



**DAFFODIL INTERNATIONAL UNIVERSITY**  
**Faculty of Engineering**

Department of Textile Engineering

***REPORT ON***

Industrial Attachment At **TUSUKA GROUP** (TUSUKA JEANS, TROUSER & PROCESSING LTD.)

**Prepared By:**

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Senior Lecturer

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

**December, 2014.**

## Letter of Transmittal

December 09, 2014

Mr. Md. Mominur Rahman

Senior Lecturer, Department of Textile Engineering

Daffodil International University

Dhaka, Bangladesh.

Subject: **Submission of internship report.**

Dear Sir,

Here is our internship reports that fulfills partial requirements for Degree of B'Sc in Textile Engineering. It is very important for a student of Engineering to undergo a project/practical field of study.

We completed our internship report on “A Industrial report at **Tusuka Group (Tusuka Jeans, Trouser& Processing Ltd.)**”.In the report, we have tried to accommodate your valuable comments & suggestions. In this concern, if you need any further clarification, please email/call.

Thank you for your kind cooperation. Without your support, this internship report would not have been completed. So we are submitting the final version of our internship report and requesting your acceptance.

Regards,

	ID
01.Erfan Elahi Sharif	111-23-2320
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## DECLARATION

We hereby declare that, this Industrial Attachment has been done under the supervision of **Md. Mominur Rahman, Senior Lecturer**, Department of Textile Engineering, Daffodil International University. We also declare that neither this internship report nor any part of this internship report has been submitted elsewhere for award of any degree.

### **Supervised By (Faculty):**

**Md. Mominur Rahman,**

**Senior Lecturer,**

Department of Textile Engineering,

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17<sup>th</sup> Batch

Department of Textile Engineering,  
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Internship Period: 2<sup>th</sup> September to 23<sup>th</sup> October

## ACKNOWLEDGEMENT

First of all we are highly grateful to almighty ALLAH that we can complete our internship report successfully.

We would like to thank our honorable faculty supervisor, **Md. Mominur Rahman, Senior Lecturer**, Department of Textile Engineering, Daffodil International University, **Abdus Samad, R&D Manager, & Minhazur Rahman Manager, (HR & compliance) Tusuka Group & Tusuka Processing Ltd.** for their guidance, help and encouragement throughout the progress of the internship report and internship period as well as. We are very grateful for their kind advice and instructions.

We would like to thank all department and section in-charge of Tusuka Group and the employee who are so much friendly and help us a lot and the other people, who have made a significant contribution to make this report successful. Their guide lines, suggestions & inspiration helped us a lot.

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**CHAPTER-01**  
**EXECUTIVE SUMMARY**



## **EXECUTIVE SUMMARY**

The Industrial Attachment is the most effective way for Textile Engineering student to be achieved the knowledge about the practical field of the Textile Technology. It brings an opportunity to all the learners to enrich their academic knowledge by practicing with the experts of the practical field of Textile.

It is our pleasure that we had an opportunity to complete our internship at **Tusuka Group (Tusuka Jeans, Tusuka Trouser& Tusuka Processing Ltd.)**, which is one of the most modern and reputed woven denim industries of the country.

Tusuka Group is one of the major garments manufacturing organization in Bangladesh. Specially for woven denim garments. This organization follow all the code of conduct of various buyer, maintain the rules & regulation of OLO and BGMEA as well as. They have Experts and well trained up employee in every section and department. They also arrange training to improve the operators skill. That's why they increasing their productivity and profit day by day also maintaining the best required quality of buyer. Tusuka have individual all department and section like store (Fabric &Accessories), cutting, Sample, sewing, washing, finishing, merchandising, Recharch & Development etc. They always maintain their complaine issue so that the worker get proper working environment & condition. They pay workers salary (with over time) which is fixed by recent law of Bangladesh Government and BGMEA in proper time. Now Tusuka Jeans, Tusuka Trouser & Tusuka Processing Ltd. has a 90000 square feet area. Its production capacity is around 240000, number of machines 1500 and number of employees at least 14,000.

In this report we tried to cover a short profile of Tusuka group and their Superior customers and their different activities also.

**CHAPTER-02**  
**INFORMATION ABOUT FACTORY**



## 2.1 Introduction

Industrial attachment is an important and essential of an engineering student. Someone may compare it as pre-job. So a perfect industrial attachment depends on the selection of a perfect industry. We are so much lucky that we could find a modern industry as like as **Tusuka Group (Tusuka Jeans, Tusuka Trouser & Tusuka Processing Ltd.)** The working environment, management & discipline of this industry has attracted us. We tried our level best to learn practically with advance technology and under the supervisor couple of experts of this industry. We think it's increased our practical knowledge and helps to make us perfect for field work in textile sector.

We have prepared this attachment in Tusuka Group (TJL, TTL & TPL), which is 100% export oriented woven denim garments industry. They have well planned, management, working environment, and over all section and department to produce quality garments.

We learn many thing on our about 4 years theoritacal course. Though we have adequete lab facility in our university but that is not enough to complete a Bacholor degree in engineering department. Practical field work always has a great impect to increase knowledge. So we did a field work to learn more and to prepare oureself. We have completed our about 2 month long internship in one of the reputed woven garments industry. In this report we will tried our best to give company detials and their all working process.

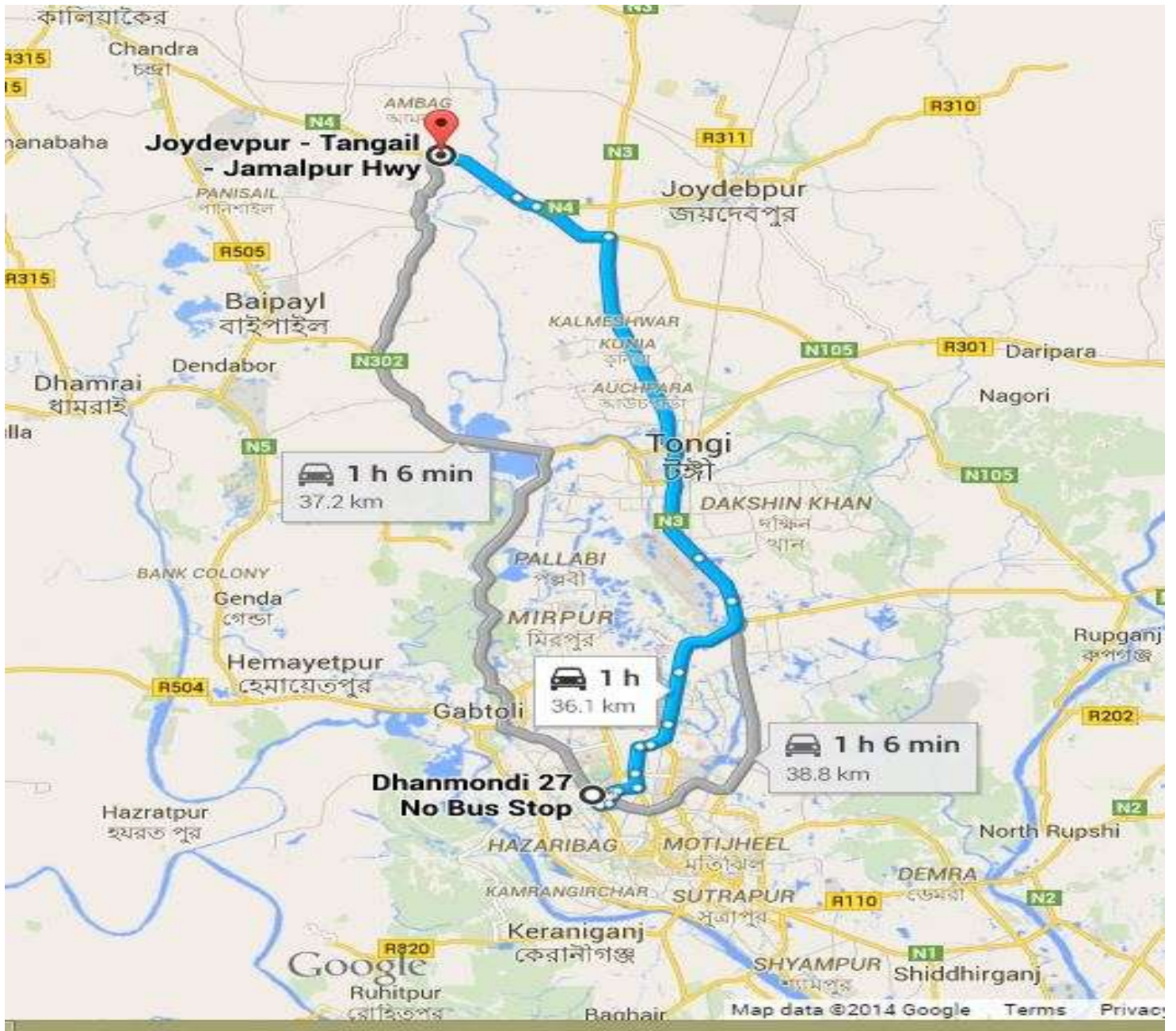
## 2.2 Company profile:

<b>COMPANY NAME</b>	<b>Tusuka Jens, Tusuka Trousser &amp; Tusuka Processing Ltd.</b>
Head Office	House # 50, Road # 11, Block-F, Banani, Dhaka-1213
Factory	Neelnagar, Konabari, Gazipur
Total floor area	90,000 sq ft. & 45,000 sq ft
Date of incorporation	1986 & 1995
Commercial Production	1986 & 1995
Types	Private company. (Joint share holder)
Main Market	Switzerland, UK, Japan, Italy, USA, Germany, Spain, China, France etc
Factory Equipments	Different types of Cutting, Sewing, Finishing and Generator machines supplied by mostly Germany, Spain, Japan, China, Sweden, USA, Italy, Switzerland, Taiwan, and Turkey.
Number of sewing m/c	800
Company motto	We source quality, make quality & deliver quality.
Company mission	To be unique & the market leader in providing quality woven garments to our valued customers around the world.
Company vision	Quality is always the combination of the highest intent, sincerest effort with an accurate execution
Product/Service:	<b>Men's, Ladis Jeans pant, Jacket, 3 quarter pant (woven denim)</b>
Certification Achievement	<b>Gold supplier from H&amp;M</b>
Contact Person:	<b>Abdus Samad, R&amp;D Manager, Tusuka Group, Mobile: 01714-059798</b> <i>E-mail:samad_processing@tusuka.com</i>  <b>Minhazur Rahman, Manager (HR &amp; complaince), Tusuka Processing Ltd.</b> Mobile: 01817-126720 E-mail: texel@tusuka.com
E-mail	<a href="mailto:info@tusuka.com">info@tusuka.com</a>
Web site	<a href="http://www.tusuka.com">www.tusuka.com</a>

2.3 Site Direction for Tusuka Ltd. from Dhanmondi, Dhaka:







## **2.4 History of the factory:**

Tusuka is in garment business since 1997, started as a buying house named "texel" focusing only the woven market. With the vision of specialized denim/jeans making, in 2001 Tusuka started its venture as jeans manufacturer with only 2 sewing lines and a small laundry to take the opportunity of globally growing demand of denim garment. After a year management found the necessity of a large world class in house laundry section to fulfill the vision. So from 2003 management started to expanded the laundry and new sewing lines in its compound. Now Tusuka has the washing capacity of 45000pcs per day, with total 34 sewing lines specialized in denim garment making.

## **2.5 Board Directors:**

### **Arshad Jamal (Dipu)**

#### **Chairman**

Arshad Jamal (Dipu), Chairman of Tusuka was born in the year 1968. He was meritorious and bright since his boyhood. He completed Honors' and MBA(Finance) from IBA( Institute of Business Administration ) of Dhaka University in the year 1992, before that he studied in the BUET (Bangladesh University of Engineering and Technology) for 3 years. Afterwards he also earned MDS (Master of Development Studies) from BRAC University and finished MDP Course from Columbia University (USA) in the year 2008.



Mr. Jamal started Buying House business while he was a student of Dhaka University. His hard work and perseverance started to bring success one after another in the business. He established Tusuka Fashions Ltd, first manufacturing unit in this Company in the year 2000. Now Tusuka Jeans Ltd, Tusuka Trousers Ltd, Tusuka Processing Ltd and Tusuka Apparels Ltd are the successful units in this process. Not only in Garments sector he also entered into the International Telecom business with



NovoTel Ltd, milestone success for him.

NovoTel is one of the IGW Company that got the license from the BTRC through an open bid in the year 2007. All his business units are well managed with high level of professionalism; his wise, judicious and well-composed directives are the key success factors in this regard. He also started chartered operation of China Southern Airlines in the year 2008.

