

INTERNSHIP REPORT

**SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF**

BACHELOR OF SCIENCE – FASHION DESIGN

by

PARKAVI. D (41105012)



**DEPARTMENT OF FASHION DESIGN
SCHOOL OF BUILDING AND ENVIRONMENT**

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

Accredited with “A++” by NAAC

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI – 600119

JULY 2023

SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF FASHION DESIGN

INTERNSHIP REPORT (S105AINT)

2023 – 2024

Name of the Student: PARKAVI.D

Reg No : 41105012

Semester : V

Batch : 2021-2024



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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF FASHION DESIGN

INTERNSHIP REPORT (S105AINT)

2023 – 2024

VIVA –VOCE EXAMINATION

This is to certify that the Internship (S105AINT) is the work of PARKAVI.D - 41105012, during semester V, is a student of Fashion Design department had undergone training in SCM GARMENTS has been monitored by the continuous assessment from 11/05/2023 to 03/06/2023.

Submitted for Viva Voce examination held on: 06/09/2023

Mentor

Class Coordinator
Internal Examiner
Head of the Department
Fashion Design
Sathyabama Institute of Science and Technology
Chennai-600 119.
External Examiner



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DECLARATION

I Parkavi.D hereby declare that the Internship (S105AINT) for 21 days from 11 May2023 to 3 June 2023 done by me under the guidance of Ms.R. Priyadharshini, is my original work and is prepared based upon the data and information collected during my internship period is submitted in partial fulfillment of the requirements for the completion of practical training session.

Date: 06/09/2023

Place: CHENNAI

Parkavi.D
SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY** for their kind encouragement in doing this Internship and completing it successfully. I am grateful to them.

I convey my thanks to **Dr. DEVYANI GANGOPADHYAY** Dean, School of Building and Environment for providing me necessary support and details at the right time during my internship period.

I express my deep sense of gratitude to **Ms. S. KRITHIKA** Head of the Department, Department of Fashion Design, School of Building and Environment, for providing me the assistance and knowledge at the right time during the progressive reviews.

I admire, the great opportunity that has provided to us and all the elements that made a contribution toward my understanding throughout this period I would like to extend my sincere gratitude to **Mr. S. SENTHIL KUMAR (TESCO) EXECUTIVE** for giving me this wonderful opportunity of an industry internship program.

I would like to express my sincere and deep sense of gratitude to **Ms. R. PRIYADHARSHINI** for her valuable guidance, suggestions and constant encouragement. Paved way for the successful completion of my Training.

Last but not the least, I would also like to thank all my **FAMILY MEMBERS, FRIENDS AND RELATIVES** who shared their support to me during the Internship period.

BONAFIDE CERTIFICATE FROM COLLEGE



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Ref: SHD/2023/04/24/53

24 April, 2023

BONAFIDE CERTIFICATE

This is to certify that Ms. PARKAVI D, Register Number 41105012 is a Bonafide student of our Institution pursuing 2nd year BACHELOR OF SCIENCE in FASHION DESIGN during the academic year 2022-2023. She will be completing the course in the year 2024.

This certificate is issued for the purpose of Applying INTERNSHIP.

DEAN (STUDENT AFFAIRS)

Dr. G. SUNDARI, M.E., Ph.D.,
DEAN (STUDENT AFFAIRS)

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai - 600 119.

MAIL REQUEST FROM DEPARTMENT TO COMPANY



GAYATHRI N 4 days ago

to sekar, FASHION, bcc: ...



Dear Sir,

I am N. Gayathri, working as Assistant Professor in the Fashion Design department of Sathyabama Institute of Science and Technology. Students pursuing B.Sc. Fashion Design degree from our department needs to complete their internship for 21 days in their Second year as a part of their curriculum. We request you to kindly permit our students for their internship in your esteemed organization for 21 days from 11th May to 3rd June 2023. Kindly confirm your acceptance by mail.

please find attached students name list with their register number.

Parkavi. D - 41105012

Sathyasri.S - 41105014

Selva jothi blessy .R - 41105015

Best Regards

N. Gayathri

Assistant Professor

Department of Fashion Design

Sathyabama Institute of Science & Technology

Chennai - 600119

MAIL ACCEPTANCE FROM COMPANY



GAYATHRI N 27 Apr

Dear Sir/Madam, I am N. Gayathri, working as Assistant Professor in the Fashion Design



GAYATHRI N 28 Apr

to me, drparkavipargu@gmail.com



Best Regards

N.Gayathri
Assistant professor
Department of Fashion Design
Sathyabama Institute of Science and Technology
Chennai - 600119

----- Forwarded message -----

From: SCM Garments <sekar@scmgroups.com>
Date: 27 Apr 2023, 10:06 am
Subject Re: internship of our students regarding
To: GAYATHRI N <gayathri.design@sathyabama.ac.in>
Cc: FASHION HOD <fashionhod@sathyabama.ac.in>

Dear Gayathri,

Thank you for approaching us, and it was nice to hear from you about the internship programme. We support young people in learning new facets of the styles and trends that are now popular. will undoubtedly encourage your students to pursue their goals and new learning opportunities.

Thanks & Regards
Sekar
SCM Garments

PERFORMANCE APPRAISAL

DEPARTMENT OF FASHION DESIGNING

PROFESSIONAL TRAINING REPORT 2023

(continuous progress report of the fashion design trainee for the period of 21 days in the Industry to be submitted to HOD by the trainee in charge the organization)

1. **Name of the industry:** SCM GARMENTS
2. **Address and contact Number:** Anaipudur, Avinashi, Tamil nadu-641654.
3. **Name of the student:** Parkavi.D
4. **Duration:** 11.05.2023 - 03.05.2023
5. **Total no of days:** 21 days
6. **Evaluation of performance criteria shall be on**
* Note: kindly grade the student as per her overall performance in the office during the assessment days, which will be converted to the allotted 40 marks by the department.

Description of works	Excellent	Good	Fair	NA
Understanding of the departments	✓			
Participation in the industry	✓			
Handling the given work	✓			
punctuality	✓			
Coordination with other workers	✓			
Attitude	✓			
Overall performance	100% GOOD			

Compliments & suggestions:



Signature of the head of the office:

CERTIFICATE



TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. PARKAVI D, Roll. No 41105012, Studying Bachel-
Bachelor of Science in Fashion Design in SATHYABAMA institute of
Science and Technology, Chennai had undergone Industrial Training from
11.05.2023 to 03.06.2023 in our concern.

During that period her conduct was good.

Place: Tirupur

Date: 03.06.2023

For SCM Garments Pvt Limited


Authorised Signatory



SCM Garments Pvt Limited

57, V.O.C. NAGAR (SOUTH), VALAYANKADU, TIRUPUR - 641 603. INDIA.
PH: 91 - 421 - 4319888, Fax: 91- 421 - 2248889 , CIN No: U18101TZ2006PTC012698
E-Mail: scmcre@scmgrouops.com Website : www.scmgarments.com

INTERNSHIP DETAILS

1. INDUSTRY / ORGANIZATION: SCM EXPORTS

Mentor Name : **Mr. S. Senthil Kumar**
Designation of the mentor: **Executive (Tesco)**
Contact Number : **9944044443**
Address : **Anaipudur, Avinashi, Tamil nadu-641654.**

2. INSTITUTION: SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

Mentor Name : **Ms. R. Priyadharshini**
Designation of the mentor: **Assistant Professor**
Student Name : **Parkavi.D**
Department : **Fashion Design**
Address : **Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai- 600119 Tamil Nadu, INDIA.**

DAILY REPORT

DATE	REPORT
15/5/2023	Visiting a Company's Outlet
16/5/2023	Visiting various departments
17/5/2023	Visiting Showroom
18/5/2023	Storeroom process
19/5/2023	Types of machineries
20/5/2023	Bundle system
21/5/2023	Production process
22/5/2023	IE (Industrial Engineering)
23/5/2023	Sewing Department
24/5/2023	Quality check department
25/5/2023	Checking and AQL Department
26/5/2023	AQL Department
27/5/2023	Ironing, Folding and tagging
28/5/2023	Presentation Department
29/5/2023	Finishing Department
30/5/2023	Washing Department Testing Department
31/5/2023	Testing Department
01/6/2023	Field work
02/6/2023	Field work
03/6/2023	Field work
04/6/2023	Field work

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1. Company profile



Established in 1989, SCM Garments Private Limited is the destination of superlative apparels that are knitted with immaculate quality and strong values. Each of our brands is a natural extension of our philosophy of excellence that is created with zeal and concern to our customers who are spread over globally. As an exports arm of The Chennai Silks (TCS), we exist to create experiences where passion and purpose come together. We leverage on robust research and advanced technologies which makes us “A Fiber to Fashion company”. We are part of the biggest and most efficacious company - SCM Group of Companies. We believe that quality and efficiency are a quintessential part of our very being and to measure up to our own ideals. Also, instilling a sense of ownership and pride enhances a long-term relationship with our customers. To stay true to our pride in workmanship, we’ve established a dominant presence in every part of the textile spectrum and our pride lies in being independent and self-sufficient in every stage of garment production. We will continue to persist with confidence and move steadfastly despite any obstacles and thereby leaving remarkable footprints in the history of garment industry.

