



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

Faculty of Engineering  
Department of Textile Engineering  
Report on  
Industrial Attachment  
At  
**Euro-Tex Knitwear Ltd.**

Course Title: Industrial Attachment

Course Code: 431

Submitted by:

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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: 20<sup>th</sup> to January 22<sup>th</sup> March, 2018

# DECLARATION

I have declare that this has been done by us under take supervision of Engr. Mohammed Abdul Baset, Assistance Professor Dept. of TE at Daffodil International University, I have also declare that neither this industrial attachment nor any part there has been submitted else here for award of any degree.

Md. Al- Mamun

ID: 152-23-4413

Department of Textile Engineering

Daffodil International University

Yours Sincerely



-----

# LETTER OF APPROVAL

April 13, 2018

To

The Head

Department of Textile Engineering

Daffodil International University

102, Shukrabad, Mirpur Road, Dhaka 1207

Subject: Approval of Industrial Attachment of B.sc in TE program

Dear Sir,

I am just writing to let know that, this Industrial Attachment report has been prepared by the students bearing is Md. Al- Mamun (152-23-4413) is completed for final evaluation. The whole attachment report is prepared based on the proper investigate from factory. The student was directly involved in his attachment activities and the report become vital to spark of many valuable information for the readers.

Therefore, it will highly be appreciated, if you kindly accept this Attachment and consider it for final evaluation.

Yours Sincerely,



**Engr. Mohammed Abdul Baset**

Assistant Professor

Department of Textile Engineering

Daffodil International University

# ACKNOWLEDGEMENT

At first, I am expressing my heartiest thanks and gratefulness to almighty Allah for his divine blessing makes us possible to complete this report successfully.

I have feel grateful to my academic supervisor **Engr. Mohammad Abdul Baset, Assistance Professor, Department of Textile Engineering, Daffodil international University**. He continuously guiding us about the development and preparation this report. He has enriched us with sharing necessary theoretical and practical ideas and supervised us to complete this report on time.

I would like to express our thanks to **Prof. Dr. Md. Mahbul Haque, Head. Department of Textile Engineering of Daffodil international University** for his kind help to finish our report.

I have highly indebted to the authority of **Euro-Tex Knitwear Ltd.** for allowing us to do a substantial part of the experiment work in their dyeing lab. Without their support, I could not be able to finish the project. Especially I have thankful to **Mr. Md. Abdul Kaium Mia (Sr. Executive, Fabric Processing& Quality)** without his permission no work, could be done at the factory.

Finally, I wish to avail of this opportunity, express a sense of gratitude and love to our beloved parents and my friends for their mental support, strength, help and everything.

# DEDICATION

At first, I want to dedicate this industrial training report to almighty Allah (ALHUMDULILLAH) for giving the Opportunity to prove myself. Without his help nothing would be possible. Then I want to dedicate this report to Prophet Mohammad (SM).

I also want to dedicate this to my honorable Teacher's at Daffodil International University and all of the people are help me in Euro- Tex Knitwear Ltd. to complete this report.

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# **CHAPTER 1**

## **EXECUTIVE SUMMARY**

## Executive Summary

The Internationally recognized buyers or clients are looking for those countries for producing their industrial products where different types of mills have established as a one stop source for the global market, satisfy and meet customer's expectation by developing and providing products and services on time, which offer value in terms of Quality, Price, Safety & Environmental impact. Also assure complete compliance with international quality standards and also to provide the employees internationally acceptable working condition/standards. In Bangladesh, there are different types of Textile Industry those are producing high quality textile and product Euro-Tex Knitwear Ltd. is one of them. Euro-Tex Knitwear Ltd. is Dyeing fabric Manufacturer & Exporter, having all state of the art facilities with annual turnover USD 180,00,000 to 200,00,000 They have Different types of Knitting, Dyeing and Finishing machines supplied by mostly Japan, Taiwan, U.K, USA, Singapore, etc. which are very latest. It has high production rate finished garments are produced per day. The production is controlled by skill persons. All of the decision makers of production sector in **Euro-Tex Knitwear Ltd.** are not textiles graduates. Finishing are well branded. They produce their product for their buyer and client those are coming from international market like U.K, Ireland, France, Germany, Belgium, and Spain. They follow all the system for their machines maintenance so production cannot hamper. In this report, we have tried to give some information about Euro-Tex Knitwear Ltd. and I have observed that Euro-Tex Knitwear Ltd. produce high quality dyeing fabric and fulfill the special requirements from the different types of buyers by according different internationally recommended standard method.