In 2013 he entered in Air Transport business, with a private passenger airlines as Novo Air, which is serving domestic routes in Bangladesh with an immediate intention for regional connectivity

He was the successful Chairman of the Foreign Mission Cell of BGMEA and visited US Congress, Senate and State Department as an active member of the BGMEA Lobbying Team in the year 2006 and 2010 to facilitate the Duty Free Access in the USA market. He also attended WTO conference at Geneva as BGMEA representative in the year 2009. In the year 2010 he worked as representative from Commerce ministry to facilitate the Duty Free Access in the Indian market. He also accompanied Prime Minister during her visit to Japan and India.

For consecutive three terms, he was elected as board member of Bangladesh Garments Manufacturers and Exporters Association(BGMEA) . As Director in Research and Policy matters, he was the facilitator between GOB (Commerce Ministry) and BGMEA in GSP issue.

He was also declared CIP (Commercially Important Person) by The Government of Bangladesh for the year 2008, 2010, 2011. His father Late Mustafa Jamal was the high level Government Officer; he served different ministry with his honesty, sincerity and professionalism.

**Fayzur Rahman(Badal)**

**Managing Director**

He started his carrier as an Asst. Merchandiser in the year 1992 in Epic Design, a reputed Buying House in the country. He did extremely good in his assigned work and established himself as an efficient Merchandiser. The Company sponsored him a six months tanning program on 'Design and Pattern Making" in Bangladesh German Institute under a Swedish expert where he learned procedure scientifically that helped him in his carrier progression. He worked there with foreign experts and earned valuable expertise. After 3 years, he joined as General Manager in Merchandising Department in a renowned Buying House, Winners Limited.



Finally in 1998 he began his own business through Texel Limited, a buying House. Since then it's a history of success with enormous growth. As a Deputy Managing Director of Tusuka Group his efficacy consisting of Tusuka Fashions Ltd, Tusuka Jeans Ltd, Tusuka Trousers Ltd and Tusuka Apparels Ltd in manufacturing unit; Tusuka Processing in Laundry unit, NOVOTEL (International Telecom Gateway) and NOVOAIR (Air Transport Services).

## **Mr. Rafayet Ullah Khan**

### **Director**

Mr. Rafayet Ullah Khan born in a noble Muslim family at Gazaria, Munishgonj. He completed Graduation from Dhaka University. From his childhood he was engaged various social welfare activities. In 2009 and 2014 Mr. Khan has elected as Upozila Chairman of Gazaria, Munshigonj consecutive two terms. He is the director of the all factory others sisters concern of Tusuka since 2001.



**Managements:** He has high level human management skill; successfully managing day by day event in the factory' also efficiently managing safety, welfare and compliance issue in the factory

**International Trade:** He also engages international trade related matters negotiating with foreign buyer, representing the company in international trade fairs, visiting countries as member of trade delegation.

**Labor Relation:** He is the key person of the company regarding labor negotiation and conflicts management; participating in important labor meeting; attend training conducted by ILO for better management of labor

He was ex-co-Chairman in the standing committee on Apparel club and Arbitration of BGMEA. Ex Member in the standing committee of Customs, BGMEA, and Inspection for new license BGMEA. He

was also standing committee member of political affairs, BGMEA and BIFT, BGMEA.

Currently he engaged with social work for education of Gozaria, Munshiganj.

**Mr. Feroz Alam**  
**Director**

He started carrier in Factory production unit, eventually become chief technician of Epic Designers. He has high exposure in multiple manufacture plants. Mr. Alam is one of the best garments technicians in the country. He nourished the liaison between the management & workers, which is key Strength of the company. He is one of the honorable member of Uttara Club



## 2.6 Production Units

### ❖ Manufacturing Units:

- Tusuka Fashions Ltd
- Tusuka Jeans Ltd
- Tusuka Trousers Ltd
- Tusuka Apparels Ltd
- Jeans & Polo Ltd.
- Parkview Dresses Ltd

### ❖ Laundry Unit:

- Tusuka Processing Ltd.

### ❖ Embroidery Unit:

- Needle Art Embroidery Ltd.

### ❖ Printing & Packaging Unit:

- Tusuka Packaging Ltd.

### **Tusuka Fashion Ltd.**

Tusuka Fashions Ltd. is located at Tongi only 7 kilometers from Dhaka International Airport . There are 900 employees engaged in the process of cutting, sewing, checking, finishing, quality control & stores to create the unique quality. There are 4 sewing lines in this unit and produces 6400 pcs of 5 pocket jeans pants or 4,800 pcs of cargo jeans pants per day & production area 42000 Sqft. .

## **Tusuka Jeans Ltd.**

Tusuka Jeans Ltd. is located at Tusuka Complex. Konabari, Gazipur, 40 minutes drive from Dhaka International Airport . The unit consists of two buildings, which accommodate a total space of 105,000 Sqft.. There are 12 sewing lines in this factory and has got all specialized machines to produce 14,400 pcs 5 pocket jeans or 10800 pcs cargo jeans per day with a man power of 2250. The factory mainly uses machines of Juki, Kansai & Union Special brand to produce heavy weight pants.

## **Tusuka Trousers Ltd.**

This is factory with 12 sewing lines located at Tusuka Complex Konabari, Gazipur. It has all the specialized machines to produce 19,200 pcs 5 pocket jeans or 14400 pcs cargo jeans per day with 3000 man power. The total p roduction area of the factory is 1,63,000 Sqft..

## **Tusuka Apparels Ltd.**

This factory is located at Tongi BSCIC area which is 8 kilometers away from Dhaka International Airport . This is a new factory with 4 sewing lines and per day capacity is 6400 pcs of 5 pocket jeans or 4800 pcs of cargo jeans. Total man power is 850 and total area is 43,250 Sqft.

## **Jeans & Polo Ltd.**

This factory is located at Tongi BSCIC area which is 8 kilometers away from Dhaka International Airport . This is a new factory with 4 sewing lines and per day capacity is 6400 pcs of 5 pocket jeans or 4800 Pcs of cargo jeans. Total man power is 850 and total area is 43,250 Sqft.

The factory is completely well equipped and organized VF corporation and H&M have been evaluated the factory in the year 2010. The factories are grading the both buyers and got approval plans them. Our company also certified by Oeko Tex standard from Germany.

### **Parkview Dresses Ltd.**

This factory is located at Tongi, Gazipur. This is a new factory with 4 sewing lines and per day capacity is 6400 pcs of 5 pocket jeans or 4800 pcs cargo pants. Total man power is 850 and total area is 55,000 sqft.

### **Tusuka Processing Ltd.**

The washing plant is equipped to produce high quality stone, enzyme & dying of jeans & casual wear. It is situated at Konabari, the same complex of Tusuka jeans & Tusuka packaging. Computer operated machines produce consistent quality by the support of modern equipments to control water PH, steam pressure and temperature. The wastewater is pre cleaned & processes before discharged to the closed drainage system. The factory have 1106j sets machines from all USA & EUROPEAN BRAND like Tolon, Tulker, Milnor, Washex, Lapow, Celso, Euro stone with a wet process capacity 60000 pcs per day. The washing plant also has a dry process capacity of 40,000 pcs per day where we can do hand brushing, whiskering, grinding, tacking, pp spraying, laser and 3 dimensional whiskering on the jeans . Total man power is 3200 And total area is 140000 sqft. We also have waste water treatment plant (ETP).

### **Needle Art Embroidery Ltd.**

This factory is located at Tusuka Complex. Konabari, Gazipur . This is a new factory which production area is 4000 Sqft. and Workers have 120 . There are 10 Machines – a) 9 Color (Capacity 73 Head) b) 7 Color (Capacity 38 Head).

### **Tusuka Packaging Ltd.**

Produces quality export boxes for our products. The unit has 50 employee to produce approx 8,000 Pcs of medium size cartons per day. Spatiality: Staple Less carton, Virgin Carton etc.

## 2.7 Business Market:

### Main clients:

- Alcott
- Aachen
- Biminibary
- Carrefour
- Charles Vogele
- Cora
- H&M
- El Corte Ingles
- Joe Fresh
- LPP
- Kappahi
- Olimpis
- Silver Jeans
- Spring Field
- VF Asia
- Varner Group
- WE
- Zara



## 2.8 Export growth by graph



## 2.9 Sourcing

Main Sourcing are Raymond , Arvind , Moufung, Lanyan, Shangdong , Atlantic Mills, PT Apac, Suntex, Taksang.

We are also doing around 10 % production with heavy twill, Canvas and Corduroy, which we are sourcing from China through our Hong Kong office including all type of trims.

We use chemicals from World best reputed chemical suppliers i.e. , Gammon Italy, Officiana+29 Italy, TLP Holland, CHT Germany , Daystar Turkey ,etc

## 2.10 Section/ Department of Tusuka Group

- Store (Fabric& Accessories)
- Sample

- Marker & Pattern
- Cutting
- Sewing
- Washing
- Quality
- Finishing & packaging

## **2.11 Organ gram of Tusuka Processing Ltd.**

# TUSUKA PROCESSING LTD.

## ORGANOGRAM

**Director**  
Md. Shafiqul Islam

<u>Summary</u>	
R&D Manager	= 01 Person
Production Co-ordination	= 01 Person
Civil Engineer	= 02 Person
Accounts Section	= 02 Person
Compliance Section	= 111 Persons
Computer Operator	= 06 Persons
Wash Unit- 1 & 2	= 711 Persons
Dry Process	= 1735 Persons
Maintenance Section	= 87 Persons
Mechanical Store	= 05 Persons
Chemical Store	= 48 Persons
Driver + Helper	= 18 Persons
Delivery Section	= 67 Persons
<b>Total</b>	<b>= 2794 Persons</b>

<u>Compliance Section</u>	
Compliance Manager	= 01 Person
Compliance Officer	= 04 Person
Hr Officer	= 03 persons
Weal Fair Officer	= 02 persons
Fire Man	= 02 persons
Time Keeper In charge	= 02 Persons
Time Keeper	= 06 Persons
Cleaner	= 90 Persons
<b>Total</b>	<b>= 110 Persons</b>

**Accounts Section**  
Md. Taufiqul Islam  
Md. Anower Hossain

**Civil Engineer**  
Md. Sayed Hossain  
Md. Umor Faruk

**R & D Manager**  
Mr. Samad

<u>WASH 1 &amp; 2</u>	
<u>Summary</u>	
R & D Manager	= 01 Person
P. M	= 01 Persons
Incharge	= 08 Persons
Asst. Quality Manager	= 02 Persons
Quality Section	= 263 Persons
(1-A-Shift)	= 97 Persons
(1-B-Shift)	= 97 Persons
(2-A-Shift)	= 55 Persons
(2-B-Shift)	= 54 Persons
Sample Section	= 98 Persons
G.P.Q + Rep.	= 15 Persons
Dying	= 20 Persons
<b>Total</b>	<b>=711Persons</b>

<u>Summary</u>	
	= 548Persons
	= 241Person
	= 82Person
	= 308Person
	= 187Person
	= 154Person
	= 26 Person
	= 12 Person
	= 177 Person
	= 1735 Person

<u>Maintanance S</u>	
Manager	
Deputy Manager	
Electrical Section	
Mechanical Section	
Utility Section	
ETP Section	
Boiler Section	
<b>Total</b>	

<u>Mechanical</u>	
Store In charge	
Store Asst	
Loader	
<b>Total</b>	

<u>Chemical S</u>	
Chemical In charge	
Sr Executive	
Others	
<b>Total</b>	

## 2.12 Awarded & Certificate

✧ 2013-02-09

Tusuka Awarded Gold Supplier from H&M

✧ 2012-04-28

Tusuka Trousers Ltd. Credit Rating

The Credit Rating Information and Services Limited (CRISL) have rated Tusuka Trousers Ltd. as "A" in the long term and "ST-3" in the short term in consideration of Latest financial Statement (audited) and other relevant quantitative as well as qualitative information up to the date of rating declaration.

✧ 2012-04-28

Tusuka Processing Ltd. Credit Rating.

The Credit Rating Information and Services Limited (CRISL) has rated Tusuka Processing Ltd. as "BBB" in the long term and "ST-3" in the short term in consideration of Latest financials Statement (audited) and other relevant quantitative as well as qualitative information up to the date of rating declaration.

✧ 011-12-09

Tusuka Awarded National Export Trophy (Gold) for 2009-2010.

Fayzur Rahman (Badal), Deputy Managing Director of Tusuka is receiving awards National Export Trophy (Gold) for 2009-2010 from Honorable Prime Minister Sheikh Hasina at a ceremony in the city on Wednesday 30th November 2011



### **2.13 Social Benefits :**

Social, ethical and environmental impacts for our customers, employees and the world we're all living in. We believe that the real business quality cannot be achieved unless considering responsibilities for its. The social responsibility that we undertake is not about only compliance with the minimum legal requirements, it is about improving the living and working quality for all concerns by trying to achieve above the standards.

