

# PRODUCTION PROCESS OF APPAREL INDUSTRY

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## ABSTRACT

*Apparel industry produces finished clothing such as kids garments, mens and womens clothing, and other intimate apparel. They play a pivotal role in developing a country economy and creation of employment to people. Ready to wear garment manufacturing starts with the process of sourcing and ends with product outcome. During garments manufacturing, a process flow chart must be needed to complete an order easily. Also, a process flow chart helps to understand a garment manufacturing method that how the raw materials are converted into wearable garments. Apparel production in industry has sequential processes such as laying, marking, cutting, stitching, checking, finishing, pressing and packaging. The process of converting raw materials into finished products is called apparel production process. The production process involves Product Design, Fabric Sourcing and Inspection, Patternmaking, Grading, Spreading, Cutting, Sewing, Pressing or Folding, Finishing and Dyeing and Washing, Quality control, etc.*

**Keyword:** - *Garment, manufacturing, laying, marking, finishing, packaging, pressing, sourcing, quality control, production process, marketing, laying, marking, inspection, raw material, apparel, spreading, fabric measurement, grading.*

## 1. INDUSTRIAL ENGINEERING

The IE team performs cutting, sewing, and finishing work, and is working to reduce the number of employees and save labor. Increases the machine's ability to complete work in progress. Industrial technology is essentially refer to the efficient use of machinery, labor, materials, and energy. This may include designing new devices and creating device specifications. was purchased from an external vendor to ensure these requirements were met. What industrial engineers can do is may be required to reuse existing equipment and facilities or to design new processes and tools. steps. 4,444 industrial engineers work in all stages of production and processing. This may include: Design or adapt a product or process from scratch to improve, extend, or Restructuring of an existing process or procedure.

## 2. MERCHANDISING DEPARTMENT:

Merchandisers are the bridge between the industry and buyers. All operations such as purchasing raw materials and manufacturing necessary to complete a product Clothes, finished garments, created paperwork, finally shipped. Merchandiser's job is to coordinate with the entire department Office and customers. It is the merchandiser who builds good relationships. between exporter and purchaser. Usually, the garment export sector has many departments such as stores; Cutting, manufacturing, packaging, inspection, etc. Here the merchandising department represents the connection of all devices. Merchandising is a professional management function in the fashion industry. that is a company that transports fashion from around the world from designer showrooms to retail store shelves. is now in the hands of consumers. This is an internal plan that takes place within a retail store. An organization has sufficient quantities of goods to sell at a reasonable price. The buyer of takes it off the shelf. Monitor product appearance and delivery at various stores 4,444 across the designated geographic area.

Responsibilities of the merchandising department in the clothing industry:

- Review of development
- Proceed with development in cooperation with the product development team.
- Make all necessary information as clear as possible to the buyer.

### 2.1 DEVELOPMENT AND COSTING:

- Please strictly adhere to sample delivery deadlines.
- Preparation of initial calculations (all calculations must be checked by the merchandising manager)
- Price negotiation with buyers.
- Contact buyer for samples and cost feedback.

### 2.2 ORDER CONFIRMATION:

- Inform the buyer of any discrepancies in the order form.
- Hand over the correct order to the affected department. example: Planning, manufacturing, sales, etc.
- Update product development team on various sample requirements. buyers in various stages (sellers, fit, sizes, PP samples)
- All fabric and trimming adjustments required for the purpose of the pattern.
- Matching printed embroidery, trial wash

### 2.3 SAMPLING:

- Review all technical aspects of the sample before releasing it to the customer.
- Review all aesthetic aspects of samples before releasing them to customers.
- Verification of required documentation for each sample.
- Follow up with buyers on each sample comment.

### 2.4 BULK FABRIC:

- Track submissions and track lab dips.
- Track fabric deliveries based on critical parts
- Follow-up of substance approvals related to the issue.
- Prioritize fabric delivery schedules based on garment delivery dates.

### 2.5 BULK TERMS:

- Ensure on-time delivery by tracking price performance (P/I).
- Monitor the payment status of consecutive L/C or TT.

- We source all trim parts from the most commercially viable sources.
- Collaborate with suppliers to ensure delivery deadlines are met.
- Contact your dealer to ensure all RCVD panels are of correct quantity and quality.

