

STUDY ON KNIT GARMENTS MERCHANDISING

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**This Report Presented in Partial Fulfillment of the
Requirements for the Degree of Bachelor of Science in
TEXTILE ENGINEERING**

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DHAKA, BANGLADESH

JULY 2012

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Eng. Md. Mahfuzur Rahman**, Senior Lecturer, **Department of TE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ACKNOWLEDGEMENT

First we express our heartiest thanks and gratefulness to almighty Allah for His divine blessing makes us possible to complete this project successfully.

We fell grateful to and wish our profound our indebtedness to **Eng. Md. Mahfuzur Rahman, Senior Lecturer**, Department of TE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of garments manufacturing influenced us to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior draft and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to Md.Mahbubur Rahman, Senior Merchandiser of DELTA GROUP and professor **Dr. Md. Mahbubul Haque**, the Head, Department of TE for his kind help to finish our project and to other faculty member and the staff of TE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTACT

This project is on “**Study on Knit Garments merchandising**”. This project is based on the most important section in the Knit Garments Industry. This section is comparable with the heart of body. Without this section one cannot think anything. Like if someone cannot get any order, and then it is impossible to think about so other things such as production, delivery, shipment and so things. Bangladesh is a developing country. The development and progress of the country largely depends on export performance. In case of Bangladesh among the export sectors, the ready-made garments (RMG) are the main earning source of foreign currency. In the garment and textile industry, merchandisers have been playing a vital role for the execution of export order. There are large numbers of merchandising personnel who are working in the garment and textile sub-sectors. The aim of this project is to know the sequence of Merchandising as more as practically. At the sometime we would tried our best to know that if we face any problem how we will solve this? They solve any kinds of problem negotiation with the Buyer. To know the duties of Merchandiser such as price negotiation from buyer, swatch making, follow up on production, quality report, arrange final inspection, shipment etc and so other things like commercial activities. To develop this project we were also tried to content, a merchandising. Function of merchandising, working procedure, shipping terms, commercial invoice, letter of credit, qualification of merchandising and so other things like consumption, costing, accessories care instructions etc. By studying this project one can easily understand or take an idea about Merchandising and related all other things. In any case utilization is the major thing, after utilizing the sequence and performing the work any one can be able to make himself or herself as good Merchandiser.

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CHAPTER ONE

INTRODUCTION

1.0 Introduction:

We should understand the term “Garments Merchandising” at first. “Garments” means apparels or clothing which we need to wear every day, everybody, every time not only in our country, all over the world also. “Merchandising’ means buying, producing and selling of any goods or products or services for the local or international market. If we combine this two English term “Garments Merchandising” then the meaning of “garments merchandising” becomes like following definition. All activities involved in procuring export order of any garments of any particular design for a specific quantity, analysis of the garment requires producing the garments, production of those quantity of garments with specific attention to required quality level, production scheduling and exporting the garments within fixed time frame, may be called garments merchandising. From the said definition of garments merchandising it can be assumed clearly that procuring a garment export order that is export L/C, production of those garments as per buyer satisfaction within limited time is not so easy. The activities involved in garments merchandising is normally done by a dynamic and expert person called garments merchandiser. The person “Garments Merchandiser” is one of the important key people of a garments production and garments export sector.

In Bangladesh, the future of garments industries is brighter in the era of globalization. Ultra modern technology are being used in the woven and knit garment industries in the outside world other than Bangladesh. To survive in the free market of the world, we have to use world standard latest technology in our readymade garment sector. The study will cover the practice, procedures and technique followed by the merchandiser in the preparation of order to shipment. Bangladesh is a developing country. The development and progress of the country largely depend on export performance. In case of Bangladesh, among the export sector, the ready-made garments are the main earning source of foreign currency. In the garment and textile industry, merchandisers have been playing a vital role for the execution of export orders.

CHAPTER TWO

CONCEPT OF MERCHANDISING

2.0 Concept of Merchandising:

Merchandising

Merchandising is the department which mediates marketing and production departments. It is the methods, practices, and operations used to promote and sustain certain categories of commercial activity. It includes directing and overseeing the development of product line from start to finish. Marketing and merchandising department: A team of merchandisers and marketers work together under a profit controls head. **Merchandisers** handle the foreign buyers. The teams are made according to the buyers being handled.

Merchandiser

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

A Merchandisers key responsibility is as follows:

- Product Development
- Market and product Analysis
- Selling the concept
- Booking orders
- Confirming Deliveries
- Designing and Sampling
- Costing
- Raw Material
- Flow Monitoring
- Production Follow Ups
- Payments Follows
- Internal & external communication,

Sampling

- Lab dips
- Accessories & trims
- Preparing internal order sheets
- Preparing purchase orders
- Advising and assisting production,
- Advising quality department about quality level
- Mediating production and quality departments
- Giving shipping instructions and following shipping,
- Helping documentation department
- Taking responsibility for inspections and
- Following up the shipment.

2.1 Role of merchandiser in garments business:

The main role of a garments merchandiser is to collect garments export order (Export L/C). Produce the garments, export the garments and earn profit. To perform those functions successfully needs lot of knowledge, experience and tremendous effort for a merchandiser.

To understand the role of merchandiser in garments business we need to see with whom the merchandiser has to deal with in handling any order in the process or merchandising.

- Source of fiber to make fabric
- Cultivator and farmer to produce natural fiber, chemist, miners and industrialist to produce artificial, synthetic and mineral fiber
- Processing industries to process fiber
- Marketing media and agents for marketing of fiber
- Spinning mills to produce yarn from fibers
- Fabric producing mills from yarn (weaving, knitting, felting, bonding mills etc)
- Marketing agents and media to do the marketing of fabrics
- Mills and industries to dye the fabrics
- Industries to produce dyes and chemicals for dyeing of yarns and fabrics
- Industries to give special effect to fabrics
- Various printing industries to do printing in fabrics and garments
- Industries to produce embroidery machine and embroidery machines to do embroidery

- Accessories producing industries
- Garments manufacturing factories
- Washing industries to wash the garments and to give special washing effects on garments
- Lab testing units to do all lab test on various parameter of garments.
- Various international inspecting authorities

Cargo carrying transport land, sea and air

- Consolidators Freight Forwarder and Stuffing agent
- Various Courier services to carry documents and samples (some time also limited cargo)
- Various insurance agencies all over the world to cover insurance of cargo
- Main buyer for garments with chain stores or whole sell store
- Buying agent and local media
- Whole seller of garments
- Retailer of garments either as a chain store or as regular outlet for selling the garments
- Customer or the ultimate user of garments

Now it is clear that a merchandiser has to be a special person with lot of qualities to deal with all above institution, industries or person as such if a person is not well equipped with requisite qualities and knowledge on various subjects cannot be a good merchandiser. If anybody has to be designated as merchandiser then the word itself demands some qualities from that individual.

2.2 Chronologies of events of merchandiser:

- Sourcing of buyer (hosting webpage, preparing profile, visiting buying house etc)
- Receive order sheet.
- Discuss with planning department for availability of production space.
- Discuss with prod Dir/GM for capability of handling such order and probable productivity per Hr.
- Analyze product package and space sheet for costing.
- Find out the consumption of fabric.
- Analyze the fabric content, knitting pattern, GSM and do fabric costing.
- List out all Accessories, do the consumption and costing.

