



**Daffodil**  
*International*  
**University**

Faculty of Engineering  
Department of Textile Engineering

REPORT ON  
Industrial Attachment  
At  
**ENVOY FASHIONS Ltd**

Ashulia | Dhaka

Course Title: Industrial Attachment  
Course Code: TE-431

Submitted By  
Md. Zillur Rahman      ID: 131-23-3338

Supervised By  
**Sharmin Akter**  
Lecturer  
**Dept. of Textile Engineering**

This Report Presented in Partial Fulfillment of the Requirements for the Degree of  
Bachelor of Science in Textile Engineering.

**Advance in Apparel Manufacturing Technology**

**Duration: From 10<sup>th</sup> January, 2018 to 15<sup>th</sup> March, 2018**

## Declaration

I am the student of Daffodil International University; hereby declare that, the Industrial Attachment Report on “**Envoy Fashions Ltd**” is an original and authentic work done by us for the fulfillment of the Degree of “B.Sc. in Textile Engineering” as a part of academic curriculum.

It has been not submitted to any university or institutions for any degree or for other similar purposes.

Submitted By

.....

Md.Zillur Rahman

ID: 131-23-3338

Department Of Textile Engineering

## **Approval Sheet**

This Industrial attachment of “**Envoy Fashion Ltd**” at Daffodil International University, 2018” prepared and submitted by Md. Zillur Rahman, Id: 131-23-3338 in partial fulfillment of the requirement for the degree of BACHELOR OF SCIENCE IN TEXTILE ENGINEERING has been examined and here by recommended for approval and acceptance.

### **Supervised by:**

Sharmin akter

Lecturer

Department of Textile Engineering, Faculty of Engineering  
Daffodil International University.

## **Acknowledgement**

At first i want to give thanks to Allah who gave us our life. We are here for this reason. For blessing Allah i complete my Industrial report.

I am greatly indebted to many people who helped me lot for preparing this industrial attachment for completing my Bsc in Textile Engineering. Their guideline, advice and suggestions helped me a lot. At first, I would like to thank Dr.Md.Mahbubul Haque, Head of the department of Textile Engineering. I also thank to Prof. Dr. Mahbub-UL Haque Majumdar, Founder & Dean of FSIT Daffodil International University whose directions have taken me to my destination.

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Finally, the authority of the Envoy Fashions Ltd., who gave me the opportunity to complete my industrial attachment with great success, is remembered with honor over here. Thanks goes to all Engineers, officers, technicians, employees, stuffs, all section in-charges for their cordial behavior and help & especially Factory AGM, Md Mounjur Mourshed,AGM of Admin HR & Compliance , Envoy Fashions Ltd.

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# CHAPTER 1

## 1.EXECUTIVE SUMMARY:

The ready-made garment (RMG) industry of Bangladesh started in the late 1970s and became a remarkable sector in the economy within a short period of time. The industry has contributed to export earnings, foreign exchange earnings, employment creation, poverty alleviation and the empowerment of women. The export-quota system and the availability of cheap labor are the two main reasons behind the success of the textile industry in Bangladesh. In the 1980s, the RMG industry of Bangladesh was concentrated mainly in manufacturing and exporting woven products. From the study on Prospects of Woven Garment industry in Bangladesh we quote that export of RMG increased day by day. **Envoy Fashion Ltd** is one of them. **Envoy Fashion Ltd** is Garments Manufacturer & Exporter, having all state of the art facilities with annual turnover 150 million US dollar. They have different types of Cutting, Sewing, and Finishing machines supplied by mostly Japan, Taiwan, U.K, USA, Singapore, China etc. which are very latest. It has high production rate finished garments are produced per day.

Textile education can't be completed without industrial training. Because this industrial training minimizes the gap between theoretical and practical knowledge and make us familiar to industrial environment. For continuing the study of internship in the **Envoy Fashion Ltd** i almost worked all the sections of this garments industry and tried to find out the activities, planning and many other things as well.

## **CHAPTER 2 :INFORMATION ABOUT THE FACTORY**

### **2.1. INTRODUCTION:**

In Bangladesh Ready Made garments(RMG) is increased day by day.However, the Ready Made Garments (RMG) sector has emerged as the biggest earner of foreign currency. In 1972, the World Bank approximated the GDP of Bangladesh at USD 6.29 billion, in 2014, the GDP stood at USD 173.82 billion, growing by almost 27 times in a matter of four decades.Bangladeshi exports industry alone comprised USD 31.2 billion in FY 2014-15, 81.69% of which was made up by ready-made garments. In 1978, there were only 9 export- oriented garment manufacturing units, which generated export earnings of hardly one million dollar. Some of these units were very small and produced garments for both domestic and export markets. Foreign buyers found Bangladesh an increasingly attractive sourcing place. To take advantage of this cheap source, foreign buyers extended, in many cases, suppliers credit under special arrangements. In some cases, local banks provided part of the equity capital. The problem of working capital was greatly solved with the introduction of back-to-back letter of credit, which was also facilitated import of quality fabric, the basic raw material of the industry. Till the end of 1982, there were only 47 garment manufacturing units. The breakthrough occurred in 1984-85, when the number of garment factories increased to 587. The number of RMG factories shot up to 5440 in 2012-13. The industry has grown at the rate of 59% comparing from 1998-1999 to 2012-13. Bangladesh's global market share in RMG rose to 6.4 percents in 2016, an increase of 0.50 per cent over the previous year according to the World Trade Statistical Review 2017 by the World Trade Organization. It is a positive sign that Bangladesh's global market share increased, but the big question is how much our entrepreneur's reaped profit from RMG export in future.

### **2.2HISTORY OF THE FACTORY:**

Envoy fashion ltd started its journey in the year of 2004 which combined with Manta Apparels Ltd and Envoy Design Ltd. It's a associated company of Giant business group ENVOY in Bangladesh. Working with the private entrepreneurs ENVOY group has earned unrivaled success in different sectors in Bangladesh and Garment industry is one of them. The Government of Bangladesh has honored Envoy group by awarding the prestigious **“PRESIDENT’S EXPORT TROPHY”** and the **“NATIONAL EXPORT TROPHY”**

## 2.3 FOUNDER & DIRECTORS:

**Group Chairman: Engr Mr. Kutubuddin Ahmed**

**Managing Director: Abdus Salam Mursedy**

**Executive Director: Sultan Md. Noorani, PPM**

E-mail : [ed-ec@envoy-group.com](mailto:ed-ec@envoy-group.com)

**Chief Operating Officer: Mr. Kanishka Perera**

E-mail : [coo-ec@envoy-group.com](mailto:coo-ec@envoy-group.com)

## 2.4 GENERAL INFORMATION ABOUT THE FACTORY:

Envoy Fashion Ltd is a sister concern of ENVOY Group. Envoy Group established in 1984 and Envoy Fashion Ltd. Established in 2004. Its located in Ashulia, Savar, Dhaka. This factory is 100% export oriented. The main products of this factory are Men's, Ladies, Boys & Girls Knitted Items, Woven

Tops & Bottom etc. Denim Shirts & Jackets, Bottom Long & Shorts, Men's Shirts, Fancy Dress (Infant & Boys), Polo Shirts, T-Shirts etc. This factory work with reputed buyer all over the world. Its also 100% compliance factory. Since its inception, **Envoy Fashion Ltd.** has never stopped growing – in quality, quantity, and everything in between.

Over the last couple of years, conceding to its growth requirement, using most contemporary machines and equipment of German, Swiss, USA, Japan, Italy, China and UK origin, it has nearly doubled its capacity. Highly skilled and dedicated human resource, most contemporary western machinery as well as IT and automation have optimized both of its costing and operational efficiency.



★ **Transport direction:**

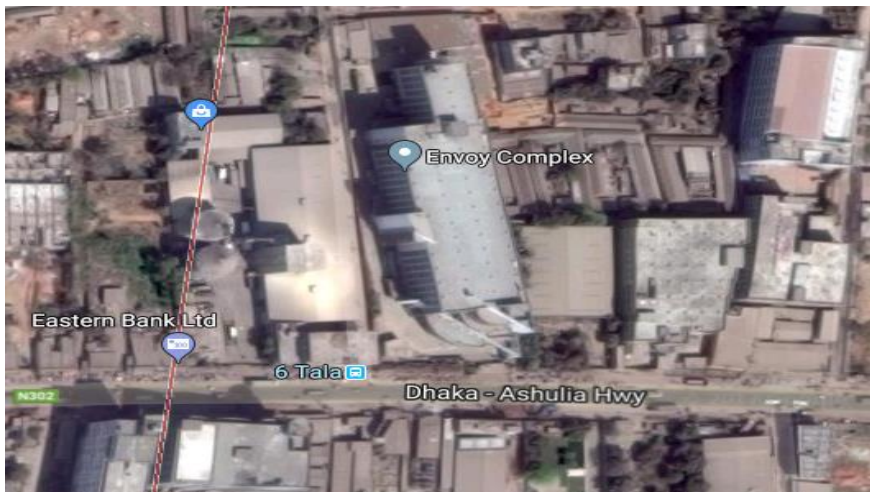


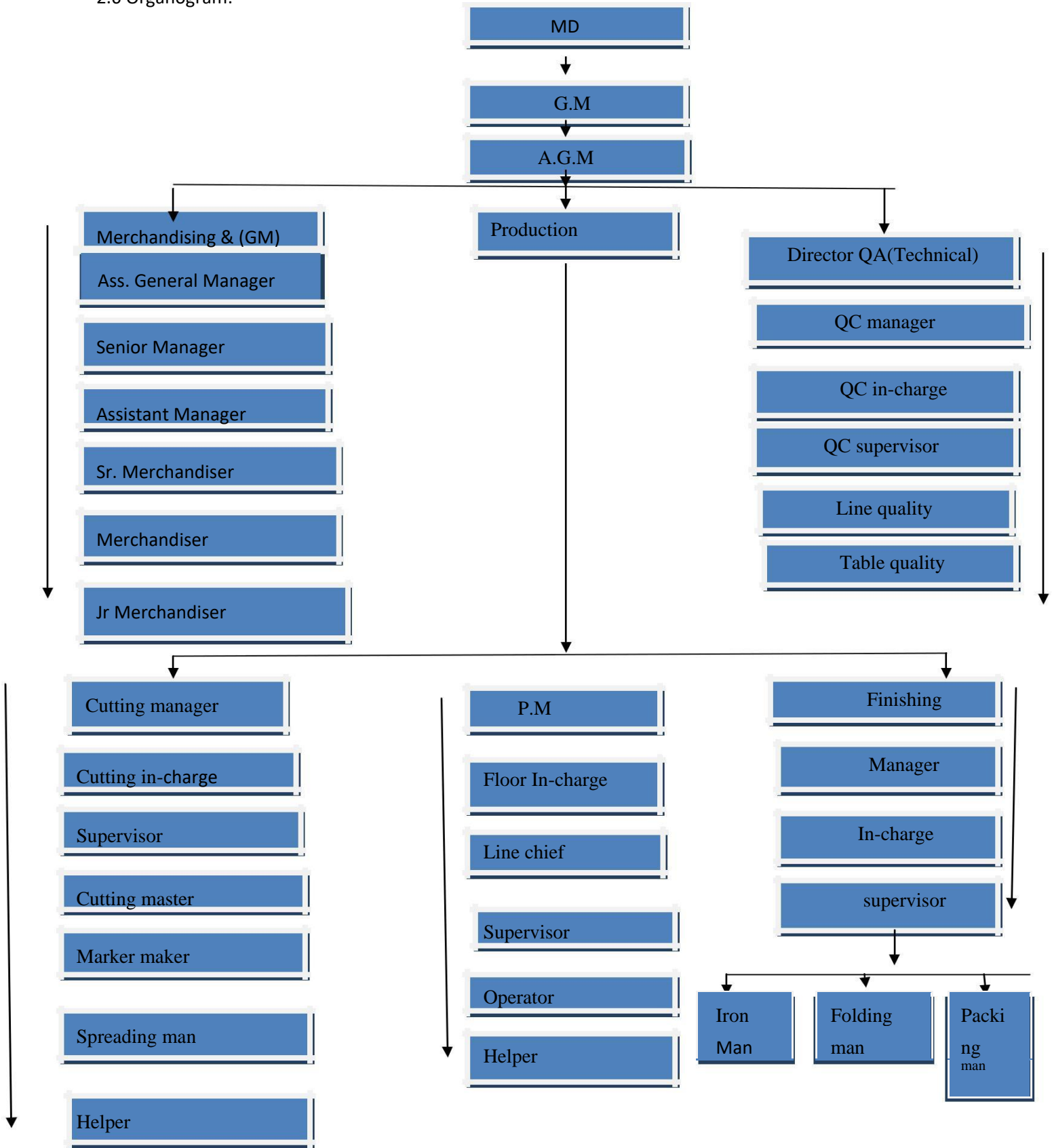
Fig2.2:Google map location of (Envoy Fashion Ltd.)

