



Daffodil
International
University



Faculty of Engineering

Department of Textile Engineering
REPORT ON

Industrial Attachment

At

Mondol Group

Sultan market, khasimpur, Gazipur

Course Title: Industrial Attachment

Course Code: TE -431

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This Report is partial Fulfillment of the Requirement for the **Degree of Bachelor of science in textile Engineering** .

Advance in Apparel Manufacturing Technology

Duration: From Sep 22th to Nov 20th, 2018



LETTER OF APPROVAL

To
The Head
Department of Textile Engineering
102, Sukrabad, Mirpur Road, Dhaka 1207

Subject: Approval of Industrial Attachment Report of B.Sc. in TE Program.

Dear Sir,

We are just writing to let you know this industrial Attachment in “**Mondol Group**” has been prepared by the student ID: 151-23-4181, ID: 151-23-4233, ID: 151-23-4170 are completed for final evaluation. The whole report is prepared based on the proper investigation and information in Mondol Group. The student was directly involved in his industrial attachment report activities.

There for it will highly be appreciated if you kindly accept this industrial attachment report and consider in for final evaluation

Yours Sincerely

.....

Mohammad Abdul Baset

Assistant professor

Department of Textile Engineering

Daffodil International University



DECLARATION

We declare that, this work contains no materials which has been accepted for the award of any other degree in our name in any university or other institution and to the best of our knowledge and belief contains no materials previously published or written by another person except where due reference has been made in the text. And which has been done by us under the supervision of **Engr. Mohammad Abdul Baset**, Assistant professor, Department of Textile Engineering, Daffodil International University. We certify that no part of this work will, in the future be used in a submission in our name for any other degree or other institution without the prior approval of the Daffodil International University.

Submitted by:

Name: MD: Sadik Rawshan ID: 151-23-4181 Signature:.....

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ACKNOWLEDGEMENT

At first we would like to express my heart-felt thanks to ‘**Almighty Allah**’ for his kind blessing to complete of this internship report successfully.

We are fell grateful to and wish our profound our indebtedness to **Engr. Mohammad Abdul Baset, Assistant professor, Department of TE, Daffodil International university, Dhaka.** Deep knowledge & keen interest of our Supervisor in the field of knit garments merchandising at apparel industry influenced us to carry out this project. His endless patience, scholarly`

We express our sincere acknowledgement to our Professor **Dr. Md. Mahabubul Haque, Head of the Department of Textile Engineering, Daffodil International University.** His ideas and advice helped us to complete the project as well as to write the report successfully.

Finally, we would like to acknowledgement that we remain responsible for the inadequacies and errors, which doubtless remain in the following report.

We would like to thank **Mr. Hasan (Deputy Planning manager) of Knitex dresses Ltd.(mondol Group)** and the staffs who motivate us toughly and the other people, Who have made a significant contribution to make this report successful. Their guide lines, suggestion & inspiration helped us a lot.



DEDICATION

Above all, we want to thank **Almighty Allah**. By the **grace of Allah**, we have successfully completed our thesis paper. We want to dedicate our work to our honorable teacher. We want to thank **Engr. Mohammad Abdul Baset, Assistant Professor Daffodil International University** whose most contribution behind our success. Especially our Father whose hard fatigue helps to reach this situation. Frankly we want to say, all of our cousin or relatives everyone owing to get the devotion.



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CHAPTER-01

EXECUTIVE SUMMARY



1.1 EXECUTIVE SUMMARY:

The industrial Attachment is the most effective way for textile Engineering students to achieve the knowledge about the practical field of the Textile Manufacturing. It brings an opportunity to all the learners to enrich their academic knowledge by practicing with the expert's of the practical field of textile .

It's my pleasure that I had an opportunity to complete my two months Internship at Knitex dresses Ltd & Montex Fabrics Ltd (Mondol Group). Which is one of the most modern Industry of the country.

Mondol Group is one of the major garments manufacturing organization in Bangladesh .To become a Brand that is known for its distinctive and uncompromising quality. **Mondol Group** is promised to produce world class garments of men's, women's, children's and kid's. They strive to make sure their customer satisfaction with their product quality and on time shipment schedule.

Mondol group will ensure sufficient training and suitable work to increase productivity and skills of the employee. Now Mondol Group Production capacity is around for Sewing 350000 (Pcs./Day) number of line is 300 with latest machine, Knitting 100000(Kg./Day)no of modern machine is 429, Dyeing 58000(Kg./Day).And they have around 28366 skilled Employees.

In this report We tried to cover a short profile of mondol group and major customers of mondol group and their different activities.



CHAPTER-02

INFORMATION ABOUT MONDOL GROUP



2.1 Company Profile:

COMPANY NAME	KNITEX DRESSES LTD; MONTEX FABRICS LTD (MONDOL GROUP)	
Location	Head Office Siam Tower (9th & 10th Floor), Plot#15,Sector#13, Uttara New Model Town, Dhaka-1230,Bangladesh.	Call us : +88 2 8955000-3 Email Us : info@mondol.net, hr@mondol.net
Listing Status	Private listed company.	
Main Market	France (15%), Italy (25%), Germany (10%),Spain(25%), Australia(20%) USA (10%) etc.	
Factory Equipment's	Different types of sample, cutting, Sewing, Dying, Printing, Finishing and generator machines, Embroidery, jacquard and Generator machines.	
Number of Sewing machine	575 knitex dresses ltd (mondol group)	
Number of worker	28366	
Company motto	We believe in the power of industry to build a bright future for Bangladesh on the global stage.	
Company mission	Engage effectively, responsibly and profitably in the global textile industry.	
Company vision	To create a single channel for satisfying diverse and high class needs of our valued partners.	
Product /service	Polo shirt, shorts, pajama, set. ladies, trouser, girls fancy, long pant, night gown, kids knitware, long pant, short pant, etc.	
Contact person:	MD.Hasan Deputy planning manager	
E-mail	info@mondol.net, hr@mondol.net	
Web site	Mondol.net	
Fax	9289113(montex Fabrics Ltd)	
Certification	WRAP,BSCI	
Investor	Mr.Haji Abdul Majidmondol	

Table No: 2.1 company profile



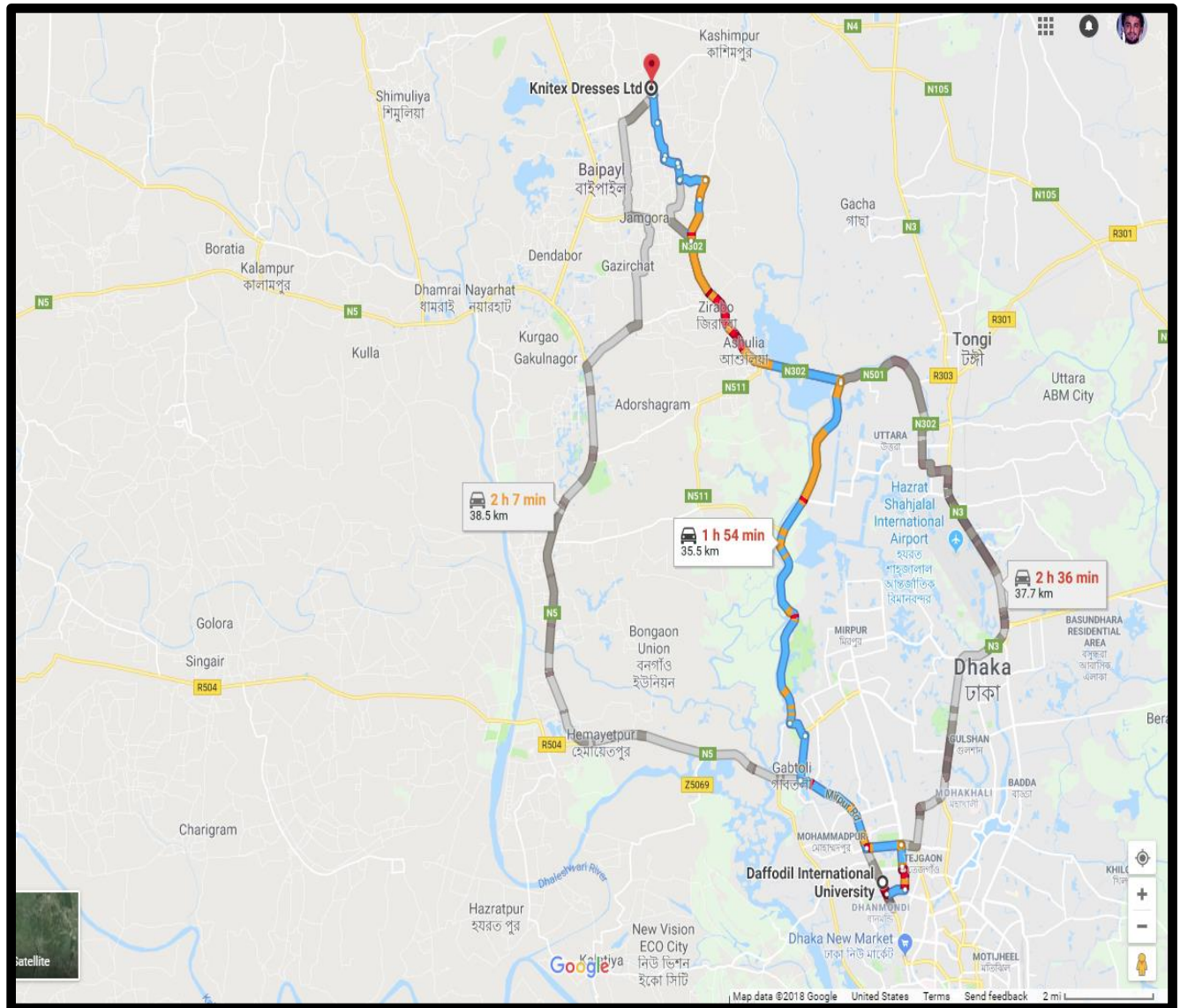
2.1.1 Front view of Knitex Dresses Ltd (Mondol Group):



Fig.no.2.1 Front view of Knitex dresses ltd (Mondol Group)



2.1.2 Site Direction for Knitex dresses ltd(mondol group) from Daffodil International University:





2.1.3. General information about Knitex dresses ltd (Mondol Group):

Knitex dresses ltd (Mondol Group) of bangladesh's largest industrial conglomerates ,achieving highly respected status world wide since its initial incorporation as a garments manufacture in.

Which located in sultan market, kashimpur, gazipur. In 2008 Mr.Haji Abdul Majid Mondol bought it and work as sister concern of montex fabrics ltd (Mondol Group)

They are exporting all kind of high quality readymade garments like T-shirt, Polo shirt, Polar jacket, trouser, legging, Long pant, lingerie, etc. for men's, women's, children's and kid's. from Bangladesh to France, Italy, Germany, Spain, Australia, USA all over the world as a sister concern of Mondol Group. It has 21 lines of sewing floor. Where male worker is about- 550 and female worker is about- 725. And total worker is-1275

They are exporting all ready-made garments item to over the world.

