



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF FASHION DESIGN

B.Sc. Fashion Design

INTERNSHIP REPORT

MAY 2022 – JUNE 2022



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SCHOOL OF BUILDING AND ENVIRONMENT
DEPARTMENT OF FASHION DESIGN
VIVA-VOCE EXAMINATION

This is to certify that this Professional Training is the work of Raveena. E who had undergone training in **SCM GARMENTS PVT LIMITED** has been monitored by the continuous assessment during May 2022 to June 2022.

Mrs. S. KRITHIKA
Head of the Department

Head of the Department
Fashion Design

Sathyabama Institute of Science and Technology
Chennai-600 119.

Submitted for Viva voce
examination held on

21-10-2022

Internal Examiner

(S. SAVITHRI)

External Examiner



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DECLARATION

I, RAVEENA. E hereby declare that this Professional Training report from 25 May 2022 to 25 June 2022 done by me, is submitted in partial fulfillment of the requirement for the completion of practical training session.

DATE: 25.07.2022

PLACE: Chennai

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 the progressive reviews.

I express my deep sense of gratitude to **Mrs. S. Krithika**, Head of the Department, Department of Fashion Design, School of Building and Environment, for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my **Mentor Mr. Senthil Kumar. S, (Senior Quality executor and Implant Trainer) SCM Garments pvt limited**, 57, V.O.C Nagar (South), Valayankadu, Tirupur, Tamil Nadu – 641 603 for his valuable guidance, suggestions and constant encouragement which paved way for the successful completion of my professional training session.

I convey my sincere thanks to my faculty coordinator **Mr. Ravi Sidhaarth K.S.** and my Mentor **Mrs. N. Gayathri** and all other faculty members of the Department of Fashion Design who were helpful in many ways for the completion of my training period.

Finally, I would like to thank my entire family for lending me their support throughout the internship period.

INTERNSHIP DETAILS

1. INDUSTRY/ORGANIZATION: SCM GARMENTS PVT LIMITED

Mentor Name: Mr. Senthil Kumar. S

Designation of the mentor: Senior Quality executor and Implant Trainer

Contact Number:

Address: SCM Garments pvt limited,
57, V.O.C Nagar (South),
Valayankadu, Tirupur,
Tamil Nadu-641 603

2. INSTITUTION: SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

Mentor Name: N. Gayathri

Designation of the mentor: Faculty

Student Name: Raveena.E

Department: Fashion Design

Address: Kamaraj Nagar, Semmancheri,
Chennai, Tamil Nadu 600119

**DEPARTMENT OF FASHION DESIGN
PROFESSIONAL TRAINING REPORT 2022**

(Continuous progress report of the trainee for the period of 15 days in the industry to be submitted to HOD by the Trainee in Charge the Organization)

1. Name of the Industry: SCM GARMENTS PVT LIMITED
2. Address & Contact Number: 57, V.O.C NAGAR (SOUTH) VALAYANKADU, Tirupur,
Tamil Nadu - 641 603

3. Name of the student: RAVEENA. E
4. Duration: 25 May 2022 - 25 June 2022
5. Total No. of days: 31 days

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 Poor	NA
Understanding of the departments		✓		
Participation in the Industry		✓		
Handling the given work	✓			
Punctuality	✓			
Coordination with other workers	✓			
Oral communication		✓		
Attitude	✓			
Overall performance	✓			

Any other Remarks

Good



Signature of the Head of the Office

CERTIFICATE



TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. RAVEENA.E (20S105501)** Studying **III-BSC-FASHION DESIGN** in **SATHYABAMA INSTITUTE OF SCIENCE & TECHNOLOGY, CHENNAI** had undergone internship in **PRODUCTION FIELD** training from 25.05.2022 to 25.06.2022 in our concern.

During that period her conduct was good.

Place: Tirupur

Date: 25.06.2022

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: U18101T2006PTC012698

E-Mail: scmcre@scmgrouops.com Website : www.scmgarments.com

Work diary

Days'	Work done
Day 1	Industrial visit
Day 2	over view production unit
Day 3	SOP Of Company, policies & Types of machines
Day 4	Printing Department
Day 5	Tech pack & checking department
Day 6	IE Department & checking department
Day 7	Quality control department
Day 8	SOP Department
Day 9	Acceptance quality level
Day 10	Measurement checking
Day 11	Tech pack & Order processing
Day 12, 13	Visit to Line
Day 14,15	Sampling
Day 16	Label Management & Machine Maintenance
Day 17, 18	Lab management & machine maintenance
Day 19, 20, 21	Acceptance quality level
Day 22	Garment safety measures & laws
Day 23	Plan layout
Day 24	Merchandising

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PROFILE **SCM GARMENTS**



COMPANY NAME: SCM GARMENTS PVT LIMITED
57, V.O.C NAGAR (SOUTH)
VALAYANKADU,
TIRUPUR, TAMIL NADU – 641 603

PHONE: 0421 431 9996

WEBSITE: <http://www.scmgarments.com/>

FOUNDER: SHRI.A. KULANDAIVEL MUDALIAR

PRODUCTS & SERVICES: CHILDERN'S WEAR, WOMEN'S WEAR, MEN'S WEAR.

