FACULTY OF ENGINEERING

DEPARTMENT OF TEXTILE ENGINEERING

"Study on Compacting Machine"

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Dissertation submitted to the Department of Textile Engineering of Daffodil International University in partial fulfillment of the requirement for the Degree of Bachelor of Science in Textile Engineering

Letter of Approval

April 29, 2019

To

The Head

Department of Textile Engineering

Daffodil International University

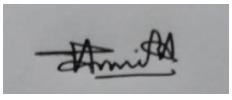
102, Sukrabad, Mirpur Road, Dhaka 1207

Subject: Approval of final year project report.

Dear Sir,

I am writing to let you know that this project report titled as **"Compacting Machine"** has been completed for final evaluation. The whole report is prepared based on proper investigation and understanding though critical analysis of empirical data with required belongings. The students were directly involved in their project activities and the report becomes vital to spark off many valuable information for the readers.

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



Yours Sincerely,

Tanvir Ahmed Chowdhury

Assistant Professor

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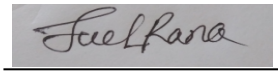
DECLARATION

We herewith declare that the work that is being given during this thesis name, **"Compacting Machine"** is original work of our own, has not been given for a degree of the other university and every one the resource of materials uses for this project is punctually acknowledged.



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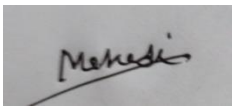
Md. Juel Rana Date:



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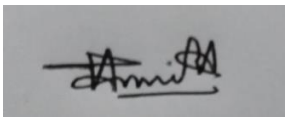
Md. Mehedi Hasan Date:

This is to certify that the above declaration made by the candidate is correct to the best of my knowledge.



06-05-19

Tanvir Ahmed Chowdhury Date:

Assistant Professor

Supervisor

ACKNOWLEDGEMENT

Above all, we praise the almighty Allah who gave us His enabling grace to successfully complete this research work.

With sincerity, we extend our warm and deep appreciation and gratitude to our supervisor, Tanvir Amhed Chowdhury, Assistant Professor, Faculty of Engineering, Department of Textile Engineering of Daffodil International University for his unreserved guidance and support to come up with this research work. Being operating with him, we've not solely earned valuable information however were conjointly galvanized by his originality that helped to complement our expertise to a bigger extent. His concepts and manner of operating was really exceptional. We tend to believe that this analysis couldn't be finished if he failed to facilitate us unceasingly.

We are thankful to Dr. Md. Mahbubul Haque, Professor & Head, Department of Textile Engineering at Daffodil International University for his kind help and advice in various times.

We would also like to thank our friends, our family members, authority of Radiance Group. For their kind support and encouragement for this research work.

Dedicated

To

“Our Parents & Teachers”

Abstract

The aim of this project is to evaluate the impact of compacting machine on GSM, stitch length, diameter, over feed and widths of the fabric. We observe compacting the fabric and make materials for the next process. We know about the compacting finishing processing. We observe change in stitch length, GSM, diameter, over feed and widths of the fabric. We notice if overfeed is increased and fabric width is decreased the GSM is higher and overfeed is decreased and fabric width is increased the GSM is lower. Also diameter increased is GSM decreased and diameter decreased is GSM increased. The GSM is by the steam. It is to be hoped that by the head of this paper the reader could have a far better idea about the time, what are the importance of your time in a compacting machine and which is best and widely used employed in the finishing operation. By doing this project our idea about the time compacting machine is obvious by the help of Allah and our supervisor. This performance should applicable in our sensible life.

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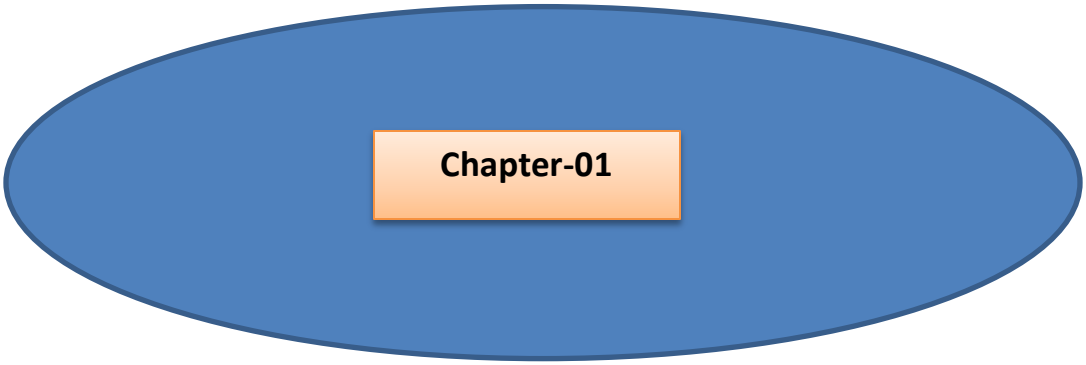


Introduction:

Introduction:

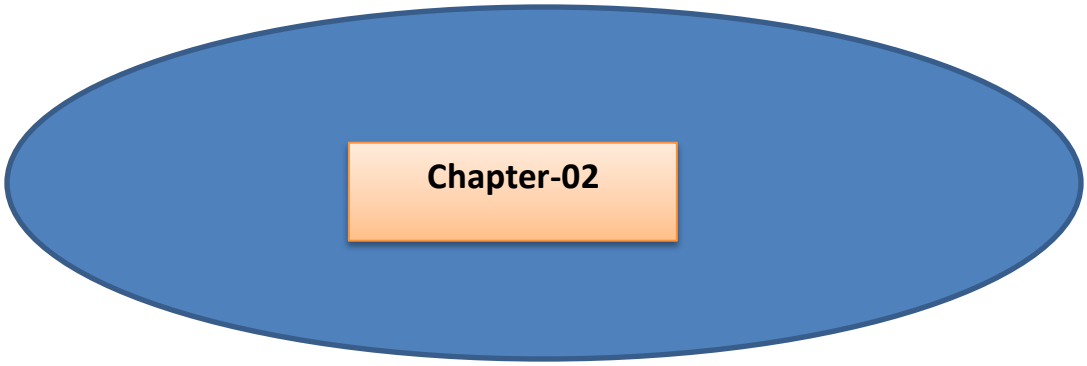
Compacting machine could be a textile finishing machine that is intended especially for compacting 100 % cotton fabrics. Compacting machine is very important for knit fabric finishing process. The works are done by compacting machine are pointed out that GSM control of the knitted fabric. For high GSM, overfeed is increased and fabric width is decreased. For low GSM, overfeed is decreased and fabric width is increased. Control shrinkage, Twisting control, Increase smoothness of fabric, Heat setting is done of fabric etc. This compacting machine is done knit fabric finished before the garment.

Objectives of the Study:

- To know functions of various parts of compacting machine.
- To know the process of compacting machine.
- To know the impact of compacting machine on diameter of the knit fabric.
- To know the impact of compacting machine on GSM of the knit fabric.
- To know of compacting machine on stitch length of the knit fabric.
- To know regarding the specification of knitted cotton materials.
- To learn the way to do a project work & create report.

So that, we will know this report-

- Compacting machine management shrinkage
- Compacting machine management material breadth
- Compacting machine management GSM
- Material smoothness is achieved by the tubular compacting
- Heat setting of material for Lycra in quality machine
- Shade checking of cotton knit by compacting in textile mill
- Breadth checking of cotton knit in textile mill
- Edge line checking of cotton knit in textile mill



Literature Review

2.1 Why this subject been chosen:

This is quite common asking of technical persons likewise as people what the compacting finishing machine. However we tend to failed to apprehend the solution before finishing this project, “question is extremely common however answer is unknown” from this idea Tanvir Amhed Chowdhury, prof chosen this subject as our project subject. That’s why it's been wonderful, tremendous subject and that we become such a lot interested to complete this project.

2.2 Compacting machine:

Compacting machine is one amongst the textile finishing machines that is employed specially for compacting one thousandth cotton knit like jersey, pique, interlock, plush, rib and sinker etc. Compacting machine is additionally used for cotton intermingled material in rope type. This kind of machine changes the dimensional stability of the material and presents those into plaited type. As its importance in textile sector, currently i will be able to gift the key applications or uses or functions of compacting machine during this article.

2.3 Textile Finishing in Factor Consideration:

Compacting may be a textile finishing machine that is meant particularly for compacting one 100 % cotton knit like jersey, pique, interlock, plush, rib and sinker etc. The compacting machine is additionally known as compacting or felt compacting. This machine is mostly equipped with 2 stream chambers and 2 felt units. Following major works are completed by compacting machine-

2.3.1 Control of Shrinkage:

- Shrinkage is controlled by correct over feeding.
- to use less or additional over feed speed materials cut back on to length and increase on to dimension. Mostly seventy percent to seventy five percent shrinkage is controlled by exploitation it.

2.3.2 Control of GSM:

- GSM is additionally controlled by applying correct over feeding speed.
- If over feed is more than GSM is also more.
- If Over feed speed is less then GSM is also is less.
- If Dia is more than GSM of the fabric will less.
- If Dia is less than the GSM of the fabric will more.

N.B: If GSM of the fabric is Ok then shrinkage is also OK.

2.3.3 Dia Control:

- Dia is controlled by dia controlling meter scale.
- If any fault, GSM of the fabric is reduced then to increase the GSM of the fabric dia will have to be reduced (2 – 3) inch.
- If Over feed speed is more than dia of the fabric will be more.
- If Over feed speed is less than Dia of the fabric will be less.
- If length is more than width of the fabric is reduced.
- If length is less than width of the fabric is more.

N.B: Fabric speed is controlled on the fabric dia. Here, Dia less or More fully depends on yarn count and buyer order. Dia is done less or more by using expander rod.

2.4 Compacting Machine of types:

Two types are compacting machine-

1. Tubular compacting machine
2. Open compacting machine

2.5 Definition of Tubular compacting machine:

Tubular compacting machine is referred for tubular knitted materials that are used as finishing machine. It's used for shrinkage management, GSM management, compact the material and increase smoothness of cloth. Tubular compacting device is industrial machinery used when hydro-extractor, de-watering and appliance. This machine is put in when industrial appliance or dryer machine

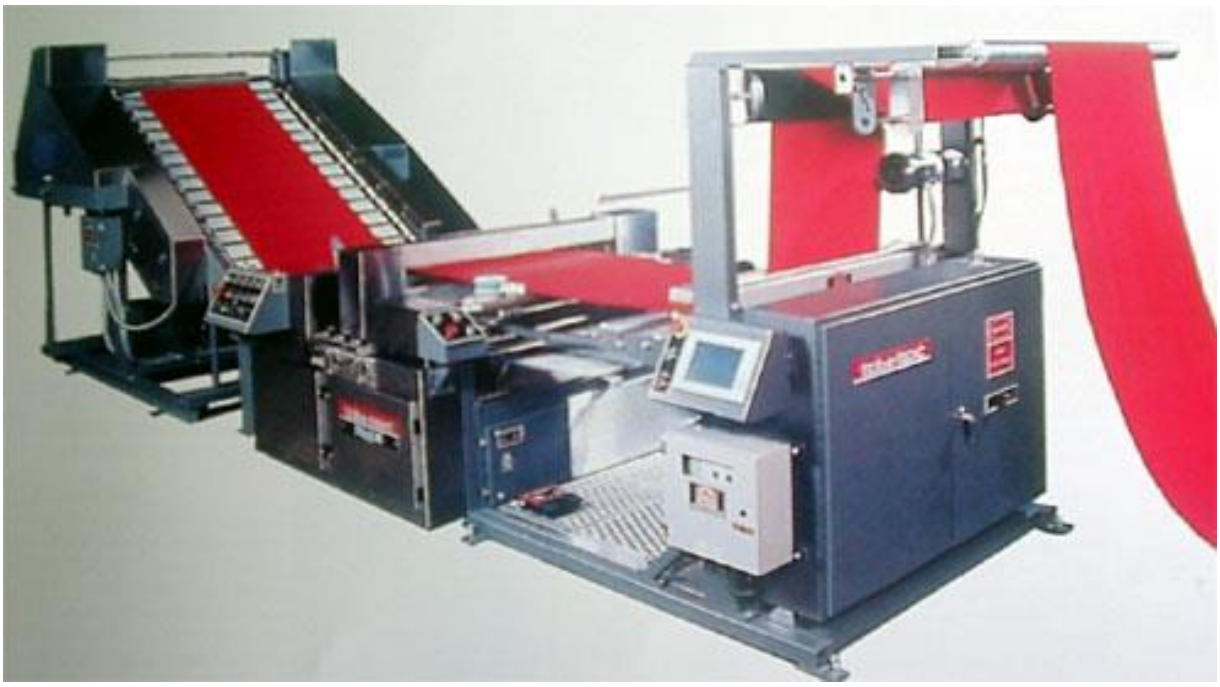


Figure: Tubular Compacting machine

2.6 Tubular Compacting of Functions:

Functions of following the tubular machine-

- Tubular compacting machine management shrinkage.
- Tubular compacting machine management material breadth.
- Tubular compacting machine management GSM.
- Material smoothness is achieved by the tubular compacting.

