quality finish depends on the precise operation of industrial pressing machines.

To ensure that these machines function optimally, pressmen must perform thorough test runs and adjust machine controls before beginning full-scale production. This process helps in:

Detecting potential defects like overheating, steam leakage, or uneven pressure.

- Optimizing temperature, steam, and vacuum settings to suit different fabric types.
- Ensuring efficiency and safety by preventing overheating, burns, or mechanical failures.
- Maintaining consistency in garment finishing, ensuring that all pieces in a batch meet the required quality standards.
- By conducting systematic test runs and making necessary adjustments, pressmen can prevent costly errors, reduce fabric wastage, and improve productivity.

This guide provides a detailed overview of:

- Performing Initial Test Runs
- Adjusting Machine Controls
- Ensuring Quality Assurance before Full Operation

Implementing structured testing and adjustment procedures not only enhances product quality but also ensures workplace safety and compliance with industry regulations.

Ensuring Quality Assurance before Full Operation

Once machine settings are optimized, final quality checks must be performed before mass production begins.

1. Conducting Final Sample Checks
   - Press a full garment sample to assess real production conditions.
   - Inspect for wrinkle removal, even creases, and fabric integrity.
   - Make any final adjustments to temperature, pressure, or pressing time if required.
2. Identifying and Resolving Defects

   Common defects and their solutions:

Defect	Possible Cause	Solution
Shine marks on fabric	• High temperature, too much pressure	• Lower temperature, use a pressing cloth
Water stains	• Excess steam, vacuum malfunction	• Reduce steam output, check vacuum system
Wrinkles not removed	• Low heat, improper pressing technique	• Increase heat, adjust pressure evenly
Uneven creases	• incorrect machine alignment	• Adjust pressure plates and test again

Table 3.2.5: Common defects

3. **Approval for Full Production**
   - Once the test garment meets quality standards, proceed with full-scale ironing.
   - Monitor machine performance regularly during production for consistent output.
   - Maintain documentation of test results for future reference and process improvement.

Conducting test runs and adjusting machine controls are essential steps in ensuring quality and efficiency in the apparel pressing industry. By following structured procedures, pressmen can:

Prevent garment defects like burns, wrinkles, and uneven pressing.

- Optimize machine performance, reducing downtime and energy waste.
- Ensure consistency in garment finishing, meeting brand and customer expectations.
- Enhance workplace safety, reducing risks associated with steam and heat exposure.

By prioritizing test runs and machine calibration, the Indian apparel industry can maintain high productivity, reduced rework, and superior garment quality.

3.2.4 Following Reporting Procedures for Defective Equipment and Machine Failures

Industrial pressing machines, steam irons, and vacuum tables must all perform properly for garment finishing to be successful. These devices serve a critical role in ensuring that garments are wrinkle-free, properly shaped, and satisfy quality standards before they reach clients. However, extended usage, inappropriate handling, or a lack of maintenance can result in machine faults, defective equipment, and operational failures, all of which can slow down production, damage garment quality, and create workplace dangers.

To prevent delays, fabric wastage, and financial losses, pressmen must be trained to identify and report equipment defects promptly. Following a structured reporting procedure helps in:

- Detecting and addressing mechanical issues early before they escalate.
- Ensuring that necessary repairs or replacements are carried out on time.
- Maintaining safety protocols to prevent workplace accidents related to faulty equipment.
- Improving production efficiency by minimizing unplanned downtime.

Proper reporting procedures consist of three key steps:

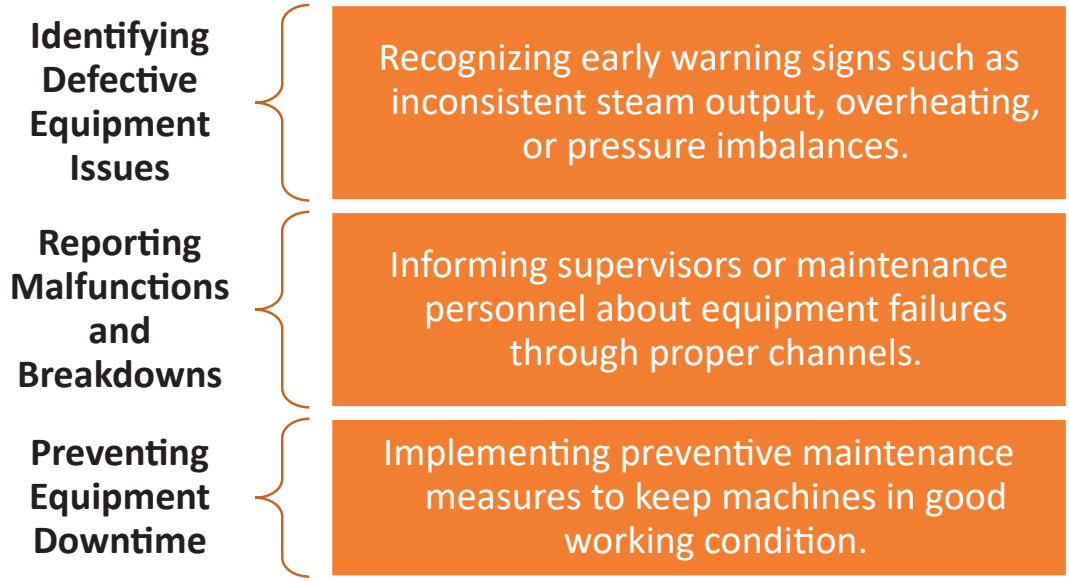


Fig. 3.2.2: Reporting Structures

Identifying Defective Equipment Issues

Detecting early signs of malfunction is crucial to prevent major breakdowns, ensure worker safety, and maintain high-quality garment pressing standards. Pressmen must be attentive to any irregularities in their equipment and report them immediately.

Defective Issue	Possible Cause	Impact on Pressing Process	Action to Take
Irregular Steam Output		Inconsistent steam application can lead to uneven pressing, fabric shrinkage, or damp spots on garments.	Check for blockages in steam pipes, clean nozzles, and inspect pressure settings.
Uneven Heat Distribution		Causes scorching, burns, or ineffective wrinkle removal, leading to rework and garment damage.	Test different temperature settings, recalibrate the thermostat, or replace heating elements.
Leaks or Water Build-up		Excess moisture can stain delicate fabrics, cause watermarks, and lead to mould growth inside the equipment.	Inspect hoses and replace damaged seals, ensure proper water drainage, and check for excess condensation.
Strange Noises or Vibrations		May cause machine instability, inaccurate pressing, and potential machine breakdowns.	Tighten loose screws, inspect moving parts for wear and tear, and lubricate mechanical components.
Power Fluctuations or Shutdowns		Unexpected shutdowns can disrupt production, cause delays, and risk equipment damage.	Check power connections, ensure proper ventilation, and reset circuit breakers if necessary.

Table 3.2.6: Defective Equipment names

Reporting Malfunctions and Breakdowns

A structured reporting process helps in the early detection and resolution of equipment issues, minimizing downtime and ensuring machines operate at optimal efficiency. Pressmen play a crucial role in identifying defective equipment, accurately reporting malfunctions, and following company protocols to facilitate timely repairs.

Step	Action	Purpose	Best Practices
Immediate Notification	Inform supervisors as soon as an issue is detected.	Ensures quick response and prevents further machine damage or delays in production.	Use direct communication channels (phone, in-person, or internal messaging systems) to report the issue immediately.
Document the Problem	Record machine number, error messages, and observed symptoms.	Helps maintenance teams diagnose the issue efficiently without unnecessary troubleshooting.	Maintain a logbook or use digital systems for accurate record-keeping. Attach photos or videos if necessary.
Follow Company Reporting Protocols	Complete the required maintenance request forms or enter details into the system.	Ensures structured handling of machine failures and proper tracking of maintenance history.	Adhere to the organization's reporting structure and provide detailed yet concise information about the malfunction.
Discontinue Use of Faulty Equipment	Stop using the defective machine until maintenance is completed.	Prevents further damage, ensures operator safety, and maintains garment quality.	Clearly label the faulty equipment to prevent accidental use. Inform co-workers about the issue.
Follow Up on Repair Progress	Check with the maintenance team on the repair status and estimated completion time.	Ensures machine is back in operation as soon as possible, minimizing downtime.	Request updates at regular intervals, coordinate with production planning teams if an alternative setup is required.

Table 3.2.7: Reporting Malfunction and Breakdown

By implementing a clear reporting structure, pressmen can contribute to a safer, more efficient workplace, ensuring that pressing machines in the Indian apparel industry operate at optimal performance levels.

Preventing Equipment Downtime

Regular preventive maintenance is essential to extend the lifespan of pressing equipment, reduce unexpected breakdowns, and maintain production efficiency. Below is a structured table outlining best practices for preventing equipment downtime

Best Practice	Description	Benefits
 **Routine Cleaning and Servicing**	Regularly descale irons, check and clean steam vents, and oil moving parts to ensure smooth operation.	Prevents blockages, reduces wear and tear, and maintains consistent pressing quality.

Best Practice	Description	Benefits
 **Proper Machine Handling**	Ensure machines are used within operational limits, avoiding overloading and unnecessary strain on components.	Reduces mechanical failures, extends equipment lifespan, and prevents overheating.
 **Scheduled Inspections**	Supervisors should conduct weekly or monthly maintenance checks to identify potential issues before they escalate.	Helps in early detection of problems, preventing costly breakdowns and downtime.
 **Training Workers on Troubleshooting Basics**	Educate pressmen on recognizing minor issues (e.g., steam inconsistencies, pressure drops) and basic troubleshooting techniques.	Enables quick issue resolution, reduces dependence on maintenance teams, and improves machine efficiency.

Table 3.2.8: Equipment downtime

By implementing these preventive measures, pressmen in the Indian apparel industry can help maintain seamless operations, minimize costly downtime, and enhance workplace productivity.

Preventing equipment downtime is crucial for maintaining efficiency in the apparel pressing industry. By implementing routine cleaning, proper machine handling, scheduled inspections, and worker training, pressmen can prolong equipment lifespan, reduce operational disruptions, and ensure consistent garment quality. A proactive maintenance approach not only prevents costly breakdowns but also enhances overall productivity, ensuring smooth workflow and timely order fulfilment. Prioritizing these best practices fosters a safe, reliable, and efficient pressing environment in the Indian apparel industry.

UNIT 3.3: Work Process, Safety, and Quality Control

Unit Objectives

By the end of this unit, the participants will be able to:

1. Explain pressing techniques, including under pressing, rough pressing, and final pressing.
2. Ensure garments meet quality standards without stains, burns, or defects.
3. Follow safety, waste disposal, and workplace maintenance guidelines.
4. Complete documentation and escalate ironed items to the next production stage.

3.3.1 Pressing Techniques: Under Pressing, Rough Pressing, and Final Pressing

Pressing is an important technique in the apparel business that improves the overall appearance, durability, and shape of garments. It uses heat, pressure, and steam at various stages of manufacture to obtain a smooth, crisp, and well-structured finish. In the Indian apparel sector, pressmen use three sorts of pressing techniques: under pressing, rough pressing, and final pressing.

Each stage of garment manufacturing has a particular purpose, from prepping textiles for stitching to creating the final polished look. Pressmen use specific tools and processes to ensure that clothing fulfil industry quality and presentation standards.

Under Pressing

Under pressing is the first stage of pressing, performed before the garment is fully assembled. This process ensures that seams, folds, and pleats are properly set before the final stitching. Under pressing helps to eliminate bulkiness, flatten seam allowances, and provide a smooth foundation for further construction.

Category	Details	Details
Techniques Used	 Seam Pressing	Flattening seams before sewing to improve alignment.

Category	Details	Details
	 Dart Pressing	Pressing darts helps to shape the fabric for a contoured fit.
	 Pleat Setting	Defining pleats and folds to maintain garment structure.
	 Panel Pressing	Ensuring that individual garment panels lie flat before assembly.
Tools Required	 Steam irons	It is effective for heat application
	 Pressing cloths	It is used to prevent fabric shine and heat damage.

Category	Details	Details
	 Vacuum pressing tables	It helps in remove excess moisture and provide firm pressing
Common Fabrics Used	 Cotton and linen	It is applied to remove wrinkles and prepare for smooth stitching.
	 Wool and polyester blends	It is used to set structure and prevent fabric shifting.
	 Silk and delicate fabrics	It is used to maintain shape while avoiding scorching
Impact on Garment Quality		• Improves the accuracy of seams and pleats, preventing misalignment. • Reduces bulkiness in thick fabrics, allowing for a sleeker, more professional fit. • Enhances stitching precision, ensuring the garment has a refined, tailored appearance.

Table 3.3.1: Under Pressing Techniques

Rough Pressing

Rough pressing is the intermediate stage of pressing, performed after stitching but before the final finishing. This process removes wrinkles and creases that develop during sewing and initial handling. It also helps to reshape garments and reinforce structure before the final press.

Category	Details
Techniques Used	• **Light Ironing:** Applying moderate heat and steam to smooth fabric. • **Steam Application:** Softening fibres and removing minor wrinkles. • **Tension Pressing:** Stretching fabric slightly to align seams.
Tools Required	• **Industrial Steam Presses:** For even steam distribution. • **Sleeve Boards:** To press sleeves and narrow garment sections. • **Steam Vacuum Tables:** To absorb moisture and ensure a crisp finish.
Common Fabrics Used	• **Denim and Twill:** To eliminate hard creases after stitching. • **Wool Blends:** To ensure proper shaping and alignment of seams. • **Synthetic Fabrics:** To prevent shrinkage and heat distortion.
Impact on Garment Quality	• Reduces fabric distortion and enhances garment symmetry. • Prepares garments for final detailing and finishing. • Prevents deep wrinkles from setting in before the final pressing stage.

Table 3.3.2: Rough Pressing

Final Pressing

Final pressing is the last stage of garment finishing before packaging or delivery. It ensures that the garment achieves a smooth, structured, and professional appearance. This step removes any remaining wrinkles, refines creases, and enhances the overall presentation of the clothing.

Category	Details
Techniques Used	• **Precision Ironing:** Carefully pressing each section to achieve a uniform appearance. • **Steam Finishing:** Using high-pressure steam to remove any lingering wrinkles. • **Crease Setting:** Enhancing sharp creases or shaping garments to brand specifications.
Tools Required	• **Pressing Bucks:** Specialized tables for shaping different garment parts. • **High-Pressure Steam Irons:** To ensure a polished look. • **Finishing Presses:** For quick and effective final touch-ups.

Category	Details
Common Fabrics Used	• **Formalwear (suits, dress shirts):** To define pleats and crisp edges. • **Delicate Fabrics (silk, chiffon):** To avoid heat marks while achieving a smooth finish. • **Casual Wear (cotton, polyester blends):** To ensure a neat and uniform look.
Impact on Garment Quality	• Enhances garment presentation, making it retail-ready. • Removes all imperfections, ensuring a flawless, professional finish. • Increases durability, as well-pressed garments maintain their shape longer.

Table 3.3.3: Final Pressing

Rough pressing is an important stage in the apparel business that improves garment structure, removes wrinkles, and prepares the fabric for final finishing. Pressmen use the proper techniques, tools, and equipment to guarantee that clothes maintain their intended shape and alignment before final pressing. Proper rough pressing not only improves the garment's general quality and durability, but also gives it a more refined and professional appearance. Implementing uniform rough pressing standards enables manufacturers to exceed consumer expectations and maintain high-quality output in the competitive Indian garment sector.

3.3.2 Ensuring Garments Meet Quality Standards

Maintaining high-quality standards in garment pressing is essential in the Indian apparel industry to ensure customer satisfaction, brand reputation, and compliance with industry norms. Pressmen play a vital role in achieving these standards by carefully handling garments, using the correct pressing techniques, and following quality control measures.

1. **Preventing Stains, Burns, and Fabric Damage**

   Maintaining fabric quality during pressing is crucial to ensure a professional finish. Stains, burns, and other pressing-related damage can lower garment quality and lead to production losses. Pressmen must follow best practices to prevent such issues, ensuring that garments remain pristine throughout the finishing process.

Issue	Preventive Measures	Benefits
Using Clean Equipment	Regularly clean steam irons, pressing tables, and accessories to remove fabric residue and dust.	Prevents dirt or stains from transferring onto garments.
Avoiding Excess Heat	Adjust iron temperature according to fabric type to prevent burns, scorching, or shine.	Ensures fabric integrity and avoids permanent damage.
Using Pressing Cloths	Place a protective cloth between the fabric and the iron when pressing delicate materials.	Prevents direct heat damage and maintains fabric texture.

Issue	Preventive Measures	Benefits
Ensuring Dry Steam Application	Use dry steam settings and check iron or steam press for leaks before use.	Avoids water stains, fabric distortion, and uneven pressing.

Table 3.3.4: Preventing measures

By implementing proper heat control, regular cleaning, and protective pressing techniques, pressmen can significantly reduce garment damage. These preventive measures enhance fabric longevity, maintain quality standards, and contribute to a flawless final product.

Fig. 3.3.1: Preventative measures during pressing

2. Achieving Consistent Finishing Quality

Consistent finishing is a key requirement in the apparel pressing industry. Proper crease formation, wrinkle elimination, and fabric shape maintenance contribute to a polished and professional garment appearance. A systematic approach to pressing ensures uniformity and enhances the overall presentation of garments.

Aspect	Method	Benefits
Proper Crease Formation	Align creases as per the garment design, using accurate steam and pressure.	Ensures a professional and well-defined finish.
Eliminating Wrinkles Completely	Use appropriate steam levels and controlled pressure while pressing.	Produces a smooth, polished look without fabric damage.
Maintaining Fabric Shape	Handle fabric gently and avoid excessive stretching during pressing.	Prevents distortion, shrinkage, or fabric warping.
Even Pressure Application	Apply consistent pressure across all garment areas for uniform results.	Enhances overall garment symmetry and balance

Table 3.3.5: Consistent Quality

By focusing on precision and uniform pressure application, pressmen can achieve superior finishing quality. A well-pressed garment not only looks aesthetically pleasing but also meets industry standards, leading to higher customer satisfaction and fewer product rejections.

Fig. 3.3.2: Garment Pressing

3. Conducting Quality Checks Before Final Processing

Quality control in the pressing stage is essential to ensure that garments meet production standards before moving to the next stage. Visual inspections, re-pressing when necessary, and identifying defective pieces help maintain the integrity of the final product. Implementing strict quality checks minimizes errors and enhances the reliability of the finished garments.

Quality Control Step	Procedure	Outcome
Visual Inspection	• Examine garments for shine marks, pressing defects, or uneven creases.	• Ensures garments are free from visible flaws before delivery.
Re-Pressing If Necessary	• Rework any areas with wrinkles, uneven creases, or pressing imperfections.	• Guarantees a polished and uniform final product.
Tagging Defective Pieces	• Identify and separate defective garments for further assessment.	• Prevents substandard garments from reaching customers.

Table 3.3.6: Quality control measures

By conducting thorough inspections and promptly addressing defects, pressmen can maintain consistent garment quality. A well-executed quality control process ensures that only flawless garments reach the market, reinforcing the brand's reputation for excellence in the Indian apparel industry.

Fig. 3.3.3: Final Inspection

Final Inspection Process includes the following activities:

- **Visual Examination:** Check each garment under proper lighting for any pressing defects.
- **Fabric Feel Test:** Run hands over the fabric to detect distortions, rough spots, or inconsistent pressing.
- **Re-Pressing if Needed:** If any defects are found, correct them before sending the garment forward.
- **Quality Approval:** Only defect-free garments should proceed to packaging or final finishing.

A systematic approach to checking pressing defects ensures high-quality garment finishing and minimizes production errors. By identifying and addressing issues early, pressmen can maintain efficiency, reduce rework, and deliver garments that meet industry standards. This proactive quality control process is vital for sustaining a competitive edge in the Indian apparel industry.

3.3.3 Following Safety, Waste Disposal, and Workplace Maintenance Guidelines

The pressing stage in garment manufacturing plays a vital role in ensuring product quality, but it also involves potential hazards such as burns, steam exposure, equipment malfunctions, and workplace clutter. Maintaining a safe and organized work environment is crucial for efficiency, worker well-being, and adherence to regulatory compliance. Proper safety protocols, waste disposal practices, and maintenance routines help minimize risks, improve productivity, and uphold industry standards.

Proper Handling of Hot Equipment

- To prevent injuries, pressmen should always use protective gloves when handling hot equipment and practice safe handling techniques.

Steam and Heat Safety

- To prevent injuries, pressmen should always use protective gloves when handling hot equipment and practice safe handling techniques.

Electrical Safety

- Regular inspections of power cords and electrical connections should be conducted to identify potential risks.

Personal Protective Equipment (PPE)

- Protective eyewear should be used when working with steam or chemicals to safeguard against potential injuries.

Emergency Preparedness

- A well-prepared workplace can effectively handle accidents and fire hazards. Pressing units should conduct regular fire drills to ensure that all workers are aware of emergency procedures.

Fig. 3.3.4: Ensuring the workplace safety in pressing operations

Fire extinguishers should be strategically placed and accessible in case of emergencies. Additionally, staff should be trained in handling workplace emergencies, including first aid and evacuation protocols, to ensure a quick and efficient response in case of an incident. To minimize workplace hazards, pressmen should wear appropriate protective gear. It is crucial to avoid overloading power sources and to report any electrical malfunctions immediately to prevent accidents.

Proper waste disposal in pressing areas is provided in the table below:

Type of Waste	Impact on Workplace	Proper Disposal Method
 **Fabric Scraps**	Can cause clutter and pose a fire risk.	Collect in designated bins and recycle where possible.
 **Chemical Residues (e.g., starch, fabric treatments)**	Can be hazardous if inhaled or spilled.	Dispose of following company guidelines and local environmental regulations.
 **Damaged or Burnt Garments**	Adds to production waste and reduces efficiency.	Sort out defective items for possible rework or responsible disposal.

Type of Waste	Impact on Workplace	Proper Disposal Method
 **Steam Condensation and Water Spillage**	Can create slippery surfaces and workplace hazards.	Wipe immediately, ensure proper drainage, and use absorbent mats.

Table 3.3.7: Waste Disposal

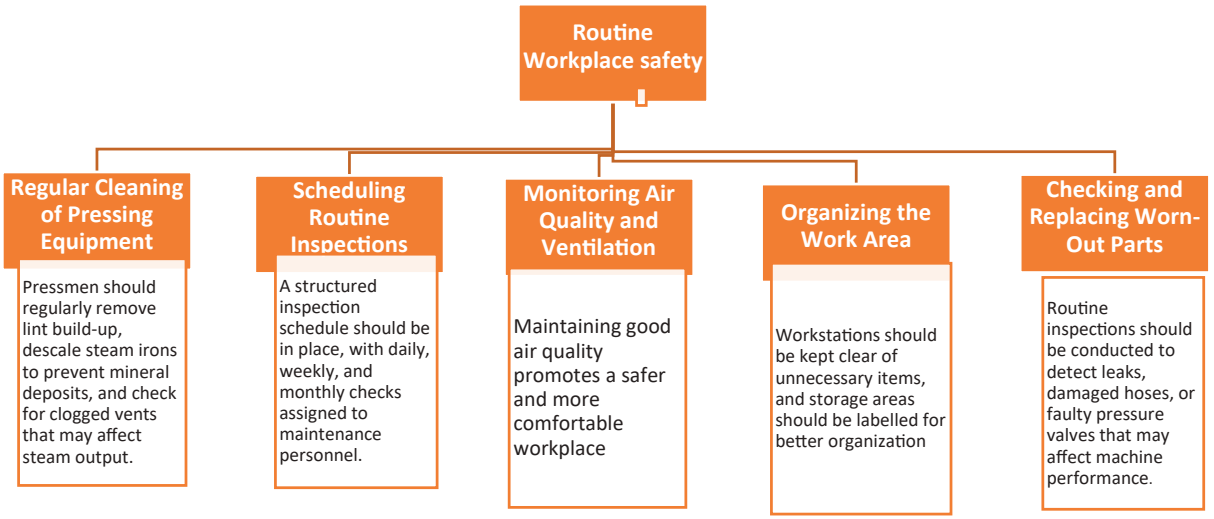


Fig. 3.3.5: Maintaining efficiency in the routine workplace

Proper air circulation is crucial in a pressing environment where heat, steam, and chemicals are used frequently. Poor ventilation can lead to respiratory issues and discomfort among workers. Exhaust fans should be checked regularly to ensure they are functioning effectively, and efforts should be made to prevent chemical build-up in enclosed spaces. Preventive maintenance helps detect potential issues before they lead to costly breakdowns or safety risks. Additionally, a clutter-free workspace improves workflow efficiency and reduces the risk of accidents. Over time, certain machine components may wear out, leading to malfunctions and reduced efficiency.