Following are the responsibilities of merchandisers which gives importance to them

- Internal and external communication;
- Sampling,
- Laboratory intrusion,
- Accessories and trim parts,
- Creation of internal instructions;
- Order preparation;
- Production advice and support;
- Advice to the quality department regarding quality levels;
- Intermediary between production department and quality department.

### 3. RAW MATERIALS:

- Imported knitting machines with spandex attachments are also available in-house. state of art sewing and finishing machines are used to give garments the perfect finishing touch. CAD is used for fabric planning to minimize fabric consumption.
- We have introduced imported circular knitting machines in our knitting department.
- All products are imported from top overseas manufacturers such as Phimac and Unitex.
- We have a sufficient number of single jersey knitting machines, rib knitting machines, and interlock knitting machines.
- We produce fabrics of all widths according to customer requirements. However, this section is available only in Tirupur. Click here to view knitted fabrics for production use.

#### 3.1 FABRIC

The fabrics used to stitch a garment, varies according to the season they stitch for. The name of the fabric used :

##### NAME OF THE FABRIC

- 1 Single jersey
- 2 Lycra jersey
- 3 Fleece
- 4 Interlock
- 5 Woven fabric
- 6 Terry fabric
- 7 Pique fabric
- 8 Rib
- 9 Quilt fabric
- 10 Velour fabric

##### SINGLE JERSEY :

- The front and back sides are different.
- Excellent breathability, soft and light feel.
- Stretchy and easy to wear.
- Sweat does not stick between your clothes and your skin.

- Easy to iron and relatively wrinkle-free.
- Easy to curl.
- Has a laddering problem.
- Wider widths are obtained in a single jersey fabric.
- Stretches approximately the same transversely and longitudinally.
- Less patterning possibilities than in other knits.
- Least amount of yarn used per unit area in production.
- When cut, curls occur from the sides towards the back of the fabric and from the front and back towards the front of the fabric.
- Has less tendency to wrinkle.
- Yarn, or course, is unaltered from the start and end of knitting.
- Has good extensibility in length and width in both directions.
- Width-wise stretchability is usually much higher than length-wise stretchability.
- The fabric will shrink by 3-5%. In terms of width.
- The thickness of the fabric is twice the diameter of the thread used.
- The amount of fabric produced will increase.
- Cheap

#### **TERRY FABRIC:**

It is a warp pile or woven material on both sides. Terry cloth features:

- High water absorption
- High water absorption
- Quick drying and excellent mechanical comfort

#### **LYCRA JERSEY:**

- Lycra is a stretchy synthetic fiber.
- Can be stretched up to 6 times its actual length without affecting its actual shape.
- Excellent heat resistance.
- Lycra is often woven with other fabrics to increase its internal flexibility. fabric.
- Lycra's biggest feature is its elasticity.
- Lycra does not have static electricity problems.
- Lycra material is smooth, lightweight, moisture wicking and breathable.

#### **FLEECE :**

Fleece is water resistant. After washing, you may notice that fleece dries faster than fleece. Clothing made from natural fibers.

- Fleece hardly wrinkles.
- Fleece is a material that easily generates static electricity.
- Fleece is a material with moderate breathability.
- Fleece is safe to machine wash. We'll work on this soon.
- Fleece is a soft fabric with a brushed surface and has excellent heat retention.
- Ideal for cold seasons as it does not allow body heat to escape.
- A warm fabric with different materials.

#### **PIQUE KNIT FABRIC :**

Pique knit fabric is a double-knit textured fabric that originated in Lancashire, England. The right side has twice as many threads as the left side, giving the fabric depth. it is Hard material. Usually made from cotton fibers. This is the fabric of choice for most polo shirts.

**Pique features:**

- Breathable,
- Durable, easy to clean, and has excellent elasticity and comfort.
- It has excellent breathability, so even people wearing pickets can stay cool.

**INTERLOCK :**

Interlock fabric is a knitted fabric consisting of a series of intersecting stainless steel needles. works alternately. This type of fabric is special because it creates a double knit fabric. Soft and visually similar to a honeycomb. This fabric is exactly the same on the back and front. Same

**Characteristics of Interlock Fabric :**

- Connect the technical sides of the aircraft on both sides and maintain surface-to-surface appearance. The same goes for back.
- The wales on both sides are diametrically opposed and connected to each other.
- Width and length elongation approximately match that of a single jersey.
- The edges of the fabric do not curl.
- You can separate the fabric from the knit strip.

