

SUBJECT NAME: PRINCIPLES OF PATTERN MAKING
SUBJECT CODE: FAFT22
UNIT – 4

LESSON – 9: PATTERN ALTERNATION

CONTENTS

Aims and Objectives
Importance of pattern alteration
General principles for pattern alteration
Common pattern alteration in a blouse
Let us sum up
Lesson end activities
Points for discussion
References

AIMS AND OBJECTIVES

- In this unit we have discussed the importance, principles and common pattern alteration in a blouse.
- After reading this unit you should be able to
- Identify the techniques for pattern alteration.

IMPORTANCE OF PATTERN ALTERATION

Importance of altering patterns: if a garment is cut after the pattern is altered to fit your figure, there is no danger of wasting expensive fabric and spoiling the garment. Fitting the garments also will be much easier because there will not be major alterations to be made at this stage. Moreover some alterations cannot be satisfactorily made after the garment is cut. Hence it is essential that you perfect your pattern by making the necessary alterations before using it for cutting out the actual garment.

GENERAL PRINCIPLES FOR PATTERN ALTERATION

(1) As far as possible make changes within the pattern by slashing and spreading or slashing and lapping. Patterns can also be altered by redrawing the edges of the pattern. (This is the method adopted for altering garments at the time of fitting.) But the first method is by far the best in altering paper patterns.

(2) To preserve the original grain line, make all slashes and folds parallel or perpendicular to the grain line (to centre front line, centre back line etc.

(3) Where there are darts, make changes between the tip of the dart and the outside edge.

(4) If an alteration in length is made along one edge of the pattern, take care to make an identical alteration in the adjoining edge. For example, if back shoulder seam is shortened the front shoulder seam should also be shortened.

(5) When tucks or darts are used for making a pattern smaller, remember that the width of these should be just half the amount to be removed.

(6) When decreasing or increasing the width of pattern pieces, if only half the pattern (half back or half front) is used, subtract or add only one fourth of the total adjustment to be made. For example, if waist measurement has to be increased by one inch, add $\frac{1}{4}$ " to the half back pattern and the same amount to the front pattern. If only a front or back section needs adjustment, add or minus half the amount of the adjustment to the respective section.

(7) When the pattern alteration involves slashing and spreading, it is necessary to keep a sheet of paper beneath and to pin or stick to it the spread-out parts so that they will thereafter remain in position. On spreading or lapping after slashing, some edges of the pattern become jagged. These must be trimmed after drawing the new seam lines.

COMMON PATTERN ALTERATION IN A BLOUSE (FIG.9.1)

You must analyse your fitting problems to decide which of the following alterations are needed in your blouse. All the principles of pattern alteration should be borne in mind while doing the alterations.

Shortening the blouse (Fig.9.1a): To shorten, make a tuck half as wide as the amount to be reduced, and pin. The tuck should be made about $2\frac{1}{2}$ " above the waist line at right angles to centre front or centre back line. Redraw new straight side seam line, as shown in the figure.

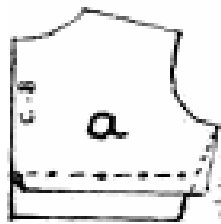


Fig.9.1a

Lengthening the blouse (Fig.9.1b): To lengthen, slash the pattern $2\frac{1}{2}$ inches above the waist line at right angles to centre front. Now spread the pattern the necessary amount and pin or stick each edge to a strip of paper kept underneath. Redraw side seam line.

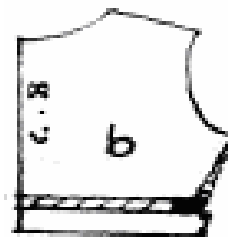


Fig.9.1b

Lengthening the shoulder seam: Alteration for broad shoulders (Fig.9.1c): Slash down from midpoint of shoulder seam to a level below the armhole and then slash across at right angles to the first slash almost to the side seam. Now spread the slashed edges apart, the

correct amount and stick or pin a paper underneath to maintain this position. Draw a new seam line from neck line to armhole.

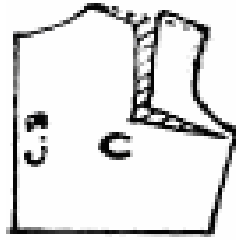


Fig.9.1c

Shortening the shoulder seam: Alteration for narrow shoulders (Fig.9.1d): Slash pattern as above and overlap the edges of the slash, the necessary amount and pin. Draw new shoulder seam line straight from neckline to armhole.

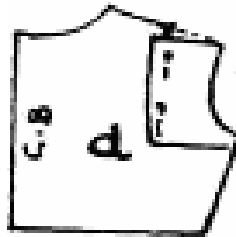


Fig.9.1d

Decreasing shoulder slope: Alteration for square shoulders (Fig.9.1e): Slash from the shoulder downwards (as above) then across through the side seam. Place paper below the slash and raise the entire armhole section the desired amount. Pin or stick the pattern to the paper. Draw new shoulder seam line as shown.

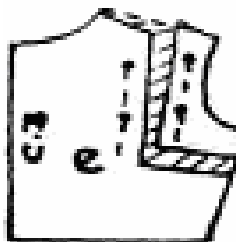


Fig.9.1e

Increasing the shoulder slope: Alteration for sloping shoulders (Fig.9.1f): Slash the pattern as you did for decreasing the shoulder slope. Lower the entire armhole section, overlapping along the crosswise slash and pin. Draw new shoulder seam line as shown.

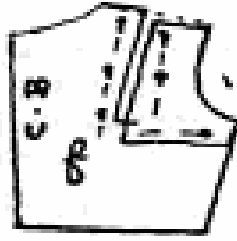


Fig.9.1f

Increasing back length: Alteration for round shoulders (Fig.9.1g): Slash the back pattern about 4" below neckline, from centre back to armhole, seam line. Spread the slash apart the necessary amount, insert paper underneath and pin in position. Redraw centre back line straight, and neckline and shoulder seam to original size as shown by dotted lines.



Fig.9.1g

Decreasing back length: Alteration for hollow back (Fig.9.1h): Slash the back pattern as above and overlap edges of slash the necessary amount tapering to the armhole line. Redraw the centre back line and other seam lines which got altered while overlapping the edges.

Shortening centre front length: Alteration for hollow chest: Slash the front pattern across from centre front to armhole about 4" below the neckline and lap the slashed edges as for decreasing back length (Refer Fig.9.1h).

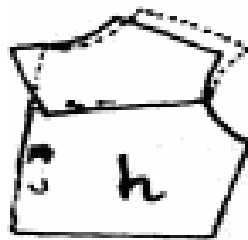


Fig.9.1h

Increasing length and width of front pattern: Alteration for large bust (Fig.9.1i): Make length wise and crosswise slashes cutting through the centre of dart. Spread the pattern the necessary amount in each direction (vertical and horizontal) and pin it to paper. Mark new dart point half way between the tips of the separated dart lines and redraw wider darts.

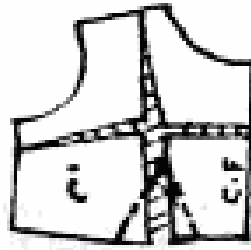


Fig.9.1i

Decreasing neck line measurement: Alteration for neck line that sags in front (Fig.9.1j): Pin small even sized darts at regular intervals on the neck edge of the pattern.



Fig.9.1j

Increasing waist measurement: Add to each side seam edge at the waist line one fourth the total amount of increase desired, and draw new side seam lines.

Decreasing waist measurement: Remove one fourth the amount of decrease desired from each seam edge at the waist line, and draw new side seam lines.

Lengthening sleeve cap (Fig.9.1k): Slash the pattern crosswise as shown and spread the pattern the necessary amount.

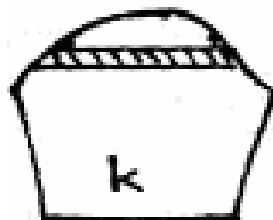


Fig.9.1k

Increasing width of sleeve cap: Alteration for large upper arm (Fig.9.1L): Slash the sleeve pattern vertically down from centre of sleeve cap to lower edge. Make a crosswise slash at fullest part of sleeve cap from seam line to seam line. Spread apart each side of the pattern, the necessary amount. This will cause the edges of the slash across the Sleeve cap to overlap. Insert paper under slash extending beyond the sleeve cap line and pin or stick in position. Redraw sleeve cap line to adjust for the amount decreased due to the overlapping.