Production Capacity: 40000-45000 pcs

Production Line: 21

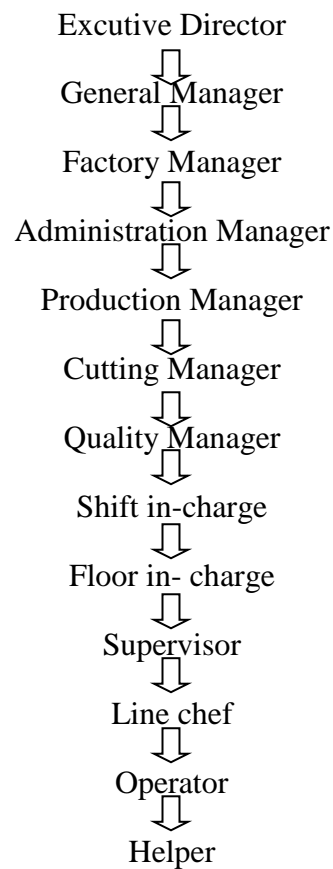
Products:

Poloshirt,shorts,pajama,set.ladies,trouser,girlsfancy,longpant,nightgown,kidsknitware,long pant, short pant, etc.

Man power: 1275



2.1.4. Organogram of garments Section:



2.1.5 Sister Concerns of mondol Group:

- **Montex fabrics ltd.**
- **Mondol fabrics ltd.**
- **Knitex dresses ltd.**



2.1.6 Major Buyers of knitex dresses ltd (mondol group):



Buyer : women's secret
Country : Spain



Buyer : ZARA
Country : Spain



Buyer : Lotto
Country : Italy



Buyer : Kappa
Country : Italy, Germany



Buyer : US Polo Association
Country : Turkey



Buyer: Terranova
Country: Egypt



2.1.7 Vision, Mission, & different type of policy of knitex Dresses ltd (Mondol Group):

Vision

To become a Brand that is known for its distinctive and uncompromising quality. Mondol Group is promised to produce world class garments of men's, women's, children's and kid's. We strive to make sure our customer satisfaction with our product quality and on time shipment schedule.

Mission:

To become a window through which all our interacting parties can see and feel their prospect and dream about their success. we perform in unison by following our values and ethical guidelines code of conduct as a source of guidance and inspiration, which enable us to achieve our vision.

Compensation & Benefit Policy:

Benefits are forms of value, other than payment, that are provided to the employee in return for their contribution to the organization, that is, for doing their job. Some benefits, such as unemployment and worker's compensation, are federally required. (Worker's compensation is really a worker's right, rather than a benefit.)

Child Labor & Remediation Policy:

It is strongly oppose and our Ethical Aims stipulate that all workers in factories producing for us must be over the local minimum working age. We work with our suppliers to help ensure we don't hire any child labor by conducting age verification training.

Industrial Health & Safety:

The company shall provide a safe and healthy workplace setting to prevent accidents and injury to health arising out of linked with or occurring in course of work or as a result of the operation of employers' facilities. Company shall adopt responsible measures to mitigate negative impacts that the workplace has on the environment.



Working Hour Policy:

Mondol Group shall comply with applicable national laws and industry standards on working hours and public holidays. The maximum allowable working hours in a week are as defined by national law but shall not on a regular basis exceed 48 hours and the maximum allowable overtime hours in a week shall not exceed 12 hours. Overtime hours are to be worked solely on a voluntary basis and to be paid at a premium rate. In cases where overtime work is needed in order to meet short-term business demand and the company is party to a collective bargaining agreement freely negotiated with worker organizations (as defined above) representing a significant portion of its workforce, the company may require such overtime work in accordance with such agreements

Environment Policy:

Mondol Group committed to maintain procedures and standards for waste management, handling and disposal of chemicals and other dangerous materials, emissions and effluent treatment meet or exceed minimum legal requirements.

In-house Medical Facilities:

Employee welfare is one of the major concentrations of Mondol Group. Therefore we have team of certified MBBS doctors, nurse and well trained medical assistants who remain stand by during working hours in the factory.

They assigned first aider team, attired in distinguishable jacket provide necessary first aid service with the employees in Mondol Group regular medical chek up by the appointed doctor to make sure whether they have been suffering from any occupational diseases.

Child Care Room:

Child Care Centers aimed for the female employees are also installed as and where it is feasible to incorporate. They can also keep their child in a safe and comfortable place and work with sound mind and give their maximum.



Fire Protection/Equipment:

We have differentiated fire fighting units into three parts who will perform the task integrated: Fire Protection.

Preventive Measures : “Safety First” is our slogan and we strongly believe in our daily working life in Mondol Group. Fire is one of our primary and vital safety concern. We conduct unnoticed fire drills more than once in a month to improve the employees efficiency on evacuation in case of real fire incident.

During Fire : A group of dedicated and efficient fire fighter at every individual units are always remain stand by to take part in extinguishing fire directly as and when require.

Post Fire Procedure : It is also an integral part of the fire drill once fire in managed, a small team will dig out whether there are any wounded persons remain in the floors. If found urgently taking them to the nearest hospital followed by the first aid treatment.



CHAPTER-03

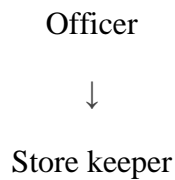
DESCRIPTION OF THE ATTACHMENT



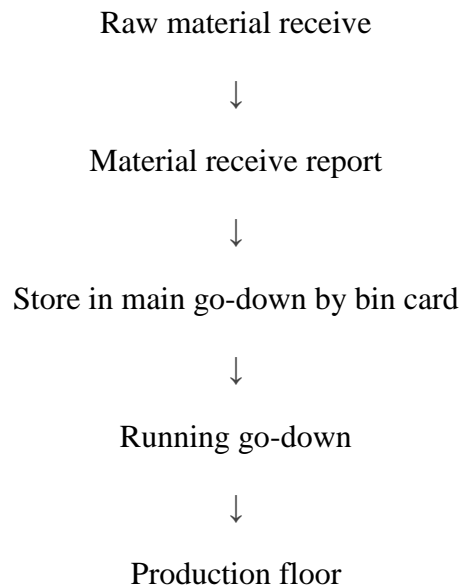
3.1. Store section of knitex dresses ltd (Mondol Group):

Store section is the most important part of the Knitex Dresses Ltd (Mondol group). It has located on the 2th& 4th floor of the 1st building beside. For a bulk production industry it is essential to maintain a well-organized & well equipped inventory system. The main responsibility of this department is to store all the raw material necessary to produce garments.

3.1.1 Store Organogram of Knitex Dresses ltd:



3.1.2. Flow Chart of Garments Store:



3.1.3. Store layout of knitex dresses ltd (Mondol Group):

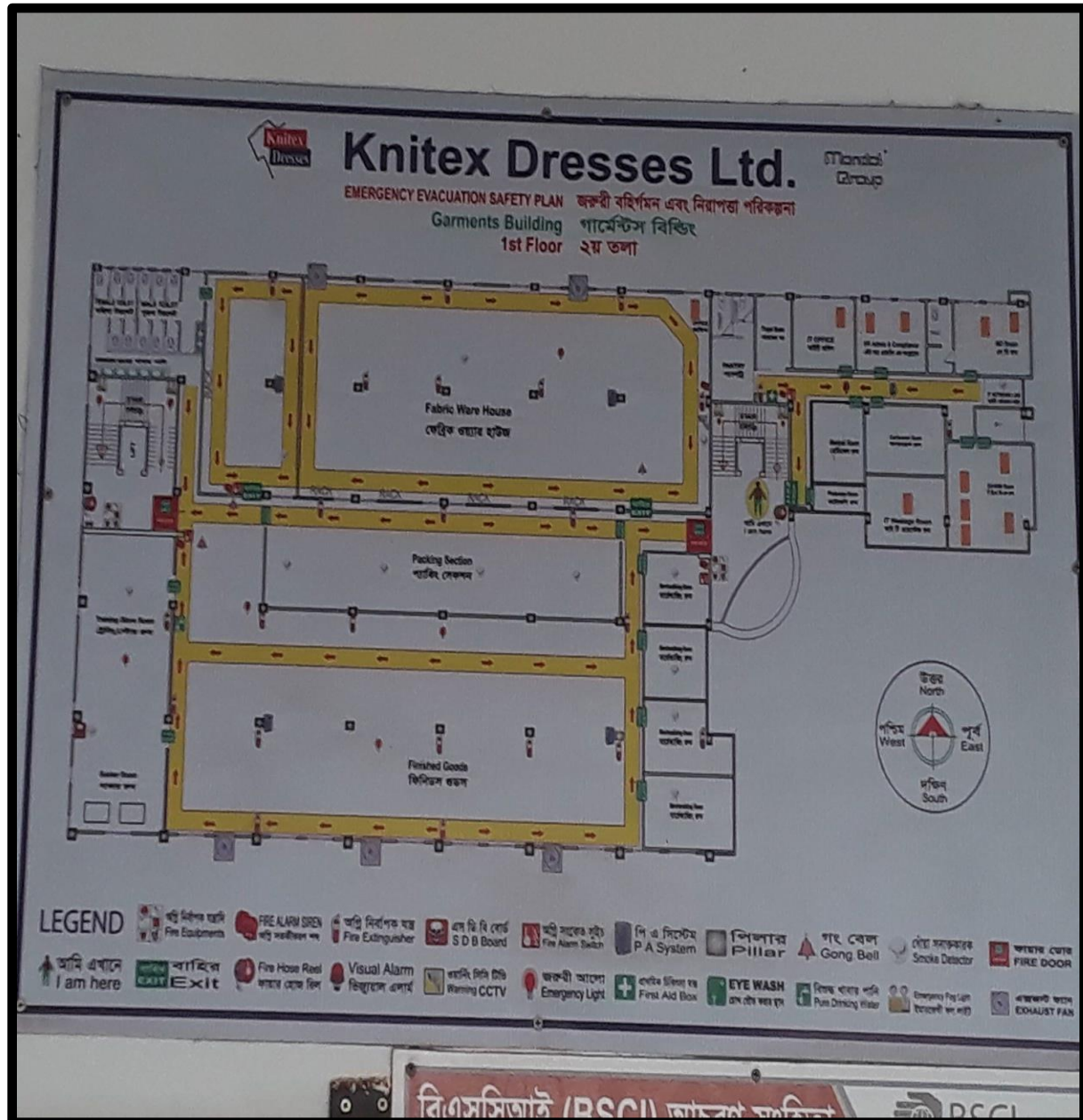


Fig.No:3.1 Store Layout of knitex dresses ltd



3.1.4. Types of store in Knitex dresses ltd (Mondol Group):

In Knitex Dresses Ltd, there is four kinds of store found.

- General Store
- Fabric Store
- Accessories Store
- Finished Store

3.1.4.1 General Store:

In general store different kinds and types of material are keep. In here different of machines, machine parts, materials used in industry floor.

3.1.4.2. Fabric Store:

All the fabrics are stored in the fabric store, near the batch section. Different type of fabrics are listed in the sheet according to the fabric types, quantity & consumers requirements. Fabrics GSM, Shrinkage, diameter & other properties are also taken into consideration.