**WOVEN FABRIC**

Woven fabrics are fabrics made by weaving. A loom consisting of a number of threads woven in warp and weft. Both natural and synthetic fibers are often made from a mixture of the two.

**Textile properties:**

- Thickness
- Areal density
- Fabric cover
- Porosity
- Elasticity
- Rigidity
- Drapability

**RIB FABRIC**

Ribbed fabrics, often used in textile products, are uniform and have excellent flexibility. structure. Rib, one of the most comfortable fabrics, received a special award for Flexible construction with special sewing and knitting methods. Dyeing and sewing functions are available , it is one of the convenient materials that can be washed, ironed and dried. Ribbed fabric is generally one of the textile clothing materials and is a type of fabric is obtained by 2 rows of 2×2 and 1×1 straight stitches and 2 rows of reverse stitches. techniques. The fabric has a flexible structure due to its knit and rope structure.

**Rib properties:**

- Create ribs by cutting off two sets of needles alternately.
- (1\*1) The simplest rib among ribs.
- Nowadays, it is common to knit with two sets of latch needles, and it is called double jersey. fabric.
- Rib is vertical cord style
- Relaxed 1×1 rib is twice as thick and half as wide as the equivalent plain fabric.
- 1×1 ribs usually loosen by 30% depending on the knitting width.
- It is not possible to remove the rib pattern from the end of the first knitting because the sinker loop is fixed is secured by a cross tooth between the front and the swept loop.
- Used for sock loops, cuffs, and rib cuffs on clothing.

### QUILT FABRIC

Quilts are multi-layered textiles that traditionally consist of two or more layers of fabric. Typically, three layers are used, including fillers. Traditionally, these layers include Technology that combines a woven top, batting or layers of batting and a woven back quilts.

### VELOUR FABRIC :

Velour, occasionally velours, is a plush, knitted fabric or textile similar to velvet or velveteen. It is usually made from cotton, but can also be made from synthetic materials such as polyester. Velour is used in a wide variety of applications, including clothing and upholstery.

Fabric composition are

- Cotton, synthetic fibers, or leather
- Fabric possible thread count variations
- 100-300
- Fabric breathability
- Medium
- Moisture-wicking abilities
- Depends on the material used
- Heat retention abilities
- Medium
- Stretchability (give)
- Depends on the material used
- Prone to pilling/bubbling
- Usually low—higher with synthetic materials
- Recommended washing temperatures

### 3.2 STORE DEPARTMENT

Be sure to include accessories such as buttons, strings, size, and washing instructions. The garment meets the buyer's expectations. Purchased and stored in the accessory room. Whenever storage takes place or the season's production ends; accessories remain and are moved to a container and taken out again after 1 year. The production volume for the same season was units. Next, the buyer typically specifies which accessories to use clothing details. In some cases, the buyer may also mention the source of the product. Industry needs to buy accessories. Accessories are as-is, so samples are not required Supplier # will provide the correct accessories of the specified type, color code and size May be mentioned by the buyer (or) may be a trusted supplier of the buyer. Therefore, this is I ordered and received accessories in bulk. 2 (or) 5% or more of the required amount more purchased

### TRIMS

When accessories of a particular style arrive, a sheet called a trim card is prepared. There are types of trimming cards available for each outfit.

- Accessory trim card
- Packing trim card

#### Accessories trim card:

- This trimming card provides reference information about the materials used to make the trimming card. Clothes.
- Accessory trim cards can include thread swatches, button swatches, patterns, and washes.
- Care label, flammable label.
- Accessory trim cards may vary depending on the accessories used on each garment.

**Packing Trim Card:**

- This blank card explains which tags and labels to use during packaging. Clothes.
- Confusion with packaging blank cards due to different barcode labels sizes from 64 to 152. Package trimming cards consist of hanging tags. Garments, ropes with attached labels, and other unusual hangers Tags: If a specific style is mentioned, it is provided by the company and the barcode label is Stevie number .
- 16-digit unique barcode pin with warehouse number, garment size, and barcode
- Accessories from stores are usually carried by workers working side by side. Get your customer card and get your desired materials while supplies last has been removed.

**ACCESSORIES**

clothing accessories.