1.1 Management Team

Being the extreme innovators and believers in game-changing businesses of the future, our Management team is known for challenging conventional wisdom and spotting opportunities quickly. A leadership team personifying excellence and execution, they are never short of creating disruptive next practices and generating exponential value – for the company, for the nation and for the people.

1.2 Founder

SCM Garments sets sight on even more ambitious goal, remain inspired and guided by the story and philosophy of the founder Shri. A. Kulandaivel Mudaliar. It has adopted of converting adversity into opportunity and making impossible into possible by challenging conventional wisdom.

1.3 Mission

Dynamic production resources aligned with the sustained work employee satisfaction.

1.4 Milestone

1989- SCM garments was established with its foray into the textile domain.

1993- SCM set up its turnkey knitting unit.

2003- SCM established its own textile spinners.

2005- SCM established its own textile spinners.

2016- SCM established its own textile spinners.

2017- SCM factory international production into Ethiopia.

1.5 Group

SCM SPINNING MILLS

SCM KNITTING MILLS

SCM PROCESSING

SCM GARMENTS SISTERS CONCERN

SCM Textile Spinners

The Chennai Silks

SCM Energy Divisions

The KTM Jewelry Private Limited Clients

Aathava Garments India Private Limited



SCM Energy Divisions



The Chennai Silks
let the celebrations begin!



SCM Textile Spinners

[A UNIT OF SPACE TEXTILES (P) LTD]



Sree Kumaran
THANGAMALIGAI

1.6 Clients

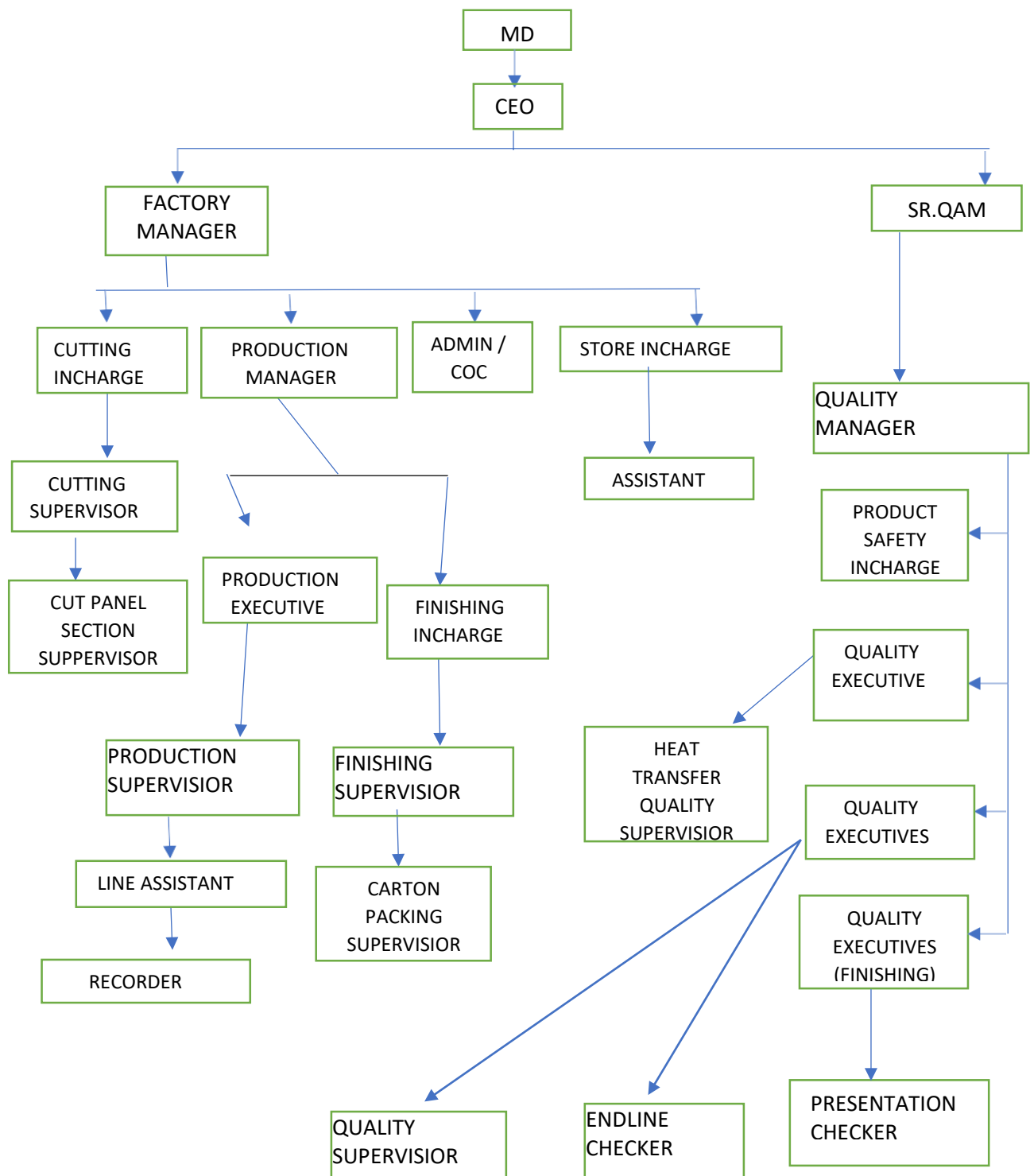
- Decathlon, France Hema
- Netherland Kiabi
- France George /Asda
- UK Tesco
- UK Go Sports
- France Hanes Brand
- USA Sears/ K-Mart
- USA Polo Ralph Lauren
- USA Toys'R'us
- USA Carrefour
- France JD Sports
- UK Lindex
- Swedon Dunnes
- Ireland Morrisons, UK.

1.7 Products

SCM Garments offers variety of products like

- Kids wear
- T- Shirts
- Winter wears
- Inner wears
- Summer wears
- Sportswear

2. Organizational chart



2.1 Plant location and layout

Sri Cendhur Murugan GARMETS PRIVATE LIMITED is a huge organization located at Tiruppur, South Africa and Ethiopia. It is one of the largest Textile Kingdom in Tamil Nadu Head office is located at VALAYANKADU TIRUPUR. It consists of 55units around Tiruppur District. SCM Garments Unit -9 is located at Anaipudur, Avinashi. Department location in Unit 9:

Ground floor

- Separate building for storage of raw materials, fabric separation area
- Separate block for fabric inspection area final output storage area.
- Separate block for pressing and ironing.
- First floor-first floor consists of stitching department, sampling area,trimming and checking area, accessories store.
- Second floor- Second floor consist of stitching department, sampling area, trimming and checking area, accessories store.
- Third floor - Third floor consist of stitching department, sampling area, trimming and checking area, accessories store.

Figure 1- Overview of the industry



Figure 2- In Field, presentation work



Figure 3- showroom, Group discussion



3. Sequence of operation

Figure 3- process chart



4. Production process

4.1 Knitting

Knitting is a methodology by which yarn is manipulated to form a textile or material, usually utilized in many varieties of garments. Knitting creates multiple loops of yarn, referred to as stitches, in a very line or tube. Knitting has multiple active stitches on the needle at just once. Cloth consists of variety of consecutive rows of intermeshing of loops. As every row progresses, a recently created loop is force through one or additional loops from the previous row, placed on the gaining needle, and also the loops from by using a machine.

4.2 Fabric

The output of the knitting process is the fabric, the basic color of the fabric is the grey and it will be washed for the next process.

4.3 Dyeing

Dyeing is the process where the necessary color will be added to the material, and the quality of the color will be checked. Compacting will be done when a textile finishing machine that is intended specially for compacting 100% cotton knit like jersey, pique, interlock, plush, rib and sinker etc. Again, the fabric will be washed and tested.

4.4 Cutting

The material is received in bundle and it'll be kept for a few relaxations at temperature. The fabric is unfolded regarding twenty layers. The planning that is needed are market printed in a cardboard sheet and this may be separated as several components and this may be placed on the layer and cutting process done. There are two types of knives used for cutting

- Straight knife
- Band knife
- Scissors

Finally, snickering will be done to identify the size, part of the material.

4.5 Input section

The stickered material will be in bundle and it will be placed in the storage area. the stock for 3 days work will be stored in this input section. From input section the materials will be passed to the production area.

4.6 Sewing

Garments are sewn in an assembly line, with the garment becoming more complete as it progresses down the sewing line. Sewing machine operators receive the materials in a bundle of cut fabric and repeated sew the same portion of the garment, passing that completed portion to the next operator.

4.7 Trimming

The material part except main material that are employed in clothes are referred to as trimming. The materials employed in room apart from material are referred to as trims. On the opposite hand we can say that the materials are directly hooked up with material to create a garment are referred to as trims. Like threads, buttons, lining, interlining, zippers, labels etc.

4.8 Checking

A team starts to visualize clothes, whether or not sewing is correctly done or is there any spots on the garment. If they realize any spot, they take away it miss-treatment chemicals and if there's serious sewing drawback they come back it to stitching department to rectify a similar.

4.9 AQL

AQL (Acceptable Quality Level). It is the final checking process of the garment before the garment is sent to the Buyer, the checking includes garment quality and thorough inspection, direct inspection of regulations, duties. All procedural and quality requirements are met, the result or result of the final inspection is pass, and the garment is ready to be sent to the Buyer. But if it finds a critical point during the final inspection process, the garment is declared failed.