## **CHAPTER 2**

### **INFORMATION ABOUT THE FACTORY**

### **2.1.1 Introduction:**

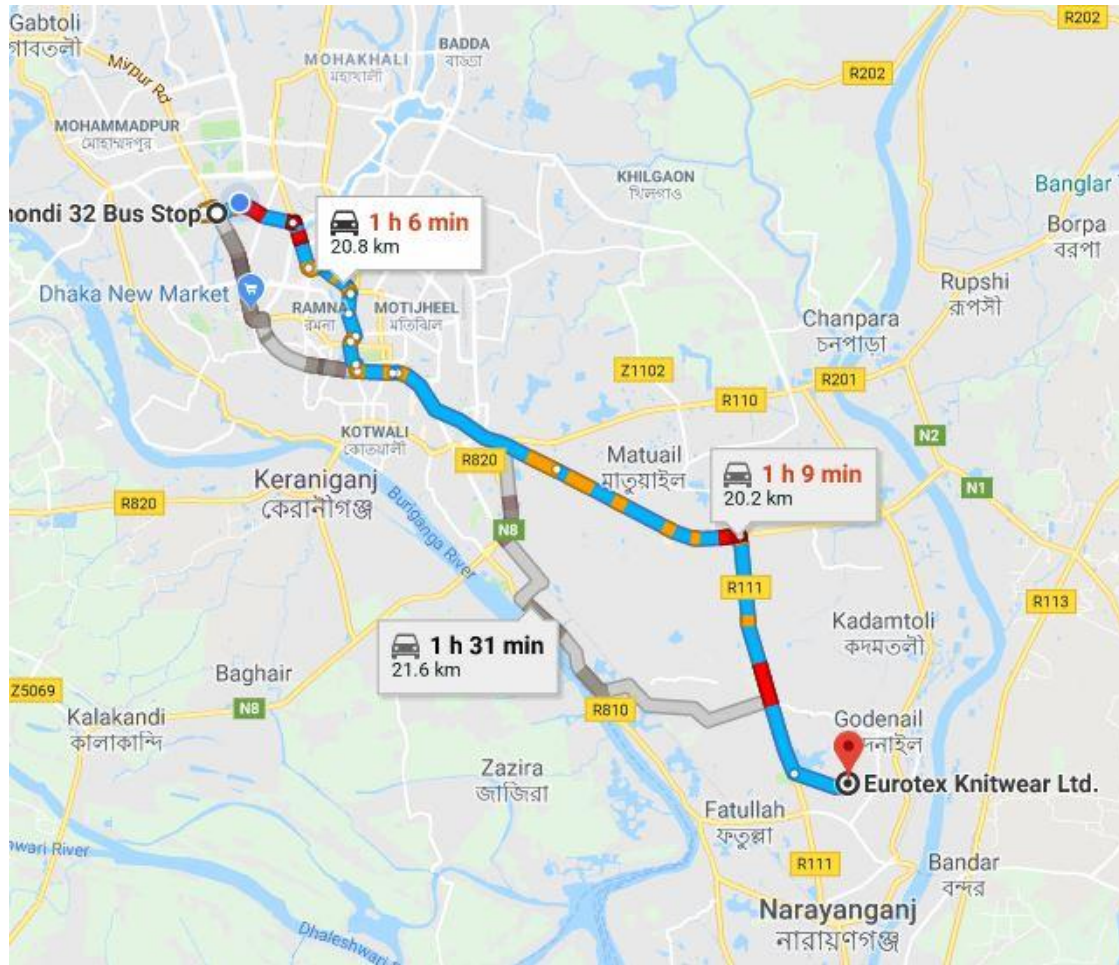
By methods for the handy information it's conceivable to apply the hypothetical learning in the handy field. For any specialized training useful experience is similarly imperative in relationship with the hypothetical information. The preparation limits the hole amongst hypothetical and functional information and makes us acquainted with the modern condition, we got a chance to finish two months (56 days) in length mechanical preparing and I did it in Euro-TEX Knitwear Ltd. which is comprises of Apparel Manufacturing Technology (Pattern making, Sampling, Marker Making, Cutting, Sewing , Finishing ) units. It has very much arranged and prepared. The mechanical connection is the procedure which constructs understanding expertise and mentality of the entertainer, which enhances his insight in boosting efficiency and administrations. College instruction gives us immense hypothetical information and in addition more viable connection, in spite of all these mechanical connection help us to be acquainted with the specialized help of present day apparatus, Knowledge about different task stages. It additionally gives us adequate down to earth information about generation administration, Productivity assessment, work think about, effectiveness, Industrial administration, creation arranging and control, generation cost investigation, stock administration, acquiring, utility and support of hardware and their activity systems and so on the previously mentioned can't be accomplished effectively by methods for hypothetical learning as it were. This is the reason it ought to be expert with viable learning in which it depends on mechanical connection makes us solid to be acclimated with the modern air and enhance boldness and motivation to take self - obligation.

### 2.1.2 Figure of the Factory:



Fig: Euro-Tex Knitwear Ltd.

### 2.1.3 Location of the Industry:





### 2.1.4 Company Profile:

Name	: Euro-TEX Knitwear Limited
Type	: 100% Export Oriented Knit Industry
Year of establishment	: 1998
Location	: Kutubpur, Fatullah, Narayangong
Annual revenue	: USD 550,000,001 –600,000,000
Production capacity	: 5.6 million Pcs/Month
Total Manpower	: Above 6000
Main Production	: T-Shirt, Tank top, Long Sleeve T-Shirt, Polo Shirt, Shorts, Sweat shirt, Pajama Set, Ladies & Kids, Infant Knitwear all kind of knit product.
Factory Certification	: OEKO-Tex, BSCI, SEDEX, ISO, GOTS
URL	: <a href="http://www.eurotexbd.net">http://www.eurotexbd.net</a>

### **2.1.5 Product mix:**

All are knitted product (Men's, Women's & Children's wear).

Such as t-shirt, polo shirt, trouser, short, full sleeve t-shirt etc.

### **2.1.6 Numbers of worker:**

1. Employee Quantity : 6000
2. Male Employee : 2500
3. Female Employee : 3500

### **2.1.7 Number of machine:**

1. High production single jersey circular knitting m/c: 14
2. New Generation High Production Interlock Circular Knitting M/C: 08
3. New Generation High Production Rib Circular Knitting M/C: 08
4. Flat knitting m/c: 25
5. Circular knitting m/c: 72

### **2.1.8 Dyeing Section**

1. Sample dyeing m/c: 09
2. Bulk dyeing m/c: 15
3. Finishing m/c: 13

## 2.1.9 Printing Section:

All over printing m/c: 30

## 2.2.1 Garments Section:

1. Cutting machine: 25
2. Sewing machine: 600
3. Steam iron: 120
4. Needle detector: 2

## 2.2.2 Area of Euro-Text knitwear:

Total area of Euro-Text knitwear Ltd. 3 Acres

## 2.2.3 Major Buyer logo:



#### **2.2.4 Garments Fabrics are used:**

- Single jersey
- Heavy jersey
- Pique Lacoste interlock
- Rib
- Pleated design Rib
- .Modal
- Cotton Viscose
- Collar & Cuff made of Cotton
- Cotton Modal
- Polyester Viscose
- Polyester
- Cotton polyester
- CVC