3.1.4.3 Accessories Store:

According to Buyer and style number, store keeper arranged their rack for inventory. When an order is confirm they communicate with merchandiser/ supplier and confirm inventory. Store keeper receive all Accessories y counting.

If everything is ok then give satisfactory comments and if found any kind of problem they mention in callansheet .after receive all accessories they give entry in computer and keep arrangein rack for easily searching. Trim card make different style & buyer wise for smooth work.

The following accessories are found in

- Sewing Thread
- Main Label
- Care Label



- Size Label
- Co Label
- Flag Label
- Button
- Interlining
- Polythene
- Gum tape
- Dusting
- Metal Clip
- Zipper
- Twill Tape
- Photo Board
- Cartoon

3.1.4.4 Finished Store:

Knitex Dresses Ltd supplies their finished garments to finished store. So finished garments are stored for short time in finish store. All the delivered fabrics are noted on the note according to the lot no, quantity, size, buyers name, color, & considering other parameters.

In Knitex Dresses Ltd, finished product are as follow:

- Basic T-Shirt
- Long Sleeve T-Shirt
- Polo Shirt
- Short Pants
- Ladies and Kids knitwear
- All kinds of knit garments

3.2.0 Cutting Section of knitex Dresses Ltd (Mondol Group):

Cutting department is one of the essential section for mondol group of the cutting section. It has located 3rd floor of the building -1. The fabric cutting is started after completing the fabric spreading. In cutting Section Fabric are cut according to the pattern.

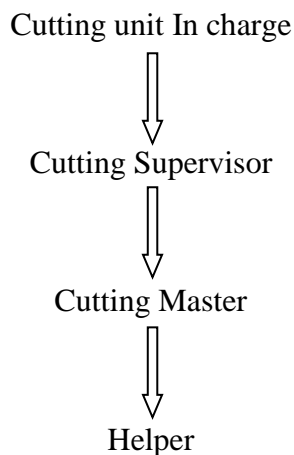
3.2.1 Cutting Section Layout plan of knitex Dresses Ltd (Mondol Group):



Fig.No:3.2. Cutting Section lay out plan of knitex dresses ltd .



3.2.2 Cutting Section Organogram of knitex dresses ltd (Mondol Group):



3.2.3 Cutting Section Flow chart of Knitex dresses ltd:



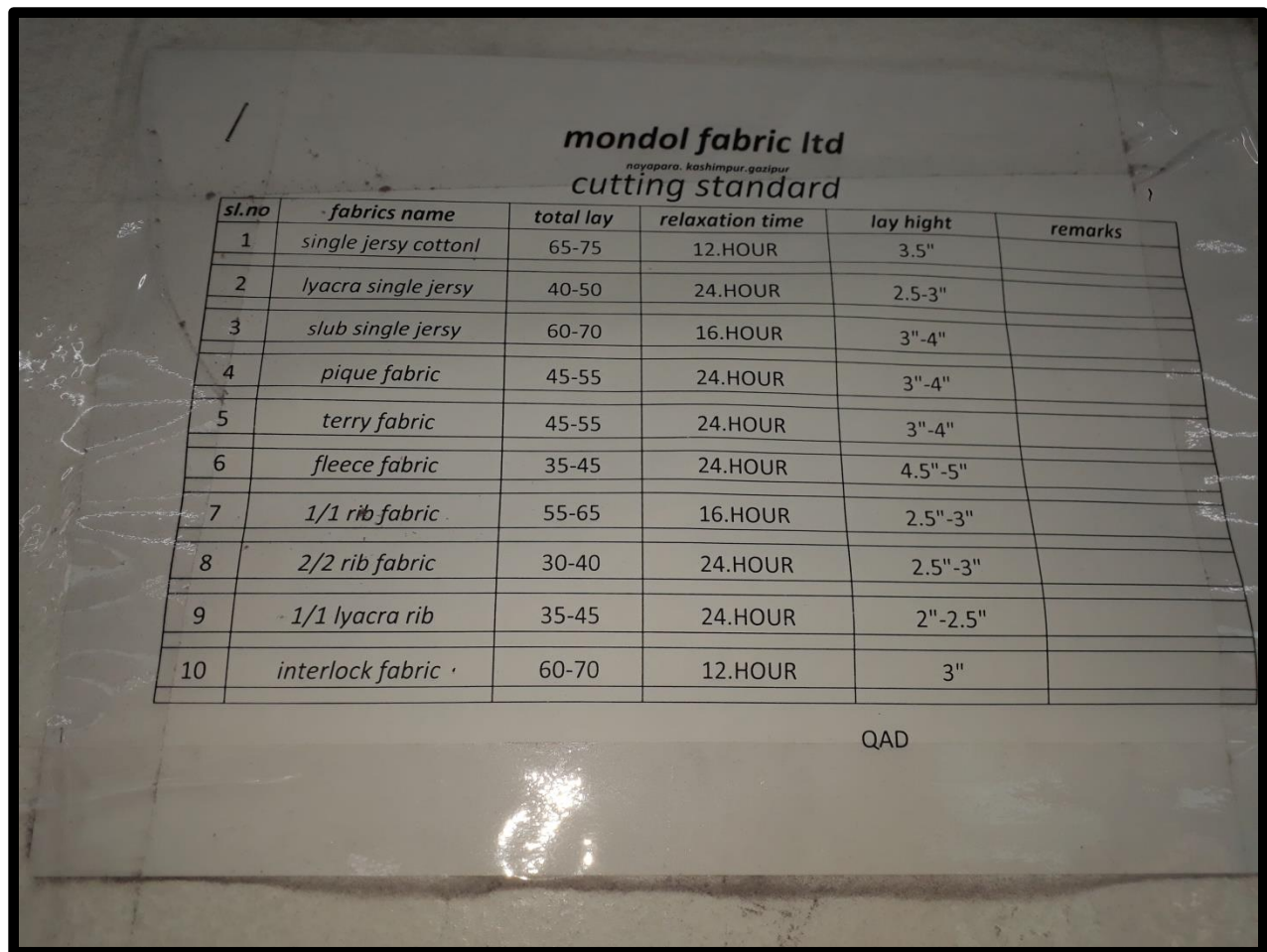
3.2.4 Fabric cutting Equipment of Knitex Dresses ltd:

When the fabric are received from the dyeing & finishing section. It's need to be checked because, fault can be supply from dyeing and finishing. But the cutting section has to checked it. Otherwise the in products will be faulty.

Factors affect the cutting process for fabric as follow

- ✓ Nature Fabric (Grain line shade, twill)
- ✓ Thickness fabric
- ✓ Design Characteristic of finished garments
- ✓ Machine and table used

3.2.5 Cutting Standard of Knitex dresses ltd (Mondol Group):



mondol fabric ltd <small>noyapara, kashimpur, gasipur</small> cutting standard					
sl.no	fabrics name	total lay	relaxation time	lay high	remarks
1	single jersy cottonl	65-75	12.HOUR	3.5"	
2	lyacra single jersy	40-50	24.HOUR	2.5-3"	
3	slub single jersy	60-70	16.HOUR	3"-4"	
4	pique fabric	45-55	24.HOUR	3"-4"	
5	terry fabric	45-55	24.HOUR	3"-4"	
6	fleece fabric	35-45	24.HOUR	4.5"-5"	
7	1/1 rib fabric	55-65	16.HOUR	2.5"-3"	
8	2/2 rib fabric	30-40	24.HOUR	2.5"-3"	
9	1/1 lyacra rib	35-45	24.HOUR	2"-2.5"	
10	interlock fabric	60-70	12.HOUR	3"	

QAD

Fig.No:3.3. Cutting Section Standard of knitex Dresses ltd .



Fig.No:3.3.1 Cutting Section of knitex dresses ltd .

3.2.6 Type of cutting m/c are using in Knitex Dresses ltd (Mondol Group):

SL No	Name of M/C	Quantity
01	GSM Cutter	02
02	Weight Scale	01
03	Wainda M/C	01
04	Morgan M/C	03
05	Straight knife M/C	05
06	Bend Knife	01
07	Tagging device	06

Table No: 3.1. Different M/C are Used in Knitex dresses ltd (Mondol Group)

3.2.6.1 Type of cutting M/C are using in Knitex Dresses Ltd (Mondol Group):



Weight Scale



Straight knife M/C



Bend Knife

Fig.No:3.4.1.Cutting Section M/C in knitex dresses ltd .



Tagging device



Morgan M/C

Fig.No:3.4.2. Cutting Section M/C in knitex dresses ltd .



Wainda M/C



GSM Cutter

Fig.No:3.4.3. Cutting Section M/C in knitex dresses ltd .

3.2.7. Fabric Inspection in Knitex Dresses ltd (Mondol Group):

For fabric inspection 4-point system is used in Knitex Dresses Ltd(mondol Group).



4-Point System:

The 4-point system, also called the American apparel Manufacturers association (AAMA) point grading system for determining fabric quality, is widely used by producer of apparel fabric & by the department of defense in United States & is indorsed by the AANA as well as ASQC(American Society for quality Control).The system enrich in which the penalty point of a defeats is the maximum 40 is called 4-point system of quality control.

Criteria for giving penalty point:

In the following table the penalty evaluation points has been given for different length of fabric defects & dimension holes

Defects length for warp and weft way	Points number
Up to 3 inch 1	1
3''- 6''	2
6''- 9''	3
Above 9''	4

Defects area for holes 7 opening	Point No
1 Inch or less than 1''	2
Above 1''	4

Table No: 3.2 4 point System.



3.2.8 Fabric Inspection in Knitex dresses ltd (Mondol Group):

Shrinkage Test

Shrinkage is the process in which a fabric become smaller than its original size, usually through the process of laundry. Cotton fabric suffers from to main disadvantages of shrinkage and creasing during sub sequent washing.

There are two type of shrinkage occur during washing.

- Length wise
- Width wise

Cause: Due to high preparation of fabric which result in excess stretch in yarn. These type of shrinkage is known as London Shrinkage. Due to swelling of fibers for fibers structure.

Shrinkage is determined as;

Shrinkage % = (Length of fabric before wash-Length of fabric after wash)/(Length of fabric after wash)*100

Shade Band

Shade band is an important factor before cutting fabric. When fabric is stored in inventory then sample is collected from every roll than a blanket is made from every single piece. After making blanket it is washed and than shade is checked under shade. box and categorized shade according to this report is fabric is placed on cutting table.

Marker Inspection:

In marker inspection it has been every part of marker is right or wrong on marker paper.



Parts Checking Inspection

In this stage every parts is checked if there is any variation on measurement if there any fault is found then it is solved.

Bundle Inspection

At last of cutting every bundle of cutting fabric is checked if there is less of any parts.