- Analyze printing, embroidery, value addition work washing for costing.
- Analyze productivity per Hr with machine and manpower requirement (may take help from production people).
- Assess cost of making per Dozen.
- Confirm price from component authority
- Quote price to buyer
- Negotiate price with buyer
- Confirm order with buyer
- Prepare time and action calendar (with available production lead time)
- Prepare Gantt chart (in support of T&A and incorporate all important issues and events with completion date)
- Receive size color breakdown and color standard.
- Prepare lab dip, strike off, yarn dip etc and arrange approval of the same.
- Receive art work and sample for printing, embroidery, value addition work, washing and get approval for the same.
- Develop all samples and submit the same to buyer for necessary approval.
- Obtain and ensure all approval as per T&A and Gantt chart to facilities production as per plan.
- Receive master L/C
- Prepare final cost approval sheet to facilitate opening of all BB L/C.
- Open BB L/C for yarn, accessories, printing, embroidery etc
- Arrange all fabric and accessories and ensure in house of the same as per T&A.
- Source for printing, embroidery, value add work, washing and complete deed of agreement with them.
- Ensure inventory of all items on arrival to store to confirm the qty, color, sizes and quality as per requirement
- Arrange all pre-production meeting and inspection on time.
- Arrange all lab test on time.
- Ensure dispatch and approval of all samples which may affect the final inspection and shipment
- Arrange final inspection on schedule date.
- Do load calculation and ensure booking of all load carrying transport well in advance.
- Ensure space booking with sea and air freight forwarder.

- Help commercial department to submit all documents to bank on time.
- Ensure realization of full payment as per shipped qty and price

2.3 Product package analysis:

To execute any order a merchandiser need to understand the product package (order sheet) which is supplied by a buyer. All activities of merchandiser will be influenced by the narration and information of the product package like yarn requirement, fabric consumption, garments costing, production planning, preparation of time and action calendar, preparation of Gantt chart, accessories procurement, sample management and array

What all are there in the product package:

- Name of buyer
- Season
- Designed by and creation date.
- Any revision with date
- Size range for which the garments will be made.
- Order quantity
- Delivery date
- Size and color break down.
- Packing ratio
- Fabric contents
- Knitting patterns
- Fabric GSM
- Measurement sheet with pictorial description
- Accessories details
- Stitching details with all attachment, details of accessories and their source including lab test requirements.
- Packing details with carton size, carton mark, shipping mark, assortment ratio and Qty per ctn.
- Details of folding and placement of all finishing accessories.
- Details of printing (if there is any printing).
- Details of embroidery and appliqués (if there is any embroidery and application).
- Details of washing (if there is any washing).

- Details of ornamentation and their placement/attachment details.
- Details of shipping marks and carton marks.
- Details of destinations.
- Details of freight forwarder and freight payment terms.
- Details of shipping lines and port of entry and port of discharge (may be in also).
- Details of lab test requirement and testing organization.
- Details of samples and their destinations.
- Details of inspection and quality level (AQL)
- Details of carton size, ply, color and restriction on use stapling pin, PP band, poly (PP or PE).

CHAPTER THREE

SAMPLES

3.0 Samples:

In garments industry, the sample which is come from buyer and it is followed for bulk production called sample.

All sample and their implications:

- Approved sample
- Counter sample
- Proto sample
- Sealed/Red/Yellow label sample
- Size set sample
- Pre-production sample
- Trial production sample
- GFE sample
- Lab-test sample
- Flammability test sample
- Photo shoot sample
- Sales man sample
- Shipment sample
- Top of the product sample (TOP)

3.1 Proto sample:

Initial sample just to see the capabilities of the factory whether can make such sample or not.

- Fabric (should be same content and construction but may not be of same color)
- Accessories (Available but if similar is better).
- Embroidery (Just simulation with any embroidery work preferably same size and width but placement should be correct)
- Printing (Simulation with same size quality/type of print but may not be of same pattern and color)
- Attachment of Value Added Items / Omamenation (may be simulated with like items)
- Washing (If fabric construction and contents are actual then exact washing may be done to see the effect of high/low, abrasion, hand feel, softness and drivability)
- Finishing and folding (not necessary)
- Finishing accessories (not necessary)
- Packing (not necessary)

3.2 Counter Sample:

Usually the duplicate sample retained by the sample room for future reference is known as Counter sample but for H&M buyer the counter sample mean the sample with all actual, with approval of which no production can be proceeded as such Counter Sample for H&M is very important and carries a different meaning all together.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Attachment of Value Added Items (Actual)
- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drapability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)
- Packing (As instructed by buyer)

3.3 Sealed Sample (Red-Sealed/Yellow-Sealed):

Different Buyer has different types of security seal which they attach with the garments after checking. This seal is given as an approval of styling, measurement, placement of printing and embroidery and confirmation of all stitching details. This sample has to be handled with charge so that the seal is not broken. When the buying QC will come for inspecting the garments then they will ask for Sealed Sample and at that time if they find that the seal is tempered or broken then they may refuse to conduct the inspection as such it should be preserved with care and anybody handling this sample must understand the importance of this sample.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Attachment of Value Added Items (Actual)
- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drapability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)
- Packing (As instructed by buyer)

3.4 Size Set Sample:

When initially a sample is made then usually the middle size is considered. But after confirmation of all measurement and fitting details then the garment is graded for all the size. For similar size grading-down is carried out and for upper sizes grading-up is done. With this graded measurement all sizes of garments are made and their fitting accuracy is evaluated. Without approval of complete size set cannot proceed for bulk production as such this is also very important and to be made and submitted on time to start bulk production as per schedule date.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Attachment of Value Added Items (Actual)
- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drapability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)
- Packing (As instructed by buyer)

3.5 Pre-Production Sample:

These are very also very important sample as without approval of such sample production cannot be started. Nothing to be confused with size-set sample as size-set sample covers only the sizes whereas Pre-Production sample may have to be all colors of fabric also as different color may have different type's shrinkage and cross-staining character which may have to treat with special care.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Attachment of Value Added Items (Actual)
- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drapability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)
- Packing (As instructed by buyer)

3.6 Production Sample:

Is the sample to represent the floor production as such these samples are taken from the production of the floor to assess the overall quality standard of the garments being produced.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Attachment of Value Added Items (Actual)
- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drapability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)
- Packing (As instructed by buyer)

3.7 Bulk production Sample:

These are the samples pulled from the bulk production to represent the bulk production.

These usually cover all sizes and all colors.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drapability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)
- Packing (As instructed by buyer)

3.8 Photo shoot sample:

Sometimes buyer wants to do the advertisement with the garments well ahead of getting the same in the store/market and accordingly they ask for nicely stitched garments. The photo of the garments are taken putting on the same by some models and the same is displayed in the retail shop or advertisement is done on papers, magazines, brochures etc to allure and attract the customers.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Attachment of Value Added Items (Actual)

- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drapability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)
- Packing (As instructed by buyer)

3.9 Salesman Sample:

These are the samples need to supply to buyer to help him in doing campaign for marketing the item. These are displayed in the chain store/retail shop well ahead of the bulk quantity receive by the store.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Attachment of Value Added Items (Actual)
- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drivability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)

3.10 Shipment Sample:

There may be three instances for shipment sample with different requirements from buyer (Before inspection for approval of buyer to conduct final inspection, After inspection but holding the shipment and waiting for buyers comments, After inspection sending buyer to represent the inspected and shipped garments.