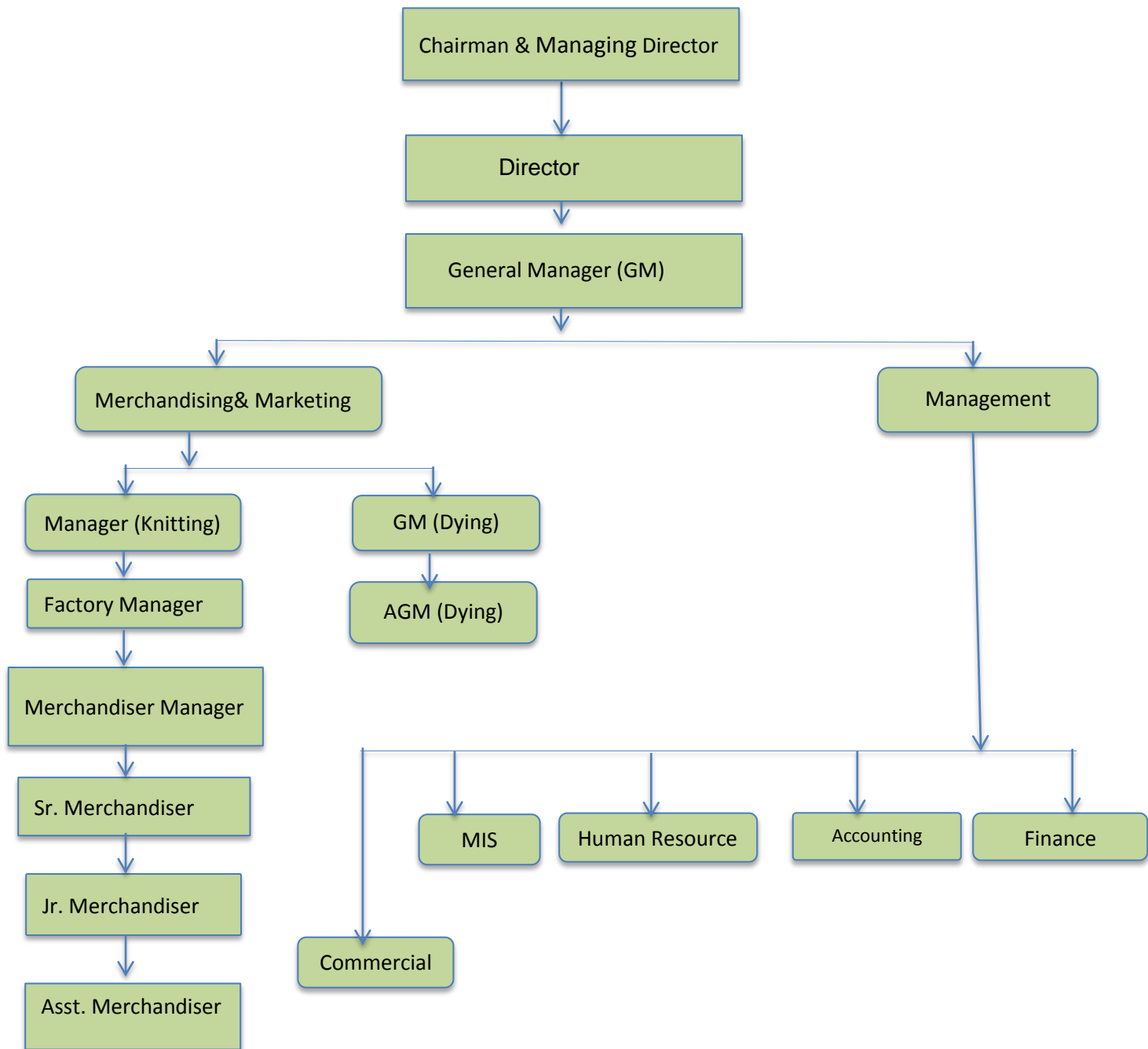
#### **2.2.5 Mission & vision:**

- To give the representatives universally worthy working condition/guidelines
- To advance the improvement and best utilization of human ability and equivalent open door business
- To build up ourselves as a one stop hotspot for the worldwide Knit Apparel advertise
- To fulfill and meet client's desire by creating and giving items and administrations on time, which offer an incentive as far as quality, value, security and social duty.
- To guarantee finish consistence with the universal quality measures
- To get the most developed and refined innovation reasonable for creating wanted item.
- To accomplish most elevated amount of ability through ceaseless advancement of the expert administration framework and to guarantee finish straightforwardness in all parts of business

### **2.2.6 Social Commitment:**

Euro-Text knitwear ltd. is a for the most part presumed organization that remembers the earth while settling on any authoritative choice. It comprehends their duties towards society and condition in which they work. They provide for prime thought to wellbeing and security, ecological assurance and mischance counteractive action in accordance with some other periods of task or organization. They are a socially cognizant organization and work with the strategy of giving and keeping up a safe and solid workplace. Their working methodology and hierarchical arrangements guarantee strict adherence to rehearses that will protect the enthusiasm of all partners, society and the earth.

## 2.2.7 Organogram of Manpower:



## **CHAPTER 3**

### **DESCRIPTION OF THE ATTACHMENT**

### **3.1 Knitting section of Euro-Text knitwear Ltd:**

#### **3.1.1 Knitting section:**

Knitting area is the underlying segment of Euro-Text knitwear Ltd. Programming controlled texture designing systems are utilized to set and screen the texture Dimension in weaving. Multiphase has weaving m/c (Circular and flatbed sew) with different Gauge and measurements to create Jersey, PK, Rib, D/J.

#### **3.1.2 Classification of knitting:**

Basically, there are two types of knitting which is weft knitting and warp knitting.

#### **3.1.3 Circular Knitting Section:**

This area contains 72 round weaving machines. Roundabout sewing machines are of various sorts, made by various maker and furthermore have distinctive particulars. In this area body texture for sewed articles of clothing is created. The distinctive particulars of various machines are given consistently.

#### **3.1.4 Flat Knitting Section:**

For the most part, neckline, sleeve of sewed pieces of clothing is delivered in this area. In this area there are

50 level sewing machines. To every one of them is same write and furthermore have same particular. The

Detail of all machines is given beneath:



### **3.1.5 Some knitting machine list Euro-TEX knitwear Ltd.:**

Machine No: 01

Machine Name:

Single Jersey Circular Knitting Machine

Machine Diameter: 32

Machine Gauge: 24

Feeders: 96

Origin: China

Machine No: 02

Machine Name: Single Jersey Circular Knitting Machine

Machine Diameter: 36

Machine Gauge: 24

Feeders: 108

Origin: China

Machine No: 03

Machine Name: Single Jersey Circular Knitting Machine

Machine Diameter: 38

Machine Gauge: 24

Feeders: 114

Origin: China

Machine No: 04

Machine Name: Single Jersey Circular Knitting Machine

Machine Diameter: 42

Machine Gauge: 24 Feeders: 126

Origin: China

Machine No: 05  
Machine Name: Single Jersey Circular Knitting Machine  
Machine Diameter: 40  
Machine Gauge: 24  
Feeders: 120  
Origin: China

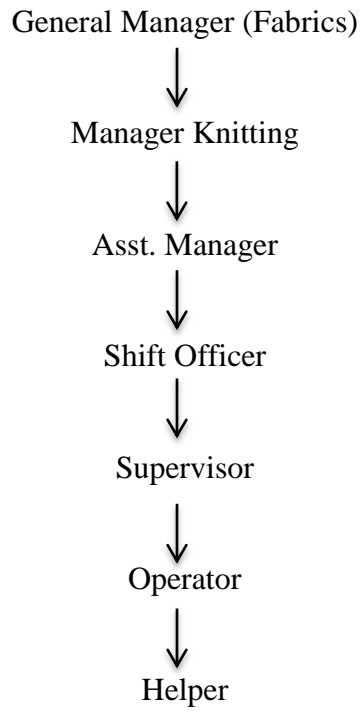
Machine No: 06  
Machine Name: Rib Knitting Machine  
Machine Diameter: 30  
Machine Gauge: 18  
Feeders: 84  
Origin: China