HEADQUATERS: TIRUPUR, INDIA

FOUNDED: 1989

WORKAREA: 1 million sq ft

1. COMPANY PROFILE

SCM was established in 1989, SCM Garments Private Limited is the destination of the superlative that are knitted with bright quality and strong values. It is an export arm of The Chennai Silks (TCS), They exist to create experiences when passion and purpose come together.

SCM group of companies is the biggest and most efficacious company.

1.1 MISSION, VISION AND VALUE

MISSION

Dynamic production resources aligned with the sustained work employee satisfaction.

VISION

Referent happy facility creating service excellence.

VALUE

Empowering employees by installing values of pride along with ownership toward a more vibrant company culture with suitable production practices to meet the evolving need of customers.

1.2 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.

1.3 GROUP

SCM SPINNING MILLS

SCM KNITTING MILLS

SCM PROCESSING

SCM GARMENTS

1.4 SISTERS CONCERN

SCM Textile Spinners,

The Chennai Silks,

SCM Energy Divisions,

The KTM Jewellery Private Limited,

Atharva Garments India Private Limited,

1.5 PRODUCTS OFFERED

SCM Garments offers variety of products like

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

- Summer wears
- Sportswear

1.6 MAJOR 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 POLICY ADOPTED

- Policy on child labor
- Child labor remediation policy
- Health and safety policy
- Disciplinary policy
- HIV testing policy
- Working hour's policy
- Policy on Discrimination
- Overtime policy
- Leave policy
- Policy on employment of foreign workers
- Loan and advance policy
- Management policy
- Wage policy
- Termination policy and procedure
- ESI policy
- PF policy
- Bonus policy

- Needle control policy
- Quality policy
- Security policy
- No smoking policy

1.8 CODE OF CONDUCT

BSCI refers to international conventions such as the Universal Declaration of Human Rights, the Children's Rights and Business Principles, UN Guiding Principles for Business and Human Rights, OECD Guidelines, UN Global Compact and International Labor Organization (ILO) Conventions

BSCI-Principles:

- The right of freedom association & collective bargaining.
- Fair remuneration
- Occupational health & safety.
- Special protection for young workers.
- No bonded labors
- Ethical business behavior
- Decent working hours

BSCI- Approach:

- Code observance
- Supply chain management
- Worker's involvement & protection
- Grievance mechanism.