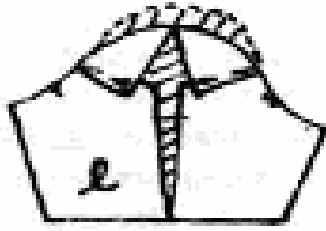


Fig.9.1L

Increasing or decreasing length of sleeves: To shorten or lengthen short sleeves, alteration can be made at the lower edge.

LET US SUM UP

In this unit, we

- Learnt the techniques of pattern alternation.

LESSON END ACTIVITIES

- The distance students can have a practical experience by carrying out trails in making pattern alternation.

POINTS FOR DISCUSSION

- Analyze the techniques of pattern alternation.

REFERENCES

- Practical clothing construction, Part I and II, Mary Mathews, Cosmic Press, Chennai (1986).

LESSON – 10: PATTERN GRADING - MANUAL

CONTENTS

Aim and Objective
Pattern grading
Definition
Types
Manual grading
Manual grading the back bodice
Manual grading the front bodice
Manual grading of basic sleeve
Manual grading of basic collar
Let us sum up
Lesson end activities
Points for discussion
References

AIMS AND OBJECTIVES

- In this unit we have discussed the importance, principles and common pattern alternation in a blouse. This unit includes pattern grading and its types.
- After reading this unit you should be able to
- Identify the techniques for pattern alternation.
 - Grade patterns either manually or master grades for basic front, back, sleeve and collar.

PATTERN GRADING

It is very much helpful in the garment industry starting from a pattern drafted from a particular size you can make patterns of other sizes by grading.

DEFINITION

Grading is a method of enlarging or reducing a pattern of a particular size proportionately to some other size.

TYPES

Manual grades
Master grades

MANUAL GRADING

MANUAL GRADING THE BACK BODICE: (FIG.10.1A)

Take the 32" size back bodice pattern (without seam allowance) and trace its outline on a larger sheet of paper.

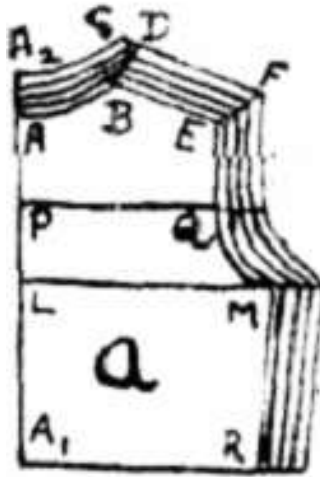


Fig.10.1a

Extend the centre back line A_1A by one inch and mark four points at $1/4$ intervals. (These represent bust sizes 32" to 40" at 2" intervals), Label the last point as A_2 .

Mark C one inch vertically above B . Mark $CD = 1/2"$ and connect DB . Divide DB into 4 equal parts, then connect these points to the points marked above centre back line as shown.

Now draw DF parallel to the shoulder line BE , with $DF = BE + 1"$. This will be the shoulder line for 40" size.

Connect F to the original shoulder point E . Mark three points which divide EF into four equal parts, and join them to the corresponding points on BD by lines which will be parallel to DF .

Next, draw the horizontal line LM from the underarm point and mark P as the midpoint of AL .

Draw PQ as shown. Extend this line one inch outward and mark 4 points $1/4"$ apart.

Now extend bust line LM and waist line A_1R and mark points $1/2"$ apart. Connect all the points marked as shown in the figure

GRADING THE FRONT BODICE: (FIG.10.1B)

When grading front bodice, the bust line is extended to both sides (beyond centre front and beyond side seam) $3/8"$ is added beyond centre front and $1/8"$ beyond side seam for each size increase. There is no grading around the armhole. The shoulder lengthens $1/8"$ and rises $1/4"$ for each size increase. The neck grade rises $1/8"$ and extend $3/8"$ outward on the centre front.

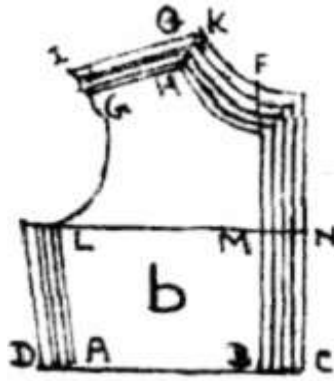


Fig.10.1b

Take the 32" size front bodice pattern and trace its outline on a larger sheet of paper.

Extend waist line AB beyond B and mark four points $\frac{3}{8}$ " apart. Label the last point as C.

Similarly extend bust line LM to LN and mark points $\frac{3}{8}$ " apart on MN.

Connect CN and corresponding points and extend these four lines upwards as shown. These are the centre front lines of the various sizes.

Extend line BA beyond A and mark four points $\frac{1}{8}$ " apart. Label the last point as D.

Similarly extend line ML and mark four points $\frac{1}{8}$ " apart.

Connect all the corresponding points to form the side seam lines of the various sizes.

On the shoulder line, rule vertical lines upwards from G and H and mark off four points at $\frac{1}{2}$ " intervals along each of these lines.

Label the highest points as P and Q respectively. Connect PQ and extend it on to either side by and mark points I and K.

IK is the shoulder line of size 40. Connect GI and HK as shown. This gives the angle for shoulder increase.

Rule the shoulder lines for the in between sizes by connecting the points marked earlier, and extending them on to either side as shown

Extend centre front line upwards and mark off four points $\frac{1}{8}$ " apart.

Label the highest point as F and connect KF as shown.

Connect corresponding points to form the neck lines and extend the lines to meet the centre front lines.

GRADING OF BASIC SLEEVE

Take the sleeve pattern of bust size 32" and trace its outline on a sheet of paper.

Extend line AB one inch beyond B to B₁, and one inch beyond A to A₁.

Between A₁ and B₁ mark points at $\frac{1}{4}$ inch intervals. Extend the centre line one inch beyond C to C₁.

On CC₁, mark points $\frac{1}{2}$ inch apart.

Extend line EF one inch beyond F to F₁ and one inch beyond E to E₁.

Between E₁ and F₁ also mark points $\frac{1}{4}$ inch apart.

Now connect the respective points as shown in Fig.10.1c.

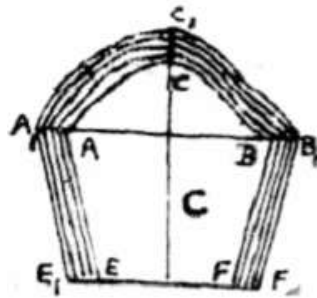


Fig.10.1c

The outermost pattern is that of 40 inch size, next one 38 size, next 36" size and so on.

GRADING OF BASIC COLLAR

Take the collar pattern of bust size 32 inch and trace its outline on a sheet of paper.

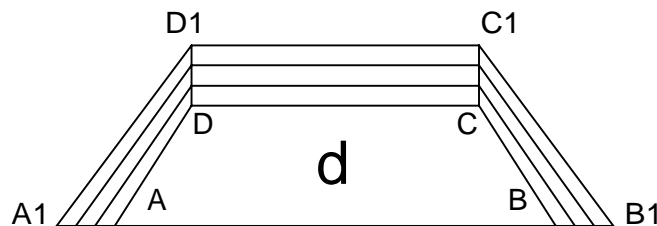


Fig.10.1d

Extend the line A to A1, B to B1, C to C1 and D to D1 in Fig.10.1d.

Between A A1, B B1, C C1 and D D1 mark points at $\frac{1}{4}$ inch intervals.

Connect the respective points as shown in Fig.10.1d.

The outermost pattern is that of 40 inch size, next one 38 size, next 36 size and so on.

LET US SUM UP

In this unit, we

- Discussed the types of grading, manual grades for basic front, back, sleeve and collar.

LESSON END ACTIVITIES

- The distance students can have a practical experience by carrying out trails in making pattern grading.

POINTS FOR DISCUSSION

- Evaluate the manual grading techniques by grading a particular garment style for different sizes.