Machine No: 07  
Machine Name: Rib Knitting Machine  
Machine Diameter: 40  
Machine Gauge: 18  
Feeders: 84  
Origin: China

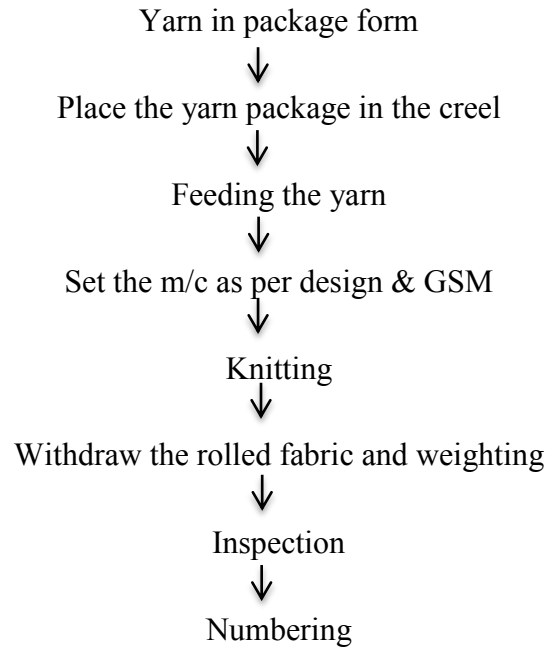
Machine No: 08  
Machine Name: Rib Knitting Machine  
Diameter: 34  
Machine Gauge:  
20 Feeders: 102  
Origin: China

Machine No: 09  
Machine Name: Single Jersey Circular Knitting Machine  
Machine Diameter: 28  
Machine Gauge: 24  
Feeders: 85  
Origin: China

### 3.1.6 Organogram of Knitting:



### 3.1.7 Process Flowchart for Knitting:



## **3.2 DYEING SECTION**

### 3.2.1 Dyeing

Dyeing is the second step of Euro-Text knitwear. In dyeing section, dyeing capacity is 15 ton/day. There are 20 dyeing machine in dyeing section, different dyeing machine has different dyeing capacity.

### 3.2.2 Main Components of a dyeing m/c

1. Mixing tank
2. Main tank
3. Monitor
4. Unloading reel



Fig:3.2.2 dyeing machine

### **3.2.3 Specification some dyeing m/c of Euro-Text knitwear ltd:**

No. of the m/c: 01

Name of m/c: Moon star (HT)

Capacity: 450 kg.

Temperature: 135°C

Company name: PPM (PASLANMAZ MALZEME VE MAMULLERI)

Made by: TURKEY

No. of the m/c: 02

Name of m/c: Long close

Capacity: 300 kg

Temperature: 170°C

Company name: PPM (PASLANMAZ MALZEME VE MAMULLERI)

Made by: ENGLAND

No. of the m/c: 03

Name of m/c: Over flow

Capacity: 300 kg

Company name: PPM (PASLANMAZ MALZEME VE MAMULLERI)

Made by: TURKEY

No. of the m/c: 04

Name of m/c: Over flow

Capacity: 400 kg

Company name: PPM

Made by: TURKEY

No. of the m/c: 05

Name of m/c: Over flow

Capacity: 500 kg

Company name: PPM

Made by: TURKEY

No. of the m/c: 06

Name of the m/c: Moon star (HT)

Capacity: 600 kg

Company name: PPM

Made by: TURKEY

No. of the m/c: 07

Name of m/c: Over flow (Sample)

Capacity: 50 kg

Company name: PPM

Made by: TURKEY

No. of the m/c: 08

Name of m/c: Fong's

Capacity: 10 kg

Temperature: 140°C

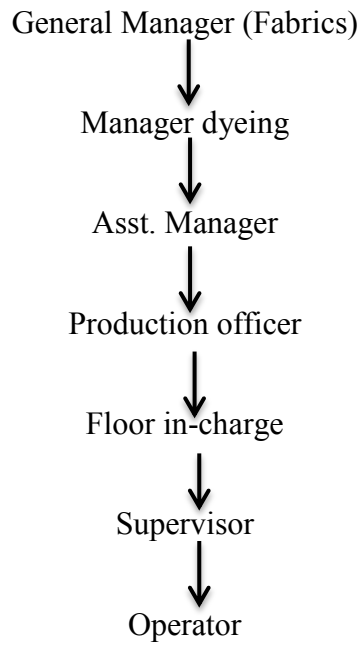
Design Pressure: 350 Kpa

Company name: Fong's National Engineering (SHENZHEN) co. Ltd

Made by: CHINA



### 3.2.4 Organogram of Dyeing of Euro-Text knitwear:



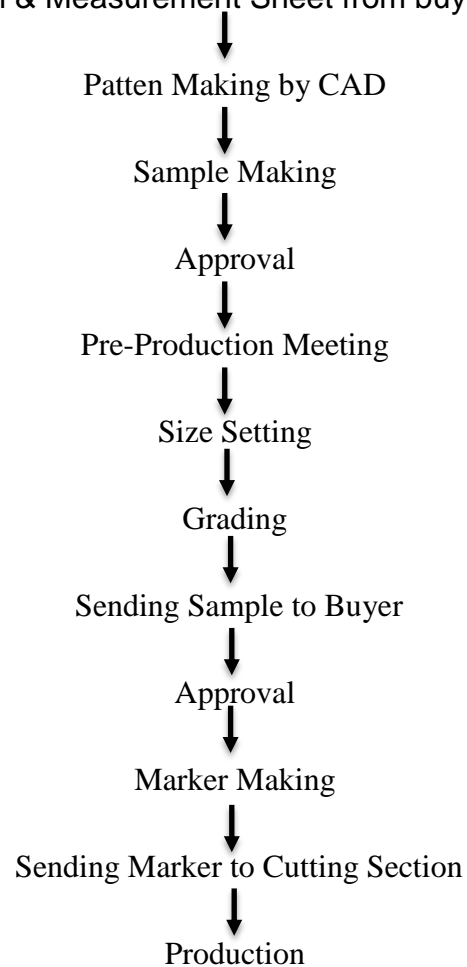
### **3.3 Garments section**

### 3.3.1 Sample section:

Euro-TEX knitwear Ltd. has separate sample section, which is located in the 3rd floor in the 8 stories building.