★ **Factory Front view:**



Fig 2.3: Front view

2.6 Organogram:





## 2.7 Sister Concerns:

1. Envoy Design Ltd.
2. Manta Apparels Ltd
3. Envoy Garments Ltd.
4. Armour Garments Ltd.
5. Fontina Fashions Ltd.
6. Nadia Garments Ltd.
7. Astras Garments Ltd.
8. Regal Garments Ltd.
9. Pastel Apparels Ltd.
10. Epoch Garments Ltd.
11. Supreme Apparels Ltd.
12. Dornick Apparels Ltd.
13. Olio Apparels Ltd.
14. Envoy Textile Ltd.
15. Laundry Industries Ltd. (Washing Plant)
16. NSS (Computer Division)
17. Lunar International (Trading Division)
18. West Air International (Freight Forwarder)

## 2.8 PRODUCT MIX

Men's, Ladies, Boys & Girls Knitted Items, Woven Tops & Bottom etc.  
Denim Shirts & Jackets, Bottom Long & Shorts, Men's Shirts, Fancy Dress (Infant & Boys),  
Polo Shirts, T-Shirts etc.

## 2.9 BRIEF PROFILE

Factory Establishment Year : 2004

Sewing line: 34

Production Capacity:

Woven : 27,230 Pcs (Per day) -7,07,980 Pcs / 58,990 Doz (Monthly)  
Knit : 7,900 Pcs (Per day) -2,05,400 Pcs / 17,116 Doz (Monthly)

Total Capacity : Per Day = 35,130 Pcs or Per Month = 9,13,380 Pcs (Woven & Knit)

Website: [www.envoy-group.com](http://www.envoy-group.com)

Annual Turnover : Confidential

### **BUSINESS REGISTRATION PAPERS :**

1. Trade License
2. Factory License
3. Fire License
4. EPB License
5. Bond License
6. Import License
7. Export License
8. Board of Investment License
9. BGMEA Certificate
10. Boiler Certificate
11. TIN Certificate
12. Certificate of In-corporation

### **2.10 Main Buyer:** Major export Markets:USA=60%

Europe=30%

Others =10%

Major Customer : **For USA Market :**

American Eagle, VF-Asia, Wal-Mart, Jordache, Haggar Clothing Co.  
Bon-Ton Stores Inc. Cintas, Charming Shoppes Inc, Wrangler Inc.,  
Aramark, Sanmar, Sears, Fruit of the Loom (Russell Corporation), PVH  
etc.

### For Europe Market :

Next UK, C & A, Carrefour, Zara, Asmara, Gartex etc.

### For Others Market :

Yakka, King Gee, Li & Fung etc.

### Percentage of Buyers Work

01) American Eagle	=	30%
02) VF-Asia	=	25%
03) Jordache	=	15%
04) Carrefour	=	10%
05) Hagggar	=	10%
06) Others	=	10%



## **2.11 MISSION AND VISION:**

### **Vision:**

To achieve a global dominance through.

To become vertically integrated manufacturer for fabric and garments.

Excellence in Product quality.

Diversify products through continuous product innovation. Customer orientation and cost effectiveness

**Mission** :Recipe of a winning combination.



# CHAPTER 3 DESCRIPTION OF THE ATTACHMENT

## CHAPTER 3.1 Store & Inventory



Fig 3.1.1: Store section

## 3.1 STORE & INVENTORY:

### 3.1.1 Layout

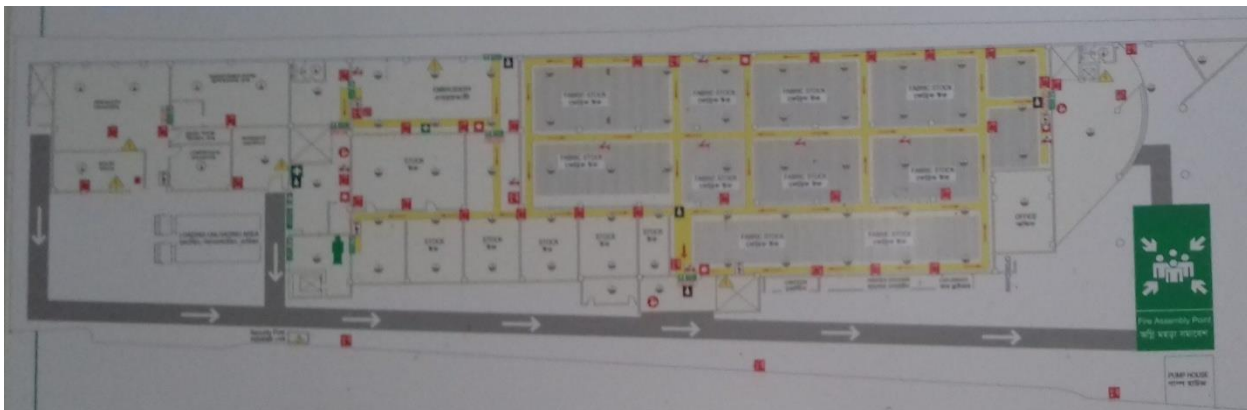
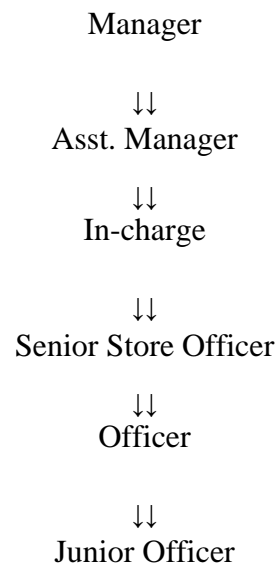
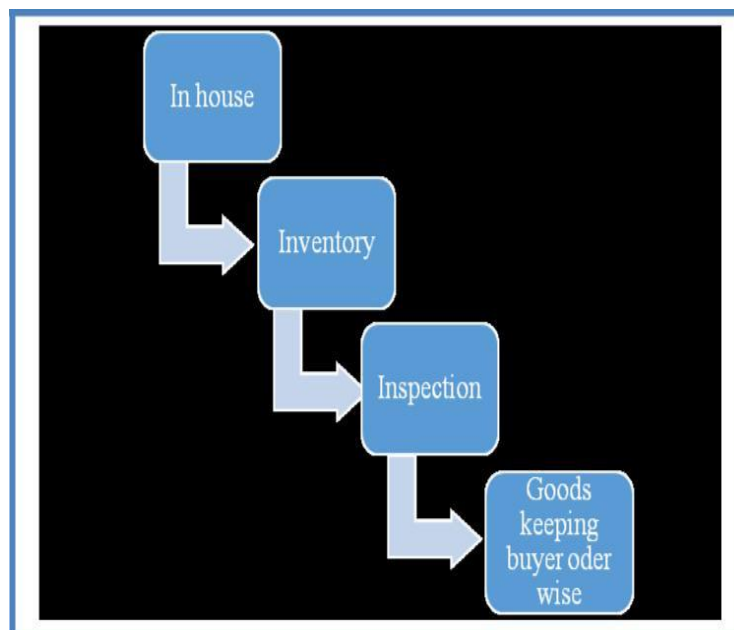


Fig:3.1.2 Layout Store & Inventory

### 3.1.2 Organogram:



### 3.1.3 Store flow chart:



### **3.1.4 Function of store section or inventory:**

- To smooth production follow up
- To meet relate demand
- To protect against stock outs
- To take advantage of quality discounts

### **3.1.5 Scope of inventory control**

- Raw materials inventory.
- Finished good inventory
- Maintenance, repair and operational inventories.

### **3.1.6 Inventory store system for accessories:**

In Envoy Fashion Ltd. there are accessories store in the factory. All types of accessories are stored as for garments making, buyer wise.

- Main Label.
- Care Label.
- Price Tag
- Security Label(RFID)
- Size label.
- Sewing thread.
- Button.
- Zipper
- Elastic.
- Poly Bag



### 3.1.7 Raw Materials Ware House:

After inspection, raw materials are stored in the raw materials ware house named Accessories ware house & fabrics ware house. In the ware house, materials are separated from Buyer to Buyer and Shade to Shade on the ground floor.



Fig 3.1.3: Fabric Warehouse

### 3.2 EMBROIDERY SECTION:



Fig3.2.1: Embroidery m/c

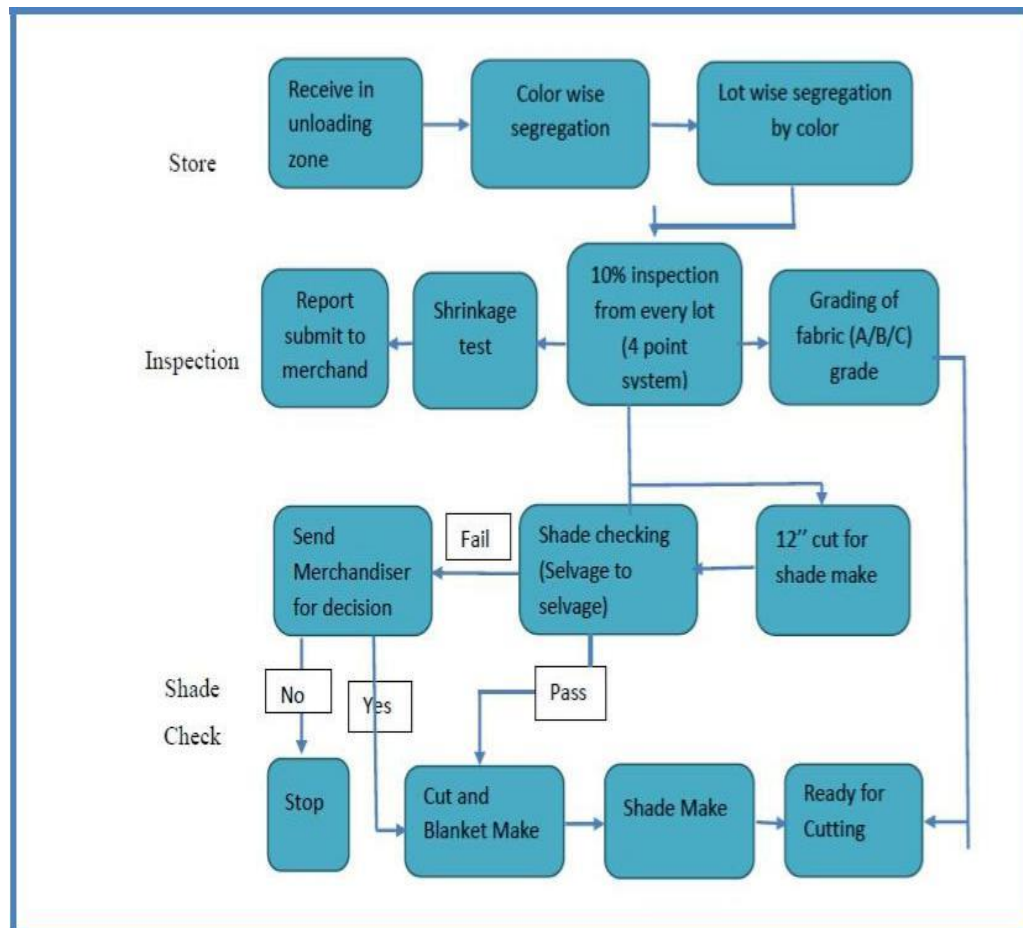
The embroidery section is stood beside the store section on the ground floor of the factory. There are total six machine of embroidery. All of these are from China, brand name Jintel Embroidery Machine, model 00915,each of the machine contains twenty heads.

## CHAPTER -3.3 Fabric Inspection Section

### 3.3.1 Fabric Inspection:

Inspection of fabrics is necessary in order to find the defects in a fabric lot. By the inspection it ensure that the quality of the fabric .Fabric inspections are done according to a flow chart. The flow chart is given below:

### 3.3.2 Fabric inspection procedure:



### ★ 4 Point system fabric inspection (10% or 100%):

4 Point system for fabric inspection is widely used in apparel industry for fabric quality inspection. To

use this system below things should be in concern.