- Fabric (Actual)
- Accessories (All actual)
- Printing (All actual)
- Attachment of Value Added Items (Actual)
- Washing (Actual with all effect of high/low, abrasion, hand feel, softness and drapability in acceptable quality)
- Finishing and folding (As instructed by buyer)
- Finishing accessories (As instructed by buyer)
- Packing (As instructed by buyer)

CHAPTER FOUR

CONSUMPTION & COSTING

4.0 Consumption & Costing:

This is a primary and important job for a merchandiser to know how to do fabric consumption and costing of any garments. The most important factor is the costing which will be done by a merchandiser must commensurate with the prevailing market price, otherwise the costing will not be accepted by the buyer as such he will inclined to such factory to place order who's costing is more realistic and at par with the prevailing market price. Now to do a reasonable garment costing a merchandiser need to equip him with certain tools and techniques to do reasonable costing.

4.1 Heading Of Costing:

Cost of Fabric	: US\$ 30.00
Cost of Accessories	: US\$ 3.00
Cost of Printing	: US\$ 2.00
Cost of Embroidery	: US\$ 3.5
Cost of Washing	: US\$ 1.5
Cost of Value addition work	: US\$ 3.0
Up charge for C & F order	: US\$ 1.0
Commercial cost	: US\$ 0.50
Up charge for deferred L/C	: US\$ 0.10
Cost of making	: US\$ 12.00
Charges for miscellaneous expenses	: US\$ 0.05
Total Cost (Per Dozen)	: US\$ 56.65
Buyer's Commission	: 2%
Local Commission	: 5%
Total Commission	: 7% (US\$ 4.26)
Final cost (Per dozen)	: US\$ 60.91
Final cost (per piece)	: US\$ 5.08
Quoted price per pc	: US\$ 5.10
Revised price per pc	: US\$ 5.00
Confirmed price per pc	: US\$ 4.95

4.2 Factors Affecting Consumption & Costing:

- ❖ Yarn/ Fibre content

- ❖ Yarn count and type (carded or combed)
- ❖ Knitting pattern
- ❖ Finishing of fabric
- ❖ Lab test requirement
- ❖ Type of dyes and chemicals to be used
- ❖ Tolerance in dye lot and shade variation
- ❖ Any restriction on use of dyes and chemicals
- ❖ Packing type and assortment
- ❖ Design and pattern of garments
- ❖ Matching instruction in case of Y/D and printed Fabrics
- ❖ Number of garments to be packed per poly, blister and carton
- ❖ Ply of carton and type of poly and thickness of poly
- ❖ Details of shipping marks and carton marks
- ❖ Details of accessories and their sources
- ❖ Details of printing and lab test requirement
- ❖ Details of embroidery
- ❖ Level of AQL
- ❖ Production lead time
- ❖ Quantity of garments
- ❖ Number of color and size in the order including lab test requirement for all colors
- ❖ Size and color ratio
- ❖ Tolerance in measurement and color shade variation
- ❖ Inspection authority
- ❖ Any hidden losses

4.3 Specification sheet:

Item	Point to measure	Size (Medium)
A	Body Length	82.75
B	½ Chest or width	54.52
C	Sleeve Length	25.51
D	Arm Hole	58.26
E	Collar Width	22.5
F	Collar Height	7.25



Fig 1: Polo Shirt

4.4 Consumption for one dozen polo shirt

Formula for fabric consumption

$$\begin{aligned}
 \text{A) Cpd(Body) } &= \text{Body Length X Width X2 X12 X GSM/10000000} \\
 &= 82.75 \times 54.52 \times 2 \times 12 \times 180 / 10000000 \\
 &= 2.019
 \end{aligned}$$

$$\begin{aligned}
 \text{B) Cpd (Sleeve) } &= \text{Length x Width x 2 x 12 X GSM / 10000000} \\
 &= 25.51 \times 58.25 \times 2 \times 12 \times 180 / 10000000 \\
 &= 0.641
 \end{aligned}$$

$$\begin{aligned}
 \text{C) Cpd (Neck) } &= \text{Length x Width X2 x12 X GSM / 10000000} \\
 &= 7.25 \times 22.5 \times 2 \times 12 \times 220 / 10000000 \\
 &= 0.086
 \end{aligned}$$

$$\begin{aligned}
 \text{Total Cpd } &= (\text{A} + \text{B} + \text{C}) \\
 &= 2.091 + 0.641 + 0.086 \\
 &= 2.819
 \end{aligned}$$

$$\begin{aligned}
 \text{Actual Cpd } &= \text{Total Cpd} + 12\% \text{ wastage} \\
 &= 2.819 + 12\% \text{ wastage} \\
 &= 3.16 \text{ kg/doz}
 \end{aligned}$$

So the fabric consumption for a men's Polo Shirt is in 3.16kg/doz.

4.5 Costing of the Product:

Fabrication :

Yarn Price 26's	Knitting	Dyeing/Finis	Spandex	Act Price	Westage	Act Prize With Westage
3.80	0.30	1.70		5.80		5.80

Description	Qty in Dz	U/Price	Ttl
Fabric : 100% Cotton Pique Polo 180 gsm			
Conz/Dz : 3.16 @ 5.80			\$ 18.33
Fabric : 100% Cotton Pique Polo 180 gsm			
Conz/Dz : - @			\$ -
Fabric : 100% Cotton Pique Polo 180 gsm			
Conz/Dz : 0.53 @ 5.80			\$ 3.05
			\$ 21.38
Main label			\$ 0.12
Size label			\$ 0.08
Care label			\$ 0.08
Hang tag			\$ 0.15
Button Plastics	96	\$ 0.02	\$ 0.21
Interlining(Non Fuseable)			\$ 0.20
Single poly Pp 0.8.5 mm			\$ 0.70
Carton 7 ply			\$ 0.40
Collar Felt			\$ 0.40
Gum tape, tag pin & others			\$ 0.10
Sewing thread, 50/2, 4000m/cone			\$ 0.60
Total Accessories cost ===== >			\$ 3.04
AOP			\$ 3.00
Emb			
Stitch			\$ 1.50
Sequene			\$ -
Test			
Wash			
			\$ 4.50
Commercial and Transportatation Charge			\$ 1.10
Factory Cm			\$ 9.00
	Total Price/Dz ----->		\$ 45.75
	Total Price/Pc ----->		\$ 3.81
	Total Price/Pc @ 5% S/c --->		\$ 4.00

4.6 Thread consumption:

Serial No	Machine	Unit Proportion
01	PM Lock Stitch	2.5 to 3
02	Single chain stitch	4
03	Double needle (Chain stitch)	5.5
04	Lock Stitch (Zigzag)	7
05	Fagot	20
06	Over Lock 2 Thread	12
07	Over Lock 3 Thread	14
08	Over Lock 4 Thread	17.5
09	Over Lock 5 Thread	20
10	Over Lock 6 Thread	24
11	Flat Lock	32
12	Button Hole	20
13	Button Attach	5

4.7 List of Sewing Machine use for Polo Shirt:

- Over Lock Machine
- Flat Lock Machine
- Plain Sewing Machine
- Buttonhole Machine
- Button Sewing Machine

Name of Stitch used in Polo Shirt:

- Over edge chain stitch (produced from over lock machine) for side seam join, arm hole join, shoulder join and collar.
- Covering chain stitch (produced from flat lock machine) for bottom hem, sleeve hem and neck join (collar join).
- Lock stitch (produced from plain sewing machine) for collar, button placket, label attachment and tape join in collar (if necessary).
- Lock stitch and chain stitch (produced from buttonhole machine) for buttonhole.
- Chain stitch (produced from buttonhole sewing machine) for button sewing.