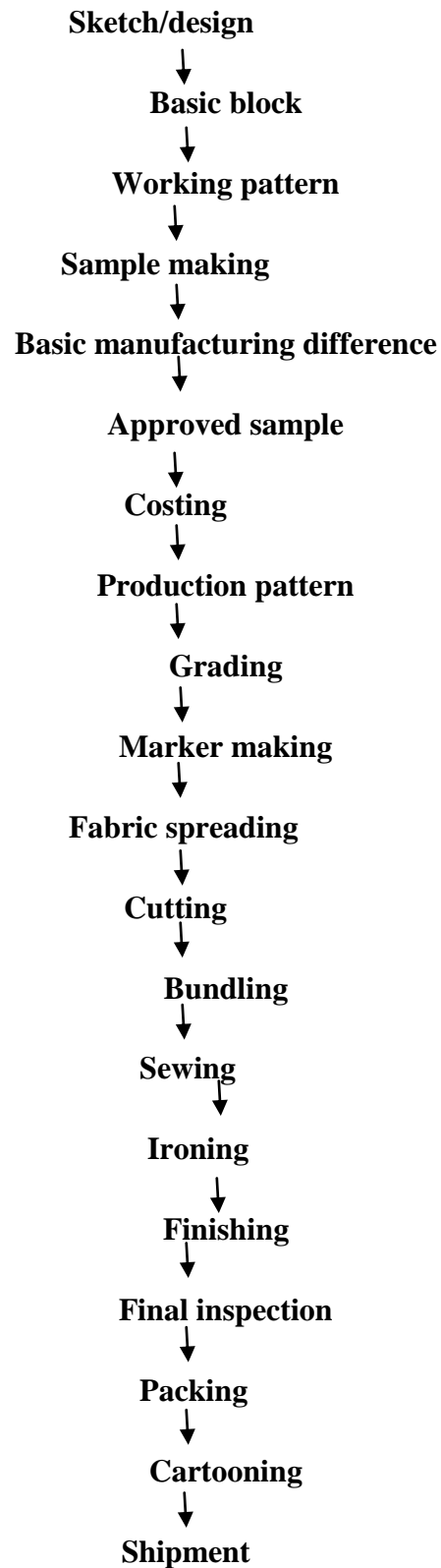
As an essential part of our core values, we naturally undertake the responsibility to help people aiming to improve their living and working quality. Nevertheless, our competitive advantage of corporate reliability also relies on our social and ethical behaviours including followings:

- Buyers' code of conduct is strictly being followed in all areas with strong emphasis to human rights, occupational health a

## **CHAPTER- 03**

# **DESCRIPTION OF DIFFERENT SECTIONS**

### 3.1.0 Sequence of Garment Manufacturing Processes:





### 3.1.01 Section & Activities

1.Store section: Fabric & Accessories inhouse, Inventory, Quality Checked, MRN, GRN

2.Sample Section/ Product Development section : Sketch/design, Basic block, working patter, Sample making, basic manufacturing difference, Approved sample, costing.

3. Cutting section: Production pattern, Grading, Marker making, Fabric spreading, Cutting, Bundling, Numbering

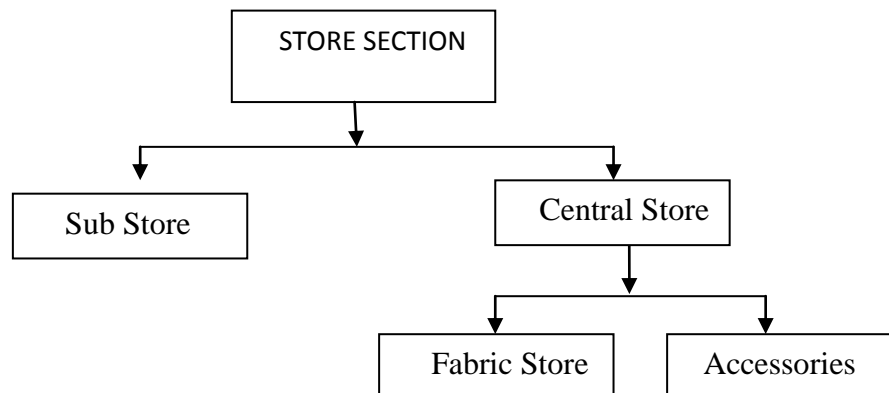
4. Sewing Section: Sewing

5. Washing Section: Garments Wash

6. Finishing Section: Ironing, finishing, Final inspection, Packing, Cartooning, Shipment

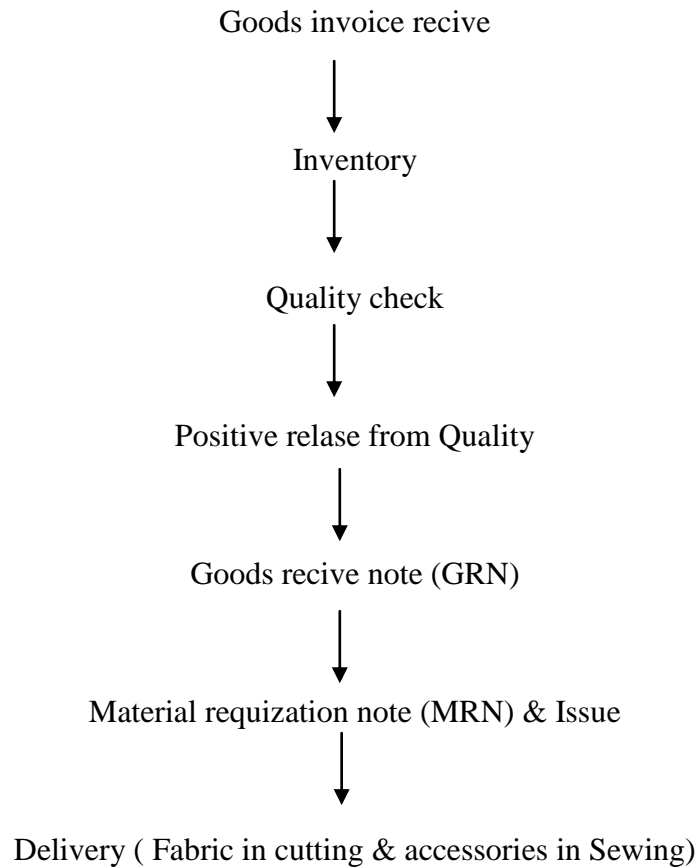
## 3.1 STORE SECTION

### 3.1.1 Process Sequence of Store Section:



**Fig: Store Section Accessories**

### 3.1.2. Working Process of Fabric & Accessories Store:



#### 3.1.1.1 Accessories list of Tusuka Group:

1. Main Label
2. Care Label
3. Size Label
4. Price Label
5. Leather Patch
6. Zipper
  - ✓ Plastic
  - ✓ Metal
  - ✓ Nylon
7. Waist tag

8. Name label
9. Button
  - ✓ Hole shank
  - ✓ Flat rivet
  - ✓ Nipple/ Vintage
  - ✓ Snap Button
  - ✓ Horn Button
  - ✓ Fly stud button
10. Elastic
11. Tag pin
12. Hang Tag
13. Color Transfer hang tag
14. Carton Sticker
15. Barcode label
16. Tissue Paper
17. Jute string
18. Plastic Clip
19. Flat Clip
20. Metal Clip
  
21. Sewing Thread
22. Poly Bag
23. Pin
24. Gum Tap
25. Hanger Sticker (for tie set)
26. Hanger
27. Leg sticker

### **3.1.1.2 Accessories Inspection:**

#### **Nickel Test**

For all Metal Accessories like

- ✓ Zipper
- ✓ Button
- ✓ Fly
- ✓ Rivet
- ✓ etc

Chemical used in nickel test- Ammonia & Dimethyl Glyoxime

Result: After brushing the accessories by cotton bar with Ammonia & Dimethyl Glyoxime, if the accessories color change to pink. It's indicate the presence of nickel and then it will be rejected. If color don't change, then it's ok. After passing nickel test then 10% of accessories are inspected by QC inspector. If the defectives amounts cross over 1% then the accessories will fail. In the situation according to suggestion of QA & QC manager these accessories send to the merchandiser and buyer representatives finally to work according to their decision.



Fig:Accessories Inspection

## **Accessories are inspection 100% for some defects such as-**

1. Missing of composition
2. Size mistake
3. Barcode mistake
4. Style mistake in the hang tag
5. Metal item inspection such as magnet test, Nickel test, Rust test, ferrous test etc.

### **3.1.1.3 Activities of fabric store section:**

- ✓ Fabric inhouse
- ✓ Fabric inventory
- ✓ Fabric inspection
- ✓ Shade numbering of fabric
- ✓ Shrinkage test of fabric
- ✓ Swatch card maintain
- ✓ Delivery

- I. Fabric inhouse & Inventory : According to buyer requisition or industries requisition or industries requisition fabric received from the fabric supplier and checked the quantity.
- II. Fabric inspection: Fabric is inspected by 4 point system
- III. Shrinkage test of fabric: After washing fabric may be increased or decreased
- IV. Shad numbering of fabric: According to different shade (acceptable) of fabric rolls are arranged that those rolls.

For example: 30 fabrics rolls

After assessment shade group are-

Group A → Roll 1, 6, 13, 14, 15, 17, 18

Group B	→	Roll, 2, 3, 10,4, 5, 11, 12
Group C	→	Roll 21, 7, 8, 19, 25, 28
Group D	→	Roll, 9, 26 23, 16
Group E	→	Roll 2,20, 22, 24, 30,9

## 3.2. Fabric Inspection

Fabric inspection means the quality check of fabric. The main purpose of fabric inspection is to find out the faults and defect to make sure better quality. there are various types of faults found in fabric which is inspected during inspection.

Faults and defects found in fabric:

- Slub :-
- Knot:-
- Missing:- Missing weft wise yarn.
- Weaving:- Warp wise slightly projecting or non compact yarn.
- Hole:- Hole in fabric.
- Thick yarn:- Weft or width wise thick yarn.
- Stain mark:- Weft or width wise non compact yarn.
- End out:- Warp wise yarn missing.
- Spot:- Spot by oil mark or others.
- Color yarn:- Other's color yarn from the fabric color.
- Etc.

Fabric inspection system:

### 3.2.1 Machine used in fabric inspection:

Name- Fabric inspection machine

Brand name- Modern machine

Origin – Japan



Fig: Fabric inspection machine

Machine parts:

- Motor
- Switch box
- Power switch
- Motion switch
- Light switch
- Counter pulley
- Counter meter
- Beam roller

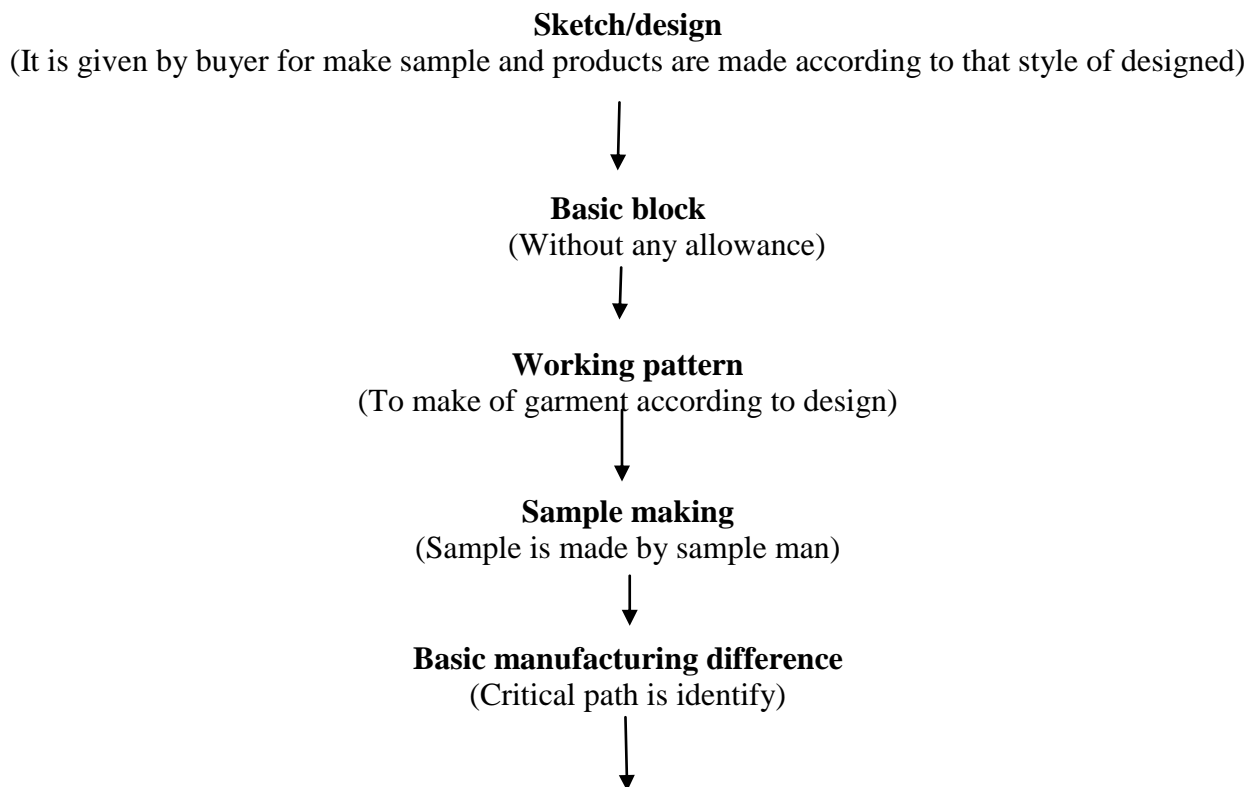
- Roller stand
- Etc.