**1) Buttons:** Buttons used in this industry simply fall into two categories.

- Flat button (Kaja button): Used for Biowiki boxer shorts. Sizes vary small, medium, and large pieces. Can contain two (or) four holes.
- Snap fastener: Used in Chicco's children's clothing, these snaps. Categories are recognized as male and female buttons.

**It consists of four parts:**

1. Metal outline: varies in size as 16L, 18L. Sizes up to 27L.
2. Matt snap: One with hole for snap; comes with 'chicco' name printed on one (or) two times around the button.
3. Ring- coloured: Varies as 12L,14L,16L, 18L
4. Silver ring .

**2) Flammability label:** Attach to clothing to send a warning message. 4,444 customers said their clothing was flammable. Flammable labels are classified into class AB and class C. The flammable label contains a "Storage" warning message in English and five other languages. Class A/B/C is listed in "No open flames". Usually this depends on the fabric.

**3) Wash care label:** Label with washing and care instructions Clothes. Clothes may be made of (in some ways) delicate fabrics. seams must be handled carefully. If this is the case, we will notify the user on the care label. Washing and care instructions. They are called insanbol. Instructions or washing instructions Label varies depending on the fabric.

**4) Main label:** The label bearing the brand name is called the main label. they used to be Identify which brand a garment belongs to. This label may vary by gender.

**5) Jacquard label:** In addition to the main label, a special label is also sewn on the garment. This is an exceptional case if the buyer insists on this. They can be seen in different colors than others. is the main label. Acts as a plaque label. This label is called a "jacquard". made using the jacquard technique.

**6) Size label :** Garment size is determined by the size label affixed to the inside of the back. The neck part of the garment next to the main label. Size label consists of garment size indicates the age in months when it is appropriate to wear it. It is written in two parts languages. Size labels vary and are divided into upper and lower sections. The head scarf size label is Om, 1/2 meter, 3 meters. Sizes range from 44 to 152.

**7) Threads:** Since then, yarn has become the most important element stocked by apparel companies. Required for clothing production. Threads are displayed with color codes. merchandiser includes a color palette with 23 color codes desired by yarn manufacturers below the sample examples threads are provided by some companies (such as Vardhman) and then some threads are ordered. Thread color is required by specifying the color code. Adjust according to the fabric. If in stock After arrived and added patterns to the equipment map, it was sorted by color and pieces are shelved for production. Thread length varies between 5,000 and 10,000 yards. normal color I will bring such as melange, red, and off-white. Yarn is supplied in approximately 2 plies (or) or 3 plies (or). 4 strands twisted. Indicates the number of threads twisted to make a thread.

**8) Cones:** Cones are instruments in which a thread could be winded for taking into the production line.

**9) Satin Tape:** A satin tape plays a minute role in the garment where it is cut for a small amount (say 1 inch) and then folded into two and stitched in the inner back neck part near the side label. Sometimes tags are hung onto the garment through the hole in this. However, sometimes it remains free.

**10) Velcro:** It is a kind of fastener varying from small to bigger size.

**11) IPU Tape:** Also known as mobilon tape. Said to be used in the packing section. It was observed using a production line in over lock machines where the tape lies under the place of over lock stitch. The width of this tape is 4mm.

**12) Zipper:** Zipper is the easiest and most used fastener after snap buttons in kids' clothing. The style and color of the zipper varies according to the order.

**13) Elastic:** Elastic bands are used to secure clothing to the body. Stretchable A large amount of was generated in an inappropriate manner. Let it relax first, then steam it in the ironing area. Loosen the again and cut it to the size required for manufacturing. Such steaming is done to maintain the elasticity of the rubber band. Width of rubber used for Chicco Clothing sizes for are 6-40 mm and for Borowiecki 30 mm. The above refers to clothing accessories.

**Packing related accessories are,**

**14) Barcode Hang Tag:** It is hung onto the garment with other tags which also contains the price of the garment in terms of currency values of different countries.

**15) Bersede sticker:** Stuck onto the outside of a garment's package.

**16) Mekotex tax:** Awarded OEKOTEX Standard-100 by Testex, Zurich. BSCI certified Manufacturing facility. OEKO TEX certification is awarded to garments produced in one factory. An industry that claims that clothing produced in a particular industry does not contain skin. We can handle diseases and transport them reliably. If you do not have this certificate, please Industry must be inspected upon shipment.