2. ORGANIZATIONAL CHART

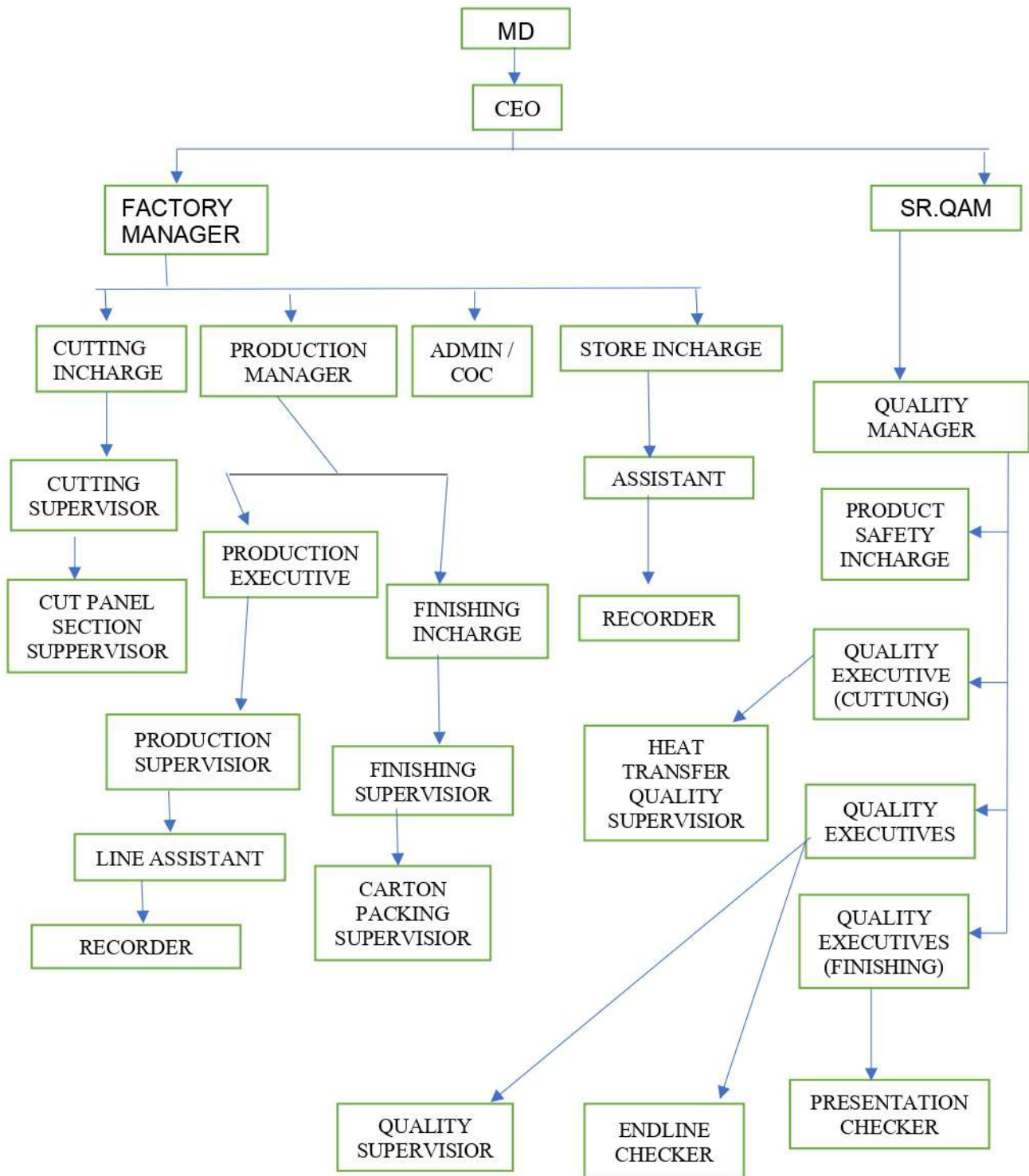


Chart 1: ORGANIZATIONAL CHART

3. REPORTING HIERARCHY

The Hierarchy of the job positions in the garment industry is different and varies from one to another and this is because the industry is made up of different departments performing their respective roles.

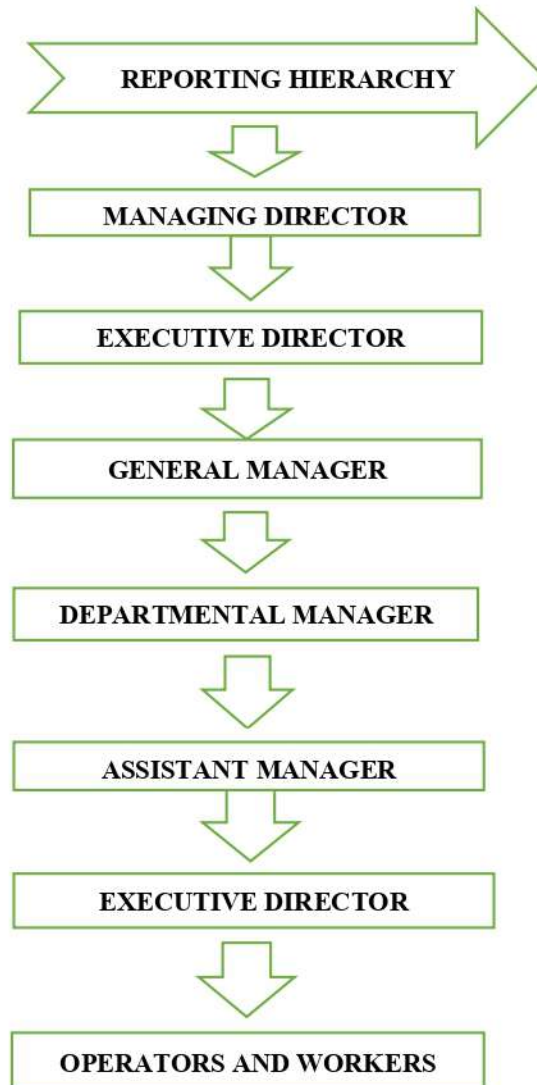


Chart 2: REPORTING HIERARCHY

4. 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 55 units around Tiruppur District. SCM Garments Unit -9 is located at Anaipudur, Avinashi. Department location in Unit 9:

Ground floor

1. Separate building for storage of raw materials, fabric separation area
2. Separate block for fabric inspection area final output storage area.
3. Separate block for pressing and ironing.

First floor - first floor consist 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.

5. TYPES OF LAYOUTS

The method in which machinery, instrumentation and material are organized during a working area determines the layout there in space. Within the apparel producing industry layout is commonly determined at the start of operations.

The layout is of four types they are

- Product or line layout
- Process or functional layout
- Fixed position layout
- Combination type of layout

5.1 PRODUCT OR LINE LAYOUT

All the process equipment and machines are organized in line with the sequence of operations of the product, the layout is named product kind of layout. During this kind of layout, only 1 product of 1 type of product is made in an operational space. This product should be standardized and made in large quantities so as to justify the layout. The material is provided at one finish of the line and goes from one operation to subsequent quite rapidly with a minimum add method, storage and material handling.