A. Covering Chain Stitch (Flat lock M/C):produced From Three Thread:

01. Bottom Hem= $22.5''+22.5''=45''$

02. Sleeve Hem= $14''\times 2= 28''$

Total=45+28=73''

Needle Thread (NT)= $1''=3.6''$

Needle Thread (NT)= $1''=4.0''$

Looped Thread (LT)= $1''= 7.0''$

Total=(3.6+4+7)= 14.6= 15''

Total Thread Needed= $73'' \times 15''=1095''$

1 cone=4000meter, 1 meter= $39.37''$

$1095''=1095/39.37$

$= 27.81$ meter

A = 28meter

B. Over Edge Chain Stitch (Over Lock Machine): Produced from Four Thread or Three Tread:

01. Side seam = $27'' \times 2= 54''$

02. Arm hole = $11'' + 11''= 22''$

03. Collar join = $20\times 1''=20''$

04. Shoulder join = $8.5''\times 2''=17''$

$$05. \text{ Button Placket} = 6.5+6.5=13+2= 15''$$

$$\text{Total} = (54+22+20+17+15) = 150''$$

$$\text{Needle Thread} = 1'' = 1.9''$$

$$\text{Needle Thread} = 1'' = 2.0''$$

$$\text{Looped Thread} = 1'' = 9.7''$$

$$\text{Looped Thread} = 1'' = 7.0''$$

$$\text{Total} = 20.6'' = 21'' \text{ (Two Needle \& Two looper)}$$

$$\text{Total Thread Needed} = 150'' \times 21'' = 3150''$$

$$1 \text{ Cone} = 4000 \text{ meter}, 1 \text{ meter} = 39.37''$$

$$3150'' = 3150 / 39.37 \text{ meter}$$

$$= 80.01 \text{ meter}$$

$$\mathbf{B = 80 \text{ meter}}$$

C. Lock Stitch (Plain Sewing Machine): Produced from Two Tread:

$$01. \text{ Shoulder Join Top Stitch} = 8.5'' \times 2 = 17''$$

$$02. \text{ Twill Tape Join at Collar} = 20'' \times 1 = 20''$$

$$03. \text{ Button Placket} = 6.5'' + 6.5'' + 6.5'' + 2'' + 2'' + 2'' + 2'' = 27.5'' = 28''$$

$$\text{Total} = (28+20+17) = 65''$$

$$\text{Needle Thread (NT)} = 1'' = 1.5''$$

$$\text{Bobbin Thread (BT)} = 1'' = 1.5''$$

$$\text{Total} = (1.5+1.5) = 3''$$

$$\text{Total Thread Needed} = 65'' \times 3'' = 195''$$

$$1 \text{ Cone} = 4000 \text{ Meter}, 1 \text{ Meter} = 39.37''$$

$$195'' = 195 / 39.37 \text{ Meter}$$

= 4.95 Meter

C = 5 Meter

D. Lock Stitch & Chain Stitch (Button Hole Machine & Button Sewing Machine):

01. Button Hole = 1" = 15" (NT) × 3 = 45"

02. Button Attaching = 1" = 10" (NT) × 3 = 30"

Total = 75"

Total Thread Needed = 75"

1 Cone = 4000 Meter, 1 Meter = 39.37"

75" = 75/39.37Meter

= 1.91 Meter

D = 2 Meter

Net Sewing Thread Consumption = (A + B + C + D) Meter

= (28 + 80 + 5 + 2) Meter

= 115 Meter + Add Wastage 30%

= 115 Meter + 34.5 Meter

= 149.5 Meter = 150 Meter / Pieces

Standard Rules of Polo Shirt for Net Sewing Thread Consumption = 120 Meters. (Add Wastage 20% to 30%)

4.8 Applique consumption for knit garments:

Say,

Applique length = 25 cm

Applique width = 15 cm

Fabric GSM = 160

Rules:

Length X Width X GSM X 12 / 10000000 + Wastage

= 25 X 15 X 160 X 12 / 10000000 + 25%

= 0.09 kg per dozen (consumption of the applique)

CHAPTER FIVE

SOME IMPORTANT MERCHANDISING DOCUMENT FOR INDUSTRY

Marketing Cost Analysis For Approval

Buyer : Group Carrifoure		Job-	Date : 25/10/2009	
Style/Ref	I436617 (Dep-Zaman)	Fabrics	100% Cotton Carded Pique	
Order No	Winter/2010	Weight	200-220 GSM	
Item	Baby's S/Siv Polo shirts (2 pcs set)	Color	Average	
Approx Order Qty	85,000 Sets	Cost On Size	L	Shipment Date : 30/03/2010
Yarn Quality & Cost	100% Cotton Carded, 26/s		%	\$2.60
Elastane/Lycra Quality & Cost	Elastane, 20D	\$0	0.00 %	\$0.00
Yarn Dyed Feeder Stripe Knitting	Pique			\$0.40
Yarn Dyeing			\$0.00	\$2.50
Brushing				\$0.00
Open Width Finishing				\$0.00
All Over Printing				
Total Cost Of Fabrics With Out Process Loss				\$5.50
Finished Fabrics Cost With Process Loss				\$6.33
Garments Consumption With Wastage In Kgs For One Dozen				1.10 %
				1.40/Dz
Fabric Cost Per Dozen	a) 100% cotton Y/D Pique Feeder stripe			\$8.86
Fabric Cost Per Dozen	b) 100% cotton Single Jersey Carbon Finish		\$5.20	\$7.28
		0	\$0.00	\$5.00
Collar & Cuff Knitting				\$4.50
Accessories				\$0.00
Special Accessories				
Print				
Embroidery/ Applique				
Pigment Dyeing / Wash				
Fabric Testing				\$0.10
Claim Per Dozen				
Handling Charges Per Dozen				
Freight Per Dozen				
Bank & Commercial Charges				\$0.72
CM per Doz Set				\$23.00
Buyer Commission Per Pcs			\$0.00	
Buyer Commission %			8.00 %	\$0.93
Total FOB Price per Doz Set				\$50.39

Style		FOB Cost Per Set In USD		\$4.20
Basic	Yes			
Semi Critical				
Critical				
Consumpt. Per Dozen	1.40/Dz	Yarn & Accessories Cost		5.16%
Production Per Hour	180 PCS	Expenditure		54.35%
		Total CM		45.65%
NO OF M/C USED (Approx)		Process Loss		
		R.M.C		49.39%
Order Nature	REPEAT	NEW		

DGM Marketing

Executive Director

Chairman

Fabric Booking

Job number : DCKIL/
Buyer : TRITON
Buyer agent : KIABI
Style No : JRMW03POLOU
Order No : 679419 & 679420
Order Qty : 9000 Pcs
Item : Men's polo shirt
Fabric : 100 Cotton pique Super Combed 220 GSM
Ship date : 03/10/2011
Yarn count :
Order Qty :

Revised 01

Note: Revise due to color change.