Following safety, waste disposal, and maintenance rules during the pressing process is critical to creating a safe, efficient, and high-quality manufacturing environment. Pressmen in the Indian apparel sector may increase workplace efficiency, reduce accidents, and contribute to a more sustainable and professional manufacturing process by applying adequate safety measures, managing waste responsibly, and repairing equipment on a consistent basis.

3.3.4 Completing Documentation and Escalating Ironed Items to the Next Production Stage

Documentation and Record Keeping

Proper documentation and record-keeping are essential for ensuring smooth workflow, maintaining quality standards, and tracking production efficiency. Pressmen play a crucial role in this process by accurately documenting completed ironing tasks and ensuring that finished garments are transferred to the next production stage without errors or delays.

Importance of documents and record-keeping in ironed items

Proper documentation provides a clear record of ironing processes, garment specifications, and quality checks. This helps in identifying production trends, addressing issues, and ensuring accountability among workers. Additionally, maintaining accurate records aids in tracking production progress and managing inventory effectively.

Fig. 3.3.6: Garment Merchandiser

Types of Documentation in Ironing and Pressing

- **Work Orders and Production Logs:** These documents record details such as the number of garments ironed, pressing techniques used, and any special finishing requirements.

Fig. 3.3.7: Work Order

- **Quality Control Reports:** Pressmen must document any defects found during ironing, such as fabric burns, improper creases, or stains, before forwarding garments to the next stage

Fig. 3.3.8: Quality Check Report

- **Maintenance Logs:** Any issues with pressing equipment, such as steam iron malfunctions or temperature inconsistencies, should be recorded and reported for timely maintenance.
- **Shift and Output Reports:** These logs track the number of garments processed per shift, helping supervisors evaluate production efficiency and workforce performance.

Escalating Ironed Items to the Next Production Stage

After garments are ironed and quality-checked, they must be efficiently moved to the next stage, which could include final inspection, packaging, or storage. Key steps include:

- **Tagging and Labelling:** Each ironed garment should be labelled with necessary details such as size, batch number, and any specific finishing instructions.

Fig. 3.3.9: Tags in garments

- **Segregation Based on Production Flow:** Pressed garments should be categorized according to their designated production stage, ensuring smooth transition without mix-ups.

- **Coordinating with the Next Department:** Proper communication with the quality control or packaging team ensures that ironed garments are received without delays or disruptions.
- **Ensuring Timely Handover:** Pressmen should ensure that garments are transferred promptly to prevent bottlenecks in production and maintain workflow efficiency.

Effective documentation and proper escalation of ironed garments are crucial in maintaining production efficiency in the apparel industry. By keeping accurate records, ensuring garment quality, and coordinating with the next department, pressmen contribute to the smooth functioning of the entire production process.

Next Production Stage

Once garments have been properly pressed, they must be moved efficiently to the next stage in production. This transition is crucial to maintaining workflow continuity and ensuring high-quality output. Proper escalation practices involve categorizing pressed garments, following packaging protocols, and communicating effectively with the next department. When garments are escalated efficiently, the production process remains smooth, reducing downtime and improving overall productivity.

Fig. 3.3.10: Garment Finishing

A well-organized escalation process is essential in the pressing stage of the Indian apparel industry. By ensuring quality checks, categorizing garments properly, coordinating with other departments, maintaining documentation, handling defective items, and escalating garments in a timely manner, pressmen contribute significantly to the efficiency of the production line. Proper execution of these steps ensures that garments meet high-quality standards and are delivered on time, ultimately leading to increased customer satisfaction and business success.

Summary

- Different garment types require specific ironing methods to maintain fabric integrity, prevent damage, and achieve a polished appearance.
- Shine marks, scorching, fabric shrinkage, and seam impressions are some common ironing defects that can impact garment quality.
- Effective ironing quality control ensures consistency, eliminates defects, and meets industry standards.
- Proper setup, adjustment, and routine maintenance of pressing machines are crucial for efficiency, safety, and quality assurance.
- Timely identification and reporting of machine malfunctions ensure quick resolution, minimizing production delays.
- The Indian apparel industry relies on various industrial ironing tables, bucks, and pressing machines to enhance garment finishing.
- The pressing process in the Indian apparel industry includes three key stages; under pressing (before assembly to set seams and pleats), rough pressing (after stitching to remove creases and reshape garments), and final pressing (before packaging to achieve a professional finish).
- Pressmen follow strict quality control procedures, such as preventing fabric damage, ensuring uniform creases, and conducting final inspections.
- Maintaining detailed records of pressing tasks, quality checks, and equipment maintenance helps track efficiency and prevent errors.

Exercise

Multiple-choice Question:

1. What is the best way to prevent shine marks while ironing synthetic fabrics?
   a. Use a high-temperature setting for a quicker press
   b. Iron directly on the fabric with high pressure
   c. Use a pressing cloth and iron on the reverse side
   d. Apply heavy steam continuously without moving the iron

2. Which type of ironing table is best suited for structured garments like suits and jackets?
   a. Vacuum Ironing Table
   b. Steam Heated Ironing Table
   c. Air Blowing Ironing Table
   d. Flat Bed Ironing Table

3. What is a key benefit of conducting test runs before full-scale garment pressing?
   a. Reducing power consumption
   b. Detecting defects like overheating or steam leakage
   c. Increasing the weight of garments
   d. Avoiding the use of pressing machines

4. What is the main purpose of under pressing in garment manufacturing?
   a. To remove all final wrinkles before packaging
   b. To set seams, pleats, and folds before final stitching
   c. To reshape the garment after stitching
   d. To prepare garments for quality inspection

5. Which of the following is NOT a recommended safety measure in the pressing section?
   a. Using protective pressing cloths for delicate fabrics
   b. Avoiding overloading power sources
   c. Increasing steam pressure beyond recommended levels for faster pressing
   d. Ensuring proper ventilation to prevent chemical buildup

Descriptive Questions:

1. How do proper ironing techniques and defect prevention methods contribute to garment industry standards?
2. Explain the significance of selecting the appropriate ironing equipment based on fabric sensitivity, garment design, and production volume.
3. Describe the step-by-step machine setup process and the key maintenance procedures required to ensure optimal performance in an industrial pressing unit.
4. Explain the significance of rough pressing in the garment manufacturing process.
5. Describe the documentation process followed in the pressing stage of apparel manufacturing.

Notes

Scan the QR codes or click on the link to watch the related videos

https://youtu.be/v8aGfM3akbY?si=U1UHQ82XZHX0UtRx

How to Iron a shirt in below 3 minutes

https://youtu.be/Ey4MqC7Kp7g?si=YAwU1y7x381L9NxM

Inspection and Quality control in Manufacturing

https://youtu.be/KqQzBklnh-c?si=6qtwrzsBEY6rrj4Z

Vacuum ironing table

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RE IMAGINE FUTURE

APPAREL MADE-UPS HOME FURNISHING
SECTOR SKILL COUNCIL

4. Maintain Work Area, Tools and Machines

Unit 4.1 - Safe Working Practices and Equipment Maintenance
Unit 4.2 - Work Processes, Tools, and Quality Control
Unit 4.1 - Workplace Organization and Communication

AMH/N0102

Key Learning Outcomes

By the end of this module, the participants will be able to:

1. Follow safe working practices for cleaning, maintenance, and handling of tools and equipment.
2. Identify and use appropriate cleaning equipment, substances, and methods to prevent contamination (e.g., machine oil, dirt).
3. Conduct regular maintenance of tools and equipment, including identifying faults and rectifying them within agreed schedules and responsibilities.
4. Use correct lifting, handling, and posture techniques to ensure workplace safety and efficiency.
5. Describe various machines used in layering, spreading, and cutting processes, including scissors, straight knives, band knives, and laser cutters.
6. Identify essential markers, tools, and materials required for accurate marking and cutting.
7. Minimize material wastage through proper handling, efficient processes, and adherence to company quality standards.
8. Maintain accurate records related to quality, production, and equipment maintenance as per organizational procedures.
9. Communicate effectively with colleagues and supervisors, following proper reporting procedures for quality and operational issues.
10. Safely dispose of waste and store cleaning equipment properly after use, ensuring a clean and organized work environment.

UNIT 4.1: Safe Working Practices and Equipment Maintenance

Unit Objectives

By the end of this unit, the participants will be able to:

1. Discuss safe procedures for cleaning, maintenance, and handling of tools and equipment.
2. List appropriate cleaning methods to prevent contamination and ensure machine efficiency.
3. Analyse regular maintenance, identify faults, and apply corrective measures within set responsibilities.

4.1.1 Safe Procedures for Cleaning, Maintenance, and Handling of Tools and Equipment

Using equipment like fusing machines, steam irons, and heat presses, pressmen are essential to the sewn clothing business in India. To reduce workplace accidents, increase productivity, and preserve product quality, it is crucial to make sure that these items are cleaned, maintained, and used safely. Following the right safety procedures lowers the chance of burns, electrical dangers, and equipment failures, making the workplace safer and more efficient.

Cleaning and Handling Guidelines

Proper cleaning of pressing tools and equipment ensures their longevity and efficiency while maintaining workplace hygiene:

- **Power off Equipment:** Always switch off and unplug pressing machines (such as steam irons, fusing machines, and heat presses) before cleaning.
- **Use Appropriate Cleaning Materials:** Use lint-free cloths, mild detergents, and manufacturer-recommended cleaning solutions for steam irons and presses.
- **Descale Steam Equipment:** Regularly remove mineral build-up from steam irons using descaling agents to prevent clogging.
- **Clear Air Vents:** Ensure ventilation slots on heat press machines and irons are free from fabric lint and dust.
- **Wipe Down Surfaces:** Clean pressing boards and iron soles after every shift to avoid fabric stains.
- **Proper Usage:** Follow the recommended operating procedures for pressing machines to prevent overheating and burns.
- **Use Personal Protective Equipment (PPE):** Wear heat-resistant gloves, aprons, and closed-toe shoes to prevent burns and injuries.
- **Safe Lifting Techniques:** When moving heavy pressing equipment, use ergonomic lifting techniques or mechanical aids.
- **Emergency Preparedness:** Ensure that first-aid kits and fire extinguishers are accessible in case of burns or electrical hazards.
- **Workplace Organization:** Keep cords, water hoses, and tools properly arranged to prevent tripping hazards.

Fig. 4.1.1: Handling Protocols

By adhering to these cleaning and handling guidelines, pressmen can ensure a safe, efficient, and well-maintained working environment in the stitched apparel industry.

Safety Measures in Maintenance

Ensuring safety during the maintenance of pressing equipment in the stitched apparel industry is crucial to preventing accidents and injuries. Key safety measures are as follows:

- **Power Disconnection:** Always turn off and unplug equipment before performing maintenance or repairs.
- **Use Proper Tools:** Ensure only the correct tools and manufacturer-approved spare parts are used for repairs.
- **Protective Gear:** Wear insulated gloves, safety goggles, and appropriate PPE when handling electrical or heated components.
- **Cooling Time:** Allow equipment to cool down before performing maintenance on heated surfaces like iron soleplates and fusing machines.
- **Avoid Water Exposure:** Keep electrical components dry and away from water sources to prevent short circuits and shocks.
- **Proper Ventilation:** Maintain good airflow in the workspace to disperse steam and heat, reducing the risk of burns and respiratory issues
- **Scheduled Inspections:** Conduct routine maintenance checks to identify and fix issues before they lead to serious malfunctions.
- **Training and Awareness:** Ensure workers handling maintenance tasks are trained on safety protocols and emergency response procedures.

Fig. 4.1.2: Precautions taken by labours

By following these safety measures, the risk of workplace accidents and equipment failures can be significantly reduced, ensuring a safer and more efficient work environment.

Preventing Equipment Damage

To ensure the longevity and efficiency of pressing tools and equipment, it is essential to follow proper handling and maintenance procedures:

- **Use Equipment as Intended:** Follow manufacturer guidelines for steam irons, fusing presses, and heat presses to avoid misuse.
- **Avoid Overheating:** Monitor temperature settings to prevent damage to heating elements and fabric.
- **Regular Descaling:** Prevent mineral build-up in steam irons by using distilled water and periodic descaling.
- **Proper Storage:** Store irons and presses in a dry, dust-free area to prevent rust and electrical issues.
- **Electrical Safety:** Ensure wiring, plugs, and sockets are in good condition to prevent short circuits and power surges.
- **Scheduled Maintenance:** Conduct routine inspections and replace worn-out parts such as iron soleplates, steam valves, and pressing pads.

Fig. 4.1.3: Preventing the equipment damage

Implementing these measures minimizes downtime, reduces repair costs, and extends the lifespan of pressing equipment in the apparel industry.

4.1.2 Identifying Appropriate Cleaning Methods for Machine Efficiency and Contamination Prevention

Maintaining clean pressing equipment is essential for ensuring machine efficiency, preventing fabric contamination, and improving workplace safety. In the stitched apparel industry in India, pressing organizations use various machines, including steam irons, fusing presses, and heat press machines, all of which require proper cleaning protocols to maintain optimal performance.

Regular cleaning prevents malfunctions, extends equipment lifespan, and enhances productivity.

Category	Cleaning Method	Description
1. Cleaning Steam Irons and Pressing Machines	 Daily Wipe-Down	Use a soft cloth to remove fabric residues, starch build-up, and moisture from the iron's surface to prevent build-up.
	 Soleplate Cleaning	Apply iron cleaner or a vinegar solution to remove scorch marks and adhesive residues that could transfer to fabrics.
	 Descaling the Water Tank	Use descaling agents or a vinegar-water solution periodically to remove mineral deposits that can clog steam holes and reduce efficiency.
	 Cleaning Steam Vents	Use a fine needle or brush to clear clogged steam vents, ensuring even steam distribution for effective pressing.

Category	Cleaning Method	Description
2. Cleaning Heat Press and Fusing Machines	 Heat Plate Maintenance	Use a heat-resistant cloth to wipe away adhesive and fabric residue after every shift to maintain even heat transfer.
	 Silicone Pad Inspection	Keep the lower silicone pad clean and replace it if worn out to ensure uniform pressure application during pressing.
	 Air Ventilation Maintenance	Regularly clear air vents and fans to prevent overheating and ensure proper air circulation within the machine.
3. Cleaning Workstations and Surrounding Areas	 Lint and Dust Removal	Use vacuum cleaners or compressed air to remove lint and dust from equipment and surrounding areas to prevent contamination.

Category	Cleaning Method	Description
	 Cleaning Electrical Components	Ensure dry clothes are used to clean switches, wiring, and plug points to prevent electrical hazards such as short circuits.
	 Sanitizing Work Surfaces	Periodically disinfect pressing boards and workstation surfaces to maintain hygiene and prevent fabric contamination.

Table 4.1.1: Cleaning Methods for Machine Efficiency

This table provides a structured and detailed approach to maintaining machine efficiency in pressing organizations within the stitched apparel industry in India

Category	Prevention Measure	Description
Preventing Fabric Contamination	Use Distilled Water	Avoid hard water in steam irons to prevent mineral stains and ensure clean fabric pressing.
	Clean Iron Soleplates Regularly	Remove scorch marks and adhesive residues to avoid staining or damaging garments during pressing.
	Maintain Separate Cleaning Equipment	Use dedicated cloths and brushes for different machines to prevent cross-contamination between fabrics and surfaces.
Preventing Chemical and Dust Contamination	Use Non-Toxic Cleaning Agents	Avoid harsh chemicals that could leave residues on pressing equipment, ensuring safe fabric contact.
	Ensure Proper Ventilation	Install exhaust systems to prevent steam build-up, dust accumulation, and air contamination, improving worker safety.

Category	Prevention Measure	Description
	Schedule Regular Deep Cleaning	Conduct weekly or monthly deep cleaning of all machines and workspaces to remove hidden contaminants and maintain hygiene.

Table 4.1.2: Contamination Prevention Measures

This structured approach ensures fabric quality, worker safety, and equipment longevity in pressing organizations within the stitched apparel industry in India.

Cleaning Different Types of Equipment

Proper cleaning of various types of pressing equipment directly impacts machine efficiency and contamination prevention in the stitched apparel industry in India. Each machine type requires specific cleaning methods to ensure optimal performance, extended lifespan, and fabric safety. Below is a breakdown of how different equipment is cleaned and how it aligns with efficiency and contamination control.

Equipment Type	Appropriate Cleaning Method	Impact on Machine Efficiency
 **Steam Irons**	• Daily wipe-down with a soft cloth to remove moisture and starch build-up. • Descaling with distilled water or vinegar-water solution to prevent mineral deposits. • Cleaning steam vents using a fine needle or brush.	• Prevents clogging of steam holes for even steam distribution. • Reduces energy inefficiency caused by scaling. • Ensures consistent heat output for smooth pressing.
 **Heat Press Machines**	• Wiping heat plates with a heat-resistant cloth after each shift. • Regular inspection and replacement of worn-out silicone pads. • Clearing air vents to avoid overheating.	• Ensures uniform heat distribution, preventing garment damage. • Avoids adhesive build-up that could affect fabric quality. • Prevents overheating issues, increasing machine lifespan.

Equipment Type	Appropriate Cleaning Method	Impact on Machine Efficiency
 **Fusing Machines**	• Cleaning the conveyor belt to prevent glue and fabric residue accumulation. • Using lint-free cloths for roller cleaning. • Regular dusting of electronic components to avoid overheating.	• Prevents fabric contamination with adhesive stains. • Maintains precise pressure and heat application for proper bonding. • Reduces risk of malfunction due to overheating.
 **Workstations & Surroundings**	• Using vacuum cleaners to remove lint and dust. • Sanitizing pressing boards and surrounding areas regularly. • Ensuring dry clothes are used for cleaning electrical components.	• Keeps the workspace free of obstructions for smooth workflow. • Reduces fire and electrical hazards. • Maintains hygienic working conditions, preventing dust accumulation.

Table 4.1.3: Types of Equipment

Preventing Fabric Contamination and Enhancing Machine Efficiency

Effective cleaning practices in pressing organizations not only enhance machine efficiency but also prevent fabric contamination, ensuring high-quality output in the stitched apparel industry in India. The key to achieving both lies in identifying appropriate cleaning methods tailored to different equipment types.

Contribution of cleaning methods to fabric contamination prevention and machine efficiency are provided in the table below:

Cleaning Focus	Role in Fabric Contamination Prevention	Role in Enhancing Machine Efficiency
 **Steam Irons & Pressing Machines**	• Prevents mineral stains on fabric by using distilled water. • Removes scorch marks and adhesive residues from soleplates to avoid fabric damage.	• Descaling water tanks ensures proper steam flow, improving pressing quality. • Cleaning steam vents prevents blockages, ensuring uniform heat and steam distribution.

Cleaning Focus	Role in Fabric Contamination Prevention	Role in Enhancing Machine Efficiency
 **Heat Press Machines**	• Eliminates ink, adhesive, or lint transfer that could stain garments. • Keeps silicone pads clean, ensuring smooth application on fabrics	• Regular heat plate cleaning prevents overheating and extends machine life. • Clearing air vents reduces overheating risks, ensuring consistent performance.
 **Fusing Machines**	• Prevents adhesive build-up on belts, which can stain garments. • Reduces dust accumulation, avoiding contamination of heat-sensitive fabrics.	• Routine belt and roller cleaning ensures proper fabric bonding and prevents machine downtime. • Electronic component dusting prevents overheating, ensuring machine longevity.
 **Workstations & Surroundings**	• Eliminates dust, lint, and bacteria, reducing contamination risks. • Prevents cross-contamination by keeping pressing surfaces sanitized.	• Vacuuming lint and dust keeps machinery free of obstructions. • Cleaning electrical components prevent short circuits and malfunctions.

Table 4.1.4: Fabric Contamination prevention tactics with machine efficiency

Fabric contamination prevention that enhances machine efficiency includes the following:

- Preventing fabric contamination is directly linked to maintaining machine efficiency, as both depend on regular cleaning and proper maintenance.
- Clean Machines = No Fabric Stains: Residue-free steam irons, heat presses, and fusing machines prevent unwanted marks, burns, or adhesive stains on garments.
- Contamination-Free Workspaces = Better Machine Performance: A dust-free environment reduces lint build-up in machines, preventing malfunctions and overheating.
- Proper Cleaning Methods = Longer Equipment Lifespan: When machines are cleaned correctly, wear and tear is reduced, leading to fewer breakdowns and higher efficiency.

Cleaning methods should align with both fabric protection and machine performance to ensure high-quality garment production. Contamination prevention and efficiency enhancement go hand in hand, as clean machines deliver consistent results without defects. Regular maintenance and proper cleaning extend machine lifespan while ensuring that garments remain stain-free and flawless. By following appropriate cleaning methods, pressing organizations in the Indian stitched apparel industry can achieve both fabric quality assurance and optimized machine performance, leading to a safer, more productive workspace.

4.1.3 Conducting Regular Maintenance, Identifying Faults, and Applying Corrective Measures

In the stitched apparel industry, pressmen play a crucial role in ensuring smooth fabric finishing by using various pressing equipment like steam irons, heat presses, and fusing machines. To maintain machine efficiency, prevent breakdowns, and ensure product quality, it is essential to conduct regular maintenance, identify faults early, and apply corrective measures effectively. To maintain machine efficiency and fabric quality, it is crucial to implement regular maintenance, identify faults early, and apply corrective measures when needed. These steps help prevent equipment breakdowns, extend machine lifespan, and ensure a smooth workflow in garment production.

1. **Conducting Regular Maintenance**

   Regular maintenance is essential to keep pressing equipment in optimal condition. Pressing machines should be cleaned, lubricated, and inspected regularly to prevent issues that can affect both machine efficiency and fabric quality.

Maintenance Task	Equipment
Cleaning Steam Irons & Pressing Machines	 Steam irons, industrial pressing machines
Lubricating Moving Parts	 Fusing presses, steam boilers, pressing machines
Checking Heat and Pressure Settings	 Heat presses, steam irons, fusing machines

Maintenance Task	Equipment
Inspecting Electrical Components	 All electrically powered equipment
Cleaning Workstations	 Pressing tables, ironing boards, surrounding areas

Table 4.1.5: Maintenance task and the pressing equipment used

Pressmen can abide the following procedures for conducting the regular maintenance of the pressing equipment for the safety:

- The soleplate should be wiped with a soft cloth, and descaling should be done periodically to remove mineral deposits from the water tank. Cleaning the steam vents with a fine needle ensures smooth and even steam distribution.
- Using heat-resistant lubricants on hinges, rollers, and sliding parts ensures smooth operation, reduces friction, and extends machine life.
- Regularly checking power cords, switches, and control panels for signs of wear or loose connections helps prevent electrical hazards.
- Proper grounding and fuse protection must be maintained to avoid short circuits or shocks.
- Pressmen should frequently inspect heating elements to ensure even heat distribution. Any irregularities in temperature settings or pressure application should be corrected immediately to prevent fabric damage.
- Regular vacuuming or wiping helps maintain a clean environment, prevents contamination, and improves efficiency by reducing obstructions.