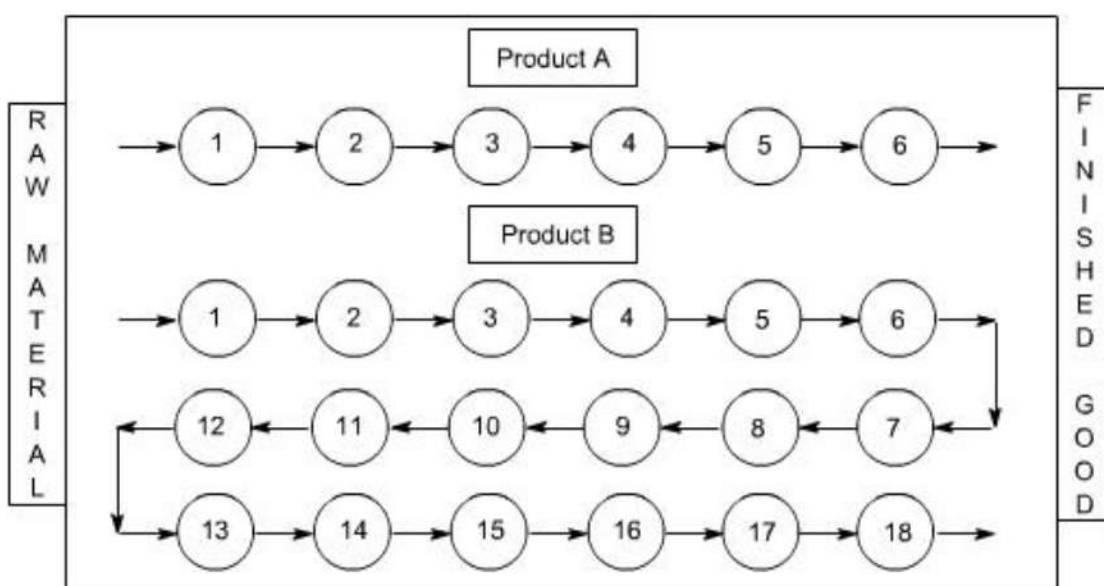


Chart 3: Line layout of garment industry.

5.1.1 Advantages of Product Layout:

- Lowers total material handling cost.
- There is less work in progress.
- Better utilization of men and machines.
- Less floor space is occupied by material in transit and for temporary storages.
- Greater simplicity of production control.
- Total production time is also minimized.

5.1.2 Limitations of Product Layout:

- No flexibility that is usually needed is obtained during this layout.
- The producing value will increase with a fall in volume of production.
- One machine break down might pack up the complete line.
- Specialized and strict supervision is essential.

5.2 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.

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
 - Over-head material movement
 - Trolley of material transportation
 - Line having individual disposal basket
- Side by side machine layout
- U- Shaped line layout
- Modular line layout
- Machine layout in UPS system.

Line with center table and operators facing same direction:

In the line a center table is placed in between 2 rows of stitching machines. All operators sit on workstation facing same direction. Operators decide bundles from center table and once stitching dispose bundles on the middle tables.