REFERENCES

- Practical clothing construction, Part I and II, Mary Mathews, Cosmic Press, Chennai (1986).

LESSON – 11: MASTER PATTERN GRADING

CONTENTS

Aim and Objective
 Master Pattern grading - Introduction
 Master grades
 The basic whole back
 The basic front
 The basic sleeve
 The basic collar
 Let us sum up
 Lesson end activities
 Points for discussion
 References

AIMS AND OBJECTIVES

- In this unit we have discussed master pattern grading for basic back, basic front, basic sleeve and collar.

After reading this unit you should be able to

- Master grades for basic front, back, sleeve and collar.

MASTER PATTERN GRADING - INTRODUCTION

The girth and length grading increments for the body have been determined according to the data provided by the survey. The resultant increments and their applications now provide the foundations for deriving the grades of other basic components.

MASTER GRADES

The following examples demonstrate the applications of the system to standard types of block patterns. These are the basic patterns from which most outerwear garment patterns are developed and each example provides:

- 1) Where necessary, an illustrated introduction to the principles involved in grading the demonstration pattern.
- 2) The increments used, and their locations.
- 3) The net of grading increments required for one size up and one size down from the base size.
- 4) Instructions regarding the common and other axes required in relation to the grading position of the pattern.
- 5) Grading instructions accompanied by illustrations showing each successive stage. The line sectors to mark after each move denoted by a thickened line.

- 6) An example of the finished grade is shown together with the vectors used for checking accuracy.
- 7) The first five groups of examples show the applications the dynamic neck to waist grading method and in group six, the static method is demonstrated.

The first examples demonstrate the basic body and derived grades, and these grades are central to the entire system. All of the other grades for bodies, sleeves, lapels and collars are based on these examples.

THE BASIC WHOLE BACK

This first grading example utilises the following increments:

B: The total width grade from the centre back to the side seam.

D: Across back. This is equal to increments F plus G.

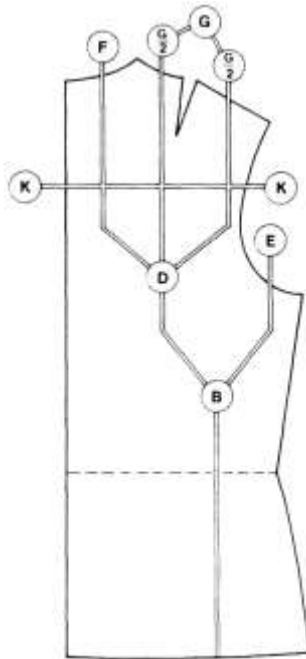
E: Side section.

F: Neck width.

G: Shoulder length in two sections ($G/2 + G/2$).

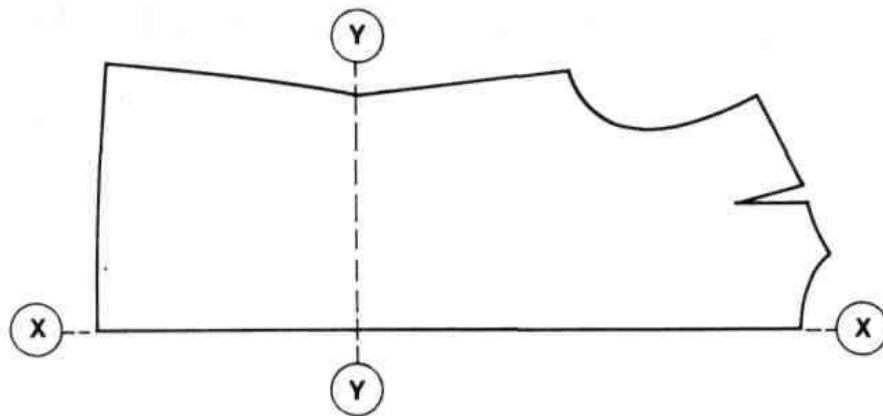
K: Armhole depth.

Fig.11.1 illustrates the locations of these increments with Fig.11.2 showing the grading axes and Fig.11.3 the increment net for this grade.



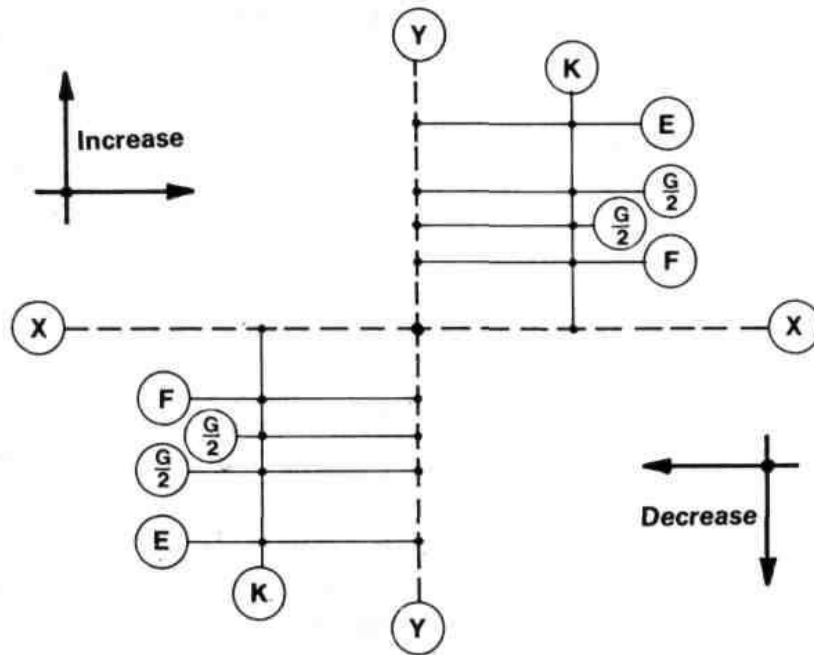
Grading increments for basic whole back.

Fig.11.1



Grading axes.

Fig.11.2



Increment net

Fig.11.3

Grading instructions: BASIC WHOLE BACK

Stage 1: align pattern on X and Y axes (Fig.11.4)

- Move on Y axis to second G/2
- Mark part of armhole.

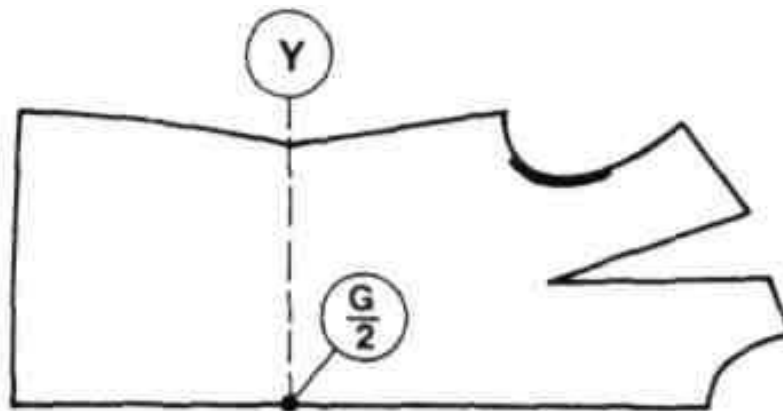


Fig.11.4

Stage2: continue on Y axis to E (Fig.11.5)

- Mark side seam

- Complete armhole to side seam
- Complete hem.

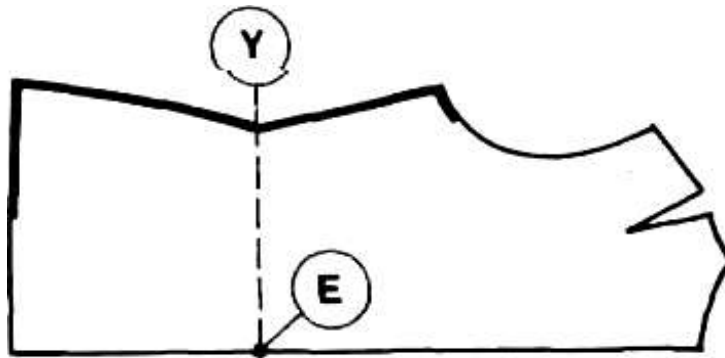


Fig.11.5

Stage 3: re-align on X axis and align the Y axis of the pattern to the relevant K line (Fig.11.6)

- Mark corner of centre back and neck.