3.2.9 Different type of fault found out cutting Section QC of Knitex dresses ltd (Mondol Group):

- Oil Spot
- All Over Print Mistake
- Broken Needle
- Dirty
- Needle Hole
- Slub
- Dyeing Spot

3.3. Sewing Section of knitex dresses ltd(Mondol Group):

The sewing Section of Knitex dresses ltd(mondol group) has located on the 4th ,5th ,6th of the building-1.In the apparel industry or clothing industry, Sewing section is the main department for garments manufacturing .When all the garments complete to cut in the cutting section, all of this cutting parts are sending to sewing department for making garments.

3.3.1Sewing section layout plan:

The layout plan is same in 3th,4th ,5th floor of the building-1.so here is 3th floor layout plan below:

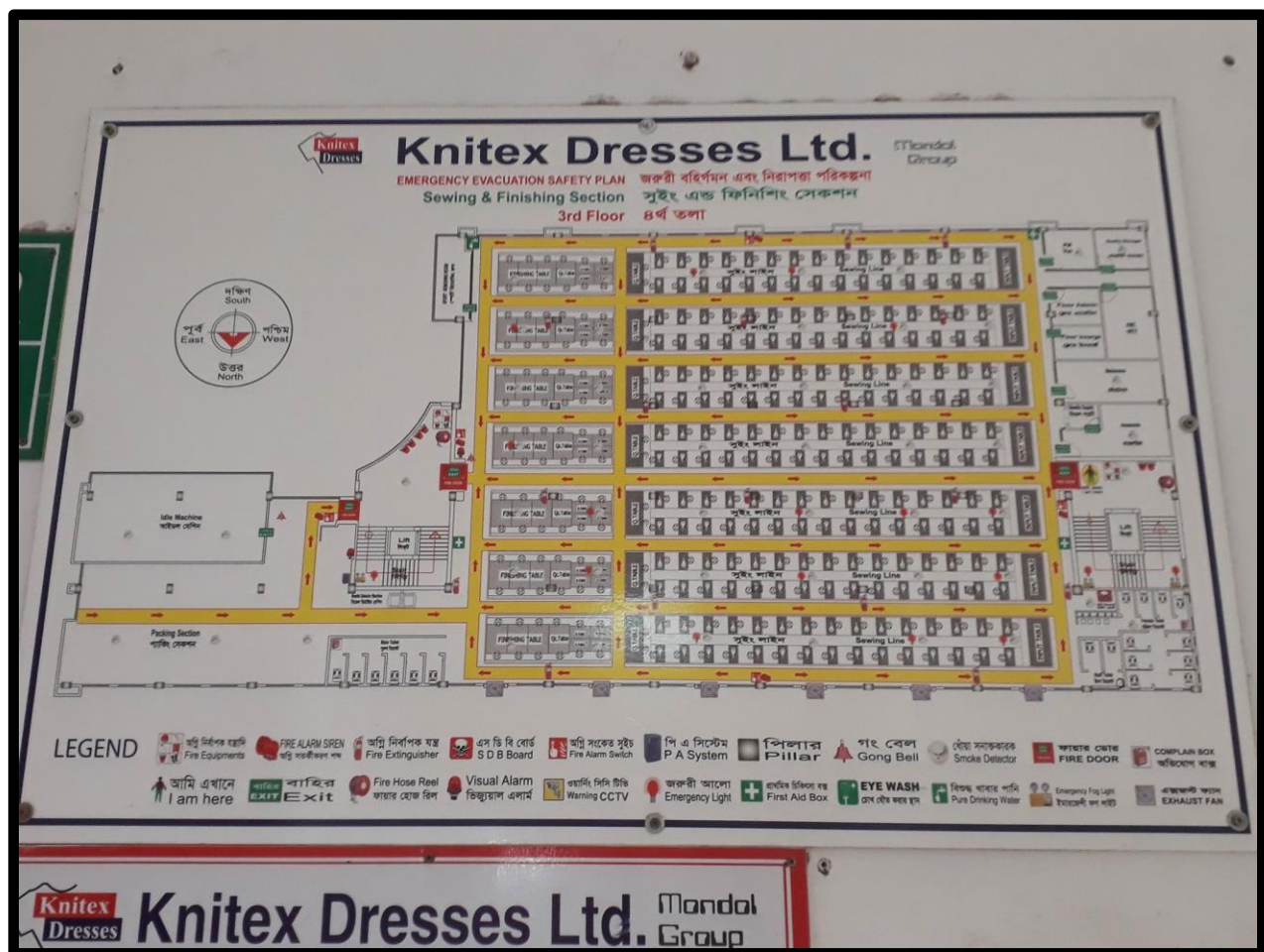
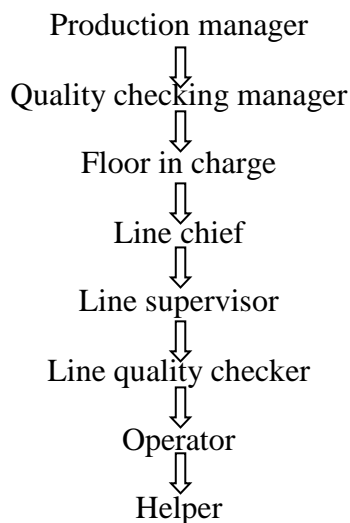


Fig.No: 3.6. Sewing floor layout plan (3th floor) of knitex Dresses ltd .



3.3.2 Sewing section Organogram of knitex dresses ltd (MondolGroup):



3.3.3 Sewing Section Flow chart of Knitex dresses ltd(Mondol Group):





3.3.4 Sewing:

The process of joining fabrics by the use of needle and sewing thread or by other techniques is called sewing.

3.3.5 Elements of Sewing:

1. Sewing thread
2. Needle
3. Sewing Machine.

3.3.6 Different types of machine in Knitex dresses ltd (MondolGroup):

Machine Name	Brand Name	Quantity
Over Lock	JUKI,SUNSTAR	214
Plain Machine	BROTHER,JUKI,SUNSTAR	235
Flat Lock Flat bed	SUNSTAR,JUKI	20
Flat Lock cylinder bed	SUNSTAR,JUKI	67
Feed of the arm	EGASUS	5
Button Attacher	JUKI	6
PMD	KANSAI	10
Bar tacking	BROTHER	2
Button Hole	BROTHER	7
Snap Button		7
Smoke Machine	Kansai	1
Heat Sell		4

Table .No:3.3 Different type of M/C in Knitex dresses ltd.

3.3.6.1. Different types of machine in Knitex dresses ltd(MondolGroup):



BUTTON HOLE



PMD



FEED OF THE ARM

Fig.No:3.7. Sewing floor M/C of knitex dresses ltd .



OVER LOCK M/C



PLAIN M/C



FLAT LOCK M/C

Fig.No:3.7.1. Sewing floor M/C of knitex dresses ltd .



SMOKE M/C



FLAT LOCK CYLINDER BED



HEAT SELL

Fig.No:3.7.2. Sewing floor M/C of knitex dresses ltd .



3.3.7.1. Different type of Stitch:

The Two Main Stitch that Sewing machine make of which the others are derivatives are lock stitch & Chain Stitch

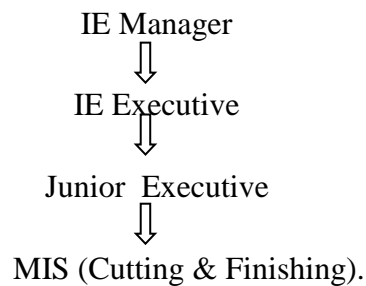
- Lock Stitch(Plain m/c)
- Chain Stitch(Over lock)
- Flat Lock Stitch
- Zigzag Stitch
- Blind Stitch
- Button Hole
- Button Attacher
- Snap Button join



3.4. Industrial Engineering:

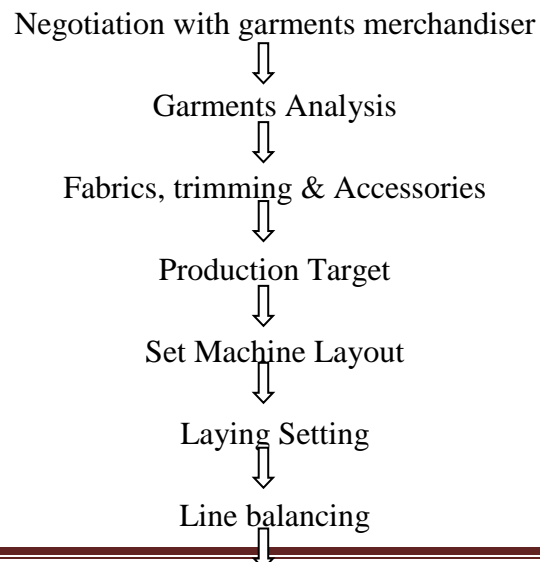
At present Industrial Engineering (IE) is one of the important department for each garments or textile factory. Today's Mondol group is run by Industrial Engineers, Where they have to follow a process follow chart. By which They can easily control the whole garments production process.

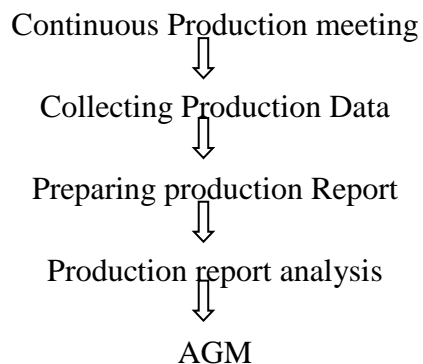
3.4.1. IE Organogram of Knitex dresses ltd (Mondol Group):