**18) Anti-Mould sheet:** Also called insect leaves, it is plastic paper that is stored inside. Check whether there are small insects such as insects on your clothing. B. Ants accumulate. worn by children. The name of the plate is "Micro-Pak Enhanced PE plate" is recyclable.

**19) Butter sheet:** cover outside of the garment.

**20) Rope:** used for tagging

**21) Sticker:** In some special cases, a sticker other than the barcode sticker is stuck outside of the garment. (eg. A sticker containing the outline of bib was stuck outside to the package of bib.

**22) Inner board:** Stored inside the garment to provide rigidity and proper folding. this is, Iron body The size of this board varies depending on the size of the clothing. these are everyday things for accessory packaging. Other accessories are as follows.

- Special hang tag: Specified by the purchaser of the garment (e.g. Happy Price to become Chico) 24,
- Polybag: Exterior cover for clothing. Size varies between 26x23. 24 hours a day, 365 days a year. 28x23; 25x40; 35x40; 32x38.

**25) Hanger:** There are different hangers for top and bottom. They are used to hang the garments.

#### 4. COMPUTER AIDED DESIGN:

Computer-aided design (CAD) is the branch of creating patterns and designs. Patterns are created using software like Pattern and following technology packs for buyers. Design Software (PDS), Market, Orpitem, Market Tools, Polytron. Use CAD designer Specialized computer software for creating drawings, blueprints, plans, and other designs. documents that can be used in various fields.

Vacuum suction flatbed cutting machine is used for cutting garment patterns. base They can create precise patterns on the box using a vacuum suction system. CAD is a board depicting the use of computers in design. Actually CAD includes all activities in the apparel design cycle that implement an executable concept Convert to production-



ready product specifications. The various sections are design and analysis. Design Optimization, Refinement, and Documentation.

Patterns can be designed in two ways using Richpeace, Gerber, and Lectra software. Two ways is the direct method and the mathematical method. To create clothes that fit a variety of body types, For size, the sample piece must be expanded or contracted geometrically to obtain the complete coverage. size. Pattern evaluation is the process of scaling a pattern to different sizes by implementing key elements patterns using algorithms from the apparel industry.

## 5. SAMPLING:

The sampling department collaborates with the commercialization department. The appearance and suitability of finished products during mass production and see if this is the case .There are discrepancies in the sample according to the buyer's specifications this also helps with that determines the consumption of fabric and the amount of threads and accessories.

Samples are regularly produced every season according to customers' requests and designs. In addition, it has all imported and imported regular and special machinery Indigenous people create all kinds of clothing in modern styles. So this department has professional managers and seasonal tailors. 4,444 garment samples will be shipped to allow buyers to see the garments being produced. pieces in bulk, if there is an error, the buyer can mention it so that it does not affect the quantity.

The order of samples sent goes as follows:

- PROTO SAMPLE
- PHOTOSHOOT SAMPLE
- SALESMAN SAMPLE (SMS)
- ADVERTISEMENT SAMPLE
- SIZE SET SAMPLE
- PRE PRODUCTION SAMPLE
- DIRECT BULK SAMPLE

### PROTO SAMPLE

In addition to the clothing list, we also provide production size chart values for each garment will be mailed with a picture. After seeing this the pattern is called "proto sample" will be sent showing the possible representations of the garment. was sewn without size information or exact fabric information. Anyone can sew easily , random size, any fabric available.

### PHOTOSHOOT SAMPLE

The Photoshoot sample is a sample which is used for capturing a photo for the catalog and e-commerce sites in which is taken on model or dress form.

### SALESMAN SAMPLE

After the fabric gets approved a sample called "SALESMAN SAMPLE" is prepared. In SMS the sample is prepared for any one these sizes provided in the size specification with the measurements provided for it respectively. The fabric approved for that garment is used for stitching.

### SIZE SET SAMPLE

The purpose of size set patterns is to check the suitability of multiple sizes. Size adjusted Typically, patterns are created for jump sizes such as S, L, XL, and XXL. Required set of samples Size sets vary depending on buyer's requirements. Check the gradient of the pattern using the size set pattern. if Our technical team has confirmed that some sizes do not provide the correct fit. Therefore, the fix is made Modify the pattern until you get a good fit.

After releasing the size set, the supplier can develop PP sample. The size set patterns are made from actual fabric. If the physical item does not exist and similar quality fabrics are available.