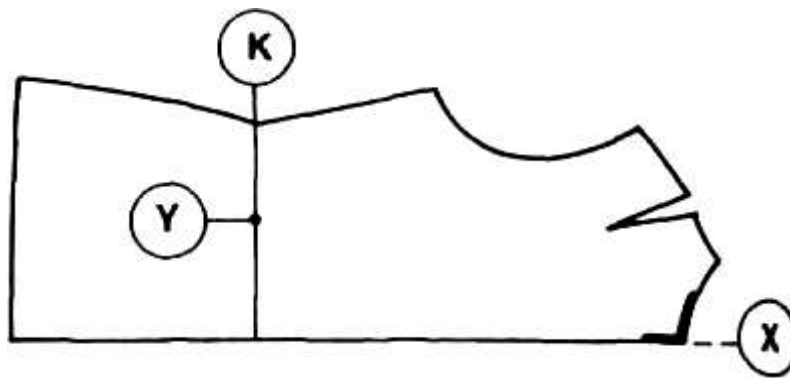


Fig.11.6

Stage 4: remain on K line (Fig. 11.7)

- Move on K axis to F
- Complete neckline
- Mark start of shoulder.

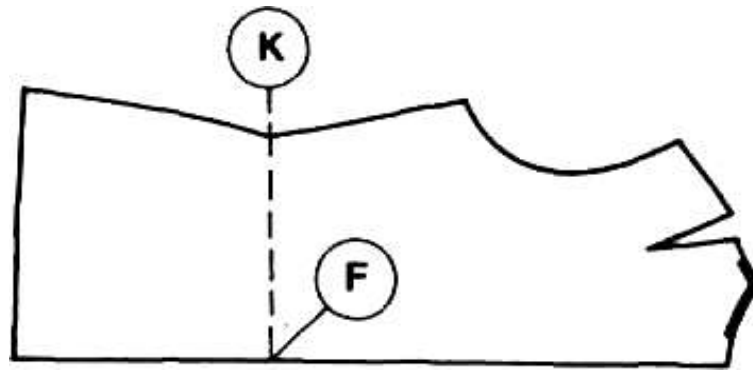


Fig.11.7

Stage5: remain on K line (Fig.11.8)

- Move to first $G/2$
- Complete first part of shoulder
- Mark dart
- Mark start of second part of shoulder.

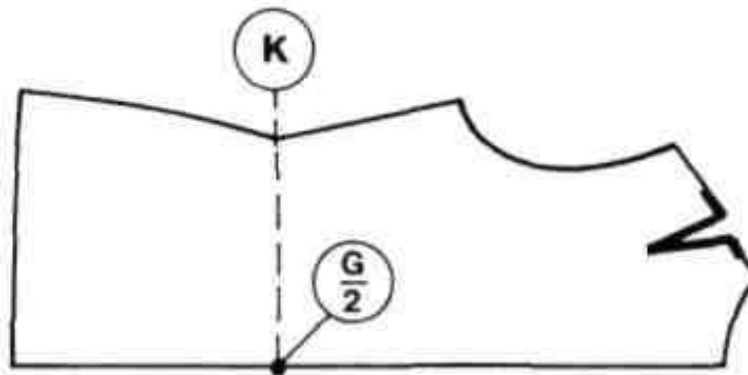


Fig.11.8

Stage6: remain on K axis (Fig. 11.9)

- Move to second $G/2$
- Complete shoulder

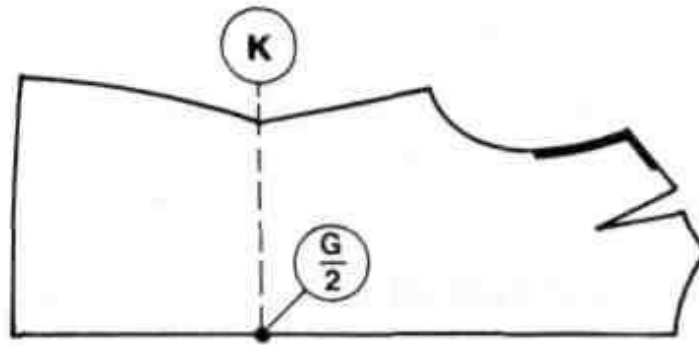
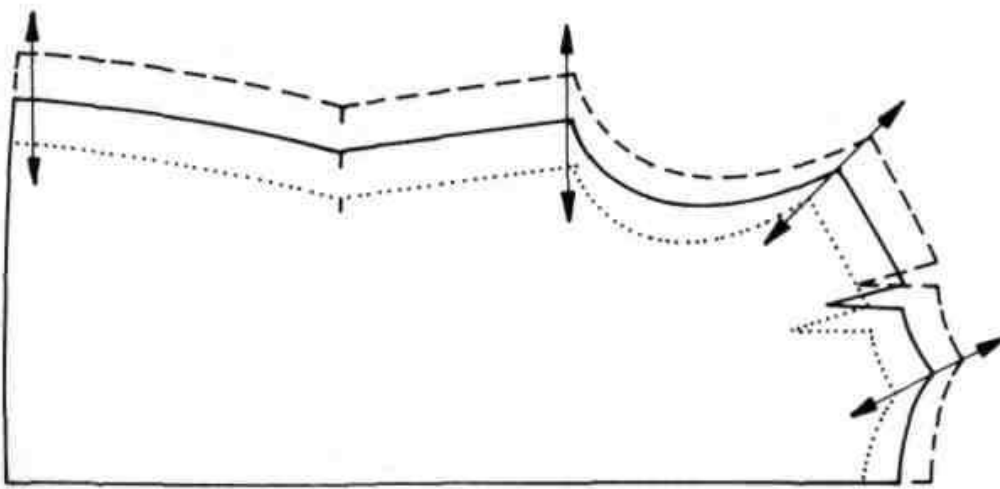


Fig.11.9



Grade for basic back

THE BASIC FRONT

This is the basic grade for all fronts with bust darts and the example is demonstrated on a standard block front with the bust dart coming from the shoulder. The increments used for this grade are:

- C: The total grade from the front edge to the side seam.
- E: Side section.
- F: Neck width.
- G: Shoulder length in two sections ($G/2 + G/2$).
- H: Width of breast.
- I: Front edge to bust point on bust line.
- I: First side of the bust point.
- J: Bust point to armhole on bust line.
- L: Second side of the bust point.

M: Front neck point to bust line. This increment is equal to increments K plus and is applied as one unit for the dynamic neck to waist grade.

THE BUST DART GRADE

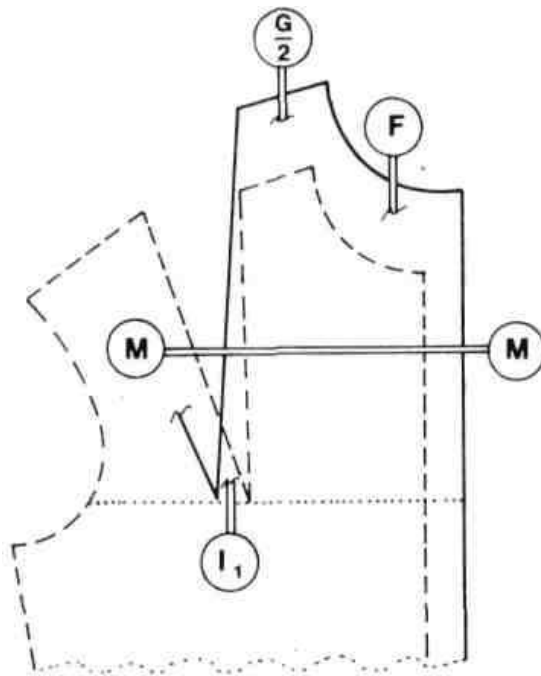
Apart from changing the bust girth, the bust dart grade also affects two other dimensions:

- 1) The vertical length from the front neck point to the bust line. Increment M is used for this purpose.
- 2) The depth of the front armhole as measured from the armhole base to the shoulder point. This change in depth is caused by increment K which is I the resultant quantity after the application of increment M.