### 3.3.SAMPLE SECTION/ PRODUCT DEVELOPMENT SECTION

#### 3.3.1 Sample:

- The style done by designer or developer.
- Particular purchase order.
- Sample is the specimen of any product.
- Any revision to the style work.
- Sample is a specimen or we can say a part which shows that the whole is look like.
- Conform with any specific requirement
- Sample is the physical form of design.

#### 3.3.2 Flow chart of sample department:





**Approved sample**  
(Sample approved by buyer)

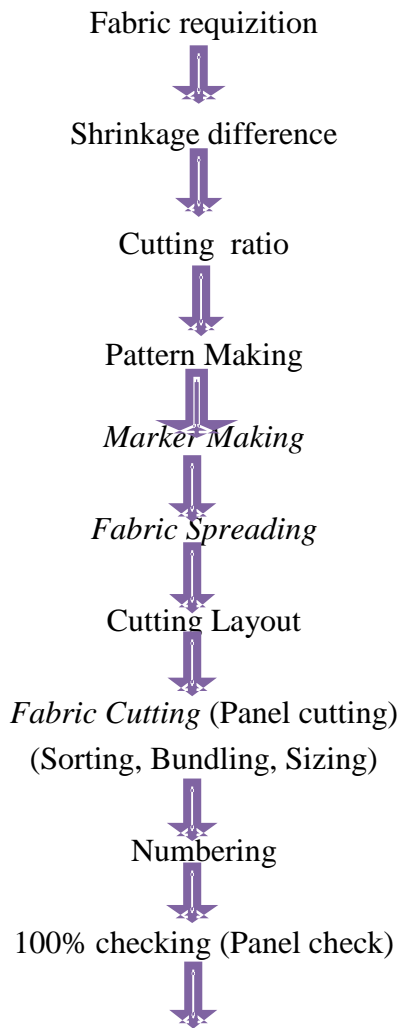


**Costing**  
(To estimated the making charge, trimming, fabric required and profit)

## 3.4.CUTTING SECTION

### 3.4.1 Fabric Cutting :

#### Process Sequence in Cutting Room



Mending / replacing if needed.



### 3.4.2 Pattern Making:

Pattern is the one of important element of a design. In a garment industries there are two type of pattern uses based on their capability. Like

- ✓ Manual System
- ✓ Computer Aided Design (CAD)

Mostly big companies are use CAD (Computer aided design) as well as little companies' uses manual pattern. In Tusuka they use CAD and also manual pattern in some cases. Basically **INVESTRONICA** Software uses here. There are 5-6 high skilled pattern masters working here.

According to the required consumption pattern is produced. Pattern is produced for each and every size like,

- Small (S)
- Medium (M)
- Large (L)
- Extra Large (XL)

### 3.4.3 Marker Making

Marker is needed before starting bulk cutting. For marker making there is also two system

- Manual System
- Computerized System (CAD)

Tusuka is mainly making marker by CAD system but also making by manual process (if needed) and they use **INVESTRONICA** software for marker making

In manual marker making process, marker man use pattern paper to draw different garments parts in marker paper.

But in computerized system it is making by an expert marker man and finally printed by wintex plotter machine.

In computerized system marker efficiency is more than manual system and it also reduce time and cost.



Fig: Marker making machine ( Wintex Plotter M/C)

#### **3.4.4 Fabric spreading:**

- ✓ Spread the fabric for cutting according to the marker.
- ✓ It can be done by machine or manually
- ✓ It is done manually in most of the garments of Bangladesh.
- ✓ Fabric width is at best 57.5 inch.
- ✓ Normally not more than 56 inch.
- ✓ Length is taken according to marker length.
- ✓ In case of long length two or more worker is required for uniform spreading.

- ✓ As per marker requirement fabric is taken for spreading from the main fabric roll.
- ✓ No of fabric layer is to set depend on cutting capacity.

**Number of plies depends on:**

1. Capacity of the cutting machine.
2. Volume of production.
3. Type of fabric itself (rough or slippery).
4. Thickness of fabric.

Heavy Weight	4-5"	5-4"
Med Weight	3-4"	3-3.5"
slights Weight	2.5-3"	2-2.25"

**3.4.5 Fabric cutting:**

**Factors affect the cutting process for fabrics are as follows:**

- ❖ Nature of fabric (grain line shade, twill etc.)
- ❖ Thickness of fabric.
- ❖ Design characteristics of finished garment.
- ❖ Machines and tables used.
- ❖ 2.2.2 Types of cutting machine:

Straight knife cutting machine is mostly used in Tusuka Jeand & Trouser Ltd.



**Fig: A cutter man with straight Knife Cutting M**

### 3.4.6 Description of Cutting m/c:

#### **Straight Knife Cutting M/C:**

This is designed with a low center of gravity for ease of handling and features the best power to gravity weight ratio in the industry.

It is designed for maximum productivity and minimum fatigue. The XD-629 is the obvious Choice when one machine is required to perform many roles. It is suitable for cutting most light to medium weight fabric.

#### **BEST USED FOR:**

Light to medium weight fabrics & Woven fabric.

#### **FEATURES:**

- Automatic sharpening system
- 8” blade size
- Low-profile ergonomic design
- 1-1/2” stroke

#### **OPTIONS**

Specify U-ground or twist plug when ordering Machine. Fine, medium and course sharpening bands are available

Specification of Straight knife cutting machine for fabric cutting is given below:

Brand Name	Mack
Origin	Japan
Frequency	50/60 Hz
Volt	50/60 Hz
Phase	1
Blade	Straight bar blade
Speed	3000/3600
Current	AC

### 3.4.7 Numbering:

**Sorting out the components according to size and for each size make individual bundle.**

Cutting no	:3
Bundle no	:2
Style no	:1700
Quantity	:10
Color	:Red
Parts name	:Pocket
Size M L	:8c
Serial no	: 145-170=26

### 3.4.8 Bundling:

#### **Bundle Card:**

The bundle card is most important in the garments section. In export qualify garments any type of shading and size mistake is not accepted, so it is used. Because buyer can not accepted any types of shading and size mistake garments.

#### **Understanding the information in a Bundle card:**

C- 7	:	Cutting number Seven.
723	:	Bundle Number.
HPB	:	Hammer pocket big.
1912-1936	:	Lay number.
5TE	:	Size.
Quantity	:	25 pcs

## 3.5. SEWING SECTION

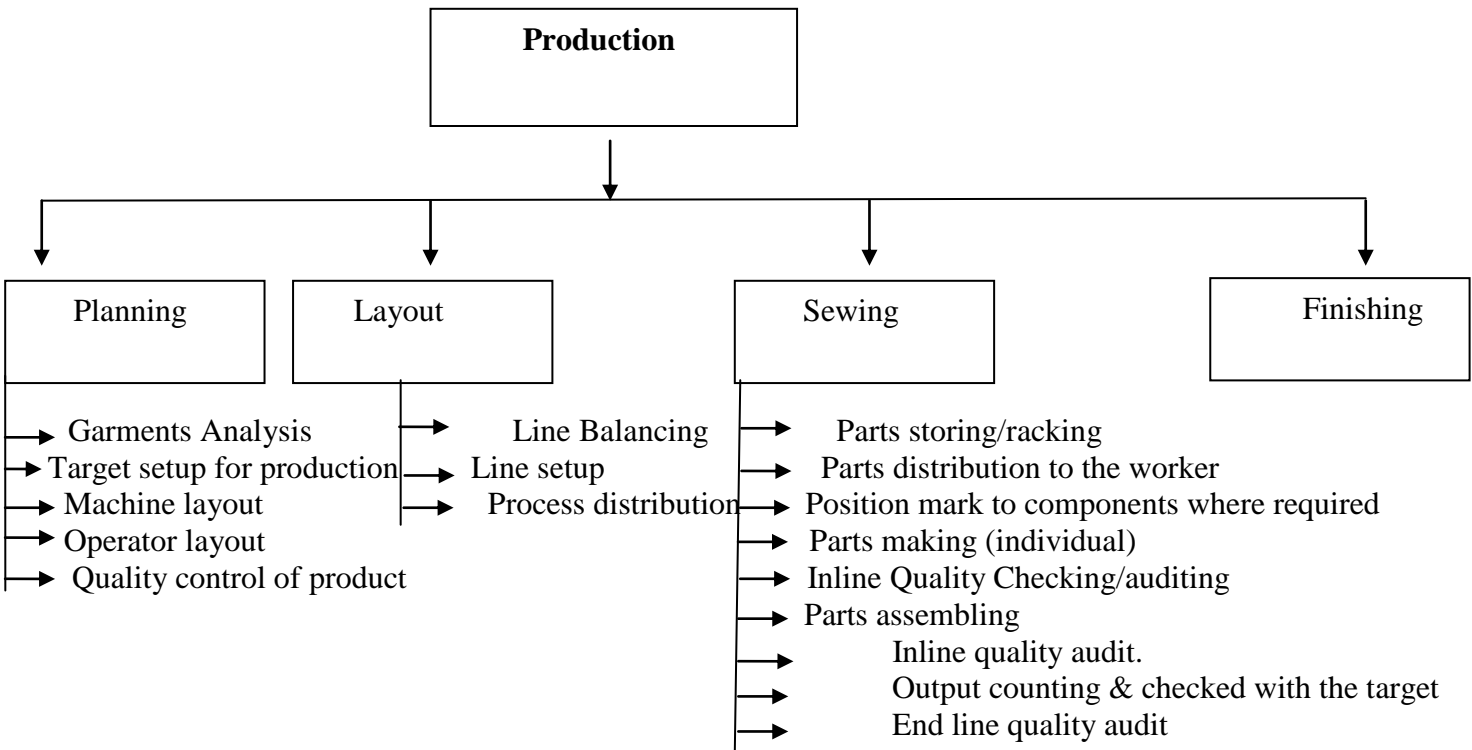
### Sewing:

This is the main assembly stage of the production process, where the operators stitch fabric cut pieces together, and a garment is assembled. Some one called production is the main body of a garments industry.