MIS: Management Information System

3.4.2. Industrial Engineering Flow Chart of Knitex dresses ltd (Mondol Group):





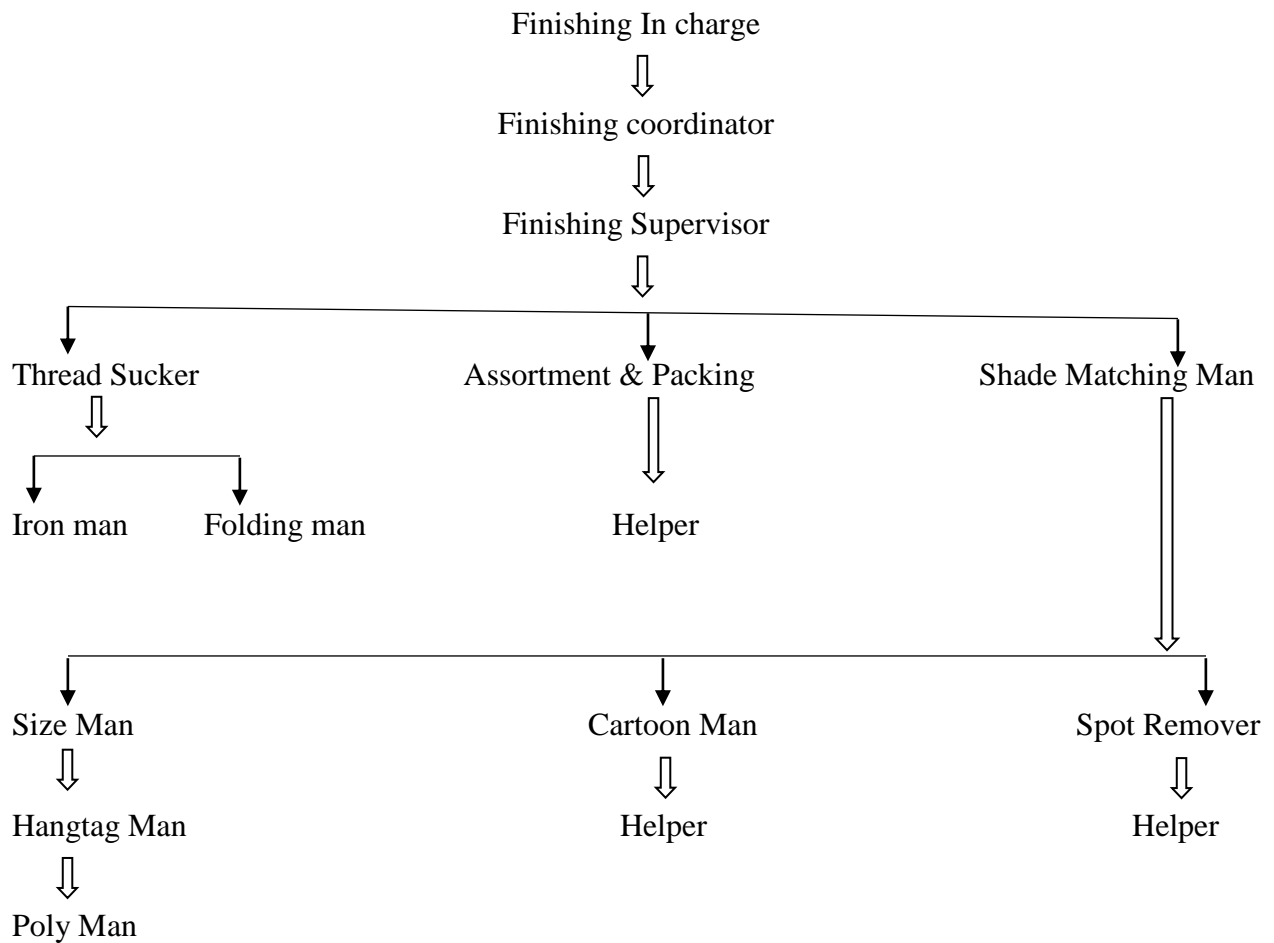
3.4.3. Calculation Formula of IE:

SL	Formula
01	$SMV = \text{Basic Time} + \text{Allowance}$
03	$\text{Basic Time} = \text{Cycle time} \times \text{Rating \%}$
04	$\text{Target} = \frac{(\text{Total man power} \times \text{W/hrs} \times 60 \times \text{Effi\%})}{SMV}$
05	$\text{Line Target} = \frac{\text{Total Manpower} \times \frac{W}{\text{hrs}} \times 60}{SMV}$
06	$\text{Efficiency} = \frac{\text{Total production} \times SMV}{\text{Total Manpower} \times \frac{W}{\text{hrs}} \times 60} \times 100$
07	$\text{Pitch time} = \frac{\text{Total SMV}}{\text{Number of Operation}}$
08	$\text{Performance} = \frac{\text{Line output}}{\text{Line Target}} \times 100$
09	$\text{Sewing Line capacity} = [(\text{No of M/c in line} \times \text{W/hrs.} \times 60) - \text{Worker Abs \%}] \times \text{line Effie\%}$

Table .No: 3.4 Different formula of IE

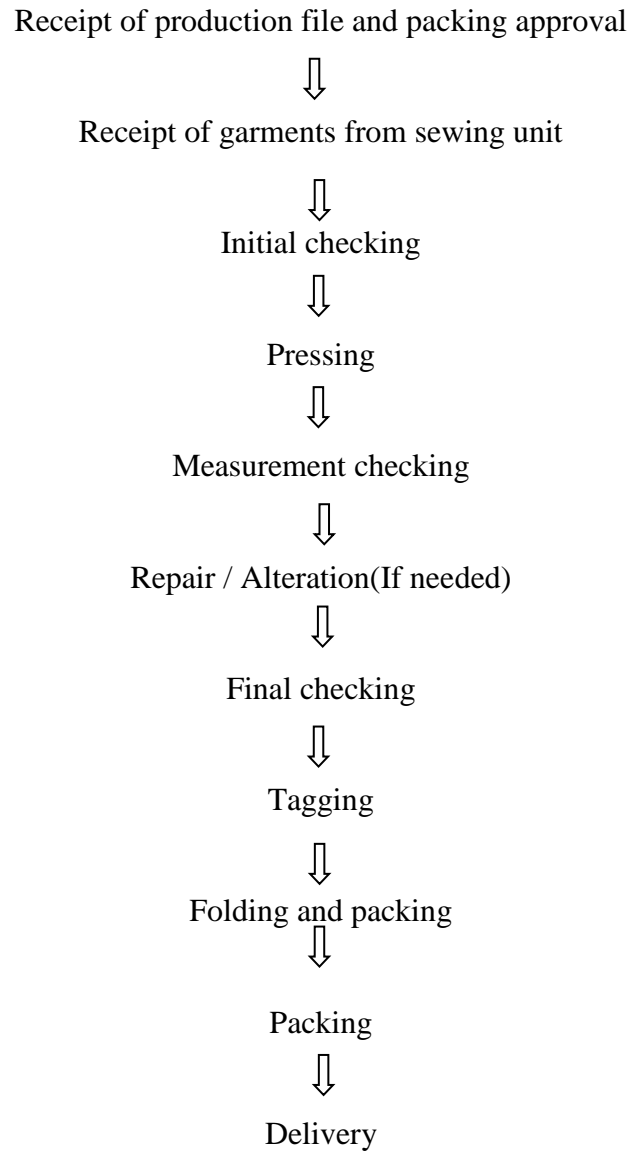


3.5.0. Organogram of Finishing Management:





3.5.1. Flow chart of Fishing Section:





3.5.2. Finishing quality control:

Sewing output check:

- Skip stitch
- Broken stitch
- Uncut thread
- Part shading
- Uneven port
- Open seam
- Label mistake
- Oil Spot
- Needle hole
- Placket
- Pleat
- Dirty spot

Measurement:

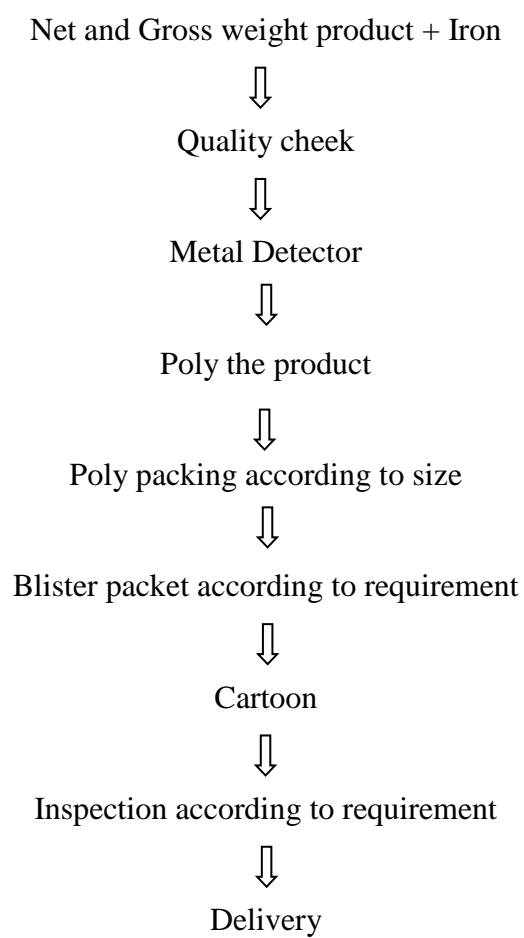
- Chest
- Length
- Shade variation
- Long sleeve
- Bottom hem



Get Up:

- Open seam inside
- Label cheek
- part shade
- skip stitch
- pocket uneven

3.5.3. Packaging Sequence:



3.6.0. Dyeing Section of Montex Fabric Ltd(mondol Group):

The dyeing Section of Montex fabric ltd(mondol group) has located on the Ground floor of the building-1.In the apparel industry or clothing industry, dyeing section is the main department for garments dyeing .When all the garments complete to dye than it send to cutting section, all of this cutting parts are sending to sewing department for making garments.