### 3.3.2 Operational flow of sample department of Euro-TEX Knitwear:

Receive Specification & Measurement Sheet from buyer (via merchandiser)



### 3.3.3 Type of sample of Euro-TEX Knitwear:

- Proto or Development Sample
- Photo Sample
- Size set/ Grade/ Fitting Sample
- Additional sample
- Contract seal/ seal Sample
- Pre -Production Sample
- Production Sample
- Sales Man Sample
- Rack Sample



Fig: 3.3.3 Sample Section

### **3.4 Cutting section of Euro-Text knitwear:**

After checking fabric properly the next steps is cutting. After inspection fabric are spreading for cutting according to consumption. Cutting section is place on 6<sup>th</sup> floor. Cutting section is divided into three sections:

- Marker planning
- Spreading
- Cutting

#### **3.4.1 Details of cutting Section of Euro- Text knitwear:**

There are 5 cutting table in cutting section Euro-Text knitwear

1<sup>st</sup>cutting table:

- Length – 55 feet
- Width – 7.5 feet

2<sup>nd</sup>cutting table:

- Length – 50 feet
- Width – 7.5 feet

3<sup>rd</sup>cutting table:

- Length –52 feet
- Width – 7.5 feet

4<sup>th</sup>cutting table:

- Length – 40 feet
- Width – 7.5 feet

5<sup>th</sup>cutting table:

- Length –35 feet
- Width – 7.5 feet

So, we can see the 1<sup>st</sup> cutting table is the large cutting table in Euro-Text knitwear

### 3.4.2 Cutting Machine:

Euro-Tex knitwear have two types cutting machine are used.

- Straight knife
- Band knife

Band knife is not use available, it use for specific design cutting. When we worked Straight knife machine is used.



Fig: 3.4.2 straight knife cutting machine

### 3.4.3 Fabric lay height maintain of Euro-TEX knitwear:

- Standard fabric lay height of Euro-TEX knitwear 2.5 inch.
- For cotton, CVC, Lycra fabric lay height is 3-3.5 inch.
- For fleece fabric lay height is 5-6 inch

### 3.4.4 Flow sequence of cutting:



### 3.4.5 Fabric receiving:

Surface essential for a demand is determined by the ordinary usage of the surface from the marker. In the event that there ought to emerge an event of different shading demand, shading clever need is made. Surface division issues surface to cutting against the surface essential.

### 3.4.6 Fabric relaxation:

### 3.4.6 Spreading:

Spreading alludes smooth lying out of the texture in superimposed layers of particular length. Cutting marker paper is laid in the highest point of the texture layer, the greatest width of the cutting marker obliged by the usable width of texture. The quantity of handles relies on the thickness of texture.



Fig: 3.4.6 Fabrics spreading

### 3.4.7 Methods of spreading:

- Fabrics lay by fabrics spreading machine
- Manually

By this method fabric are spreading by hand.

### 3.4.8 Methods of cutting:



Fabrics are cutting by two ways,

- Straight knife
- Scissors



Fig: 3.4.8 cutting machine

Straight knife is the most common use in cutting section. By this machine cutting system are easy and can be cutting high lay of fabric.

Sometimes fabric is cutting by scissors. When fabric lay so small sizes then fabric are cutting by scissors.

### 3.4.8 Numbering:

Isolated piece of clothing parts are numbered to guarantee that in sewing all segments from same layer are sewed together. It is critical to maintain a strategic distance from shade variety in an article of clothing. Between the cutting and sewing forms slice parts might be gone through different procedures like printing and weaving. There is most extreme possibility of blending of the segments. On the off chance that there is layer number in every segment then at the season of sewing just right parts will be sewed together.



Fig: 3.4.8 Numbering machine

### Sorting:

As per generation framework (Make through, dynamic package or one piece stream framework) cut parts are arranged. In arranging all segment of a piece of clothing set together. Estimate insightful arranging and in the event that numerous hues are cut in a solitary lay, shading astute arranging will be required.

## **Bundling:**

According to the generation line necessity a specific number of pieces with all parts are entwined. This procedure is known as packaging. Each package is set apart with package number, style name, estimate number and amount of pieces in that package. At this stage slicing are prepared to send to creation line for sewing.

### **3.4.9 Cutting section defects of Euro-Tex knitwear:**

#### **Wrong cutting:**

Which was creating for Marker are not properly Attached With Fabric.

This problem can be creating by other Cause such as:

- Careless cutting operator
- Deflection of blade
- Roller jams during cutting.

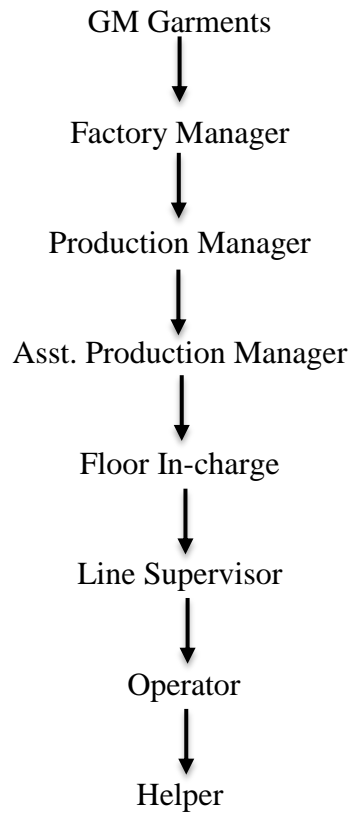
#### **Solution:**

- Blade should be sharpened
- Regular checking of cutting machine
- Should be careful when cutting