The principles of this particular grade are:

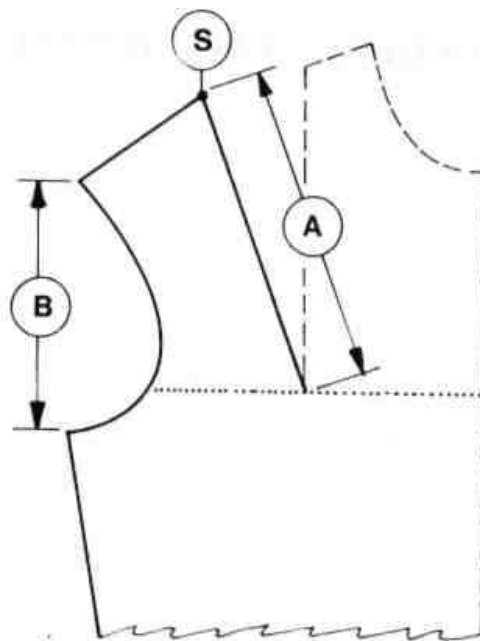
- 1) Increment $I = F + G/2 + I$, affects the total width I on the bust line from the front edge to the bust point. This side of the bust dart receives increment I, at the bust point (Fig. 11.10).
- 2) The other side of the bust dart receives increment J_1 at the bust point and this point is joined to the intersection of the shoulder and bust dart line at point S (Fig.11.11). The length of this connecting line A. is changed by increment M so as to equal the change in length of the other side of the bust dart.
- 3) The angle of the shoulder line (alpha) relative to the bust dart line remains unchanged irrespective of how much the connecting line A is pivoted around point S.
- 4) When J, is applied at the bust point and increment M is applied along line A. the result is that the armhole depth is affected by about two-thirds of the value of M. (This result can be calculated trigonometrically.)
- 5) Thus when M is applied to the length of the bust dart and J, at the bust point, increment K is generated automatically (Fig. 11.12).
- 6) The resultant quantity for increment K ensures that the depths of the-front and back armholes change by the same amount. As increment K is also applied to the sleeve head, the relationships between the components is accurately maintained.

The distances shown in the illustrations accompanying this section have been exaggerated for the purposes of clarity.