• Heat setting of material for Lycra in quality machine.
• Shade checking of cotton knit by tubular compactor in textile mill.
• Breadth checking of cotton knit in textile mill.
• Edge line checking of cotton knit in textile mill.
• Style and sloping of textile finishing.
• Realize material fault of cotton knit in textile mill.

2.7 Tubular form machine are required for following:

Hydro Extractor Machine

↓

De-Watering Machine

↓

Dryer Machine

↓

Tubular compacting Machine

2.8 Maintenance of Tubular compacting for Cotton Knit Factory:

2.8.1 Maintenance weekly Criteria:

Check spreader belts, wheels & its bearings.

- Check Teflon sheets.
- Check Position and condition, blanket's tightness.
- Check & clean all electronics and electrical apparatus

2.8.2 Maintenance Criteria Two Month:

- Clean & Check all commentators & its Carbon, all motors.
- Calibrate all parameters if required.
- Lubricate all bearings, motors chain, gearbox, and Necessary points with grease.

2.8.3 Maintenance Criteria Yearly:

- Drain Gear fill and oil, it with new oil & Check.
- All steam cylinder and valve condition.

2.9 Machine set up tubular compacting:

Machine parameters	Set up value
Steam pressure	4-5bars
Air pressure	6 bar
Temperature	110-130°C
Motor and Cooling fan	Auto
Width control	36 to 100 cm
Speed setting	5-25 m/min

2.10 Tubular Compacting Machine in Checking Parameter:

Bellow the checking parameters in compacting machine-

1. Checking shade:
Shade of the compacting cloth is checked within the delivery aspect of the machine. The operator collects the material and compare the shade of the material with the buyer's approved piece of cloth.

2. Checking width:
Operator measures the dimension of the material with the mensuration tape and compares it with the buyer's demand.

3. Checking width:
Weight of the material is set by GSM check. Operator checks the GSM of the material by GSM cutter and electrical balance.

4. Checking edges line:
Two edges of the material is sign in delivery aspect. If any fix line is known, that unremarkably happens from the expander it ought to be connected. Following parameters sign in compactor machine.

5. Slanting and Design:
Operator checks style and slanted of the material within the delivery aspect of the machine.

6. Faults of fabric:
Various varieties of cloth quality are measured within the delivery aspect of the material.

2.11 Definition of Open compacting machine:

Open dimension compacting machine for textile manufacturing plant may be a machine stated the compacting machine for open width knitted materials. It's used for shrinkage management, GSM of cloth management, compact the material and increase smoothness of cloth. Here, slitting machine is employed before open dimension compactor machine for open the material from the tubular form. This machine is employed once the method of stenter machine.

Figure: open width compacting machine

2.12 Open compacting machine of function:

Following objectives are achieved by the open compacting. They are-
1. Shrinkage of the material is controlled by the compacting.
2. Cloth dimension is controlled by the compacting.
3. GSM of the material is adjusted by the compacting.
4. Cloth smoothness is achieved by the compacting.
5. Heat setting of cloth for Lycra is completed by open width compacting.

2.13 Open form machine are required for following:

Hydro-Extractor Machine

↓

De-Watering Machine

↓

Dryer Machine

↓

Slitter machine

↓

Stenter machine

↓

Open width compacting Machine

2.14 Maintenance open width compacting machine for Cotton Knit Factory:

2.14.1 Maintenance weekly Criteria:

Check spreader belts, wheels & its bearings.

- Check Teflon sheets.
- Check Position and condition, blanket's tightness.
- Check & clean all electronics and electrical apparatus.

2.14.2 Maintenance Criteria Two Month:

- Clean & Check all commentators & its Carbon, all motors.
- Calibrate all parameters if required.
- Lubricate all bearings, motors chain, gearbox, and Necessary points with grease.

2.14.3 Maintenance Criteria Yearly:

- Drain Gear fill and oil, it with new oil & Check.
- All steam cylinder and valve condition.

2.15 Machine set up of open compacting:

Machine parameters	Set up value
Steam pressure	4-5bars
Air pressure	6 bar
Temperature	700-1000°C
Motor and Cooling fan	Auto
Width control	36 to 100 cm
Speed setting	5-25 m/min

2.16 Open Compacting Machine in Checking Parameter:

Bellow the checking parameters in compacting machine-

1. **checking shade:**
   Shade of the compacting cloth is checked within the delivery aspect of the machine. The operator collects the material and compare the shade of the material with the buyer's approved piece of cloth.

2. Checking width:
Operator measures the dimension of the material with the mensuration tape and compares it with the buyer's demand.

3. Checking width:
Weight of the material is set by GSM check. Operator checks the GSM of the material by GSM cutter and electrical balance.

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Two edges of the material is sign in delivery aspect. If any fix line is known, that unremarkably happens from the expander it ought to be connected. Following parameters sign in compactor machine.

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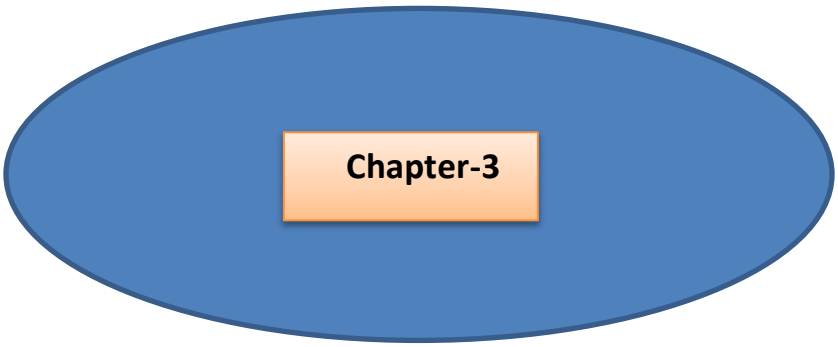
Various varieties of cloth quality are measured within the delivery aspect of the material.



Significance & Scope of the Study

3.1. Significance of the Study:

The main purpose of the project was to know about there is compacting finishing machine on knit fabric structure depends on time variation. To complete the work, we have first taken various knit fabrics of different structure. Then the fabrics were finishing according to suitable process. After that we visually measured of the finishing samples. From the study, we have come to know about a lot of things in details such as- finishing procedure of knit fabric, steam, pressure, over feed and time etc. Finally we have come to know about the impact of fabric structure on the compacting finishing process.

3.2. Scope of the Study:

The study covers a lot of things which are very important in finishing knit fabric. Various chapters are formed with significance information which can be expressed as-

In chapter-1, a general description of study has been given which also includes its objective.

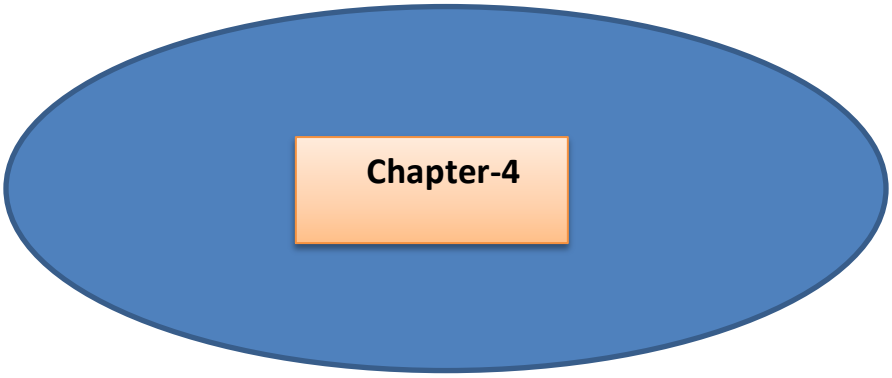
In chapte-2, literature review related to the study has been showed.

In chapter-3, Significance of the study has been written.

In Chapter-4, gives the research methodology in materials and methods.

In Chapter-5, expresses the outcome of the study

In chapter-6, a short conclusion has been included.



Research Methodology

4.1 Materials:

In our project work, we have taken knit fabric for compacting machine. We have taken eight pieces of knitted fabric (single jersey, single jersey Lycra, Pique, Lacoste, 1×1 Rib, 2×2 Rib, Heavy fabric and Terry fabric) as our materials for accomplishing our project work. The name of the sample and their construction & specification are given in below:

- single jersey fabric
- single jersey Lycra
- Pique fabric
- Lacoste fabric
- 1×1 Rib fabric
- 2×2 Rib fabric
- Heavy fabric
- Terry fabric

4.1.1 Specification of Single Jersey:

- Sample name = Single Jersey
- Sample thread = 100% cotton
- (CPI) Course per inch = 60
- (WPI) Wales per inch = 32
- Yarn count = 28 Ne single

- Stitch Length = 2.54
- Fabric GSM = 140

4.1.2 Specification of Single Jersey Lycra:

- Sample name = Single Jersey Lycra
- Sample thread = 95% cotton and 5% Lycra
- (CPI) Course per inch = 63
- (WPI) Wales per inch = 30
- Yarn count = 28 Ne single
- Stitch Length = 2.61
- Fabric GSM = 145

4.1.3 Specification of Pique fabric:

- Sample name = pique fabric
- Sample thread = 100% cotton
- (CPI) Course per inch = 60

- (WPI) Wales per inch = 32
- Yarn count = 30 Ne single
- Stitch Length = 2.63
- Fabric GSM = 160

4.1.4 Specification of Lacoste fabric:

- Sample name = Lacoste fabric
- Sample thread = 100% cotton
- (CPI) Course per inch = 65
- (WPI) Wales per inch = 33
- Yarn count = 30 Ne single
- Stitch Length = 2.57
- Fabric GSM = 170

4.1.5 Specification of 1×1 Rib fabric:

- Sample name = 1×1 Rib fabric
- Sample thread = 95% cotton and 5% Lycra
- (CPI) Course per inch = 72
- (WPI) Wales per inch = 34
- Yarn count = 32 Ne single
- Stitch Length = 2.48
- Fabric GSM = 190

4.1.6 Specification of 2×2 Rib fabric:

- Sample name = 1×1 Rib fabric
- Sample thread = 95% cotton and 5% Lycra
- (CPI) Course per inch = 72
- (WPI) Wales per inch = 34
- Yarn count = 32 Ne single

- Stitch Length = 2.42
- Fabric GSM = 200

4.1.7 Specification of Heavy fabric:

- Sample name = Heavy fabric
- Sample thread = 95% cotton and 5% polyester
- (CPI) Course per inch = 78
- (WPI) Wales per inch = 36
- Yarn count = 34 Ne single
- Stitch Length = 2.48
- Fabric GSM = 250

4.1.8 Specification of terry fabric:

- Sample name = pique fabric
- Sample thread = 100% cotton
- (CPI) Course per inch = 60

- (WPI) Wales per inch = 32
- Yarn count = 30 Ne single
- Stitch Length = 2.42
- Fabric GSM = 180

4.2 Methods of Open compacting machine:

4.2.1 Single jersey fabric:

Before diameter of fabric-30 inch

Before GSM of fabric-133

Before stitch length of fabric-2.54 mm

4.2.2 Single jersey Lycra fabric:

Before diameter of fabric-68 inch

Before GSM of fabric-141

Before stitch length of fabric-2.61 mm

4.2.3 Pique fabric:

Before diameter of fabric-63 inch

Before GSM of fabric-165

Before stitch length of fabric-2.63 mm

4.2.4 Lacoste fabric:

Before diameter of fabric-67inch

Before GSM of fabric-170

Before stitch length of fabric-2.60 mm

4.2.5 Heavy fabric:

Before diameter of fabric-72 inch

Before GSM of fabric-260

Before stitch length of fabric-2.50 mm

4.2.6 Terry fabric:

Before diameter of fabric-78 inch

Before GSM of fabric-180

Before stitch length of fabric-2.4mm

4.3 Methods of tubular compacting machine:

4.3.1 Single jersey fabric:

Before diameter of fabric-30 inch

Before GSM of fabric-138

Before stitch length of fabric-2.52 mm

4.3.2 Single jersey Lycra fabric:

Before diameter of fabric-32 inch

Before GSM of fabric-142

Before stitch length of fabric-2.60 mm

4.3.3 Pique fabric:

Before diameter of fabric-30 inch

Before GSM of fabric-160

Before stitch length of fabric-2.55 mm

4.3.4 Lacoste fabric:

Before diameter of fabric-34 inch

Before GSM of fabric-172

Before stitch length of fabric-2.60 mm

4.3.5 1×1 rib fabric:

Before diameter of fabric-38 inch

Before GSM of fabric-180

Before stitch length of fabric-2.48 mm

4.3.6 2×2 Rib fabric:

Before diameter of fabric-40 inch

Before GSM of fabric-195

Before stitch length of fabric-2.44 mm

4.4 Calculation of open compacting:

4.4.1 Change of diameter during open compacting:-

For Single jersey fabric:

Change of diameter =before dia – after dia

=71 inch – 70 inch

=1 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (71inch -70 inch) × 100/ 71inch

=1.41%

For Single jersey Lycra fabric:

Change of diameter =before dia – after dia

=68 inch – 71 inch

=3 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (68inch -71 inch) × 100/ 68inch

=4.41%

For pique fabric:

Change of diameter =before dia – after dia

=63 inch – 65 inch

=2 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (63inch -65 inch) × 100 / 63inch

=3.18%

For Lacoste fabric:

Change of diameter =before dia – after dia

=67 inch – 69 inch

=2 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (67inch -69 inch) × 100/ 67 inch

=2.99%

For heavy fabric:

Change of diameter =before dia – after dia

=72 inch – 74 inch

=2 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (72inch -74 inch) × 100/ 72 inch

=2.78%

For terry fabric:

Change of diameter =before dia – after dia

=78 inch – 81 inch

=3 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (78 inch -81 inch) × 100/ 78 inch

=3.85%

4.4.2 Change of GSM during open compacting:-

For Single jersey fabric:

Change of GSM =before GSM – after GSM

=133– 138

=5

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (133-138) × 100/ 138

=3.76%

For Single jersey Lycra fabric:

Change of GSM =before GSM – after GSM

=141– 145

=4

Percentage of GSM (%) = (before GSM– after GSM) × 100 before GSM

= (141-145) × 100/ 141

=2.84%

For pique fabric:

Change of GSM =before GSM – after GSM

=165– 160

=5

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (165-160) × 100/ 165

=3.03%

For Lacoste fabric:

Change of GSM =before GSM – after GSM

=170– 178

=8

Percentage of GSM (%) = (before GSM– after GSM) × 100 / before GSM

= (170-178) × 100/ 170

=4.71%

For heavy fabric:

Change of GSM =before GSM – after GSM

=260 - 250

=10

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (260 - 250) × 100/ 260

=3.85%

For terry fabric:

Change of GSM =before GSM – after GSM

=180 – 190

=10

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (180 - 190) × 100 /180

=5.56%

4.4.3 Change of stitch length during open compacting:-

For Single jersey fabric:

Change of stitch length =before stitch length – after stitch length

=2.54 mm – 2.58 mm

=0.04 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.54 mm-2.58 mm) × 100 / 2.54 mm

= 1.57%

For Single jersey Lycra fabric:

Change of stitch length =before stitch length – after stitch length

=2.61 mm – 2.57 mm

=0.04 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.61 mm-2.57 mm) × 100/ 2.61 mm

=1.53%

For pique fabric:

Change of stitch length =before stitch length – after stitch length

=2.63 mm – 2.66 mm

=0.03 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.63 mm-2.66 mm) × 100/ 2.63 mm

=1.14%

For Lacoste fabric:

Change of stitch length =before stitch length – after stitch length

=2.57 mm – 2.60 mm

=0.03 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.57 mm-2.60 mm) × 100/ 2.57 mm

=1.7%

For heavy fabric:

Change of stitch length =before stitch length – after stitch length

=2.50 mm – 2.55 mm

=0.05 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.50 mm-2.55 mm) × 100/ 2.50 mm

= 2%

For terry fabric:

Change of stitch length =before stitch length – after stitch length

=2.42 mm – 2.48 mm

=0.06 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.42 mm-2.48 mm) × 100/ 2.42 mm

=2.48%

4.4.4 Relation between over feed with GSM of open compacting:

For Single jersey fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (140-145) × 100/ 140

=3.57%

For Single jersey Lycra fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100 before GSM

= (145-150) × 100/ 145

=3.44%

For pique fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (165-160) × 100/ 165

=3.03%

For Lacoste fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100 / before GSM

= (180-170) × 100/ 180

=5.56%

For heavy fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (260 - 250) × 100/ 260

=3.85%

For terry fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (170 - 180) × 100 /170

=5.88%

4.4.5 Relation between fabric widths with GSM of open compacting:

For Single jersey fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (135-140) × 100/ 135

=3.7%

For Single jersey Lycra fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100 before GSM

= (138-145) × 100/ 138

=5.07%

For pique fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (155-160) × 100/ 155

=3.23%

For Lacoste fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100 / before GSM

= (170-175) × 100/ 170

=2.94%

For heavy fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (240 - 250) × 100/ 240

=4%

For terry fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (180 - 190) × 100 /180

=5.56%

4.5 Calculation of tubular compacting:

4.5.1 Change of diameter during tubular compacting:-

For Single jersey fabric:

Change of diameter =before dia – after dia

=30 inch – 32 inch

=2 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (30 inch -32 inch) × 100/ 30 inch

=6.67%

For Single jersey Lycra fabric:

Change of diameter =before dia – after dia

=32 inch – 34 inch

= 2 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (32inch -34 inch) × 100/ 32nch

= 6.25%

For pique fabric:

Change of diameter =before dia – after dia

=30 inch – 32 inch

= 2 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (30inch -32 inch) × 100 / 30 inch

= 6.67%

For Lacoste fabric:

Change of diameter =before dia – after dia

=34 inch – 36 inch

= 2 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (34inch -36 inch) × 100/ 34 inch

= 5.88%

For 1×1 Rib fabric:

Change of diameter =before dia – after dia

=38 inch – 39 inch

= 1 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (38inch -39 inch) × 100/ 38 inch

=2.63%

For 2×2 Rib fabric:

Change of diameter =before dia – after dia

=40 inch – 42 inch

=2 inch

Percentage of diameter (%) = (before dia – after dia) × 100/ before dia

= (40 inch -42 inch) × 100/ 40 inch

=5%

4.5.2 Change of GSM during tubular compacting:-

For Single jersey fabric:

Change of GSM =before GSM – after GSM

=138– 140

=2

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (138-140) × 100/ 138

=1.45%

For Single jersey Lycra fabric:

Change of GSM =before GSM – after GSM

=142– 145

=3

Percentage of GSM (%) = (before GSM– after GSM) × 100 before GSM

= (142-145) × 100/ 142

=2.11%

For pique fabric:

Change of GSM =before GSM – after GSM

=160– 165

=5

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (160-165) × 100/ 160

=3.13%

For Lacoste fabric:

Change of GSM =before GSM – after GSM

=172– 178

=6

Percentage of GSM (%) = (before GSM– after GSM) × 100 / before GSM

= (172-178) × 100/ 172

=3.49%

For 1×1 Rib fabric:

Change of GSM =before GSM – after GSM

=180 - 190

=10

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (180 - 190) × 100/ 180

=5.56%

For 2×2 Rib fabric:

Change of GSM =before GSM – after GSM

=195 – 205

=10

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (195 - 205) × 100 /195

=5.15%

4.5.3 Change of stitch length during tubular compacting:-

For Single jersey fabric:

Change of stitch length =before stitch length – after stitch length

=2.52 mm – 2.56 mm

=0.04 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.52 mm-2.56 mm) × 100 / 2.52 mm

=1.58%

For Single jersey Lycra fabric:

Change of stitch length =before stitch length – after stitch length

=2.60 mm – 2.64 mm

=0.04 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.60 mm-2.64 mm) × 100/ 2.60 mm

=1.54%

For pique fabric:

Change of stitch length =before stitch length – after stitch length

=2.55 mm – 2.58 mm

=0.03 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.55 mm-2.58 mm) × 100/ 2.55 mm

=1.18%

For Lacoste fabric:

Change of stitch length =before stitch length – after stitch length

=2.60 mm – 2.63 mm

=0.03 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.60 mm-2.63 mm) × 100/ 2.60 mm

=1.15%

For 1×1 Rib fabric:

Change of stitch length =before stitch length – after stitch length

=2.48 mm – 2.53 mm

=0.05 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.48 mm-2.53 mm) × 100/ 2.48 mm

=2.01%

For 2×2 Rib fabric:

Change of stitch length =before stitch length – after stitch length

=2.44 mm – 2.48 mm

=0.04 mm

Percentage of stitch length (%) = (before stitch length – after stitch length) × 100/ before stitch length

= (2.44 mm-2.48 mm) × 100/ 2.44 mm

=1.64%

4.5.4 Relation between over feed with GSM of tubular compacting:

For Single jersey fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (135-138) × 100/ 135

=2.22%

For Single jersey Lycra fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100 before GSM

= (140-145) × 100/ 140

=2.57%

For pique fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (155-160) × 100/ 155

=3.22%

For Lacoste fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100 / before GSM

= (175-179) × 100/ 175

=2.28%

For 1×1 Rib fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (180 - 190) × 100/ 180

=5.56%

For 2×2 Rib fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (195 - 210) × 100 /195

=7.69%

4.5.5Relation between fabric widths with GSM of tubular compacting:

For Single jersey fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (142-145) × 100/ 142

=2.11%

For Single jersey Lycra fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100 before GSM

= (145-150) × 100/ 145

=3.45%

For pique fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (160-165) × 100/ 165

=3.13%

For Lacoste fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100 / before GSM

= (172-178) × 100/ 172

=3.49%

For 1×1 Rib fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (170 - 180) × 100/ 170

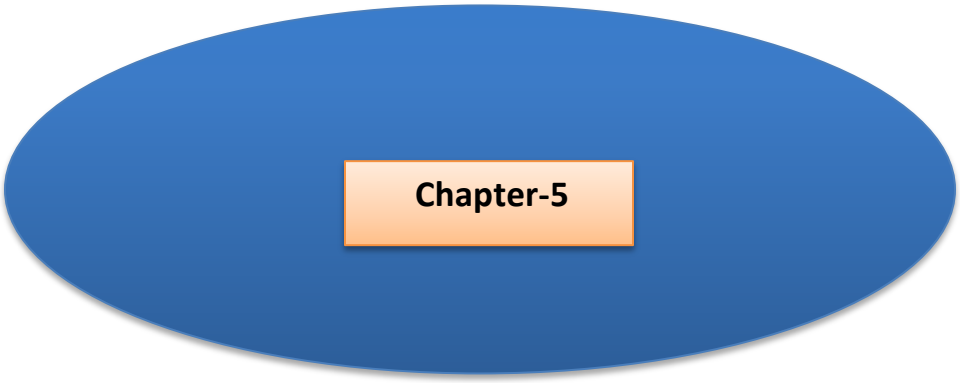
=5.88%

For 2×2 Rib fabric:

Percentage of GSM (%) = (before GSM– after GSM) × 100/ before GSM

= (200 - 215) × 100 /200

=7.5%



Analysis & Findings

5.1 Open compacting machine:

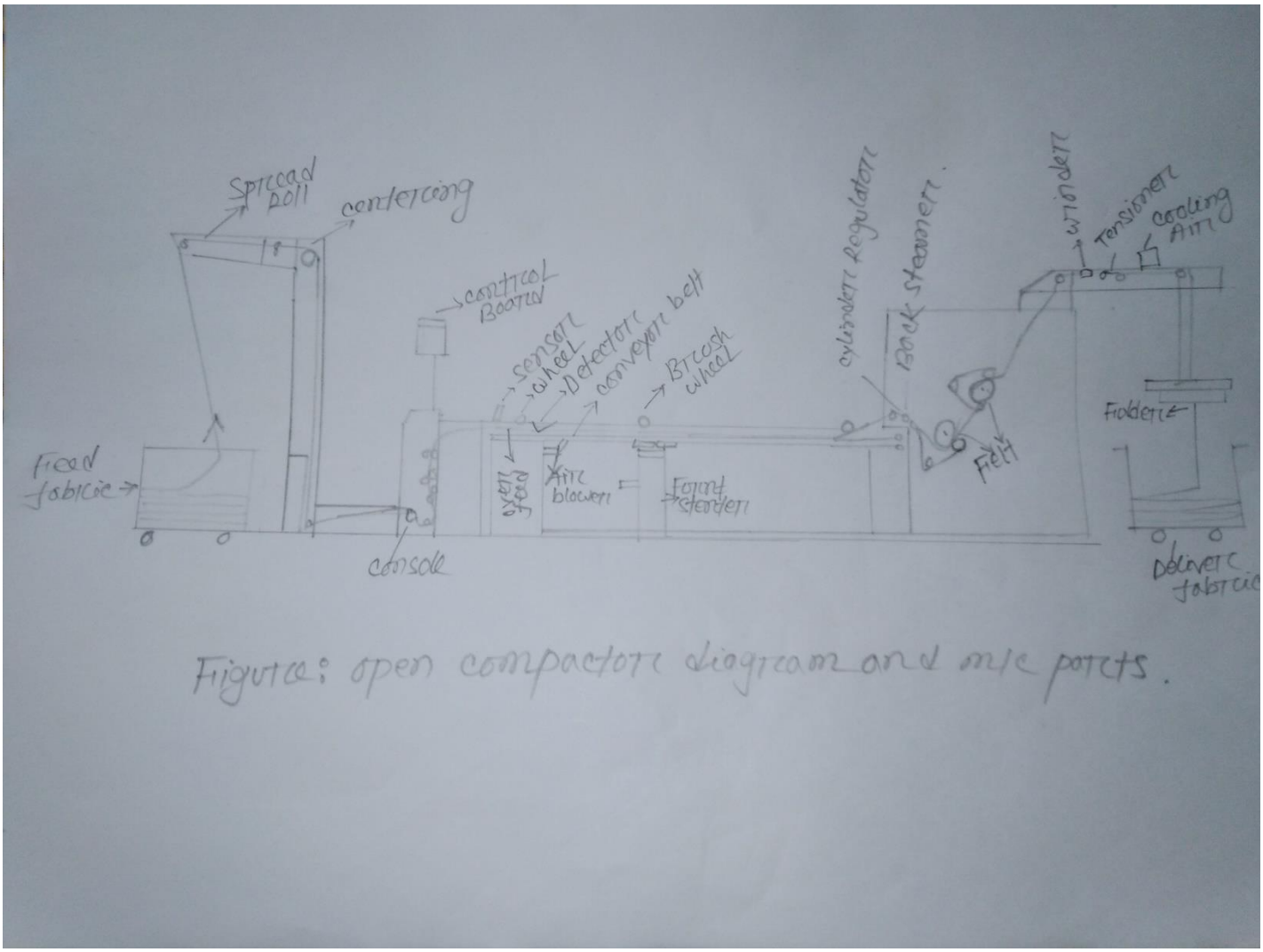


Figure: open compacting m/c and parts indicates

Open breadth Compacting is appropriate for open width knit materials to realize actual dimensional stability and a soft feel. The machine typically consists of a feeding frame with centering device and driven scroll rollers, associate equalizing stenter frame with give roller and brush promise arrangement.

The entry section of Pin Frame is given edge spreaders IR In-Feed device, an S.S. fictitious steaming unit for uniform wetting of the material. The Steaming Device has chrome steel slips shutters that permit steam to flow solely as per the breadth of the material.

A low contact Gluing and Drying unit is given a chrome steel trough. Four selvedge drying units with infra-Red emitters are placed on either facet of the machine. The delivery facet section consists of edge drier, Selvedge trimmer and a suction device, Exit roller, breadth Adjustment device and also the drive to the chain are housed during an exit box.

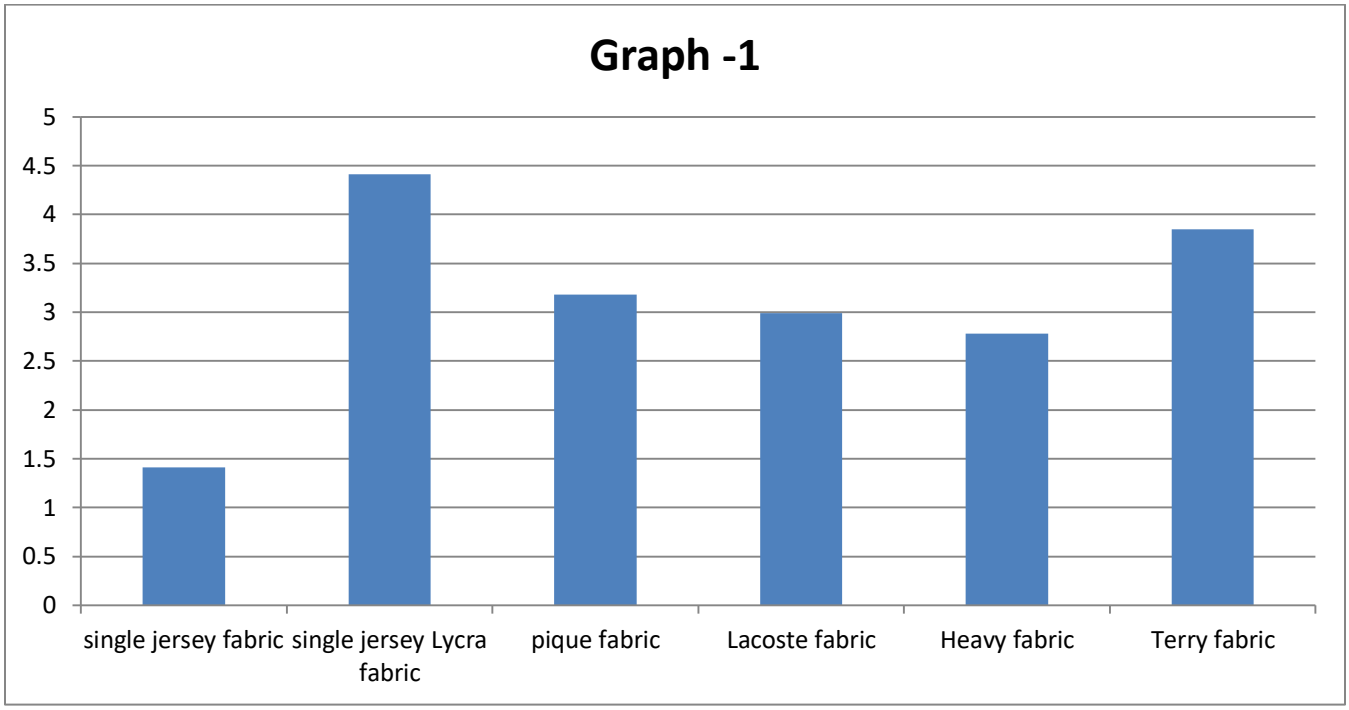
The compacting unit consists of two felt compacting units, every of them consisting of a Name felt approx. twenty metric linear unit thick, a steam heated chrome-plated center roller of Defense Intelligence Agency. 400 mm, a rubber coated roller driven by variable frequency drive, a compacting pressure roller, a felt tensioning roller and a felt centering roller. Every unit is given a special associated-fiction sheet kind shoe controlled by an electrical mechanism to regulate the compressive shrinkage. a cloth cooling roller is provided once second felt to chill the material by suggests that of chilled water circulation. Cloth Tension through the machine is controlled with the assistance of sensitive load cells and variable frequency drive with PLC and bit screen.

5.2 Change of diameter during open compacting:

Change of diameter during open compacting-

Serial number	Sample name	Dia of compacting	Dia of fabric before compacting	Dia of fabric after compacting	Change of diameter	Percentage of diameter (%)	Cool condition of dia
01	Single jersey fabric	96 inch	71 inch	70 inch	1 inch	1.41 %	69 inch
02	Single jersey Lycra	98 inch	68 inch	71 inch	3 inch	4.412%	70 inch
03	Pique fabric	92 inch	63 inch	65 inch	2 inch	3.175%	62 inch
04	Lacoste fabric	94 inch	67 inch	69 inch	2 inch	2.99%	66 inch
05	Heavy fabric	92 inch	72 inch	74 inch	2 inch	2.78%	72 inch
06	Terry fabric	90 inch	78 inch	81 inch	3 inch	3.85%	77 inch

Change of diameter during open compacting-



5.2.1 For Single jersey fabric:

Here the dia of open compacting 96 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 1 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 1.41 %. Then we are measured the cool condition fabric dia 69 inch.

5.2.2 For Single jersey Lycra fabric:

Here the dia of open compacting 98 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 3 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 4.41 %. Then we are measured the cool condition fabric dia 70 inch.

5.2.3 For Pique fabric:

Here the dia of open compacting 92 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 2 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 3.18 %. Then we are measured the cool condition fabric dia 62 inch.

5.2.4 For Lacoste fabric:

Here the dia of open compacting 94 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 2 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 2.99%. Then we are measured the cool condition fabric dia 66 inch.

5.2.5 For Heavy fabric:

Here the dia of open compacting 92 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 2 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 2.78%. Then we are measured the cool condition fabric dia 72 inch.

5.2.6 For terry fabric:

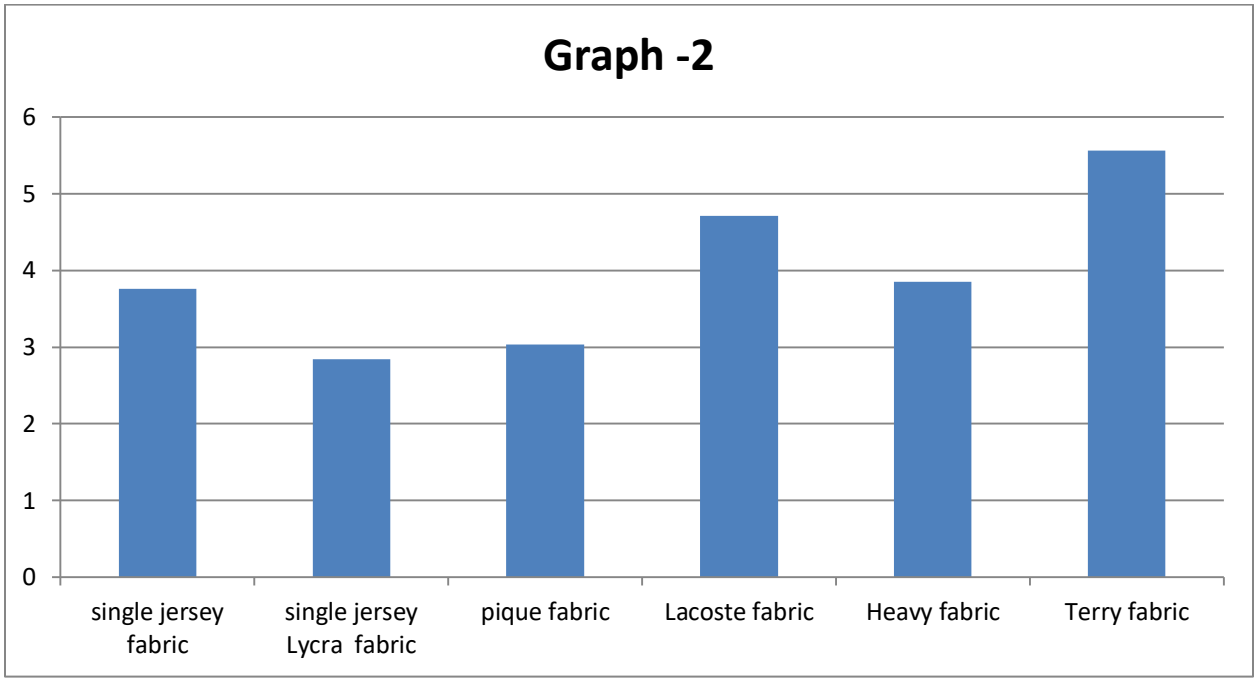
Here the dia of open compacting 90 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 3 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 3.85%. Then we are measured the cool condition fabric dia 77 inch.

5.3 Change of GSM during open compacting:

Change of GSM during open compacting-

Serial number	Sample name	GSM of fabric before compacting	GSM of fabric after compacting	Change of GSM	Percentage of GSM (%)	Cool condition of GSM
01	Single jersey fabric	133	138	5	3.76%	140
02	Single jersey Lycra	141	145	4	2.84%	155
03	Pique fabric	165	160	5	3.03%	167
04	Lacoste fabric	170	178	8	4.71%	180
05	Heavy fabric	260	250	10	3.85 %	255
06	Terry fabric	180	190	10	5.56 %	185

Change of GSM during open compacting-



5.3.1 For Single jersey fabric:

Here the GSM of open compacting and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 5. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.76%. Then we are measured the cool condition fabric GSM 140.