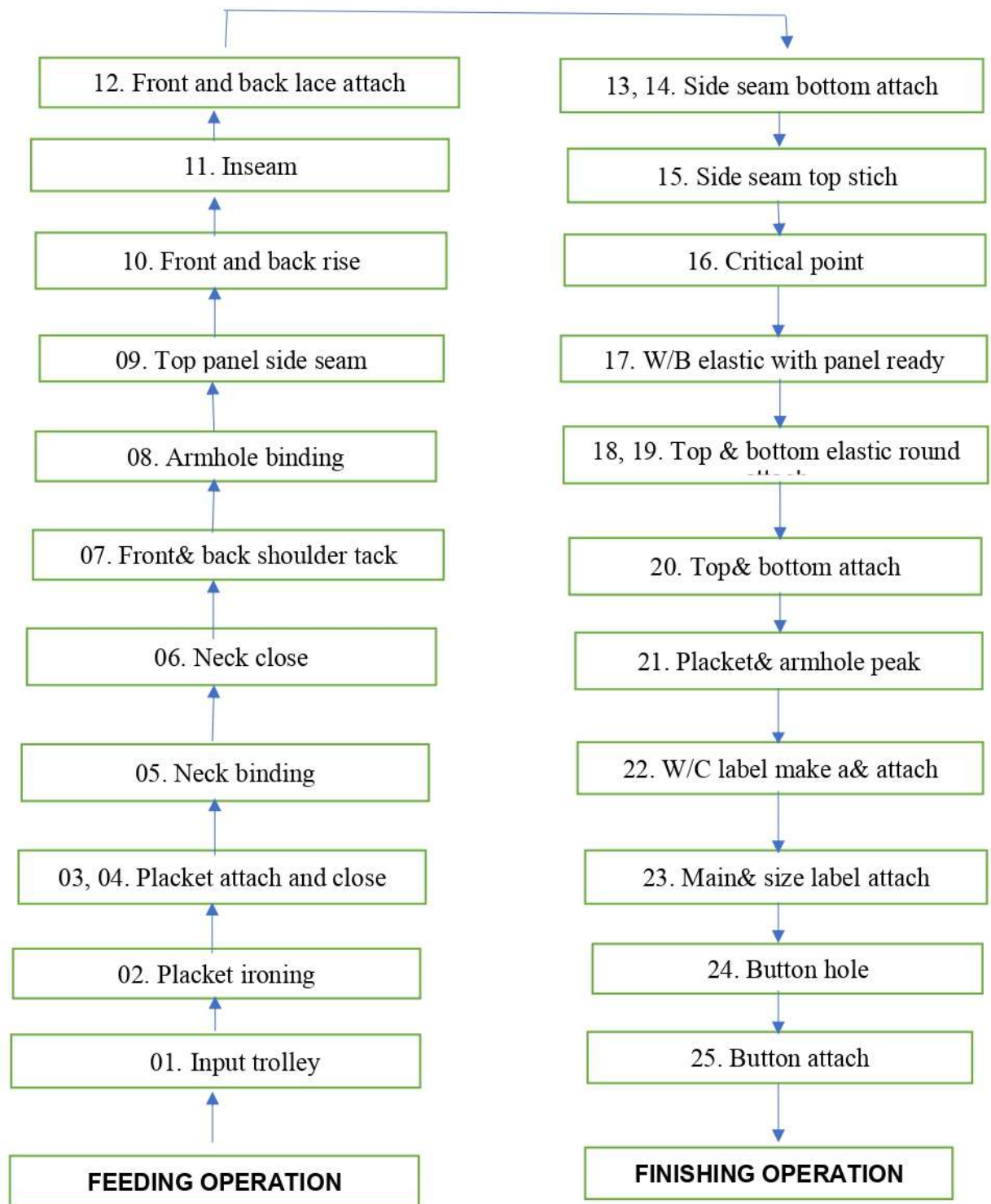


Chart 4: LINE LAYOUT SHEET

6. QUALITY CONTROL

6.1 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

- Miscut
- Pattern check
- Notches
- Matching plies

6.2 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%methodinspectionarea 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.

6.3 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.

6.3.1 Cutting:

- Manual laying
- Manual pattern creating
- Finished item arrangement
- Manual ticketing
- Excess manpower
- Excess time consumption
- Excess price.

6.3.2 Sewing:

- Inaccessibility of strong system
- Unessential overtime
- Unessential men
- Unessential waste (spare elements, fabric, thread etc).
- Rework
- Overproduction
- Inappropriate processing

6.3.3 Finishing:

- Manual merchandise handling
- Ancient machine utilization
- Excess WIP (work in progress)
- Vailability of finishing materials
- Ordinary quality of clothes
- Irregular machine repairing system
- Stacking goods while not proper arrangement.