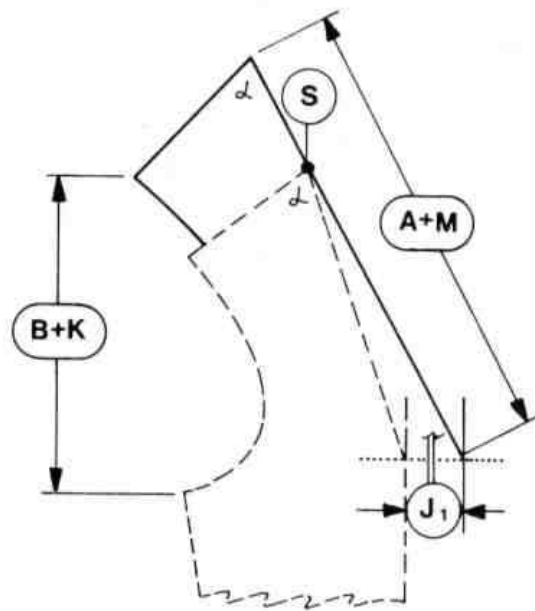
Grade for first side of bust dart

11.10



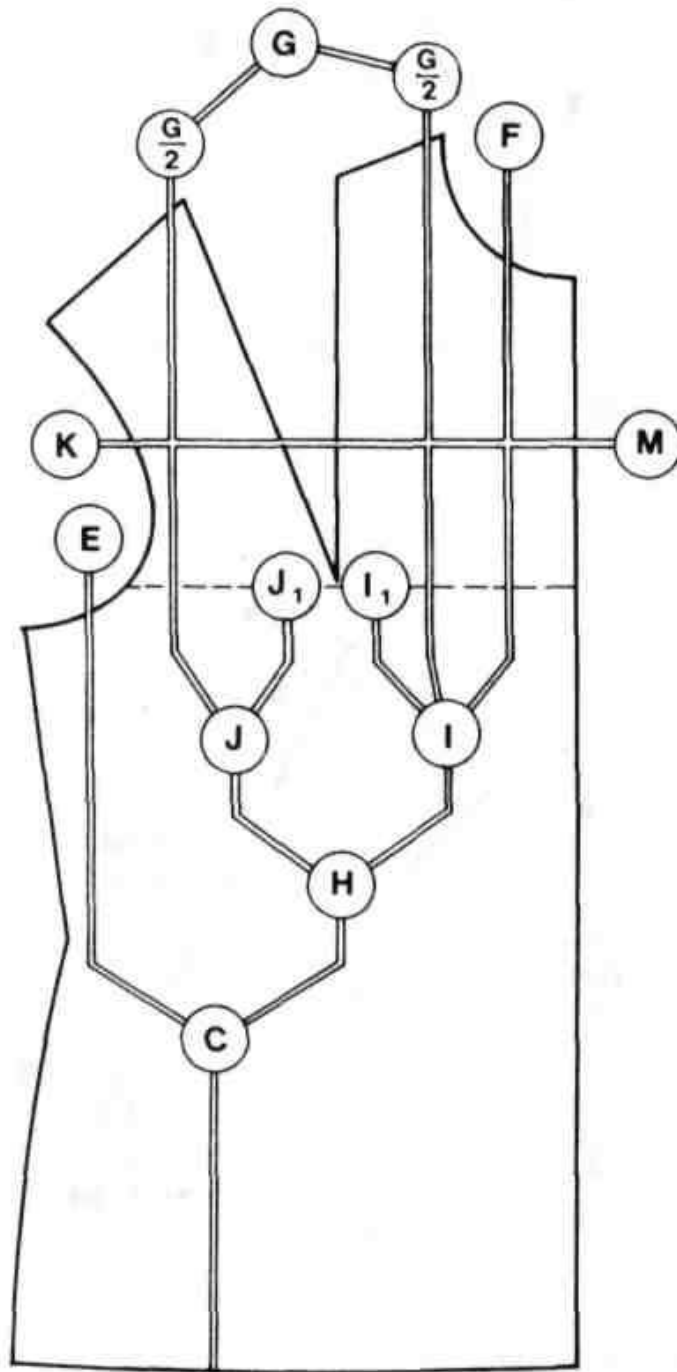
Length A and Depth B

Fig.11.11



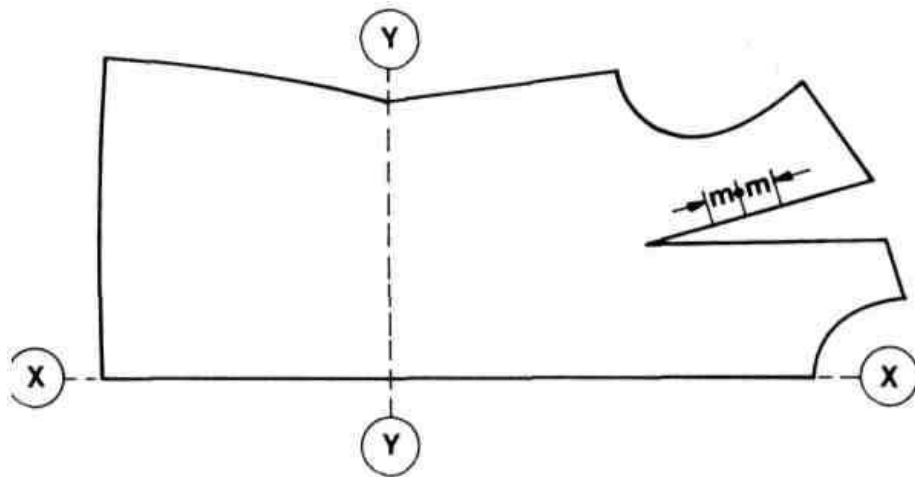
The generation of Fig.11.12

Grading Instruction: THE BASIC FRONT



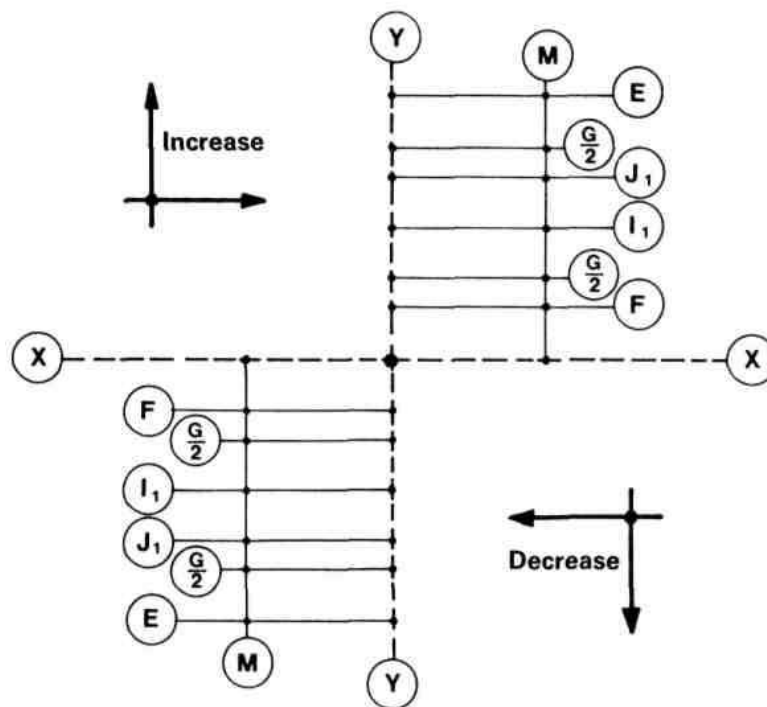
Grading increments for basic front

Fig.11.13



Grading axes

Fig.11.14



Increment net

Fig.11.15

Stage 1: mark central M on bust dart line (Fig.11.16)

- M to M1 = one size increase
- M to M2 = one size decrease.

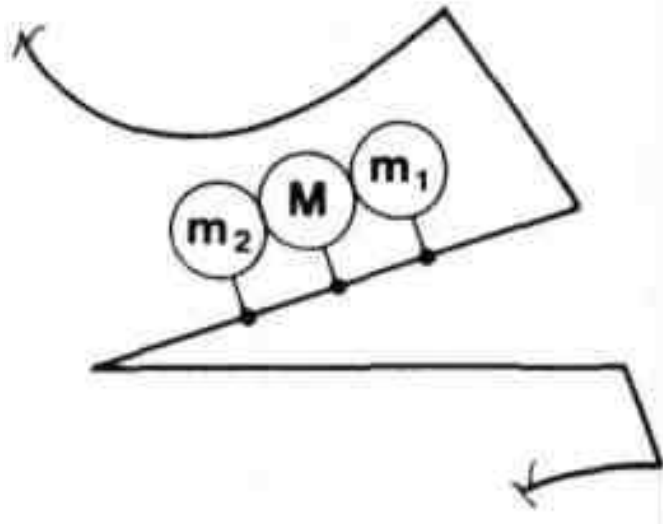


Fig.11.16

Stage 2: align pattern on X and Y axes (Fig.11.17)

- Mark front edge
- Mark hem corner.

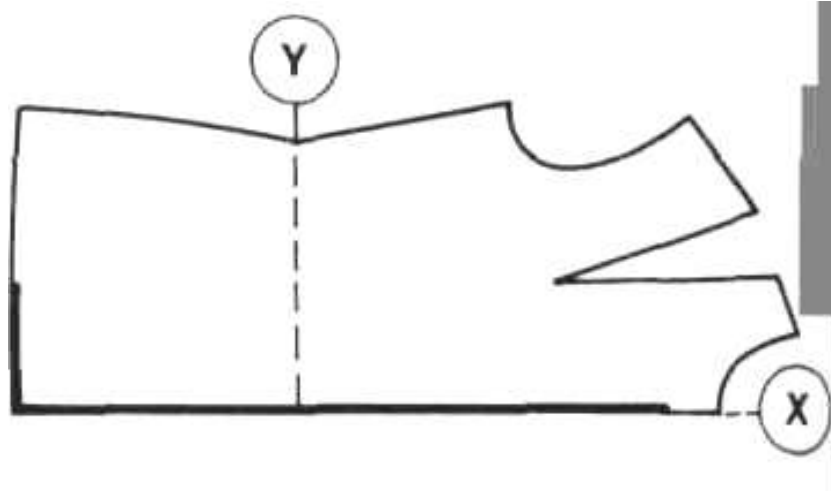


Fig.11.17

Stage 3: remain on Y axis. (Fig.11.18)

- Move to I₁, mark new bust point

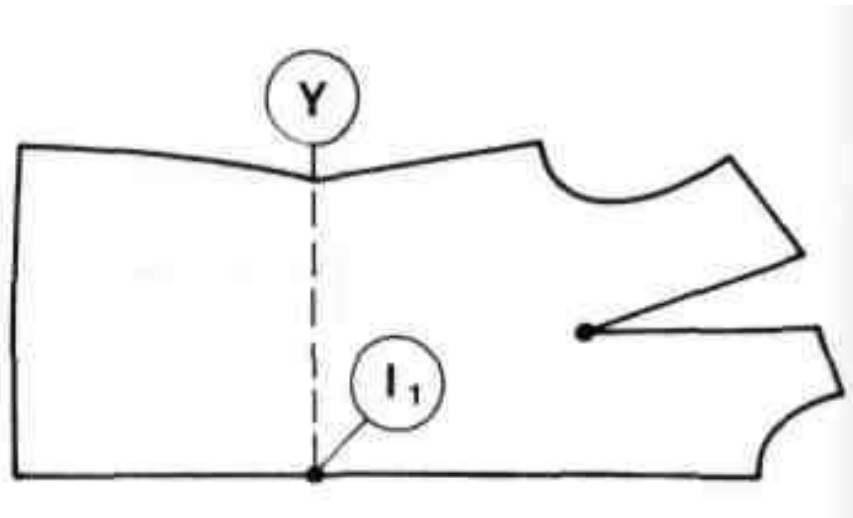


Fig.11.18

Stage 4: remain on Y axis. (Fig.11.19)

- Move to J_1 , mark point S

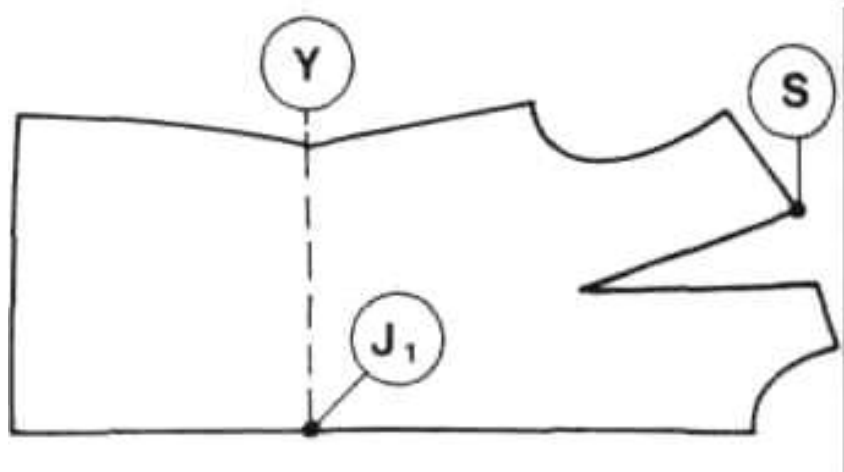


Fig.11.19

Stage 5: remain on Y axis (Fig.11.20)

- Move to second G/2.
- Mark armhole from across chest line to about 3 cm from side seam.