4.10 Size separation area

After the final check, the materials will be separated according to their size and arranged, if this is not done the garments will get collapsed with different sizes. The size can be separated by using the tag which is inserted at the inner side of the garment.

4.11 Ironing

Pressing or ironing is that the most important finishing method in readymade clothes sector that is completed by subjecting a fabric to heat and pressure with or while not steam to remove unwanted creases and to impart a flat a look to the clothes. Pressing or ironing additionally done to introduce creases within the apparel within the clothes producing industries, pressing is termed as ironing.

4.12 Presentation

The final check of the material with the presence of the tag, seal, and overall material check will be done in this process.

4.13 Packing

Garment packaging is that the method of wrapping, pressing, filling or making of products for the aim of protection and their acceptable handling. This is often the final method within the production of clothes that prepares the finished merchandise for delivery to the client. It's a very important a part of the garment producing method. Garment packaging is additionally use to get ton of attention from the client.

4.14 Cartoon boxing

Garments are delivered to the client in cartons. Clothes in poly baggage are kept in a carton box as per instruction of the client. Loading cartons with clothes are known as packaging. Clothes are loaded in cartons during a selected proportion of size and color. This proportion is termed assortment. Maintaining the selected assortment is very vital. It shows what sizes and colors should go with every carton. It's the need of a store of buyer's finish that the package is selected.

4.15 Dispatch

Finally, the garments are ready to export with the satisfaction from the industry.

5. Progressive bundle system

PBS is the most common and traditional method of production in garment industry. According to American Apparel Manufacturers Association (AAMA) Technical Advisory Committee (1993) has reported the 80% of the garment industry follow progressive bundle system. Bundle sizes would possibly vary from two to a hundred components. Some industries operate with a customary bundle size of express garments, whereas others vary bundle sizes according to cutting orders, material shading, size of the things among the bundle, and conjointly the operation that is to be completed. Variety of them use a dozen or multiples of a dozens of garments as a result of their sales area unit in dozens. Bundles of garments area unit assembled among the area where cut components area unit matched up with similar components and bundle tickets. Bundles of cut components area unit transferred to the sewing section to concern operators which they area unit regular to complete the assembly. One operator is foretold to perform constant operation on all the things among the bundle, tie the bundle, methodology coupon, and set it aside until it's picked up and stirred to future operator. Throughout this methodology would possibly would like a high volume of labor in methodology reason for the number of units among the bundles and conjointly the large buffer of backup that is needed to verify unending work flow for all operators.

In this system bundles of clothes elements are moved in sequence from one textile machine operator to consequent. Every employee receives a bundle of unfinished clothes and performs one operation on every garment within the bundle. When finished of his/her work on a bundle, they're re-tied the bundle and passed on to consequent operator. Every PBS task is given a target time or "SAM" (Standard Allowed Minutes).

Time study engineers calculate the SAM for a whole garment for knowledgeable employee because the total of the quantity of minutes needed for every operation within the production method, as well as allowances for employee fatigue, rest periods, personal time and then on. The success of PBS depends on how ever the assembly system is ready up and employed in a plant.

5.1 Features of PBS

Sewing operations are ordered get into sequence.

- Every Operator receives a bundle, will his work, reties the bundle and passes it to the next operator.
- There is a storage facility like rack, bin or table for storing the inter-process
- Work between every operation. output needed.
This Method is that the most generally used system within the fashion industry
- The Work is routed by suggests that of tickets.
- The Employment of the system decrease as corporations seeks additional flexibility.
- Among Every section, works are balanced in keeping with the time needed for every sub-function.
- The Quantity of machinery for every operation is set by these days.
- This System is mostly used in shirt factories, jeans factories, jacket factories, etc.

5.2 Advantages of PBS

- This System allows high productivity.
- A high level of labor utilization may be achieved and helps in reducing time and price. Workers of all levels (unskilled, skilled, semi-skilled labors) are unit concerned during this system wherever the operations are unit broken into easy operation. Thus, the value of labor is incredibly low-cost. Individual performances may be monitored and incentives can be offered.
- Bundles can be easily tracked, therefore the problems can be easily identified and solved.

5.3 Disadvantages of PBS

- Inventory cost will be high due to higher work in progress in each.
- Time consuming due to assembling, moving, tying and untying of bundles.
- Proper designing is needed for every batch and for every style that takes more of your time.

6. Industrial Engineering(IE)

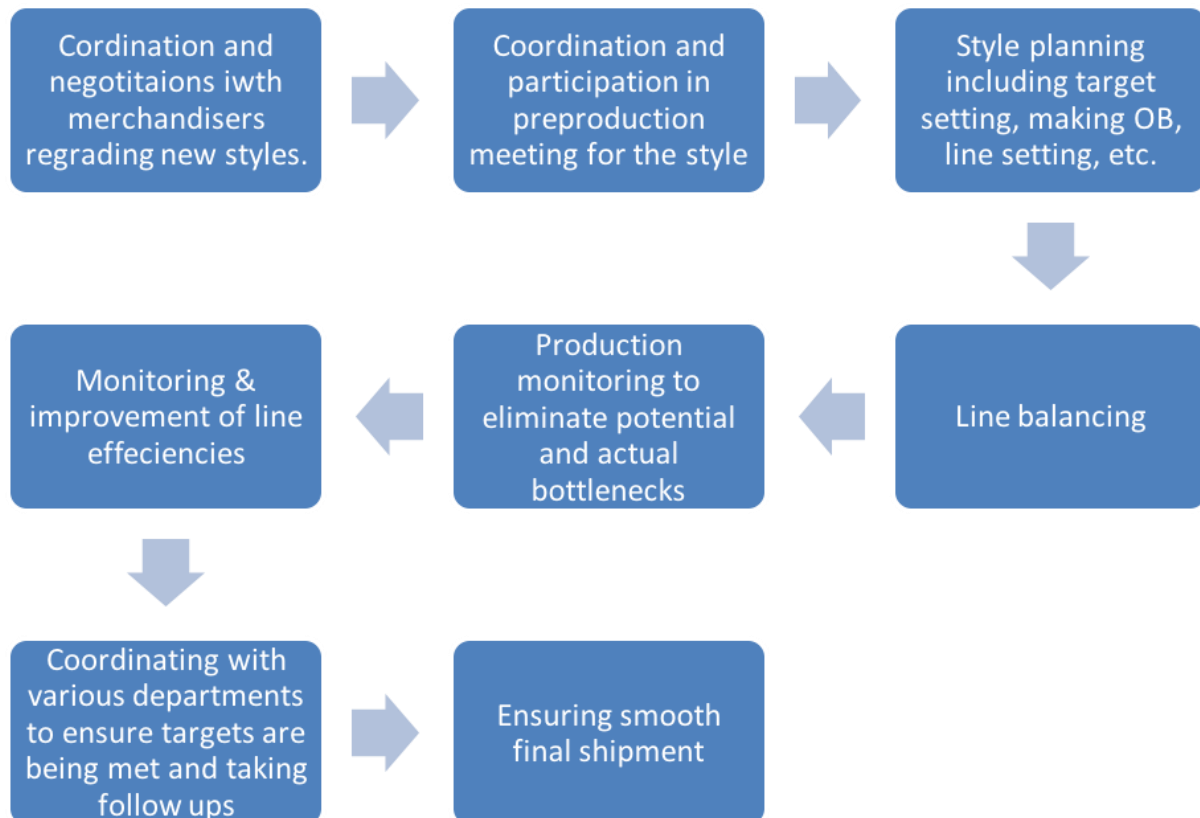
IE department is responsible for development of floor layouts, organizational, personnel, time standards, incentive plans and wage rates to ensure better production quality and resource optimization. IE is involved in forecasting, scheduling, line balancing, inventory management, material requirement planning, work study, plant layout, etc.

6.1 Importance of IE department

- Analyzing all the new styles for assessing the product breakdown and line settings. And, evaluating the finalized style to find most economical CMT, and reduce the effective SMV of the garment, by simplifying the construction methods without affecting the approved appearance and quality of the garment
- Making the operation breakdown, line layouts, and determining the thread consumption for the styles
- Identifying the department wise manpower requirement and allocation to meet the planned schedules and cost brackets
- Coordinating with various departments to improve and streamline the production process as it goes
- Coordinating with the HR for training for multi-skilling and development of new manufacturing labor
- Auditing factory processes to ensure the planned layouts and OBs are being implemented accurately and effectively and monitoring labor compensation and incentive systems to keep them motivated
- Monitoring the line efficiencies to ensure bottlenecks are being taken care of as they emerge
- Working on new projects and machine & attachments procurements to advance the production techniques being used, and development and updating the labor skill matrix
- Working on method improvements using Method study, time study, capacity study, bundle management, and WIP analysis techniques
- Preparation and monitoring of line wise incentive & performance reports.

6.2 Industrial Engineering Process Flow

Figure 4- process chart



6.3 Time Study Format

- Operation name
- Cycle time- 5 readings
- Average cycle time
- Standard minute value
- With allowance
- SAM
- HR target
- Day target 100%.

6.4 Standard minute value

SMV is outlined as the time that is allowed to perform employment satisfactorily. Usually, it's expressed in minute worth. The total elaboration of SMV is normal Minute worth. SMV term is generally utilized in the clothes producing business.