Fig: 3.4.9 Wrong cutting

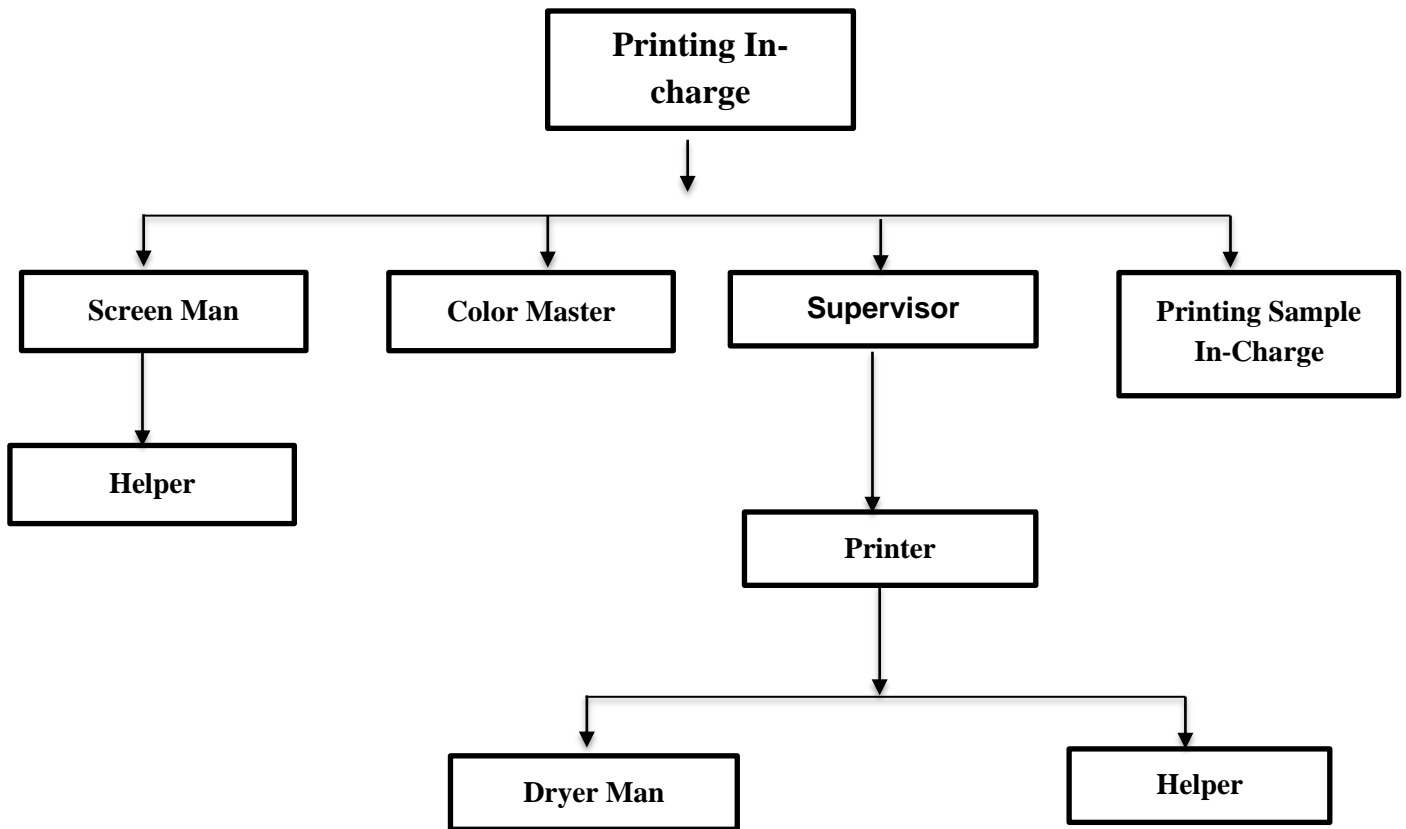
### 3.4.10 Organogram of Garments of Euro-Text Knitwear:



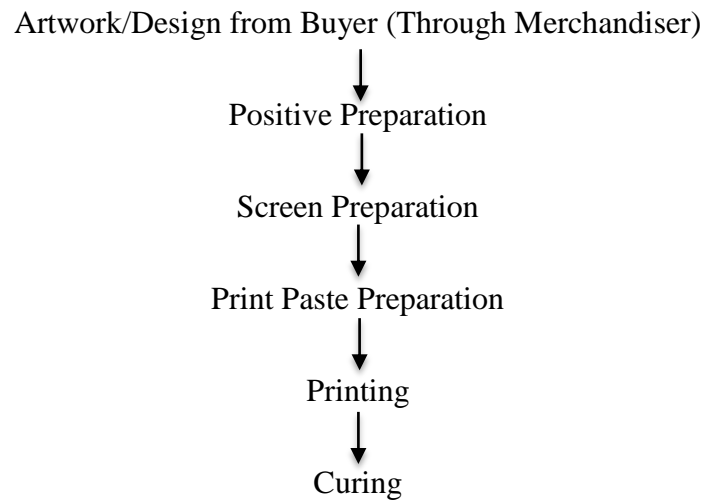
### 3.5.2 Printing Section of Euro-Text knitwear:

Printing on fabric refers localized coloration. Printing section is placed in beside cutting section. Total no of printing table 5. Every printing table length is 52 feet and width is 10 feet. In printing section has one dryer machine.

### 3.5.3 Organogram of Printing section of Euro-Text Knitwear:



### 3.5.3 Sequence of printing process:



### 3.5.4 Different types of Printing

Those types of printing are available Euro-Tex knitwear but I am working about Screen Print.

- Pigment Print
- Rubber print
- High Density Print
- Screen Print
- Glitter print
- Rainbow print
- Radium print
- Foil print
- Jell print
- Metallic print
- Flock Print
- Discharge print

### 3.5.5 Machine photos of printing section



Fig: 3.5.5 Screen printing



Fig: 3.5.5 Dryer machine

### **3.5.6 Printing faults of Euro-Tex Knitwear:**

1. Print color shading
2. Wrong side
3. Print slarted
4. Color wrong
5. Color spot
6. Size mistake
7. Bleeding
8. Bunoledle card mistake
9. Print wrong
10. Fabric hole
11. Print burn
12. Fabric shade
13. Air hole
14. Crease mark
15. Print bubble
16. Oil spot
17. Print missing
18. Fabric burn
19. Wrong place
20. Needle mark
21. Not properly attached
22. Cutting problem
23. Hand feels
24. Sticker wrong
25. Migration
26. Dye migration
27. Dirty mark
28. Yarn hole
29. Uneven shade
30. Yarn contamination



Those types of printing faults are occur in Euro-TEX knitwear but I have seen Wrong place printing, Dirty mark, Uneven shade, Fly yarn, Size mistake, Crease mark.

### 3.6 Sewing Section

Sewing section is the most important section. It is placed on 2-7 floor. There are many sewing line but when I am working 50 sewing was running.

#### 3.6.1 Sewing machine specification of Euro-TEX knitwear:

Number of sewing line: 50

Production: 100000 pieces per day

Production Item: Knit

Specification of Some Sewing Machine of Euro-TEX Knitwear				
M/C Name	No of Needle	Thread	Stitch length(mm)	SPM
Lock stitch m/c	½		5	1500-5500
Chain stitch m/c	1/more	1/more	1.4-4.5	1800-6000
Over lock m/c	½	2-5	2-5	6500-8000
Zigzag m/c	1	2	2.4	5550
Flat lock m/c	Up to 4	4-9	8-16	6000
Blind stitch m/c	1	1/2	3-8	2500

### 3.6.2 Machine type and Origin of Euro-TEX knitwear:

Name of m/c: Plain machine

Brand name: Juki

Origin: Japan

Model: DDL-9000 SS

Needle type: DB×1

Stitch type: Lock stitch.