3.6.1 Dyeing Section lay out plan of Montex Fabric Ltd(mondol Group):

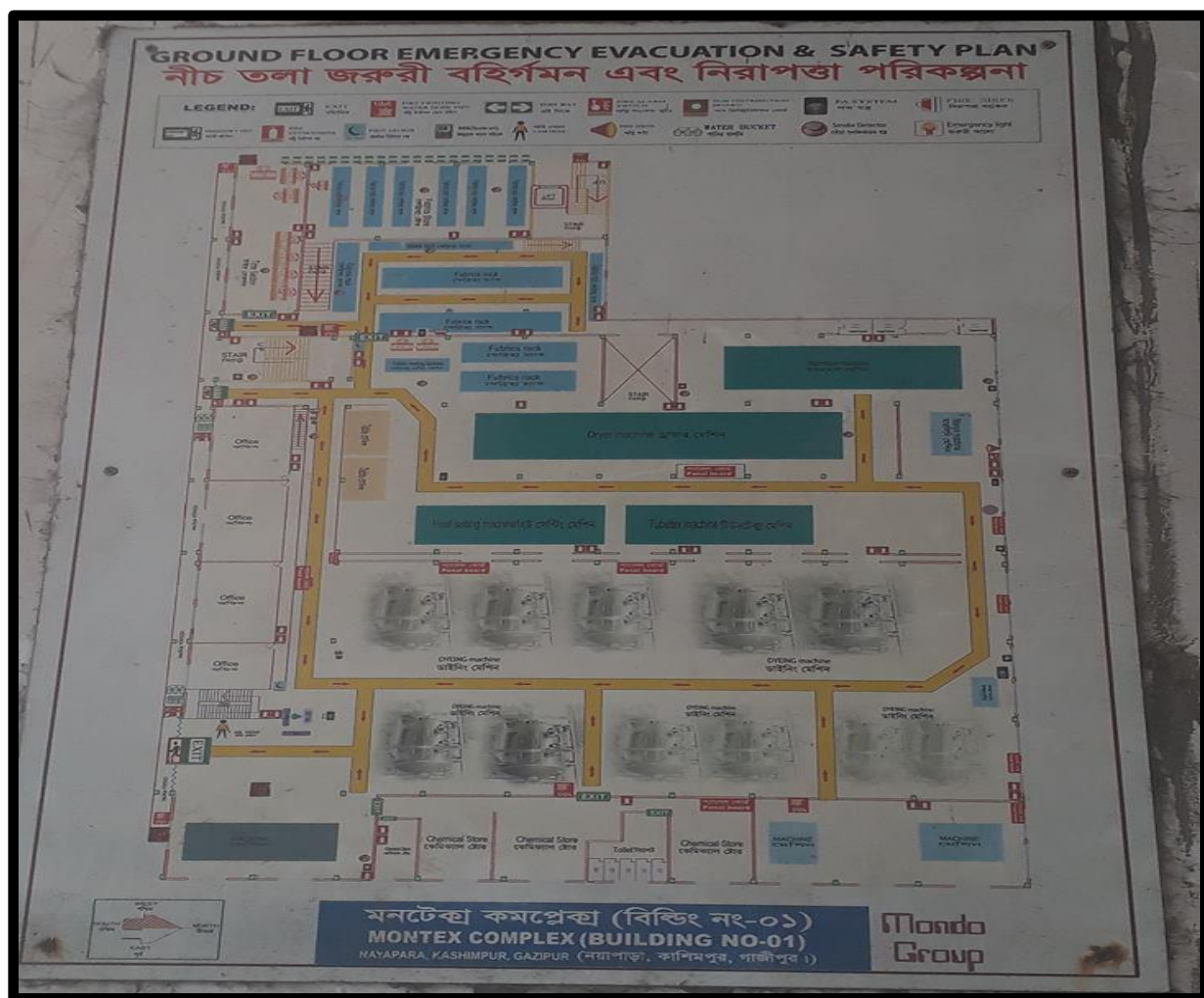
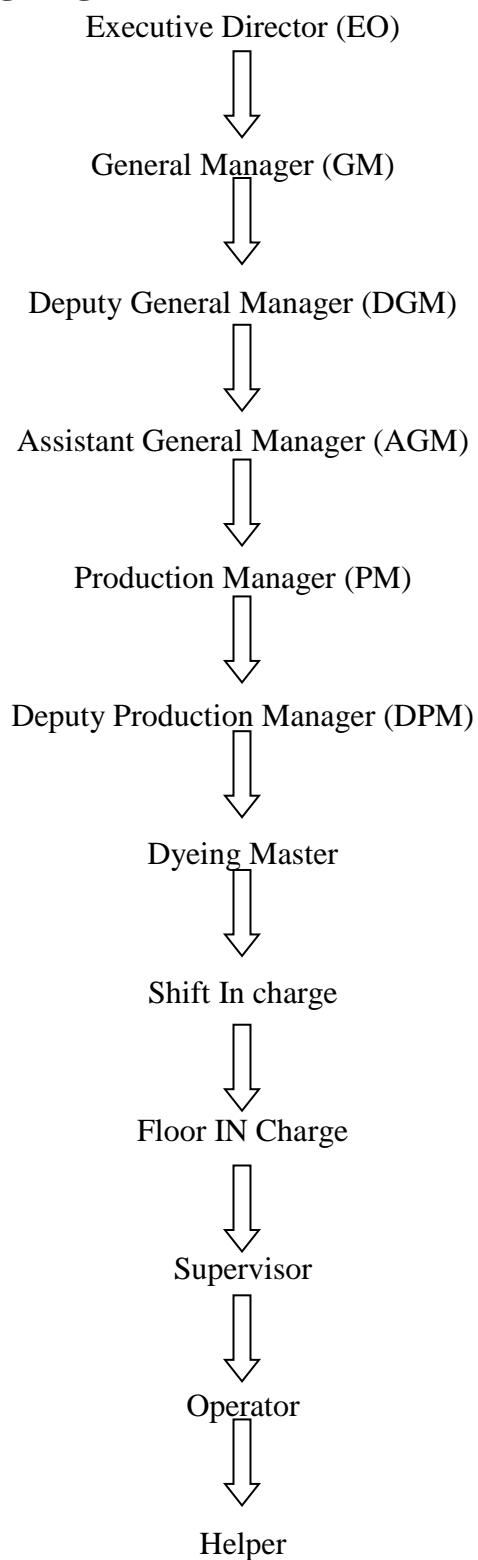


Fig.No: 3.9. Dyeing section layout plan of montex Fabric ltd.

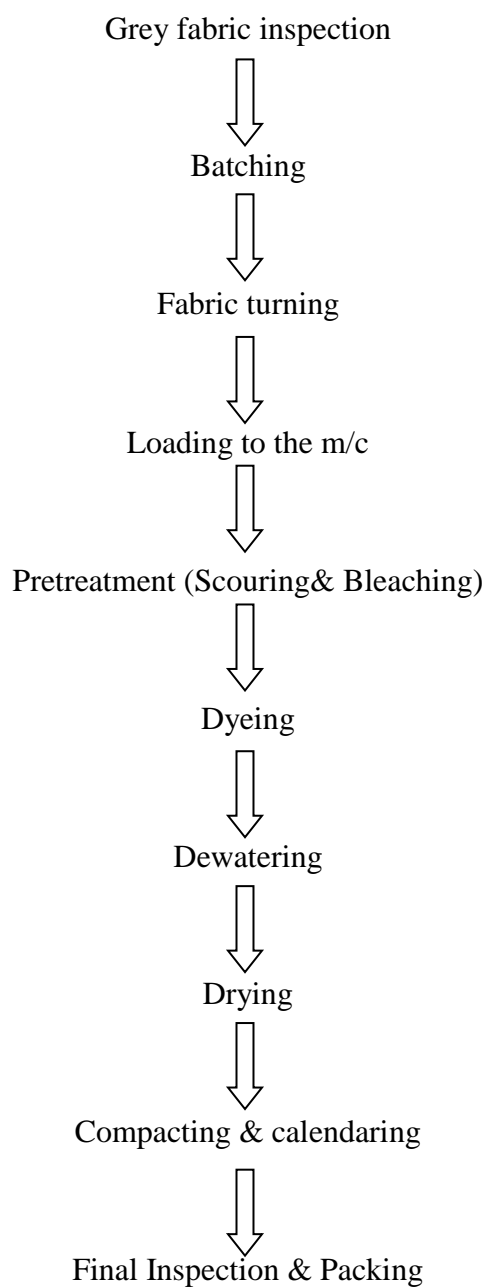


3.6.2. Dyeing section Organogram of Montex Fabric ltd (Mondol Group):



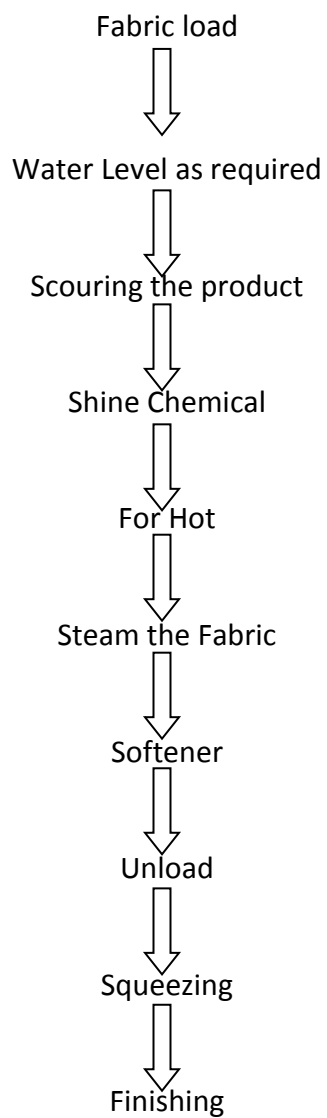


3.6.3. Knit Fabric Dyeing Sequence of Montex Fabric ltd (Mondol Group):





3.6.4. White Color Production Flow Chart of Montex Fabrics ltd(Mondol Group) :





3.6.5. Blue Denim Production Flow chart of Montex Fabric ltd(Mondol Group):

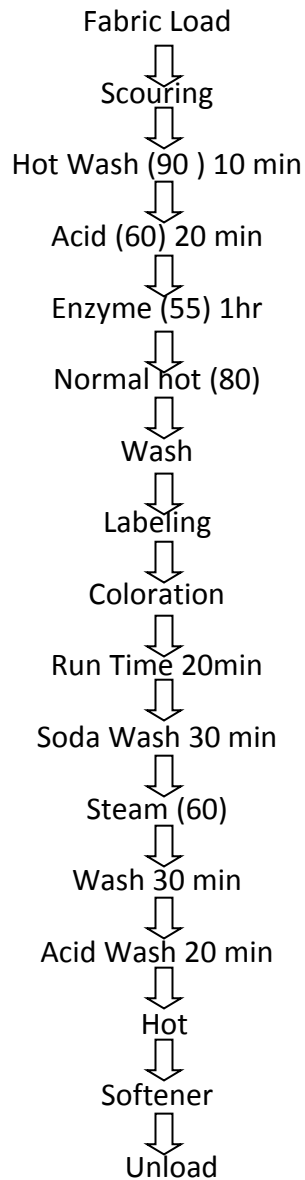




Fig.No:3.10. Dyeing section of montex Fabric ltd .



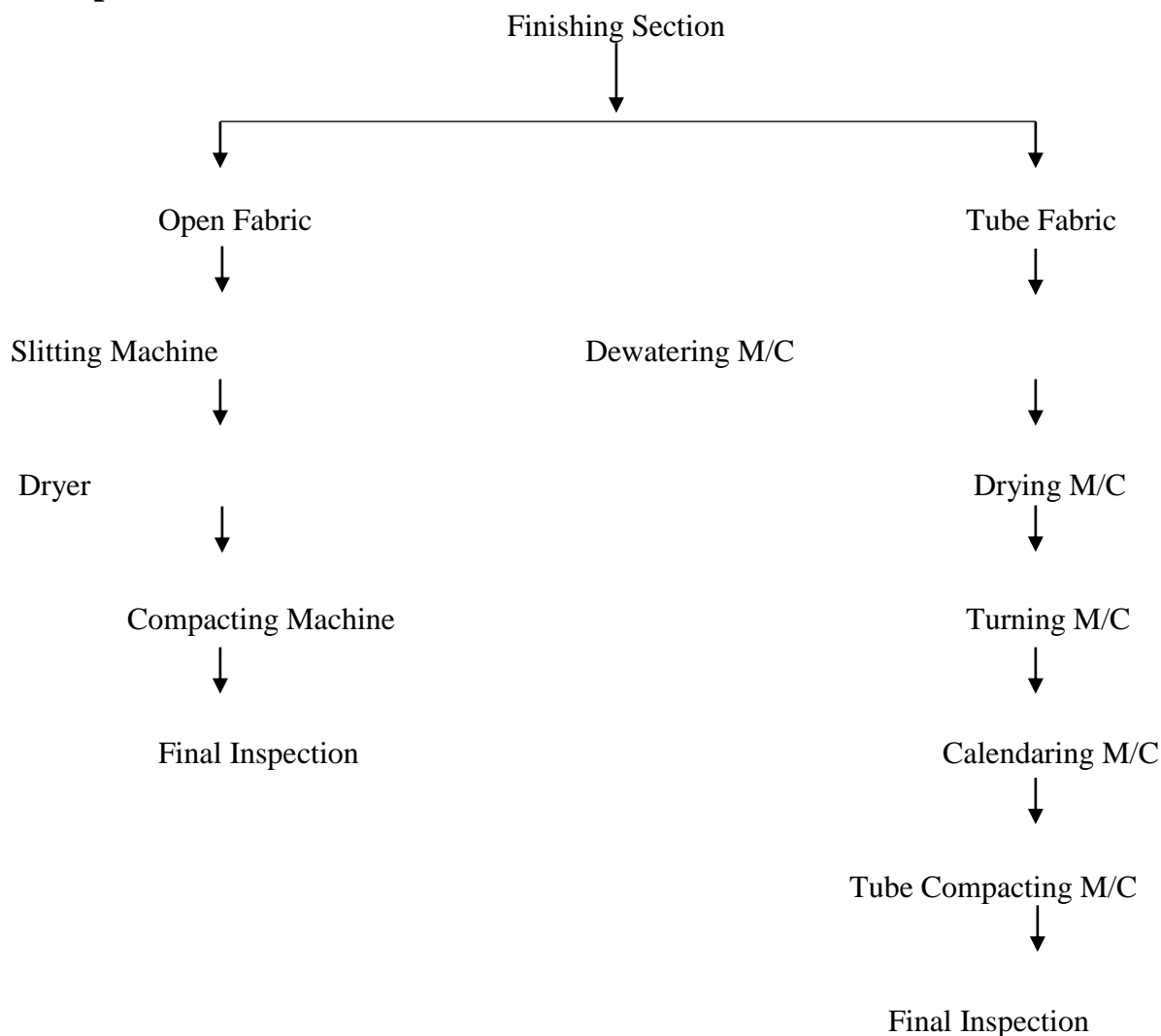
Fig.No:3.10.1 Dyeing section of Montex Fabric ltd .