6.5 Standard allowed minute

Standard allowed minute (SAM) means that what quantity time is needed to create one complete garment as well as allowances. SAM is employed to measure the task or work content of a garment. This term is wide employed by industrial engineers and production people within the garment producing business. Standard allowed minute (SAM) means that what quantity time is needed to create one complete garment as well as allowances. SAM is employed to measure the task or work content of a garment. This term is wide employed by industrial engineers and production people within the garment producing business.

7. Pattern making

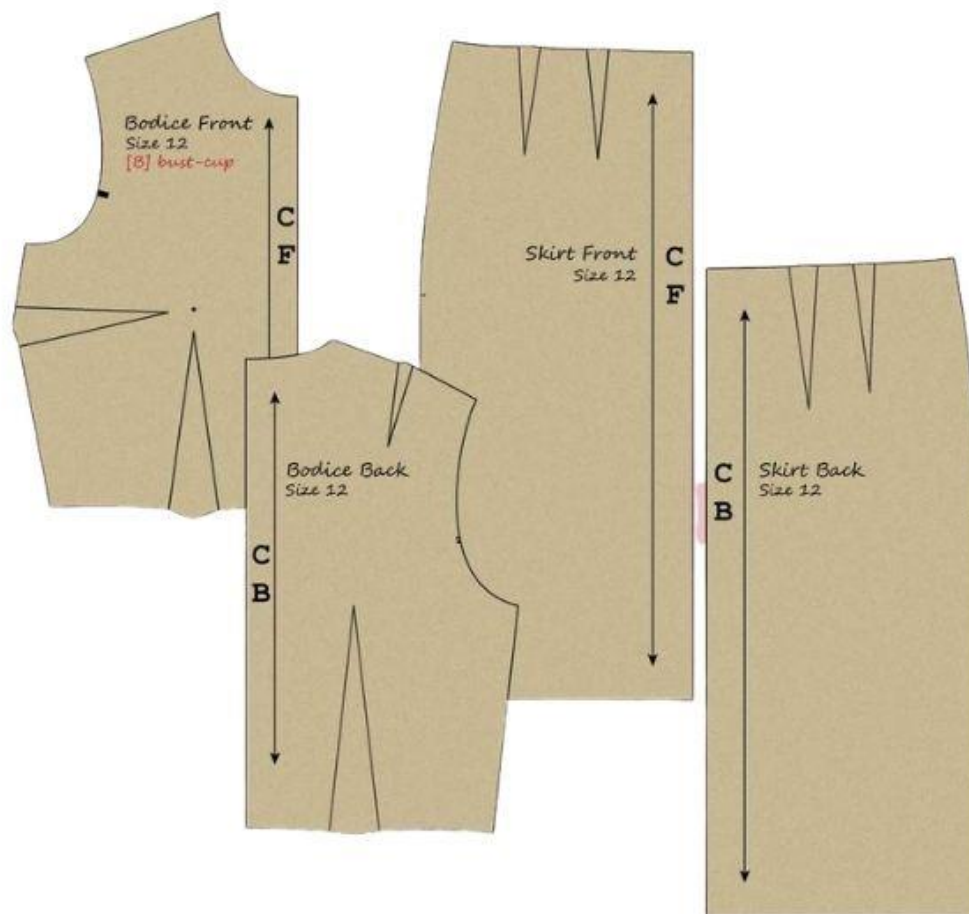
7.1 Basic pattern

The basic pattern is the very foundation upon which pattern making, fit and design are based. The basic pattern is the starting point for flat pattern designing. It is a simple pattern that fits the body with just enough ease for movement and comfort

7.2 Working pattern

This is any pattern used as a base for creating new designs by manipulations, usually by slashing and pivoting. Working patterns consist basic back and front bodice, skirt and sleeve, and other foundation patterns derived from them. The patternmaker should choose the pattern that closely relates to a specific design without having to develop a complete new pattern. This saves time, as part of the design detail has already been worked out. These working patterns should remain seamless, unless the patternmaker is experienced, as seamless patterns are easier to manipulate and develop.

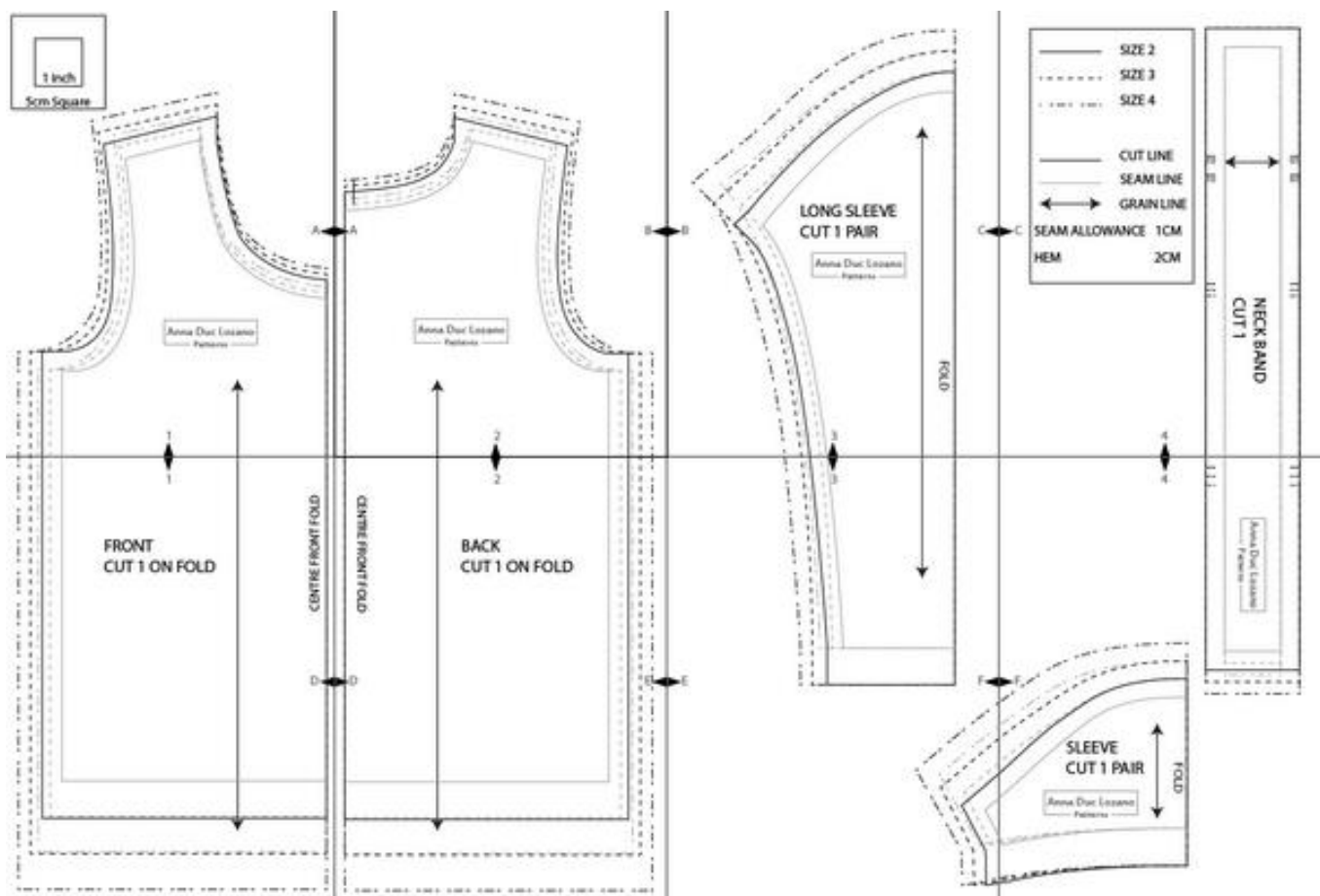
Figure 5- working pattern



7.3 Production Pattern

This is the pattern set that is finalized according to the final requirements of and garment. It is corrected, perfected and modified pattern. It contains every pattern piece to complete the garment. The production pattern is used by pattern grader for grading sizes of the pattern and for making the mark maker for layout.

Figure 6- Production Pattern



8. Cutting

In the view of modern garments business, it's seen that quality is the first requirement of all the buyers around the world. In garments manufacturing, cutting is an important process to make a quality product. Quality full fabric cutting reduces the wastage of fabric and makes the business profitable. To achieve quality full fabric cutting, a few methods have to maintain which are discussed in the following.

8.1 Methods of Fabric Cutting

In the garments industry, there are two available cutting methods are

- Manual Method
- Computerized Method.

8.1.1 Manual Fabric Cutting Method

Here cutting process is done by using a knife, scissors, drill, etc. The knife is placed in the head of the cutting machine. The manual method is the most used cutting method in the garments industry.

The manual cutting method can be done by using the following equipment

- Round knife
- Band Knife
- Straight Knife
- Scissor
- Die-cutting
- Drill.

Figure 7- Straight Knife machine



8.1.2 Computerized fabric cutting method

In the modern clothing manufacturing industry, the computerized cutting method becomes so much popular day by day due to its higher production and less time-consuming efficiency. Here all programs are loaded into the computer and the computer performs all the activities which are loaded.

The computerized Cutting method can be done by using the following equipment:

- Straight knife cutting
- Water jet cutting
- Laser beam cutting
- Plasma torch cutting.