- Fabric inspection method or preparation
- Criteria of giving penalty points based on defects and defect length.
- Calculation method of total penalty points for total defects found in a fabric roll.
- A Check sheet or format for recording data
- Knowledge of different types of defects (how a defect looks and its appearance)

### 3.3.3 Criteria of giving penalty points based on defects and defect length:

In the following Standard Sheet penalty evaluation points has been given for different length of fabric defect and dimension of holes:

<b>Size of Defect(length)</b>	<b>Point</b>
< 3 inch.....	1
<3-not more than 6.....	2
<6-not more than 9.....	3
<9 .....	4
For hole, one &less than one inch.....	2
More than one inch.....	4

### **Fabric Inspection machine:**



Fig 3.3.1: Fabric inspection machine

### **Envoy Fabric Defect board:**



Fig .3.3.2: Defect board

### **3.3.4 Shrinkage & GSM Test:**

Shrinkage is the process in which a fabric becomes smaller than its original size, through the process of laundry. Cotton fabric suffers from two main disadvantages of shrinking and creasing during subsequent washing. There are two types of shrinkage occurs during washing

1. Length wise

2. Width wise

### 3.3.5 GSM Test:

GSM (Gram per meter square) or weight test is done with the GSM cutter. At first the fabric is taken in and GSM cutter is put upon the fabric. Then the fabric is cut and the weighted. The weighted value is multiplied by 100 to find the GSM of the fabric.

**3.3.6 Skew Test:** The straight-line distortion of a marked filling yarn, knitting course, designated printed line, or designated design is measured from its normal perpendicular to the selvage or edge.

**3.3.7 Bowing Test:** A straightedge is placed across the fabric between two points at which a marked filling yarn, knitting course, designated printed line, or designated design meets the two selvages or edges. The greatest distance between the straightedge and the marked filling line, knitting course, designated printed line, or designated design is measured parallel to the selvage.

### 3.3.8 Shade Segregation (Blanket):

Shade segregation is a process of combining all the shades of a lot together. For doing this samples of 6 inch X 6 inch is collected from each roll of fabric and then stitched together. This is known as Blanket. Samples are collected from 10% or 100% roll of a lot.

**Blanket is prepared like below:**

<b>Roll 3</b>	<b>Roll 1</b>	<b>Roll 4</b>
<b>Roll 10</b>	Roll 4	Roll 5
<b>Roll 32</b>	Roll 18	Roll 28

Figure 3.3.3 :Segregation of Blanket preparation

Blanket is prepared to compare and separate the different shades in the same lot.

### 3.3.9 Shade Separation:

Shade separation is done according to the shade. Variation in shades are marked different from each other and same types of shades are marked as same as previous. After shade separation they are marked as below:

<b>Shade B</b>	<b>Shade A</b>	<b>Shade C</b>
<b>Shade C</b>	Shade C	Shade A
<b>Shade B</b>	Shade A	Shade B

Figure3.3.4:Blanket(Grading)

From here it can be seen, all the same shades are marked as same. Shade A, Shade B and Shade C are the shades found in the blanket.

## CHAPTER 3.4:QUALITY CONTROL DEPERTRMENT



Fig 3.4.1:Quality Control Department

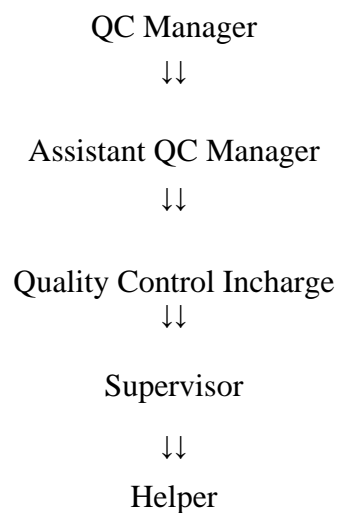
### 3.4.1 Quality

Quality of a product or service refers to the perception of the degree to which the product or service meets the customer's expectations. Actually quality depends on the buyer, when a buyer will satisfy with the delivered product then it means the product fulfill the quality

### 3.4.2 Quality Control:

A system for verifying and maintaining a desired level of quality in an existing product Or service by careful planning, use of proper requirement, continued inspection and corrective action as required.

### 3.4.3 Organogram





### 3.4.4 Importance of Quality Control

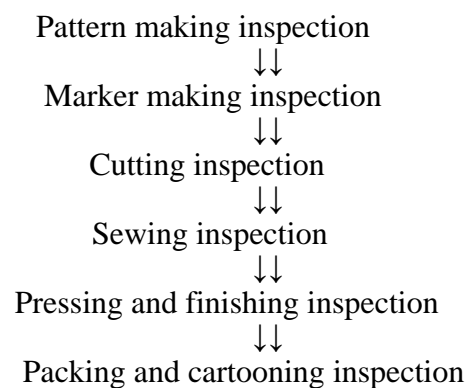
- Reduce the fault during production
- Increases the productivity and cost effective
- To ready the product for the final inspection of buyer.

### 3.4.5 Objectives of quality Control

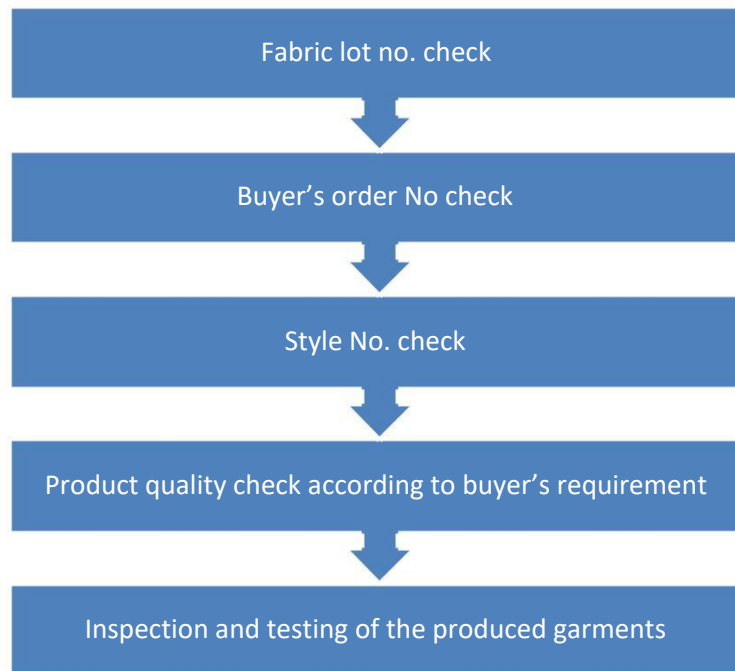
- Confirm buyer fulfillment
- Ensure the product quality

### 3.4.6 Quality control can be classified into two classes

#### 1. In-line quality control (Flow chart)



## 2. Off-line quality control (Flow diagram)



### 3.4.7 Quality Control Section:

To ensure the quality of the garments and to identify the defects if there any and rectify those if possible is the main work in quality control section. Quality Controller is responsible for implementation of final inspection system and verifies the inspection. Final Table Quality inspection received garments from Final Assembly section of sewing section and are responsible to check 100% garments quality and check the measurement as explain bellow:

- The garments are inspected from inside and outside to check stitching defects as explained in Sewing Defect Standard.
- Using arrow Stickers identifies defects and the defected garments are segregated. The results are recorded on table on table Alteration report.
- On hourly basis Quality Controller will verify the final Table Quality Inspection by re checking the segregated defected garments on random basis and sign to the Table alteration Report.
- Once the In-line Quality Controller have verified, the Line Supervisor will take the defected garments for repair, and they are re-inspected with normal production

### 3.4.8 Definition of AQL

The AQL (Acceptable Quality Level) is the maximum percent defective that for the purpose of sampling inspection can be considered satisfactory as a process average. Every buyer of Envoy Ltd. Follows 1.5 major 2.5 minor for their order

### 3.4.9 Standard AQL sheet:

Table I: Sample size Code letters.

Lot or batch Size	General Inspection levels			Special Inspection levels			
	I	II	III	S-1	S-2	S-3	S-4
2 to 8	A	A	B	A	A	A	A
9 to 15	A	B	C	A	A	A	A
16 to 25	B	C	D	A	A	B	B
26 to 50	C	D	E	A	B	B	C
51 to 90	C	E	F	B	B	C	C
91 to 150	D	F	G	B	B	C	D
151 to 280	E	G	H	B	C	D	E
281 to 500	F	H	J	B	C	D	E
501 to 1200	G	J	K	C	C	E	F
1201 to 3200	H	K	L	C	D	E	G
3201 to 10000	J	L	M	C	D	F	G
10001 to 35000	K	M	N	C	D	F	H
35000 to 150000	L	N	P	D	E	G	J
150001 to 500000	M	P	Q	D	E	G	J
500000 and over	N	Q	R	D	E	H	K

Table II: Single Sampling Plans for Normal Inspection.

Code letter	Sample size	Acceptable quality levels (normal inspection)													
		0.065	0.10	0.15	0.25	0.40	0.65	1.0	1.5	2.5	4.0	6.5			
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re
A	2	0	1	0	1	0	1	0	1	0	1	0	1	0	1
B	3	0	1	0	1	0	1	0	1	0	1	0	1	0	1
C	5	0	1	0	1	0	1	0	1	0	1	0	1	0	1
D	8	0	1	0	1	0	1	0	1	0	1	0	1	0	1
E	13	0	1	0	1	0	1	0	1	0	1	0	1	0	1
F	20	0	1	0	1	0	1	0	1	0	1	0	1	0	1
G	32	0	1	0	1	0	1	0	1	0	1	0	1	0	1
H	50	0	1	0	1	0	1	0	1	0	1	0	1	0	1
J	80	0	1	0	1	0	1	0	1	0	1	0	1	0	1
K	125	0	1	0	1	0	1	0	1	0	1	0	1	0	1
L	200	0	1	0	1	0	1	0	1	0	1	0	1	0	1
M	315	0	1	0	1	0	1	0	1	0	1	0	1	0	1
N	500	1	2	1	2	2	3	3	4	5	6	7	8	10	11
P	800	1	2	2	3	3	4	5	6	7	8	10	11	14	15
Q	1,250	2	3	3	4	5	6	7	8	10	11	14	15	21	22
R	2,000	3	4	5	6	7	8	10	11	14	15	21	22	21	22

Ac= Acceptance number Re= Rejection number

Fig:3.4.2 Standard AQL chart

### 3.4.10 Checking points for quality inspection

- Measurement points
- Chest
- Bottom
- Waist
- Body length
- Shoulder
- Arm hole
- Sleeve length
- Sleeve width
- Neck width
- Placket width
- Raw Edge
- Run off/down stitch
- Color
- Oil spot
- Skip stitch
- Broken stitch
- Open seam
- Main label side
- Pullness
- Back pocket high /low.
- Side seam

### **3.4.11 Initial works at Q/C table:**

- Visual Inspection for measurement with proper scaling
- Inner and Outer parts are inspected for any types of damage or sewing faults i.e. seam problem, broken stitch etc

### **3.4.12 Check List at Q/C Table:**

- Broken Stitch, Tension loose, Open Stitch
- Spot, Shading, Thread Cutting
- Placement of label
- Chest, Waist, Sleeve and Back Length check.

After checking all the parameters if the product meets the quality standard then it is given pass code from the quality section and the garments is then ready to be transferred to the finishing section.

## CHAPTER 3.5 :SAMPLE & CAD SECTION



Fig3.5.1:Sample and CAD department

### 3.5 :SAMPLE & CAD

Sample & CAD is one of the main section of a garments. In Enoy Fashion Ltd. This section is divided into following sections:

1. Sample section
2. Pattern section
3. Marker section

4. CAD section.

### **3.5.1 Sample section:**

Sample section is the first section of garment manufacturing industry as well as Envoy Fashion Ltd. Garment samples are inevitably important and are developed tested before starting the bulk production. It means making a sample of the garment /fabric which requires to be sold. Sampling is one of the main processes in Garment Industry and it has a vital role in attracting buyers. Because the buyers generally places the order after they are satisfied with the quality of the samples.