5.3.2 For Single jersey Lycra fabric:

Here the GSM of open compacting and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 4. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric

different so it is result of Percentage of GSM 2.84%. Then we are measured the cool condition fabric GSM 155.

5.3.3 For Pique fabric:

Here the GSM of open compacting and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 5. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.03%. Then we are measured the cool condition fabric GSM 167.

5.3.4 For Lacoste fabric:

Here the GSM of open compacting and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 8. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 4.71%. Then we are measured the cool condition fabric GSM 180.

5.3.5 For Heavy fabric:

Here the GSM of open compacting and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 10. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.85%. Then we are measured the cool condition fabric GSM 255.

5.3.6 For terry fabric:

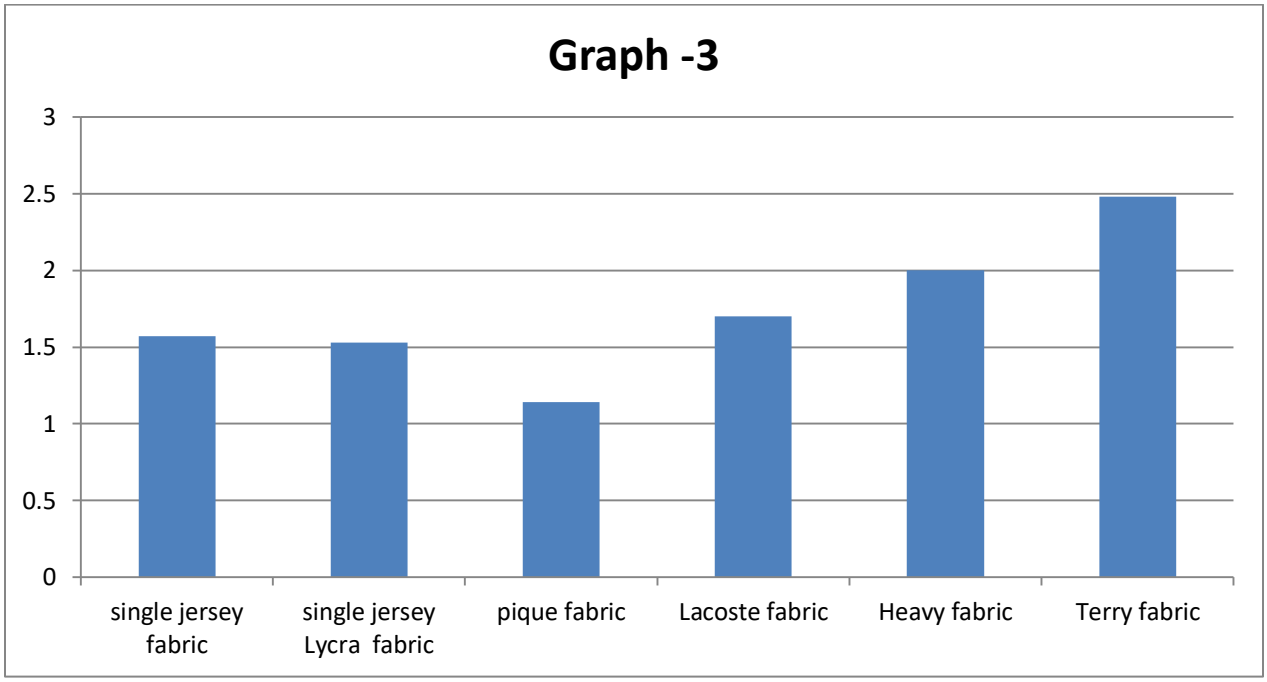
Here the GSM of open compacting and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 10. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.56%. Then we are measured the cool condition fabric GSM 185.

5.4 Change of stitch length during open compacting:

Change of stitch length during open compacting-

Serial number	Sample name	Stitch length of fabric before compacting	Stitch length of fabric after compacting	Change of Stitch length	Percentage of stitch length (%)	Cool condition of stitch length
01	Single jersey fabric	2.54 mm	2.58 mm	0.04 mm	1.57%	2.55 mm
02	Single jersey Lycra	2.61 mm	2.57mm	0.04 mm	1.53%	2.61 mm
03	Pique fabric	2.63 mm	2.66 mm	0.03 mm	1.14%	2.61 mm
04	Lacoste fabric	2.57 mm	2.60 mm	0.03 mm	1.7%	2.56 mm
05	Heavy fabric	2.50 mm	2.55 mm	0.05 mm	2.0%	2.47 mm
06	Terry fabric	2.42 mm	2.48 mm	0.06 mm	2.48%	2.40 mm

Change of stitch length during open compacting-



5.4.1 For Single jersey fabric:

Here the Stitch length of open compacting used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compacting. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.04 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.57%. Then we are measured the cool condition fabric Stitch length 2.55 mm.

5.4.2 For Single jersey Lycra fabric:

Here the Stitch length of open compacting used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compacting. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.04 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then

we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.53%. Then we are measured the cool condition fabric Stitch length 2.61 mm.

5.4.3 Pique fabric:

Here the Stitch length of open compacting used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compacting. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.03 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.14%. Then we are measured the cool condition fabric Stitch length 2.61 mm.

5.4.4 For Lacoste fabric:

Here the Stitch length of open compacting used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compacting. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.03 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.7%. Then we are measured the cool condition fabric Stitch length 2.56 mm.

5.4.5 For heavy fabric:

Here the Stitch length of open compacting used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compacting. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.05 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length

fabric different so it is result of Percentage of Stitch length 2%. Then we are measured the cool condition fabric Stitch length 2.47 mm.

5.4.6 For terry fabric:

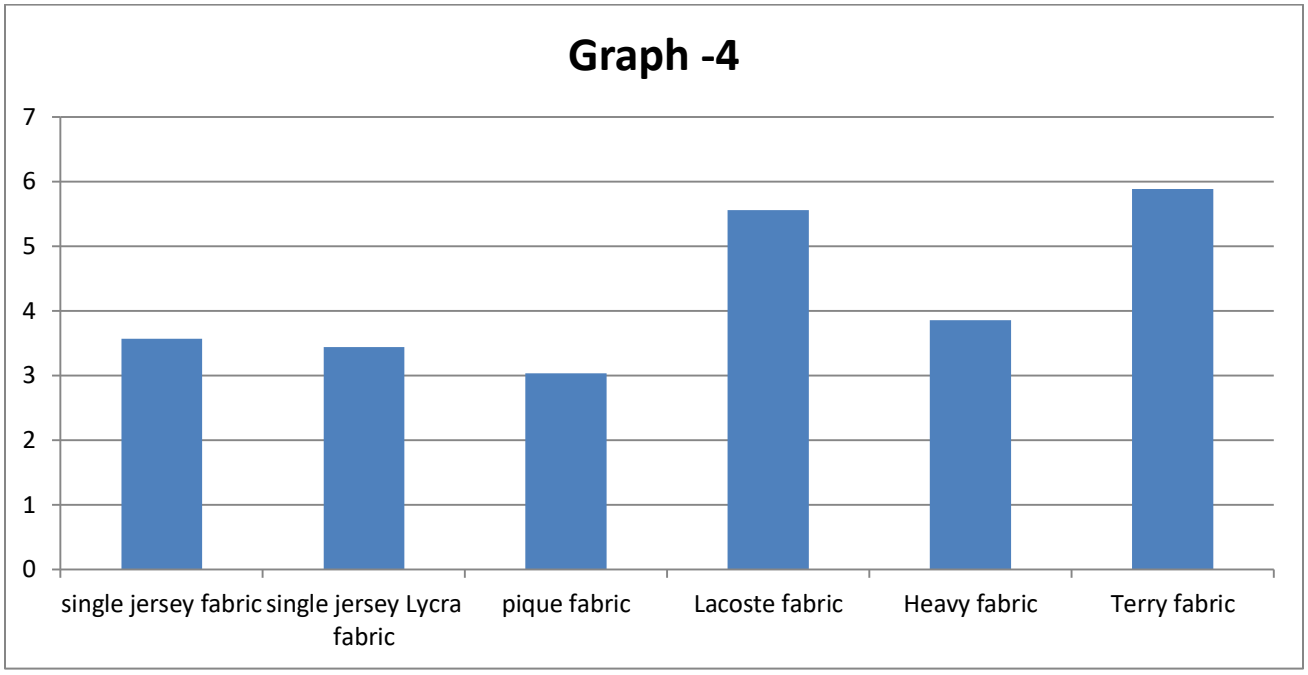
Here the Stitch length of open compacting used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compacting. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.06 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 2.48%. Then we are measured the cool condition fabric Stitch length 2.40mm.

5.5 Relation between over feed with GSM of open compacting:

Relation between over feed with GSM of open compacting-

Serial number	Sample name	Over feed	Before GSM	After GSM	Percentage of GSM
01	Single jersey fabric	20%	140	145	3.57%
02	Single jersey Lycra	22%	145	150	3.44%
03	Pique fabric	24%	165	160	3.03%
04	Lacoste fabric	26%	180	170	5.56%
05	Heavy fabric	30%	260	250	3.85%
06	Terry fabric	28%	170	180	5.88%

Relation between over feed with GSM of open compacting-



5.5.1 For Single jersey fabric:

Here the Single jersey fabrics Relation between over feed with GSM are used open compacting. At first we are measuring the over feed 20% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.57%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.5.2 For Single jersey Lycra fabric:

Here the Single jersey Lycra fabrics Relation between over feed with GSM are used open compacting. At first we are measuring the over feed 22% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.44%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.5.3 For pique fabric:

Here the pique fabrics Relation between over feed with GSM are used open compacting. At first we are measuring the over feed 24% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.03%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.5.4 For Lacoste fabric:

Here the Lacoste fabrics Relation between over feed with GSM are used open compacting. At first we are measuring the over feed 26% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.56%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.5.5 For heavy fabric:

Here the heavy fabrics Relation between over feed with GSM are used open compacting. At first we are measuring the over feed 30% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.85%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.5.6 For terry fabric:

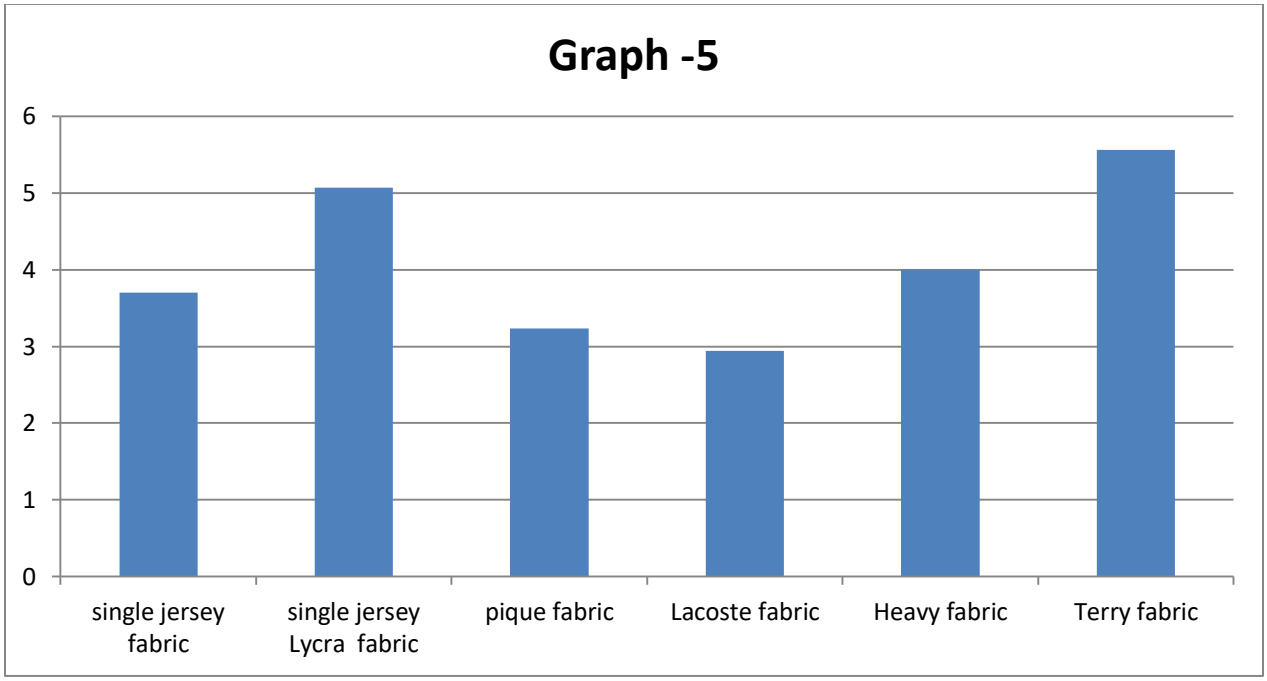
Here the Lacoste fabrics Relation between over feed with GSM are used open compacting. At first we are measuring the over feed 28% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.88%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.6 Relation between fabric widths with GSM of open compacting:

Relation between fabric widths with GSM of open compacting-

Serial number	Sample name	Width	Before GSM	After GSM	Percentage of GSM
01	Single jersey fabric	70 inch	135	140	3.7%
02	Single jersey Lycra	68 inch	138	145	5.07%
03	Pique fabric	64 inch	155	160	3.23%
04	Lacoste fabric	60 inch	170	175	2.94%
05	Heavy fabric	74 inch	240	250	4%
06	Terry fabric	76 inch	180	190	5.56%

Relation between fabric widths with GSM of open compacting-



5.6.1 For Single jersey fabric:

Here the Single jersey fabrics Relation between widths with GSM are used open compacting. At first we are measuring the widths 70 inch and the fabric GSM before compacting then we

measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.7%. If Increases width, decreases GSM and decreases width increases GSM.