2. Identifying Faults in Pressing Equipment

Early fault detection prevents costly repairs and ensures smooth workflow in pressing operations. Detecting issues early prevents costly repairs and minimizes downtime. Common faults in pressing equipment can be identified through visual inspection, performance checks, and unusual machine behaviour. The following are the fault types associated among the pressman in the pressing equipment:

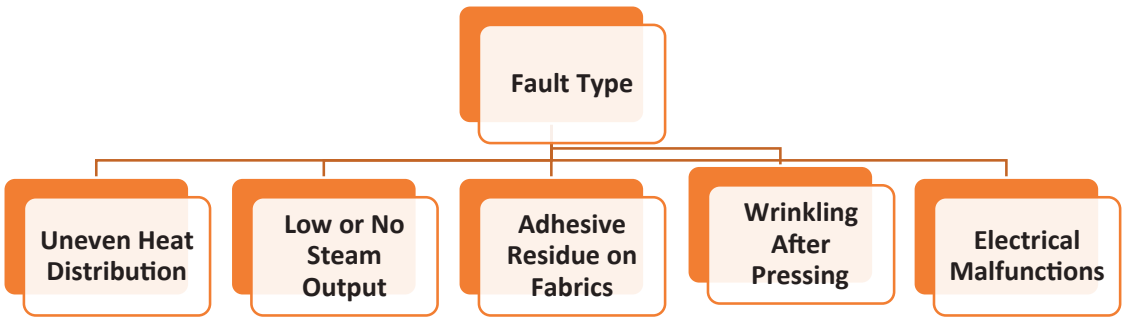


Fig. 4.1.4: Fault Types in the pressing equipment

The preventative measures that can be adopted for mitigating these faulty issues in pressing equipment through identification methods are provided in the list below:

- Pressmen should check for temperature inconsistencies across the ironing surface and inspect the vents for dust accumulation.
- If steam is not dispersing evenly, the steam vents should be cleaned using a fine brush or needle, and the water tank should be descaled with a vinegar solution.
- Pressmen should examine the heat plates for sticky spots or discoloration and clean them immediately to prevent stains on fabrics.
- Pressmen should check whether the pressure is evenly applied and replace the silicone pad if it no longer provides uniform support.
- It is essential to inspect the power cables, circuit breakers, and plug connections to ensure everything is secure and functioning properly.

3. Applying Corrective Measures

Once a fault is identified, corrective actions must be taken immediately to prevent production delays and machine damage.

Fault Identified	Corrective Measure
Uneven Heat Distribution	When heat is not evenly distributed, the heating element should be inspected and replaced if necessary. Ensuring that air vents are not blocked can also help regulate temperature consistency.
Low or No Steam Output	To restore proper steam function, the water tank should be refilled with distilled water, and the steam vents should be cleaned to remove any blockages. If hard water build-up is causing the issue, a descaling solution can be used to remove mineral deposits.
Adhesive Residue on Fabrics	Sticky build-up on heat press machines should be cleaned using a heat-resistant cloth or special adhesive remover. Worn-out silicone pads should be replaced to maintain clean and even pressing.

Fault Identified	Corrective Measure
Wrinkling After Pressing	Adjusting the pressure and temperature settings based on fabric type ensures better results. If the pressing surface is uneven, replacing the silicone pad or ensuring firm fabric placement can help prevent wrinkling.
Electrical Malfunctions	For electrical issues, any damaged power cords, switches, or circuit components should be replaced immediately. Proper grounding and surge protection should also be maintained to prevent electrical failures.

Table 4.1.6: Corrective Measures

Regular maintenance ensures machine longevity and prevents unexpected breakdowns. Identifying faults early allows for quick corrective action, improving fabric quality and production efficiency. Applying corrective measures immediately minimizes disruptions and ensures safe, high-quality pressing operations. By implementing these practices, pressmen in the stitched apparel industry can achieve consistent fabric finishing, efficient machine performance, and a safe working environment, ultimately contributing to higher productivity and better garment quality.

UNIT 4.2: Work Processes, Tools, and Quality Control

Unit Objectives

By the end of this unit, the participants will be able to:

1. Describe machines used in layering, spreading, and cutting, along with essential marking tools.
2. Minimize material wastage through efficient handling and adherence to company quality standards.
3. Maintain accurate records related to quality, production, and equipment maintenance.

4.2.1 Machines Used in Layering, Spreading, and Cutting along with Essential Marking Tools

In the stitched apparel industry, the precision of fabric processing plays a crucial role in ensuring high-quality production. Pressmen work with various machines for layering, spreading, and cutting fabric, along with essential marking tools to maintain accuracy. Each stage is vital to achieving uniformity and reducing material wastage in garment manufacturing.

Machines used in Layering

Fabric layering is the process of arranging multiple plies of fabric in a stack before cutting, ensuring uniformity in garment production. The accuracy of this process affects fabric utilization, cutting precision and final garment quality.

Machine/Tool	Description	Function	Key Benefits
 **Manual and Automatic Spreading Tables**	Flat surfaces used for arranging fabric layers before cutting. Manual tables require hand positioning, while automatic tables have rollers for smooth fabric distribution.	Helps ensure fabric is laid evenly without wrinkles or distortions.	It distributes in fabric smoothness, reducing wrinkles and distortions.
 **Automatic Layering Machines**	Computer-controlled machines that layer fabric with precise tension control.	Ensures even fabric alignment and reduces manual errors in layering.	They ensure fabric is aligned and positioned correctly, which is crucial for mass production.

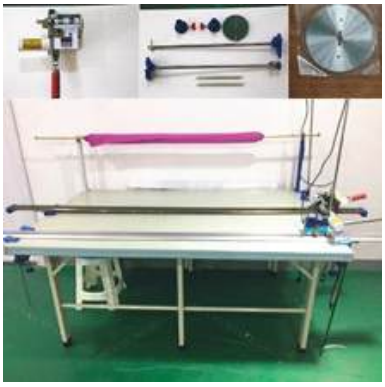
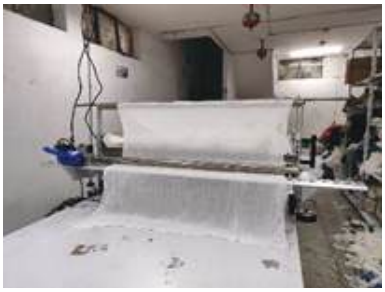
Machine/Tool	Description	Function	Key Benefits
 **End Cutters**	Mechanical or handheld tools used to trim fabric edges after layering.	Helps maintain uniform layer lengths, ensuring consistency in cutting.	They help maintain uniform layer lengths and prepare the fabric for spreading and cutting.

Table 4.2.1: Tools in layering

Machines used in Spreading

Spreading machines ensure fabric is laid out evenly over the cutting table before the final cutting process. The efficiency of spreading determines cutting accuracy and material efficiency.

Machine/Tool	Description	Function	Key Benefits
 **Manual Spreading Machines**	Workers manually pull fabric across a cutting table. Requires skill to ensure fabric is evenly spread without wrinkles or misalignment.	Manual Spreading Machines	It is used for avoiding wrinkles, fabric misalignment, and uneven tension.
 **Automatic Fabric Spreading Machines**	Motorized machines that automate fabric spreading with programmed settings for width, length, and alignment.	Equipped with sensors and tension controllers.	It ensures uniformity, prevent stretching or loosening and keep fabric properly positioned.

Machine/Tool	Description	Function	Key Benefits
 **Air Floating Tables**	Tables that use air pressure to lift and adjust fabric, making it easier to spread and align.	Reduces friction and allows smooth movement of fabric layers.	It reduces the risk of creases and misalignment.

Table 4.2.2: Machines used for Spreading

Machines used in cutting

Cutting machines define the accuracy of fabric patterns, ensuring that pieces match the garment design perfectly. Cutting precision is essential for maintaining fabric quality and reducing wastage. The different tools used in cutting are provided below:

Straight Knife Cutting Machines

- These machines use a vertical, straight blade to cut through multiple layers of fabric at once.

Round Knife Cutting Machines

- Round knife cutters have a **circular blade** and are suitable for **cutting curved patterns and soft fabrics**.

Band Knife Cutting Machines

- A band knife cutter consists of a continuous loop blade that moves rapidly to slice through multiple fabric layers with high precision.

Die Cutting Machines

- These machines use pre-shaped dies to cut fabrics into specific patterns with high accuracy.

Laser Cutting Machines

- For **high-precision cutting**, laser cutting machines use a **focused laser beam** to **cut intricate designs** with minimal fabric waste.

Computerized Cutting Machines (CNC Cutting)

- Computer-controlled cutting machines **automate the cutting process** by following pre-programmed digital patterns.

Fig. 4.2.1: Tools used for cutting

Essential Marking Tools Used in Pressing and Cutting

Marking tools help in guiding cutting machines and ensuring accurate pattern placement on the fabric. Proper marking ensures consistency and alignment during stitching and pressing. Marking machines that are used in cutting and pressing are as pictured below:

Chalk and Tailor's Pencils

- They provide temporary markings that fade or can be washed off after stitching.

Pattern Notchers

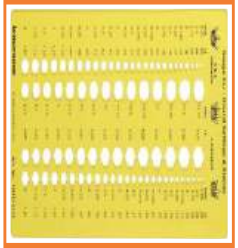
- These are small tools used to cut tiny notches in fabric to indicate sewing guides, dart placements, or alignment points.

Tracing Wheels and Carbon Paper

- A tracing wheel is rolled over carbon paper placed beneath the fabric to transfer dotted pattern lines onto the material. It is useful for complex designs.

Markers and Fabric Pens

- Fabric pens come in water-soluble and heat-erasable variants, allowing pressmen to mark fabrics without permanent stains.



Stencil and Template Guides

- Stencil guides help in marking identical shapes on multiple layers of fabric, ensuring consistency and reducing measurement errors.

Fig. 4.2.2: Marking tools used for pressing

For mass production, stencil guides help in marking identical shapes on multiple layers of fabric, ensuring consistency and reducing measurement errors.

Layering, spreading, and cutting machines improve efficiency, reduce fabric wastage, and ensure precise garment production. Manual and automatic machines are used depending on production scale and fabric type. Marking tools play a crucial role in ensuring accurate cutting and alignment, preventing fabric defects. Using the right machines and tools improves overall garment quality, productivity, and cost-effectiveness in apparel production.

By incorporating advanced machines and accurate marking tools, pressmen in the stitched apparel industry can enhance fabric handling, improve garment finishing, and streamline production workflows.

4.2.2 Minimizing Material Wastage

Material wastage during pressing is a significant concern in the stitched apparel industry. Reducing fabric waste improves cost efficiency, sustainability, and production quality. Pressmen play a key role in ensuring minimal fabric loss through proper handling, efficient pressing techniques, and adherence to quality standards.

Key Strategies to Minimize Material Wastage are provided in the table below:

Strategy	Description	Key Benefits
Proper Fabric Preparation Before Pressing	• Ensure fabric is properly spread, aligned, and wrinkle-free before pressing to avoid distortions. • Use correct temperature and pressure settings to prevent burns, shrinkage, or fabric damage. • Conduct test pressing on scrap fabric before applying heat to the main garment.	• Prevents fabric distortions and misalignment. • Reduces fabric damage and the need for rework. • Ensures consistent pressing results.
Optimized Use of Pressing Equipment	• Perform regular maintenance on steam irons and pressing machines for even heat distribution. • Use appropriate steam and moisture levels to avoid fabric scorching or shrinkage. • Follow standardized pressing techniques to achieve uniform results and minimize rework.	• Prolongs equipment lifespan. • Reduces risk of pressing defects and fabric waste. • Enhances efficiency in the pressing process.
Avoiding Rework and Damage	• Double-check fabric positioning before pressing to prevent errors. • Utilize pressing guides and templates for consistency. • Ensure skilled handling of delicate fabrics to prevent burns, stretching, or discoloration.	• Prevents unnecessary material waste. • Improves garment quality and uniformity. • Reduces production delays and fabric loss.
Efficient Waste Management	• Collect and reuse excess fabric cuttings where possible. • Implement fabric recycling programs to repurpose scraps for other uses. • Train pressmen in best practices to minimize unnecessary fabric loss.	• Reduces overall fabric waste and enhances sustainability. • Lowers production costs by maximizing material usage. • Encourages environmentally friendly production methods.

Table 4.2.3: Strategies to minimise wastage in pressing by the pressmen

Relation to Other Key Aspects of Production

- **Optimizing fabric utilization**

  Minimizing material wastage directly contributes to better fabric utilization by ensuring that every fabric piece is used efficiently. Proper pressing ensures that fabric shrinkage, misalignment, and burn damage are avoided, which helps in reducing raw material consumption.

- **Adhering to quality standards**

  By reducing fabric damage, pressmen help maintain quality consistency in stitched garments. Correct pressing techniques ensure proper seam alignment, smooth fabric surfaces, and professional garment finishing, meeting industry standards.

- **Reducing errors in the production process**

  Errors during pressing can lead to fabric rejection, rework, and production delays. By following standardized procedures, pressmen help minimize pressing defects, reducing material loss and improving overall production efficiency.

Minimizing material wastage in pressing improves cost efficiency and sustainability. Optimizing fabric utilization ensures that fabric is used effectively, reducing unnecessary waste. Adhering to quality standards prevents errors and ensures professional garment finishing. Reducing errors in the production process enhances efficiency and reduces rework, improving overall productivity.

4.2.3 Maintaining Accurate Records

Accurate record-keeping is crucial in the stitched apparel industry, especially in the pressing process. It ensures quality control, efficiency, compliance, and traceability throughout production. Pressmen play a key role in maintaining detailed logs of pressing activities, equipment maintenance, and material usage. The importance of accurate record-keeping is as follows:

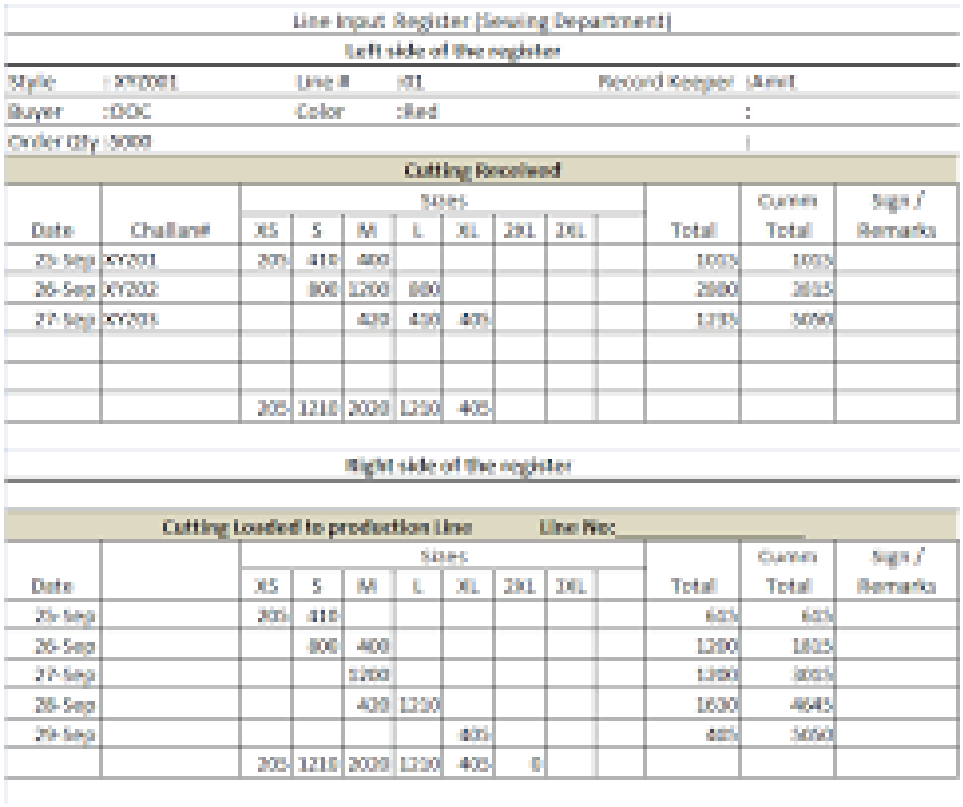
- **Quality Assurance:** Helps track garment defects, pressing inconsistencies, and corrective actions.
- **Operational Efficiency:** Ensures smooth workflow by keeping records of pressing schedules, machine settings, and workload distribution.
- **Material Tracking:** Monitors fabric usage, reduces waste, and prevents shortages.
- **Equipment Maintenance:** Maintains logs of machine servicing, breakdowns, and repairs for timely maintenance.
- **Compliance & Audits:** Ensures adherence to industry regulations and facilitates internal/external audits.

Fig. 4.2.3: Quality Check for garments

Maintaining accurate records in pressing directly impacts multiple aspects of the stitched apparel industry, including quality control, production tracking, and equipment maintenance. These records help in improving efficiency, reducing defects, and ensuring smooth operations.

Quality Control Documentation

- **Ensuring Consistency in Pressing:** Accurate pressing logs help maintain uniform temperature, pressure, and steam settings, preventing fabric damage and maintaining garment quality.
- **Tracking Defects and Rework:** Recording pressing errors such as scorch marks, shrinkage, and misaligned seams helps identify trends and improve pressing techniques.
- **Compliance with Industry Standards:** Proper documentation ensures that all garments meet quality specifications before reaching the next stage of production.



Line Input Register (Sewing Department)

Left side of the register

Style : XY2001 Line # :01 Record Keeper Asst

Buyer :DDC Color :Red :

Order Qty :3000

Cutting Received

Date	Challan#	Sizes: XS	S	M	L	XL	2XL	3XL	Total	Current Total	Sign / Remarks
25-Sep	XY201	205	415	400					1020	1020	
26-Sep	XY202		800	1200	800				2800	3820	
27-Sep	XY203			420	420	405			1245	5065	
		205	1215	2020	1220	405					

Right side of the register

Cutting Loaded to production Line Line No:

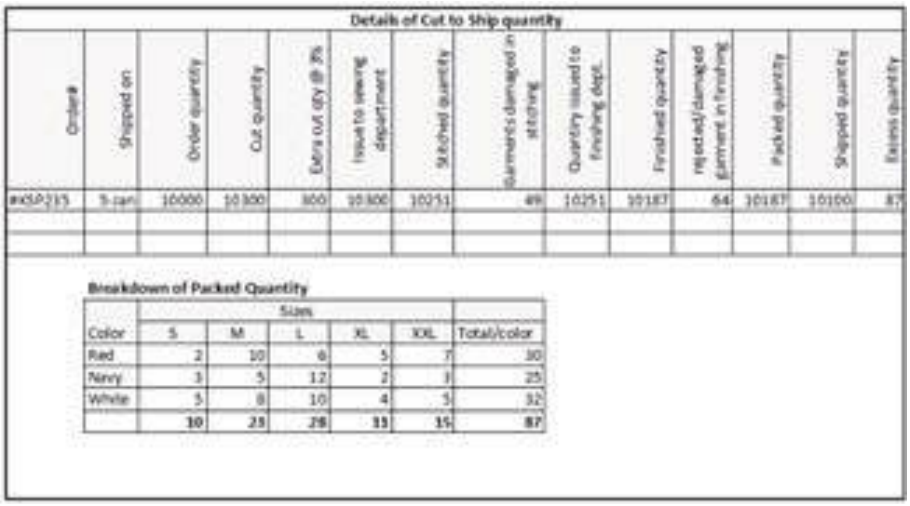
Date		Sizes: XS	S	M	L	XL	2XL	3XL	Total	Current Total	Sign / Remarks
25-Sep		205	415						620	620	
26-Sep			800	400					1200	1820	
27-Sep				1200					1200	3020	
28-Sep				420	1220				1640	4660	
29-Sep						405			405	5065	
		205	1215	2020	1220	405	0				

Fig. 4.2.4: Logging an issue

Example: A pressman logs an issue of frequent burn marks on a specific fabric. The records help identify that the temperature setting was too high, leading to an adjustment that prevents further damage.

Production Tracking

- **Monitoring Daily Output:** Accurate production records help track the number of garments pressed per shift, ensuring production targets are met.
- **Identifying Bottlenecks:** If pressing slows down due to equipment failure or fabric issues, records help pinpoint the cause of delays for quick resolution.
- **Optimizing Workforce Allocation:** Pressing logs provide insights into worker efficiency, helping managers balance workloads and improve productivity.



Details of Cut to Ship quantity

Order#	Shipped on	Order quantity	Cut quantity	Extra cut qty @ 3%	Issue to sewing department	Stitched quantity	Garments damaged in stitching	Quantity issued to finishing dept.	Finished quantity	rejected/damaged garment in finishing	Packed quantity	Shipped quantity	Extra quantity
#KSP315	5-Jan	10000	10300	300	10300	10251	49	10251	10187	64	10187	10100	87

Breakdown of Packed Quantity

	Sizes					
Color	S	M	L	XL	XXL	Total/color
Red	2	10	6	5	7	30
Navy	3	5	12	2	3	25
White	5	8	10	4	5	32
	10	23	28	11	15	87

Fig. 4.2.5: Order Completion Records

Example: A factory identifies from pressing records that output decreases by 10% in the afternoon shift. Upon investigation, it is found that fabric wrinkles due to improper storage. Corrective measures are taken to maintain workflow.

Equipment Maintenance Logs

- Preventing Machine Breakdowns: Regular maintenance records track servicing schedules, repairs, and calibration of pressing machines and steam irons, ensuring smooth operation.
- Reducing Pressing Defects: Equipment that is not properly maintained can cause uneven heating, inconsistent steam flow, or mechanical failures, leading to fabric damage.
- Extending Equipment Lifespan: Logs help schedule preventive maintenance, reducing costly repairs and machine downtime.

Tool Register

Fig. 4.2.6: Tool Registration list

Example: A steam iron starts producing excess moisture, leading to fabric stains. The maintenance log shows it was last descaled six months ago, prompting immediate cleaning to prevent further defects.

Accurate record-keeping in pressing improves quality control, tracks production efficiency, and ensures proper equipment maintenance. Well-maintained records help in identifying and resolving pressing-related issues before they escalate, reducing material wastage and increasing productivity. A structured documentation system ensures compliance with industry standards, enhances decision-making, and supports long-term process improvements.

UNIT 4.1: Workplace Organization and Communication

Unit Objectives

By the end of this unit, the participants will be able to:

1. Communicate effectively with colleagues and supervisors, following proper reporting procedures.
2. Ensure proper waste disposal and safe storage of cleaning equipment.
3. Maintain a clean, safe, and organized work environment.

4.3.1 Effective Communication with Colleagues and Supervisors

In a critical department, maintaining efficiency, productivity, and a positive work atmosphere all depend on effective communication. To guarantee efficient operations, reduce mistakes, and preserve garment quality, pressmen must communicate with co-workers and managers. Importance of effective communication in pressing is as follows:

- **Ensuring Accuracy in Pressing Tasks:** Clear instructions from supervisors' help pressmen follow correct temperature, steam, and pressure settings for different fabrics.
- **Reducing Errors and Rework:** Quick communication of issues such as machine malfunctions, fabric defects, or pressing mistakes prevents delays and reduces material wastage.
- **Improving Workplace Coordination:** Seamless collaboration between pressmen, quality checkers, and supervisors ensures garments move efficiently through production stages.
- **Enhancing Safety:** Proper reporting of equipment faults, steam hazards, or electrical issues helps maintain workplace safety.