Fig: Sewing lay out of tusuka trousers

### 3.5.1 Process Sequence of Sewing Section:

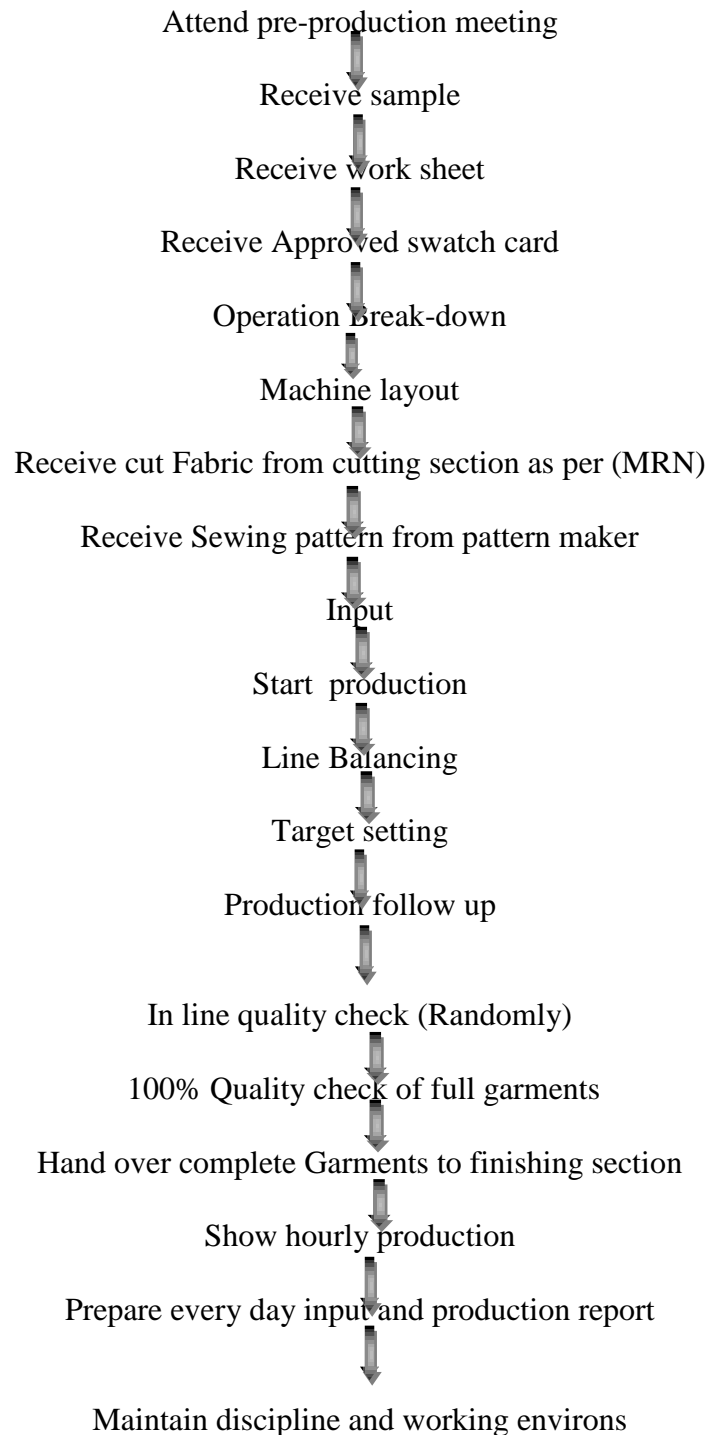


### 3.5.2 Name of the machines used in sewing section are:

- 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
- Velcro Machine
- Feed of the arm Machine
- Fusing Machine



### 3.5.2.1 Activities of sewing section:



### 3.5.2.2 List of machine in tusuka trouser ltd.

S/L NO	NAME OF MACHINE	modile	Brand	A LINE	B LINE	C LINE	D LINE	E LINE	F LINE	A LINE	B LINE	C LINE
1	S/N LOCK STICH(Auto)	DDL-8700-7	Juki	8	8	7	9	6	8	8	10	10
2	S/N LOCK STICH(Menu)	DDL-8300	Juki	37	32	36	29	32	47	46	35	40
3	D/N LOCK STICH	LH-3128	Juki	3	4	5	4	4	5	4	5	7
4	D/N LOCK STICH (Angolar)	LH-3168	Juki	2	1	1	2		1	2		1
5	D/N LOCK STICH	T-8420-B-BS	Brother	3	1	1	2	1	2	2	3	3
6	O/L & CHAIN STICH 5thr	MO-6716	Juki				1	1		1	1	
7	O/L & CHAIN STICH 5thr	M732-86	Pagasus	5	9	8	4	3	6	10	3	4
8	O/L & CHAIN STICH 4thr	747f	juke					1			1	
9	O/L & CHAIN STICH 4thr	M752-13H	Pagasus	1			1	2	2	1	3	4
10	FEED OF THE ARM	35800DZ-36	Juki	4	4	4	4	4	4	6	3	3
11	FEED OF THE ARM	MS-1261/VO-455	Juki		1					1	1	
12	K/S WAIST BAND	DFB-1404PDF	Kansi sp:	2	2	2	3	2	3	2	2	2
13	K/S BACK YOUK	DLR-1503 PTF	Juki	1	1	1	1	1	1	1	1	1
14	BARTACK	LK-1900 AHS	Juki	4	5	5	5	5	5	2	6	5
15	EYELET HOLE	MEB-3200JSKA	Juki	1	1			1	1		1	1
16	EYELET HOLE	RH 9820	Brother	1								
17	LOOP MAKING	B-2000SC	Kansi sp:	1	1	1	1	1	1	1	1	1
18	LOOP CUTTER	S.C-7										
19	BUTTON HOLE	LBH-781	Juki	1			1	1	1			
20	BUTTON HOLE(Computer)	HE-800A-Z	Brother	1			1	1				
21	VELCRO ATTACH	LK-1920	Juki									
22	VELCRO ATTACH	LK-1930	Juki									
23	POCKET DESIGN MACHINE	AMS 210D	Juki									
24	POCKET DESIGN MACHINE	AMS 210E	Juki									
25	BUTTON STICH (Manual)	M372	Juki									
26	BUTTON STICH (Computer)	LK438D	Brother									
27	BUTTON STICH (Computer)	19003	Juki									
28	BUTTON STICH (Computer)	LK-1903ASS	Juki									
29	S/B BANGLA		Zusen									
30	S/B (NAGASINGI)	NS-47	nagasin									
31	Sadd;e Stich Machine	FY-5010	Yamata	2				2		1		
32	STAPPLE MACHINE	F9000	chana									
33	D/N CHINE STITCH	CM-380	Zusen		1	3	3	1	1	2		2
34	1/N CHINE STITCH	Jukai	Jukai									
35	INTER LOCK	W-522A-01F	Pagasus							1	1	1
36	INTER LOCK	FS-311L-2H64/Z4	Juki	1	1	1	1	1	1			
37	ENT CUTTER MACHINE	EC-510	Estman									

38	CUTTINE MACHINE	KM-KS-AU-V-10	K.M																
39	FUSING MACHINE	450CS	Juki																
40	THREAD SHAKING		MODRAN																
41	PULL TEST MACHINE	0256																	
42	lectra marker	alys 30	lectra																
43	cutting spreder	250	lectra																
44	REECON MACHINE	20S	Max																
45	digitize tabil	gtco c222	lectra																
46	fabric inspection		MODRAN																
47	auto belco cottor																		
48	iron tabil		modrand																
49	ganrator	550kba	daioo																
50	LIGHT BOX	CAC120-5A																	
51	NEEDLE DETECTOR Y.D.S	225	Y.D.S																
<b>G.Total</b>				<b>78</b>	<b>72</b>	<b>75</b>	<b>72</b>	<b>70</b>	<b>89</b>	<b>91</b>	<b>77</b>	<b>8</b>	<b>5</b>						

Sewing procedure of a basic pant:

Parts name of the body:-

➤ **Front Part**

- Pocket
- Coin pocket
- Fly (Single, Double)
- Front rise
- Facing
- Zipper
- Front left & right part

➤ **Back Part**

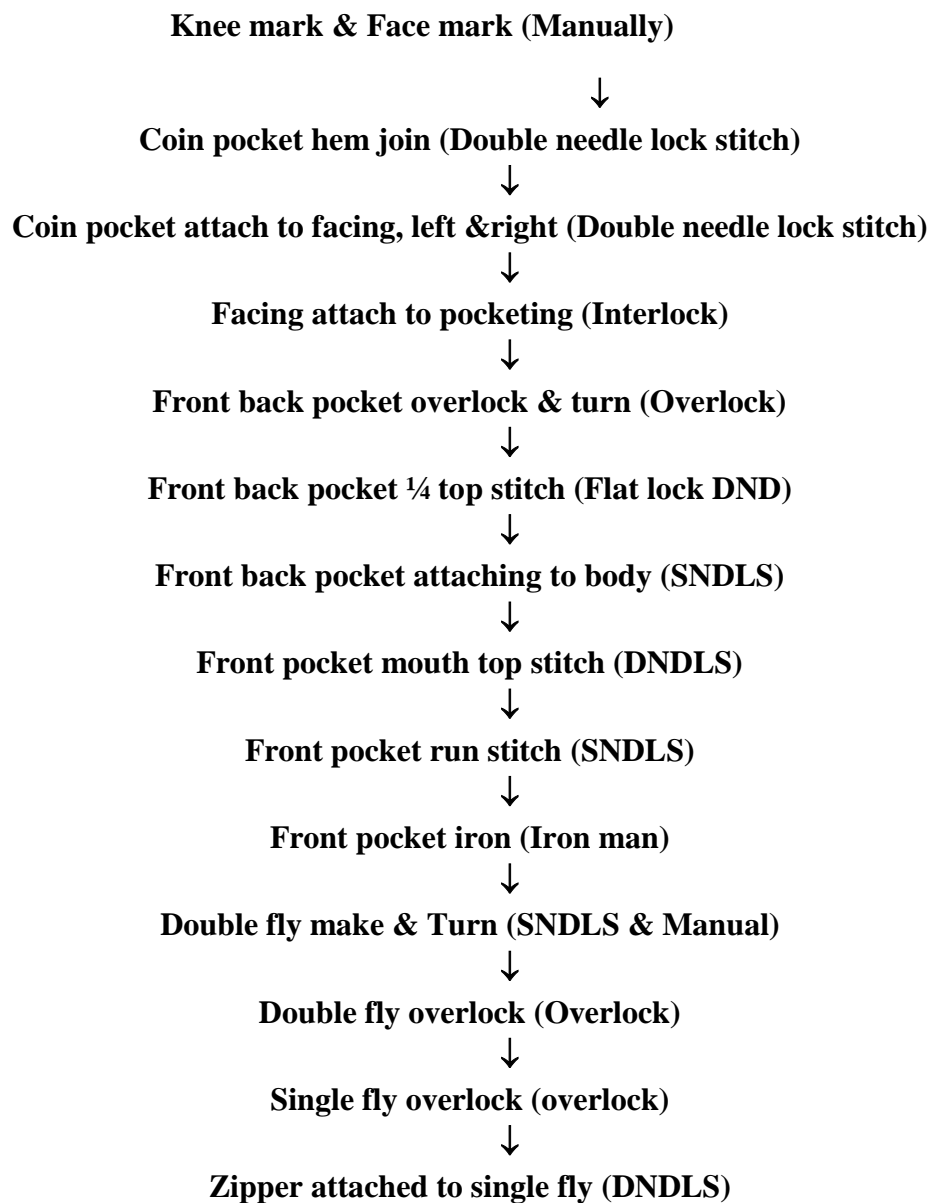
- Back pocket
- Back rise
- Youke

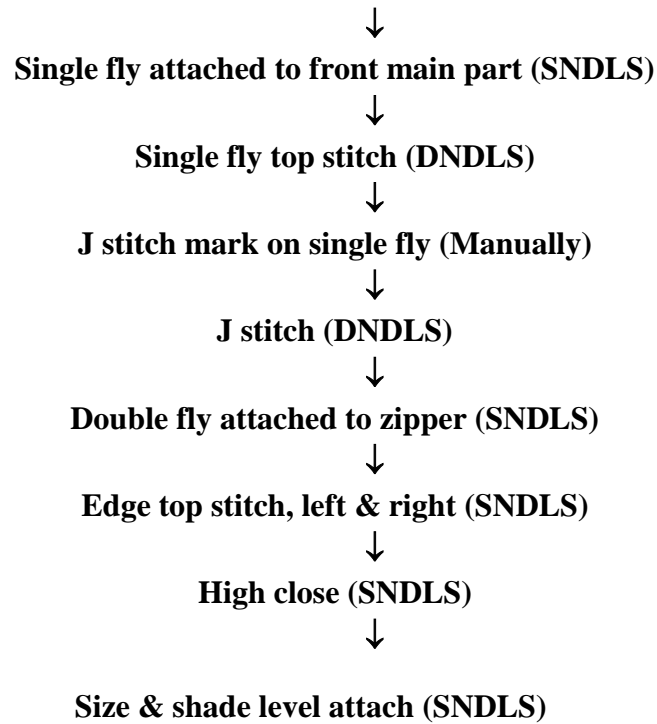
Operation Break down:

**This operation is done by 3 steps**

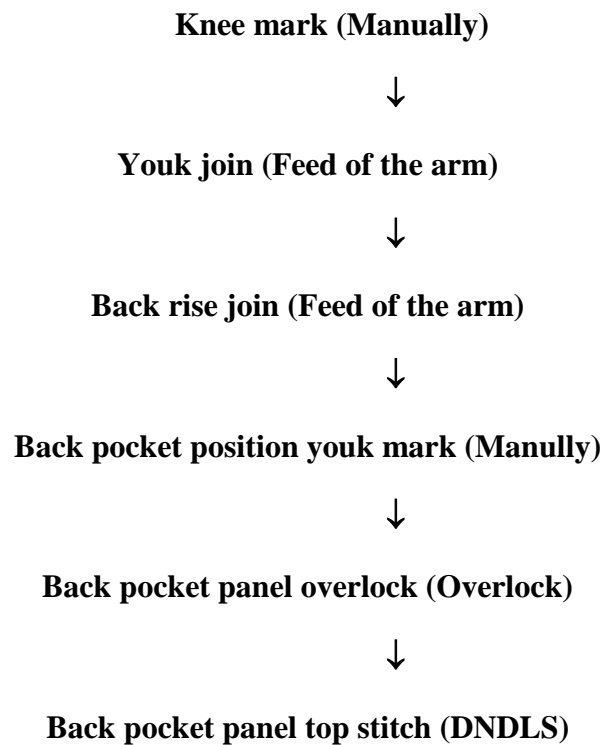
- ✓ Front part
- ✓ Back part
- ✓ Assembly