5.6.2 For Single jersey Lycra fabric:

Here the Single jersey Lycra fabrics Relation between widths with GSM are used open compacting. At first we are measuring the widths 68 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.07%. If Increases width, decreases GSM and decreases width increases GSM.

5.6.3 For pique fabric:

Here the pique fabrics Relation between widths with GSM are used open compacting. At first we are measuring the widths 64 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.23%. If Increases width, decreases GSM and decreases width increases GSM.

5.6.4 For Lacoste fabric:

Here the Lacoste fabrics Relation between widths with GSM are used open compacting. At first we are measuring the widths 60 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided

by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 2.94%. If Increases width, decreases GSM and decreases width increases GSM.

5.6.5 For heavy fabric:

Here the heavy fabrics Relation between widths with GSM are used open compacting. At first we are measuring the widths 74 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 4%. If Increases width, decreases GSM and decreases width increases GSM.

5.6.6 For terry fabric:

Here the Single jersey Lycra fabrics Relation between widths with GSM are used open compacting. At first we are measuring the widths 76 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.56%. If Increases width, decreases GSM and decreases width increases GSM.

5.7 Relation between fabrics with temperature of open compacting:

Relation between fabrics with temperature of open compacting-

Serial number	Sample name	Temperature
01	Single jersey fabric	110°C
02	Single jersey Lycra	120°C
03	Pique fabric	112°C
04	Lacoste fabric	115°C
05	Heavy fabric	120°C
06	Terry fabric	120°C

5.7.1 For single jersey fabric:

Here the single jersey fabric relation the fabric with temperature. Temperature 110°C for is given the single jersey fabric.

5.7.2 For single jersey Lycra fabric:

Here the single jersey Lycra fabric relation the fabric with temperature. Temperature 120°C is given for the single jersey Lycra fabric.

5.7.3 For pique fabric:

Here the pique fabric relation the fabric with temperature. Temperature 112°C is given for the pique fabric.

5.7.4 For Lacoste fabric:

Here the Lacoste fabric relation the fabric with temperature. Temperature 115°C is given for the Lacoste fabric.

5.7.5 For heavy fabric:

Here the heavy fabric relation the fabric with temperature. Temperature 120°C is given for the heavy fabric.

5.7.6 For terry fabric:

Here the terry fabric relation the fabric with temperature. Temperature 120°C is given for the terry fabric.

5.8 Tubular compacting machine:

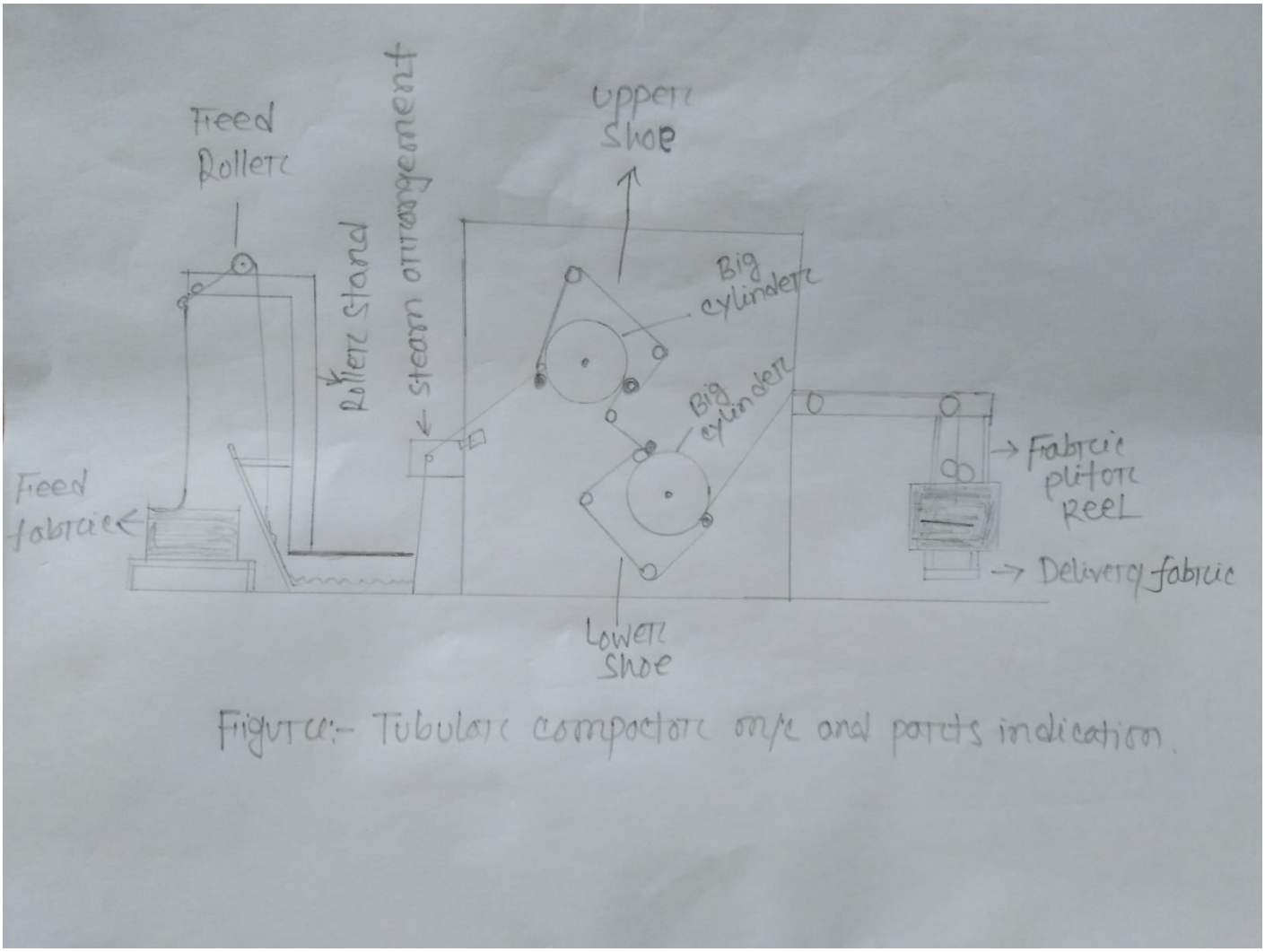


Figure: tubular compacting m/c and parts indicates

The treatment of knit materials in tubular type on the tubular compacting meets the exacting standards set by customers so garment sewn from the material finished on this machine can yield the bottom residual shrinkage values.

1. Breadth management through a step less adjustable special tubular material spreader driven by variable speed motor for distortion-free fabric steering.

2. Steaming with a condensate-free steam box that is definitely operated and utterly made up of stainless-steel.

3. Compacting through 2 Name felt belts.

4. Calendaring whereas passing between the felt belt and also the heated shrinking rollers.

5. Exactitude plaiting with automatic platform level adjustment controlled by rolled-up material height. Or else, a material rolling system will be provided.

The fabric is fed through the guiding system and stretcher that then takes the material through the steam box onto the felt of the dual compacting units.

At the material delivery, the machine is supplied with a exactitude plaiting device with its platform. The peak of the platform is controlled mechanically and is adjustable in step with the plaited material height.

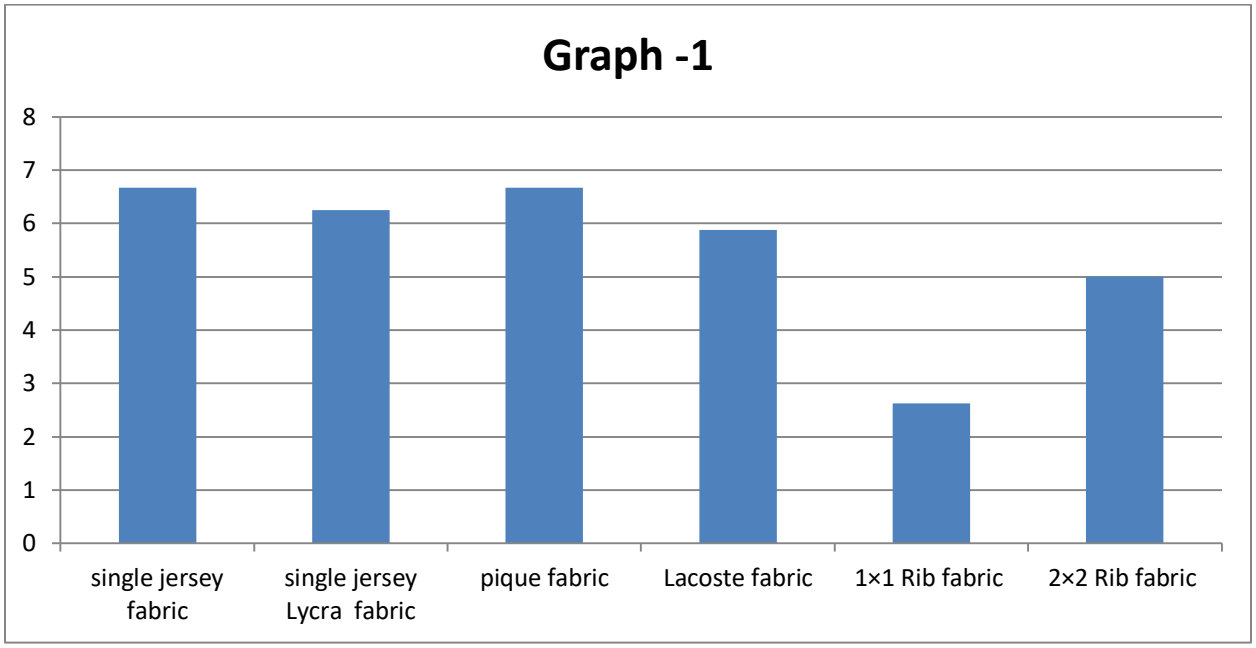
An optical material density activity detector will give the means that to mechanically management the compaction of a tubular compactor to realize the specified course count.

5.9 Change of diameter during tubular compacting:

Change of diameter during tubular compacting-

Serial number	Sample name	Dia of compacting	Dia of fabric before compacting	Dia of fabric after compacting	Change of diameter	Percentage of diameter (%)	Cool condition of dia
01	Single jersey fabric	58 inch	30 inch	32 inch	2 inch	6.67%	30 inch
02	Single jersey Lycra	61 inch	32 inch	34 inch	2 inch	6.25%	34 inch
03	Pique fabric	56 inch	30 inch	32 inch	2 inch	6.67%	30 inch
04	Lacoste fabric	54 inch	34 inch	36 inch	2 inch	5.88%	34 inch
05	1×1 Rib fabric	58 inch	38 inch	39 inch	1 inch	2.63 %	39 inch
06	2×2 Rib fabric	56 inch	40 inch	42 inch	2 inch	5%	40 inch

Change of diameter during tubular compacting-



5.9.1 For Single jersey fabric:

Here the dia of compacting 58 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 2 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 6.67 %. Then we are measured the cool condition fabric dia 30 inch.

5.9.2 For Single jersey Lycra fabric:

Here the dia of compacting 61 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 2 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 6.25 %. Then we are measured the cool condition fabric dia 34 inch.

5.9.3 For Pique fabric:

Here the dia of compacting 56 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 2 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 6.67 %. Then we are measured the cool condition fabric dia 30 inch.