Figure 8- Laser beam cutting



Figure 9- Cutting room process



9. Fusing

Fusing or otherwise known as interfacing gives support and stabilizes areas of a panel ready to be attached to a garment. Interfacing is also used for reinforcing and preventing fabric from stretching. Interfacing works by applying heat which melts the glue and in turn bonds the fusing to the fabric.

Fusing is a base fabric having a deposition of thermoplastic adhesive resin which can be bonded to another fabric by the application of heat and pressure. Regardless of which fusible and machine are used, fusing is controlled by four processing components – temperature, time, pressure and cooling and these have to be accurately combined in order to achieve the optimum results.

Figure 10- Fusing machine



Figure 11- Fusing process

F&F	Fusing-SOP	TESCO
<u>Process</u>		<u>WGLL</u>
Interlining must be sourced from Tesco Nominated interlining suppliers		
Fusing machine must be well maintained & in good condition		
Fusing machine will be set according to data sheet (Temperature/Pressure/Time) provided by nominated interlining supplier		
Fusing Machine must be 'check tested' at least twice a day for time by stop watch and glue line temperature with thermo strips (at least 2 thermo papers) & must be recorded		
Fusing bond strength tests must be carried out on regular intervals		
Durability wash test will be carried out on each batch and fused stock is held on a 'positive release system' until wash test results are confirmed		
Fabric shrinkage and colour change must be assessed for every fabric batch/dye lot		
Fusing Machine must be calibrated at least the minimum frequency recommended by the machine manufacturer. Calibration certificates and records must be available and up to date.		

Every little helps

10. Heat transfer process

Figure 12- Heat transfer process

F&F	Heat Transfer-SOP	TESCO
<u>Process</u>		<u>WGLL</u>
Heat Transfer machine must be well maintained & in good condition		
Heat transfer machine will be set according to data sheet (Temperature/Pressure/Time) provided by nominated heat seal supplier		
An Approved standard is available to show the position/ location of the transfer print/embellishment on each design by size		
Heat Transfer Machine must be 'check tested' at least twice a day for time by stop watch and glue line temperature with thermo strips (at least 2 thermo papers) & must be recorded		
Carbon paper testing for uniform pressing must be carried out twice a day for any new shape/style		
Wash Durability test must be carried out on each batch for wash garments		
Fabric shrinkage and colour change must be assessed for every fabric batch/dye lot		
Heat Transfer machine must be calibrated at least the minimum frequency recommended by the machine manufacturer. Calibration certificates and records must be available and up to date.		

11. Metal Detection Machine

These sectors use metal detectors to look for traces of metals in their products during quality checks. In the garment and apparel industry, metal detecting devices are utilized to detect needles that may have been accidentally lodged in finished garments. It is also necessary to ensure that garments and apparels meant to be sold or exported are devoid of all sort of metal contaminants. Exporting garments embedded with needles or other unwanted metal articles could result in legal actions towards the manufacturing company along with bad publicity and heavy financial losses. Thus, garment companies prefer to invest in metal detecting devices that thoroughly scan garments for needle or metal contamination.

Figure 13- Metal detection machine



Figure 14- Metal detection process



12. Popper, rivet and press stud attachment

Figure 15- Button attachment process



13. Button attachment

Figure 16- Button attachment process

F&F	Button Attachment-SOP	TESCO
<u>Process</u>		<u>WGLL</u>
Lockstitch button attach machines must be used with thread wipers. Hand sewing or chain stitch is not to be used		
A physical standard of the positioning must be available at all machines		
Pull test must be performed after button attach operation according to requirement (childrenwear- 90N, Adultwear-70N)		
For Shirts - 2 holes button sew machine with a 2mm shank & min 14 sts & 4 holes button sew machine with a 2mm shank & min 24 sts. A shank is not acceptable for kids & baby products		
A thread tension system must be in place to ensure correct tension achieved after bobbin change		
Button holes must have sufficient stitch cover to prevent fraying & Knives must be sharpened regularly to prevent snagging of fabrics		
Button made of natural wood, rubber, seashell, real pearl or other limited natural resource material cannot be used for Tesco products		
All button machines must be serviced on a regular basis with records to demonstrate		

Every little helps

14. Sewing

Garments are sewn in an assembly line, with the garment becoming more complete as it progresses down the sewing line. Sewing machine operators receive the materials in a bundle of cut fabric and repeatedly sew the same portion of the garment, passing that completed portion to the next operator. For example: the first operator may sew the collar to the body of the garment and the next operator may sew a sleeve to the body. Quality assurance is performed at the end of the sewing line to ensure that the garment has been properly assembled and that no manufacturing defect exists. When needed the garment will be reworked at designed sewing Sections. This labor-intensive process progressively transforms pieces of fabric into designer garments each operator work time will be calculated and it will be noted in a time format sheet.

14.1 Line layout

The stitching line layout will be outlined because the means stitching workstations are placed within the sewing floor to make a line (or batch) that works on single style. The aim of selecting one-line layout over alternative is to attain best production with existing resources.

14.2 Different types of line layout

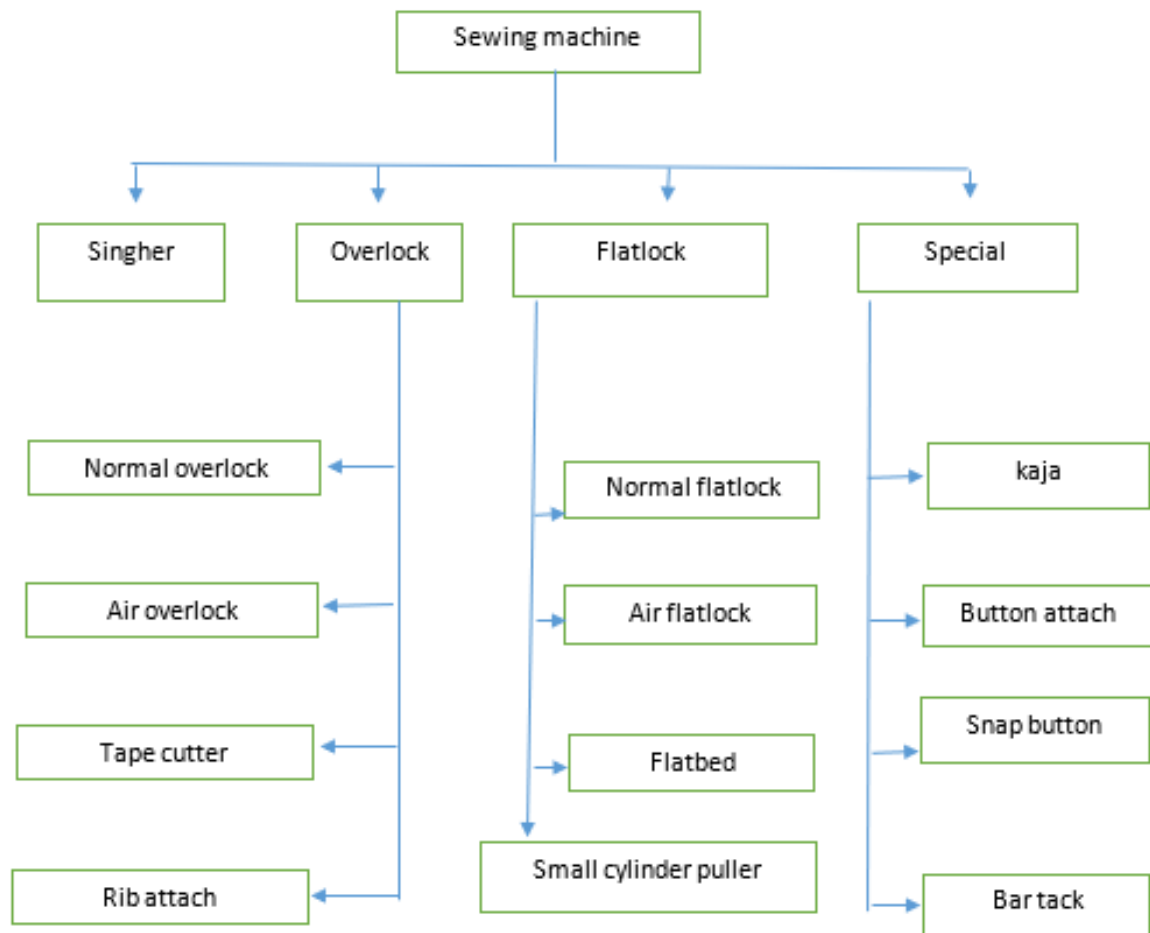
- Line with center table and operators facing same direction
- Line with same direction and operators facing opposite direction
- Straight line without center table and one row of machines
 - o Over-head material movement
 - o Trolley of material transportation
 - o Line having individual disposal basket
- Side by side machine layout
- U- Shaped line layout
- Modular line layout
- Machine layout in UPS system.

14.3 Types of sewing machines

- Lockstitch Sewing Machine
- Flat lock
- Over lock
- Embroidery Machine
- Buttonholing Machine
- Button Attachment Machine
- Bar-Tacking Sewing Machine
- Double-Needle Sewing Machine.

Figure 17- Sewing section flow chart

SEWING SECTION



14.4 Flat lock machine

Flat lock machines are used for hemming sleeve and bottom of the knits products. Forcover stitch can be used in any part of the garment for decorative purpose.