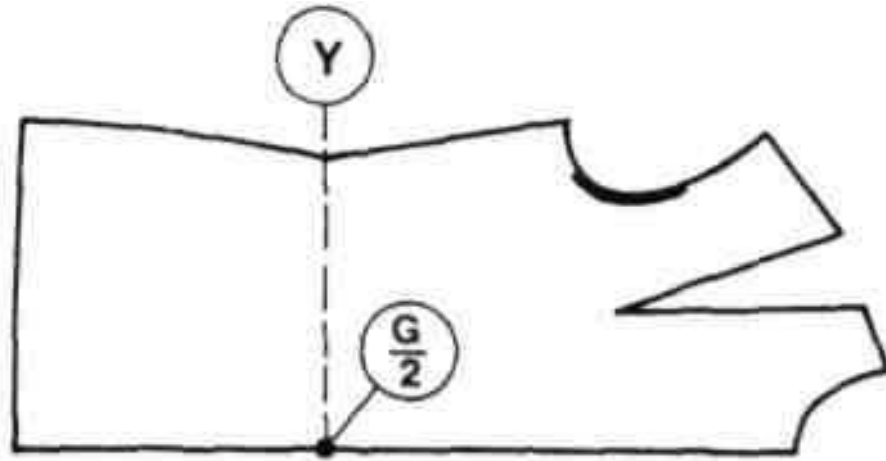


Fig.11.20

Stage 6: remain on Y axis (Fig.11.21)

- Move to E
- Mark side seam
- Complete base of armhole
- Complete hem.

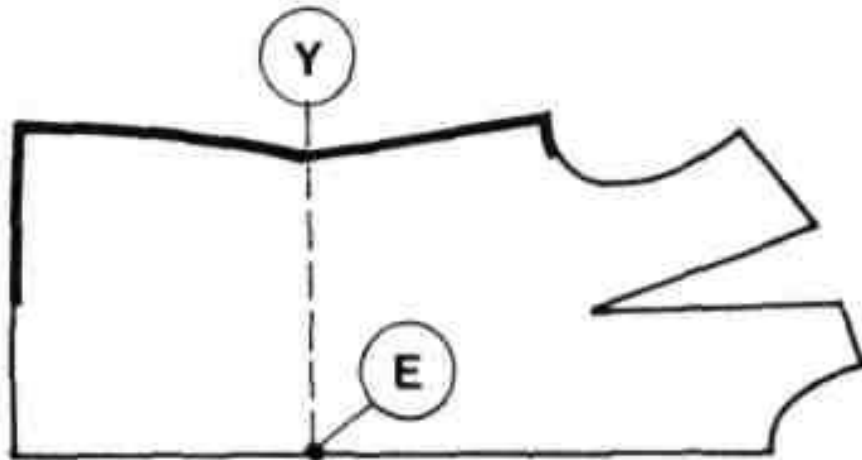


Fig.11.21

Stage 7: align Y axis to relevant M line (Fig. 11.22)

- Mark corner of neck and front edge.

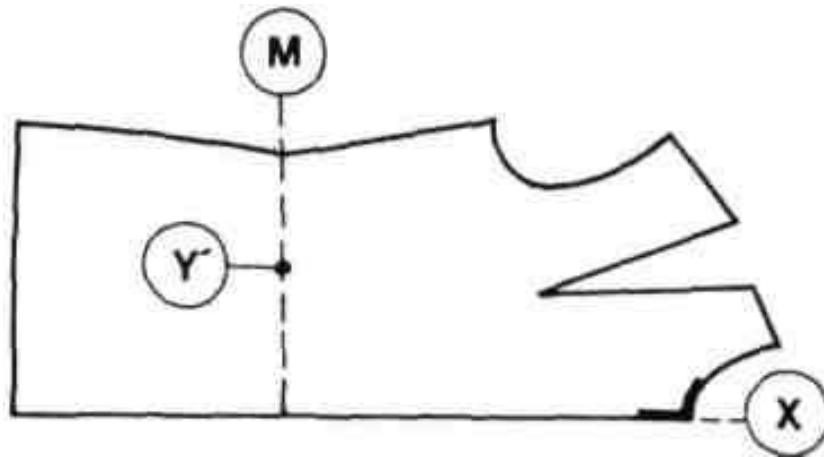


Fig.11.22

Stage 8: remain on M line (Fig.11.23)

- Move to F
- Complete neck
- Mark start of shoulder.

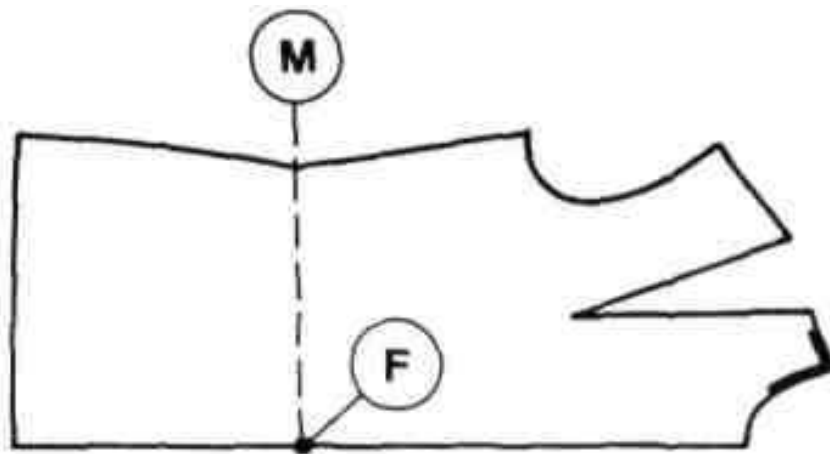


Fig.11.23

Stage 9: remain on M line I (Fig.11.24)

- Move to first G/2
- Complete first section of shoulder
- Mark corner of bust dart and shoulder.

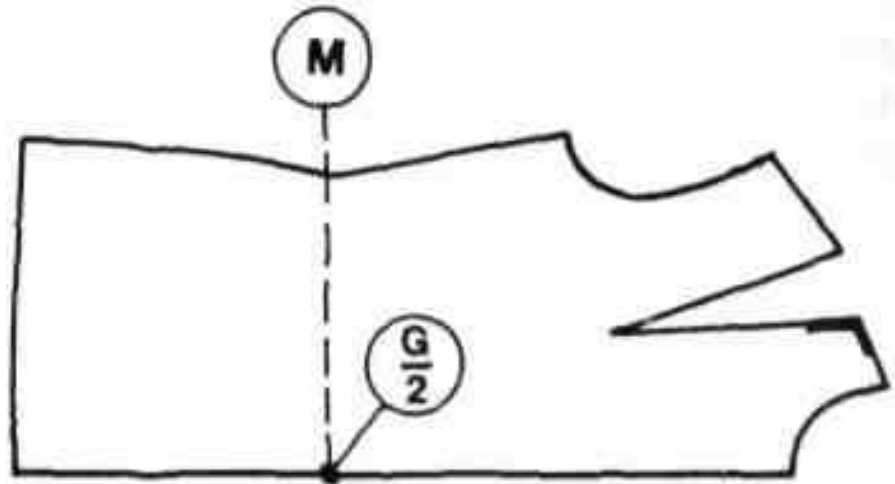


Fig.11.24

Stage 10: use the pattern to join shoulder corner (Stage 9) to bust point (Fig.11.25)

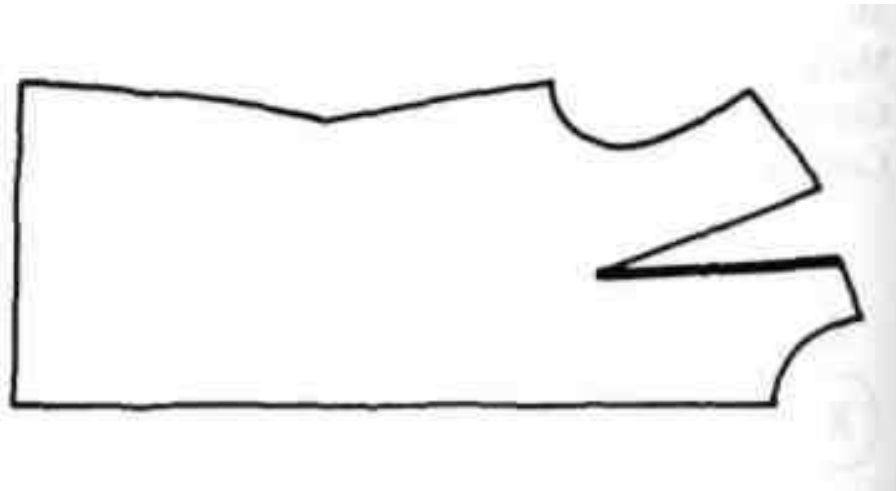


Fig.11.25

Stage 11: align pattern from bust point to point S (marked in Stage 3) (Fig.11.26)

- Join bust point to this point
- Mark central M
- Mark relevant M.