5.9.4 For Lacoste fabric:

Here the dia of compacting 54 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 2 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 5.88 %. Then we are measured the cool condition fabric dia 34 inch.

5.9.5 For 1×1 Rib fabric:

Here the dia of compacting 58 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 3 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 7.90%. Then we are measured the cool condition fabric dia 38 inch.

5.9.6 For 2×2 Rib fabric:

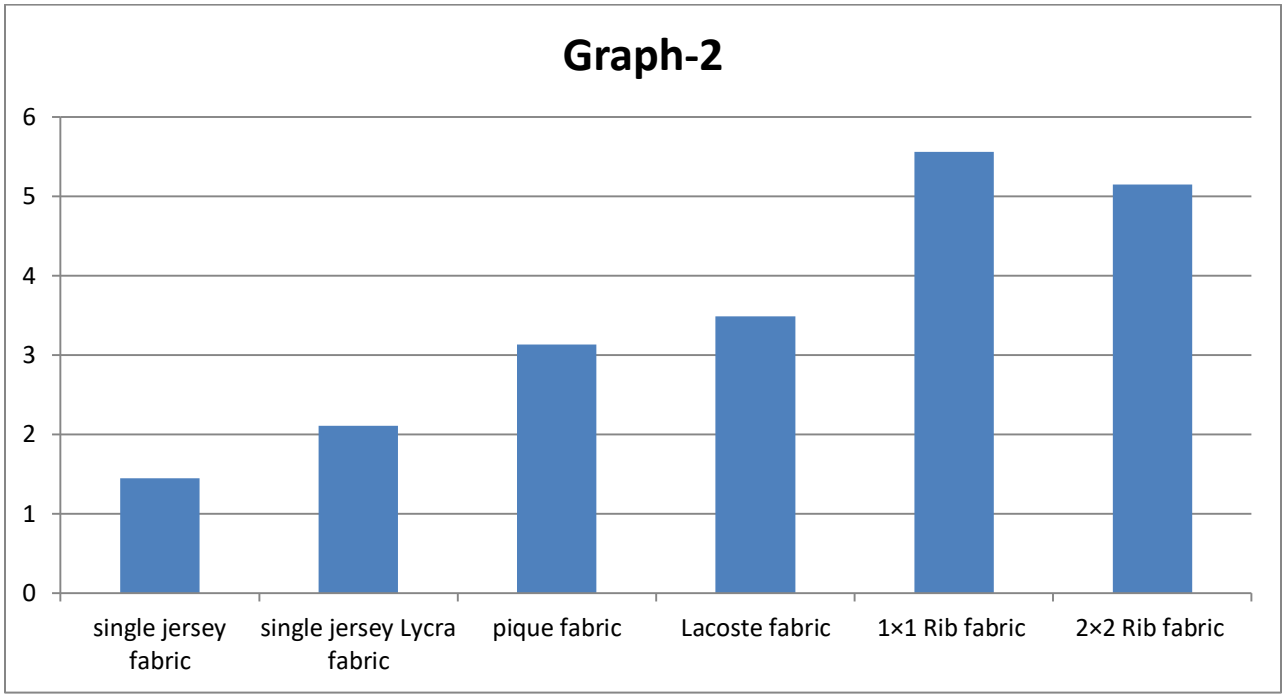
Here the dia of compacting 56 inch and used the Single jersey fabric. At first we are measuring the fabric dia before compacting then we measure fabric dia after compacting. Then we minus before fabric dia from after fabric dia then we got change of diameter 2 inch. And also we minus before fabric dia to after fabric dia and divided by before fabric dia and measure by percentage then we got percentage of diameter. Here before dia fabric and after dia fabric different so it is result of Percentage of diameter 5%. Then we are measured the cool condition fabric dia 40 inch.

5.10 Change of GSM during tube compacting:

Change of GSM during tube compacting-

Serial number	Sample name	GSM of fabric before compactor	GSM of fabric after compactor	Change of GSM	Percentage of GSM (%)	Cool condition of GSM
01	Single jersey fabric	138	140	2	1.45%	142
02	Single jersey Lycra	142	145	3	2.11%	155
03	Pique fabric	160	165	5	3.13%	167
04	Lacoste fabric	172	178	6	3.49%	180
05	1×1 Rib fabric	180	190	10	5.56 %	195
06	2×2 Rib fabric	195	205	10	5.15 %	210

Change of GSM during tube compacting-



5.10.1 For Single jersey fabric:

Here the GSM of tube compactor and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compactor. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 2. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 1.45%. Then we are measured the cool condition fabric GSM 142. Accepted fabric of GSM +5% or -5% and Lycra fabric 8%.

5.10.2 For Single jersey Lycra fabric:

Here the GSM of tube compactor and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compactor. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 3. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric

different so it is result of Percentage of GSM 2.11%. Then we are measured the cool condition fabric GSM 155. Accepted fabric of GSM +5% or -5% and Lycra fabric -8%.

5.10.3 For Pique fabric:

Here the GSM of tube compactor and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compactor. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 5. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.13%. Then we are measured the cool condition fabric GSM 167. Accepted fabric of GSM +5% or -5% and Lycra fabric -8%.

5.10.4 For Lacoste fabric:

Here the GSM of tube compactor and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compactor. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 6. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.49%. Then we are measured the cool condition fabric GSM 180. Accepted fabric of GSM +5% or -5% and Lycra fabric -8%.

5.10.5 For 1×1 Rib fabric:

Here the GSM of compactor and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compactor. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 10. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.86%. Then we are measured the cool condition fabric GSM 195. Accepted fabric of GSM +5% or -5% and Lycra fabric -8%.

5.10.6 For 2×2 Rib fabric:

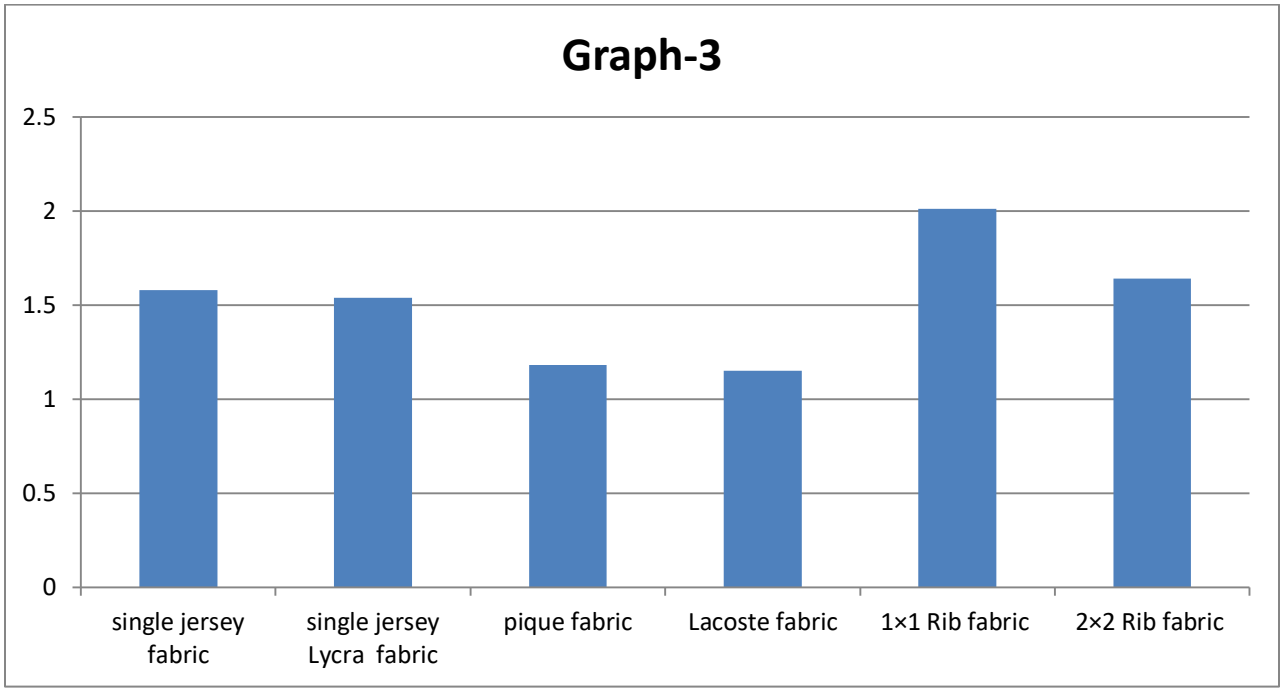
Here the GSM of compactor and used the Single jersey fabric. At first we are measuring the fabric GSM before compacting then we measure fabric GSM after compactor. Then we minus before fabric GSM from after fabric GSM then we got change of GSM 10. And also we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.15%. Then we are measured the cool condition fabric GSM 210. Accepted fabric of GSM +5% or -5% and Lycra fabric -8%.

5.11 Change of stitch length during tube compacting:

Change of stitch length during tube compacting-

Serial number	Sample name	Stitch length of fabric before compactor	Stitch length of fabric after compactor	Change of Stitch length	Percentage of stitch length (%)	Cool condition of stitch length
01	Single jersey fabric	2.52 mm	2.56 mm	0.04	1.58%	2.60 mm
02	Single jersey Lycra	2.60 mm	2.64 mm	0.04	1.54%	2.65 mm
03	Pique fabric	2.55 mm	2.58 mm	0.03	1.18%	2.61 mm
04	Lacoste fabric	2.60 mm	2.63 mm	0.03	1.15%	2.64 mm
05	1×1 Rib fabric	2.48 mm	2.53 mm	0.05	2.01%	2.55 mm
06	2×2 Rib fabric	2.44 mm	2.48 mm	0.04	1.64%	2.47 mm

Change of stitch length during tube compacting-



5.11.1 For Single jersey fabric:

Here the Stitch length of compactor used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compactor. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.04 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.58%. Then we are measured the cool condition fabric Stitch length 2.60 mm.

5.11.2 For Single jersey Lycra fabric:

Here the Stitch length of compactor used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compactor. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.04 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then

we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.54%. Then we are measured the cool condition fabric Stitch length 2.65 mm.

5.11.3 Pique fabric:

Here the Stitch length of compactor used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compactor. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.03 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.18%. Then we are measured the cool condition fabric Stitch length 2.61 mm.

5.11.4 For Lacoste fabric:

Here the Stitch length of compactor used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compactor. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.03 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.15%. Then we are measured the cool condition fabric Stitch length 2.64 mm.

5.11.5 For 1×1 Rib fabric:

Here the Stitch length of compactor used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compactor. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.05 mm. And also we minus before fabric Stitch length to after

fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 2.01%. Then we are measured the cool condition fabric Stitch length 2.55 mm.

5.11.6 For 2×2 Rib fabric:

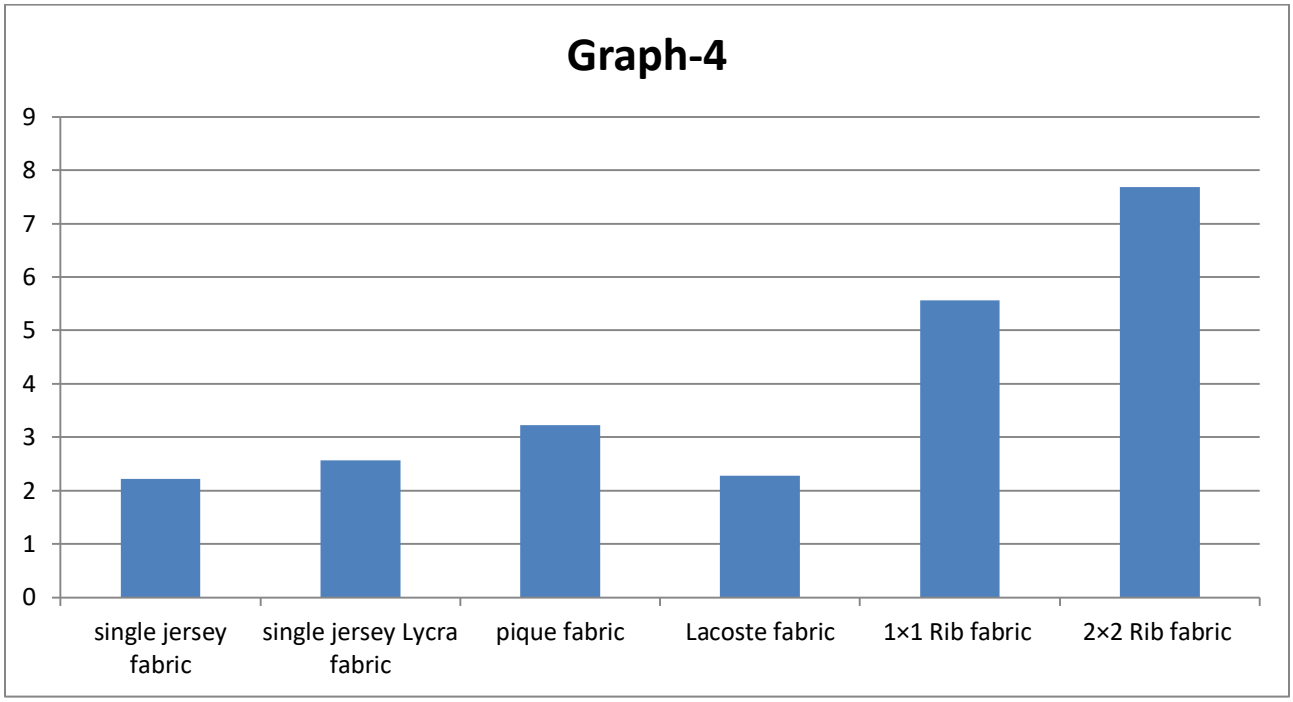
Here the Stitch length of compactor used of the Single jersey fabric. At first we are measuring the fabric Stitch length before compacting then we measure fabric Stitch length after compactor. Then we minus before fabric Stitch length from after fabric Stitch length then we got change of Stitch length 0.04 mm. And also we minus before fabric Stitch length to after fabric Stitch length and divided by before fabric Stitch length and measure by percentage then we got percentage of Stitch length. Here before Stitch length fabric and after Stitch length fabric different so it is result of Percentage of Stitch length 1.64%. Then we are measured the cool condition fabric Stitch length 2.47 mm.