Figure18- Flat lock machine



14.5 Embroidery Machine

Embroidery is a decorative needlework. Embroidery can be done with both hand and machine. In machine embroidery either a sewing or embroidery machine is utilized to make patterns on clothing materials. It is generally used in product branding, decorative purposes and corporate advertising.

Figure 19- Embroidery Machine



14.6 Buttonholing Machine

A buttonholer is an attachment for a sewing machine which automates the side-to-side and forwards-and-backwards motions involved in sewing a buttonhole.

Figure 20 - Buttonholing Machine



14.7 Button Attachment Machine

A button attaching machine is used to sew the button onto the garment without hurting it. By making simple changes, this machine could sew different kinds of buttons, like ones with two holes, four holes, or a shank.

Figure 21- Button Attachment Machine



14.8 Bar Tacking Sewing Machine

Bar tacking sewing machine is used to secure pocket corners, belt loops, the open end of a button hole, zipper flies. Bar tacking machine is also used for small decorative tacks and shapes.

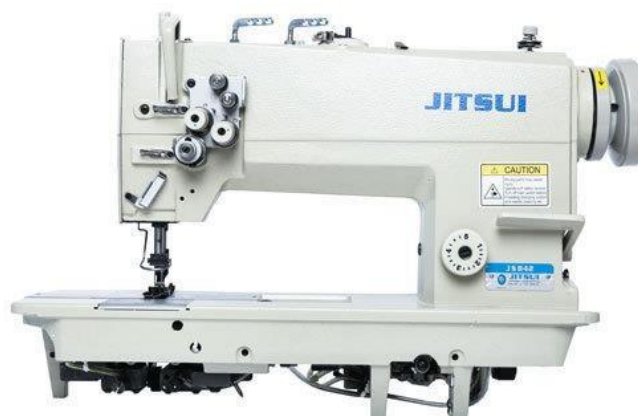
Figure 22- Bar Tacking Sewing Machine



14.9 Double-Needle Sewing Machine

Double needles can be used for creating pin tucks, parallel rows of topstitching, a simulation of a cover stitch hem (found on T-Shirt hems) and decorative stitches. It can also be used with free motion quilting. The distinct look of a zig- zag on the back is formed as the single bobbin thread links with both top threads.

Figure 23- Double-Needle Sewing Machine



14.10 Overlock machine

This machine is used for serging garment panels (example: trouser panels serging) and for over edge stitch. These types of machines are mostly used in knitted garment sewing for over edge stitch. Like side seam stitch of a t-shirt is done using an overlock machine.

Figure 24- Overlock machine



14.11 Machine maintenance

Figure 25- Machine maintenance

F&F	Machine Maintenance-SOP	TESCO
	<u>Process</u>	<u>WGL</u>
	Maintenance workshops and associated areas must have good standards of fabrication, hygiene and housekeeping	
	Measures must be taken to ensure that engineering areas do not pose a contamination risk to the rest of the site	
	There must be a planned preventative maintenance (PPM) programme that covers all equipment critical to safety, legality and quality, which is fully implemented	
	A system must be in place to record all maintenance work requested and PPM work completed	
	Repairs to or servicing of equipment must be completed by site engineers/mechanics, approved contractors or the equipment manufacturer	
	Risk assessments must be completed prior to work commencing to ensure product and packaging is not put at risk	
	Tools and parts must be controlled. A system must highlight and initiate an investigation if a tool or part is missing	
	The site must ensure that prior to starting any maintenance activities all product is removed from the area	
	After engineering work has been completed, a system must be in place to assess cleaning requirements & must be undertaken before production commences and must be recorded	
	Equipment must be checked and signed back to production by the engineer and production QA (depending on sites procedures) following work and any necessary cleaning	

15. Quality check department

Quality is of prime importance in any aspect of business. Customers demand and expect value for money. As production of apparel there must be a constant endeavor to produce work of good quality.

In the garment industry, garment quality control is practiced right from the initial stage of sourcing raw materials to the stage of a final finished

15.1 Quality control in cutting section

In cutting section quality is ensured in 3 stages.

Fabric received: the following process is done when the fabric is received to the manufacturing unit

- Shade notching
- Fabric relaxation
- GSM
- Again relaxation

Spreading quality control: following purpose area unit checked throughout spreading

- Table marking
- Ends positioning
- Ply height

Cutting quality control: when every cutting blocks and bundles area unit checks on the subsequent points

- Miss cut
- Pattern check
- Notches
- Matching plies

15.2 Quality control in sewing section

During the sewing “In method quality control” is finished by the line QCs through seven pieces’ inspection system. For essential operations 100% method inspection area unit carried out.

The following parameters also are checked in stitching method:

- Machine check
- Tension
- SPI Checks
- Needle check

- Cleanness
- End line checking
- Final checking.

15.3 Quality control in finishing section

- **Process inspection** - Garments area is checked method wise within the finishing section to spot the defects and pass only the past clothes.
- **Two hourly audit** - Every after two hours' audit is done on finishing lot to attain AQL the required AQL.
- **Days final audit** - At the end of the day accumulated ton if finished clothes area unit statistically audited to achieve needed AQL.
- **Lot final audit** - On completion of package of one complete lot of garments, QA manager conducts statistical audit based on required AQL garments. Garments are offered for final inspection by buyer/client for shipment only when these are through the audit.

15.5 Commercial advantages to effective quality control

- Staying ahead of the competition
- Less waste leads to more margin on the bottom line
- Happy customers and clients
- Savings from a reduction in waste can be invested back into your business
- Once the inspection system is set up and running man power can be used elsewhere.

15.6 The following examples can be classed as defected within garments and textile

- Different shades within the same garment
- Fabric defects
- Exposed notches
- Loose or hanging threads
- Pulled or loose yarn
- Holes
- Defective stitches
- Stains

Figure 26- Tagging



15.7 Quality control standards

The national regulatory quality certification and international quality programmers like ISO9000 Series lay down the board quality parameters based on which companies maintain the export quality in the garment and apparel industry.

Here are some of the main considerations for garment manufacturers and exporters:

- Over all look of the garment
- Right formation of the garment
- Feel and fall of the garment
- Physical properties color fastness of the garment
- Finishing properties
- Presentation of the final product garment.

Figure 27- chart



16. Finishing

Finishing is the last step of the garment production and all mistakes made during the process accrue and become a huge problem at this stage.

In the process department garments are stitched by the sewing machine. Stitched garments are finished in the finishing department. Finishing activities are performed prior packing garment into poly bags. The major activities of a finishing department included trimming, checking garment and ironing.

16.1 Activities of the finishing department

- Thread cutting
- Garment checking
- Removing stains

- Button attaching
- Ironing
- Folding and tagging
- Packing the garments
- Preparing of packing list
- Internal shipment audit
- Documentation and reporting

16.2 Thread Trimming

In the stitching department, thread trails and thread chains are not trimmed neatly. Uncut threads and thread tails in garments are trimmed in the finishing department by helpers. Uncut and loose threads on garments are considered defects.

Figure 28- Thread Trimming process



16.3 Garment checking

All garments are checked at the finishing stage for visuals and measurement. Finishing checkers check the complete garment inside and out. Checking is done for garment detailing, such as care labelling, and trims.

Figure 29- Garment checking



16.4 Removing stains

Stains and spots are found on garments. Spots are removed using a hand spot gun or by using a stain removing machine prior to pressing. Dust and stains can be removed by machine washing. So, many times finishing department wash garments inside department.

Figure 30- Removing stains



16.5 Button attaching

Products those have trimming like button, snap button, eyelets are attached in finishing section

Figure 31- Button attaching



16.6 Ironing

Garments are ironed using a steam iron. This is done to remove creases in the garment. For knitted garments measurements are set by steam press. Vacuum pressing tables are used for garment pressing.

Figure 32- Ironing



16.7 Folding and tagging

Pressed garments are folded in a specified dimension. Tags, such as price tags and hang tags are attached to the garment by means of a kimble gun or threads.

Figure 33- Folding and tagging



16.8 Packing the garments

Finally, properly folded garments are packed into poly bags as per customer requirements. Individual poly bags are then packed into bigger cartons.

Figure 34- Packing the garments



16.9 Preparing of packing list

The packing in-charge prepares a packing list for the shipment. After packing is completed for an order, the finishing department informs the concerned merchant.