3.6.6. Common Dyeing Fault:

1. Uneven Dyeing
2. Batch to batch shade variation
3. Patchy dyeing effect
4. Roll to roll variation
5. Crease mark
6. Dye spot
7. Wrinkle mark
8. Softener mark

3.6.7. Finishing section Flow chart of Dyeing in Montex Fabric ltd(Mondol Group):





3.6.8. Finishing effect in Montex Fabric ltd(Mondol Group):

1. Easy care
2. Crease recovery
3. Dimensional Stability
4. Good washing resistance
5. Improve tear strength
6. Soft handle
7. Luster

3.6.9. Calculation :

$$\text{GSM Test} = \frac{\text{CPI} \times \text{WPI} \times \text{SL}(\text{MM})}{\text{Ne}} \times .9158$$

Here,

CPI= Course Per Inch

WPI= Wales Per Inch

SL= Stitch Length

Ne= English Count

$$\text{Shrinkage Test} = \frac{\text{Before wash} - \text{After wash}}{\text{After wash}} \times 100$$

It depends on Length or Width wise



Fig.No:3.11. Finishing section of dyeing of Montex Fabric ltd .

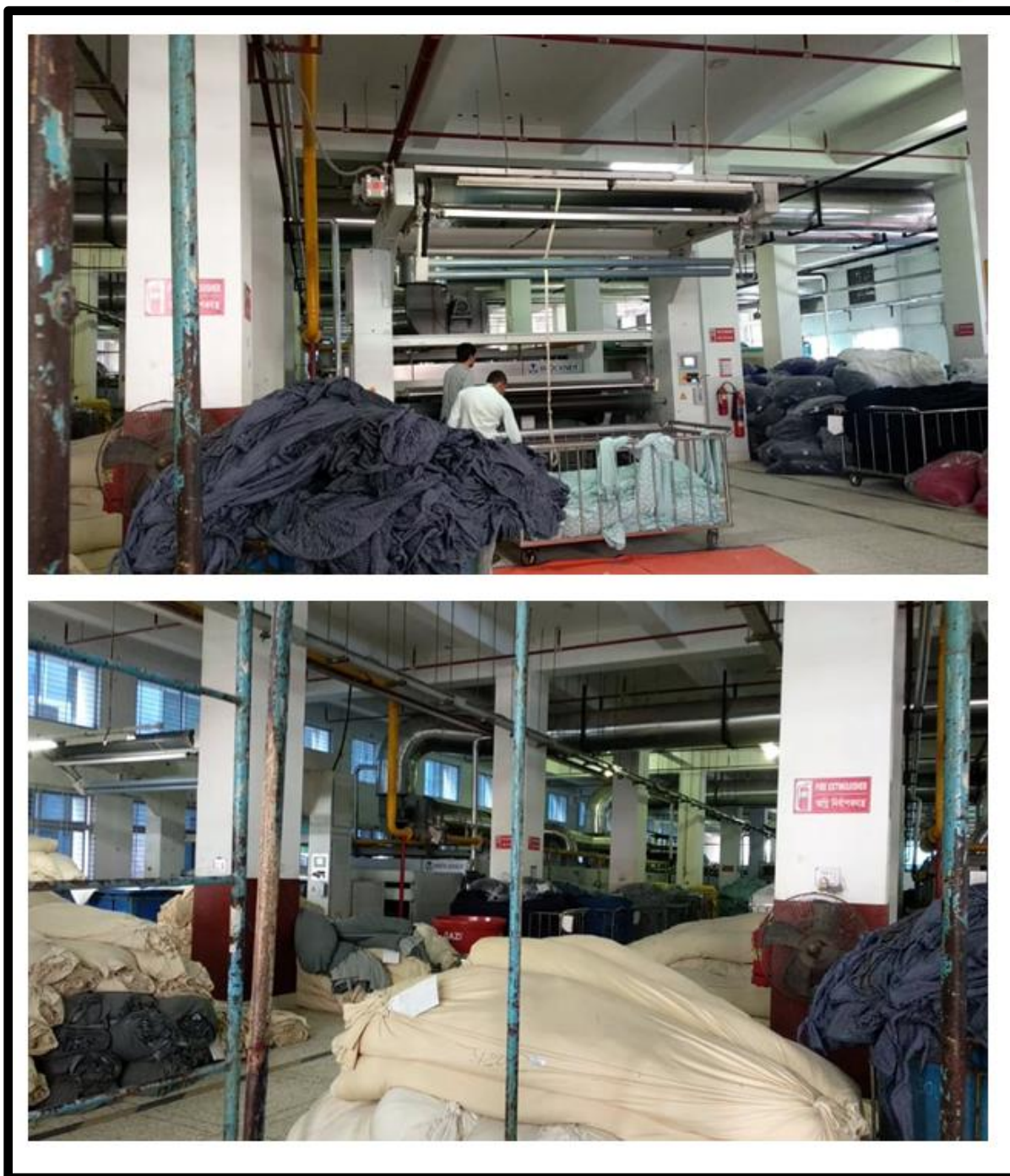


Fig.No:3.11.1. Finishing section of dyeing of montex Fabric ltd .

3.7. Merchandising section of Montex Fabrics Ltd(Mondol Group):

The merchandising Section of Montex fabric ltd(mondol group) has located on the 8th floor of the building-5.In the apparel industry or clothing industry, merchandising section is the main department for Industry .When merchandising section final all deals with buyer than they order fabric etc. for shipment the dealing product in time.so merchandising section is most important part of Industry.

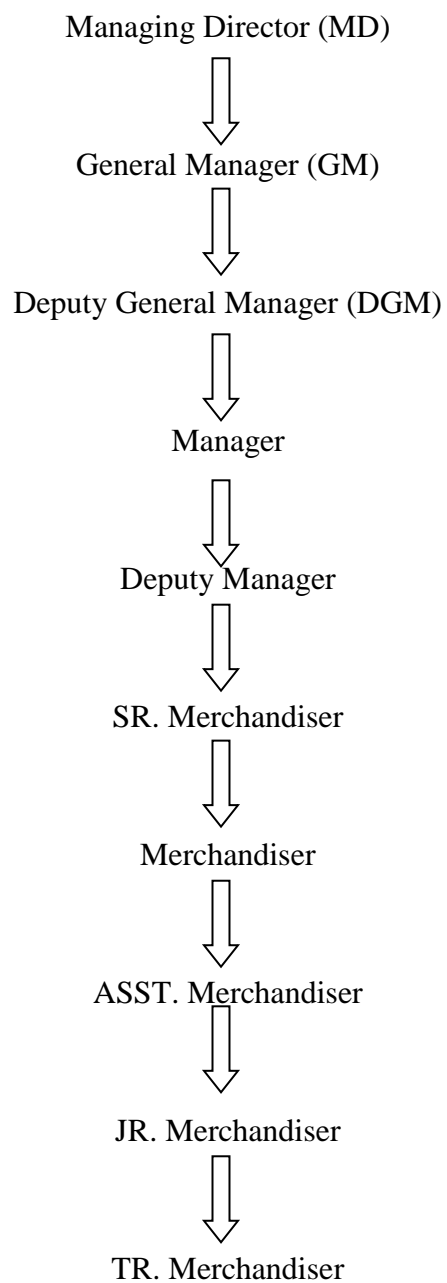
3.7.1. Merchandising section Layout Plan of Montex fabrics ltd(Mondol Group):



Fig.No: 3.12. Merchandising section Layout of Montex Fabric Ltd(Mondol Group) .