### **Front Part**





**Back part:**





**Top stitch in middle position (SNDLS)**



**Back pocket hem mark (Manually)**



**Back pochet hem stitch (NNDLS)**



**Waist belt & loop tuck to body (SNDLS)**



**Back pocket ironing, left & right (Iron Machine)**



**Back pocket attached (Left & Right) (SNDLS)**



**Back pocket ¼ top stitch (SNDLS)**



**Back part side seam overlock (Overlock)**

## **Assembly/ Output**

**Front & Back number check and arrange**



**Inseam top stitch (FOA)**



**Side seam overlock (L & R) (Overlock)**



**Side seam position sticker attach in inside (Manually)**



**Hep stitch (L & R) (DNDLS)**



**Loop make (Flat lock)**



**Loop position mark to body (Manually)**



**Loop attached to body (SNDLS)**



**Waist band mark (Manually)**



**Waist band attached to body (Multi needle chain stitch)**



**Waist belt stitch removed (Scissoring and mark for mouth close)**



**Mouth close (Lower),(SNDLS)**

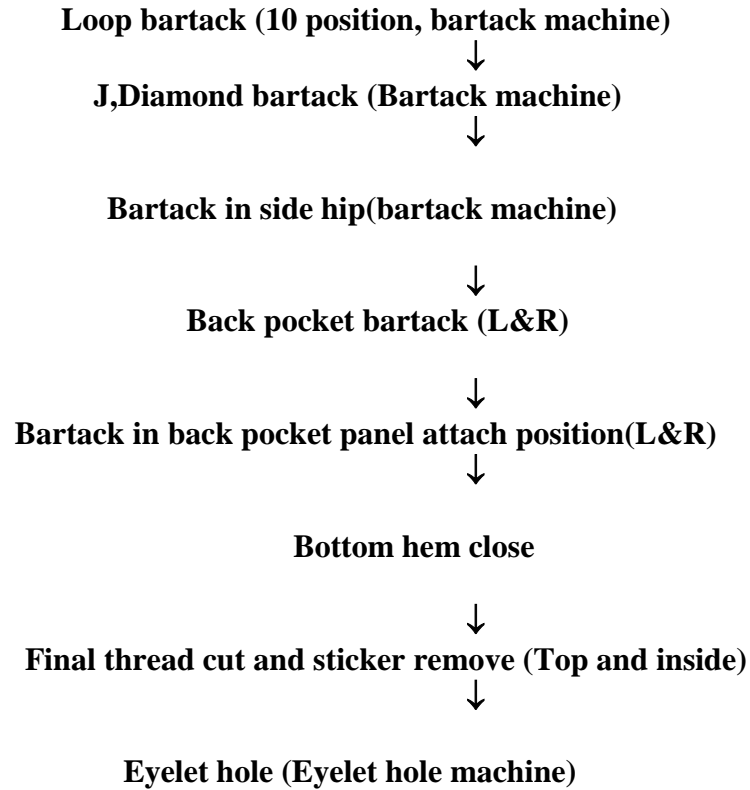


**Mouth close (Upper), (SNDLS)**



**Loop upper mark (Manually)**





### **3.5.5 Different type of sewing fault:**

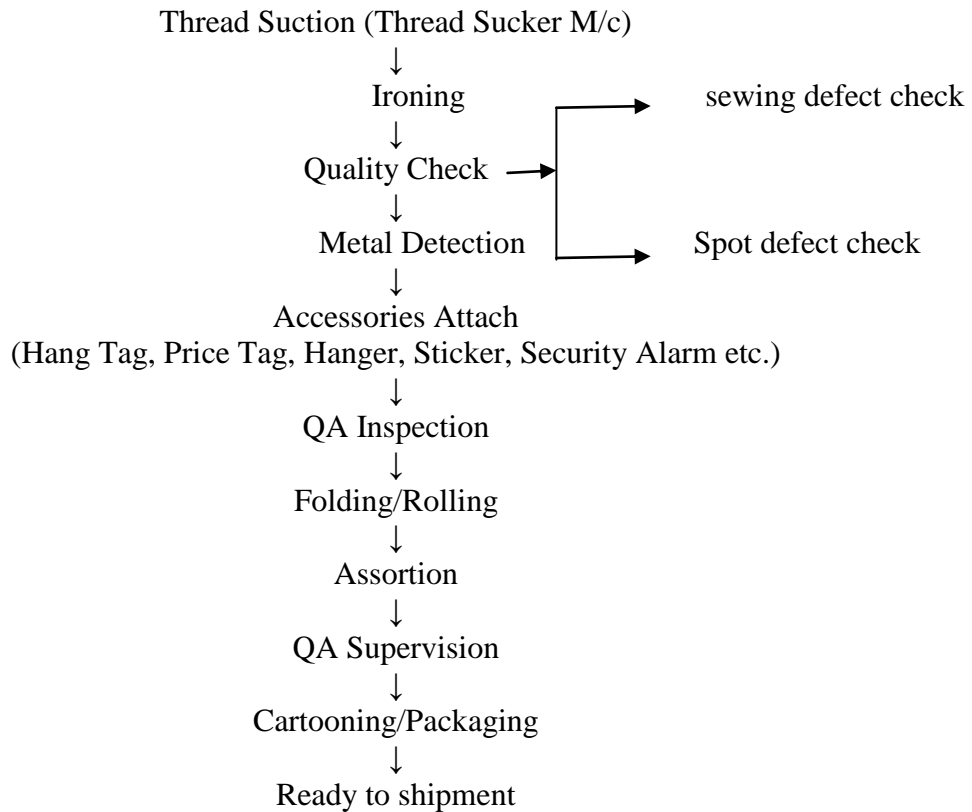
1. Skip/ Drop stitch
2. Uneven stitch
3. Over stitch
4. Joint stitch
5. Raw edge
6. Tension loose
7. Broken stitch
8. Puckering



- 9. Open stitch
- 10. Oil spot
- 11. Shading
- 12. Incorrect stitch per inch
- 13. Pleat
- 14. Needle cut
- 15. Wrong Thread
- 16. Wrong size/ care label
- 17. Slanted
- 18. Wrong button placement
- 19. Run off stitch
- 20. Etc

**3.5.6 Garments Finishing:**

**Process Flow Chart of Garment Finishing:**



**Metal detection machine:**



**Fig: Metal Detector M/C(Brand name: HASHIMA)**

## Thread sucker machine







**Fig: Thread Sucker M/C**

### **5.1.2 Materials used in garment finishing:**

- Neck board
- Back board
- Collar stand
- Butterfly
- Tie placket support
- Danishing loop
- Fit label
- M-clip
- T-clip
- Metal clip
- Cuff link
- Droop loop
- Cable tie
- Boa tie
- Full board
- Hand tag
- Tag pin
- Tissue paper
- Al pin
- Ball pin
- Elastic clip
- Hanger
- Poly bag
- Size sticker
- Gun tap

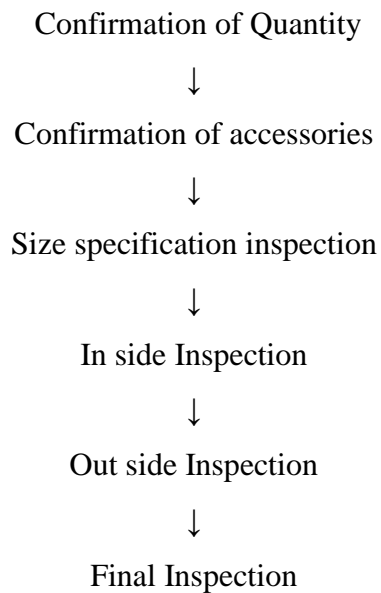
- Inner box
- Muster cartoon box
- Pp belt
- Blister
- Etc.

**Basic Ironing Symbols:**

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

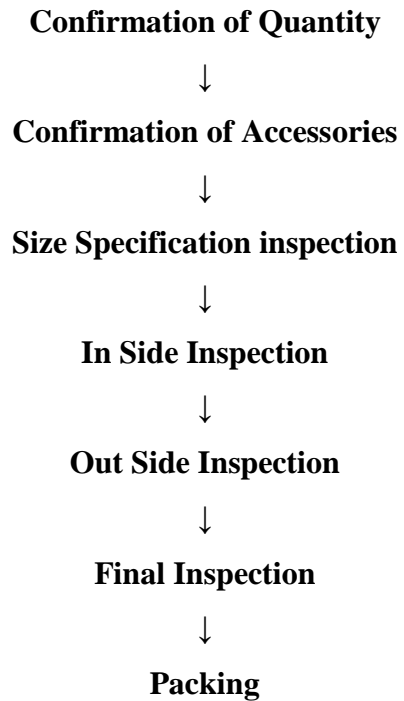
**Garment Inspection:**

Flow Chart of Garment Inspection



↓  
Packing

**Inspection Procedure of Garments are Described Below:**



## **3.6.Garments Washing.**

### **3.6.1 Types Of Washing :**

There two types of Washing In Done In Denim Factory

1. Wet Wash
2. Dry Wash

### 6.1.1 Wet Wash :

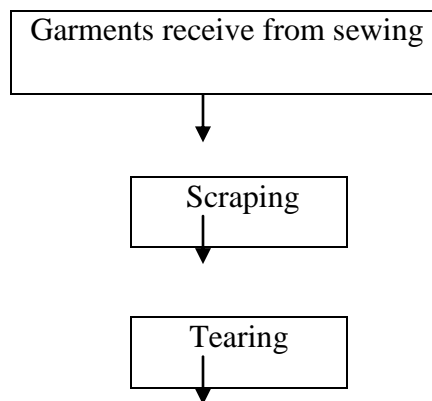
- Normal Wash.
- Pigment Wash.
- Bleach Wash.
- Caustic Wash.
- Acid Wash.
- Enzyme wash.
- Enzyme Wash With Stone.
- Stone Wash.
- Supper White Wash.
- Wash and Over Dyeing.

### 6.1.2 Dry Wash :

- Whiskering
- P.P spray.
- Curing
- Taging
- Grinding

Sand Blasting etc

### Production sequence of Washing



Whickering



P.P spray



Curing/Tearing



Washing



Drying Hot + cold



Checking



Disposes

**6.2.1 Enzyme wash:**



Before enzyme wash



After wash



**6.2.2 Bleach Wash:**



Before bleaching:

After wash

**6.2.3 Acid wash:**

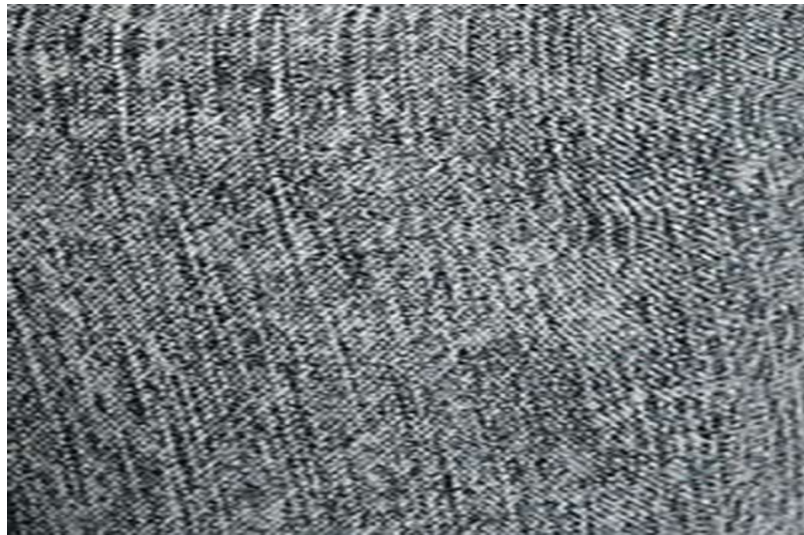


Fig: Acid Wash.