Figure 35- packing list

ORDNUR APPARELS LTD

FINAL PACKING LIST

INVOICE NO	
BUYER	
P.O NO	
STYLE NO	
DESCRIPTION	

DATE :	1-Feb-19	
ORDER QTY :	5000	PCS
SHIP QTY :	5066	PCS
EXCESS / SHORT :	66	PCS

CASE NO	COLOR	SIZE									PCS PER CTN	TOTAL CTN	TOTAL QTY	GRAND TOTAL
		29	30	32	33	34	36	38	40	42				
	BLACK	40									40	2	80	
		23									23	1	23	103
			40								40	4	160	
			13								13	1	13	173
				40							40	8	320	
				27							27	1	27	347
					40						40	8	320	
					38						38	1	38	358
						40					40	21	840	
						21					21	1	21	861
							34				34	31	1054	
							38				38	1	38	1092
								34			34	26	884	
								15			15	1	15	899
									34		34	17	578	
									11		11	1	11	589
										34	34	18	612	
										32	32	1	32	644
												144	5066	5066

SUMMARY

SIZE	COLOR	29	30	32	33	34	36	38	40	42			TTL
ORDER QTY	BLACK	103	180	350	351	845	1077	878	578	638			5000
CUT QTY		105	184	357	358	862	1099	896	590	651	0		5100
READY QTY		103	173	347	358	861	1092	899	589	644	0		5066
EXCESS/SHORT		0	-7	-3	7	16	15	21	11	6	0		66
PERCENTAGE		0.00%	-3.89%	-0.86%	1.99%	1.89%	1.39%	2.39%	1.90%	0.94%			1.32%
GR.WEIGHT-LBS		26.68	27.12	28.44	29.37	29.32	26.68	27.34	28.00	28.66	0.00		
NT.WEIGHT-LBS		24.91	25.35	26.68	27.60	27.56	24.91	25.57	26.24	26.90	-1.76		
GR.WEIGHT-KGS		12.10	12.30	12.90	13.32	13.30	12.10	12.40	12.70	13.00			
NT.WEIGHT-KGS		11.30	11.80	12.10	12.52	12.50	11.30	11.60	11.90	12.20	-0.80		

CTN MEASUREMENT :

7.54 CBM

QUALITY AGM

FACTORY INCHARGE

17. Packaging

Packaging is an important part of the product, which has to receive a lot of attention to the people. There are different types of packing methods which is done according to the buyer's instruction.

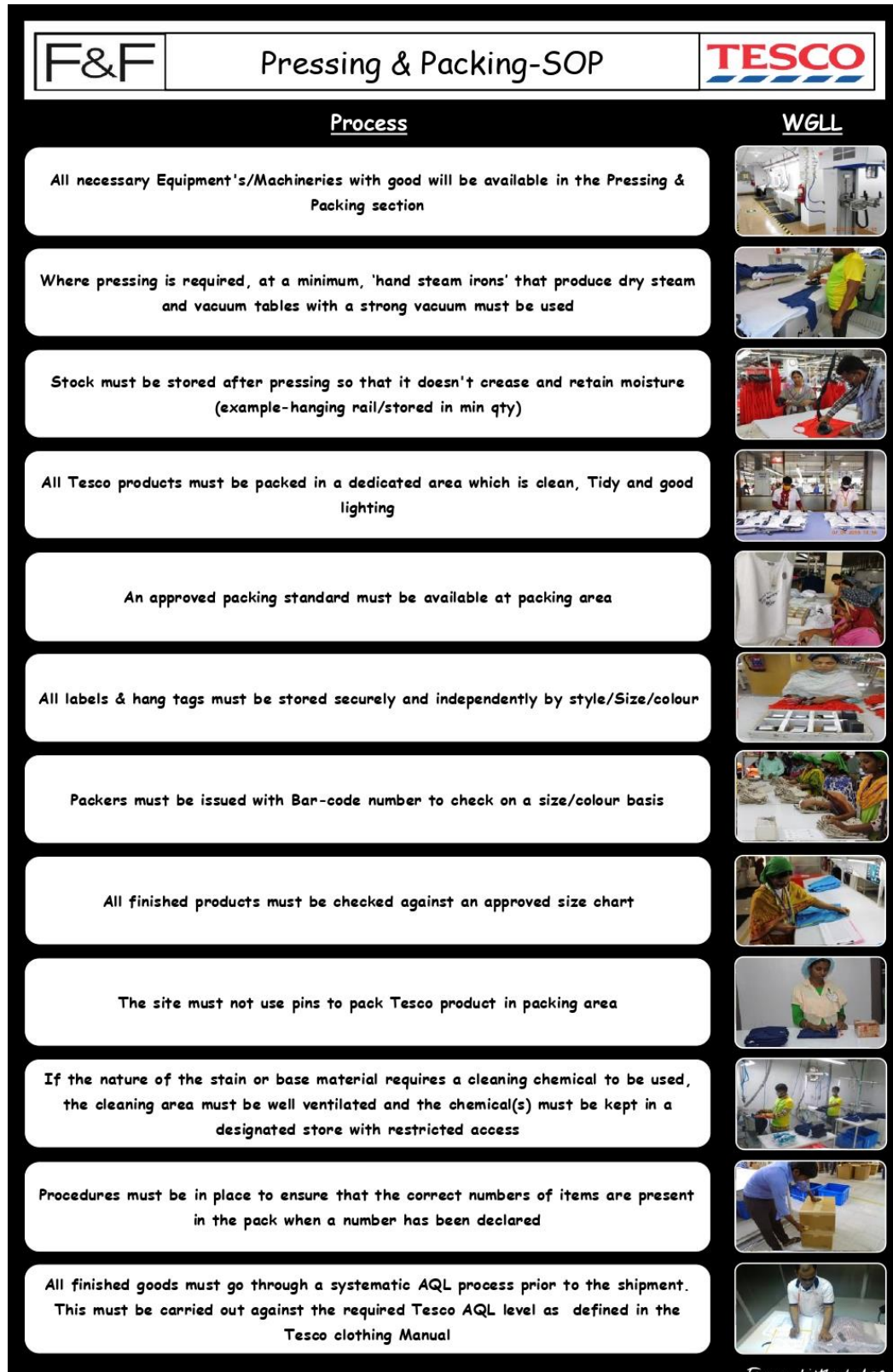
Packaging also refers to the process of design, evaluation and production of packages. Packaging can be described as a coordination system of preparing goods for transport, warehousing, logistics, sale and end.

Packaging means wrapping, compressing, filling or creating of goods for the purpose of protection of goods and their convenient handling. Packaging means a case, container, wrapper or other receptacle for packaging goods.