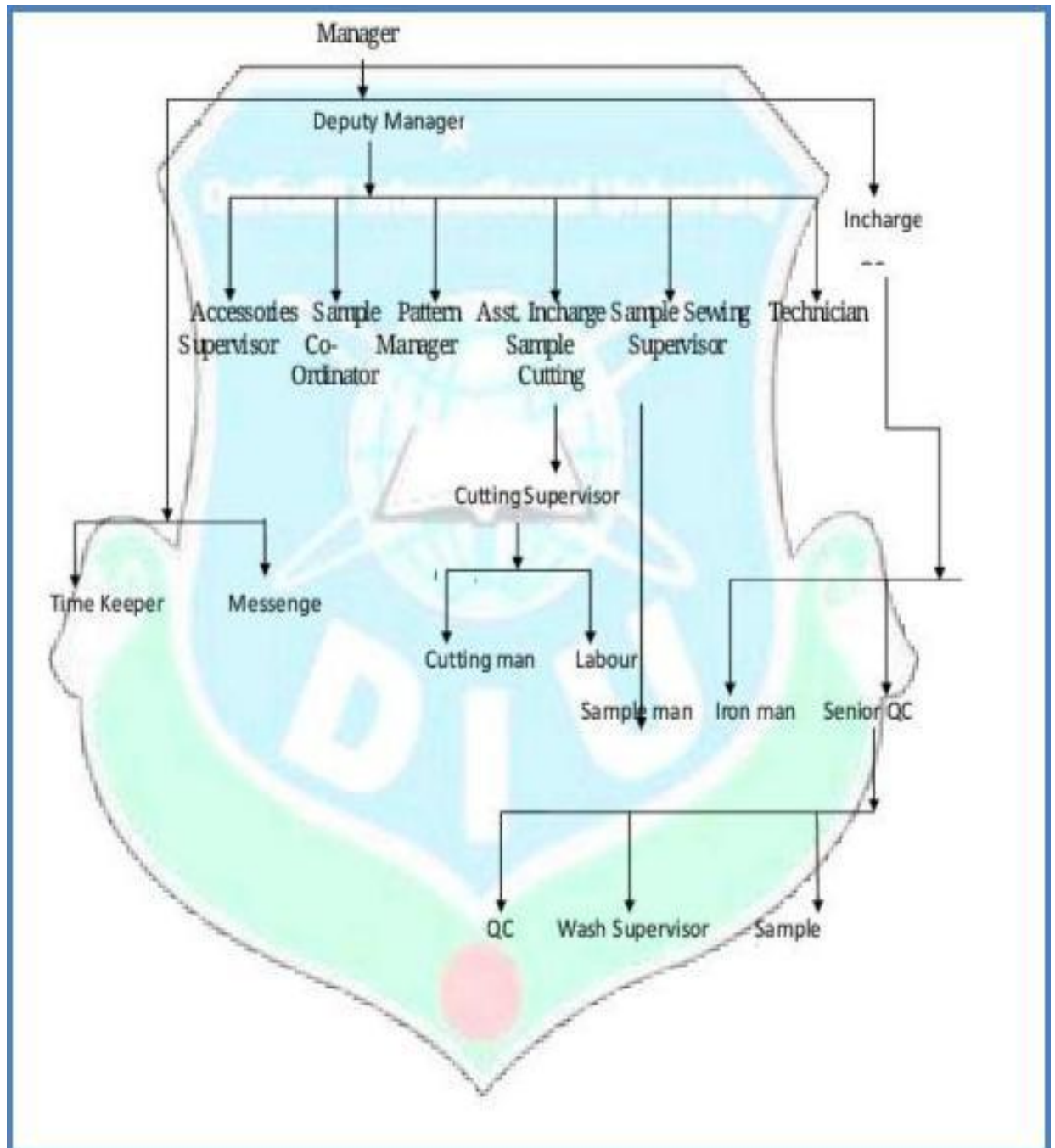
Samples are always made in sample section, which differ from production floor. In this section, garments are making as sample to send the buyer for approval. After that, it will be ready for production. To make the correct sample as per buyer requirement is the first function of the sample section. There are

4 sewing line in sample section.

Envoy Fashion Ltd. sends many samples to buyers. They are:

1. Development sample
2. Sales Marketing Sample(SMS)
3. Proto Sample
4. Approval Sample
5. Size set Sample
6. Pre-production Sample

### 3.5.2 Organogram

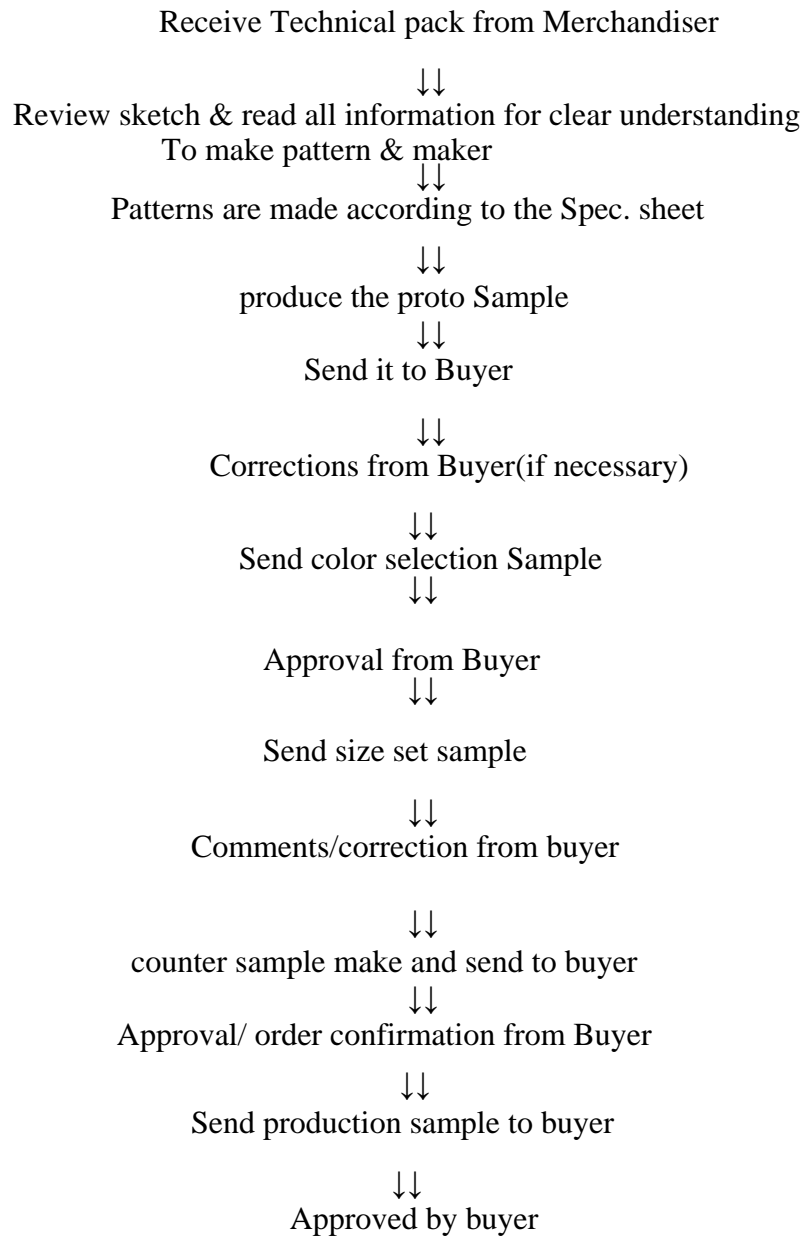




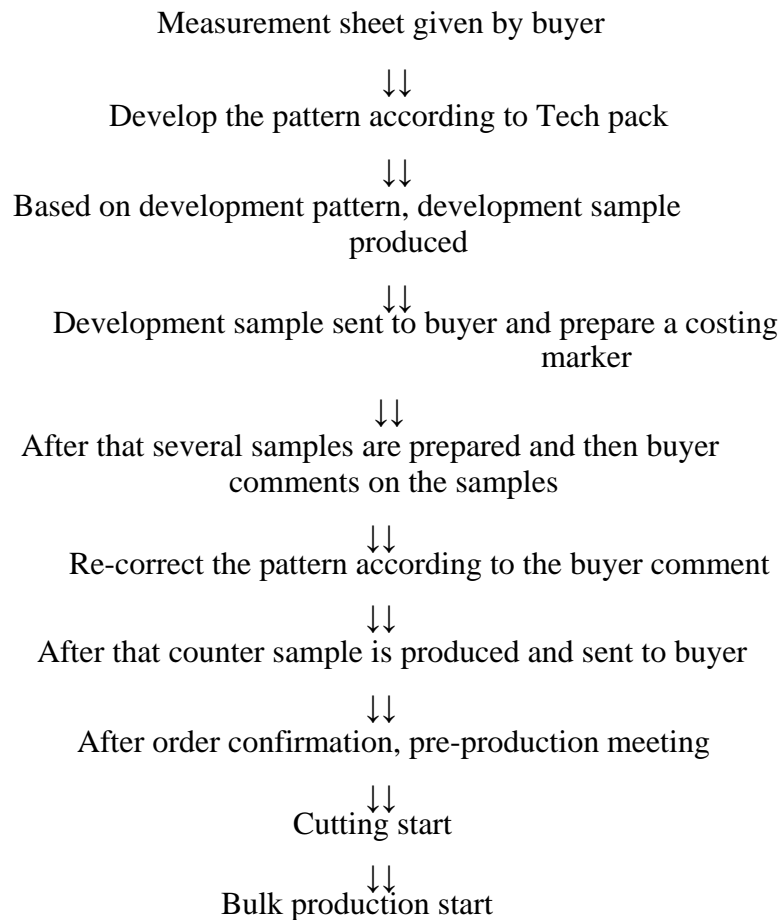
### 3.5.3 Machine details :

<b>Name of m/c</b>	<b>Brand</b>	<b>Origin</b>	<b>Quantity</b>
Digitizer m/c	Winda	China	1
	Lectra	France	1
	Gember	USA	1
Plotter m/c	IMA	Italy	1
	Winda	China	2
	Gember	USA	1
Pattern cutter m/c	Winda	China	1
	Gember	Japan	1

### 3.5.4 Flow chart of sample section:



### 3.5.5:Flow Chart of Pattern Section :



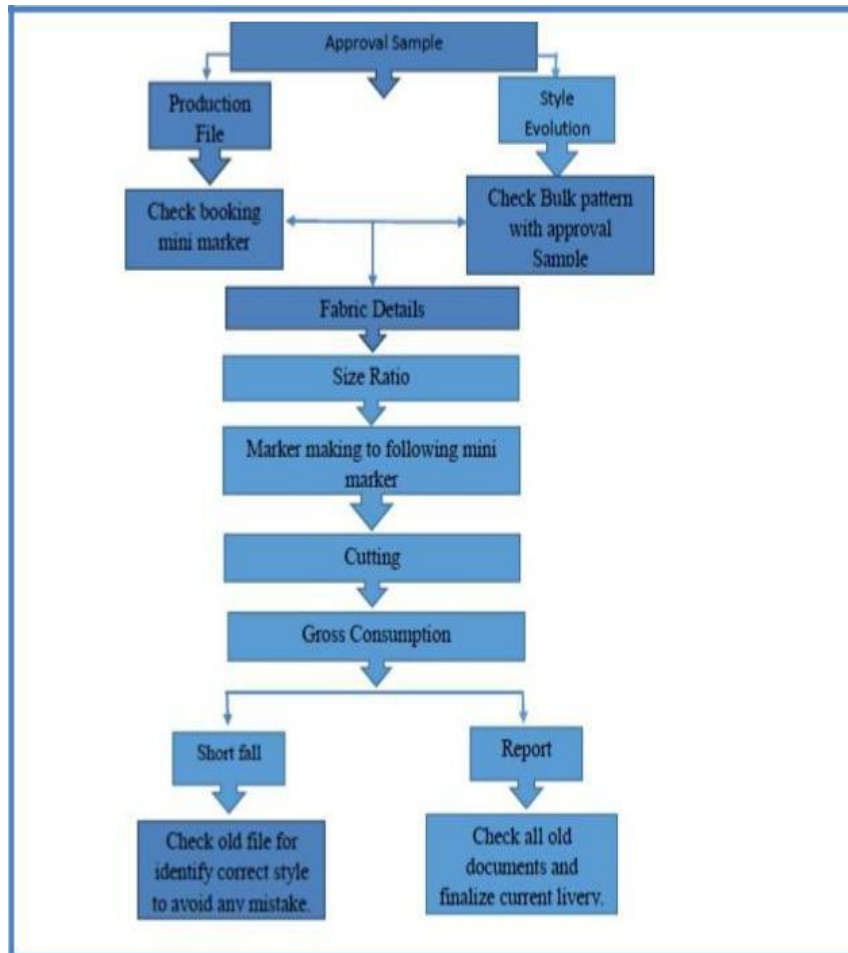
### 3.5.6Marker Section:

Marker is a thin paper which contains all the necessary pattern pieces for all sizes for a particular style of garments. It gives special instructions for cutting. It can be both manually and computerized method. In Envoy Fashion Ltd. they are using computerized method (Lectra) marker which all information's are stored in the pre fashioned data file and operator helps the computer to make the best choice.