Motor type: servo motor

Rpm: 400-4000



Name of m/c: Overlook sewing machine

Brand name: Juki

Origin: Japan

Model: MO-3914, TO-42

Needle type: DC×1, DC×11, DC×14

Stitch type: Chain stitch.

Motor type: Servo motor

Rpm: 400-8000.



Name of m/c: Flat lock sewing machine.

Brand name: Juki

Origin: Japan

Model: MF-7823, U-10-B-56.

Stitch type: chain stitch.

Motor type: clutch motor.

Rpm: 2600.



Name of m/c: Buttonhole sewing machine.

Brand name: Juki

Origin: Japan

Model: LBH-1790SS

Needle type: DP×5

Stitch type: lock stitch.

Stitch design: 19.

Rpm: 800-4000.



Name of m/c: Button attach machine

Brand name: Juki

Origin: Japan

Model: LK-1903A-SS.

Needle type: DP×5, DP×17

Stitch type: lock stitch.

Needle: 01.

Rpm: 400-2700.



Name of m/c: KANSAI (special)

Brand name: Juki

Origin: Japan

Needle: Maximum 11

Needle type: UO×128

Stitch type: Chain stitch.

Motor type: Clutch motor.

Rpm: 2600.



### **3.6.3 Different type of sewing fault of Euro-Text knitwear:**

- Broken Stitch
- Thread Breakage
- Skipped Stitch
- Open Seam
- Label Displace
- Seam Puckering
- Uneven Stitch
- Joint Stitch
- Wrong sewing of main label
- Seam Pucker
- Oil Spot
- Uneven Shoulder
- Uneven shade

### **3.6.4 Stitch Problems:**

- ✓ Broken Stitch
- ✓ Uneven Stitch
- ✓ Ridge Stitch
- ✓ Run Off Stitch
- ✓ Puckering Stitch
- ✓ Pleated Stitch
- ✓ Skip Stitch
- ✓ Gathering Stitch
- ✓ Incomplete Stitch
- ✓ Tension Stitch
- ✓ Joint Stitch
- ✓ Dirty Stitch

### 3.6.5 Front part making:

Serial No	Name of Operation	Machine used	No of M/C
1.	Pocket Matching		1
2.	Ironing		1
3.	Coin Pocket Attaching	2 Needle m/c	1
4.	Label Joining	Plain stitch m/c	1
5.	Coin Pocket Attaching with Front Facing	Plain stitch m/c	1
6.	Number Match with Front Part	Plain Stitch m/c	1
7.	Coin Pocket Joining with Front Part	Plain stitch m/c	2
8.	Front Pocket Rolling	2 Needle m/c	1
9	Pocket Tuck	Plain stitch m/c	1
10	Pocketing Over Lock		1
11	Single Fly Join with Top Stitch	Plain stitch m/c	1
12	Pocket ¼" Top Stitch	Plain stitch m/c	1
13	Front Pocket with Front Tucking	Plain stitch m/c	1
14	Zipper Joining	2 Needle m/c	1
15	J – Stitch	2 Needle m/c	1
16	Double Fly Joining	Plain stitch m/c	1
17	Front Rise Stitch	2 Needle m/c	1

### 3.6.6 Body Section:

SL.	Name of Operation	Machine used	No of Machine
1	Back & Front Part Match on Table		
2	In Seam	Plain Stitch m/c	1
3	Top Seam on In Seam	Feed of the Arm m/c	1
4	Side Seam	Over Lock m/c	2
5	Hemming	Plain Stitch m/c	1
6	Waist Belt Matching by Number		
7	Waist Belt Sewing	KANSAI	2
8	Edge Neatening of Down Part of the Waist	Plain Stitch m/c	2
9	Waist Top Part Making		
10	Waist Top Part Edge Neatening	Plain Stitch m/c	2
11	Checking by LQC		
12	Belt Loop Matching		
13	Loop Tuck on Down Side of Waist	Plain Stitch m/c	2
14	Loop Joining with Top Side of Waist	Plain Stitch m/c	2
15	Final Inspection		
16	Loop & Back Part Bar Tacking	Bar Tack m/c	1
17	Side Pocket Tucking	Plain Stitch m/c	2

### 3.6.7 Rejection of Body:

1.	Thick-thin place	Rejected
2.	Oil stripe/line	Do
3.	Uneven tension	Discuss with manager
4.	Crease line	Do
5.	Missing yarn	Use 4 point
6.	Uneven tension	Discuss with manager
7.	Sinker marks	Do

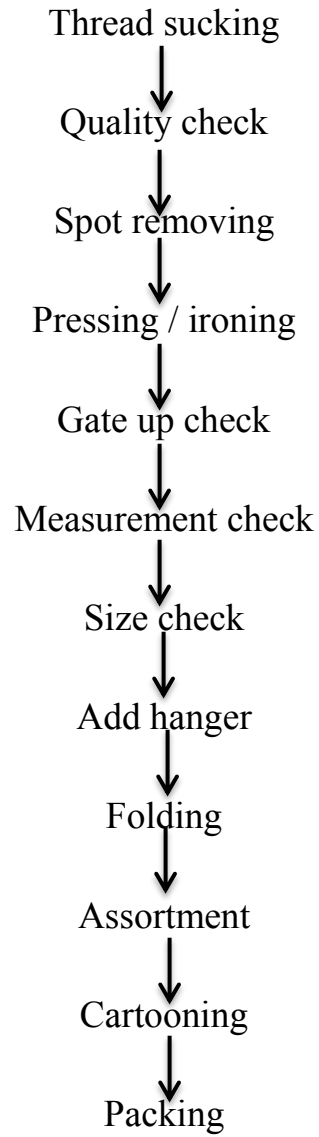
### 3.6.8 Finishing section:

Finishing section had equipped with modern pressing machines & trained workers. Like other operations, quality of garments is strictly being controlled here to secure acceptable quality level.