Methods of Effective Communication in Pressing

Communication Method	Application in Pressing	Benefits
 **Verbal Communication (Face-to-face discussions, team meetings)**	Used for daily task assignments, urgent problem-solving, and discussing pressing techniques.	Reduces misunderstandings and allows for immediate feedback.

Communication Method	Application in Pressing	Benefits
 **Written Communication (Logbooks, reports, messages**	Important for documenting pressing issues, maintenance schedules, and shift reports.	Ensures proper record-keeping and helps track process improvements.
 **Non-Verbal Communication (Gestures, body language, demonstrations)**	Used in training sessions and when explaining pressing techniques to new workers.	Helps reinforce instructions and improves learning effectiveness.
 **Digital Communication (WhatsApp groups, emails, factory software)**	Helps supervisors relay updates, maintenance schedules, and production targets.	Improves real-time coordination and reduces response time to issues.

Table 4.3.1: Communication strategy with colleagues

Best practices for effective communication among pressman are as follows:

- **Active Listening:** Pay attention to instructions from supervisors and ask for clarifications if needed.
- **Clear and Concise Messages:** Use simple language and direct explanations when discussing pressing tasks.

- **Timely Reporting of Issues:** Inform supervisors immediately about equipment faults, pressing defects, or production delays.
- **Maintaining Professionalism:** Use respectful and cooperative communication with colleagues and management.
- **Regular Feedback and Discussions:** Engage in team discussions to improve workflow and suggest pressing improvements.
- **Better communication fewer errors:** Understanding garment requirements prevents defects like scorch marks, fabric shine, or misaligned seams.
- **Stronger teamwork smoother workflow:** Coordinating with cutting, stitching, and finishing teams ensures timely delivery of pressed garments.
- **Clear reporting:** improved equipment maintenance: Quick reporting of pressing machine issues prevents major breakdowns.

Effective communication among pressmen, colleagues, and supervisors in a pressing department reduces errors, enhances productivity, and ensures garment quality. By using verbal, written, and digital communication effectively, pressmen contribute to smooth production flow and workplace safety.

In the stitched apparel industry, following proper reporting procedures and ensuring team coordination are crucial for workflow efficiency, quality control, and equipment maintenance in pressing operations. These aspects directly enhance communication among pressmen, colleagues, and supervisors, reducing errors and production delays.

Following Proper Reporting Procedures

Pressmen must immediately report equipment malfunctions, pressing defects, or material shortages to supervisors to prevent workflow disruptions.

- Using logbooks, shift reports, and maintenance logs helps track recurring issues and ensures corrective actions are taken.
- Reporting should be done through predefined channels such as verbal briefings, written reports, or digital communication platforms to ensure clarity.
- Proper reporting ensures that each stage of pressing is monitored, allowing supervisors to identify errors early and implement improvements.

Example: If a pressman notices excessive steam leakage from an iron, they should immediately report it in the maintenance log and notify the supervisor to prevent damage to garments.

Fig. 4.3.1: Timely Issue Reporting

Team Coordination for Workflow Efficiency

- **Smooth Communication between Departments:** Pressmen must coordinate with cutting, stitching, and finishing teams to ensure garments move through production efficiently.
- **Task Assignment and Role Clarity:** Each pressman should know their responsibilities, pressing schedules, and garment requirements to maintain a steady workflow.
- **Workload Distribution:** Supervisors should allocate tasks based on skill levels and production demands to optimize efficiency.
- **Quick Problem-Solving:** When issues arise (e.g., fabric scorching, machine failure), team discussions help find immediate solutions without delaying production.

Example: If a batch of garments requires urgent pressing, the pressing team should coordinate with cutting and stitching teams to prioritize workflow and meet deadlines.

Reporting and Coordination Improve Communication in Pressing are as follows:

Aspect	Impact on Communication	Result in Pressing Operations
Proper Reporting Procedures	Ensures that pressing issues, machine faults, and fabric defects are logged and addressed.	Reduces pressing errors, machine downtime, and fabric wastage.
Clear Task Assignments	Avoids confusion about who is responsible for pressing, quality checks, and maintenance.	Increases workflow efficiency and ensures production targets are met.
Real-Time Coordination	Helps pressmen quickly communicate pressing concerns, fabric conditions, and equipment issues to supervisors.	Prevents delays, enhances quality control, and ensures a smooth production process.
Feedback and Continuous Improvement	Encourages workers to share pressing improvements, technique refinements, and process optimization ideas.	Leads to higher efficiency, fewer defects, and better teamwork.

Table 4.3.1: Reporting and Coordinating

Following proper reporting procedures ensures pressing issues are documented and resolved efficiently, reducing production delays and improving garment quality. Strong team coordination helps maintain workflow efficiency by ensuring clear communication between pressmen, supervisors, and other production teams. Combining accurate reporting with effective teamwork creates a well-organized pressing department, improving productivity and overall production quality.

4.3.2 Proper Waste Disposal and Safe Storage of Cleaning Equipment

Various waste items, including fabric scraps, spent ink cartridges, chemical containers, and ordinary workplace detritus, are produced by the apparel business, especially in the printing and finishing departments. To maintain workplace safety, cleaning supplies and chemicals must also be stored appropriately. Poor storage techniques and improper garbage disposal can result in fire dangers, health risks, and legal infractions.

Pressmen and management must adhere to appropriate procedures for waste segregation, disposal, and safe handling of cleaning materials in order to maintain a secure, effective, and compliant working environment.

Waste Disposal Practices

Waste generated in the printing and pressing sections of an apparel factory can be categorized into different types, each requiring specific disposal methods. The following table represents the type of waste and its proper disposal methods that can be applied by the pressmen in the workplace:

Type of Waste	Examples	Proper Disposal Method
 **Fabric Waste**	Fabric scraps, off-cuts, discarded garments	Collect in designated bins and send for recycling or donation.
 **Chemical Waste**	Used printing chemicals, adhesives, solvents	Store in sealed, labelled containers and dispose of as per hazardous waste guidelines.
 **Ink Waste**	Used ink cartridges, dried ink residues	Return to manufacturers for recycling or use special disposal services.

Type of Waste	Examples	Proper Disposal Method
 **Paper & Cardboard Waste**	Packaging materials, print designs, labels	Place in recycling bins or reuse when possible.
 **General Waste**	Dust, food wrappers, non-recyclable debris	Dispose of in municipal waste bins following local regulations.

Table 4.3.2: Waste disposal methods in pressing

Best Practices for Waste Disposal are as follows:

- **Segregate Waste:** Using separate bins for fabric waste, chemical waste, and general trash.
- **Label Waste Containers:** Clearly marking bins with "Fabric Waste," "Hazardous Waste," "General Waste," etc.
- **Schedule Waste Collection:** Arranging for regular waste pickup to prevent accumulation.
- **Train Workers:** Educating pressmen on proper waste disposal methods and environmental impact.
- **Follow Environmental Regulations:** Adhering to local pollution control board guidelines to ensure compliance.

Safe Storage of Cleaning Equipment

Cleaning equipment and supplies used in the apparel industry include mops, brooms, cleaning chemicals, and disinfectants. Improper storage can lead to accidents, chemical spills, and fire hazards.

Guidelines for Safe Storage of Cleaning Equipment

Equipment Type	Storage Recommendation
 **Mops & Brooms**	Store in a dry, ventilated area to prevent mould and odours. Use wall hooks or storage racks.
 **Cleaning Cloths**	Keep separate cloths for different uses (e.g., ink cleaning vs. general cleaning) to prevent contamination.
 **Detergents & Disinfectants**	Store in a cool, dry area away from direct sunlight. Keep tightly sealed.
 **Chemical Cleaning Agents**	Keep in original labelled containers, away from heat sources, and in locked cabinets if hazardous.

Equipment Type	Storage Recommendation
 Spill Kits	Maintain an emergency spill response kit near areas where chemicals are used.

Table 4.3.3: Cleaning Equipment

Best Practices for Safe Storage are as follows:

- **Keep Chemicals Away from Heat Sources:** Avoiding storing near pressing machines or electrical outlets.
- **Ensure Proper Ventilation:** Preventing the build-up of chemical fumes by using well-ventilated storage rooms.
- **Follow MSDS (Material Safety Data Sheet) Guidelines:** Training workers on the proper handling of hazardous cleaning chemicals.
- **Regular Inspection:** Checking expiry dates of cleaning chemicals and dispose of expired products safely.

Proper waste disposal and the safe storage of cleaning equipment are essential for maintaining a clean, organized, and hazard-free workplace for pressmen in the apparel industry. By following structured waste segregation, implementing safe storage solutions, and complying with regulations, manufacturers can reduce workplace risks, improve efficiency, and contribute to environmental sustainability.

Preventing Workplace Hazards Related to Waste and Cleaning Materials

Pressmen in the clothing business, especially in the printing and finishing divisions, handle a variety of materials, solvents, and cleaning solutions that, if improperly handled, can provide major workplace risks. Unsafe handling of cleaning supplies and improper trash disposal can result in respiratory problems, chemical exposure, fire hazards, and slip-and-fall incidents.

Implementing preventive measures, appropriate waste management, and stringent safety rules for handling and storing cleaning supplies are essential to ensuring a safe and hazard-free work environment.

4.3.3 Maintaining a Clean, Safe, and Organized Work Environment

A clean, safe, and organized workplace increases productivity, reduces the risk of accidents, and ensures compliance with government regulations. Because the apparel manufacturing industry involves high-temperature machinery, fabric dust, and ink fumes, proper maintenance is essential to worker health and operational efficiency. The following important areas must be addressed to maintain a high standard of workplace safety and organization. This is especially true for pressmen who operate heat presses and printing machines.

Workplace Cleanliness: Maintaining cleanliness in the work environment is essential to prevent hazards such as ink spills, fabric dust accumulation, and chemical exposure.

Regular Cleaning

- Press machines, workstations, and surrounding areas should be cleaned daily to remove fabric lint, dust, and ink residues that could lead to respiratory issues or machinery malfunctions.
- Cleaning schedules should be assigned to ensure accountability and consistency.

Ventilation

- Proper airflow is necessary to reduce exposure to ink fumes, which can be harmful if inhaled over long periods.
- Installing exhaust fans and air filtration systems can significantly improve air quality.
- Open windows or air vents should be maintained to ensure continuous air circulation

Waste Management

- Used ink cartridges, chemical containers, and fabric scraps must be disposed of properly to prevent contamination and fire hazards.
- Waste segregation bins should be placed strategically to encourage responsible disposal of hazardous and non-hazardous waste.
- Recycling and waste reduction initiatives can help minimize environmental impact

Fig. 4.3.2: Activities for maintaining workplace cleanliness

- **Safety Measures:** Worker safety is a top priority in apparel manufacturing setting, especially for pressmen who handle high-temperature presses, inks, and cutting tools.

Protective Gear	
Pressmen should wear appropriate protective gear such as **Safety goggles, Heat-resistant gloves and face masks**	Employees must be trained on the importance of wearing personal protective equipment (PPE) and how to use it correctly.

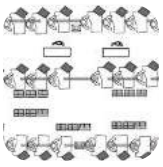
Fire Safety		
Given that the apparel industry involves highly flammable materials, proper fire prevention strategies must be in place.	Fire extinguishers should be placed near workstations, and employees should be trained on their use.	Regular fire drills should be conducted to ensure that workers know emergency exit routes and procedures.

Machine Safety		
Heat presses, printing machines, and cutting tools must be regularly inspected and maintained to prevent malfunctions that could cause injuries.	Emergency stop buttons should be easily accessible to prevent accidents in case of equipment failure.	Workers must be trained on machine handling protocols to reduce the risk of mishandling.

Fig. 4.3.3: Safety precautions in the workplace

- **Organized Work Environment:** An organized workspace reduces clutter, enhances efficiency, and prevents accidents caused by misplaced tools or fabric rolls.

Activities in organising the workplace



Proper Layout

- Machinery and equipment should be arranged to create a smooth workflow, reducing the chances of congestion and accidents.
- Clear pathways should be maintained to allow free movement of workers and materials.

Storage Solutions

- Labelled racks and shelves should be used to store inks, fabrics, and tools systematically.
- Dangerous chemicals or flammable materials should be stored in designated, well-ventilated areas to prevent accidental exposure or combustion.
- An inventory management system should be implemented to track supplies and prevent stock shortages.

Workflow Management

- Defined workstations for different tasks (e.g., fabric printing, drying, cutting, and quality control) should be established to minimize confusion.
- Proper signage and labels should be used to ensure workers can easily identify work areas and required safety measures.
- Assigning supervisors to oversee operations can help maintain order and efficiency.

Fig. 4.3.4: Activities in organising the workplace

- **Health and Hygiene:** Ensuring good health and hygiene standards prevents illnesses and fatigue, which can negatively impact productivity.

Activities		
	Rest Breaks	Workers should be given sufficient breaks, particularly in high-heat environments, to avoid exhaustion.
		Scheduled breaks can improve focus and efficiency, reducing the likelihood of errors and accidents.
	Hydration and Ventilation	Adequate cooling systems, such as fans or air conditioning, should be installed to prevent heat stress.
		Clean drinking water should be readily available, and workers should be encouraged to stay hydrated throughout their shifts.
	Sanitation Facilities	Proper hand washing stations and clean restrooms should be maintained to promote hygiene and prevent the spread of infections.
		Soap dispensers, hand sanitizers, and clean towels should be provided.
		Routine checks should be carried out to ensure hygiene standards are maintained

Fig. 4.3.5: Activities in managing the health and hygiene

- **Compliance with Regulations:** Adhering to safety and labour laws ensures the well-being of workers and protects the company from legal repercussions.

Fig. 4.3.6: Regulations to abide by the pressing organisation among pressmen

A tidy, secure, and well-organized workplace also promotes increased output and adherence to regulations in addition to being crucial for the health of pressmen in the clothing industry. Workplace dangers can be greatly decreased and operational efficiency increased by putting in place organized cleaning procedures, strictly enforcing safety regulations, and properly structuring workstations. Clothing producers can establish a sustainable and employee-friendly workplace by making sure that workers receive the right training, offering protective gear, and abiding by legal requirements.

Summary

- Regular cleaning and maintenance of pressing equipment such as steam irons, heat presses, and fusing machines enhance efficiency, prevent contamination, and extend equipment lifespan.
- Pressmen should monitor common faults like uneven heat distribution, steam blockage, and electrical issues through regular inspections.
- Adhering to safety protocols like wearing PPE, disconnecting power before maintenance, and ensuring proper ventilation reduces workplace hazards.
- Pressmen utilize various machines and marking tools for fabric layering, spreading, and cutting to ensure uniformity, reduce material wastage, and enhance garment quality in the stitched apparel industry.
- Effective pressing techniques, optimized equipment usage, and efficient waste management help reduce fabric loss, maintain quality standards, and improve overall production efficiency.
- Accurate records of pressing activities, material usage, and equipment maintenance enhance quality control, production tracking, and compliance with industry standards.
- Clear communication among pressmen, supervisors, and other departments enhances efficiency, reduces errors, and ensures garment quality.
- Safe storage of cleaning equipment and adherence to environmental regulations help prevent workplace hazards.
- Ensuring workplace cleanliness, implementing safety measures, and maintaining proper hygiene contribute to a productive and hazard-free environment.

Exercise

Multiple-choice Question:

1. Which of the following is a key practice to prevent fabric contamination during pressing operations?
   a. Using hard water in steam irons
   b. Cleaning iron soleplates regularly
   c. Increasing machine temperature randomly
   d. Ignoring adhesive build-up on heat press machines

2. Which machine is used to align fabric layers with precise tension control in the stitched apparel industry?
   a. Manual Spreading Machines
   b. End Cutters
   c. Automatic Layering Machines
   d. Air Floating Tables

3. Why is maintaining accurate records important in the pressing process?
   a. To increase fabric wastage
   b. To track production efficiency and ensure quality control
   c. To reduce the number of skilled workers
   d. To avoid equipment maintenance

4. Which of the following is NOT a method of effective communication in the pressing department?
   a. Verbal discussions
   b. Digital communication
   c. Written logbooks
   d. Ignoring supervisor instructions

5. Why is it important to properly store chemical cleaning agents in the pressing department?
   a. To keep the workplace looking neat
   b. To prevent chemical spills, fire hazards, and worker exposure
   c. To save space for other materials
   d. To ensure chemicals are easily accessible to everyone

Descriptive Questions:

1. Explain the importance of conducting regular maintenance on pressing equipment in the stitched apparel industry.
2. Explain the role of layering, spreading, and cutting machines in ensuring high-quality garment production.
3. Describe the key strategies pressmen can implement to minimize material wastage during the pressing process and their impact on production efficiency.
4. Explain the role of proper reporting procedures in ensuring workflow efficiency and garment quality in the pressing department.
5. Describe the best practices for maintaining a clean, safe, and organized work environment in an apparel factory's pressing department.

Notes

Scan the QR codes or click on the link to watch the related videos

https://youtu.be/cQbfsORlsuI?si=al6HrBw0nNwMxt5t

Garment machinery and equipment

https://youtu.be/JO6Wc8XHOLc?si=MZN0Iso__rxRw5ZR

Fabric Spreading Machine program settings

Skill India
कौशल भारत-कुशल भारत

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

N·S·D·C
RE>IMAGINE FUTURE

5. Maintain health, safety and secure work place with Gender and PwD Sensitization

APPAREL MADE-UPS HOME FURNISHING
SECTOR SKILL COUNCIL

Unit 5.1 - Health, Safety, and Workplace Compliance
Unit 5.2 - Operational Efficiency and Equipment Handling
Unit 5.3 - Workplace Organization and Documentation

AMH/N0103

Key Learning Outcomes

By the end of this module, the participants will be able to:

1. Describe safe working practices for cleaning and maintenance of equipment.
2. Describe effects of contamination on products i.e. Machine oil, dirt etc.
3. Identify different ways of minimizing wastage.

UNIT 5.1: Health, Safety, and Workplace Compliance

Unit Objectives

By the end of this unit, the participants will be able to:

1. Explain health and safety practices, potential hazards, and emergency response procedures.
2. Follow environmental management, waste disposal, and risk minimization procedures.
3. Maintain a healthy lifestyle and understand the impact of alcohol, tobacco, and drugs on workplace safety.

5.1.1 Health, Safety, and Emergency Response in the Workplace

In the apparel industry, pressmen play a crucial role in ensuring that stitched garments are properly finished, pressed, and prepared for packaging or retail. However, the nature of their work exposes them to various health risks, safety hazards, and emergency situations that must be managed effectively. A well-structured health, safety, and emergency response plan ensures a safe working environment, enhances worker well-being, and complies with Indian labour laws and factory regulations.

This guide highlights essential health precautions, workplace safety measures, and emergency response protocols that must be followed by pressmen working in the stitched garment sector in India.

Pressmen working in the stitched apparel industry face multiple occupational hazards due to prolonged exposure to heat, steam, chemicals, and repetitive motions. Without proper safety measures, these workers are at risk of burn injuries, respiratory illnesses, musculoskeletal disorders, and electrical accidents.

The most commonly found workplace hazards related to waste and cleaning materials in the pressing apparel industry includes the following:

Health Considerations for Pressmen

Pressmen in garment factories handle hot pressing machines, steam irons, and chemical treatments, making them vulnerable to various occupational health risks.

Common Health Risks & Causes

Health Issue	Causes	Impact on Workers
Heat-Related Illnesses	Constant exposure to hot irons, steam, and poorly ventilated workspaces	Dehydration, heat exhaustion, dizziness, fatigue
Musculoskeletal Disorders (MSDs)	Prolonged standing, repetitive hand movements, lifting heavy fabrics	Joint pain, backache, carpal tunnel syndrome
Respiratory Problems	Inhalation of fabric lint, dust, and adhesive fumes	Chronic cough, asthma, difficulty breathing

Health Issue	Causes	Impact on Workers
Skin Irritations & Burns	Direct contact with hot machines, exposure to garment treatment chemicals	Allergic reactions, rashes, burn injuries

Table 5.1.1: Health considerations

Preventive Measures for Worker Health are as mentioned:

Improve Ventilation & Cooling:

- Install industrial exhaust fans to remove steam and fumes.
- Use air coolers to maintain a comfortable temperature.

Fig. 5.1.1: Temperature and Humidity controls

Encourage Hydration & Breaks

- Provide water stations to prevent dehydration.
- Schedule regular breaks to reduce fatigue.

Implement Ergonomic Workstations:

- Use anti-fatigue mats to reduce foot strain.
- Provide adjustable-height tables for proper posture.

Fig. 5.1.2: Anti-fatigue mats in apparel industry

Provide Personal Protective Equipment (PPE) is provided in the picture below:

Fig. 5.1.3: PPE required for workplace safety

Workplace Safety Measures

Maintaining a safe work environment prevents injuries, reduces downtime, and ensures compliance with labour laws.

Key safety risks in stitched apparel sector are provided in the table below:

Risk Type	Potential Hazards
Burn Injuries	Hot irons, steam press machines, and heated fabrics
Electrical Hazards	Faulty wiring, exposed cords, overloaded circuits
Fire Hazards	Flammable fabric dust, solvent-based chemicals, faulty electrical equipment
Slip & Trip Accidents	Wet floors, scattered fabric piles, unorganized workspaces

Table 5.1.2: Safety Risks in Stitching

Safety Best Practices for Pressmen are as follows:

Regular Equipment Inspections:

- Conduct weekly maintenance checks on irons, pressing machines, and electrical connections.
- Immediately repair or replace faulty equipment to prevent accidents.

Fig. 5.1.4: Emergency Response

Fire Safety Training:

- Conduct monthly fire drills to prepare workers for emergencies.
- Ensure fire extinguishers are accessible and regularly inspected.
- Clearly mark emergency exits with visible signs.

Fig. 5.1.5: Fire safety alarms

Proper Electrical Maintenance:

- Inspect wiring and power outlets to prevent short circuits.
- Avoid overloading circuits with too many machines on a single connection.

Fig. 5.1.6: Electrical Maintenance

Housekeeping & Organization:

- Keep walkways clear of fabric rolls and pressing tools.
- Ensure workstations are well-lit to prevent accidents.

Safe Chemical Handling:

- Store adhesives and garment treatment chemicals in well-ventilated areas.
- Clearly label all chemical containers and provide Material Safety Data Sheets (MSDS).

Emergency Response in the Workplace

A well-defined emergency response plan is essential for handling accidents, fires, and medical emergencies quickly and effectively.

Case Study: Fire Emergency Response in an Apparel Printing Unit

Company Overview:

Company Name: ABC Garments Pvt. Ltd.

Location: Tiruppur, Tamil Nadu, India

Industry: Apparel Manufacturing & Printing

Workforce: 200 employees (including 35 pressmen)

Incident Background: In June 2024, a fire broke out in the printing department of ABC Garments Pvt. Ltd. The cause was identified as an electrical short circuit in one of the heat press machines, which overheated and ignited fabric dust accumulated around it. Within minutes, smoke and flames spread across the department, creating a panic situation.

Emergency Response Actions:

Step 1: Fire Alarm Activation & Evacuation

- A worker noticed sparks and smoke from the press machine and immediately activated the fire alarm.
- Supervisors initiated an evacuation, guiding employees through pre-designated emergency exits.

Step 2: Fire Extinguishing Measures

- Trained safety personnel used Class C fire extinguishers to put out the electrical fire.
- As some fabric materials also caught fire, Class A extinguishers were used to control the flames.

Step 3: Emergency Services & Medical Aid

- The factory's emergency team contacted the local fire department, which arrived within 10 minutes.
- One worker suffered mild smoke inhalation and was given oxygen support before being sent to the hospital for a check-up.