No need new yarn booking, Qty will be deduct from 100000pcs

Fabric wash for s hrinkage control

Note:Each color contrasted herring bone tape at back neck as previous order



Colour	S	M	L	XL	XXL	Toatl
Bleu Fall (Ld-19451)	84	219	246	279	301	1129
Gris Corde (Ld-19274)	0	330	516	597	489	1932
Gris Perle (Ld-18885)	0	343	426	440	430	1639
Noir (19-4005 TCX)	2	759	1135	1161	1243	4300
Total	86	1651	2323	2477	2463	9000

Body Fabric

Dia		76"			Collar cuff	Total finish	Process loss	Total yarn Requirement
		4.00			0.75			
Bleu Fall (Ld-19451)		376			71	447	12%	500
Gris Corde (Ld-19274)		644			121	764	12%	856
Gris Perle (Ld-18885)		546			102	649	12%	726
Noir (19-4005 TCX)		1433			269	1702	12%	1906
		0			0	0	12%	0
Total		2999			563	3561		3989

Collar

Size	Length	width	Qty
S	40 CM	9 CM	95 Pcs
M	42 CM	9 CM	1734 Pcs
L	44 CM	9 CM	2439 Pcs
XL	46 CM	9 CM	2601 Pcs
XXL	48 CM	9 CM	2586 Pcs

Cuff

Size	Length	width	Qty
S	35 CM	3 CM	189 Pcs
M	36 CM	3 CM	3467 Pcs
L	37 CM	3 CM	4878 Pcs
XL	38 CM	3 CM	5202 Pcs
XXL	39 CM	3 CM	5172 Pcs

Also Note: We need 76" dia & 220 GSM after wash

Merchandiser

DBM(Marketing)

GM(Commercial)

Executive Director

Cost Approval For Back 1o Back L/C

JOB NUMBER	: BOKIL/	Date	: 11.02.2011
Buyer	: TRETON	Buying Agent	: KEABI
Style / Ref	: JRMW03F0100	Order Number	: 47000000
Description Of Garments	: Men's polo shirt	Order Quantity	: 9,000
Fabrics Description	: 100 Cotton popc Super Combed 220 GSM	Unit Price In USD	: 4.20
Color Of Fabrics	: Average	L/C Number & Date	
Primary	: 037010011	L/C Value In USD	: 37,800.00

Order Value In USD	KEABI Bank charge	Freight	Chaiman	Comm.	Total MIS	Actual Value
37,800.00	2.0%	-	0.12/bz	-	846.00	36,954.00
	756.00		90.00			

Yarn						
Descriptions	Consumption	Unit Price	Value	Mode Of Payment	Approval	Acceptance
100% cotton combed 24/1	3,959 Kgs	4.65 /Kgs	18,547.25			
Grey melange		/Kgs	0.00			
		/Kgs	0.00			
		/Kgs	0.00			
Total Cost In USD			18,547.25			50.19%

Knitting, Dyeing & Finishing						
Knitting	3,959 Kgs	0.25 /Kgs	899.66			
Dyeing	3,959 Kgs	1.65 /Kgs	6,581.28			
Grey melange	0	/Kgs	0.00			
Total Cost In USD			7,480.95			20.08%

Accessories								
SI	Item Description	Consumption Per Dozen	Total Requirements	Unit Price In USD	Value In USD	Mode Of Payment	Approval	Acceptance
01	Button	0.03 /Dzn	18.75 Gg	12.00 Gg	225.00	Local		
02	Care label	1.06 /Dzn	795.00 /Dzn	0.06 /Dzn	47.70	VTS Label		
04	Twill Tape	16.80 Yds	12,600 Yds	0.07 Yds	882.00	VTS Label		
05	Hang tag	1.06 /Dzn	795.00 /Dzn	0.10 /Dzn	79.50	New hang tag		
05	Hang tag	1.06 /Dzn	795.00 /Dzn	0.25 /Dzn	198.75	Avery denson		
09	Tagpin	0.00 /Dzn	225 Box	1.75 Box	3.94	Local purchase		
10	Sewing thread	0.98 /Dzn	7323.8 /Dzn	0.95 /Dzn	695.76	Delta sewing thread		
11	Roll	0.04 /Dzn	30.00 /Dzn	2.50 /Dzn	75.00	Delta accessories		
12	Carton	0.48 /Dzn	360.00 /Dzn	1.40 /Dzn	504.00	Delta tag		
13	Carton sticker2	0.04 /Dzn	30.00 /Dzn	0.35 /Dzn	10.50	Avery denson		
13	Carton sticker2	0.05 /Dzn	37.50 /Dzn	0.35 /Dzn	13.13	Local purchase		
14	Gumtape	0.10 /Dzn	72.00 Roll	0.51 Roll	36.79	Local purchase		
15	Interlining	0.01 /Dzn	5 Roll	60.00 Roll	270.00	Local		
Total Cost In USD					3,042.06	\$4.06 Per Dozen		8.28%

Print/Embroidery/Wash							
SI	Item Descriptions	Consumption	Unit Price	Value	Mode Of Payment	Approval	Acceptance
01	Test	787.50 Dzs	0.20 /Dz	157.50			
02	Print	787.50 Dzs	0.50 /Dz	393.75			
03	Collar cuff knitting	826.88 Dzs	1.05 /Dz	868.22			
04	ITS Inspection	787.50 Dzs	/Dz	0.00			
Total Value				1,419.47	\$1.89 Per Dozen		3.84%

Total Accounts	Total Value	36,954.00		
	Total Expenditure	30,469.78	Yarn & Accessories Cost	58.42%
	Total C/M	6,524.27	Expenditure	32.34%
	C/M Per Dozen	8.70	Total C/M	17.66%
	Productivity Per Hour	120 Pz	Process Loss	12%

Merchandise

GM(Marketing)

GM(Commercial)

Executive Director

Cost Approval For Back 1 to Back L/C

Revised 01

JOB NUMBER	: BOKIL/	Date	24.08.2011
Buyer	: TRETON	Buying Agent	: KIZEE
Style / Ref	: 28M1W05F0LDU	Order Number	: 679419 & 679420
Description Of Garments	: Men's polo shirt	Order Quantity	: 9,000
Fabric Description	: 100 Cotton pique Super Combed 20 GSM	Unit Price In USD	: 4.10
Color Of Fabric	: Average	L/C Number & Date	
Delivery	: 09/10/2011	L/C Value In USD	: 26,900.00

Order Value In USD	RIAB's bank charge	Freight	Charman	Comm.	Total MIS	Actual Value
26,900.00	1.5%				558.50	26,341.50
	558.50	-	-	-		

Descriptions	Consumption	Unit Price In USD	Value In USD	Mode Of Payment	Approval	Acceptance
100% cotton super combed 24/1	3,989 Kgs	4.45 /Kgs	17,749.55			
Grey melange		/Kgs	0.00			
		/Kgs	0.00			
		/Kgs	0.00			
Total Cost In USD			17,749.55			48.83%

Knitting, Dyeing & Finishing						
Descriptions	Consumption	Unit Price In USD	Value In USD	Mode Of Payment	Approval	Acceptance
Knitting	3,989 Kgs	0.21 /Kgs	700.32			
Dyeing	3,989 Kgs	0.66 /Kgs	2,632.51			
Grey melange	0	/Kgs	0.00			
Total Cost In USD			3,332.83			9.18%