In finishing section following machines are used –

SL No.	Finishing machine	No. of m/c
01	Dryer	01
02	Washing/c	02
03	Fusing m/c	03
04	Tag attached m/c	06
05	Spot removing m/c	06
06	Thread sucking m/c	07
07	Needle Detector m/	02
08	Vacuum Iron table 83	84
09	Steam Iron	83

### 3.6.9 Sequence of the Finishing Section:

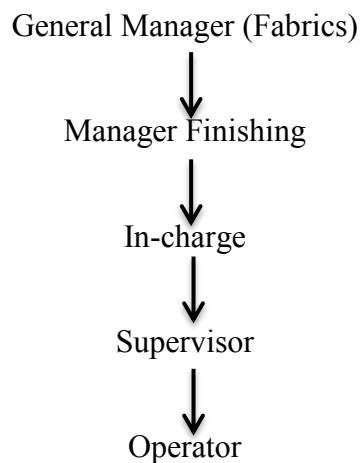




### 3.6.10 Types of Assortment:

- i. Assorted color & Solid size
- ii. Solid color & assorted size
- iii. Assorted color & assorted size
- iv. Solid color & Solid size

### 3.6.11 Organogram of Finishing of Euro-Tex Knitwear:



### Remarks:

Euro-Tex Knitwear Ltd. is an advance & good planned and best goods furnished Industry. Everything is which is necessary is available here for fulfill the customers demand ....

## **3.7 Merchandising:**

### **3.7.1 Manpower of Euro-Tex knitwear:**

Marketing plays a vital role in the field of displaying/ showing the good criteria of the Products to the buyer & to communication with the buyer. There are about 10 peoples in the Marketing section of the industry.

Following countries mainly imports products from CCL through many internationally well Reputed Buyers.

· Europe countries like UK, France, Germany, USA etc.

### **3.7.2 Product label:**

There are following labels used by this mill:

1. Care Label: It contains washing in hot or cold water, chemical cleaning, drying conditions etc.
2. Size Label: It contains size of garments.
3. Composition Label: It contains the fabric composition of different fiber type.
4. Decorative Label: Decoration is as buyer or consumer choice wise.
5. Flag label: it indicates importing country.
6. Barcode label: it indicates hidden identity of product.
7. Price label: it indicates price of product.

### **3.7.3 Marketing strategy:**

Advertising procedure is an essential variables to deal the items to the purchasers. On the off chance that the Marketing methodology isn't so much created it will be difficult to achieve the objective. In the event of Garments advertising the dealings with the purchaser is an essential factor.

In CCL primarily General Manager, Marketing Executives, Merchandiser and higher authorities manages the purchaser. There is some settled purchaser of the business. The purchaser gives their requests ceaselessly everywhere throughout the year. The advertising officers and the merchandisers speak with the purchasing houses to gather the requests. By both side understanding the rate and the request amount are settled

### **3.7.4 Package size & label:**

Most common sizes are---

- S – Small
- M – Medium
- L – Large
- XL - Extra large
- XXL – Very Extra large

### **3.7.5 Duties & Responsibilities of Marketing Officer:**

Managing the purchaser and persuade the purchaser is the fundamental obligation of the promoting officer. A showcasing officer additionally has some different obligations. The principle obligations duties of an advertising officer are given underneath:-

- To get ready cost sheet by managing the purchaser
- To make distinctive strides by talking about with the high authorities and merchandisers
- To keep up a consistent and great connection between business officer and merchandisers
- To keep up a consistent correspondence with the purchaser and purchasing houses
- Communicate with the new purchasers.
- Display the better criteria of the items.

## **CHAPTER 4**

# **IMPACT OF INDUSTRIAL ATTACHMENT**

## **4.1 Impact in the Internship of Euro-Text knitwear**

The completion of two months industrial attachment in Euro-Text knitwear Gave me inspiration that factory is one of the appropriate destiny to implement the theoretical knowledge. This industrial training taught me lot about different textile technology, various production process, modern textile machineries, their use and function.

### **4.1.2 Sample Section:**

- ❖ Observed how skilled workers work in sample section
- ❖ Learned the process of preparing a pattern for an individual size & design
- ❖ Cleared the conception about different types of sample required to produce a garment

### **4.1.3 Cutting section:**

- Learned about different type of cutting machines (i.e. Straight knife cutting machine, Round knife cutting machine, Band knife cutting machine)
- Learned the process of fabric spreading
- Observed the process of fabric cutting according to the marker
- Understood different process of fabric lay
- Understood how numbering and bundling is done

### **4.1.4 Printing Section:**

- Learned about screen or print paste preparation
- Cleared the conception about different type of printing method
- Learned about different types of printing machine

#### 4.1.5 Sewing Section:

- Learned about different type of machines used in a sewing floor (i.e. Single or double needle lock stitch machine , Multi needle chain stitch machine, Over lock machine, Feed of the arm machine etc.)
- Cleared the conception about production of a sewing floor ( line by line and total floor)
- Observed and realized the importance of final inspection at the end of every sewing line
- Got experienced in making production study of an operator for an individual process for a definite time interval

#### 4.1.6 knitting Section:

- We learnt about different types of knitting machine, their parts, function, use.
- About yarn, yarn count and their sources.
- Different types of fabrics and their GSM.
- About Cam, and their types function and arrangement.
- Needle, their function and arrangement.
- About fabric inspection, different types of faults.

#### 4.1.7 Dyeing section:

- ✓ About Dyeing procedure
- ✓ Different types of dyeing machine, their function and use.
- ✓ How to dyes and chemical are fixing on to the fabric.

#### 4.1.8 Finishing section:

- To know different types of finishing machine,
- To Know how to work
- To know about functions and their uses.

#### 4.1.9 Garment section:

- To know about the sample section about different types of sample pattern and their construction
- To know marker section, about marker, CAD system, marker efficiency and plotter
- Spreading and cutting section, about fabric spreading and cutting. Different types of cutting machine and their function
- About numbering and bundling.
- To also know sewing section about different types of sewing machine, their function and use.
- Different types of stitch.
- Different types of sewing faults.
- Sequences of different items such as T-shirt, polo shirt, laggings etc



## **CHAPTER 5**

## **CONCLUSION**

## **5.1 Conclusion:**

I have completed my industrial attachment successfully by the grace of Allah. Industrial Attachment sends me to the expected destiny of practical life. Industrial attachment is an important and essential part of our student life. I think Textile is a large sector. I have gathered some new experiences such as dealing with buyers and learning company's laws in the duration of internship. I learn all the implementations of the processes which we have studied theoretically. The completion two months Industrial attachment at Euro-Tex Knitwear Ltd. was a part of B.sc in Textile Engineering course. I have got the impression that factory is one of the most modern export oriented knit Garments in Bangladesh. It has earned "very good reputations" for its best performance over many other export oriented textile mills. During our training period, talking with the clients of this mill we knew that the mill is fulfilling the country's best export oriented white finished fabric as well as very good colored fabric due to its modern machinery & good management system.. I have enough fortunate that I got an opportunity of having a training in this mill. During the training period I am received co-operation and association from the authority full & found all man, machines & materials on appreciable working condition. All stuffs & officers were very sincere & devoted their duties to achieve their goal. I have lucky to get the opportunity of having training in this mill. 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.