Step 4: Post-Fire Assessment & Safety Enhancements

- The company conducted a safety audit and found that fabric dust buildup near electrical machines increased fire risk.
- New safety measures were implemented:
- Weekly machine maintenance to prevent electrical issues.
- Dust removal protocols to keep work areas clean.
- Mandatory fire drills every three months for all employees.

Outcome & Key Learning: No major injuries or casualties were reported due to quick action and proper training. Fire contained within 15 minutes, preventing major damage to property. The incident reinforced the importance of fire drills, proper waste disposal, and electrical maintenance.

Conclusion: The fire incident at ABC Garments Pvt. Ltd. highlighted how a well-prepared workforce, accessible fire extinguishers, and clear evacuation routes can prevent disasters. The company's post-incident improvements ensured better fire prevention and safety standards, serving as a model for other apparel manufacturers in India.

5.1.2 Environmental Management and Risk Minimization

In the apparel business, pressmen are essential to the printing and finishing phases of clothing manufacturing. Nevertheless, the use of chemicals, heat-intensive procedures, and waste production in their employment can present risks to the environment and to human health. Worker safety, legal compliance, and sustainability all depend on the application of environmental management plans and risk reduction tactics.

1. **Key environmental challenges in the pressing operations are provided below:**

Challenge	Description	Impact
High Energy Consumption	Pressing machines and steam irons consume significant electricity.	Increased energy bills and carbon footprint.
	Inefficient machines lead to higher energy wastage.	Reduced efficiency and operational costs.
Water & Steam Wastage	Excess steam releases moisture into the air, increasing humidity levels and worker discomfort.	Poor working conditions, risk of mould growth.
	Water usage in steam generators contributes to water resource depletion.	Higher operational costs, environmental impact.

Challenge	Description	Impact
Air & Chemical Pollution	Emission of volatile organic compounds (VOCs) from adhesives, coatings, or fabric treatments.	Poor indoor air quality, respiratory issues.
	Fabric dust and micro-particles accumulate in the air.	Increased health risks, potential fire hazards.
Waste Generation	Fabric offcuts and lint accumulate in the work area.	Creates clutter, increases fire hazards.
	Discarded steam cartridges, damaged iron plates, and packaging waste contribute to industrial waste.	Environmental pollution, improper disposal issues.

Table 5.1.3: Environmental challenges

Sustainable Practices for Pressing Operations

- **Energy Efficiency:** Using energy-efficient steam boilers and automatic pressing machines with power-saving modes are effective. Moreover, optimising machine operation schedules to reduce idle time is useful. Investing in solar panels or alternative energy sources helps in offsetting power usage.
- **Water Conservation:** Reusing condensed water from steam irons for other operations. Implementing automatic steam control systems is useful for reducing excess steam output.
- **Air Quality Improvement:** Installing industrial ventilation and exhaust systems to remove steam and fabric dust is beneficial. Encourage the use of eco-friendly adhesives and chemicals with lower VOC emissions.
- **Waste Management:** Regularly clean pressing tables and floors to remove lint and prevent dust accumulation. Implement a recycling program for fabric scraps and metal components of old machinery. Store chemical waste separately to prevent contamination and ensure safe disposal.

2. Workplace Risk Minimization for Pressmen

Key occupational hazards

- **Heat Exposure & Burns:** Direct contact with hot pressing plates and prolonged exposure to steam can cause burn injuries and heat stress.
- **Repetitive Strain Injuries (RSI):** Continuous pressing movements can lead to wrist, shoulder, and back pain.
- **Fire & Electrical Hazards:** Overheated machines, faulty wiring, or improper electrical setups increase fire risks.
- **Chemical Inhalation & Skin Irritation:** Residual chemicals on fabrics or fumes from adhesives can cause respiratory issues and skin allergies.

Risk Minimization Strategies

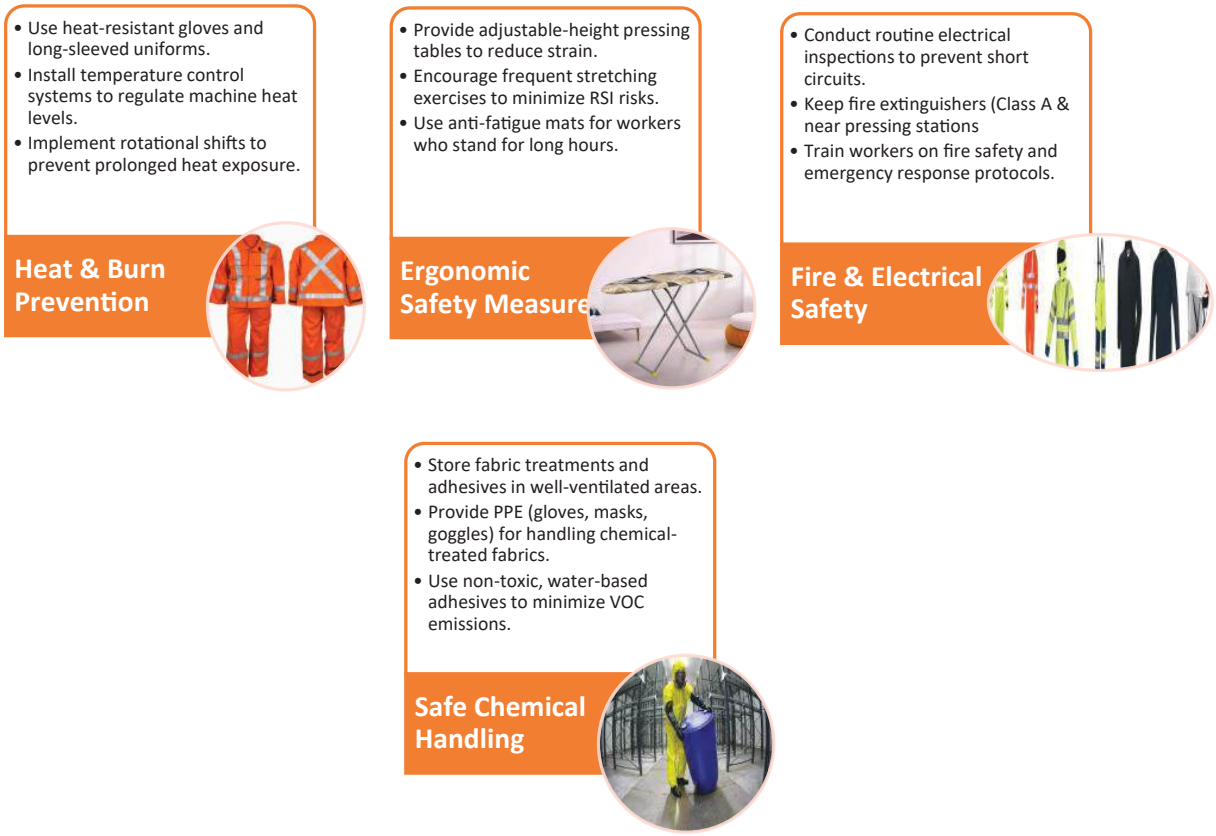


Fig. 5.1.7: Risk Mitigation Plans while pressing

Case Study: Sustainable Pressing Operations in an Apparel Factory

Company Overview:

Company Name: GreenTex Garments Pvt. Ltd.

Location: Bengaluru, Karnataka, India

Industry: Apparel Manufacturing (Eco-Friendly Focus)

Workforce: 250 employees, including 40 pressmen

Problem Statement: GreenTex Garments faced high energy costs, excessive steam use, and worker health concerns due to:

- Out-dated high-energy consuming press machines.
- Poor ventilation causing heat stress among pressmen.
- Increased waste from fabric lint and chemical-treated fabrics.

Implemented Solutions: Energy-Efficient Machines: Installed steam presses with automatic shutoff features, reducing electricity consumption by 30%.

- **Ventilation & Cooling:** Added industrial exhaust fans and hydration stations to prevent heat stress.
- **Eco-Friendly Chemical Usage:** Switched to low-VOC adhesives and implemented chemical storage guidelines.
- **Ergonomic Workstations:** Introduced height-adjustable ironing tables and anti-fatigue mats.

Results & Impact: 25% Reduction in Energy Consumption within six months. 50% Decrease in Worker Complaints related to heat stress and respiratory issues. Complying with ISO 14001 & Indian Factory Safety Regulations is beneficial.

Environmental management and risk minimization in pressing operations are essential for sustainable apparel manufacturing. By implementing energy-efficient machinery, worker safety protocols, and waste reduction initiatives, factories can enhance productivity while protecting both employees and the environment.

5.1.3 Maintaining a Healthy Lifestyle for Workplace Safety

A healthy lifestyle plays a vital role in ensuring workplace safety, particularly in physically demanding industries like apparel manufacturing. Pressmen in the apparel sector face risks due to long hours of standing, exposure to heat, chemicals, and repetitive tasks. Adopting healthy habits can improve their overall well-being, reduce workplace accidents, and enhance productivity.

Category	Healthy Practices	Benefits
Hydration & Nutrition	Drink at least 2-3 litres of water daily.	Prevents dehydration and heat stress.
	Eat balanced meals with proteins, vitamins, and minerals.	Boosts energy and immunity.
	Avoid excessive caffeine and sugary drinks.	Maintains steady energy levels.
Physical Activity & Posture	Stretch and exercise to reduce muscle tension.	Prevents musculoskeletal issues.
	Use anti-fatigue mats and proper footwear.	Reduces leg and back pain.
	Maintain an ergonomic posture while working.	Prevents spinal problems.
Personal Protective Equipment (PPE)	Wear face masks to prevent inhalation of dust and fumes.	Reduces respiratory risks.
	Use gloves to avoid burns and chemical exposure.	Protects skin and hands.
	Wear heat-resistant aprons and safety shoes.	Prevents burns and slip-related injuries.

Category	Healthy Practices	Benefits
Mental Well-being & Rest	Take short breaks every 2 hours.	Reduces fatigue and increases focus.
	Manage stress through relaxation techniques (deep breathing, meditation).	Improves mental clarity and mood.
	Ensure 7-8 hours of sleep per night.	Boosts overall health and alertness.

Table 5.1.4: Healthy Lifestyle Practices for Pressmen

A healthy lifestyle is crucial for workplace safety among pressmen in the apparel industry. By adopting proper hydration, nutrition, ergonomic practices, and mental well-being strategies, both workers and employers can ensure a safe and productive work environment. Investing in health and wellness reduces accidents, improves job satisfaction, and enhances overall efficiency in apparel manufacturing.

UNIT 5.2: Operational Efficiency and Equipment Handling

Unit Objectives

By the end of this unit, the participants will be able to:

1. Check, use, and store tools and equipment safely while maintaining workflow and production targets.
2. Follow organizational procedures for machine operations, maintenance, and reporting malfunctions.
3. Conduct visual inspections to ensure product quality and compliance with company standards

5.2.1 Safe Handling and Storage of Tools and Equipment

Pressmen in the stitched apparel industry in India rely on various tools and equipment for pressing, finishing, and quality control. Proper handling, usage, and storage of these tools are essential to maintain workflow efficiency, ensure worker safety, and meet production targets. Mismanagement of equipment can lead to delays, accidents, and increased maintenance costs.

Checking Tools and Equipment before Use

Before starting operations, pressmen should conduct a visual and functional inspection of their tools and machines. Pre-Use Inspection Checklist is provided below:

- Check for loose wires, damaged cords, leaks, or faulty components on electrical and mechanical equipment.
- Ensure that heat press plates and steam irons are at the correct temperature settings to prevent fabric burns or overheating.
- Inspect cutting tools (scissors, rotary cutters) for sharpness and proper alignment to ensure clean cuts.
- Verify that safety switches, emergency stops, and ventilation systems are functional.

Example: Shahi Exports

Fig. 5.2.1: Shahi garment factory

Shahi Exports emphasizes rigorous safety measures, including extensive training programs on emergency preparedness and risk assessment. This proactive approach ensures that all equipment is thoroughly inspected before use, identifying potential hazards such as loose wires or faulty components to prevent accidents and maintain smooth operations.

Safe Usage of Tools and Equipment

Proper handling of tools ensures both operator safety and consistent production output. Best Practices for Safe Usage are as follows:

- Always use heat-resistant gloves while handling steam irons and heat presses to prevent burns.
- Follow manufacturer guidelines for operating pressing machines, conveyor dryers, and vacuum tables.
- Maintain a clutter-free workstation to avoid tripping hazards and accidental damage to tools.
- Never overload power sockets—plug only the required machines to prevent electrical hazards.
- Place cutting tools in their designated holders when not in use to avoid accidents.

Example: Kitex Garments

Fig . 5.2.2: Kitex garments logo

Kitex Garments maintains a strong focus on safety and operational efficiency. While specific details are not publicly disclosed, their commitment to safety likely includes the use of appropriate protective gear, such as heat-resistant gloves, and adherence to manufacturer guidelines for equipment operation. These measures help prevent injuries and ensure consistent production quality.

Storing Tools and Equipment Properly

Safe storage of equipment improves durability, prevents damage, and enhances workplace organization.b Proper storage practices are as follows:

- Heat presses and irons should be placed on heat-resistant surfaces and turned off when not in use.
- Cutting tools must be stored in locked toolboxes or designated storage racks to prevent injuries.
- Electrical equipment should be kept away from moisture and flammable materials to prevent short circuits and fires.
- Safety gear (gloves, masks, goggles, and aprons) must be cleaned and stored in dry areas for reusability.
- Label and organize workstations to ensure tools are easily accessible, reducing downtime.

Example: Eastman Exports

Fig. 5.2.3: Eastman Exports logo

Eastman Exports, as a leading apparel manufacturer, understands the importance of proper storage for tools and equipment. Although specific practices are not detailed, it is standard in the industry to store pressing equipment on heat-resistant surfaces and organize cutting tools in designated racks. Such practices prevent damage, reduce the risk of accidents, and contribute to a well-organized workspace.

Maintaining Workflow and Meeting Production Targets

Safe tool handling should not slow down production but rather enhance efficiency. Strategies for maintaining workflow are provided below:

- Implement a preventive maintenance schedule for all machines to avoid sudden breakdowns.
- Assign specific storage locations for tools so they can be quickly retrieved when needed.
- Train workers on efficient machine handling techniques to improve productivity.
- Use checklists and reporting systems to document equipment usage and malfunctions promptly.

Example: Arvind Limited

Fig. 5.2.4: Arvind Store Logo

Arvind Limited employs advanced machinery, including CNC machines and robotic welding systems, to enhance production efficiency. By integrating preventive maintenance schedules and training workers in efficient machine handling techniques, they minimize downtime and ensure that production targets are consistently met without compromising safety.

5.2.2 Machine Operations, Maintenance, and Reporting

In the apparel industry, pressmen rely on various machines such as heat presses, steam irons, and fabric finishing equipment to ensure garments meet quality standards. Proper machine operation, regular maintenance, and accurate reporting of malfunctions are essential for efficiency, worker safety, and compliance with industry regulations. A well-maintained machine minimizes downtime, prevents workplace accidents, and ensures high production output.

Machine Operations

Procedure	Guidelines	Risks Prevented	Real-Life Example
Pre-Use Inspection	Check for loose wires, damaged cords, leaks, or faulty components before operating the machine.	Prevents electrical shocks, fire hazards, and machine malfunctions.	Shahi Exports Pvt. Ltd. requires a mandatory checklist inspection before each shift, reducing machine-related accidents.
Correct Temperature Settings	Set heat presses and steam irons to recommended temperature levels based on fabric type.	Prevents fabric burns, improper finishing, and worker injuries.	Gokaldas Exports uses automated temperature control systems that send alerts if the temperature exceeds safe limits.
Handling with Caution	Use heat-resistant gloves and maintain a safe distance from steam vents.	Prevents burns and repetitive strain injuries.	Kitex Garments Ltd. enforces the use of heat-resistant gloves to reduce burn injuries.

Procedure	Guidelines	Risks Prevented	Real-Life Example
Work Area Safety	Keep workstations free of fabric lint, flammable materials, and ensure proper ventilation.	Reduces fire risks and improves air quality.	Eastman Exports follows a "Clean-as-you-Go" policy to keep pressing units clutter-free.
Emergency Stop Awareness	Train workers on emergency stop buttons and shut-off procedures.	Helps prevent accidents and allows quick response during malfunctions.	Page Industries Ltd. provides emergency shut-down drills for all new employees.

Table 5.2.1: Safe Operating Procedures

Maintenance

Pressmen are essential to the apparel business because they guarantee that stitched garments have excellent finishing. In order to improve the durability and beauty of fabric, they operate vacuum tables, conveyor dryers, steam irons, and heat press equipment. However, occupational dangers, poor maintenance, and inappropriate handling can result in accidents, equipment failures, and delays in production.

Machine	Function	Potential Risks	Safety Measures	Real-Life Example
Heat Press Machines	Applies prints and finishes on fabrics at controlled temperatures and pressures.	Overheating can damage fabrics and cause burns.	Set recommended temperatures and use automated shut-off timers.	Arvind Limited uses automated heat press machines that turn off after a pre-set time to prevent overheating.

Machine	Function	Potential Risks	Safety Measures	Real-Life Example
Steam Irons & Presses	Removes wrinkles and sets fabric designs using heat and steam.	Steam exposure can cause burns, and leaks can create electrical hazards.	Regularly check for leaks and wear gloves when handling hot surfaces.	Raymond Apparel Ltd. provides insulated-handled steam irons to prevent burns. 
Conveyor Dryers	Dries printed and treated fabrics after pressing.	Overheating can cause fabric shrinkage and fire hazards.	Maintain proper ventilation and clean lint buildup.	Indian Terrain has infrared sensors in conveyor dryers to maintain uniform drying temperatures. 
Vacuum Tables	Holds garments in place and extracts excess moisture during pressing.	Improper positioning can lead to garment misalignment and finishing defects.	Ensure fabrics are evenly laid before pressing.	Madura Garments uses adjustable vacuum tables to improve efficiency and reduce worker strain. MADURA FASHION & LIFESTYLE MADURAF&L MF&L

Table 5.2.2: Machines used by Pressman

Ensuring the safe operation of pressing machines in the apparel industry is essential for worker safety, quality control, and efficiency. Real-world examples from leading Indian apparel companies demonstrate the effectiveness of structured safety measures, from proper machine handling to emergency preparedness. By adopting best practices and continuously training workers, apparel manufacturers can create a safer, more productive work environment.

Reporting

Proper documentation and reporting are essential in the apparel industry to ensure quality control, workplace safety, and regulatory compliance. Pressmen must maintain accurate records of their daily tasks, machine usage, defects, and maintenance activities to support efficient production and minimize errors. Complete and well-documented records help identify issues early, improve workflow, and meet compliance standards required by buyers and industry regulations.

The following table represents the features of the report and its purpose among pressmen in the apparel industry:

Type of Report/Record	Purpose	Key Information Included
Daily Production Report	Tracks the number of garments pressed per shift and identifies productivity trends.	Date, shift details, number of garments pressed, machine usage hours.
Machine Maintenance Log	Records servicing, repairs, and inspections of pressing equipment to prevent breakdowns.	Machine ID, maintenance date, type of service performed, technician name.
Quality Inspection Report	Ensures garments meet the required pressing and finishing standards before shipment.	Inspection date, defects observed, corrective actions taken.
Incident & Safety Report	Documents workplace injuries, fire hazards, or equipment malfunctions for compliance and prevention.	Date, location, type of incident, cause, corrective measures.
Chemical & Waste Disposal Record	Monitors the safe handling and disposal of adhesives, steam cartridges, and cleaning chemicals.	Type of chemical, quantity used, disposal method, safety precautions followed.
Work Attendance & Shift Record	Keeps track of employee attendance, shift changes, and overtime hours.	Employee name, shift timing, attendance status.

Table 5.2.3: Types of Reports and Records Maintained by Pressmen

Importance of accurate reporting is as follows:

- **Quality Control:** Prevents defective garments from being shipped by identifying pressing inconsistencies.
- **Machine Efficiency:** Helps in scheduling preventive maintenance, reducing downtime and costly repairs.
- **Safety & Compliance:** Ensures adherence to workplace safety regulations and prevents accidents.
- **Environmental Responsibility:** Maintains proper waste management records to minimize pollution risks.
- **Productivity Monitoring:** Tracks efficiency and enables management to optimize workloads.

By implementing structured reporting systems, apparel manufacturers can enhance operational efficiency, improve compliance with regulations, and ensure high-quality production standards.

5.2.3 Visual Inspections for Quality and Compliance

Visual inspection is a critical step in quality control and compliance in the apparel industry, particularly for pressmen responsible for finishing garments. Proper inspections ensure that fabrics are free from defects, properly pressed, and meet customer specifications before packaging and shipping.

Pressmen must carefully check for wrinkles, uneven prints, burns, fabric distortions, and finishing errors that could compromise product quality. Regular inspections also help maintain compliance with industry standards, such as ISO 9001 (Quality Management Systems) and buyer-specific requirements.

By implementing structured visual inspection processes, apparel manufacturers can reduce product rejections, improve brand reputation, and enhance customer satisfaction. The key areas of visual inspection are as followed in the table below:

Inspection Area	Details to Check	Purpose	Real-Life Example
Fabric Surface & Texture	Check for wrinkles, burns, shrinkage, or distortion caused during pressing.	Ensures smooth and uniform fabric finishing.	Arvind Ltd. uses automated fabric scanners to detect texture irregularities before shipment. 
Print & Logo Alignment	Inspect placement, colour consistency, and sharpness of printed logos or designs.	Prevents misaligned prints that may lead to rejections.	Shahi Exports uses precision laser markers to ensure proper print alignment 
Seam & Stitch Integrity	Verify that seams are intact and not affected by pressing or heat exposure.	Avoids fabric damage or seam opening during use.	Gokaldas Exports conducts manual seam pull tests before final approval. 

Inspection Area	Details to Check	Purpose	Real-Life Example
Moisture & Residue Check	Ensure no excess steam, chemical residue, or dampness remains after pressing.	Prevents mould formation and maintains garment freshness.	Raymond Apparel uses high-speed air drying to eliminate excess moisture. 
Colour & Dye Consistency	Compare fabric shades under different lighting conditions.	Maintains consistency in large production batches.	Madura Garments uses standardized light boxes to check dye uniformity. ADITYA BIRLA MADURA F&L

Table 5.2.4: Visual inspection details among pressmen

Pressmen must adhere to correct operating protocols, perform routine maintenance, and report problems as soon as they arise in order to guarantee a safe and effective working environment. Businesses may avoid mishaps, cut down on downtime, and boost production by putting in place organized safety procedures and offering sufficient training.

In order to guarantee product safety, uniformity, and regulatory compliance, the garment sector must adhere to quality control standards. Through appropriate pressing, finishing, and visual inspection procedures, pressmen are essential to preserving the quality of clothing.

Apparel producers adhere to established quality management systems (QMS), environmental regulations, and inspection criteria in order to satisfy both buyer-specific and international requirements. In both domestic and international markets, these compliance standards aid in preventing flaws, reducing rejections, and guaranteeing consumer pleasure. Apparel firms can increase operational efficiency, cut waste, and improve brand perception while making sure clothes satisfy requirements by putting in place organized quality assurance methods.

Standard	Relevance to Pressing & Visual Inspection	Requirement
 **ISO 9001 (Quality Management System)**	Ensures consistent quality and process control.	Requires proper documentation of inspections and defect reporting.
 **ISO 14001 (Environmental Management System)**	Reduces environmental impact of garment production.	Mandates safe handling of chemicals and energy-efficient pressing processes.
 **AQL (Acceptable Quality Level)**	Defines quality standards for garment inspections.	Establishes pass/fail criteria based on defect percentage in a batch.
 **Buyer-Specific Compliance**	Large brands set their own quality control benchmarks.	Requires audits, sample approvals, and final inspections before shipment.