#### 6.2.4 PUMIC STONE:-



Fig. Stone

#### Chemical composition of pumic stone

COLOR AND SHAPE	:	White	particle-rounded
TRUE SPECIFIC GRAVITY	:	2.313	g/cc
APPEARENCE SPECIFIC GRAVITY	:	0.728	g/cc
WATER CONTENT –DRY BASE	:		1.59%
HARDNESS	:	5.5-6	on the Mohs scale
CHEMICAL COMPOSITION	:		
		SiO <sub>2</sub>	: 73.14%
		Al <sub>2</sub> O <sub>3</sub>	: 12.36%
		Fe <sub>2</sub> O <sub>3</sub>	: 1.38%
		FeO	: 0.66 %

FeO	:	0.66	%
MgO	:	0.13	%
CaO	:	0.88	%
Na <sub>2</sub> O	:	3.79	%
K <sub>2</sub> O	:	2.70	%
TiO <sub>2</sub>	:	0.10	%

Ignition loss : 3.78 %

SIZES	:	3-8	mm	1-2	cm
		5-8	mm	2-3	cm
		8-12	mm	2-4	cm
		10-15	mm	3-5	cm
		15-25	mm	5-7	cm

PACKING : 11 KG/20 KG/22 KG/25 KG/30 KG/40 KGPP bags  
650 KG BIG BAGS

### 6.2.5 Wrinkle



After wrinkle:



### 6.2.6 Sand Blasting



Sand



After sand blasting

Before sand blasting



Fault of sand blasting:

### 6.2.7 Softener



Before softening



After softening

### 6.2.8 Hydroextractor

Its remove excess water from garments.

DANIS D-2222 HYDROEXTRACTOR	
CAPACITY	: 250 KG
MOTOR POWER	: 22KW
SPEED	: 1000 RPM



Fig: Hydro extractor.



Fig. Fault of hydro extractor



### 6.2.9 Hand Scrapping :



Process of hand scrapping:

Process of p.p spray:



Fig: PP-Spray room.





Fig: PP-Spray before neutralization.



Fig: PP-Spray after neutralization.



Fault of p.p spray:

### 6.2.10 Grinding:



Fig: Grinding.

### 2.6.2.11 Whisker



Fig: 3-D Whisker.



#### **All process shown below**

Two types of dyeing m/c

1. Front loading dyeing m/c.
2. Side loading dyeing m/c.

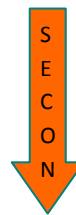
**First step:**



DYENG MACHINE -1



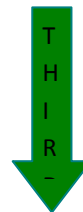
DYENG MACHINE -2



TROLLY



HYDRO-EXTRACTOR

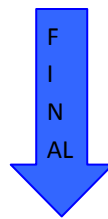




GAS DRYER MACHING



STEAM DRYER MACHING



Checking



Checking& bundling



### **3.6.3 Washing Chemicals:**

- Enzyme
- Detergent
- Acetic Acid
- Bleaching powder
- Sodium hyposulfite
- Caustic Soda
- Soda Ash
- Sodium Bicarbonate
- Potassium permanganate
- Cationic / nonionic Flax softener
- Micro Emulsion Silicon
- Salt (sodium chloride)
- Buffer
- Hydrogen peroxide
- Stabilizer
- Fixing agent
- Catanizer
- Optical Brightener
- Resin
- Sodium Metabisulphite
- Desizing agent

### **3.6.4 Washing On Tusuka :**

Buyer : H&M

Style: D Emma Heavy Wash Jkt S09 ( Blue Light)

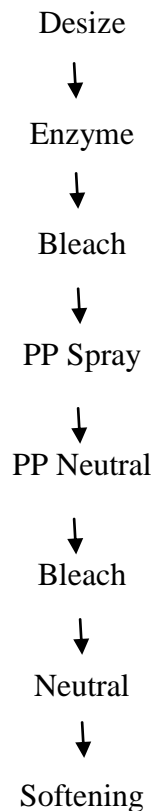
O/QTY:4007 Pcs + 33897 pcs

P.O No: 453724-1222 ::: Blue Light

Item : D.Jkt

Wash Type : Desize+Enzyme+Bleach+PP Neutral+Tint+Softener

Flow Process



### Bulk Production Recipe

Step	Processes	Chemicals	Dose(gm)	Water(Ltr)	Temp(c)	Time(min)
1	Desize	Novalase BTT/4	300	400	55	20
		Bbntva	300	400		
2	Rinsex 2					6
3	Enzyme	Blue Breeze Multi	1000	400	45	25
		Bbntva	400	400		

4		Rinsex2				6
	Tacking Remove Then Bleach					
5	1 <sup>st</sup>	Bleach CI	4000	500	55	30

	Bleach	35%(KCI)				
		Soda Ash	1000	400		
6	Rinsex1			400		6
7						
8	2 <sup>nd</sup> Bleach	Bleach CI 35%(KCI)	1000	400	55	20
9	Neutral	S Hypo Sulphite	1000	400	40	10
		Bbntva	200			
10	Rinsex2			400		6
		Send To The PP				
11	PP Neutral	S Meta Bisuphite	1500	400	40	10
		Bbtnva	200			
12	Rinsex2			400		6
13	Bleach	Bleach CI 35%(KCI)	500	500	55	15
		Soda Ash	500			
14	Rinsex1			400		3
15	Neutral	H/Oxide	500	400	50	7
		Bbtnva	200			
16	Rinsex2			400		6
17	Tint	Brown GTL	9	250	R/T	10
		Red BWS	0.3			
		Salt	1000			
18	Softener	EurosoftRFM3	200	150	R/T	2
		Serafast C-NC	1000			
		Citric Acid pH 4.5	500			
	Total			7100		191

Buyer : H&M

Style: D Emma Jkt ( Blue Light)

O/QTY:7571 Pcs + 27849 pcs

P.O No: 793724-1210 ::: Blue Light

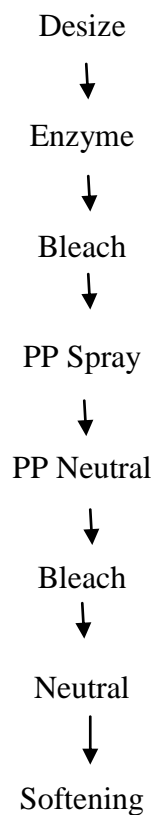
Factory : TTL

Iteam : M.D.S.P

Wash Tpye : Desize+Enzyme+Bleach+PP Neutral+Tint+Softener



## Flow Proces



## Bulk Production Recipe

Step	Process	Chemicals	Dose(gm)	Water(Ltr)	Temp(c)	Time(min)
1	Desize	Bbntva	500	400	60	15
2	Rinsex 2			400		6
3	Enzyme	Power Wash Total	1200	400	45	20
		Bbntva	500	400		

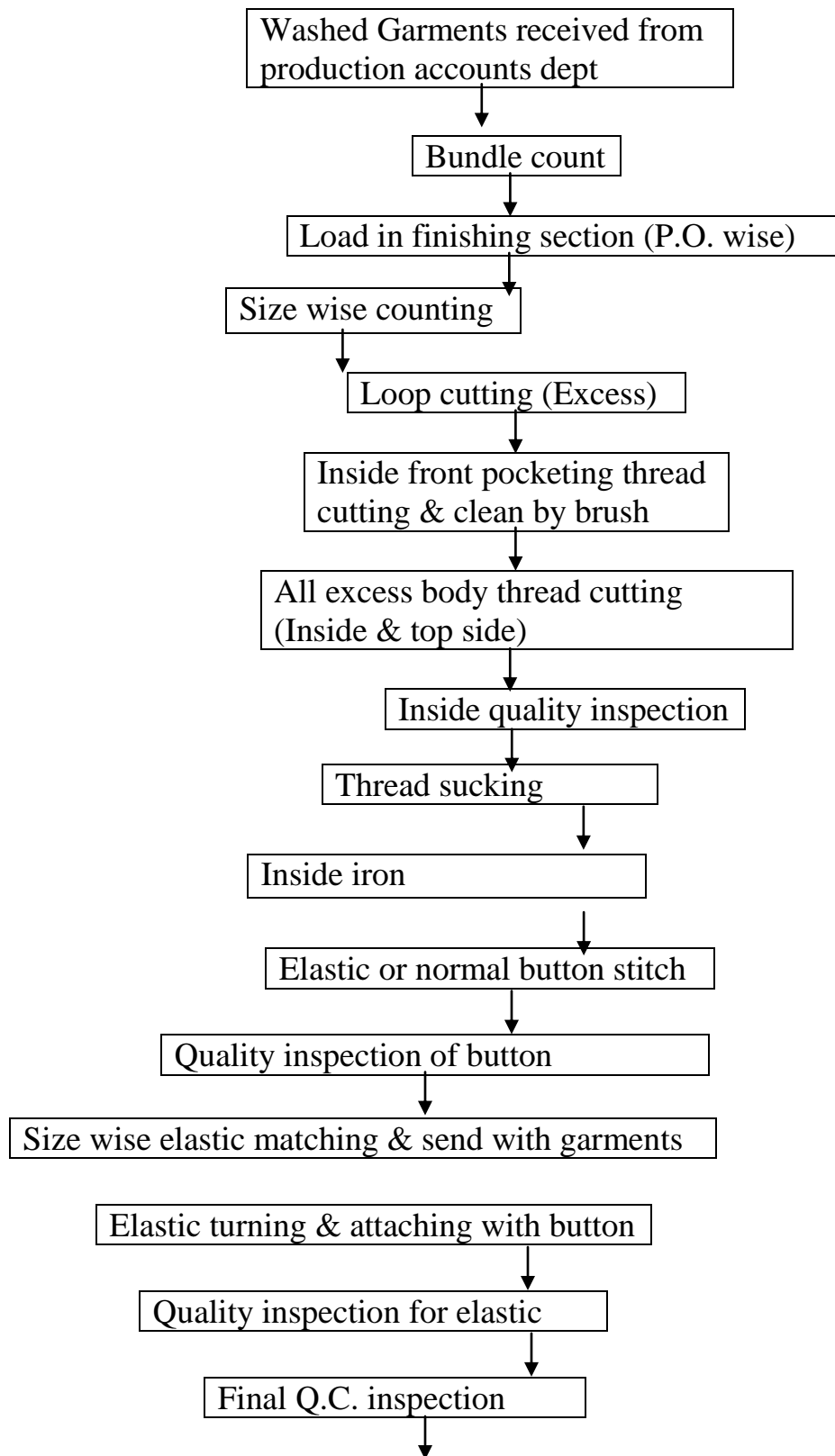
4		Rinsex2				6
	Tacking Remove Then Bleach					
5	bleach	Bleach CI 35%(KCI)	2000	500	50	20
		Soda Ash	1000	400		
6	Rinsex1			400		6

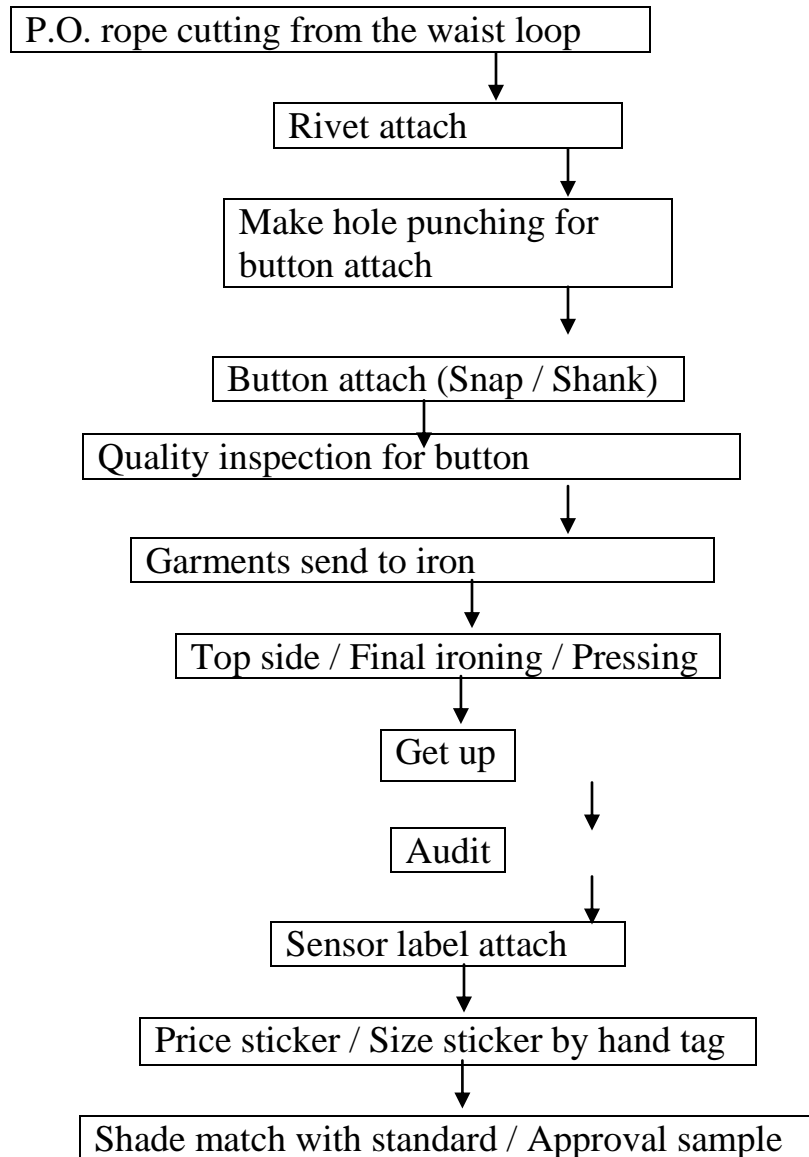
7						
8	Neutral	S Hypo Sulphite	1000	400	40	10
		Bbntva	200			
9	Softener	EurosoftRFM3	1000	150		
10	Rinsex2			400		6
		Send To Thw Towel				
11	Towel	Bleach CI 65%(	1500	400	40	10
		Towel 600pcs	200			
		RPM-28		400		6
14	Rinsex1					
15	Neutral	S Hypo Sulphite	1000	400	R/T	8
		Bbntva	200			
16	Rinsex2			400		6
		Send To The PP				
11	PP Neutral	S Meta Bisuphite	1500	400	40	10
		Bbtnva	200			
12	Rinsex2			400		6
13	Bleach	Bleach CI 65%	500	500	55	15
		Soda Ash	500			
14	Rinsex1			400		3
15	Neutral	Arcotex	500	400	50	7
		Bbtnva	200			
16	Rinsex2			400		6
17	Tint	Brown GTL	9	250	R/T	10
		Red BWS	0.3			
		Salt	1000			
18	Softener	EurosoftRFM3	200	150	R/T	2
		Serafast C-NC	1000			
		Citric Acid pH 4.5	500			
	Total			7220		162