Accessories								
SI	Item Description	Consumption Per Dozen	Total Requirements	Unit Price In USD	Value In USD	Mode Of Payment	Approval	Acceptance
01	Button	0.03 /Dzn	18.75 GG	12.00 GG	225.00	Local		
02	Care label	1.00 /Dzn	78.750 /Dzn	0.06 /Dzn	47.25	VTS Label		
04	Twill Tape	16.80 Yds	12.600 Yds	0.06 Yds	756.00	VTS Label		
05	Hang tag	1.00 /Dzn	78.750 /Dzn	0.06 /Dzn	47.25		New hang tag	
05	Main label	1.00 /Dzn	78.750 /Dzn	0.65 /Dzn	511.88	Delta		
05	Hang tag	1.00 /Dzn	78.750 /Dzn	0.25 /Dzn	196.88	Avery denison		
09	Tag pin	0.00 /Dzn	2.25 Box	1.75 Box	3.94	Local purchase		
10	Sewing thread	0.98 /Dzn	73.238 /Dzn	0.68 /Dzn	498.02	Delta sewing thread		
11	Poly	0.04 /Dzn	30.00 /Dzn	2.50 /Dzn	75.00	Delta accessories		
12	Carton	0.48 /Dzn	36.0 /Dzn	1.40 /Dzn	504.00	Delta wlg		
13	Carton sticker2	0.04 /Dzn	30.00 /Dzn	0.35 /Dzn	10.50	Avery denison		
13	Carton sticker2	0.05 /Dzn	37.50 /Dzn	0.35 /Dzn	13.13	Local purchase		
14	Gum tape	0.10 /Dzn	7.2 Roll	0.51 Roll	36.79	Local purchase		
15	Interlining	0.01 /Dzn	4 Roll	115.00 Roll	431.25	Local		
16	Mobilon Tape	14.63 /Dzn	500 Roll	1.00 Roll	5.00	Local		
Total Cost In USD					3,361.87	\$4.48 Per Dozen		9.25%

Print/Embroidery/Wash							
SI	Item Descriptions	Consumption	Unit Price In USD	Value In USD	Mode Of Payment	Approval	Acceptance
01	Test	78.750 Dzn	0.30 /Dz	236.25			
02	Print	78.750 Dzn	/Dz	0.00			
03	Collar cuff knitting	82.688 Dzn	1.05 /Dz	868.22			
04	ITS Inspection	78.750 Dzn	/Dz	0.00			
Total Cost In USD				1,104.47		\$1.47 Per Dozen	3.04%

Total Accounts	Total Value	26,341.50			
	Total Expenditure	23,553.69	Yarn & Accessories Cost	58.83%	
	Total C/M	10,792.81	Expenditure	70.81%	
	C/M Per Dozen	14.39	Total C/M	29.69%	
	Productivity Per Hour	120 Pcs	Process Loss	12%	

Note: Revised due to color change

Merchandise

GM(Marketing)

GM(Commercial)

Executive Director

Composite Knitting Ind. Ltd.
 i) Kashimpur, Gazipur

Date : 07.04.2012
 Attn : Mr. Ruhul amin
 C.C : Mr. Badal
 : The Delta eng.
 From RASSEL
 Reg : Work order of Master carton for JBL Fashion

Sl No	Style	Main	Measur	Gross	Net wet	Order	Colour	Article	XS	Size					Qty	Carton	Carton
										S	M	L	XL	XXL			
1	BGING 70	E DISCO	24X10 CMS			5E+09	BLACK	1E+10		1	1	2	1	1	6	5 Ply	260
2	BGING 70	E DISCO	24X10 CMS			5E+09	WHITE	1E+10		1	1	2	1	1	6	5 PLY	427

Regards
 Rassel

CHAPTER SIX

PRINTING

6.0 Printing

Direct Print, Resist Print, and Discharge Print:

There are three methods of pattern dyeing and printing: Direct, Resist and Discharge printing.

- **In direct printing**, a design is etched into a copper roller. A dye that has been thickened into a paste with starch, gelatin, or synthetic polymers is applied to the etched area while the un-etched surface is kept clean.
- The color design is transferred to the cloth under pressure. Direct printing may also involve forcing the paste on to the fabric through a screen.
- A technique similar to stencil printing except that the screen controls how much paste is applied to the cloth.
- **In Resist printing**, a reverse printing method, a dye repelling substance is selectively applied to the cloth, which is then placed in a dye bath. This method is used, for example, to produce white polka dots on a color background.
- **In Discharge printing**, the whole fabric is dyed. A pattern is then printed on the fabric with a chemical that oxidizes or reduces the dye, creating a white pattern on a colored background.

6.1 Different types of printings:

- Allover print
- Screen print
- Reactive print
- Print with plastisol dye-stuffs
- Discharge print
- Pigment print
- Flock print
- Foil print
- Lurex print
- Embossed print
- Heat transfer print
- Hi-density print
- Dip-dye print

6.2 Factors Affecting Cost of Printing:

- Type of printing
- Size of printing
- Number of color of printing
- Any grading of size of printing from size to size
- Any restriction/selection of use of dyes and chemicals
- Lab test requirement
- Wash sustainability
- Tolerance in placement of print art-work
- Tolerance in color shade variation
- Place of printing

CHAPTER SEVEN

EMBROIDERY

7.0 Embroidery:

7.1 Should learn to differentiate and assess all types of Embroideries:

- Plain embroidery with one color
- Plain embroidery with multi color
- Embroidery with lurex thread
- Embroidery on printing
- Embroidery with application
- Embroidery with application over application
- Embroidery with laser-cut design
- Embroidery with sequin setting

7.2 Calculation of Embroidery Cost Per Dozen [3]:

We know embroidery stitch unit is 12000 stitch but always embroidery factory will not accept any order on stitch if the total handling time is too long due to combination of work with Applique, Patch, Wording etc as such how much time is consumed to complete one batch will dictate the cost.

12000 Stitch= 1 unit in embroidery

For calculating the price of embroidery we need to know the following information

- 1) Stitch quantity of the design. Say, it is 8000
- 2) Rate of per unit. (its may vary depends on the design, also avail ability of factory). Say, it is \$0.25/unit

At first we will find out the unit per dozen. (Stitch qty X 12 / 12000)

Rules:

$$\begin{aligned} &= (\text{Stitch quantity} \times 12) / 12000 \times \text{Rate per unit} \\ &= 8000 \times 12 / 12000 \times \$0.25 \\ &= 96000 / 12000 \times \$0.25 \\ &= 8 \times \$0.25 \\ &= \$2.00/\text{dozen} \end{aligned}$$

7.3 Factors Affecting Cost of Embroidery:

- Number of stitch
- Type of embroidery
- Time require to complete one batch
- Color of thread
- Cutting of appliqué (Dice or Laser cutter)
- Place of embroidery
- Resource and hand involves in doing embroidery
- Any restriction on selection on embroidery machine
- Any compliance requirement
- Any restriction on use of embroidery thread
- Any lab test requirement

CHAPTER EIGHT

FREIGHT CALCULATION

8.0 Freight Calculation:

8.1 Sea Freight:

Sea freight is usually charged based on volume as to how much per CBM (cubic meter), very rarely by weight as “density cargo”. In fact ANERA (Asia North America eastbound rate agreement) has designed the freight tariff more based on the usual value of the type of goods, than the usual weight of them, taking into consideration that for low value merchandise they should give a low freight rate in order to make it possible for the importers to buy goods overseas. However, for high value merchandise, they should charge a high freight rate, as it is believed that the buyer can afford to pay more on freight. They have designed the freight tariff in such a way that everybody can do business and there is sufficient profit for the shipping lines.