Table 5.2.5: Compliance Standards in the Apparel Quality

Pressmen must adhere to correct operating protocols, perform routine maintenance, and report problems as soon as they arise in order to guarantee a safe and effective working environment. Businesses may avoid mishaps, cut down on downtime, and boost production by putting in place organized safety procedures and offering sufficient training.

To make sure that clothing satisfies customer requirements, quality standards, and legal requirements, visual inspection is a crucial phase. Clothing manufacturers may increase product uniformity, reduce faults, and boost efficiency by combining sophisticated inspection equipment, organized procedures, and compliance measures.

Investing in appropriate visual inspections enhances the company's standing in the international clothing market in addition to preventing monetary losses from rejections.

UNIT 5.3: Workplace Organization and Documentation

Unit Objectives

By the end of this unit, the participants will be able to:

1. Complete job-related documentation accurately, including work tickets and reports.
2. Ensure proper material handling, waste minimization, and compliance with company policies.

5.3.1 Completing Job-Related Documentation

In the apparel industry, accurate and complete job-related documentation is essential for tracking production, ensuring quality, maintaining machine efficiency, and complying with safety and labour regulations. Pressmen are responsible for maintaining various records, such as work tickets, production logs, and maintenance reports, which help in monitoring workflow, identifying defects, and optimizing production efficiency

Document Type	Purpose	Key Information Included
 **Work Ticket**	Provides job instructions and garment specifications for pressing.	Order number, fabric type, pressing temperature, special finishing instructions.
 **Production Log**	Tracks daily output and efficiency of pressmen.	Date, shift details, number of garments pressed, defects found.

Document Type	Purpose	Key Information Included
 Machine Usage & Maintenance Log	Records equipment usage, servicing, and breakdown reports.	Machine ID, operation hours, maintenance date, repairs conducted.
 Quality Control Checklist	Ensures garments meet finishing standards before packaging.	Pressing quality, wrinkle removal, defects, corrective measures taken.
 Incident & Safety Report	Documents workplace accidents, machine malfunctions, or safety hazards.	Date, location, incident type, root cause, corrective action taken.
 Work Attendance & Shift Record	Tracks employee work hours and shift changes.	Employee name, shift details, overtime hours, absences.

Table 5.3.1: Key Job-Related Documents for Pressmen

In the apparel industry, maintaining accurate and timely job-related documentation is essential for efficient workflow, quality control, and regulatory compliance. Pressmen play a critical role in ensuring that production records, work tickets, and maintenance logs are properly completed and submitted. Proper documentation helps in tracking production efficiency, identifying defects, maintaining safety standards, and improving accountability.

Fill in All Required Details

- **Ensure that all fields, such as dates, work order numbers, and machine IDs, are completed accurately.**

Use Clear & Legible Writing

- **If done manually, documentation should be easy to read to avoid misinterpretation.**

Follow Standardized Formats

- **Use company-approved templates to maintain consistency across all records.**

Verify & Cross-Check Data

- **Before submitting, confirm accuracy to prevent discrepancies in production tracking.**

Submit Reports on Time

- **Delayed documentation can impact workflow and create compliance risks.**

Store Records Securely

- **Maintain physical or digital copies of records for future reference and audits.**

Fig. 5.3.1: Steps for Completing Job-related Documentation

5.3.2 Material Handling and Waste Minimization

Proper handling and storage of tools and equipment are essential for ensuring workplace safety, prolonging the lifespan of machines, and maintaining efficient operations. Pressmen work with heat presses, steam irons, cutting tools, and other machinery that require safe practices in order to prevent accidents as well as injuries. The most common tools and equipment used by pressmen are as followed in the table:

Category	Examples	Associated Risks
Pressing Equipment	Heat presses, steam irons, ironing tables.	Burns, overheating, electrical hazards.
Cutting Tools	Scissors, rotary cutters, fabric knives.	Cuts puncture wounds, improper handling risks.
Measuring Tools	Measuring tapes, rulers, fabric markers.	Minimal risk but can cause eye strain if misused.
Storage & Safety Gear	Shelves, toolboxes, PPE (gloves, masks, safety shoes).	Falling objects clutter leading to tripping.

Table 5.3.2: Tools used by Pressman

Safe handling procedures for tools and equipment are as follows:

Heat Presses & Steam Irons

- Wearing heat-resistant gloves when handling hot surfaces is essential to protect the hands from burns caused by direct contact with heated equipment. Additionally, it is crucial to turn off and unplug the machines when not in use.

Cutting Tools

- Keeping scissors and knives sharp ensures clean cuts and reduces the force needed to cut through fabrics, minimizing strain on the hands and wrists.

Electrical Equipment

- Before using electrical equipment, pressmen must inspect power cords and plugs for any signs of damage. Ensuring that electrical connections are properly maintained helps in preventing workplace accidents related to faulty wiring.

General Workplace Safety

- Maintaining a clean and organized workspace is critical for safety. Pressmen should also use proper lifting techniques when moving heavy equipment, such as heat presses and ironing tables

Fig. 5.3.2: Safe handling of tools

Ensuring the safe storage of tools and equipment is essential in the apparel industry, especially for pressmen working with high-temperature machines, sharp tools, and electrical devices. Proper storage not only prevents workplace accidents but also extends the lifespan of equipment and maintains an organized, efficient workspace. By implementing structured storage practices, factories can reduce safety hazards, improve productivity, and ensure compliance with occupational safety regulations. Below are key storage guidelines for pressing equipment, cutting tools, electrical devices, and personal protective equipment (PPE).

Pressing Equipment Storage

- Heat presses should be stored on sturdy, heat-resistant surfaces to prevent accidental falls and injuries. After use, irons should be placed on heat-proof mats while they cool down.

Cutting Tools Storage

- Sharp cutting tools such as scissors, rotary cutters, and knives should be stored in designated racks or toolboxes to prevent accidental injuries.

Electrical Equipment Storage

- Electrical tools and machines should always be kept away from moisture and flammable materials. Proper cord storage reduces wear and tear, ensuring that equipment remains functional for a longer period.

Safety Gear & Personal Protective Equipment (PPE) Storage

- safety gear such as gloves, masks, and safety shoes should be stored in a clean, dry area to ensure their effectiveness in case of emergencies. Ensuring that protective equipment is in good condition helps maintain compliance with safety regulations and reduces the likelihood of workplace injuries.

Fig. 5.3.3: Storage of tools and equipment

Proper handling and storage of tools and equipment prevent workplace accidents, improve efficiency, and ensure compliance with safety regulations in the apparel industry. Employers should conduct regular safety training, provide adequate storage solutions, and encourage workers to follow safety protocols to maintain a secure and organized work environment.

Summary

- Pressmen in the stitched garment industry face hazards like heat exposure, musculoskeletal disorders, respiratory issues, and chemical-related skin irritations.
- Key safety measures include regular equipment inspections, fire safety training, proper electrical maintenance, and safe chemical handling.
- Sustainable practices such as energy-efficient machinery, waste reduction, improved ventilation, and eco-friendly chemicals reduce environmental impact while enhancing worker safety and factory compliance with safety regulations.
- Pressmen must conduct pre-use inspections of tools like heat presses, steam irons, and cutting equipment to prevent accidents and ensure smooth operations.
- Regular maintenance of machines such as vacuum tables and conveyor dryers enhances durability and efficiency.
- Structured documentation, such as production logs, maintenance reports, and safety records, helps track efficiency, identify defects, and maintain compliance with industry standards.
- Pressmen ensure garment quality through visual inspections, checking for defects like fabric burns, seam issues, and misaligned prints.
- Proper handling of pressing tools, cutting instruments, and measuring devices minimizes risks.

Exercise

Multiple-choice Question:

1. Which of the following is NOT a preventive measure for reducing heat-related illnesses among pressmen?
   a. Installing industrial exhaust fans
   b. Encouraging hydration and regular breaks
   c. Using faulty electrical wiring
   d. Providing air coolers to maintain temperature

2. What is the main purpose of conducting pre-use inspections for pressing tools and equipment?
   a. To ensure the machines work faster
   b. To prevent accidents and identify faulty components
   c. To check the fabric colour consistency
   d. To reduce production time

3. How can pressmen prevent burns while handling steam irons and heat presses?
   a. By using protective gloves
   b. By switching off machines every 5 minutes
   c. By working in a cold environment
   d. By washing the equipment frequently

4. What is the purpose of a Quality Inspection Report in the apparel industry?
   a. To track the number of garments pressed per shift
   b. To ensure garments meet finishing and quality standards
   c. To record worker attendance and shift schedules
   d. To maintain inventory of raw materials

5. Which of the following is a key factor in maintaining workflow efficiency in apparel manufacturing?
   a. Overloading power sockets for better machine performance
   b. Assigning specific storage locations for tools and equipment
   c. Avoiding maintenance to reduce downtime
   d. Using outdated pressing techniques to save costs

Descriptive Questions:

1. Explain the key workplace hazards faced by pressmen in the stitched apparel industry and discuss the preventive measures that can be implemented to ensure their health and safety.
2. Explain the importance of pre-use inspections in the pressing and finishing process. How does it help in maintaining safety and efficiency?
3. Describe the role of proper tool storage in preventing workplace accidents in the stitched apparel industry. Provide examples of best practices.
4. How do structured reporting systems like maintenance logs and quality control checklists contribute to better production and compliance in garment manufacturing?
5. What are the key factors considered in visual inspections for garment quality control? Discuss the significance of maintaining compliance with international standards like ISO 9001 and AQL.

Notes

Scan the QR codes or click on the link to watch the related videos

https://youtu.be/5jaHT3dgdBk?si=QOfENsEmRixQKcJQ

Implementing Sustainability Management System (SMS)

https://youtu.be/NovfZ9EOs1U?si=5K9D7OrSjsmG4Q2M

Safe Operations of Material Handling Equipment Webinar

https://youtu.be/Rl6RQqn5uXA?si=IxAgpRh-N5N2gaEH

material handling

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N·S·D·C
RE>IMAGINE FUTURE

6. Comply with Industry, Regulatory, Organizational Requirements and Greening of Job Roles

APPAREL MADE-UPS HOME FURNISHING
SECTOR SKILL COUNCIL

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Key Learning Outcomes

By the end of this module, the participants will be able to:

1. Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures.
2. Provide support to the supervisor and team members in enforcing the organisational considerations.
3. Identify procedures to follow if legal, regulatory and ethical requirements of the organisation are not met.
4. Interpret correctly legal, regulatory and ethical requirements specific to the apparel industry.
5. Follow the organisational policies and procedures within limits of self-authority.

UNIT 6.1: Ethical, Regulatory, and Governance Standards

Unit Objectives

By the end of this unit, the participants will be able to:

1. Obtain the importance of ethics, values, and compliance with legal and regulatory requirements in the apparel industry.
2. Follow organizational policies, procedures, and reporting protocols within personal responsibility limits.
3. Identify and address deviations from ethical, legal, and regulatory standards while supporting organizational governance.

6.1.1 Importance of Ethics, Values, and Compliance in the Apparel Industry

Ethics, values, and compliance with legal and regulatory requirements are crucial in the apparel industry, particularly concerning pressmen (those responsible for operating heat press machines, screen printing, or garment finishing processes). These factors influence workplace safety, labour rights, environmental responsibility, and product quality. There are various reasons so as to why the ethics, values and compliance are essential in the apparel industry that has been provided below:

1. **Ethical Standards and Values**

   Ethical standards and values play a significant role in shaping the working environment, operational integrity, and sustainability of the apparel industry, particularly for pressmen. These principles ensure that businesses maintain responsible practices that benefit employees, consumers, and the environment.

   - **Workplace Integrity**
     - A culture of honesty and responsibility in the workplace ensures that pressmen adhere to safety regulations, follow best practices for equipment handling, and produce high-quality garments.
     - Ethical workplaces encourage accountability, meaning employees feel responsible for maintaining standards in both production quality and safety procedures.
     - Employers should also establish clear ethical guidelines that discourage dishonest practices such as cutting corners in production, misrepresenting product quality, or using substandard materials.
   - **Sustainability**
     - The apparel industry has a significant environmental footprint, particularly in areas such as water consumption, chemical usage, and waste generation. Ethical values promote sustainable garment printing methods that minimize this impact.
     - Pressmen working in screen printing, heat press operations, or direct-to-garment (DTG) printing should use eco-friendly inks, biodegradable chemicals, and energy-efficient equipment.
     - Reducing waste by optimizing production processes and recycling leftover materials can contribute to a more sustainable manufacturing environment.

- **Fair Treatment of workers**
  - Pressmen, like all workers, have the right to fair wages, reasonable working hours, and a safe working environment. Ethical labour practices ensure that they are compensated appropriately for their skills and efforts.
  - Ensuring safe working conditions includes proper training, access to protective gear (such as gloves, masks, and eyewear), and well-maintained machinery to prevent injuries or exposure to hazardous substances.
  - Respecting workers' rights includes upholding anti-discrimination policies, preventing workplace harassment, and fostering an inclusive and respectful work culture.

2. Compliance with Legal and Regulatory Requirements

In order to safeguard employees, customers, and the environment, legal and regulatory compliance is crucial. Pressmen and apparel companies are subject to a number of laws and regulations that guarantee moral business conduct, worker safety, and environmental sustainability.

- In many countries, organizations like OSHA (Occupational Safety and Health Administration) in the U.S. or equivalent regulatory bodies worldwide enforce workplace safety laws.
- Pressmen often work with high-temperature heat presses, chemical-based inks, and heavy machinery, making compliance with occupational safety standards critical.
- Proper ventilation systems must be in place when working with solvent-based inks or adhesives to prevent inhalation of harmful fumes.
- Employers must provide adequate training to ensure workers understand the proper handling of equipment, emergency response protocols, and safety procedures.

Labour Laws & Occupational Safety | **Environmental Regulations** | **Fair Trade and Anti-Child Labor Laws**

Fig. 6.1.1: Compliance of Regulations in Pressing Organisation

- Regulatory bodies such as the EPA (Environmental Protection Agency) set strict guidelines for waste disposal and pollution control. Apparel printing processes involve hazardous chemicals, and improper disposal can lead to water and air pollution.
- Companies should adopt eco-friendly practices such as using non-toxic, water-based inks instead of petroleum-based alternatives, which can be harmful to both workers and the environment.
- Businesses must comply with local, national, and international environmental sustainability standards to ensure minimal ecological impact.
- The apparel industry has faced criticism for unethical labour practices, including forced labour and child labour in some manufacturing facilities. Organizations like the International Labour Organization (ILO) establish standards to prevent worker exploitation.
- Apparel companies must ensure that their supply chains comply with ethical labour practices, ensuring that pressmen and other workers operate in fair conditions.
- Certifications such as Fair Trade or SA8000 (Social Accountability International certification) ensure that workers are treated fairly and that companies do not engage in exploitative labour practices.

3. Industry-Specific Compliance

The clothing business has its own set of rules and compliance standards that go beyond general workplace legislation to guarantee product safety, quality, and brand protection.

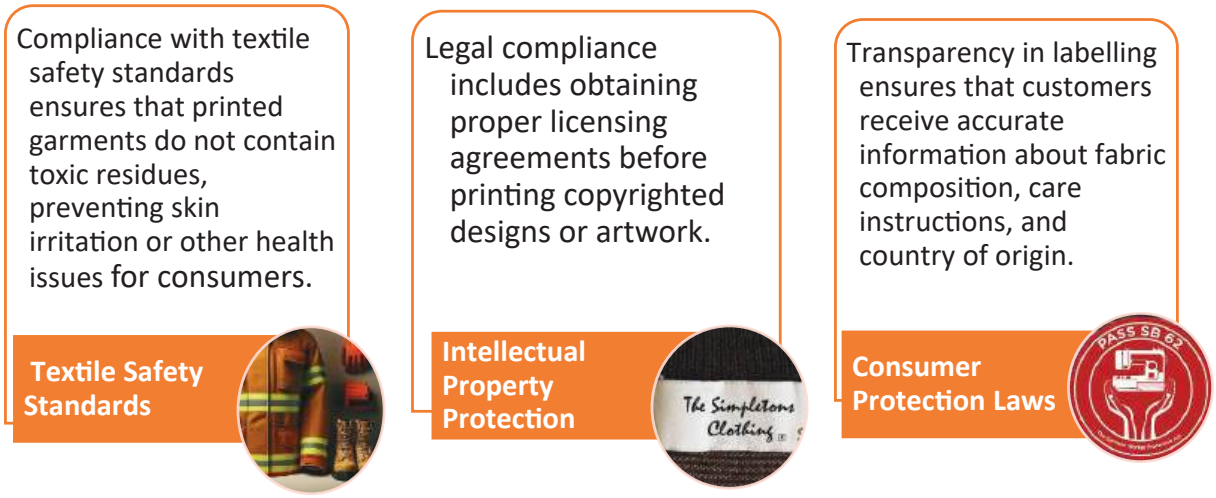


Fig. 6.1.2: Industry Specific Compliances

- Pressmen working in apparel printing must comply with safety standards that ensure garments are free from harmful chemicals and dyes.
- Certifications like OEKO-TEX Standard 100 ensure that textiles, dyes, and printing materials are tested for harmful substances and deemed safe for human use.
- The apparel industry is frequently targeted for copyright and trademark infringement, especially in garment printing. Pressmen must ensure they are not printing unauthorized or counterfeit logos, images, or brand names.
- Companies must educate pressmen and production teams on intellectual property laws to avoid legal disputes and reputational damage.
- Garments must adhere to consumer safety laws that regulate labelling, material content, and safety compliance.
- For example, children's clothing must meet flammability standards and avoid hazardous substances in inks and dyes.

An ethical and sustainable apparel sector is built on a foundation of industry-specific standards, regulatory compliance, and ethical ideals. Pressmen and the industry gain by ensuring ethical labour standards, workplace integrity, environmental responsibility and regulatory compliance. Prioritizing these factors helps apparel firms stay out of trouble with the law, win over customers, build their brand, and help create a more sustainable and moral future.

6.1.2 Following Organizational Policies and Reporting Protocols

In the Indian stitched apparel industry, pressmen play a crucial role in ensuring garment finishing and quality control. Adhering to organizational policies, procedures, and reporting protocols within their personal responsibility limits is essential for maintaining efficiency, compliance, and workplace discipline.

Category	Key Areas	Explanation
Adherence to Organizational Policies and Procedures		
Workplace Discipline and Attendance	Timely attendance and adherence to shift schedules.	Pressmen must follow assigned shifts to ensure smooth workflow and avoid delays in production. Chronic absenteeism or tardiness can cause backlogs in garment finishing and impact factory output.
	Compliance with break times and work hours.	Indian labour laws, such as the Factories Act, 1948, regulate work hours. Pressmen should take breaks as scheduled and not overextend shifts beyond legal limits.
	Maintaining workplace ethics and decorum.	Pressmen should uphold professionalism by respecting team members, following managerial instructions, and adhering to company behavioural guidelines.
Garment Pressing and Finishing Standards	Proper ironing, steaming, and heat-pressing techniques.	Following standardized garment pressing techniques ensures uniform quality across different fabric types. Inconsistent pressing can damage delicate materials.
	Handling delicate fabrics and embellishments carefully.	Pressmen must be trained to adjust temperature settings and pressure levels based on fabric composition (cotton, polyester, silk, etc.). Mishandling can lead to burn marks, shrinkage, or damage to embroidery/sequins.
	Following the workflow from pressing to packaging.	Pressed garments should meet quality standards before moving to the inspection, folding, and packaging sections. Skipping any steps can lead to defects being overlooked.
Workplace Safety and Equipment Handling	Safe operation of pressing machines and steam irons.	Steam pressing machines and heat presses operate at high temperatures; incorrect handling can cause burns or injuries. Pressmen must use the right settings and tools to ensure safety.
	Wearing protective gear (gloves, masks, aprons).	Protective equipment minimizes risks from burns, steam exposure, or inhalation of chemical fumes (from adhesives, inks, or fabric treatments).
	Regular machine maintenance and cleaning.	Pressing machines require periodic servicing to prevent overheating, steam leaks, or malfunctions that could disrupt production. Pressmen must report maintenance needs on time.

Category	Key Areas	Explanation
Compliance with Reporting Protocols within Personal Responsibility Limits		
Reporting Quality Defects	Identifying issues like wrinkles, fabric damage, or uneven pressing.	Pressmen must inspect each garment after pressing. If defects are found, garments should be sent back for rework before reaching packaging.
	Escalating issues to the Quality Control (QC) department.	Defective garments should be reported immediately to QC inspectors to ensure only flawless products are sent to clients.
Reporting Equipment Malfunctions	Notifying supervisors about broken or faulty machines.	Steam leaks, heat inconsistencies, or machine breakdowns must be reported to the maintenance team to prevent production delays.
	Logging machine usage and maintenance records.	Some factories require pressmen to log daily machine usage, pressure settings, and maintenance needs to track performance and identify recurring faults.
Following Supervisory Instructions and Chain of Command	Reporting to supervisors and following structured communication.	Pressmen should follow the hierarchy in reporting issues (e.g., work-related concerns to line managers, HR matters to the HR department).
	Using proper escalation methods for serious issues.	Emergencies like electrical failures, fire hazards, or serious accidents should be reported to safety officers or compliance managers for immediate action.
Legal and Compliance Aspects in the Indian Apparel Industry		
Compliance with Indian Labour Laws	Following working hour limits and overtime rules.	Indian laws restrict factory working hours to 9 hours a day and 48 hours a week. Any overtime must be compensated as per the Minimum Wages Act and labor regulations.
	Fair wages and employment rights.	Pressmen should be paid minimum wages as per state laws. Employers must provide wage slips and ensure compliance with the Payment of Wages Act.
	No child labour or forced labour practices.	Under the Child Labour (Prohibition and Regulation) Act, garment factories cannot employ workers below 14 years of age.

Category	Key Areas	Explanation
Adherence to Factory Compliance Certifications	Meeting international compliance standards (ISO, SEDEX, SA8000).	Many Indian garment factories work with global brands requiring ISO 9001 (Quality Control), SA8000 (Social Accountability), and SEDEX audits (Ethical Trade Certification). Pressmen must follow these standards in daily operations.
	Ensuring ethical labour and fair-trade compliance.	Factories working with international buyers must prove fair wages, safe workplaces, and ethical sourcing of materials. Any violation may lead to contract termination.

Table 6.1.1: Compliance of Pressman in the Apparel Industry

In order to maintain production and compliance, pressmen in the Indian stitched garment sector must follow organizational policies, safety procedures, and reporting guidelines. In order to help guarantee a safe, moral, and superior garment production environment, they adhere to workplace discipline, pressing standards, legal labour regulations, and reporting obligations.

This structured approach prevents production delays, enhances worker safety, improves quality control, and ensures compliance with Indian labour regulations and global trade requirements.

Importance of punctuality and attendance in the workplace

Punctuality and regular attendance are critical for ensuring smooth production processes, maintaining quality, and meeting deadlines in the apparel industry, particularly in pressing operations. The following points highlight the importance of these factors:

- **Maintaining Production Flow and Efficiency:** When pressmen report to work on time, it ensures a seamless workflow, preventing production bottlenecks and maintaining efficiency.
- **Meeting Delivery Deadlines:** Punctuality ensures that pressing tasks are completed on schedule, allowing the timely dispatch of finished products to clients and preventing order cancellations or penalties.
- **Ensuring Team Coordination:** Regular attendance ensures that tasks are completed smoothly without delays caused by workforce shortages.
- **Improving Workplace Discipline:** A punctual and disciplined workforce fosters a professional work environment.
- **Avoiding Financial Losses:** Inconsistent attendance may require overtime payments to compensate for delays or result in order rejections due to late shipments, impacting overall profitability.
- **Enhancing Job Security and Career Growth:** Pressmen who demonstrate reliability are more likely to receive promotions, salary increments, and long-term job stability.
- **Preventing Workload Imbalance:** Regular attendance ensures an equitable distribution of work among team members.
- **Upholding Customer Trust and Reputation:** Poor attendance can result in production setbacks, tarnishing the company's reputation and affecting future business partnerships.