## 3.7 Finishing

### 3.7.1 Finishing Section

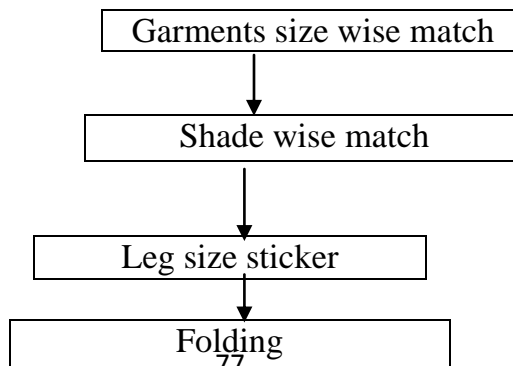
Flow chart of Finishing Section:

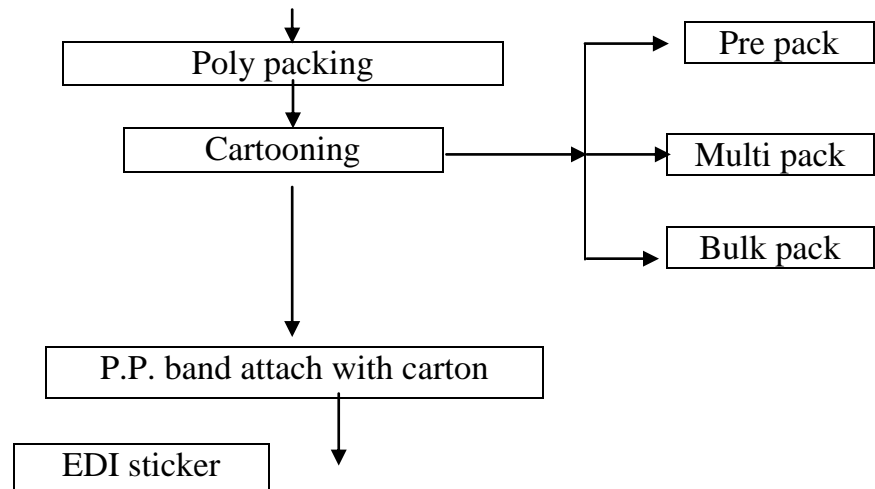




### 3.7.2 Packing Section

Flow chart of Packing Section:





## 3.8 Industrial Engineering

### 3.8.1 Industrial Engineering

Industrial engineering is that branch of engineering, which deals with the Productivity increases the using all the available resources. These resources are following.

- I. Men
- II. Materials
- III. Money
- IV. Machine
- V. Methods
- VI. Systems
- VII. Land/space

Industrial engineering provides us a systematic (step by step) organized way of increasing productivity using simple techniques.

### **Productivity:**

It is defined as the ratio of output and input i.e.

$$\text{Productivity} = \text{Output} / \text{Input}$$

### **3.8.2 Scope of I.E.**

Industrial engineering techniques are applicable everywhere, starting from a small Office, home, training places, small industry to a large industry.

It helps in:

1. Better layout planning.
2. Designing work aids.
3. Re structuring an organization/ Re engineering
4. Methods improvement.
5. Training in better methods
6. Setting SAMs for the better methods
7. Problem solving using studies by scientific methods
- 8.

### **Advantages:**

1. Managing extra work in the same available space.
2. Vacating extra premises got on rent.
3. Increased output with the same manpower and machines.
4. Increased quality due to better managing/methods
5. Reduced throughput /cycle time, using refined layouts.

### **3.8.2 Employee Recruitment Policy**

**Preliminary Interviews**

**Written Tests**

**Employment Interviews**

**Appointment Letter**

## **3.9 HR & Compliance**

### **3.9.1 Worker Recruitment Policy**

**Motto:**

- Assuring security.
- In-time delivery.
- First time quality assurance.
- Fulfilling the promises.
- Utilizing the assets properly.
- Transparent activities.
- Honesty, discipline and regularity assurance.

## **Recruitment Policies:**

Factory maintains a policy regarding recruiting the workers. Factory mainly follows the regulations that BEPZA provided but sometimes buyer sets few regulation and company follows those and those rules are not against to any local regulations of BEPZA and govt. law. The workers recruitment policy provided in below:

- Every worker is recruited through following recruitment policy.
- Nation, religion, color or gender are not concern during recruitment.
- Recruitment committee recruits the workers.
- For recruiting the workers advertisement is given to the news paper, posters, banners or any other means.
- Applicants must provide passport size photo with C.V. and other necessary documents.
- Under 18 years is not allowed as a worker.
- Birth certificate must be provided before joining to the company.
- Before joining workers must have to provide National ID card, doctor certificate, blood group certificate, commissioner certificate.
- Work should be done by workers consent.
- Appointment letter provided by the company to the newly joined workers.

If any worker is not retrenched within the 4 months of joining then he/she will considered as a permanent worker

### **3.9.2 COMPLIANCE MANAGEMENT**

Compliance is a package of events related to conformity & assurance of Human Rights, Legal Rights, Health & Hygiene, Safety and Welfare & Freedom of association of an employee within the organization or the business.



Human beings are working in the organization. They are having many demands in their life. They should have their rights & privileges in their working place within the particular time period, Occasion & in the various intervals of their work.

Compliance confirms all these issues to maintaining good & healthy inter personal and excellent working environment.

Compliance is such an events elaborately prescribed in our country labor Law. Like as –

1. Factories Act- 1965, where all possible safety issues, Health, Welfare are prescribed.

2. Employment of Labor (S.O.) act 1965, where prescribed all administrative functioning like -Disciplinary action, Stoppage of work, Termination, Discharge, Lay off etc.

3. Maternity Benefit Act - 1939

4. Payment of wages - 1936

Workmen's compensation Act –  
1923

5. IRO-69, where provisions of freedom of association has defined & prescribed the legal provisions.

6. And Bangladesh Labor Law

A compliance department has performed to balancing the jobs of Human Resource departments and human rights of national and International aspects. A compliance department work for to minimize dispute between workers and owners.

There are three types of compliance

- Social Compliance
- CTPAT Compliance
- Information Technology (IT) Compliance

### 3.9.3 My Findings

From my observation and practical experience I found that, Tusuka Ltd. provides a good benefits and compensation to the workers. They follow the regulations strongly regarding the workers. The regulation that Tusuka Ltd. Follows are the combination of-

- CEPZ rules
- BEPZA
- Government law
- Buyer requirement.
- Lack of ethics of workers.
- Loyalty scarcity among the workers.
- Workers don't understand or give values to the company provided benefits and facilities.
- Sickness.
- Employees do not practice corporate culture
- Misbehave of Floor Manager.
- Extensive Work Pressure.
- Excess of overtime.

**CHAPTER-04**  
**IMPACT OF INDUSTRIAL**  
**ATTACHMENT**

## **4.1 Impact of Different section:**

### **4.1.1 Impact of Store Section:**

- I. Understood the necessity & process of inventory
- II. Learned how an order is confirmed via merchandiser
- III. Realized the role of PI (Pro-forma Invoice)
- IV. Had cleared the conception about fabric inspection method
- V. Learned how to examine AQL in a fabric lot
- VI. Learned the procedure of determining shade variation in fabric through light cabinet
- VII. Understood the system of preparing color continuity card
- VIII. Learned the procedure of receiving materials & dispatching goods outside of the factory

### **4.1.2 Impact of Sample Section:**

- I. Understood why sample section is called a mini-industry
- II. Observed how skilled workers work in sample section
- III. Learned the process of preparing a pattern for an individual size & design
- IV. Cleared the conception about different types of sample required to produce a garment
- V. Learned about the digitizing board in CAD room
- VI. Learned the process of determining breakdown ratio for a particular order
- VII. Understood how to make marker from a pattern by software (Investronica ) in CAD room
- VIII. Observed the process of printing a marker on a paper with plotter machine in CAD room

### **4.1.3 Impact of Cutting Section:**

- I. Learned about different type of cutting machines (i.e. Straight knife cutting machine, Round knife cutting machine, Band knife cutting machine etc.)
- II. Learned the process of fabric spreading
- III. Observed the process of fabric cutting according to the marker
- IV. Understood different process of fabric lay
- V. Realized the use and importance of metal gloves for fabric cutting process through different cutting machines
- VI. Observed the panel check process for different type of fabric of different style and design
- VII. Understood how numbering and bundling is done
- VIII. Understood the role of input man in the industry

### **4.1.4 Impact of Sewing Section:**

- I. Learned about different parts of a shirt (i.e. Upper front, Lower front, Back part, Facing, Collar, Sleeve etc.)
- II. Observed different sewing or joining process of different body parts of a shirt
- III. 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.)
- IV. Observed the ironing and fusing process for different body parts (i.e. Collar, Placket, Facing Interlining etc.)
- V. Learned about Standard Minute Value (SMV) of different sewing process
- VI. Learned the process of determining operator's efficiency in an individual process for a shirt

- VII. Cleared the conception about production of a sewing floor ( line by line and total floor)
- VIII. Observed and realized the importance of final inspection at the end of every sewing line
- IX. Got experienced in making production study of an operator for an individual process for a definite time interval
- X. Also got experienced in making capacity graph of a sewing line of a definite style and design
- XI. Attended Pre-production meeting before the bulk production of an order
- XII. Realized the importance of Dept. of IE in raising the efficiency of production in a sewing floor

**4.1.5 Impact of Finishing Section:**

- I. Observed various type of finishing process after sewing and washing
- II. Observed different type of machines used in finishing section (i.e. Neck press machine, Metal detector machine etc.)
- III. Learned about different type of iron machines
- IV. Learned about various type of accessories used to attach to the garment (i.e. Security alarm, Hang tag, Price tag, Barcode label etc.)
- V. Observed the application of different chemicals for the removal of various type of stain
- VI. Observed and learned different type of folding process (i.e. Standard fold, Semi-standard fold, Hanger fold, Twill fold, Half fold, Full fold etc.)
- VII. Cleared the conception about different packing type (i.e. Master pack, Blister pack, Coffin pack etc.) and packing ratio

VIII. Understood the basic difference between gross weight and net weight

IX. Finally realized why finishing section is unavoidable in garments industry for making the garment attractive and decorative for selling purpose

CHAPTER-05  
**CONCLUSION**



## **Conclusion:**

We have completed our internship report successfully by the grace of almighty Allah.

Industrial attachment provides the learning scope to enhance the curiosity of our knowledge to entered into the practical life. **Tusuka Group (Tusuka Jeans Ltd, Tusuka Trouser & Tusuka processing Ltd.)** is a well know factory in the textile field of Bangladesh. The administrative, management, chain of command all are the well organized. They are well equipped with all of the modern machineries and the working environment is excellent. The relation between top management to bottom level is so nice & devoted to satisfy the customer demand by their activities.

The factory runs by a number of efficient textile engineers, skilled technical & Non-technical persons. They are very sincere, co-operative and helpful.

All the information in this report about **Tusuka Group (Tusuka Jeans Ltd, Tusuka Trouser & Tusuka processing Ltd.)** are very much objective and practical so that one can get the desire information about the factory.

## Reference:

01. *www.tusuka.com*

02. *www.onlineclothingstudy.com*

03. *Different*

*Department(Sample,Cutting,Sewing,Finishing,R&D,  
HR)of Tusuka Group*