#### **PRE-PRODUCTION SAMPLE**

PP Sample is the short name for Pre-Production Sample. Prototype samples are one of them. Development sample of type , PP sample produced in garment factory before mass production begins produced. PP patterns are made with authentic fabrics, trimmings and style accessories. According to the buyer Instructions PP samples must be prepared on the production line by the supplier, this is not the case is always followed by the provider. In most cases, PP samples are prepared in the sampling departments listed below. Merchandiser and Sampling Master Instructions. Often the production team doesn't fit. recognizes the PP patterns produced in our own factory.

#### **DIRECT BULK SAMPLE**

Direct/bulk sampling is typically performed only when visible growth is observed. Sampling is defined as "the process of obtaining a small portion of material from a larger mass." Sufficiently representative of its intended purpose.

### **6.CUTTING DEPARTMENT:**

Receive samples from CAD department and confirm quantity Fabric Roll, Weight Verification, Roll Count, Fabric Test - Internal Test Report Verification (Color authenticity) Rolling out the dough is a very important part of the production process as it is the basis of the production process. Achieve high quality final products. The number of fabric layers depends on the number of clothing items and fabric desired. Mass production using thickness fabric stretching machine.

#### **4 POINT SYSTEM:**

Fourpoint system in fabric inception in the standard method that is widely used in textile and apparel industries.

- Formula point/100sq. Yd=(total points in roll 36\*100)/(total strength in yard \*width in inches)
- Fabric inspection -4 point system defects
- Handling stain
- Needle holes
- Yarn mistake
- Uneven dyeing
- Slubs
- Miss print
- Oil

#### **Fabric mistake :**

- fabric mistake (except fabric holes/gsm holes)
- 1- less than 3 inches =1 point
- 2-3 inches to 6inches = 2 points
- 3-6 inches to 9 inches =3 points

#### **Fabric holes:**

- Less than 1 inch = 2point
- More than 1 inch =4 points
- Evaluate fabric quality of knits in a 4 point system.
- measure fabric length in roll on
- Weight of the than (in kg)
- Fabric weight grams per square meter(gsm)
- Fabric width (inches) note:always take open width in knitwear

#### **Spreading or laying :**

In mass production, multiple layers of fabric are cut at the same time. This is how to install the spreader Cut the fabric to the full length of the marker on the cutting table. Layer height is maintained to a certain inch. Spreading is

the process of unwinding large rolls from a wide table and preparing them for cutting. He wears clothes. The number of fabrics depends on the number of clothing items you desire. Fabric thickness . Distribution can be done manually or mechanically. Can cut 200 layers of fabric once.

**Types of lay planning :**

- Half garment lay: Only half of the garment is considered.
- Single layer: A single layer of fabric commonly used to create patterns.
- Multiple play: This is made up of several layers of fabric.
- Steep layers: There are several layers. I. Which groups generally have layers of different lengths? I use to get the most out of the fabric.

**Relaxation of fabric :**

Knitted fabrics need to be relaxed before cutting. After receiving the fabric from the fabric Store, cutting department opens the fabric from the fabric roll and places it on the table Relax for a few hours before cutting. The factory may store the fabric overnight in the fabric warehouse. after opening the dough roll. This process helps control fabric shrinkage.

**Inspecting cut components:**

To maintain cutting quality, the quality of standard cutting components is randomly checked. women.

**Fusing garment components:**

Garment melting is used to cure parts of garments. Fixation is carried out if necessary for cutting areas (e.g. welding collar and cuff areas of formal shirts).

**7.STITCHING DEPARTMENT:**

The manufacturing sector is the main part of the industry where clothing is designed and manufactured. I plan to use the item that the purchaser sent me as clothes. There is a large separate room for production and performance. series sewing machines are lined up, and workers can sit comfortably in high chairs. Sew . This row of sewing machines is called a "line". There are three types of sewing machines.

- 1) Overlock sewing machine
- 2) Flat lock machine
- 3) Singer machine

The overlock sewing machine is used to cut edges with an additional option for elastic insertion. The flatlock sewing machine is used for chain stitches, hems, seam covers, etc. Singer, Overlock and Flatlock sewing machines are suitable for a wide range of stitches Quality and Style.

All machines are mixed consecutively. Oil the sewing machine every day before sewing. Every sewing machine owner had a sewing machine needle box on hand just in case. The sewing machine needle breaks while sewing. They always wipe and clean each machine before sewing every day.