In the Indian stitched apparel industry, effective **reporting protocol**s are essential for maintaining quality, ensuring compliance, and promoting continuous improvement. A notable example of a company implementing such protocols is **Arvind Mills,** India's largest denim manufacturer and exporter.

Case Study: Arvind Mills' Reporting Protocols in Stitched Apparel Production

Arvind Mills has integrated comprehensive reporting mechanisms across its supply chain to uphold sustainability and quality standards.

Fig. 6.1.3: Arvind Mills' logo

Key aspects of their reporting protocols include:

- **Sustainability Reporting:** The Company focuses on six sustainability categories such as Cotton, Water, Chemicals, Energy, People, and Money. Regular reporting in these areas helps monitor resource usage, environmental impact, and social responsibility initiatives.
- **Quality Management Systems:** Arvind Mills employs standardized reporting procedures to track production quality. This includes documenting inspection results, defect rates, and corrective actions, ensuring consistent product quality and facilitating continuous improvement.
- **Compliance Reporting:** The company adheres to international standards such as ISO 9001 (Quality Management) and SA8000 (Social Accountability). Regular internal audits and reporting ensure compliance with these standards, demonstrating commitment to ethical labour practices and product excellence.

By implementing these reporting protocols, Arvind Mills maintains transparency, enhances operational efficiency, and upholds its reputation in the global apparel market.

This case study illustrates the importance of structured reporting protocols in the Indian stitched apparel industry, highlighting how they contribute to sustainability, quality assurance, and regulatory compliance.

6.1.3 Identifying and Addressing Deviations from Ethical and Regulatory Standards

Pressmen, those who are the workers responsible for garment pressing and finishing, must adhere to ethical, legal, and regulatory standards. However, deviations from these standards can lead to workplace safety risks, quality control issues, legal violations, and reputational damage to the organization. Below are the key areas of deviation and their impact:

- **Ethical Deviations in the Apparel Industry**

  One of the biggest challenges in the stitched apparel industry is ensuring ethical labour practices. Many garment factories, including pressing units, fail to uphold worker rights, leading to exploitation, poor working conditions, and environmental negligence.

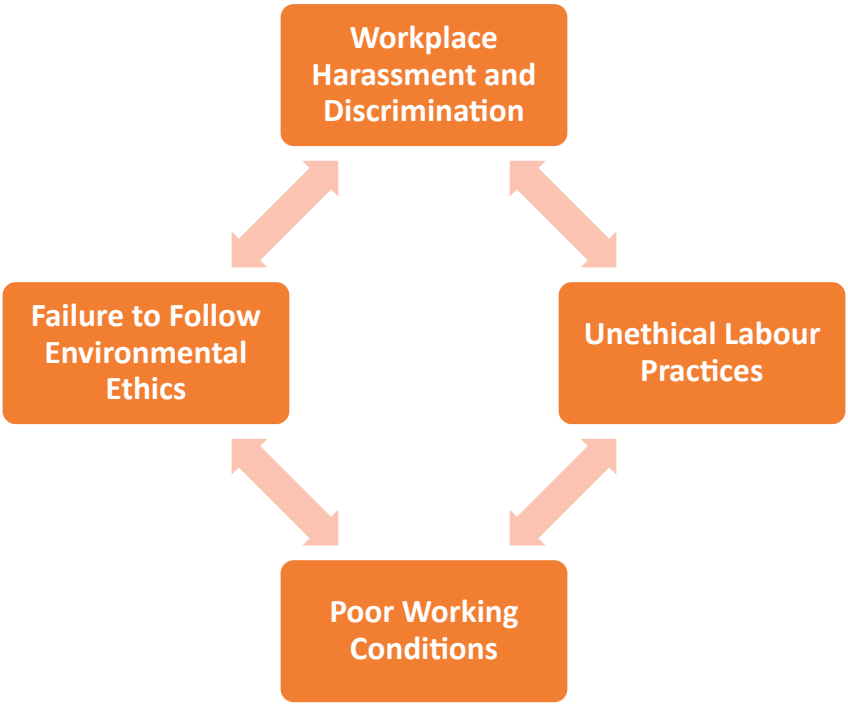


Fig. 6.1.4: Ethical Deviations

The most commonly found unethical practices that are identified and assessed in the pressmen within the apparel industry are provided below:

- Some factories exploit pressmen by paying below minimum wage rates, depriving them of fair compensation. In some cases, workers are forced to work excessive overtime without proper pay, violating their right to fair working conditions. Such unethical labour practices create worker dissatisfaction, increase employee turnover, and result in a demotivated workforce.
- Pressmen may also face workplace harassment and discrimination, including gender bias, caste-based discrimination, or verbal abuse from supervisors. Discrimination in promotions, unfair treatment, and a lack of grievance re-dressal mechanisms lead to a toxic work environment that affects morale and productivity. If left unaddressed, such practices can result in legal action and brand boycotts by socially responsible consumers.
- Many pressing units operate in substandard conditions where workers endure excessive heat, lack of ventilation, and poor lighting. The absence of clean drinking water, sanitation facilities, and proper rest breaks further deteriorates worker health. These poor conditions violate health and safety standards, reduce productivity, and may result in government penalties or temporary factory closure.
- Ethical deviations are also seen in environmental negligence, such as the overuse of water in steam pressing and improper disposal of fabric waste, chemicals, and dyes. Some factories release untreated chemical waste into nearby water bodies, contributing to pollution. Failure to comply with sustainability norms can lead to fines, legal action, and loss of sustainability certifications, affecting business contracts with eco-conscious brands.

- **Legal Deviations in the Apparel Industry**

  Legal violations in the stitched apparel industry primarily relate to labour laws, workplace safety, and financial compliance. Factories that do not adhere to Indian labour laws risk legal penalties, factory closures, and loss of market credibility.

Deviation	Description	Impact on Organizational Governance
Violation of Labour Laws	• Employing workers without proper contracts or benefits.	• Damages the company's reputation in domestic and export markets. • Results in legal action, fines, and potential factory shutdowns.
Child Labour & Forced Labour	• Hiring underage workers below 14 years old, violating the Child Labour (Prohibition and Regulation) Act, 1986 • Failure to provide Personal Protective Equipment (PPE) to pressmen.	• Leads to government intervention, factory license suspension, and brand blacklisting. • International buyers avoid sourcing from factories with child labour violations.
Tax Evasion & Financial Misconduct	• Underreporting worker wages to evade taxes. • Misusing company funds or engaging in fraudulent financial reporting	• Leads to income tax raids, penalties, and legal prosecution. • Loss of investor confidence and market credibility
Non-Compliance with Workplace Safety Laws	• Lack of fire safety measures (e.g., no fire exits or extinguishers in pressing rooms).	• Violates the Factories Act, 1948, leading to workplace accidents and legal consequences. • Increases worker injury claims and lawsuits.

Table 6.1.2: Legal Deviations

- **Regulatory Deviations**

  Regulatory compliance in the apparel industry ensures that garments meet quality, safety, and environmental standards. Non-compliance with these regulations results in product recalls, fines, and loss of international buyers.

Deviation	Description	Impact on Organizational Governance
Non-Compliance with Quality and Safety Standards	• Ignoring BIS (Bureau of Indian Standards) guidelines for garment safety. • Failing to meet export certification requirements (ISO, OEKO-TEX, SEDEX, etc.). 	• Causes product rejections and financial losses. • Leads to loss of business contracts with international brands.

Deviation	Description	Impact on Organizational Governance
Counterfeit or Copyright Violations	• Printing unauthorized brand logos or copyrighted designs without permission. 	• Results in legal action from brand owners and lawsuits for trademark infringement. • Damages the company's reputation, leading to supply chain boycotts.
Ignoring Environmental Regulations	• Improper disposal of wastewater, dyes, and chemicals used in garment finishing. • Failing to meet the Environmental Protection Act, 1986 requirements. 	• Causes pollution fines and factory shutdowns. • Loss of sustainability certifications and rejection from eco-conscious buyers.

Table 6.1.3: Regulatory Deviations

To prevent ethical, legal, and regulatory violations, apparel companies must strengthen governance practices and promote transparency and compliance. The following measures ensure ethical operations in garment pressing and finishing units:

Fig. 6.1.5: Supporting Organizational Governance to Prevent Deviations

The preventive measures for supporting the organisational governance in the apparel industry are as follows:

- Factories must conduct internal and third-party audits to ensure compliance with labour laws, workplace safety rules, and environmental regulations. Regular audits help detect violations early, reduce legal risks, and create a safer work environment for pressmen.
- Pressmen should receive training on workplace rights, safety protocols, and ethical labour practices. Factories must also conduct fire safety drills and machine-handling training to reduce workplace accidents and legal violations. Educating workers fosters a culture of responsibility and compliance.
- Organizations should establish whistle-blower policies that allow workers to report harassment, unsafe working conditions, or unethical practices without fear of retaliation. Implementing strong reporting mechanisms ensures accountability and quick resolution of workplace issues.
- Ensuring pressmen receive minimum wages, overtime pay, and social security benefits are essential for ethical operations. Providing health benefits, paid leave, and safe workplaces increases worker satisfaction and reduces employee turnover and labour disputes.
- Factories should comply with OEKO-TEX and GOTS standards for ethical fabric sourcing and implement waste management systems to properly dispose of chemicals and fabric waste. Sustainable practices ensure compliance with fair-trade certifications and attract international buyers.

For the Indian stitched garment sector to uphold environmental responsibility, safeguard worker rights, and guarantee workplace safety, ethical, legal and regulatory compliance are essential. Factories that commit legal infractions, unethical labour practices, or regulatory non-compliance risk financial losses, harm to their reputation, and even closure. Ensuring long-term sustainability, worker well-being, and corporate success in the global garment market requires the implementation of solid governance practices, ethical standards, and compliance procedures.

UNIT 6.2: Workplace Efficiency and Environmental Responsibility

Unit Objectives

By the end of this unit, the participants will be able to:

1. Discuss sustainable practices in daily work, including resource conservation and eco-friendly processes.
2. Evaluate a clean, hazard-free workspace by handling materials, equipment, and software correctly.
3. List the workplace efficiency by managing work interruptions and assisting in environmentally friendly improvements.

6.2.1 Applying Sustainable Practices in Daily Work

Pressmen play a critical role in sustainability by implementing eco-friendly processes and ensuring resource conservation. Their efforts help reduce waste, lower environmental impact, and promote sustainable apparel production. The following sections detail sustainable practices under two key categories:

Eco-Friendly Processes in Apparel Production

Sustainability in apparel production requires reducing environmental pollution, minimizing chemical use, and improving energy efficiency in garment pressing. Pressmen can contribute through the following measures:

1. **Optimizing Energy Efficiency in Pressing Machines**

   Pressing machines consume significant electricity and steam, contributing to high energy demand. Pressmen can help optimize energy use by:

   - Using energy-efficient steam presses and heat transfer machines to lower consumption.
   - Ensuring automatic temperature control settings are used to maintain optimal heat without wastage.
   - Turning off pressing machines when idle instead of keeping them running unnecessarily.
   - Conducting regular maintenance and servicing to prevent energy losses due to leaks or overheating.

Fig. 6.2.1: Automatic Heat Transfer Machine

2. Using Eco-Friendly Pressing Aids and Chemicals

Many traditional pressing aids, such as starch sprays and chemical fabric treatments, contain harmful substances that can damage the environment. Sustainable alternatives include:

- Using biodegradable starch solutions for fabric finishing.
- Avoiding wrinkle-resistant chemical treatments that release toxins into the air and water.
- Ensuring that chemical residues are properly stored and disposed of to prevent soil and water contamination.

Fig. 6.2.2: Non-biodegradable Starch Solutions for Fabric

3. Implementing Proper Heat Management

Excess heat in pressing rooms leads to high energy use and uncomfortable working conditions. Sustainable heat management strategies include:

- Installing heat insulation materials to prevent excessive energy loss.
- Using ventilation systems to improve air circulation and maintain a comfortable temperature.
- Running pressing machines during off-peak electricity hours to balance energy demand.

Fig. 6.2.3: Heat Insulation Materials

Real-Life Example: Gokaldas Exports

Gokaldas Exports manufacturing processes

Gokaldas Exports Ltd., a prominent Indian apparel manufacturer producing over 90 million garments annually, has demonstrated a commitment to sustainable practices in its operations. The Chief Sustainability Officer has highlighted the company's focus on energy efficiency and eco-friendly processes in response to increasing global demand for sustainable products.

Resource Conservation and Waste Reduction

Resource conservation focuses on minimizing the use of natural resources, reducing waste, and promoting recycling in garment pressing. Key sustainable practices include:

1. **Minimizing Water Usage in Steam Pressing**

   Steam pressing requires a large amount of water, but excessive consumption leads to waste. Sustainable water practices include:

   - Using water-efficient steam generators that require less water to produce steam.
   - Recycling condensed steam and reusing it instead of discarding it.
   - Checking for steam leaks in pipes and valves to prevent water wastage.
   - Training workers on optimal steam settings to avoid unnecessary steam release.

2. **Reducing Fabric Waste During Pressing**

   Fabric waste often occurs due to errors in pressing, damaged materials or improper handling. Pressmen can help minimize fabric waste by:

   - Reusing fabric scraps for sample testing instead of using new materials.
   - Ensuring precise temperature and pressure settings to prevent fabric shrinkage or burning.
   - Reporting defective fabric issues early to prevent repeated pressing and unnecessary waste.

Fig. 6.2.3: Banyan Fabric Waste

3. Practicing Responsible Waste Disposal and Recycling

Waste from pressing operations includes discarded packaging materials, fabric scraps, and plastic wrappers. Pressmen can support sustainable waste management by:

- Sorting waste into recyclable and non-recyclable materials to improve recycling efforts.
- Encouraging factories to participate in fabric recycling programs to repurpose textile waste.
- Reducing single-use plastic materials by switching to biodegradable or reusable alternatives.

4. Using Sustainable Uniforms and Work Equipment

Pressmen can support sustainability by choosing eco-friendly materials for their work-wear and tools. Sustainable options include:

- Wearing uniforms made from recycled or organic fabrics.
- Using durable, long-lasting safety equipment to minimize waste.
- Opting for reusable gloves, masks, and protective gear instead of disposable options.

Fig. 6.2.4: Apparel sustainable uniforms

5. Promoting an Eco-Friendly Workplace Culture

Sustainability efforts can be strengthened by encouraging workplace awareness and participation. Pressmen can:

- Educate colleagues about sustainable pressing techniques and resource conservation.
- Participate in workshops on energy-saving practices.
- Provide feedback on how to improve sustainability in pressing operations.

Real-Life Example:

Co-founded by Kriti Tula and Paras Arora, Doodlage is an Indian sustainable fashion brand that is a prime example of waste reduction and resource saving in the clothing manufacturing process. In order to reduce textile waste and promote circular fashion, the business upcycles post-consumer materials and manufacturing rejects into limited-edition designs.

Doodlage Official webpage

Sustainable practices in the apparel industry require a combination of eco-friendly production processes and efficient resource management. Pressmen play a vital role in these efforts by optimizing energy use, minimizing waste, and ensuring compliance with environmental regulations. By adopting these strategies, the apparel industry can move toward a more responsible and environmentally friendly future while also improving efficiency and reducing costs.

6.2.2 Maintaining a Clean and Hazard-Free Workspace

For worker safety, productivity, and product quality, the pressing area of a clothing manufacturing facility must be a hygienic, risk-free environment. Accidents are reduced and workplace safety laws are followed when materials, tools, and software are handled properly. The assessment can be separated into several main categories:

1. **Proper Handling of Materials**

   Organised Fabric Storage

   - Fabrics should be stored on racks or in designated storage areas to prevent clutter and fire hazards.
   - Heavy rolls of fabric should be placed on lower shelves to avoid accidental falls and injuries.

   Safe Chemical Handling

   - Pressing aids such as starch solutions, adhesives, or fabric treatments must be stored in labelled, sealed containers.
   - Workers should wear gloves and masks while handling chemicals to prevent skin irritation or inhalation of fumes.

Waste Disposal and Recycling

- Fabric scraps, plastic packaging, and used chemical containers must be disposed of in designated bins.
- Recycling programs should be implemented for fabric waste and plastic materials.

2. **Safe and Efficient Use of Equipment**

Maintenance of Pressing Machines

- Regular machine maintenance prevents malfunctions, overheating, and workplace fires.
- All machines should have emergency stop buttons and automatic shutdown systems.

Proper Use of Steam Pressing Equipment

- Workers must follow safety procedures while using high-temperature steam presses to avoid burns.
- Steam vents should be positioned away from workstations to prevent accidental exposure.

Electrical Safety in the Workplace

- Power cords and extension cables must be inspected regularly to avoid electrical hazards.
- Overloading power outlets should be avoided to prevent short circuits.

3. **Implementing Software for Workflow Efficiency**

Digital Monitoring Systems

- Many modern apparel factories use digital dashboards to track machine performance, identify faults, and ensure maintenance schedules.
- Using production management software reduces errors and ensures smooth workflow.

RFID and Barcode Tracking

- Implementing RFID (Radio-Frequency Identification) or barcode scanning can improve inventory tracking for fabric and pressed garments
- These systems help in minimizing misplacement and ensuring accurate production counts.

Training and Compliance Through E-Learning

- Workers should be trained through digital learning tools on safety protocols, handling of materials, and emergency response procedures.
- Interactive safety modules can help workers stay updated on the latest compliance standards.

4. **Maintaining Cleanliness and Hygiene**

Regular Cleaning Schedules

- Workspaces should be cleaned daily to remove fabric dust, spills, and hazardous materials.
- Proper ventilation must be maintained to reduce heat and improve air quality in pressing areas.

Personal Protective Equipment (PPE)

- Workers should wear PPE such as gloves, masks, and heat-resistant uniforms to ensure safety.
- PPE should be checked regularly for wear and tear and replaced when necessary.

Real-Life Example: Shahi Exports Pvt. Ltd.

Fig. 6.2.5: Shahi Exports interior workplace

Shahi Exports, one of India's largest apparel manufacturers, follows strict safety protocols in its pressing sections. The company uses RFID tagging to monitor fabric movement and reduce misplacement. Pressing machines are equipped with automated shutdown systems to prevent overheating. Digital production tracking ensures smooth operations and reduces errors. The company enforces a PPE policy and conducts regular training sessions on workplace safety.

By implementing similar best practices, apparel manufacturers in India can create a clean, hazard-free workspace that ensures worker safety, regulatory compliance, and improved efficiency in pressing operations.

For the sake of worker safety, operational effectiveness, and product quality, the pressing sector of the Indian garment industry must maintain a hygienic, risk-free work environment. An orderly and legal workplace is facilitated by the safe use of equipment, the integration of software, and the proper management of materials.

Clothing manufacturers may lower worker risks, cut waste, and boost production by putting in place organized safety procedures, routine maintenance, and digital tracking systems.

In order to provide a pressing environment that is safe, effective, and sustainable, industry leaders like Shahi Exports lead by example by giving material management, safety precautions, and software integration first priority. The Indian garment industry may progress toward a safer, more compliant, and ecologically conscious future by implementing these best practices.

6.2.3 Supporting Workplace Efficiency and Environmental Improvements

Efficient workplace management in the pressing section of an apparel factory is essential for maintaining productivity, reducing delays, and ensuring high-quality output. Pressmen play a crucial role in minimizing work interruptions and implementing sustainable practices that contribute to environmental conservation. The key strategies in order to achieve this goal are outlined below:

1. **Managing Work Interruptions to Improve Efficiency**

   Work interruptions in the pressing process can lead to reduced output, wasted energy, and quality defects

Strategy	Implementation	Impact
Preventive Maintenance of Pressing Equipment	Regular servicing, scheduled inspections, use of predictive maintenance software	Prevents unexpected breakdowns, reduces downtime, extends machine lifespan
Organizing Workflow and Task Allocation	Assigning specific pressing stations, applying 5S methodology, using digital workflow tracking tools	Optimizes workspace organization, reduces unnecessary movement, improves efficiency
Effective Communication and Coordination	Establishing clear reporting systems, using digital boards/messaging apps, conducting pre-shift meetings	Reduces response time to issues, enhances team coordination, ensures production targets are met
Reducing Fabric and Workflow Bottlenecks	Ensuring continuous garment supply, identifying common garment defects, streamlining material handling	Prevents idle time, minimizes quality defects, improves workflow efficiency

Table 6.2.1: Managing the work interruptions

2. Assisting in Environmentally Friendly Improvements

As pressing operations involve high energy and resource consumption, pressmen can contribute to sustainable improvements.

Energy Efficiency in Pressing Operations

Using energy-efficient steam presses and heat transfer machines reduces electricity and fuel consumption.
Encouraging the use of automatic shut-off features on idle machines prevents unnecessary energy wastage
Running pressing machines during off-peak hours can help balance electricity demand and lower operational costs.

Water Conservation in Steam Pressing

Steam pressing uses significant amounts of water, but efficiency measures like recycling condensed steam can reduce wastage.
Regular maintenance of steam pipes and boilers prevents water leaks and improves operational efficiency.
Training pressmen on optimal steam settings prevents excess steam release, conserving both water and energy.

Safe and Sustainable Chemical Use

Switching to biodegradable starch solutions and non-toxic fabric treatments minimizes environmental impact.
Proper storage and disposal of pressing chemicals prevent contamination of soil and water sources.
Reducing reliance on harsh chemical finishes helps create safer working conditions for pressmen.

Waste Reduction and Recycling Initiatives

Reusing discarded fabric scraps for sample testing instead of using fresh materials minimizes waste.
Encouraging factories to participate in fabric recycling programs to repurpose textile waste.
Implementing waste segregation practices to ensure plastic, paper, and fabric waste are properly sorted for recycling.

Fig. 6.2.6: Environmentally friendly tactics in the workplace

Case Study: An Analysis of **Raymond Ltd.,** a Pioneer in Eco-Friendly Clothing Production Leading Indian clothing manufacturer Raymond Ltd. has effectively incorporated sustainability and efficiency into its business practices:

- **Effective Workflow Management:** To reduce work interruptions in pressing and other manufacturing phases, the organization uses digital tracking tools and automation.
- **Energy Conservation:** Raymond's factories use less fuel thanks to heat recovery technologies and energy-efficient steam boilers.
- **Recycling of Water:** The business has put in place zero-liquid discharge (ZLD) systems that recycle wastewater from steam pressing and clothing processing.
- **Sustainable Practices:** To reduce the impact on the environment, Raymond advocates for the use of organic textiles, non-toxic dyes, and eco-friendly garment finishing methods.

Fig. 6.2.7: Raymond sustainable clothes

Similar tactics can be used by Indian garment companies to improve worker productivity, cut down on production hold-ups, and support a more sustainable sector.

In order to achieve high productivity and sustainable operations, the pressing apparel industry must promote environmentally friendly changes and manage work interruptions. Pressmen can help create a safer, cleaner, and more productive workplace by putting eco-friendly practices, good communication, efficient workflow planning, and preventive maintenance into practice.