Marker Making Method: There are two types

1. Manual method
2. Computerized method.

### 3.5.7 Flow chart of Marker making :



### 3.5.8 Process of Marker making:

1. Normal Marker: Random one garments one way. i.e : Basic polo shirt.
2. Selvedge Marker: One way/two way/Group selvedge. i.e: shading fabrics.
3. Warp Marker: Twill fabrics.
4. Check Marker: Check fabrics.

### **3.5.9 CAD Section:**

In Envoy Fashion Ltd. there is a CAD section. This room is used for make pattern and marker by CAD software. By using CAD system Patterns are created to exact measurements and adjacent pattern curves can be forced to be the same length ensuring patterns make up with no puckering and you will end up with a quality, professional looking garment. CAD tools enabling to modify patterns to unique requirement. CAD software introduces a unique system of grading patterns that has simplified this process in a miraculous way by removing all the hard work yet leaving in control. It is manage to grade patterns proportionally while keeping the shape, fit and balance of the original design. It is easy to grade any blocks and styles and create fully professional collections. GARBER, OPTITEX, Lectra software are popular CAD software.

In Envoy Fashion Ltd. Lectra is used as CAD software.

## CHAPTER 3.6 CUTTING DEPARTMENT :



Fig 3.6.1:Cutting Floor

### 3.6.1 Cutting:

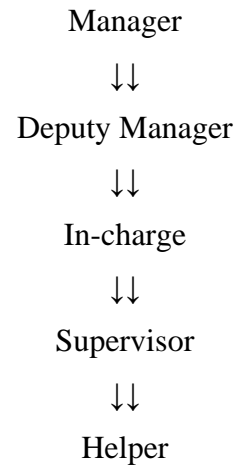
Cutting is very complex and important section of garments. In garments industries fabric is cut from lay and spreading with accuracy and properly which is termed as fabric cutting. Marker outline is used to cut the fabric. Fabric cutting is very important as if something is cut in wrong way, cannot be rectified.

3.6.2 Layout:



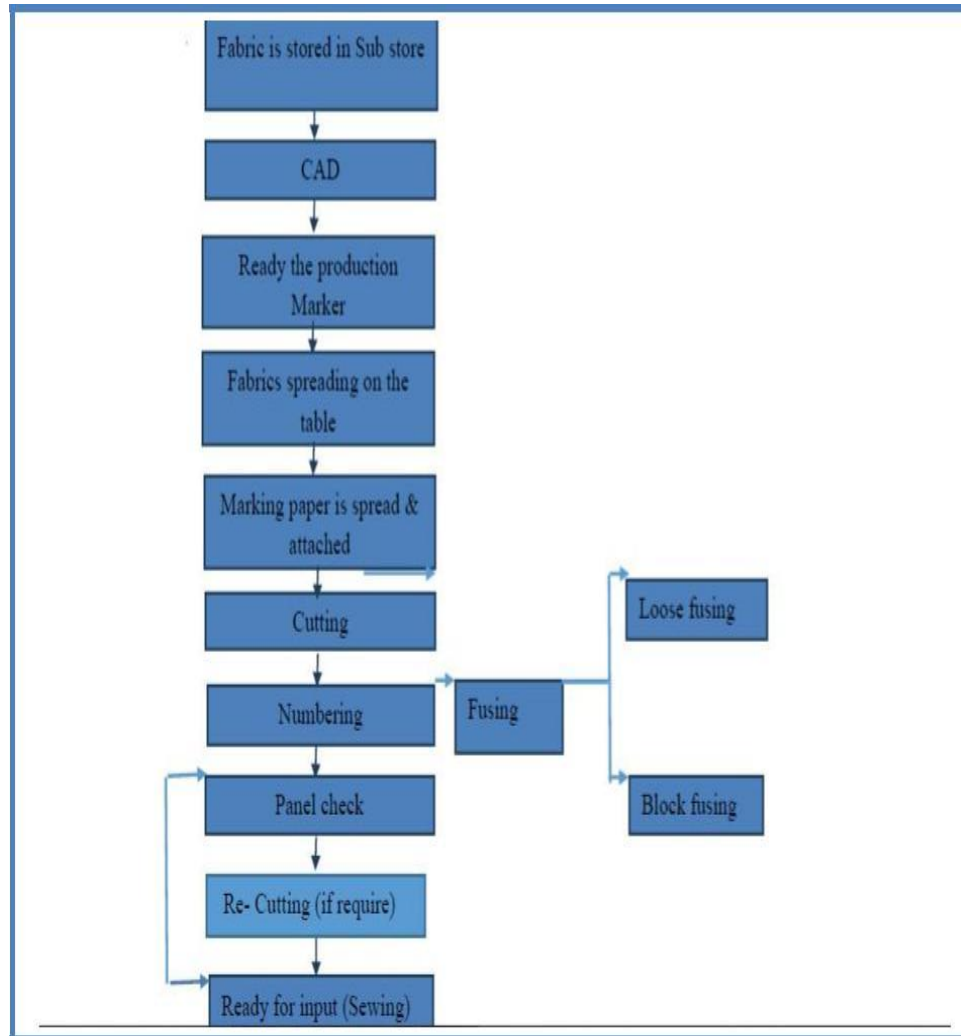
Fig:3.6.2 layout cutting section

### 3.6.3 Organogram:





### 3.6.4 Flow Chart of Cutting Section:




**3.6.5 Function:** There are three basic function of the Cutting Section as

- ✍ Material control
- ✍ Fabric wastage control and
- ✍ Proper utilization of fabric.

**3.6.6 Equipment of Cutting:** Some equipment used in cutting section, like:

- ✍ Cutting table
- ✍ Straight knife
- ✍ Spreader machine
- ✍ Clip
- ✍ Band knife cutting machine

 Fusing etc.

### 3.6.7 Method of fabric cutting:

This industry is following two methods.

1. Manual.
  - Hand operated scissor.
  - Straight knife Or Hand Cutter M/c.
2. Automatic:
  - Lectra auto lay cutter machine.
  - Lectra auto lay end cutter machine

### 3.6.8 Description of cutting machine:

Various type of cutting machine are uses in the cutting section.

#### Specification of the machine :

##### Machine No.01

Machine Name: Auto Spreader  
Machine

Brand: Lectra

Model:KW-71

Capacity: 100 pcs/h



Fig:3.6.3 Name: Auto Spreader Machine

Use : To spread fabric smoothly one  
above another

## Machine No.02

Machine Name :Auto cutter machine

Brand: Lectra

Use: To cut fabric lay very precisely according to marker



Fig3.6.4: Auto cutter machine

## Machine No.03

Machine name: Fully automatic end cutter machine.

Brand: Eastman

Model:Ec-9N

Power:230W

RPM:100  
machine.

Use: To cut end of fabric.



Fig3.6.5: Fully automatic end cutter

## Machine No.04

Machine Name: Straight knife cutting machine.  
Brand: Kmmack

Weight: 15.6 Kg

Cutting Capacity: Maximum 5 in.

(29.2cm)height.

Quantity: 31

Use: Cut fabric manually



Fig3.6.6: Straight knife cutting machine.

## Machine No.05

Machine Name: Band Knife

Cutting Machine

Brand: Eastman

Model: EC-700N

Capacity: can cut up to 6 inch  
(maximum)

Quantity: 2

Use: To cut edge of fabric



Fig3.6.7: Band knife cutting machine.

## Machine No.06

Machine name: Heat seal machine (pressing machine).

Brand: Hashima.

Model: Needle Search

Quantity: 1

Use: To attach seal on the fabric



Fig3.6.8: Heat seal machine

## **Machine No.07**

Machine name: Fusing machine.

Brand: Hashima

Quantity: 4

Use: To attach fusing part with fabric.(collar, waist band, cuff etc)



Fig3.6.9: Fusing machine.

**3.6.9 Safety of Cutting section:** Any accident can happen during cutting the fabric layer. For this reason different safety equipments are stored and used in cutting floor.



Fig 3.6.10 Safety equipments

## CHAPTER 3.7:SEWING SECTION :



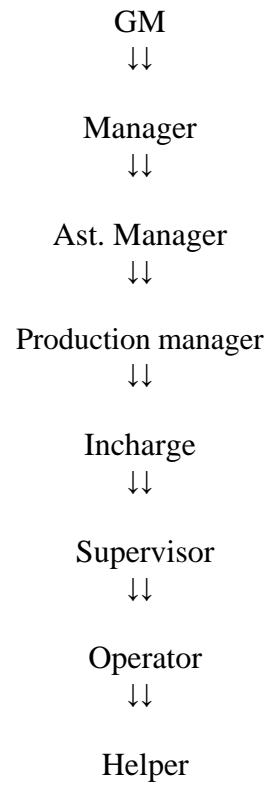
Fig 3.7.1:Sewing floor

### 3.7.1 Sewing :

Sewing section is the most important department of a garment industry. Sewing machines of different types are arranged as a vertical line to assemble the garments. Sequence of types of sewing machines arrangement depends on sequence of assembling operations. There is 34 sewing lines in this section. But the capacity of every line is not same.

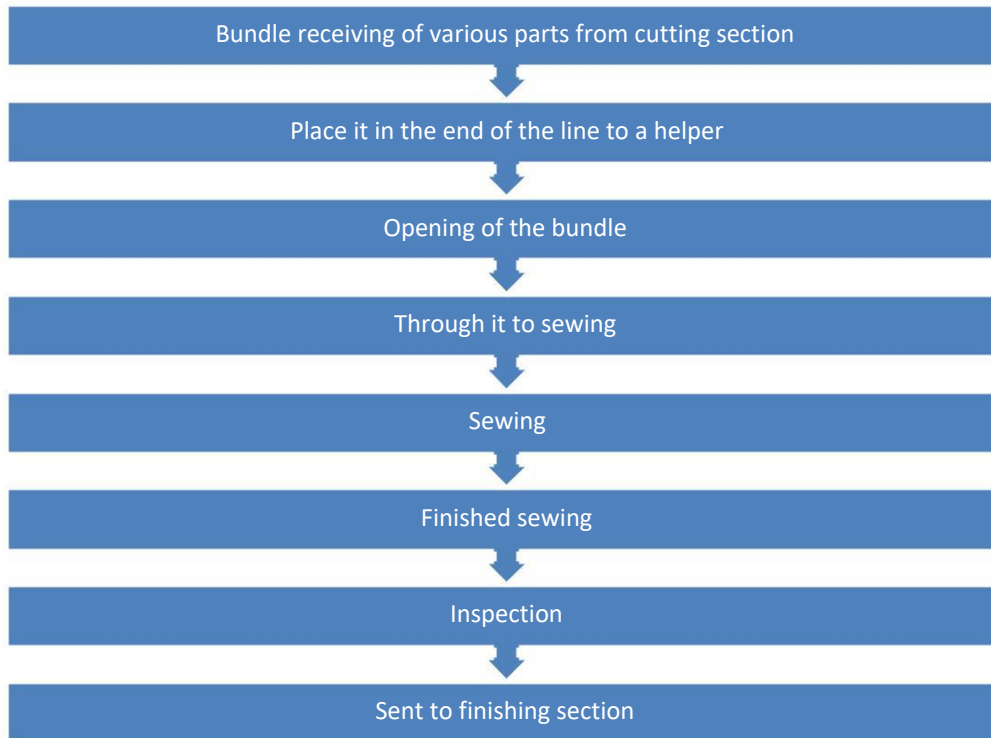
After receive the garments components from cutting section, all the garments parts are joined and sewn as sequentially. Obviously all the components are sewn according to buyer requirement. The main purpose of sewing is to produce seam.