5.12 Relation between over feed with GSM of tubular compacting:

Relation between over feed with GSM of tubular compacting-

Serial number	Sample name	Over feed	After GSM	Before GSM	Percentage of GSM
01	Single jersey fabric	48%	135	138	2.22%
02	Single jersey Lycra	50%	140	145	2.57%
03	Pique fabric	56%	155	160	3.22%
04	Lacoste fabric	54%	175	179	2.28%
05	1×1 Rib fabric	56%	180	190	5.56%
06	2×2 Rib fabric	58%	195	210	7.69%

Relation between over feed with GSM of tubular compacting-



5.12.1 For Single jersey fabric:

Here the Single jersey fabrics Relation between over feed with GSM are used tubular compacting. At first we are measuring the over feed 48% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 2.22%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.12.2 For Single jersey Lycra fabric:

Here the Single jersey Lycra fabrics Relation between over feed with GSM are used tubular compacting. At first we are measuring the over feed 50% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got

percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 2.57%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.12.3 For pique fabric:

Here the pique fabrics Relation between over feed with GSM are used tubular compacting. At first we are measuring the over feed 56% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.22%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.12.4 For Lacoste fabric:

Here the Lacoste fabrics Relation between over feed with GSM are used tubular compacting. At first we are measuring the over feed 54% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 2.28%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.12.5 For 1×1 Rib fabric:

Here the 1×1 Rib fabrics Relation between over feed with GSM are used tubular compacting. At first we are measuring the over feed 56% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.56%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.12.6 For 2×2 Rib fabric:

Here the 2×2 Rib fabrics Relation between over feed with GSM are used tubular compacting. At first we are measuring the over feed 58% and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM

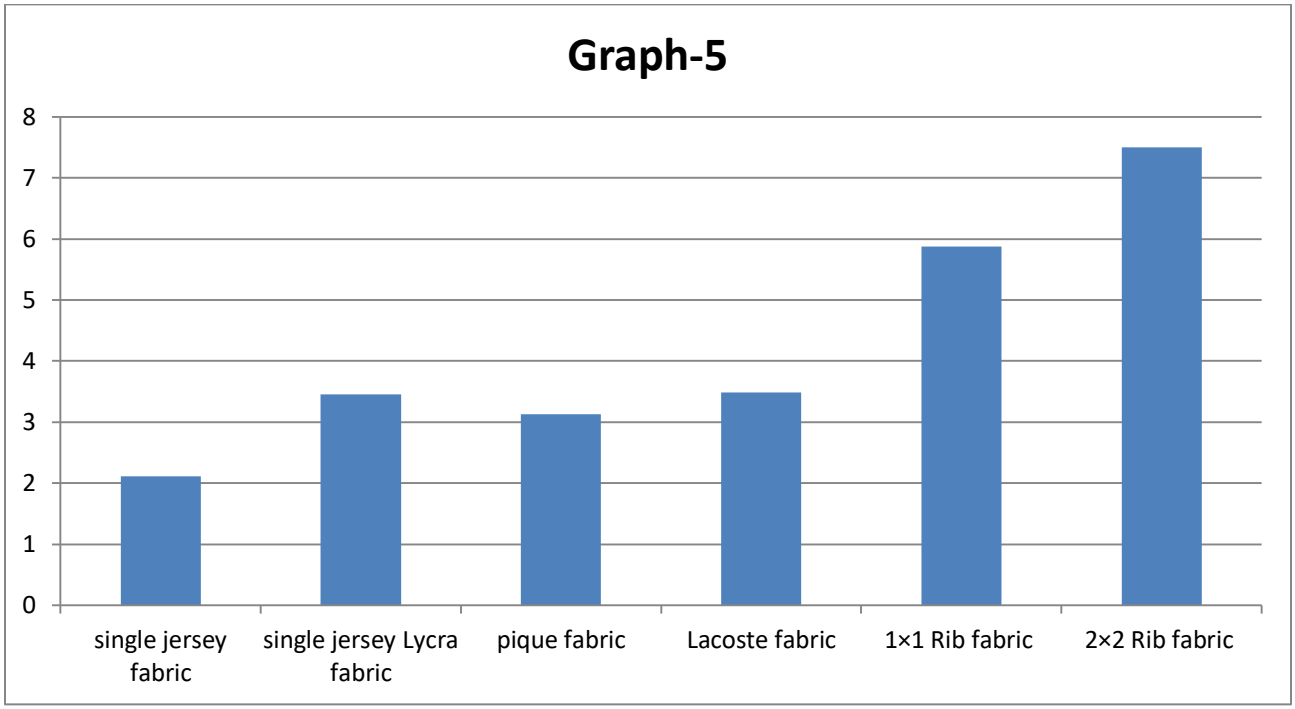
and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 7.69%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.13 Relation between fabric widths with GSM of tubular compacting:

Relation between fabric widths with GSM of tubular compacting-

Serial number	Sample name	Width	Before GSM	After GSM	Percentage of GSM
01	Single jersey fabric	30 inch	142	145	2.11%
02	Single jersey Lycra	32 inch	145	150	3.45%
03	Pique fabric	34 inch	160	165	3.13%
04	Lacoste fabric	36 inch	172	178	3.49%
05	1×1 Rib fabric	40 inch	170	180	5.88%
06	2×2 Rib fabric	40 inch	200	215	7.5%

Relation between fabric widths with GSM of tubular compacting-



5.13.1 For Single jersey fabric:

Here the Single jersey fabrics Relation between widths with GSM are used tubular compacting. At first we are measuring the widths 30 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 2.11%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.13.2 For Single jersey Lycra fabric:

Here the Single jersey Lycra fabrics Relation between widths with GSM are used tubular compacting. At first we are measuring the widths 32 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.45%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.13.3 For pique fabric:

Here the pique fabrics Relation between widths with GSM are used tubular compacting. At first we are measuring the widths 34 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.13%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.13.4 For Lacoste fabric:

Here the Lacoste fabrics Relation between widths with GSM are used tubular compacting. At first we are measuring the widths 36 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 3.49%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.13.5 For 1×1 Rib fabric:

Here the 1×1 Rib fabric Relation between widths with GSM is used tubular compacting. At first we are measuring the widths 40 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 5.88%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.13.6 For 2×2 Rib fabric:

Here the 2×2 Rib fabric Relation between widths with GSM is used tubular compacting. At first we are measuring the widths 40 inch and the fabric GSM before compacting then we measure fabric GSM after compacting. Then we minus before fabric GSM to after fabric GSM and divided by before fabric GSM and measure by percentage then we got percentage of GSM. Here before GSM fabric and after GSM fabric different so it is result of Percentage of GSM 7.5%. If Increases over feed, increases GSM and decreases over feed, decreases GSM.

5.14 Relation between fabrics with temperature of tubular compacting:

Relation between fabrics with temperature of tubular compacting-

Serial number	Sample name	Temperature
01	Single jersey fabric	110°C
02	Single jersey Lycra	120°C
03	Pique fabric	112°C
04	Lacoste fabric	115°C
05	1×1 Rib fabric	120°C
06	2×2 Rib fabric	120°C

5.14.1 For single jersey fabric:

Here the single jersey fabric relation the fabric with temperature. Temperature 110°C for is given the single jersey fabric.

5.14.2 For single jersey Lycra fabric:

Here the single jersey Lycra fabric relation the fabric with temperature. Temperature 120°C is given for the single jersey Lycra fabric.

5.14.3 For pique fabric:

Here the pique fabric relation the fabric with temperature. Temperature 112°C is given for the pique fabric.

5.14.4 For Lacoste fabric:

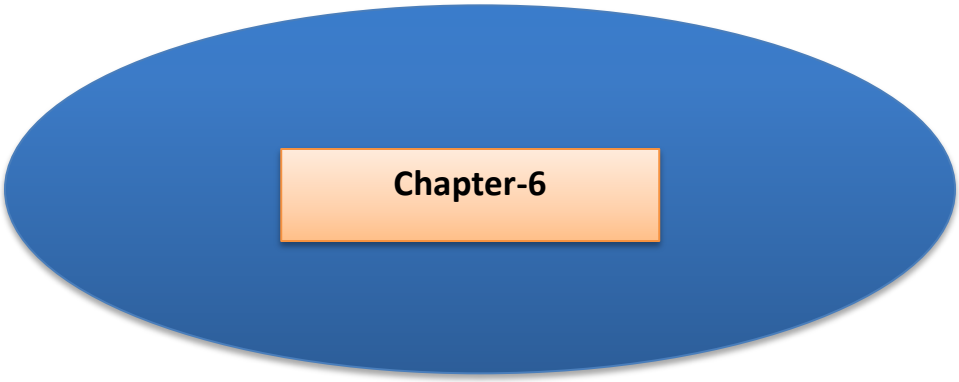
Here the Lacoste fabric relation the fabric with temperature. Temperature 115°C is given for the Lacoste fabric.

5.14.5 1×1 Rib fabric:

Here the heavy fabric relation the fabric with temperature. Temperature 120°C is given for the heavy fabric.

5.14.6 2×2Rib fabric:

Here the terry fabric relation the fabric with temperature. Temperature 120°C is given for the terry fabric.

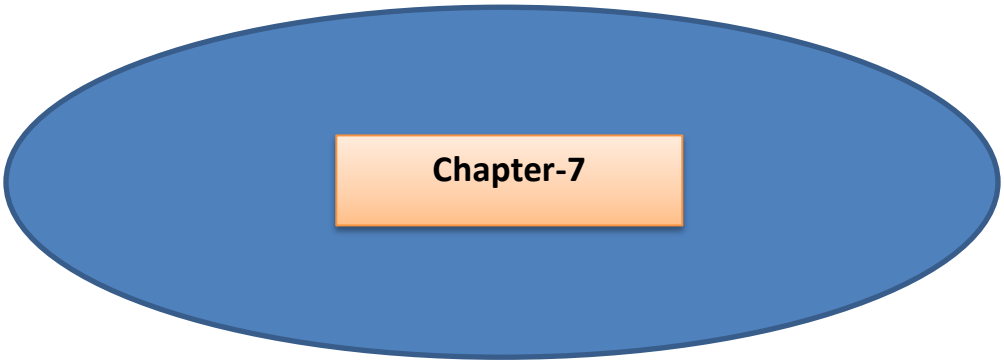


Conclusion

Conclusion:

Compactor machine is very important in knit fabric finishing process. We have used much different fabric as like Single Jersey, single jersey Lycra, rib, Interlock and Lacoste fabrics etc. There are a lot of technical works that are done by compactor machine such as GSM control and shrinkage control of the knitted fabric. For high GSM, overfeed is increased and fabric width is decreased. The variation results are improved the times difference, and operator careless and also machine maintains.

At the end we can say that the curiosity, the questions that were arises in our mind are been solved after doing this project. So we can say that our project is successful and thanks to all persons who help us to complete this project.



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