Once the garments are printed and arrive, we check them as a group. people made printing errors. Such printing errors include slow ink printing, Misaligned threads or prints on ribbed fabric. If such a discovery is made, Rejected. However, the company receives an additional fee of 5% in addition to the exact amount of materials required. After checking these parts, they are passed to the sewing line. in Garment industry, 1 person: Does not sew the entire garment except for the pattern.

For example, one person connects the side seams, and another person sews the right side seams. As soon as the person behind you responds, give them . In this way, the components of clothing are Knit the needles from the back to the front to complete the garment. In this type of sewing, Please allow hours to arrive at your destination on time. The number of compound interest payments per hour is reduced by a person in addition to regular payments.

It is possible to achieve goals. Before the garment enters the production line, PPS comments are read by the QC and errors are read as well. analyzed and explained how to sew to an expert. Because there is an error in PPS May cause confusion during production. After the sewing is complete, these garments are checked by the group and 'Adesese' is found. means garments with sewing defects. Stitch errors like this are marked with an arrow. A sticker

marked is pasted and passed to another line, where these errors are corrected. If you find dirt, Transferred to stain removal department.

In addition, thermal transfer machines and buttonhole fixing machines are also common. There are sewing machines lined up. The buttonhole correction machine is specific times are required and used. Before placing buttons in columns, you need to do the following: The pieces are weighed on a button scale on the line. Sewing Machine Troubleshooting: If a machine causes a problem, it will be issued with a yellow card and the problem will occur. Mechanic's Note. If there is still a problem with the car, a red card will be issued and then If the symptoms worsen, a black card will be given and everyone will notice it in the industry. This method is called "traffic light" in the industry.

## 8.QUALITY CONTROL:

Quality control is carried out at the end of each garment production. A garment is randomly selected from a group of garments and checked for seams. errors, thread errors, printing (or) embroidery errors, packaging errors, etc. acceptable quality level (AQL) was discovered in Germany during World War I for testing bullets/weapons. Quality control is affected by all kinds of departments. . For example

- cutting qc
- print qc
- sewing qc
- finishing qc There are 4 types of report under quality control
- measurement inspection: duration 20days
- inline report : critical check,neck folding checking
- traffic light : duration (2hrs/once)
- endline report: last process of checking (checking oil, threads etc)

### Fabric lactation and fabric inspection

Fabric received

Checking internal testing report

Fabric relaxed under fabric relaxation machine

Following 4 point system

Checking gsm,shade,Dia

Fabric relaxed at minimum 24hrs

Ready for cutting

Glue gun. It's a yellow sticker with the order number, size, and quantity. Adhesive stickers consist of brand, age, clothing type, size, material and washing symbol Important points to check are color fastness, buttons, neck width, elastic gradation, and material. A metal detector that detects metal attached to clothing before packaging. If any If metal is caught between them, a long alarm will sound with a red light. The buyer visits the store directly (or through a designated person) during the viewing. comes after mass production and checks the garments for defects.

## 9.FINISHING

Stain Removal section:

Stains on the fabric rod that occur during fabric inspection will be removed after sewing. Clothes in stain removal area. The stain removal section consists of stain removal. machine for chemical spray cleaning (with cold spotting gun) for all types of applications substances Stains on clothes can be mold stains, paint stains (or) metal stains, or oil stains stains can be self-imposed in the industry because the machines are oiled before application. can be worn over clothing.

Such stains are usually removed using Takum powder. in one (n Advanced stage uses a stain removal spray called a "spot lifter." Look for arrow stickers on clothing and remove stains from them. This particular area. Depending on the color of the stain, there are solutions to remove it Yellowing remover, coffee colorant, etc.

### **Ironing Section:**

Ironing clothes is an important step to keep them clean and tidy. in such a way Since this item is worn by children, we take great care in ironing it. Garments are initially ironed without the inner board, but the inner board is regularly kept for packing for all clothing. Next, check the appearance after ironing. Arrow marker sticker is torn When something gets stuck, it raises an error, spawns a thread, and then leaves it alone. He cuts out the 4,444 seams that are left on the garment and irons it again. with inner board. Usually, the inner board is used to tightly align the folds of the garment. gives rigidity. These clothes are then sent for packaging. There are strict rules regarding clothing. Please iron before packaging. Vacuum ironing board makes clothes less wrinkled. of The machine includes a fully computerized continuous band ironing machine and heatless steam. iron, normal iron. Lots of instructions (i.e. quality comments) for those who iron. departments listed in each table on the board. The instructions were as described Iron the side seams in a straight direction, iron the armholes in a straight direction, and clear any doubts if necessary. Optional, to QC.