7. PRODUCTION PROCESS:

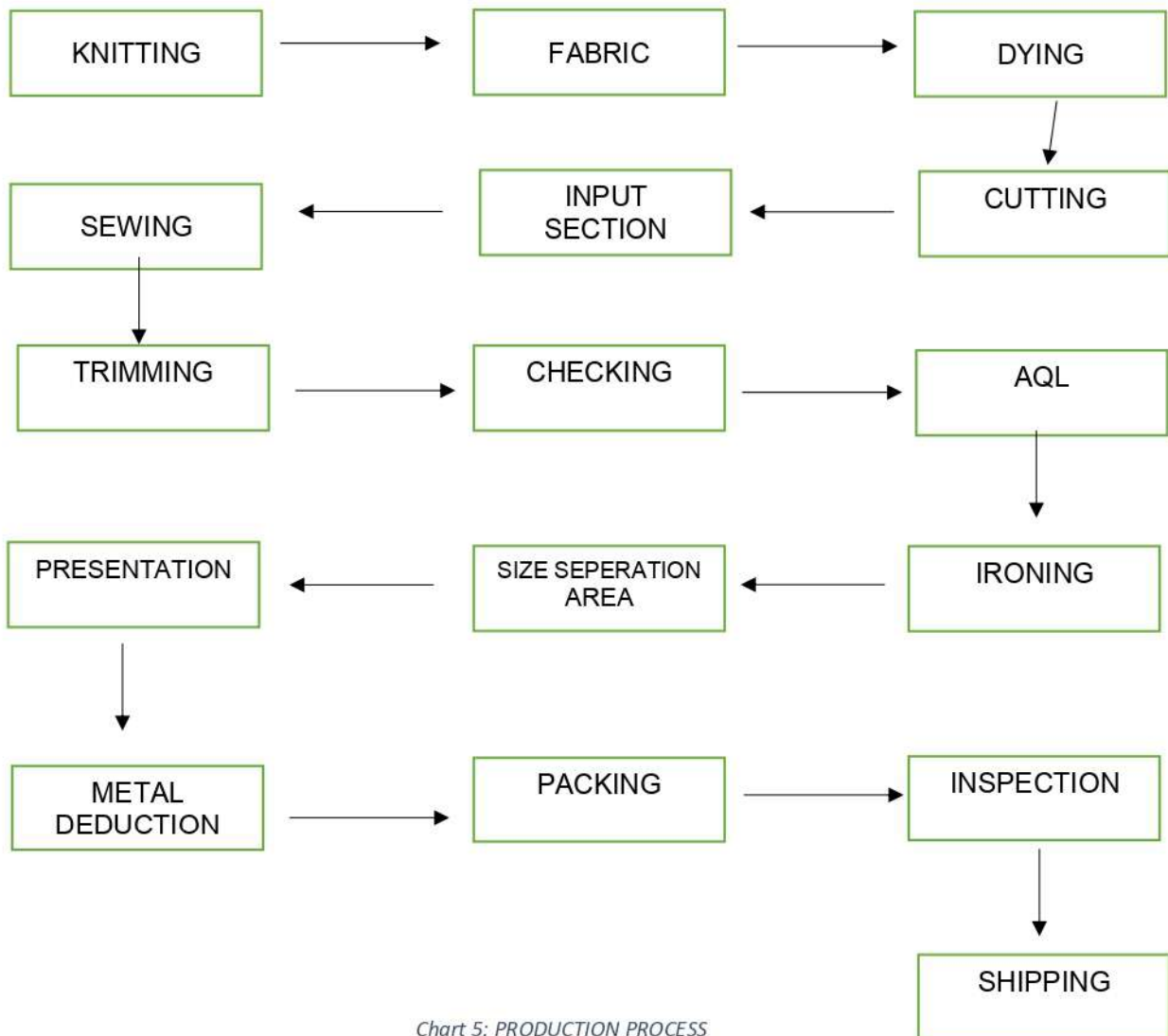


Chart 5: PRODUCTION PROCESS

7.1 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.

7.2 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.

7.3 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.

7.4 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 marked or 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, stickering will be done to identify the size, part of the material.

7.5 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.

7.6 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.

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 exist. 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.

$$\text{Efficiency} = \frac{\text{earn minute}}{\text{Available minute}} * 100$$

$$\text{Earn minute} = \text{line output} * \text{SAM (Standard Allowed Minute)}$$

$$\text{Available Minute} = \text{man power} * \text{working hours}$$

$$\text{Target} = \frac{\text{man power} * \text{working hours}}{\text{SAM}}$$

7.7 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.

7.8 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 mis-treatment chemicals and if there's serious sewing drawback they come back it to stitching department to rectify a similar.

7.9 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.



Figure 1: AQL

[illegible]

Figure 2: INSPECTION REPORT

7.10 SIZE SEPERATION 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.

7.11 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.

7.12 PRESENTATION:

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

7.13 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.

7.14 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.

7.15 DISPATCH:

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

8. GARMENT PRODUCTION SYSTEM

Garment production system is the best way of manufacturing process that converts fabric to garments. The type of garment production is determined by the Quantity of production and the

date of delivery.

Garment production system depends on some factors they are

- Company affordability
- Personnel training
- Materials handling system etc...

There are many types of production system they are

- Straight Line System
- Conventional Bundle System
- Progressive Bundle System
- Unit Production System
- Modular Manufacturing System

9. 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 dozen 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.

9.1 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 the these days.
- This System is mostly used in shirt factories, jeans factories, jacket factories, etc.

9.2 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) area unit concerned during this system wherever the operations area 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.

9.3 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.