### 3.7.2 Organogram:





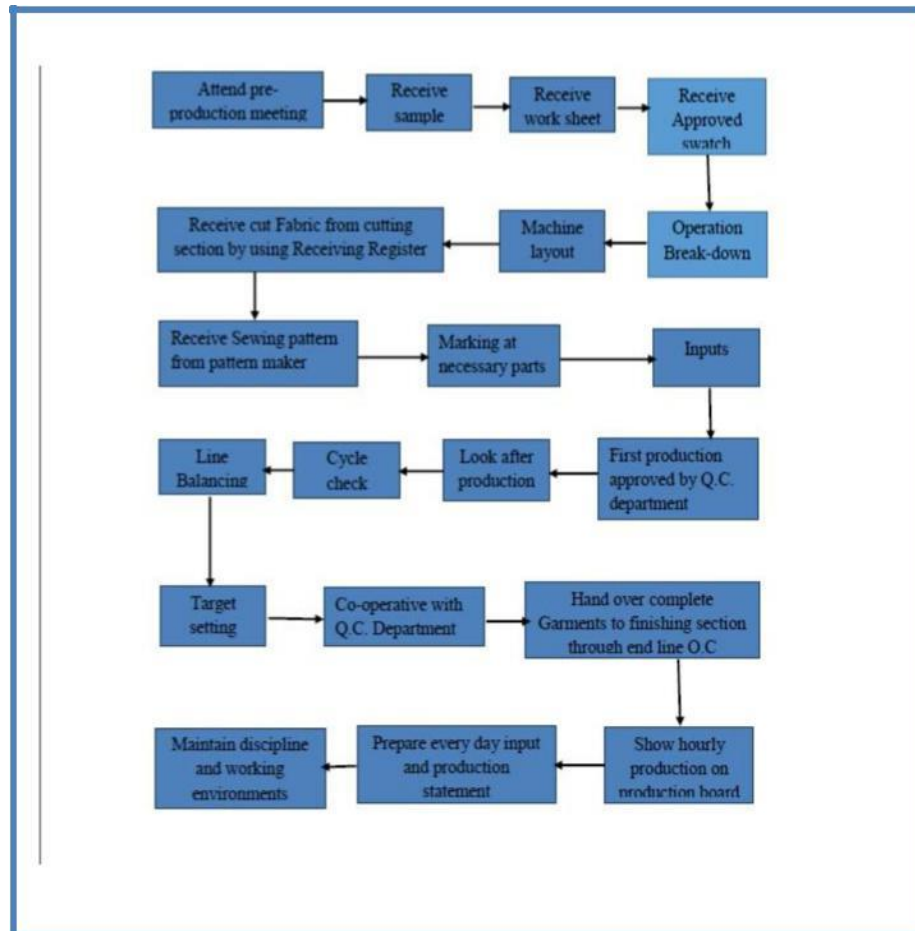
### 3.7.3 Process Sequence of Sewing Section:



### 3.7.4 Name of the machines used in sewing section are :

- ✍ Single needle lock stitch Machine
- ✍ Double needle lock stitch Machine
- ✍ Single needle chain stitch Machine
- ✍ Double needle chain stitch Machine
- ✍ Multi needle chain stitch Machine
- ✍ 3 thread Over lock Machine
- ✍ 5 thread Over lock Machine
- ✍ Bar tack Machine
- ✍ Button hole Machine
- ✍ Button attaching Machine
- ✍ Snap button attaching Machine
- ✍ Feed of the arm Machine.
- ✍ Vertical Stitching Machine
- ✍ Kansai M/c
- ✍ APW M/c
- ✍ Sleeve attach M/C
- ✍ SholderPad M/c

### 3.7.5 Activities of sewing section:



### 3.7.6 Equipment & Machine Details:

#### Industrial Sewing machine specification

**Machine NO:** 1.

**Machine name:** Plain/Lockstitch sewing machine

Brand: Juki & Brother

Model: SL1010-3, DDL8300N

Origin: China

Application: Collar join, Zipper attach, placket attach,

Label attach etc.



Fig:3.7.2 Plain/Lockstitch sewing machine

**Machine NO: 2.**

**Machine name:** Flat lock machine

Brand: Juki, Yamato

Model CF2303M, MH481

Origin: China

Application: Top stitch, hemming etc.



Fig3.7.3 : Flat lock machine

**Machine NO:3**

**Machine name:** Over lock machine

Brand: Juki & Brother

Model: FBN310, MD 6716

Origin: China

Application: Edging, hemming.



Fig3.7.4: Over lock machine

**Machine NO:4**

**Machine name:** Bar tack machine

Brand: Brother, Juki

Model: KE4300, LK1900ASS

Origin: China

Application: To create bar tack stitches in garments, Inseam, pocket of trouser etc.



Fig3.7.5: Bar tack machine

**Machine NO:5**

**Machine name:** Button holing machine

Brand: Brother,Juki

Model: HE800A, LBH1790

Origin: China

Application: Button holing  
for ordinary Cloth Knit etc .



Fig3.7.6: Button holing machine

**Machine NO: 6**

**Machine name:** Button attach machine

Brand: Brother,Juki

Model: BE438D, LK1903ASS

Origin: China

Application: Button attaching for  
ordinary cloth, knit etc.



Fig3.7.7 : Button attaching machine

**Machine no:7**

**Machine name:** Feed of the arm

Brand:Brother,Juki

Model: DA9280, MJ1261

Origin: China

Use: Side seam (jeans pant), top seam.



Fig3.7.8:Feed of the arm

**Machine no: 8**

Machine name: Blind stitching machine  
Brand :Treasure  
Model : BS101  
Use: Bottom hem



Fig3.7.9: Blind Stitch Machine

**Machine no: 9**

Machine name: Snap button attaching machine  
Brand: Nagai Shing  
Model:EB  
Origin: China  
Use: Attaching hook, button attaching



Fig3.7.10:Snap button attaching machine

**Machine no:10**

Machine name: Vertical lock stitch machine  
Brand: Golden Wheel  
Origin: Japan  
Use: Selvedge sensing and stitching in a straight line.



Fig3.7.11:vertical lock stitch machine.

### 3.7.7 Different types of Needle used in different Sewing M/c:

Machine Name	Size of Needle
<b>Plain Machine</b>	DB X 7,8,9,10,11
<b>Over lock Machine</b>	DC X 7,8,9,10,11
<b>Button Hole Machine</b>	DP X 9,10,11
<b>Button Attaching machine</b>	DP X 17, TQ X 11,14
<b>Kansai</b>	UO X 9,11
<b>Flat Lock Machine</b>	DP X 8,9,10,11

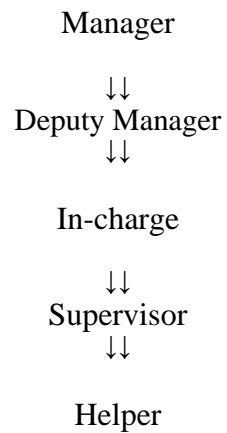
### 3.7.8 Some defects of sewing operation:

- √ Skip/ Drop stitch
- √ Uneven stitch
- √ Over stitch
- √ Joint stitch
- √ Raw edge
- √ Tension loose
- √ Broken stitch
- √ Puckering
- √ Open stitch
- √ Oil spot Shading

- √ Incorrect stitch per inch
- √ Pleat
- √ Needle cut
- √ Wrong Thread
- √ Wrong size/ care label
- √ Slanted
- √ Wrong button placement
- √ Run off stitch

## CHAPTER 3.8 WASHING DEPARTMENT

### 3.8.1 Organogram



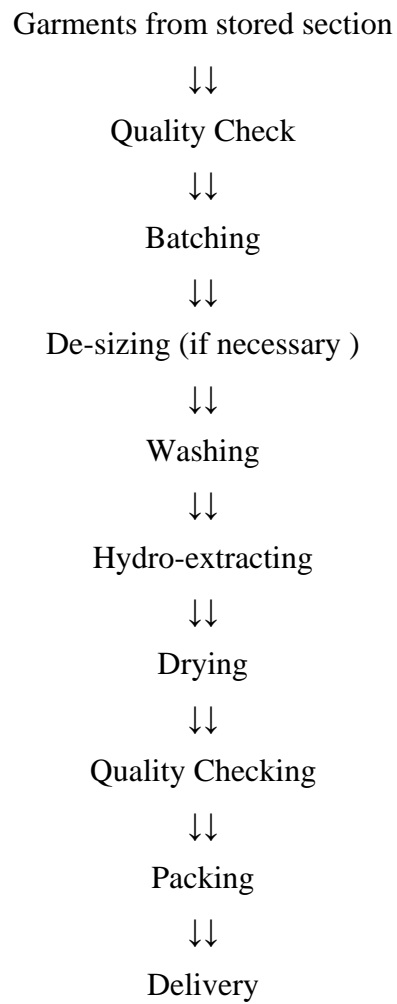
### 3.8.2 Front view:



Fig 3.8.1: Front view of Laundry



### 3.8.3. Washing process Flow chart:



### 3.8.4 Machine type:

In this factory there are total 32 washing machine, capacity of those machines are (550LBS).



Fig3.8.2: Industrial washing machine.

### 3.8.5 Dryer machine : There two types of dryer machine.

- ✍ Gas dryer
- ✍ Steam dryer.

Washing plant both use in dryer machine. In this plant there are 38 gas dryer and ten steam dryer machine. Maximum capacity of this machine 300 LBS per m/c.

### 3.8.6 Types of Washing:

- |                      |                   |
|----------------------|-------------------|
| ✍ Rinse wash         | √ Sand Blasting   |
| ✍ Garments wash      | √ Ultra soft wash |
| ✍ Heavy wash         | √ Destroy wash    |
| ✍ Enzyme wash        | √ Silicon wash    |
| ✍ Heavy enzyme wash  | √ PP spray        |
| ✍ Enzyme stone wash  | √ Crinkle         |
| ✍ Enzyme bleach wash | √ Garments Dyeing |

### **3.8.7 Chemical used in washing plant:**

- ✍ DSS Softener- (Denire U TEAR)
- ✍ Clear sit –Silicon oil
- ✍ Detergent-(Ferol MILT-4)
- ✍ Enzyme
  - Neutral (powder)
  - Liquid (Cozyme 4BT)
- ✍ Acetic acid
- ✍ Liquid solve(spot removal)
- ✍ Hydrogen per oxide(bleaching agent)

### **3.8.8 Name of some lab test equipment:**

- ✍ Washing machine
- ✍ Tumble dryer
- ✍ Rubbing tester(color fastness to rubbing)
- ✍ GSM cutter
- ✍ PH meter
- ✍ Ironing machine
- ✍ Light box.

## CHAPTER 3.9 FINISHING DEPARTMENT

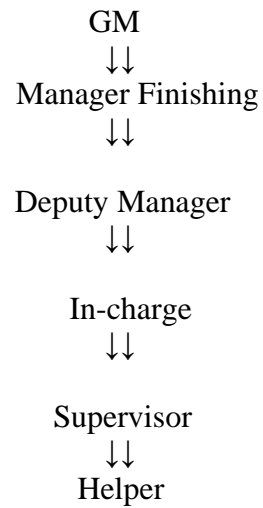


Fig3.9.1: Finishing department

### 3.9.1:FINISHING SECTION:

It is important section because when the garments sewed then its can not be packaging or can not be folded for shipment. In the section the garments are finished by machines, the extra threads are sucked by sucking machine, ironing removes wrinkle from the garments the garments. There is no more procedure after the finishing section so packing and cartooning are also included in this section .The needle detector machine ensure that there is no broken needle or any metal part in the garments during manufacturing.

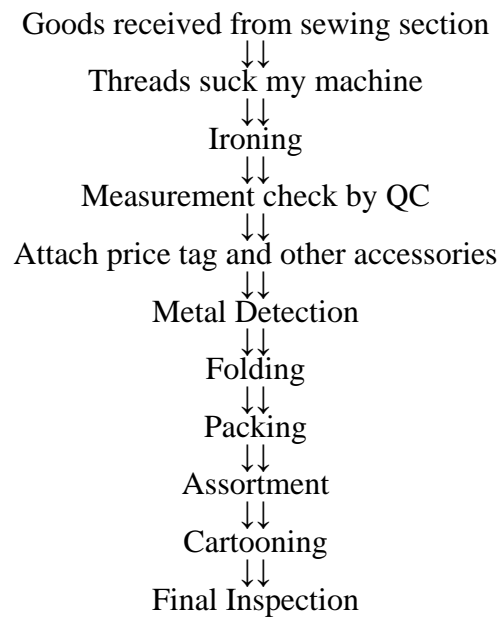
### 3.9.2 Organogram :



### 3.9.3 Objective of finishing:

- To enhance the suitability of the fabric for end use.
- To improve appearance and sale appeal for comfort and utility.