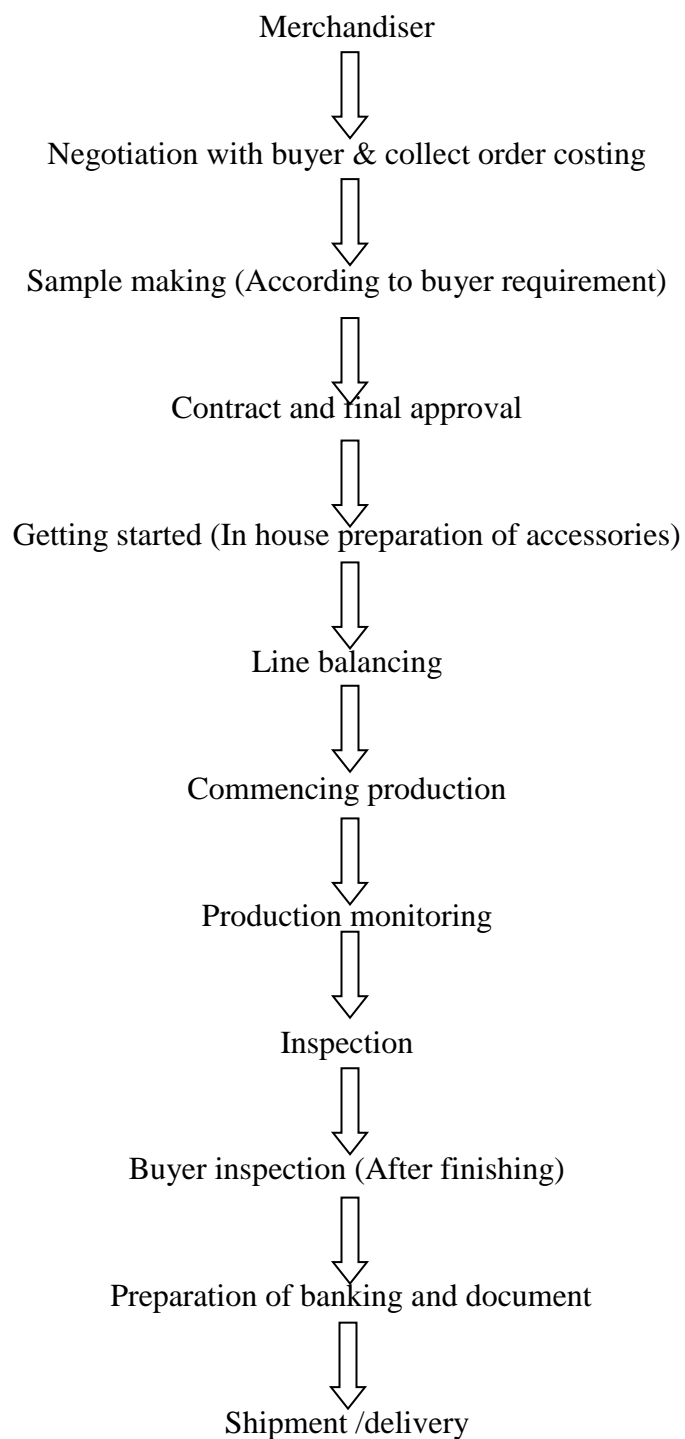


3.7.2. Organogram of merchandising section of Montexfabrics ltd(Mondol Group):



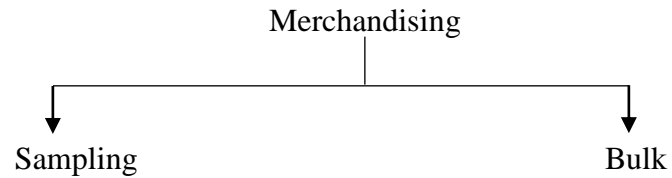


3.7.3. Merchandising Process flow chart of Montex Fabrics ltd (Mondol Group):





3.7.4. Merchandising Type in Montex Fabrics ltd (Mondol Group):



3.7.4.1. Sampling:

Types of sample sent to the buyer

1. Photo sample
2. Fit sample
3. Pp sample
4. Size set sample
5. Top sample

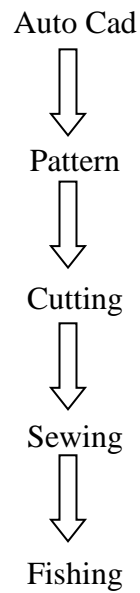
3.7.4.2. Bulk: Final sample or final product

3.7.5. Merchandise role with the production:

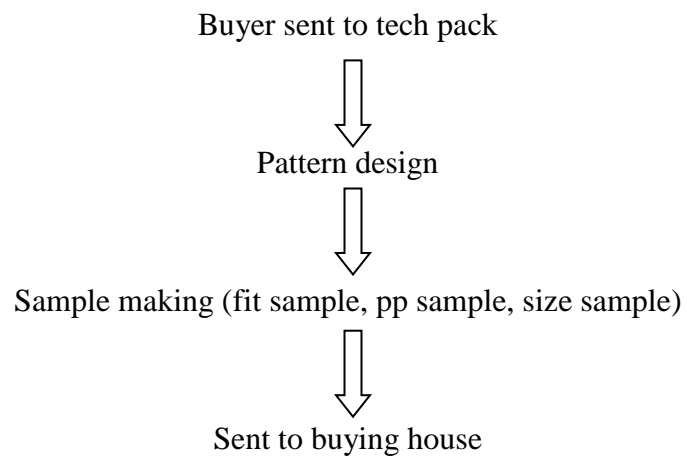
1. OCM chart (Order Clarity Meeting Chart)
2. Buyer PO sheet
3. Style analysis report
4. Tech pack
5. Pp comment
6. Trim card sheet
7. Consumption chart or Marker sheet



3.7.6. Sequence of sample section in Montex Fabrics ltd (Mondol Group):

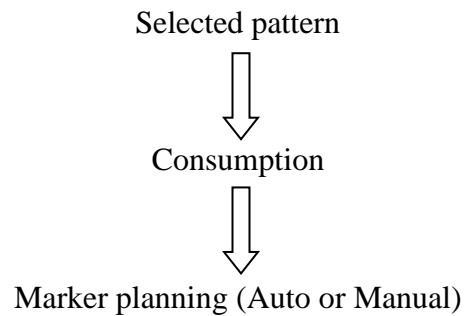


3.7.7. Cad system Sequence of Montex Fabrics ltd (Mondol Group) :





3.7.8. Marker Sequence of Montex fabrics ltd (Mondol Group):



3.7.9. Costing calculation in Montex Fabrics ltd (mondol Group):

CMT= Cut , Make, Trim, Cost

Working Minutes = No. of working hr. per day × 60

$$\text{Target} = \frac{\text{No of operators} \times \text{Total working min per day} \times \text{Efficiency}}{\text{SAM}}$$

$$\text{Calculated work place} = \frac{\text{Target} \times \text{SAM}}{\text{working min} \times \text{Efficiency}}$$

$$100\% \text{ Target} = \frac{60 \text{ min}}{\text{SAM}}$$

Target some = 100% Target × Target %

$$\text{Cost} = \frac{\text{No of days} \times \text{No of operator} \times \text{commulated labour charge per day}}{\text{order quantity}}$$



3.7.9.1. Marker consumption formula:

Marker length \times Width \times GSM \div 1550 \div 1000 \times 12 \div Marker pics + Wastage%

$$= 100 \times 60140 \div 1550 \div 1000 \times 12 \times 9 + 10\%$$

= .795 kg per dzn

HERE,

Marker length = 100, Width = 60, GSM =
140, Marker pics = 9, Wastage = 10%

3.7.9.2. Batch calculation:

Capacity body: 81kg

Back neck: 28kg

Rib: 267kg

1176kg

So body,

Body: $(500 \div 1176) \times 881 = 375kg$

Back neck: $(500 \div 1176) \times 28 = 12 kg$

Rib: $(500 \div 1176) \times 267 = 113kg$

According to m/c capacity 500kg



3.8. Compliance:

Compliance is one of the most important thing of **Mondol Group**. Compliance is to prove all possible facilities for the labor and employees of the industry by the management.

3.8.1 List of Compliance issues:

Here is the list of compliance in which some points are maintain fully and some are partially.

- Compensation
- Leave with wages
- Health register
- Time care
- Accident register
- Workman register
- Equal remuneration
- National festival holiday
- Overtime register
- National festival holiday
- Overtime register
- Labor welfare
- Weekly holiday fund

3.8.2 Health:

- Drinking water at least 4.5 L/day/employee
- Mug available
- Drinking water supply
- Drinking water sign in Bangla and English located min. 20 feet away from work place
- Drinking water vassal clean at once a week

3.8.3 Toilet:

- Separate toilet for women and men
- A seat with proper privacy and lock facility
- Effective water sewage system
- Soap toilet
- Water tap
- Dust bins
- Toilet white washed one in every two month
- No-smoking sign



3.8.4. Fire:

- Sufficient fire extinguisher and active
- Access area without hindrance
- Fire sign in both language
- Emergency exit

3.8.5. Safety Guard:

- Mental glows on good conditions
- Rubber mats & ironers
- First aid box one
- Ironer wearing sleepers
- First trained employees
- Motor/ needle guard
- Eye guard
- Nurse
- Doctor
- Medicine
- Medicine issuing register

3.8.6. Salary and Wages:

- Fix wages in considering minimum wages which is declared by the government.
- Salary and wages given before 1st week of the month.

3.9. Utility:

Mondol Group is a large project, it requires adequate utility service. In mondol group, the following utility service is available.

- Electricity
- Gas
- Water
- Steam
- Compressed air



Fig.No:3.13. Compliance of knitex dresses ltd (Mondol Group) .



Fig.No:3.14. Compliance of knitex dresses ltd(Mondol Group) .



Fig.No:3.15. Compliance of knitex dresses ltd(Mondol Group) .



Fig.No:3.17. Compliance of knitex dresses ltd (Mondol Group) .



CHAPTER- 04

IMPACT OF INTERNSHIP



4.0. IMPACT OF INTERNSHIP:

An internship is a practical work experience that can occur last year of varsity. Some internships are paid, but other are unpaid. For our Bachelor degree program require an internship, and our varsity give us a great chance for practical experience .And we are very Lucy that our Internship is done in reputed Industry Like **Mondol Group** through **MR.Hasan (Deputy Planning Manager)**.

4.1. Store section:

- Understood the necessity & process of inventory.
- Realize the role of PI (pro-forma invoice).
- Had cleared the conception about fabric inspection method.
- Learned how to examine AQL in a fabric lot.
- Learned the procedure of receiving materials & dispatching goods outside of the factory.

4.2. Cutting section:

- Learned about different type of cutting machine (i.e. Straight knife cutting m/c, Band knife cutting m/c etc.)
- Learned the process of fabric spreading.
- Observed the process of fabric cutting according to the marker.
- Understood different process of fabric lay.
- Realize the use and importance of metal gloves for cutting process through different cutting machines.
- Observed the panel check process for different type of fabric of different syle and design.
- Understood how numbering and building is done.
- Understood different inspection like parts check, marker report, parts replacement.



4.3. Sewing section:

- Learned about different parts of a shirt(i.e. Upper front, Lower front, Back part, Facing, collar, sleeve etc)
- Observed different sewing or joining process of different body parts of a shirt.
- Learned about different type of machines used in a sewing floor(i.e. single or double needle lock stitch m/c, Multi needle chain stitch m/c, over lock m/c, Feed of the arm m/c etc)

4.4. Industrial engineering:

- We learn about line balancing.
- We also learn line balancing.
- How can increase productivity by applying IE process.

4.5. Finishing section:

- Observed various type of finishing process after sewing.
- Observed different type of machines used in finishing section (i.e. Neck press machine, Metal detector machine etc.)
- Learned about various type of accessories used to attach to the garments(i.e. security alarm, Hang tag, Price tag, Barcode label etc.)
- Cleared the conception about different packing type(i.e. Master pack, Blister pack, Coffin pack etc.) and packing ratio.
- Finally realize why finishing section is unavoidable in garments industry for making the garment attractive and decorative for selling purpose.



4.6. Dyeing section:

- We learn Batch & calculation
- We Study Different type of dyeing recipe.
- We had an experience in Loading & unloading, and the input of chemicals in dyeing machine.
- We Saw different type of dyeing m/c and different capacity of its.

4.7. Merchandising:

- We learn About tech pack
- We learn about sampling section of merchandising.
- We learn about their TNA plan.
- We learn how they follow up the work they have.
- We learn about shipment.

4.8. Compliance:

- Different compliance issue that that ensure for worker.
- Safety working environment for worker.

4.9. Utility:

- ✓ We can learn different type of generator and compressor.
- ✓ Their cost.



CHAPTER- 05

CONCLUSION



5.1 conclusions:

It was great pressure for us to work in of Mondal Group which provides us a wide range of scope. All the employees of Mondal Group tried to give optimum service. From the learn of point of we can say that we are really enjoyed our internship in Mondal Group from the first day. We are confident that two months internship program in Mondal Group at this garments factory will definitely help us to realize our carrier in the job.