Prominent Indian clothing producers such as Raymond Ltd. show that efficiency and sustainability can coexist. Clothing companies may improve their image, adhere to rules, and help create a more environmentally friendly future for the sector by using energy-efficient machinery, responsible chemical usage, water conservation measures, and waste reduction methods.

UNIT 6.3: Operational Compliance and Data Management

Unit Objectives

By the end of this unit, the participants will be able to:

1. Discuss appropriate cleaning methods and report unsafe equipment or work conditions promptly.
2. Evaluate back up design work files systematically for future reference.
3. Analyse system or software upgrades as needed to enhance work efficiency.

6.3.1 Ensuring Proper Cleaning Methods and Workplace Safety

In the clothing sector, keeping a clean and safe work environment is crucial, particularly for pressing operations. In order to protect worker safety, preserve production efficiency, and adhere to industry requirements, proper cleaning techniques and prompt reporting of hazardous circumstances are essential. To maintain a clean and safe workspace in the apparel industry, pressmen should follow a structured cleaning process. The steps below outline the proper approach to cleaning pressing machines, workstations, and storage areas while ensuring safe work conditions.

Fig. 6.3.1: Steps for cleaning methods

The measures that are required for the above-mentioned methods for cleaning the workplace in the apparel are listed below:

- Gather Cleaning Supplies that helps in ensuring that manufacturer-approved cleaning solutions, microfiber cloths, brushes, and lint removers are available.
- Wear Protective Gear by using gloves, masks, or goggles when handling chemicals or cleaning hot surfaces.
- Turn Off Equipment such as power down pressing machines before cleaning is effective prevent electrical hazards.
- Wipe Down Heat Plates and Steam Nozzles by removing fabric residue, starch buildup, and lint using a damp microfiber cloth.

- Inspect Machine Components, that is, through checking vents, levers, and rollers for dust or blockages and clean them with a soft brush.
- Use Manufacturer-Approved Cleaners by applying cleaning agents specifically designed for pressing surfaces to avoid damage.
- Clear Work Area of Scraps and Chemicals by removing fabric trimmings, loose threads, and chemical residues.
- Mop and Disinfect Floors by cleaning spills and dust from pressing room floors using mild detergents to prevent slips and falls.
- Dispose of Waste Properly by separating recyclable and non-recyclable waste, and follow disposal guidelines for chemical agents.
- Label and Secure Containers helps in ensuring all chemicals and cleaning solutions are stored in marked, sealed containers away from pressing areas.
- Use Eco-Friendly Products by opting for biodegradable and non-toxic cleaning agents whenever possible.
- Replace Worn-Out Cleaning Tools by regularly checking and replacing rags, brushes, and wipes to maintain hygiene.
- Clean Air Filters and Exhaust Fans Remove dust and residue from air circulation systems to ensure effective ventilation.
- Check for Steam or Chemical Fume Build-Up by ensuring that vents and windows are open or use exhaust fans to disperse fumes.
- Monitor Temperature and Air Quality by keeping an eye on room temperature and humidity levels to maintain comfortable working conditions

Step-by-Step process for reporting unsafe equipment or work conditions are as provided in the picture below:

Fig. 6.3.2: Steps for reporting unsafe environment

The precautionary measures that can be initiated by the pressmen in the apparel industry are provided below:

- Looking for overheating, steam leaks, loose wires, or faulty safety features.
- Identifying slippery floors, poor lighting, or blocked ventilation that could create hazards.
- Communicating issues as soon as they are detected.
- Taking photos or write a detailed description of the issue to support the report.
- Submitting reports through the official safety complaint system or designated personnel.
- Checking if maintenance teams have addressed the problems.
- Engaging in workplace safety programs to enhance awareness.
- Motivating colleagues to report hazards and contribute to maintaining a clean and risk-free environment.

By following these structured steps, pressmen in the apparel industry can ensure a well-maintained, efficient, and hazard-free workspace, leading to improved safety, productivity, and compliance with industry standards.

Appropriate cleaning methods and timely reporting of unsafe equipment or work conditions are critical in ensuring a safe, efficient, and compliant workplace for pressmen in the apparel industry. By maintaining clean workstations, properly handling pressing machines, and promptly addressing hazards, employees contribute to a safer environment, improved productivity, and overall workplace well-being.

6.3.2 Systematic Maintenance and Backup of Design Work Files

In the apparel industry, maintaining and backing up design work files systematically ensures smooth workflow, prevents data loss, and enhances efficiency. Pressmen, who handle various garment printing and pressing tasks, must follow structured file management practices to safeguard designs and production data.

1. **Organizing Design Work Files Systematically**

   Proper file organization minimizes errors and ensures easy retrieval of designs when needed. The arrangement of the work files is designed in the following steps:

   - **Standardized File Naming and Categorization:** Use consistent naming conventions (such as Client Name/Design/Type/Date/Version"). Categorize files by project, client, garment type, or design variation. Maintain separate folders for original files, edited versions, and final approved designs.
   - **Version Control and Documentation:** Maintaining version histories to track changes and prevent accidental loss of important design elements. Using file tagging systems to indicate the latest approved version. Keeping metadata logs with details like edit history, approval status, and design modifications.

A work-file sample is provided below:

Aspect	XYZ Apparel Implementation
File Naming Convention	Naming format: Brand/Design/Type/Date/Version (e.g., XYZ_ Tshirt_250324_V1)
File Categorization	Separate folders for client orders, garment types, and seasonal collections.
Version Control	Each revision is saved with incremental version numbers (V1, V2, Final).
Metadata Logs	A shared Google Sheet records file modifications, approvals, and deadlines.

2. Regular Backup of Design Work Files

Ensuring that design files are regularly backed up prevents data loss due to system failures, accidental deletions, or cyber threats.

Backup Method	Implementation at XYZ Apparel	Frequency
 **Cloud Storage (Google Drive, Dropbox, OneDrive)**	All design files are auto-synced to the cloud for remote access.	Real-time
 **External Hard Drive/USB Backup**	Weekly backups of completed projects to an external SSD.	Weekly

Backup Method	Implementation at XYZ Apparel	Frequency
 RAID Storage System	Secure in-house RAID server ensures redundant copies of all files.	Continuous
 Automated Scheduled Backups	Pressmen's computers are configured to auto-backup files every night.	Daily

Software and Hardware Maintenance for Design Work

A well-maintained digital system ensures seamless file storage, retrieval, and processing.

- **Updating Software and File Management Tools:** Keep design software (e.g., Adobe Illustrator, CorelDRAW, CAD software) updated for performance and security. Use file compression tools to optimize storage space without compromising quality. Install antivirus and cyber security software to prevent malware attacks on stored files.
- **Hardware Maintenance for Data Safety:** Regularly clean and inspect storage devices to prevent physical damage. Replace old hard drives and SSDs before they reach failure risk. Use Uninterruptible Power Supply (UPS) devices to prevent sudden shutdowns that could corrupt files.

A sample for software and hardware maintenance for the design work is provided below:

Maintenance Type	XYZ Apparel Implementation	Frequency
Software Updates	Regular updates for CorelDRAW & CAD software to prevent compatibility issues.	Monthly
Antivirus & Cybersecurity	Installed firewall & antivirus protection to prevent malware attacks.	Weekly
Hard Drive & SSD Maintenance	IT team checks and replaces storage devices as needed.	Every 6 months
Uninterruptible Power Supply (UPS)	Backup power supply prevents sudden shutdowns & file corruption.	Continuous

3. **Implementing Systematic Workflows for File Management**

A structured workflow ensures efficiency and accountability in managing design work files.

Workflow Step	Implementation Strategy
Establish File Management Policies	• Define roles and responsibilities for file handling.
Automate Backup Processes	• Use scheduled backups to prevent manual errors.
Train Employees on Best Practices	• Conduct sessions on efficient file organization and security.
Set Up Alerts for File Audits	• Ensure regular checks on file integrity and storage health.

Systematic maintenance and backup of design work files are crucial for ensuring efficiency, security, and continuity in the apparel industry. By implementing structured file organization, regular backups, and proper hardware and software maintenance, pressmen can protect valuable design data, enhance workflow productivity, and minimize risks of data loss. Integrating cloud storage, automated backup systems, and strict file management policies further strengthens the industry's ability to maintain seamless production and high-quality design outputs.

6.3.3 Requesting System or Software Upgrades for Efficiency

Pressmen are essential to the clothing industry because they provide superior fabric finishing. The tools and software utilized for workflow management, heat transfer, and pressing play a major role in how efficiently they can do their jobs. Productivity, accuracy, and sustainability can all be improved with routine improvements to workflow tools, design software, and gear. Indian clothing producers can increase overall efficiency in pressing operations, minimize errors, and maximize resource use by implementing contemporary technologies.

Identifying the Need for Upgrades in Software and Hardware

Importance of systems and its software upgrades are listed below:

- **Better Performance:** Pressmen can do pressing jobs more quickly and effectively when equipment and software are upgraded. This lowers production delays and boosts output overall.
- **Improved Accuracy:** More accurate control over heat and pressure settings is made possible by updated software, which reduces clothing flaws like burns, shrinking, and uneven pressing and produces higher-quality results.
- **Improved Compatibility:** To provide seamless operations free from technical hiccups, new software versions are made to blend in smoothly with upgraded pressing machines, design tools, and workflow systems.
- **Cybersecurity Protection:** Sensitive design and production data are protected by regular upgrades that include necessary security patches that protect digital workflows against malware, data breaches, and unauthorized access.
- Cutting-edge AI-powered technologies minimize the need for human adjustments and guarantee uniformity in garment finishing by automatically optimizing pressing settings based on fabric type.

Key System and Software Upgrades for Pressmen

Pressmen depend on a number of system and software advancements that optimize workflow, boost accuracy, and guarantee smooth operations in order to increase efficiency in the clothing sector. It is possible to minimize errors, maximize resource utilization, and uphold high standards of quality by upgrading essential systems including heat press firmware, CAD software, ERP management tools, and cloud storage solutions. In addition to increasing productivity, these improvements support improved automation, data security, and sustainable energy consumption in critical processes.

System/Software	Purpose	Benefits
 **Heat Press Machine Firmware Update**	Updates embedded software in pressing machines.	Ensures precise heat distribution, improves safety, and minimizes energy waste.
CorelDRAW **CAD Software (e.g., CorelDRAW, Adobe Illustrator)**	Used for creating digital designs for heat transfers.	Enhances design accuracy, offers better file compatibility, and speeds up workflow.
 **ERP System for Workflow Management**	Tracks production schedules, raw materials, and work assignments.	Reduces delays, optimizes resource allocation, and improves order tracking.

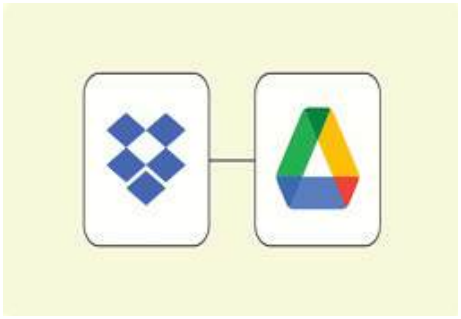
System/Software	Purpose	Benefits
 **Automated Pressing Systems**	AI-driven systems that adjust heat and pressure based on fabric type.	Increases efficiency, reduces errors, and improves fabric longevity.
 **Cloud-Based Storage & Backup Solutions**	Google Drive, Dropbox, or industry-specific cloud storage.	Prevents data loss, allows easy access to digital files, and enables remote collaboration.

Table 6.3.1: Key systems and its benefits

There are also certain challenges associated in implementing updates and its remedial solutions that have been provided below:

- Expensive Upgrades It can be costly to upgrade systems and software, which makes it challenging for clothing companies to make technological investments. While cloud-based software subscriptions offer affordable alternatives with lower upfront costs, a phased upgrading method enables gradual installation.
- **Resistance to Change:** Pressmen may find it difficult to adjust to new systems because they are unfamiliar with them or they are afraid that their workflow will be disrupted. Employee confidence in effectively utilizing updated technologies and systems can be increased by holding training sessions and practical workshops.
- **Downtime during Updates:** Software installations and system upgrades may cause urgent operations to momentarily stop, delaying production. Businesses should plan updates at off-peak times to reduce interruptions and guarantee that critical tasks are unaffected.

Adapting to New Technologies

Adapting to new technologies plays a crucial role in maximizing the benefits of system or software upgrades in the apparel industry, especially among pressmen. As the industry evolves, integrating advanced tools and automated systems ensures efficiency, accuracy, and sustainability in pressing operations.

- **Seamless Transition to Upgraded Systems:** Pressmen must be trained to use upgraded pressing machines, CAD software, and ERP systems effectively. By embracing technological advancements, workers can reduce errors, speed up workflows, and improve overall productivity.

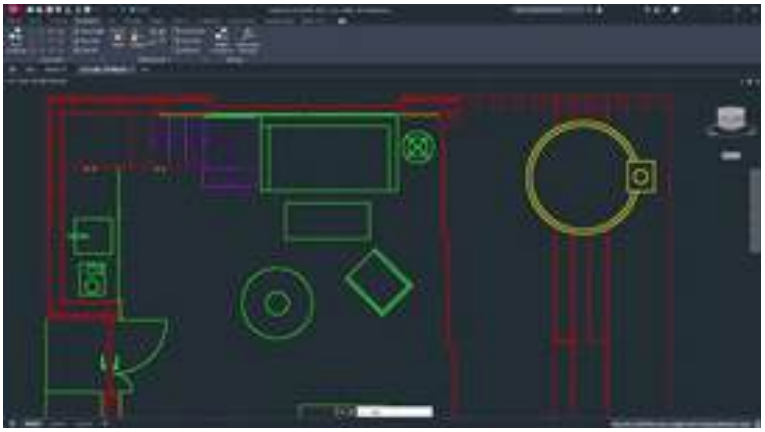


Fig. 6.3.3: CAD software

- **Utilization of AI and Automation:** With automated heat-pressing systems and AI-driven fabric handling, pressmen can optimize pressing conditions based on garment type, reducing manual adjustments and fabric defects. Upgrading to these technologies enhances consistency and reduces material waste.

Fig. 6.3.4: AI fabric handling

- **Enhancing Digital File Management:** Transitioning to cloud-based storage and digital workflow systems enables pressmen to efficiently store, retrieve, and manage design work files. This ensures smooth collaboration and prevents data loss due to outdated manual filing methods.

Fig. 6.3.5: Digital File Organisation

- **Overcoming Learning Curve Challenges:** To fully benefit from upgrades, pressmen must adapt to new interfaces and functions introduced in modern software. Regular training programs, workshops, and hands-on demonstrations help workers gain confidence and competence in using updated systems.

Fig. 6.3.6: Training Centre for Press Maintenance

- **Boosting Workplace Efficiency and Productivity:** By adapting to technological advancements, pressmen can handle larger workloads, reduce machine downtime, and minimize pressing errors. System upgrades also ensure better energy efficiency, cost savings, and compliance with industry standards.

Adapting to new technologies goes hand in hand with system and software upgrades, enabling pressmen to work more efficiently while maintaining high-quality production standards in the apparel industry.

Summary

- Pressmen in the apparel industry must adhere to ethical labour practices, workplace safety regulations, and environmental sustainability standards.
- Pressmen should follow workplace discipline, safety protocols, and structured reporting mechanisms.
- Ethical deviations like underpaid wages, workplace discrimination, and environmental negligence must be tackled through audits, worker training, whistle-blower policies, and compliance with labour laws.
- Pressmen can contribute to sustainability by optimizing energy efficiency in pressing machines, using eco-friendly chemicals, and implementing proper heat management to reduce environmental impact.
- Efficient water usage in steam pressing, reducing fabric waste, responsible disposal, and using sustainable uniforms and work equipment help in minimizing resource consumption.
- Maintaining a clean, hazard-free workspace through organized material handling, proper equipment maintenance, software integration, and digital tracking improves efficiency and environmental responsibility.
- Proper cleaning methods and timely reporting of unsafe conditions in the apparel industry are crucial for pressmen to maintain a hazard-free, efficient, and compliant work environment.
- Pressmen must follow structured digital file management, including version control, cloud storage, and scheduled backups to prevent data loss and maintain workflow efficiency.

Exercise

Multiple-choice Question:

1. What is a common legal violation in the apparel industry that affects pressmen?
   a. Providing excessive wages
   b. Lack of fire safety measures
   c. Encouraging work-from-home policies
   d. Reducing working hours to 4 hours per day

2. Which of the following practices helps in maintaining workplace ethics in pressing units?
   a. Encouraging overtime without pay
   b. Allowing the use of unsafe machines
   c. Providing workers with protective gear and fair wages
   d. Ignoring environmental sustainability norms

3. Which of the following is NOT a sustainable practice in garment pressing?
   a. Using energy-efficient steam presses
   b. Disposing of chemicals in open drains
   c. Recycling condensed steam
   d. Regular machine maintenance

4. How can pressing operations reduce water wastage?
   a. Using excessive steam for better fabric finishing
   b. Recycling condensed steam for reuse
   c. Increasing the temperature of pressing machines
   d. Using more chemical-based fabric treatments

5. Which of the following is NOT a recommended step in maintaining a safe and clean pressing workstation?
   a. Using microfiber cloths to clean heat plates
   b. Storing chemicals in unmarked containers
   c. Inspecting machine components for dust build-up
   d. Monitoring air quality and ventilation

Descriptive Questions:

1. Explain the impact of ethical deviations such as unfair wages and workplace discrimination on the apparel industry and its workers.
2. Describe how structured reporting mechanisms contribute to quality control, compliance, and sustainability in the apparel sector.
3. Explain how pressmen can contribute to sustainability in the apparel industry through eco-friendly processes.
4. Describe the role of digital tracking systems and RFID technology in improving efficiency and safety in garment pressing operations.
5. Discuss the importance of systematic file maintenance and backup in the apparel industry.

Notes

Scan the QR codes or click on the link to watch the related videos

https://youtu.be/SIH2DzT_Nvk?si=hQFgzj3AiPtmkF67

The Importance of Social Compliance

https://youtu.be/a5tzTrttwZE?si=GNYv_SVwTA6T8kpv

Sustainability to the Apparel Industry

https://youtu.be/vRYtwfLw-hA?si=prKujUbIhYRAFAHo

How do we ensure workplace safety in readymade garments factories?

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7. Employability Skills

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Employability Skills is available at the following location

https://www.skillindiadigital.gov.in/content/list

Employability Skills

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8. Annexure

Module No.	Unit No.	Topic Name	Page No	Link for QR Code (s)	QR code (s)
Module 1: Introduction (Bridge Module)	Unit 1.1: Overview of the Apparel Industry and Employment Opportunities	1.1.1 Apparel Industry	20	https://youtu.be/-dSn7iz-bFN8?si=v8HI-mdaJKL7RjARu	Introduction to Apparel Industry
		1.2.2 Apparel Production Process and Role of the 'Pressman – Stitched Items'	20	https://youtu.be/-ZR3DssvCG4-c?si=BP9-AVqctVv7qz--W	Apparel manufacturing
	Unit 1.2: Role and Contribution of a Pressman in Apparel Production	1.2.1. Roles and Responsibilities of a 'Pressman – Stitched Items'	20	https://youtu.be/-SIPQiGx-v9ps?si=DIfN-9usmNIzjG1dq	The Role of a Pressman/ Operator in Print Production
Module 2: Prepare for Ironing Operations (AMH/ N0401)	Unit 2.1: Workplace Safety and Operational Guidelines	2.1.4. Potential Hazards Associated with the Machines and the Safety Precautions that must be taken	80	https://youtu.be/-PP9dYoN8p-Tk?si=2z-J2NkLNImnTdyWM	Mechanical and Machinery hazards
	Unit 2.2: Work-Related Assistance & Task Management	2.2.1 Instructions on work tickets or job cards in line with the job responsibilities	80	https://youtu.be/_n-M0u_pVceE-?si=c9W5_1-wqhgK2iaE7	Parts and Labour to Job Card (Work Order)

Module No.	Unit No.	Topic Name	Page No	Link for QR Code (s)	QR code (s)
	Unit 2.3: Garment Types, Characteristics & Ironing Requirements	2.3.1 Types of garments and its ironing requirements	80	https://youtu.be/-EWMZh9DavYM?si=5-2ZBNMX9n21nl9N7	How to Identify Fabrics & Iron it
Module 3: Iron garments to finish apparels (AMH/ N0401)	Unit 3.1: Ironing Techniques and Apparel Suitability	3.1.1 Ironing Techniques for Different Garments	124	https://youtu.be/-v8aGfM3akbY-?si=U1UHQ82X-ZHX0UtRx	How to Iron a shirt in below 3 minutes
		3.1.4 Quality Control in Ironing	124	https://youtu.be/-Ey4MqC7Kp-7g?si=YAwU1y-7x381L9NxM	Inspection and Quality control in Manufacturing
	Unit 3.2: Industrial Ironing Equipment and Maintenance	3.2.1 Types of Industrial Ironing Tables and Bucks	124	https://youtu.be/-KqQzBklnh-c-?si=6qtwr-zsBEY6rrj4Z	Vacuum ironing table
Module 4: Maintain work area, tools and machines (AMH/ N0102)	Unit 4.1: Safe Working Practices and Equipment Maintenance	4.1.1 Safe Procedures for Cleaning, Maintenance, and Handling of Tools and Equipment	162	https://youtu.be/-cQbfsORlsuI-?si=al6Hr-Bw0nNwMxt5t	Garment machinery and equipment

Module No.	Unit No.	Topic Name	Page No	Link for QR Code (s)	QR code (s)
	Unit 4.2: Work Processes, Tools, and Quality Control	4.2.1 Machines Used in Layering, Spreading, and Cutting along with Essential Marking Tools	162	https://youtu.be/-JO6Wc8-X-HOLc?si=MZN0Iso__rx-Rw5ZR	Fabric Spreading Machine program settings
Module 5: Maintain health, safety and secure work place with Gender and PwD Sensitization (AMH/ N0103)	Unit 5.1: Health, Safety, and Workplace Compliance	5.1.2 Environmental Management and Risk Minimization	193	https://youtu.be/-5jaHT3dgdBk-?si=QOfENs-EmRixQKcJQ	Implementing Sustainability Management System (SMS)
	Unit 5.2: Operational Efficiency and Equipment Handling	5.2.1 Safe Handling and Storage of Tools and Equipment	193	https://youtu.be/-NovfZ9EOs1U?si=5K-9D7OrSjsmG4Q2M	Safe Operations of Material Handling Equipment Webinar
	Unit 5.3: Workplace Organization and Documentation	5.3.2 Material Handling and Waste Minimization	193	https://youtu.be/-Rl6RQqn5uXA?si=I-xAgpRh-N5N2gaEH	material handling

Module No.	Unit No.	Topic Name	Page No	Link for QR Code (s)	QR code (s)
Module 6: Comply with industry, regulatory, organizational requirements and Greening of Job Roles (AMH/ N0104)	Unit 6.1: Ethical, Regulatory, and Governance Standards	6.1.1 Importance of Ethics, Values, and Compliance in the Apparel Industry	229	https://youtu.be/-SIH2DzT_Nvk-?si=hQFgzj-3AiPtmkF67	The Importance of Social Compliance
	Unit 6.2: Workplace Efficiency and Environmental Responsibility	6.2.1 Applying Sustainable Practices in Daily Work	229	https://youtu.be/-a5tzTrttwZE-?si=GNYv_S-VwTA6T8kpv	Sustainability to the Apparel Industry
	Unit 6.3: Operational Compliance and Data Management	6.3.1 Ensuring Proper Cleaning Methods and Workplace Safety	229	https://youtu.be/-vRYtwfLw-hA-?si=prKujUb-IhYRAFAHo	How do we ensure workplace safety in readymade garments factories?

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