### 3.9.4 Process Flow Chart of Garment Finishing:



### 3.9.5 Description of finishing machines:

#### Thread sucker machine:

All garments checked by thread sucker machine to remove loose thread. This machine sucks loose threads from garments and makes it free of loose threads.



Fig 3.9.2: Thread sucker machine





#### Ironing:

All garments are ironed by steam. Ironing temperature is determined by buyer. This ironing is help to garments for fixing their shape.



Fig 3.9.3: Ironing Machine.

#### Basic Ironing symbols:

	Do not iron
	Cool iron (110°)
	Medium iron (150°)
	Hot iron (200°)

### **Metal Detection:**

the garments which are inspected and then passed through the metal detection machine. The machine determines whether the garment contains any ferrous components or not. If a garment contains any ferrous item or broken needle, the garment will fail to pass the machine and it will come back. Fail garments are kept in rejected box kept beside the metal detector machine. The passed garments are kept to the quarantine area.



Fig3.9.4 : Metal Detector Machine

### **3.9.6 Chemical Used to Remove Spot:**

Dyeing Spot: Lifter

Cutting Spot: Thinner

Printing Spot: Thinner

Oil Spot: Thinner or Power

Sewing Spot: Lifter

#### **Thinner:**

Thinner is used to remove the soil spot, color spot, dust and dirty spot, etc.

#### **Lifter:**

Lifter is used to remove the oil spot, soil spot, sewing spot etc.

### **Water:**

Water is used to remove the dirty spot, ink color, etc.

### **3.9.7 Packing:**

According to size, there are different sized polybags which are stored in the packing area.

Various size garments are put in the proper size polybags and then sealed with stickers.



Fig3.9.5 : Garments Packing

### **3.9.8 Carton:**

After packing, cartoning takes places according to the size ratio or assortments.

Sometimes buyer gives special instruction regarding cartoning and they are followed strictly by the packing section. Types of carton :

3Ply

5Ply

7Ply



Fig3.9.6 : Garments Cartoning



**3.9.9 Dispatch** :After all the procedure the garments are stored in warehouse to dispatch.



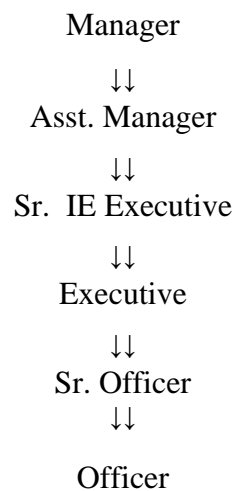
Fig3.9.7: Ready for shipment.

## CHAPTRE 3.10 INDUSTRIAL ENGINEERING DEPARTMENT

### 3.10 Industrial Engineering

Industrial engineering is concerned with the design, improvement and installation of integrated system of man, machine and equipment drawing upon specialized knowledge and skill in the technical, economics and human sciences, either with the principles or methods of engineering analysis and design to specify, predict and evaluate the results to be obtained from such system.

#### 3.10.1 Organogram



#### 3.10.2 Layout:

Machine layout is made according to process break down. Machine layout gives a freedom of work in a flow to each individual worker so it is a very important thing which is also related to production & worker efficiency.

#### 3.10. 3 Process break down:

In this segment individual garments sewing steps one after another is prepared. The sample

garment which is developed for production is observed carefully to prepare the process break down.

### **3.10.4 Target fixing:**

An initial target is fixed by the IE section. Afterward, when bulk production starts, the initial target is changed and new target is implemented.

### **3.10.5 Line Balancing:**

Adding or removal of machines according to need and to increase the production, line balancing is done by IE section.

### **3.10.6 Training of operators:**

Training of new operators is done by the IE section. Sufficient training for optimum production from an individual worker is done.

### **3.10.7 Calculating Incentives:**

Over time incentive or production base incentives are calculated by the IE section and also implemented.

### **3.10.8 Equations used for various calculation the IE department is given below:**

$$\text{Target Calculation} = \frac{\text{Manpower} \times \text{Working hour} \times 60}{\text{SMV}} \times \text{Efficiency}$$

$$\text{Efficiency Calculation} = \frac{\text{Earn mins \%}}{\text{works mins}}$$

$$\text{SMV} \times \text{Output} \times 100 = \frac{\text{Manpower} \times \text{Working hr} \times 60}{\text{Total SMV}}$$

$$\text{Tact time} = \frac{\text{Total SMV}}{\text{Total manpower}}$$

**SMV Calculation** = Basic time (mins) + Allowance

• Basic Time = Cycle time × Rating

### 3.10.9 Work Study Officer & IE Responsibilities :

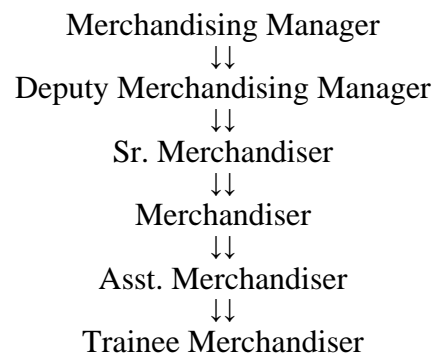
- Operation breakdown & Machine Layout.
- Buyer & Style wise operation breakdown & Layout.
- Prepare Man machine report.
- Buyer & style wise capacity study & line balancing.
- Train up production staff on efficiency.
- Production Monitoring & Achieve the line Target.
- Daily line wise Target setup.
- Wastage control at the production floor.
- To prepare daily, weekly, monthly production plan (Cutting, Printing, and Sewing)
- Arrange trims & accessories just in time.
- Prepared daily Crisis report & SMV calculation.
- Follow up daily output per production line & achieve the line.
- Method study & Motion Study.
- Data collect & efficiency report
- Prepare skill inventory & grading of the operator
- Nonproductive time (Lost Time) record.
- Ensure optimum use of machine.
- Daily quality statistical report presentation.

## CHAPTER 3.11 MERCHANDISING DEPARTMENT



Fig3.11.1:Merchandising Department

### 3.11.1 Organogram



### **3.11.2 Merchandising:**

Merchandising is the department which mediates marketing and production departments. It is the methods, practices, and operations used to promote and sustain certain categories of commercial activities. It includes directing and overseeing the development of product line from start to finish.

Marketing and merchandising department: A team of merchandisers and marketers work together under a profit controls head. Merchandisers handle the foreign buyers. The teams are made according to the buyers being handled.

### **3.11.3 Merchandiser:**

The person who is related in merchandising is called merchandiser. The merchandiser coordinates with the design team to effectively present the product or product line. He or she develops colors and specifications, and performs market research to determine the most effective ways to sell and promote the product. This person needs strong communication and negotiation skills and visual and analytical abilities. He or she also needs to be a creative and innovative thinker.

### **3.11.4 Responsibilities of merchandisers :**

- ✍ Internal & external communication,
- ✍ Sampling,
- ✍ Lab dips,
- ✍ Accessories & trims,
- ✍ Preparing internal order sheets,
- ✍ Preparing purchase orders,
- ✍ Advising and assisting production,
- ✍ Advising quality department about quality level,
- ✍ Mediating production and quality departments,
- ✍ Giving shipping instructions and following shipping,
- ✍ Helping documentation department,
- ✍ Taking responsibility for inspections and

✍ Following shipment.

### 3.11.5 Qualities of a merchandiser:

- ✍ The most important quality is that he must be educated. He must have the brought knowledge about Textile.
- ✍ He must be very skilled in English language as he has to communicate with the foreign buyers and suppliers.
- ✍ He has to be a computer literate, i.e. a good idea about computer operation e.g. office program like Ms Word, Ms Excel.
- ✍ He must have enough knowledge about browsing e.g. sending and receiving e-mail, searching on net etc.
- ✍ He must have a good appearance and should be smartly handled all kinds of situation .
- ✍ He should be capable of thinking at multi-level stages because he has to maintain communication outside the factory with buyer and supplier as well as inside the factory with various sections like sample, marker, sewing etc.
- ✍ A merchandiser should have adequate knowledge regarding followings:

Different types of wash/dry processing

Different types of dyeing and printing process of fabric

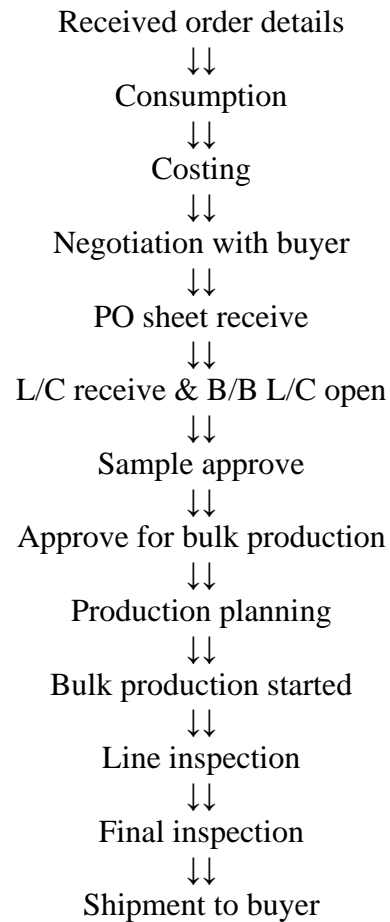
Different types of fabrics/accessories and current market price of them.

Different types of defects, their remedies, Inspection system etc.

A merchandiser should always have a mentality to impress the buyers by means of:

- ✍ Right Product.
- ✍ Right Qualities.
- ✍ Right Quantities.
- ✍ Right Time.

### 3.11.6 Process Flow chart of Merchandising:



### 3.11.7 Require document for Shipment:

- ✍ For local Shipment:
- ✍ Invoice
- ✍ Packing list
- ✍ Delivery chalan
- ✍ Utilization declaration
- ✍ For International Shipment:

By Sea



- ✍ Commercial invoice
- ✍ Packing list
- ✍ Bill of lading
- ✍ Original document.

#### By Air

- ✍ Commercial invoice
- ✍ Packing list
- ✍ AWB(Air way Bill)

### 3.11.8 Chronological Process of Merchandising:

#### ✍ **Step 1: Marketing:**

The first process is marketing. Marketing personnel has to market his company in order to increase his customers and generate more and more revenues. It acts as a bridge between buyers and the company for communicating each other. The Marketing personnel here enclose a brochure and product picture with the mail and forward it to the prospective buyer for their convenience. The interested buyers reply to the enquiry letter submitting a sample product with measurement sheet(PO) to the merchandiser to follow the sample going for production.

#### **Step 2: Costing and Negotiation: Costing:**

Merchandiser makes a cost sheet to see if the product is contingent or not in terms of cost and revenue. Some tricky decision have to take here as a merchandiser. Merchandiser has to calculate the cost of products including wastages and accessories to tell the final cost of the product to his customers.

**Negotiation:** He/She (Merchandiser) must have a negotiating power on the price to convince his buyers on specific price to lessen the chances of loss. If price is accepted by both parties then it's time to sample approval from buyer.

The aim of negotiation "Win solution" Both parties are benefited.

#### **The skill for negotiation:**

- ✍ Discovering common interest and removal of personal issues.
- ✍ Questioning skill
- ✍ Listening effectively
- ✍ Understanding body language.
- ✍ Look-out and judgment.
- ✍ impressing skills.

### **Step 3: Source Fabric:**

After negotiating price the merchandiser have to find from where fabric can be found as per buyers requirement. There are two sources of fabric.

1. Local source
2. Foreign Source.

Both local and foreign it needs to open a L/C. In textile sector generally back-to- back L/C (B –B L/C)is used to collect Fabrics.

### ✍ **Step 4: Prepare Lab Dipping, Dyeing and Fabric printing :**

It is an important part of sampling. If buyer wants color size product then he need to send them for proper coloring. After that lab test is send to the buyer for approval.After approval of the fabric is ready for the next process.

### **Step 5: Source Prepare Trims & Accessories:**

For preparing a product a manufacturing company needs various types of trims and accessories. These are very much important for textile product. Such as ,sewing thread button,zipper,lace,tag, pin, twill tape,poly bag etc. so it is the duty of a merchandiser to sourcing accessories before start production.

### ✍ **Step 6: Develop a Sample:**

Sample is the physical form of buyer's specification or style/design. After draw a sketch a sample is prepared for the buyer and sends to the buyer. Sampling may be in two ways.