FCL: Full container Loading

LCL: Loose container Loading

If we ship very heavy goods as loose cargo because the size of the shipment is very small, the shipping lines will charge by weight or by volume whichever is higher. 1 CBM (100 cm X 100 cm X 100 cm) = 1000 Kg

20' container- 228”× 84”× 94” (L-W-H), can load 27 CBM

40' container-474”× 84”× 94” (L-W-H), can load 54 CBM

40' high cube container-474”× 84”× 106” (L-W-H), can load 68 CBM

45' high cube container-45’× 8.4’× 9.5’ (L-W-H), can load 76 CBM

8.2 Air Freight :

Unlike sea freight, the airlines have decided to charge for the heavy merchandise (high density goods) by weight and lightweight merchandise (low density goods) by volume. However, as airplanes can take less weight than ocean liners, the way they set the standard, in the garment industry, when you ship goods by air, you have a 70% chance to be charged by weight, about 30% chance by volume. The followings are the relationship between weight and volume as set by IATA (International air transport association).

a. From most shipping locations in the Far East to the U.S. destinations and Canada 7000 cubic cm = 1 kilo.

b. From certain locations in the Far East to the U.S. destinations and Canada 6000 cubic cm = 1kilo.

Therefore when you have low density goods to ship by air, in order to determine if you should try to make the cartons as small as possible to save freight. First you check with the local air forwarding agent by asking him in the country where you are, how many cubic cm is considered 1 kilo in weight. They will tell you either 7000 or 6000. This is the answer you need. Then you physically check the weight and measurements of the goods packed for the air shipment. Now we have the 3 answers as follows, for example:

1. The country is Bangladesh and the formula is 6000 cubic cm = 1 kilo
2. The measurements of the cartons are 50cmX 60cmX 40cm
3. The gross weight of the cartons is 16 kilo per carton.

Now let us find out if we should try to make the cartons smaller to save air freight by doing the following calculation, Multiply $50 \times 60 \times 40 = 120000$ cubic cm. 120000 cubic cm divided by $6000 = 20$ kilo Now you know, by volume the one carton is of 20 kilo, but by actual weight the carton is of only 16kilo. You also know the airline will charge whichever is higher, in this case, they will charge you for 20 kilo, by volume. If the air freight rate is 2.80 per kilo this carton will cost you \$56.00. Now, in order to save some money, let us try to make the carton smaller, usually by cutting the height of the carton. Let's say we have succeeded in cutting down the height by 5 cm, and see how much money we can save.

Note:

Original size of the carton: 50 X 60 X 40 cm (=20 kilo)

Now cut down to 50 X 60 X 35 cm= 105000 cubic cm. $105000 / 6000 = 17.5$ kilo

Now by using the new carton, we have saved 2.5 kilo and this carton will cost only \$ 49.00 ($17.5\text{Kilo} \times 2.80$).

CHAPTER NINE

ACCESSORIES

9.0 Accessories:

Accessories	Selling Unit
Woven main label	Doz
Woven care label	Doz
Woven size label	Doz
Printed main label	Doz
Printed size label	Doz
Printed care label	Doz
Hang tag (1 clr/ multi clr)	Doz
Price tag	Doz
Barcode	Doz
Swing thread	4000 m
Velcro tape	Yard
Eyelet (10-20mm w/washer)	Gross
Metal snap button (4 parts)	Gross
Poly bag (20 X 10)	Doz
Gum tape	Roll
Scotch tape	Roll
Metal clip	Box
P.P. Belt (120 Yd/ roll)	Roll
Cotton drawstring	Yard
Tissue paper	Doz
Tag pin	Doz
Shoulder pad	Pair
Plastic/metal stopper	Doz
Plastic/metal buckles	Doz
Polly button (12-18L)	GG
Horn button (12-18L)	GG
Polly button (20L – above)	Pc
Shank button (10L – above)	Pc
Rivet	Gross
Twill tape	Yard
Collar stand	Doz
Neck board	Doz
Back board	Doz
Butterfly	Doz
Plastic/Metal D-ring	Doz
Interlining (woven-fusible)	Yard
Interlining (woven-non fusible)	Yard
Interlining (nonwoven-fusible)	Yard
Interlining (nonwoven-nonfusible)	Yard

9.1 Button:

Button use for functional or decorative purposes.

Ligne No.: 12 L, 14 L, 16 L, 18 L, 24 L, 30 L, 40 L

Button Size = Diameter of Button = Ligne No.

Button Use for T-Shirt / Polo Shirt = 16 L, 18 L (Common Use)

Button Measurement:

1. Button Set on Paper / Button
2. Marking
3. Measure by Scale or Measurement Tape

Button Requirement for One Lac Pcs T-Shirt

1 Pcs T-Shirt = 3 Pcs Button

1 Lac Pcs Polo-Shirt = 1, 00,000 × 3 Pcs Button

= 3, 00,000 Pcs Button × 10% Plus

= 3, 30,000 Pcs Button / 1728 Pcs Button = 190.97 G.G. = 191 G.G.

- 12 Pcs = 1 Dzn
- 12 Dzn = 1 Gross = 144 Pcs
- 12 Gross = 12 × 144 = 1728 Pcs
- 12 Gross = 1 G.G.
- 1 G.G. = Great / Grand Gross

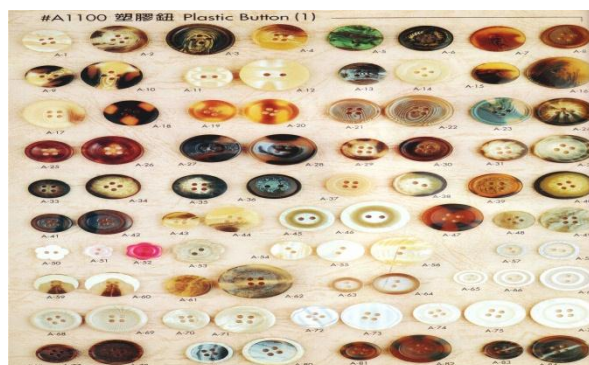


Fig: Button

9.2 Interlining Fabric:

Interlining Fabric Used for Supporting the Garment Part (Exam: Collar, Button Placket, Etc.).

9.3 Lining Fabric:

Lining Fabric Used for Supporting the Garment (Exam: Jacket).

9.4 Sewing Thread:

Package: 1 Cone = 4000 Meter

Fibre: 100% Spun Polyester (Most Commonly Used/95% Cases)

100% Cotton (Specially Used)

Essential Requirement for Sewing Thread:

- Sew Ability: 100 Yards = No Breakage
- Durability: Seam Strength



Fig: Sewing Thread

9.5 Zipper:

Types of Zipper:

1. On the Basis of Material Types
2. On the Basis of Appearance Types

On the Basis of Material Types:

- Nylon Zipper/Polyester Zipper/Coil Zipper.
- Plastic Zipper/Vislon Zipper/Delrin Zipper.
- Metal Zipper.

On the Basis of Appearance Types:

- Open End Zipper (Separated): Standard Type Used in Jackets. Separates into two pieces when unzipped.