Figure 36 – Packaging process



Figure 37- pressing and packing process



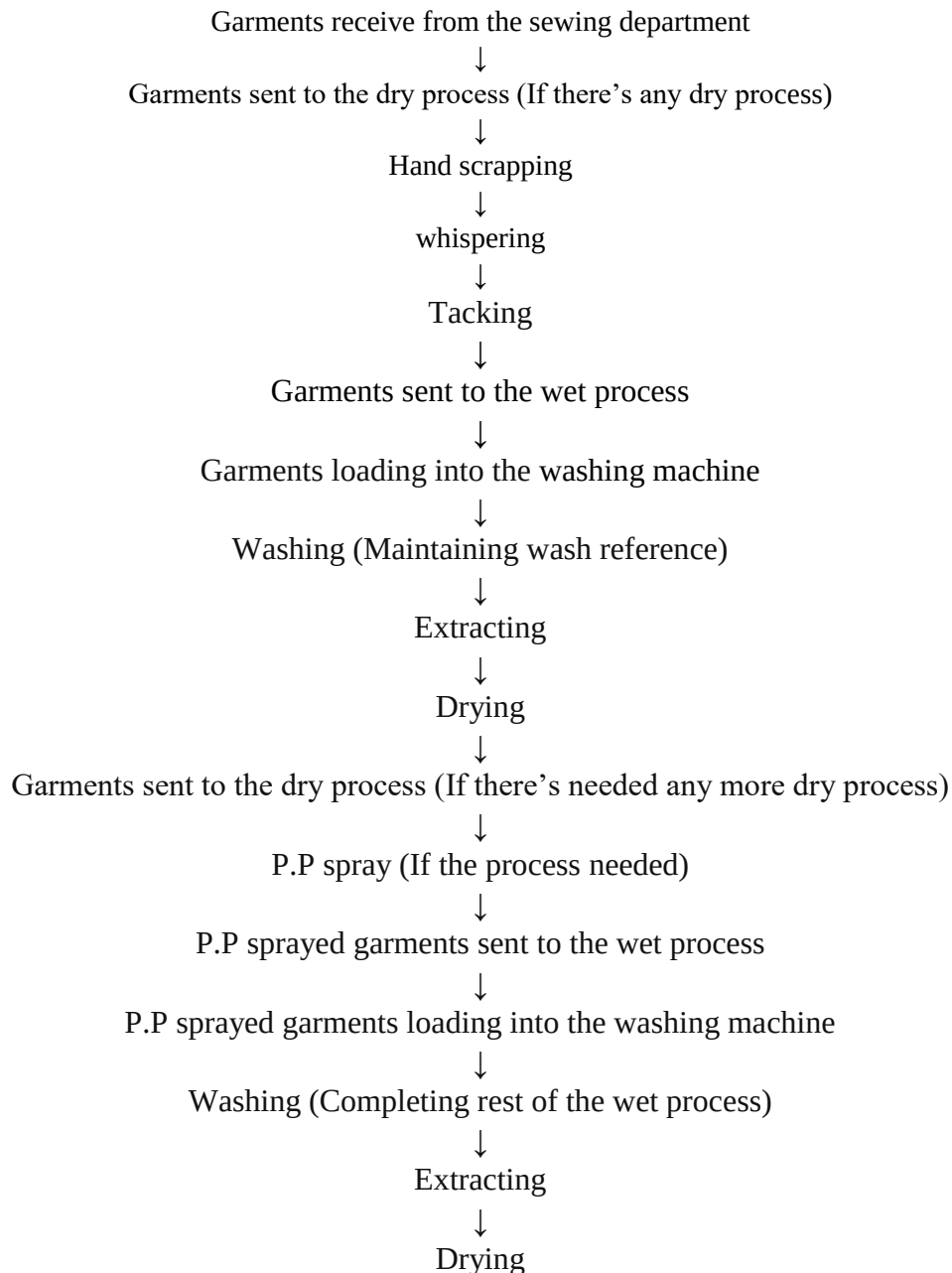
Every little helps

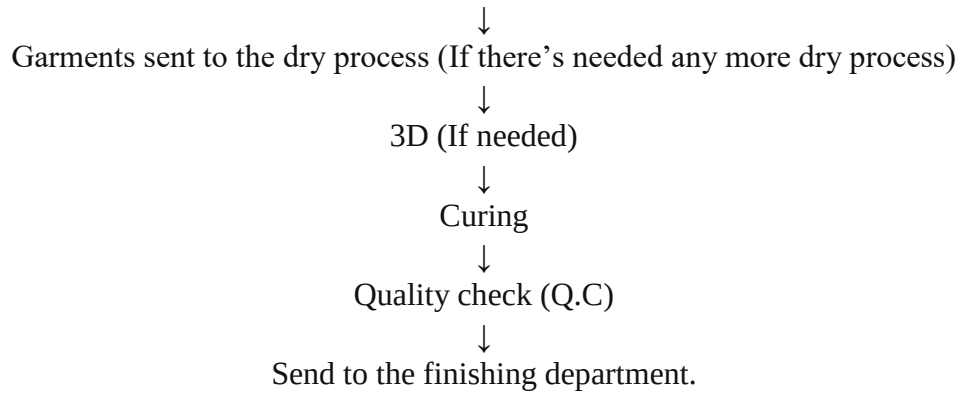
18. Washing Department

Washing is an important and sensitive operation of the Garments Industry. That is why many garment industries do not have their own washing process, they go for subcontracts for the washing process. All of the tasks are to be able to identify possible washing problems and take corrective measures in bulk. washing quality control ensures that the defects are being addressed, controlled, and prevented promptly.

18.1 Process Flow Chart of Garments Washing

Actual process flow chart for garments washing are mentioned in the following-





18.2 Different Types of Garments Washing

Primary garment washing is classified into two types; these are-

1. Dry process or Mechanical process,
2. Wet process or chemical process.

18.2.1 Dry process or Mechanical process

In this type of clothing wash, there are some processes which have done without using any chemical or without using any garment loading washing machine are called Dry process or Mechanical process. Sometimes the dry process can be done by using a mechanical method.

Various types of dry processes applied in garments washing are mentioned below

- Sandblasting process,
- Hand sanding or Hand brushing process,
- Machine sanding process,
- Overall wrinkles process,
- Permanent wrinkle process,

18.2.2 Wet process or Chemical process

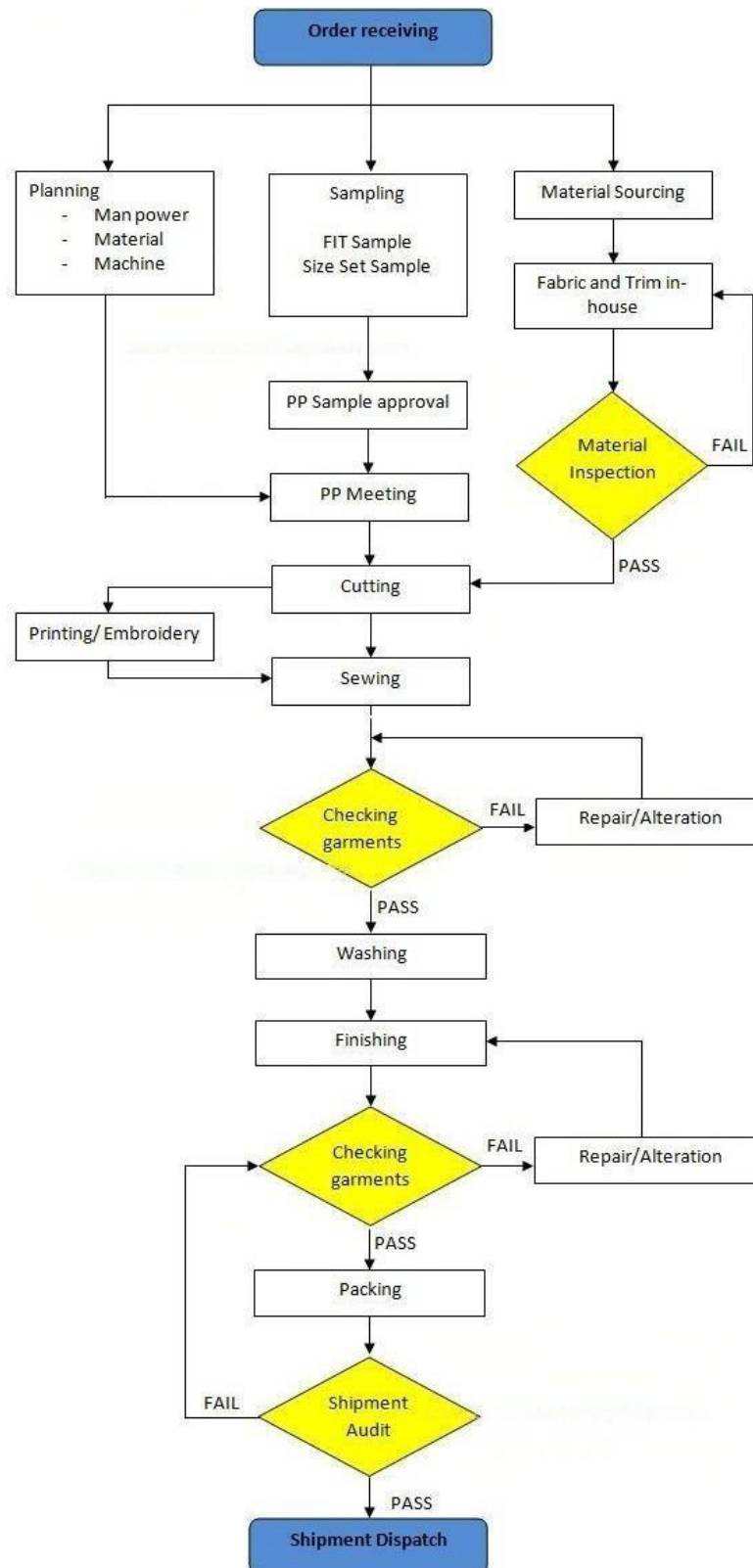
There are some processes in garment washing, which can be done by using chemical and garments loading washing machine is called Wet process or chemical process.

Different types of wet processes applied in garment washing are mentioned in the following

- Normal wash or rinse wash
- Silicon wash
- Pigment wash
- Caustic wash
- Bleach wash
- Enzyme wash
- Stone enzyme wash
- Acid wash
- Stonewash
- Tie wash
- Super whitewash
- Tinting
- Deep dyeing
- Over dyeing

19.Merchandiser flow process

Figure 38- flow chart



19.1 Role of merchandiser

In an apparel industry, merchandiser plays an important role. He/she acts as marketer to get the orders from the buyers. All the information about the orders will be processed by the merchandiser and disseminated to other departments in the form of Order Confirmation (OC) which is internal.

Like stores- for fabrics store along with the order details the fabric consumption per garment is given so as to issue the exact quantity of fabric to avoid wastage. To the accessories department the order details along with the sample of accessories and the number of units required per garments are mentioned so as to avoid the confusion as they will be handling different orders.

Apart from the above merchandiser has to do the following:

- Correspondence with the buyer (regular updates on the order status)
- Getting approvals from the buyers
- Co-ordination, negotiation and follow up with suppliers
- Co-ordination with all the departments involved.

20.EXPORT

The role of an export merchandiser is to execution of the export order right from order placement to shipment of the goods. The responsibility of an export merchandiser is to coordinate all other department activities together to complete the order with in a given time.

Main exporters of SCM GARMENTS are KIABI, HEMA and TESCO. In the apparel export industry, the top merchandiser duties are,

- Communication
- Planning
- Keep on track
- Decision making
- sourcing
- Negotiation
- Costing
- Coordination
- Regular meeting
- Maintaining the reports

21.CONCLUSION

Having helpful and supportive staff during the internship can make a significant difference in the learning process and overall experience. It's great to know that the equipment used in the workplace was in good condition, as this contributes to a smooth and efficient work environment.

It's interesting that to mention the merchandising team's role in the company's strategy. Effective merchandising indeed plays a crucial role in boosting a company's business and ensuring its growth.

Challenges are an inevitable part of any job, but it's encouraging to see that they are gradually diminishing as you gain more experience and expertise.

One of the most important outcomes of the internship is personal growth and development. It's evident reflection that not only gained technical skills but also enhanced your confidence, analytical abilities, and thought process. These attributes are vital for becoming an efficient leader in the industry.

Furthermore, it's commendable that you are now looking forward to stimulating creativity and innovation in future leaders through generic skill development. Sharing knowledge and experiences can have a positive impact on others and contribute to the growth of the industry as a whole.

As move forward, remember to keep learning and stay open to new opportunities and challenges. With enhanced skills and confidence, you are well-equipped to lead and make a difference in the industry.

Figure 39- Group photo taken from the entrance of the industry



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