1. Sampling after confirmation price.

2. Sampling before confirmation price.

For sampling a merchandiser need Fabrics, yarn, label, etc

✍ **Step 7: Production execution and tracking:**

✍ **Cutting the Fabrics:**

After confirmation of production and approve of the cutting the fabrics from the buyer, the cutting master started to cut the fabrics. Pattern and marker are produced to cut the fabric efficiently.

✍ **Sewing:**

In sewing section the finish fabrics are sewed. There are various types of sewing machine that are given in the list of machineries in above section.

✍ **Washing :**

It is most important factor in textile sector. In different stages of production, various spot we found in products that are needed to wash or different looks/design are produced by washing. Various spot we found in products that are given below:

- ✍ Oil spot
- ✍ Dirt spot
- ✍ Print spot
- ✍ Fabrics spot

### **Ironing:**

In iron section products are ironed for better finishing. Ironing product looks nice and shines. For iron generally steam boiler is used. Steam boiler is so much useful for iron. Sometimes iron shoes are used in iron for better ironing.

✍ **Packaging:**

Packaging may be defined as the activities of designing and producing the vessel or the wrapper for the product. Generally the packaging could be considered as the silent sells

man of the product. When the garments are exported to the buyer different type of instruction should have to be followed by manufacturers.

### **Arrange Shipping Sample:**

Shipping sample is much important for shipment. Shipping sample means the representative of the product that manufacturer has produced for the buyer. Sample must be repetitive according to color, size.

### Follow- up Export Procedures

A merchandiser must follow the export procedures by himself.

### **Step 8: Export procedure:**

Cargo lifting advice is fixed to custom clearing agent/ forwarder/ transportation. Forwarder / clearing agent make arrangements for the custom clearance and booking of the space at earliest vessel. Following documents are requisite for the custom clearance. Detail is given following;

**Invoice:** In Invoice following criteria is required:

- ✍ Consignee and Applicant Addresses
- ✍ Garment statement
- ✍ Garment Price and Total Invoice value
- ✍ Net and Gross Weight of Garments
- ✍ PO (purchase order) no.
- ✍ From # & Date
- ✍ L/C. # (letter of credit)

**Packing list:** There are following details in the packing list required as per buyer's instruction or mentioned in L/C.

- ✍ Consignee and applicant addresses
- ✍ Product description
- ✍ Style and color

✍ Net and Gross weight of Garments

✍ No. Of Pieces in the Cartoon and Cartoon Dimension is also other necessary information

**Export-from:**

E-FORM is issued and attested by the concerned bank (National Bank Ltd.)

**Bill of entry:**

Applicable only in case of the imported materials used in the manufacturing of the garments for the export intention.

**Shipping bill:**

Shipping bill is made by the forwarder. After the sub Management Information Systems on of the custom documents, by the forwarder, custom authorities follow the documents. And examine the shipment accordingly. They write the report on the backside of the shipping bill and approve the shipment for the export from Bangladesh after following. All these docs are then returned to the export department.

**Visa process:**

After receiving the Documents from the forwarder, Export Department prepares the Visa documents, which are required for the export of garments to the following countries; USA, CANADA, EUROPEAN countries.

**Negotiation / Collection:**

After the completion of the Visa process, we submit the documents in the Bank for the negotiation/ collection. The docs are prepared according to the L/C or the buyer requirement.

**Document for the buyer:**

Export department also prepare documents for the buyer for the custom clearance of the shipment at the destination.

**Payment procedure:**

After the negotiation/ collection procedure of the documents, bank expresses the same to L/C opening bank, to realize the payment. Foreign bank is bound to realize the same within the 10 to 15 days.

**Commercial invoice:**

In the commercial invoice all the details are mentioned required under conditions of L/C for custom clearance and other necessary purposes.

**Packing list:**

It consists of color, weight, product code/other, coding numbers, no. of cartoons, cartoon dimension, and carton packing.

**Bill of lading / Airway:**

This is according to the L/C terms and conditions.

**3.11.9 Consumption & Costing:**

For 32000 pcs order quantity,

Gross Consumption = 2.93 yrd/pcs (Mini marker)

Units price = 3.00 (Supplier)

So,

**Fabric Consumption** = Gross consumption × Unit price

$$= 2.93 \times 3.00$$

Unit cost = \$4.50

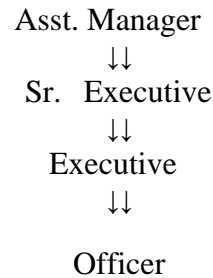
Total Value = \$4.50 × 32000

= \$144000.00

## CHAPTER 3.12 HR & COMPLIANCE DEPARTMENT :

**Compliance:** Compliance means to comply something or yield to the wishes another. Compliance is ensured all labor rights and facilities according to the buyer Code of conduct(COC). The aim of compliance is to maintain strictly the labor law.

### 3.12.1 Organogram



### 3.12.2 Compliance issues maintained by Envoy Ltd:

1. **Admin & HR department:**
  - a. Personnel policies:
    - ⌘ Recruitment policy
    - ⌘ Leave and holiday policy
  - b. Attendance and leave register card:
    - ⌘ Their weekly working hour not more than 66 hours including overtime in a week.
    - ⌘ They have the approved manpower list.
2. **Health & hygiene:**
  - ⌘ First aid ensure.

- ✍ Medicine registers.
  - ✍ Maternity & pregnancy register.
  - ✍ Pure drinking water.
  - ✍ Dustbin & spittoons.
  - ✍ Wash basin.
  - ✍ Separate toilets for men & women.
3. **Safety:**
- ✍ Safety committee
  - ✍ Needle detector
  - ✍ Fire alarm & switch
  - ✍ Emergency Exit plan
  - ✍ Personal protective equipment
  - ✍ Rubber mats to every iron man
4. **Welfare:**
- ✍ Welfare committee
5. **Workplace condition:**
- ✍ Working place is safe and hygienic.
  - ✍ Safety of building and machineries and other risky equipments.
  - ✍ Enough Lighting.
6. **Leaves & holidays:**
- ✍ Weekly holiday
  - ✍ Annual leave with wages
  - ✍ Festival holiday
  - ✍ Casual leave
  - ✍ Sick leave
7. **Salary & wages:**
- ✍ Fix wages is considered with respect of Govt.
  - ✍ Salary and wages given before 7th day of month.



## 8.Environment:

Procedure and standards for waste management, handling and disposal of chemicals and other hazardous materials, emissions & effluent treatment must or conquer minimum legal requirements.

## 9.Employment relationship:

Communication & relationship between management and workers are very good.

### 10. Others:

- ✍ To maintain daily labor report
- ✍ Canteen facility.
- ✍ Compliance item.

### 3.12.3 CODE OF CONDUCT of maintained by ENVOY Ltd:

- ✍ **Forced Labor:** Envoy Limited does not used forced labor in any form person, bonded or otherwise.
- ✍ **Child Labor:** The factory does not employ any person below the age of 18.
- ✍ **Compensation:** Envoy Limited provides each employee at least the minimum wages, or higher and provides each employee a clear, written accounting for every pay period.
- ✍ **Benefits:** It provides each employee all legally mandated benefits. These include meal subsidies, transportation or transportation subsidies: other cash allowances; health care; pregnancy or sick leave; vacation; religious holidays; leave and contributions to Provident Fund.
- ✍ **Hours of Work / Overtime:** Envoy Limited complies with legally mandated work hours; uses overtime when each employee is fully compensated according to local law; and on a regularly scheduled basis provides one day off in seven days, and requires no more than 60 hours of work per week.
- ✍ Management of environment, safety and health Envoy Lld. has written health and safety guidelines, has a factory safety committee provides personal protective equipment free of charge and mandates its policies which complies with all

applicable environmental, safety and health rules.

- ✍ Every employee shall be treated with respect and dignity. No employee shall be any physical, sexual, psychological or verbal harassment or abuse. Disciplinary procedure shall be applied fairly among all workers in the factory.

## **CHAPTER 4: IMPACT OF INTERNSHIP:**

As a part of course curriculum of Daffodil international university, students are sent for industrial attachment for two months practice in related field. During the attachment students worked as a trainee textile engineer and had to attend the official working days in general working hours i.e. 8 am to 5 pm.

I have gained knowledge by the industrial training are following

### **4.1STORE & INVENTORY**

- ✓ Operation of inventory Process.
- ✓ Concept about work-culture of store & inventory Section.
- ✓ Inventory process faults & their remedies.
- ✓ Different types of accessories name & function.
- ✓ How to store accessories by buyer wise.
- ✓ Idea about Inventory Report, Chalan etc.
- ✓ Source of accessories.

### **4.2EMBROIDERY SECTION**

- ✓ Introduce with embroidery machine
- ✓ Practical knowledge of how embroidery is done

### **4.3FABRIC INSPECTION SECTION**

- ✓ I Introduce with machine used in Fabric inspection section.
- ✓ I learn how to operate those machines.
- ✓ Performance of fabric inspection Process.
- ✓ Idea about the working process of fabric inspection Section.
- ✓ Fabric inspection process faults & remedies.

### **4.4QUALITY CONTROL SECTION**

- ✓ I Introduce with machines used in quality control section.
- ✓ Operation of quality control Process.
- ✓ Idea about working process of quality control department.
- ✓ Run into work culture of this section.
- ✓ Quality control process faults & remedies.
- ✓ Quality checking procedure of different garments.

#### **4.5 SAMPLE & CAD SECTION:**

- ✓ Know about the machines used in sample & cad section in the factory.
- ✓ Now I know how to operate this machines.
- ✓ I have introduce with work culture of this section.
- ✓ Operations of sample & cad section.
- ✓ To know about working process of sample & cad section
- ✓ I Know about Faults & remedies of sample & cad section.

#### **4.6 CUTTING SECTION**

- ✓ Practical experiences with machines of cutting section.
- ✓ I have learnt how to operate this machines.
- ✓ Operation of cutting Process and also the spreading process.
- ✓ Idea about work-culture of cutting Section.
- ✓ Cutting process faults & remedies.
- ✓ Numbering, bundling, spreading etc.

#### **4.7 SEWING SECTION**

- ✓ Introduce with machine used in sewing section.
- ✓ Operation Process of sewing.
- ✓ I Know about working process of sewing Section.
- ✓ Faults & remedies of sewing section.
- ✓ Breakdown of sewing procedure of the factory.

#### **4.8 FINISHING SECTION**

- ✓ To know about machines are used here.
- ✓ Operation of Finishing Process.
- ✓ Idea about work-culture of Finishing Section.Packing, Ironing, Checking process etc

#### **4.9 WASHING SECTION**

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- ✓ Acquainted with machine used in washing section.
- ✓ I have learned how to operate this machines.
- ✓ Operation of Washing Process.Idea about work-culture of Washing Section.
- ✓ Washing Process and different kinds of washing.

#### **4.10 INDUSTRIAL ENGINEERING DEPARTMENT**

- ✓ Now I know about importance of IE department.
- ✓ Get idea about SMV breakdown, line balancing , botol neck.
- ✓ Know about lay planning

#### **4.11 MERCHANDISING**

- ✓ Operation of Merchandizing Process.
- ✓ Idea about all Merchandizing activities.
- ✓ Costing,TNA,Consumption of garments product

## **4.12 HR & COMPLIANCE**

- ✓ Different Compliance Issues in garments.
- ✓ Idea about how to Maintain Complained Issues.
- ✓ How following Compliance issues in different section.
- ✓ Policy of worker requirement.

## **CHAPTER 5 :CONCLUSION :**

I have completed my Industrial Training successfully by the grace of Allah. Industrial Attachment sends me to the expected destiny of practical life. Envoy is a well known reputed factory in the textile field of Bangladesh. The completion of the two months industrial attachment at ENVOY FASHION LTD gave me the inspiration that factory is one of the appropriate destiny to implement the theoretical knowledge. From this industrial attachment I got the details idea about the factory environment, production process, total management, etc.

ENVOY GROUP is well arrayed, and the working environment here is excellent. The relation between top management to bottom level is also very nice. We are lucky to get the opportunity of having training in this garment factory. The factory runs by a number of efficient Textile Engineers, Skilled technical & Non- technical persons. All the Textile Engineers, technical & Non-technical persons are very sincere, co-operative and helpful. We wish good luck to them and also to this factory. It was really a productive practical learning besides my four year academics, so I wish I will be able to implement my learning and methodological knowledge successfully in the textile industry and the betterment of the economy of our country.