- Close End Zipper (Close Bottom): Open at One End, Closed at Bottom, Used in Pant, Trouser, Jeans.
- Two Way Open End (Separated) Zipper: Used in Jacket.
- Two Way Head to Head Close End Zipper/Two Sliders and Two Bottom Stoppers.
- Two Way Back to Back Close End Zipper/Two Sliders and Two Top Stoppers Zipper



Fig: Zipper In Pique polo shirt



Fig: Zipper

9.6 Labels:

- Labels are the Identification of Apparels.
- It Contents Brand/Trade Name, Compositions, Size, Care, Instruction, Etc

Classify Labels:

- Functional Labels.
- Decorative Labels: Like Motif, Flag Label



Fig: Size label

Functional Labels:

- Main Labels: Brand Name, Like-Levi's, Cat's-Eye, J.C. Penny, H & M, Tommy Hilfigure, Bugle.
- Size Labels: Indicates Size of the Apparel, Like - S, M, L, XL etc. or 15, 16, 17, 18 etc. or 30, 32, 34, 36 etc.



Fig: Functional label

9.7 Poly Bag Measurement:

1. Measuring for Flat Bag: Width x Length

Width = Opening of bag

Length= Usable portion of bag

Gauge= Film thickness, measured in mils or microns

Example:

Width= 6 inches

Length = 9 inches

Gauge= .002 inches

Bag size is written as: 6" x 9" 2 mil

2. Measuring for Bottom Gusseted Bags: Width x Length x Gusset

Width = Across opening of the bag

Length= From opening to bottom of the bag

(with gusset tucked in)

Gusset= Distance across the open face of

bottom pleat

Gauge = Thickness of bag, measured in mil.

Example:

Width= 6 inches

Length = 9 inches

Gusset= 3 inches

Gauge = .002 inches

Bag size is written as: 6" X 9" X 3" 2mil

3. Measuring for Side Gusseted Bags: Width x Gusset x Length

Width = Across opening of the bag (with gusset tucked in)

Gusset = Distance across the open face of side pleat

Length = From the opening to the bottom of the bag

Gauge = Thickness of bag, measured in mils.

Example:

Width = 6 inches

Gusset = 3 inches

Length = 9 inches

Gauge = .002 inches

Bag size is written as: 6"x 3" x 9" 2 mil [6]

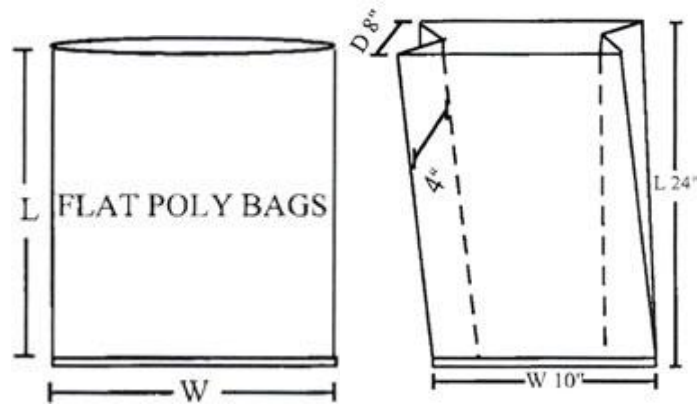


Fig: Flat Poly Bag & Side Gusset Bag

9.8 Carton Consumption:

Say,

Carton Length=60cm

Carton Width = 40cm

Carton Height = 30cm

$$\begin{aligned}
 \text{Carton Consumption} &= \{(L+W)+5\} \times \{(H+W) \times 2\} / 10000 + 1\% \\
 &= \{(60+40)+5\} \times \{(30+40) \times 2\} / 10000 + 1\% \\
 &= 1.47\text{m}^2 + 1\% \\
 &= 1.4847\text{m}^2 \\
 &= 1.4847 \times \$1.20 \text{ [7ply carton, Per m}^2 \text{ price \$1.20]} \\
 &= \$1.78
 \end{aligned}$$

9.9 CBM Calculation:

Cubic Meter Also Called CBM.

If we doing business or dealing with job or we want to ship something the knowledge about the CBM is most important for us. We can save much money if we know how to calculate it.

It will be better if we discuss with an example. Suppose you want to ship 50 cartons each carton size is

Height =20cm

Width =30cm

Length =40cm

1st STEP:

Must know the formula to calculate CBM is as under

$$\text{CBM} = W \times H \times L$$

W = Width of Carton

H = Height of Carton

L = Length Of Carton

2nd Step:

Please be remember the W, H, L, must be in Meter. If it's not in meter need convert in the meter. In our example the W, H, L is in cm so according to international standard 1 Meter is equal to 100cm. so we need to divide by 100 to get result in Meter.

Height 20 cm = $20/100 = 0.20$ M

Width 30 cm = $30/100 = 0.30$ M

Length 40 cm = $40/100 = 0.40$ M

TIP: If you have measurement in CM and need to convert it to Meter the easiest way to move 2 decimal places. 20 CM after moving 2 decimal it will become 0.20 M.

3rd Step:

Now put values in the formula:

$CBM = W \times H \times L$

$CBM = 0.20m \times 0.30m \times 0.40m = 0.024$ CBM

So now our 1 Carton is equal to 0.024 CBM. It also means that our 1 carton will occupy 0.024 CBM space.

4th and Final Step:

If 1 cartons will occupy 0.024 CBM the 50 cartons will occupy:

$0.024 \times 50 = 1.2$ CBM

That is, now we know that our total volume of shipment in Cubic Meter is 1.2 CBM.

CHAPTER TEN

LETTER OF CREDIT

10 Letter Of Credit:

L/C A binding document that a buyer can request from his bank in order to guarantee that the payment for goods will be transferred to the seller. Basically, a letter of credit gives the seller reassurance that he will receive the payment for the goods. In order for the payment to occur, the seller has to present the bank with the necessary shipping documents confirming the shipment of goods within a given time frame. It is often used in international trade to eliminate risks such as unfamiliarity with the foreign country, customs, or political instability.

10.1 Types of Letters of Credit (L/C):

- Revocable Letter Of Credit.
- Irrevocable Letter Of Credit
- Confirmed Letter Of Credit.
- Confirmed And Irrevocable Letter Of Credit
- Transferable Or Divisible Letter Of Credit
- Back To Back Letter Of Credit
- Red Clause Letter Of Credit
- Sight Letter Of Credit
- Usance Letter Of Credit
- Revolving Letter Of Credit
- Stand-By Letter Of Credit

10.2 Assessment of commercial cost:

To execute any order there are lot of expenses other than making, like charges in banking documentation, expenses in custom, EPB port etc as such if this cost is not taken into consideration in garments costing then the same will be drained out from CM in your ignorance. Usually the expense is considered to be 1 to 2% of total L/C value. In case of big volume, the percentage may be less. Sometimes, we consider 35 to 65 cents per dozen considering the garments quantity. Nowadays buyer is taking garments on deferred L/C as such the bank who is helping us with BB L/C for arranging yarn, dyes/chemicals, printing, embroidery etc are not getting payment on shipment of garments rather had to wait for a certain period get the payment from the L/C opening bank as such bank will charge interest for such period for the BB L/C amount.

CHAPTER ELIVEN

CONCLUSION

11 Conclusion:

Today's garments fully depend on merchandising. A good merchandiser can develop the quality of product and increase the sales of the product. Merchandising is a big job and is a complex one. It is so much important in our textile industry. The "Study On Knit Garments Merchandising" revealed that Textile of Bangladesh is fully depending on merchandising. It may an honorable professional for educated persons. For the development of merchandising there are many factors involved. Merchandising plays an important role. To increase the productivity of an organization effectively, efficient merchandiser will have to develop. Preparation of future business managers should provide for the development of managerial skills relating to merchandiser function. Colleges and universities offering Textile Engineering curriculum would do well to evaluate their courses as they relate to the findings of this study.

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