10. SEWING MACHINE

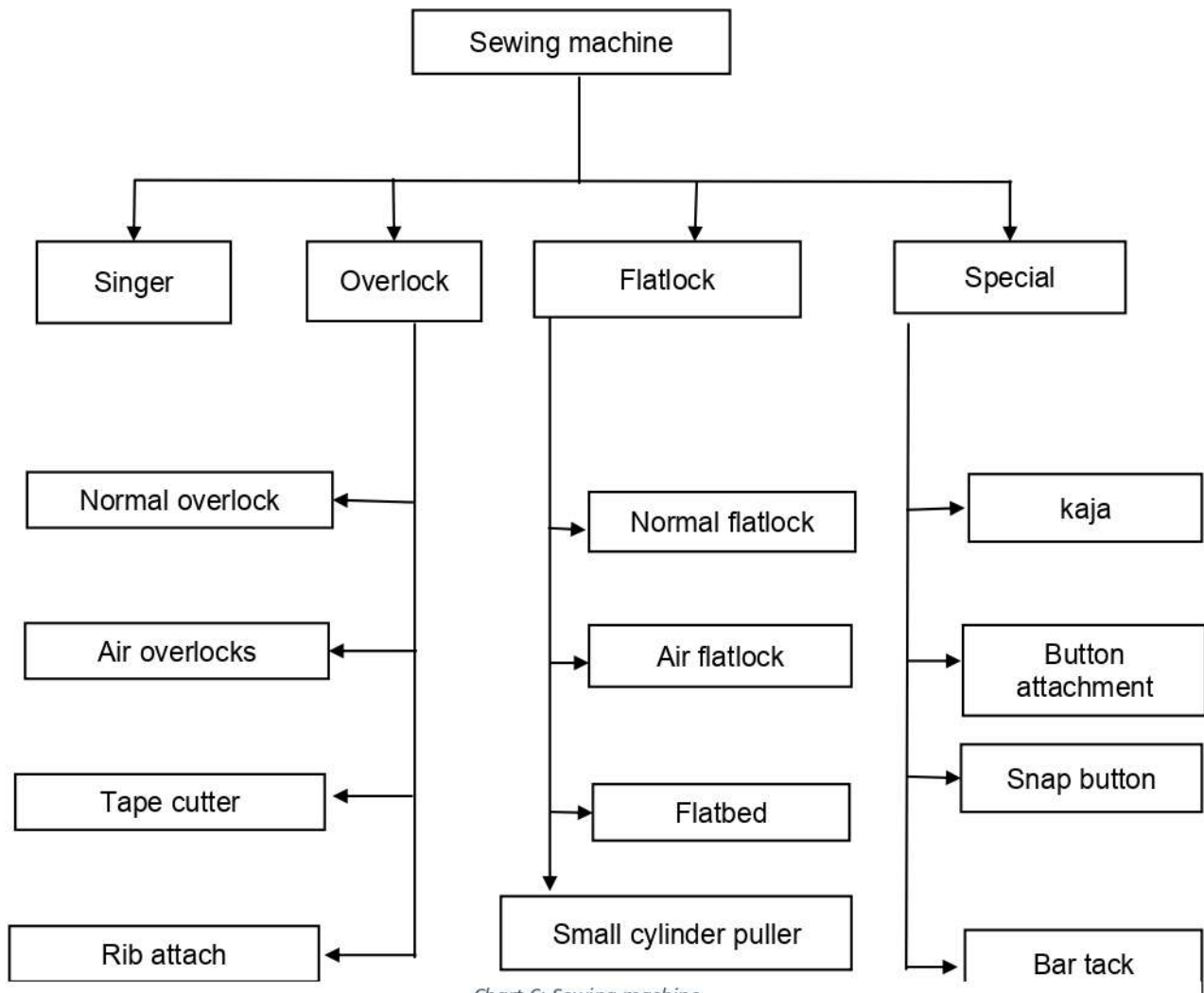


Chart 6: Sewing machine

SINGER MACHINE:

This machine makes lock stitches. Lock stitches are formed with one needle thread and one bobbin thread.

OVERLOCK MACHINE:

This machine is used for surging garment panels (example: trouser panels surging) 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.

FLAT LOCK MACHINE:

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

SPECIAL MACHINE:

Special machine is used for placing button, zigzag stitch and button hole.

10.1 TYPES OD MACHINES

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



Figure 3: EMBROIDERY MACHINE



Figure 4: LOCKSTITCH SEWING MACHINE



Figure 5: FLAT LOCK



Figure 6: OVER LOCK MACHINE



Figure 7: BUTTON HOLING MACHINE



Figure 8: PULL TEST MACHINE



Figure 9: BUTTON ATTACHMENT MACHINE



Figure 10: BAR-TACKING SEWING MACHINE



Figure 11: DOUBLE-NEEDLE SEWING MACHINE

11. FUSING

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



Figure 12: FUSING

12. TIME STUDY FORMAT

This format is used to calculate the work time of the employees and calculation of SAM and target of HR.

This includes:

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

12.1 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.

12.2 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 widely employed by industrial engineers and production people within the garment

producing business.

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12.3 SAM CALCULATION

Calculation of SAM:

Per operation cycle time (using stopwatch) = 5 times

$$\text{Average cycle time} = \frac{5 \text{ times}}{5}$$

$$\text{SMV (Standard Minute Value)} = \frac{\text{average cycle time}}{60}$$

Allowance = (company has allotted a certain % for the workers) that is 15%.

$$\text{SAM} = \text{SMV} * \text{ALLOWANCE}$$

$$\text{HR Target} = \frac{60}{\text{SAM}}$$

$$\text{Day target} = \text{HR target} * 100.$$

E.g.:

For efficiency

Line output = 1000

SAM = 5.2

Man power = 15

Working hours = 600

$$\text{Therefore efficiency} = \frac{5200 * 100}{9000}$$

$$\text{Efficiency} = 57\%$$

For SAM

Cycle time = 10, 12, 13, 14, 15

$$\text{Avg cycle time} = \frac{10+12+13+14+15}{5}$$

Avg.cycle time = 12.8

$$\text{SMV} = \frac{12.8}{60}$$

$$\text{SMV} = 0.21$$

$$\text{Allowance} = 15\% = 1.15$$

$$\text{SAM} = \text{SMV} * \text{ALLOWANCE}$$

$$= 0.21 * 1.15$$

$$\text{SAM} = 0.241$$

For target

$$\text{HR Target} = \frac{60}{0.241}$$

$$\text{Target} = 248 \text{ hours}$$

$$\text{Day target} = 100 * \text{target}$$

$$\text{Day target } 100 \% = 24,800.$$

13. 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 endeavour 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 garment.

14. THE COST OF QUALITY

- More waste means less profit
- Poor quality will damage your chances of winning new business
- Consistent defects can ruin relationship with your customer or stop a brand launch in its tracks.

15. 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

16. 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

17. QUALITY CONTROLL STANDARDS

The national regulatory quality certification and international quality programmers like ISO 9000 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



Chart 7: QUALITY CONTROLL STANDARDS

18. 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 etc.

18.1 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



Figure 13: THREAD CUTTING



Figure 14: GARMENT CHECKING



Figure 15: REMOVING STAINS



Figure 16: BUTTON ATTACHING



Figure 17: IRONING



Figure 18: FOLDING AND TAGGING



Figure 19: PACKING

19. 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, ware housing, logistics, sale and end.

Packaging is a process of designing and manufacturing an attractive container, wrapper, box, etc., where the products are wrapped, stored and sold to the customers or made ready for transportation. Good packaging not only protects the product from damage but also engages the customers with its attractive wrapper resulting sales. Packaging is an essential tool in marketing for boosting sales.