## **10. PACKING SECTION:**

Packing is the final process for shipping clothing. Perfect packaging is essential for clothes. Packing will begin only after the buyer's inspection is completed. Packing will be done in accordance with Buyer's requirements as set out in the Packaging Manual. Clothing packaging instructions. B. How to pack clothes and where to wash Care label installation, label hanging position, label rope installation method and location How to apply the brand label, how to pack the box, and what the box should look like Must specify how packed clothing is placed in boxes and mention packaging bags has warnings printed in various languages and a piece of cardboard placed between the clothing behind it. Push and insert the oil butter plate. Side labels sewn onto pages Garment seams must consist of five sides. Merchandiser receives approval for this package. MD. The packing specialist will then be briefed and the work will begin. Packaging Department.

The work order of a packing department is as follows:

- Inserting the hangtags (i.e) brand tag, OEKO TEX tag into the main label.
- Inserting the "Micro-Pak Enhanced PE sheets" for avoiding insects.
- Cover the garment with a butter sheet.
- Sealing the garment in a cover of appropriate size. In case of larger size,
- Then it is folded separately and stuck using a cellophane tape.
- Sticking barcode labels outside the packing. This is stuck in a perfect
- proportion (in a left corner of the package- 3 cm above and 3cm to the left).
- Letting the package into the metal detector.

32 Metal detector: The needle may break while sewing. When sewing with the sewing machine, the needle may get stuck in the seam, this pin may pose a hazard to children while worn. Take precautions (i.e., leave packed clothing in metal). Haters, if you leave them alone, it's just a piece of clothing. But if anything, it's a needle. was found, the metal detector went off, a red light came on at the top, and then clothing. is placed in a box labeled "Parts Rejected by Metal Detector."

## **11. SHIPMENT OF A GARMENT:**

The buyer specifies a time frame for the garment to be completed and shipped. Each season. Discounts will be applied if the garment is shipped late is retrieved and looks like this:

- 2% discount on total payment for one week delay.

- 5% discount on total payment if delay is 2 weeks.

Delivery Challan (DC) is prepared for company security purposes in the following cases: Removal of all substances from industry. Created using a BOM. After the production of Once the style is completed, the accessories are placed in a container and the next accessory is taken out after one year. Season production. Leftover dough is piled up outside and taken out for reuse.

## 12. PRODUCT OUTCOME:

The industry produces knitted ready-to-wear clothing for men, women, and children in universities. prints and yarn dyed. Knitwear is made from 100% cotton and blended fabrics. some substances (non-woven fabrics, etc.) are also imported according to customer-selected specifications. 2,50,000 pieces/month We sell 4,444 pieces of underwear and 10,000 pieces of casual wear every month, regardless of gender or age. The production number is units.

### KIDS

- Rib/Round/Crewnecks
- Collar shirts/Polo Shirts
- Shorts/Pants/Skirts
- Chest/All over prints
- Panel/Layered Tops
- T-shirts sets
- Rompers and a wide range in knits that cover everything a child can wear.
- Jumpsuits
- Rompers and Hooded winter warmer.
- Knit woven

## 14.CONCLUSION:

In summary, the production process in the apparel industry is a complex and multi-layered operation involving various stages from design conception to final product delivery. Efficiency, quality control and sustainability are key factors that must be at the heart of the entire production process. Technology and automation are playing an increasingly important role in streamlining operations and reducing lead times. Ensuring ethical and fair labor practices and responsible sourcing of materials is essential to the long-term sustainability of our industry. Innovations in materials such as sustainable fabrics and dyes also play an important role in the production process. Collaboration and communication between various parties, such as designers, manufacturers, suppliers, and retailers, is essential for a smooth production process. Additionally, adaptability to changing consumer preferences and market trends is critical to staying competitive. In summary, the apparel industry is seeking a balance between innovation, efficiency, ethical considerations and sustainable practices to meet rapidly evolving market demands while ensuring a positive impact on people and the environment.