20. MERCHANDISING

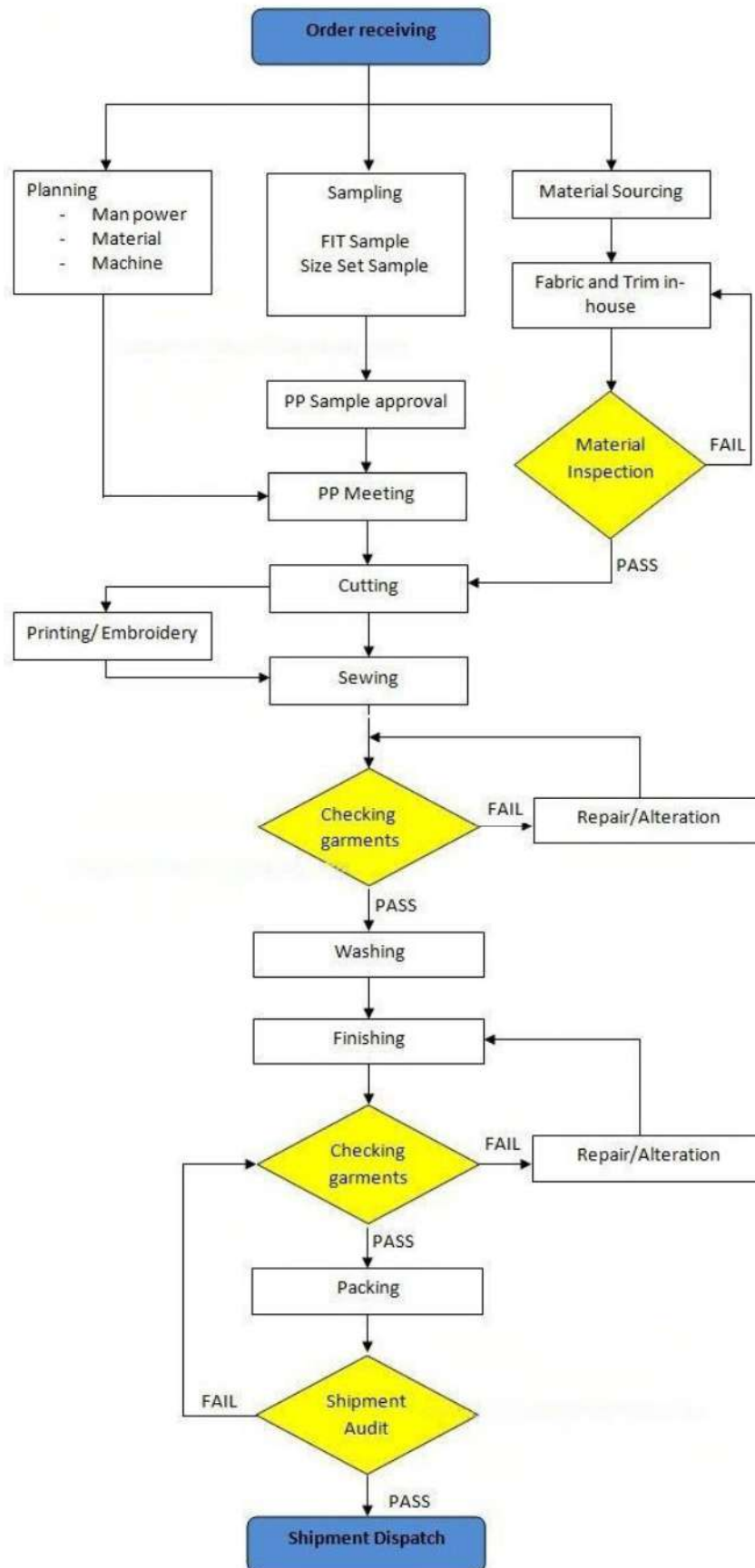


Chart 8: MERCHANDISING

20.1 ROLE OF MERCHANDISE

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.

21. 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 within a given time.

Main exporters of SCM GARMENTS are KIABI and TESCO.

In the apparel export industry, the top merchandiser duties are,

1. Communication
2. Planning
3. Keep on track
4. Decision making
5. sourcing
6. Negotiation
7. Costing
8. Coordination
9. Regular meeting
10. Maintaining the reports.

REFERENCE

1. <https://www.tofler.in/scm-garments-private-limited/company/U18101TZ2006PTC012698>
2. <http://www.scmgarments.com/>
3. https://www.alko.fi/INTERSHOP/static/WFS/Alko-OnlineShop-Site/-/Alko-OnlineShop/fi_FI/Tavarantoimittajille/Muut/lomakkeet/amfori%20BSCI%20offer%20form%20annex.pdf
4. <https://WWW.justdial.com>
5. <https://WWW.testresources.net>
6. <https://ordnur.com>
7. <https://rsmachinery.com.bd>
8. WWW.sunrisetechnicalservices.net
9. WWW.jackfang.com
10. WWW.focusew.com
11. WWW.sewnproducts.com
12. WWW.sewnproducts.com
13. WWW.iign.in
14. WWW.unitechgarmentmachinery.net
15. WWW.onlineclothingstudy.com
16. WWW.edutechwiki.unige.ch
17. WWW.colyer.co.uk
18. WWW.suntech-machine.com