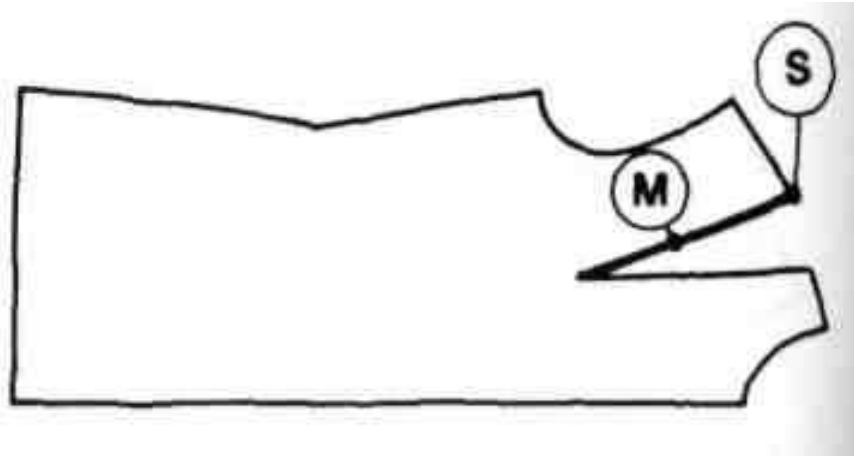


Fig.11.26

Stage 12: move pattern along this line and align central M with relevant M (Fig.11.27)

- Move towards shoulder to increase
- Move towards bust point to decrease
- Mark start of shoulder.



Fig.11.27

Stage 13: move pattern by distance $G/2$ parallel to bust dart line (Fig.11.28)

- Towards side to increase
- Towards front to decrease
- Complete shoulder and armhole

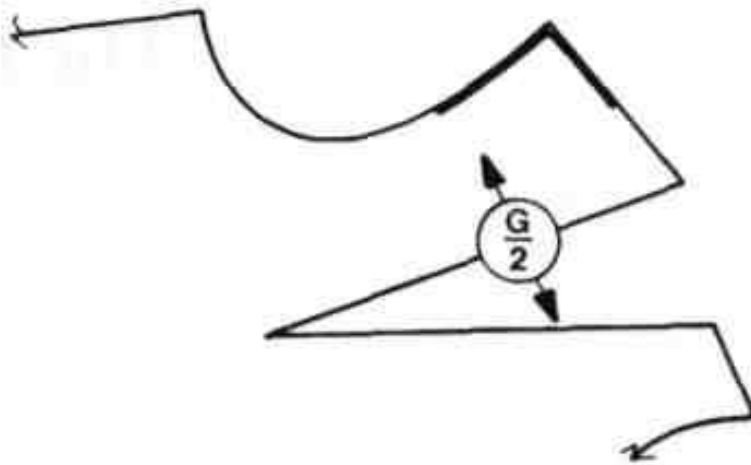
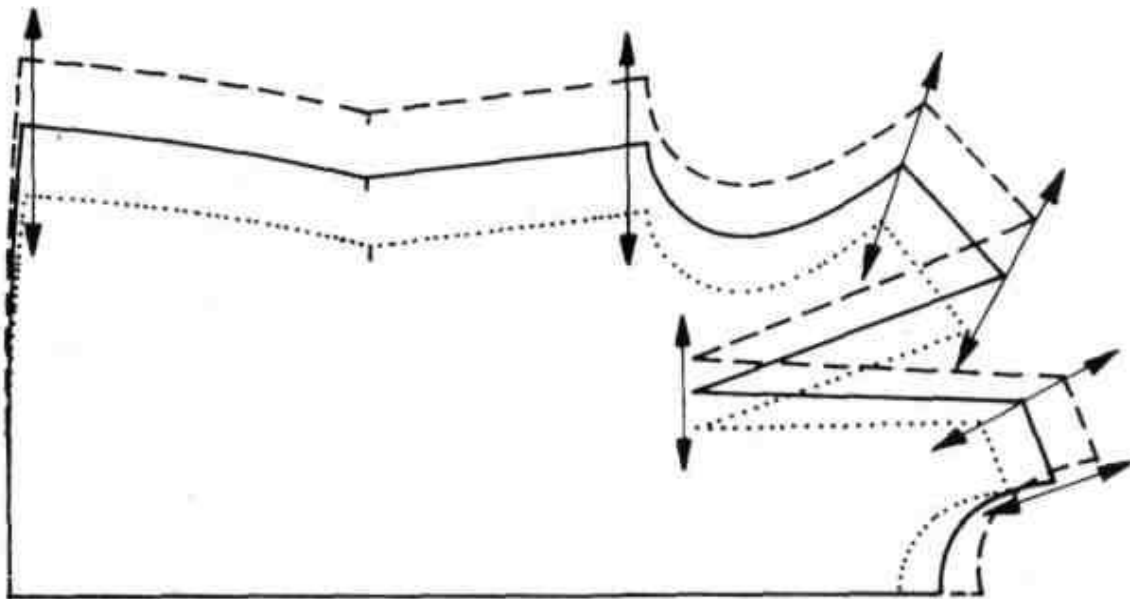


Fig.11.28



Grade of basic front

THE BASIC SLEEVE

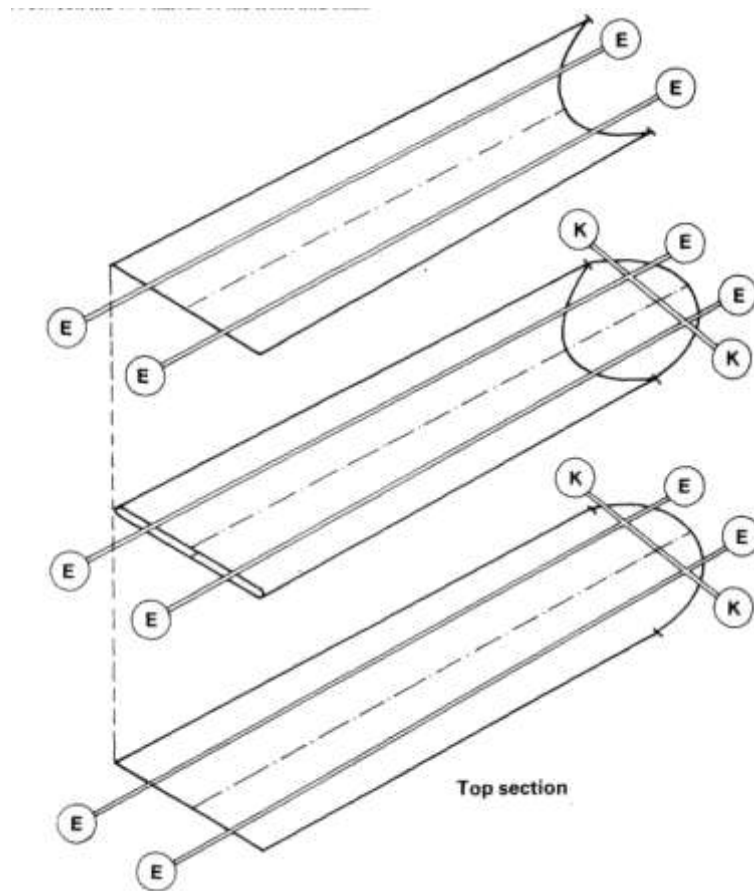
The one-piece straight sleeve is the first of the basic derived grades where all of the necessary grading increments are obtained from the armhole and side section grade of the body.

When allocating the sleeve width increments, it is essential to maintain two relationships (Fig.11.29)

- 1) That between the top and bottom halves of the sleeve.
- 2) That between the two halves of the front and back sleeves

This is irrespective of whether the side seam of the garment has been displaced from the centre of the armhole. In these instances, the same allocation of the armhole width grade $2E$, on the side sections of the I back and front, should be used for the related sleeve I sections.

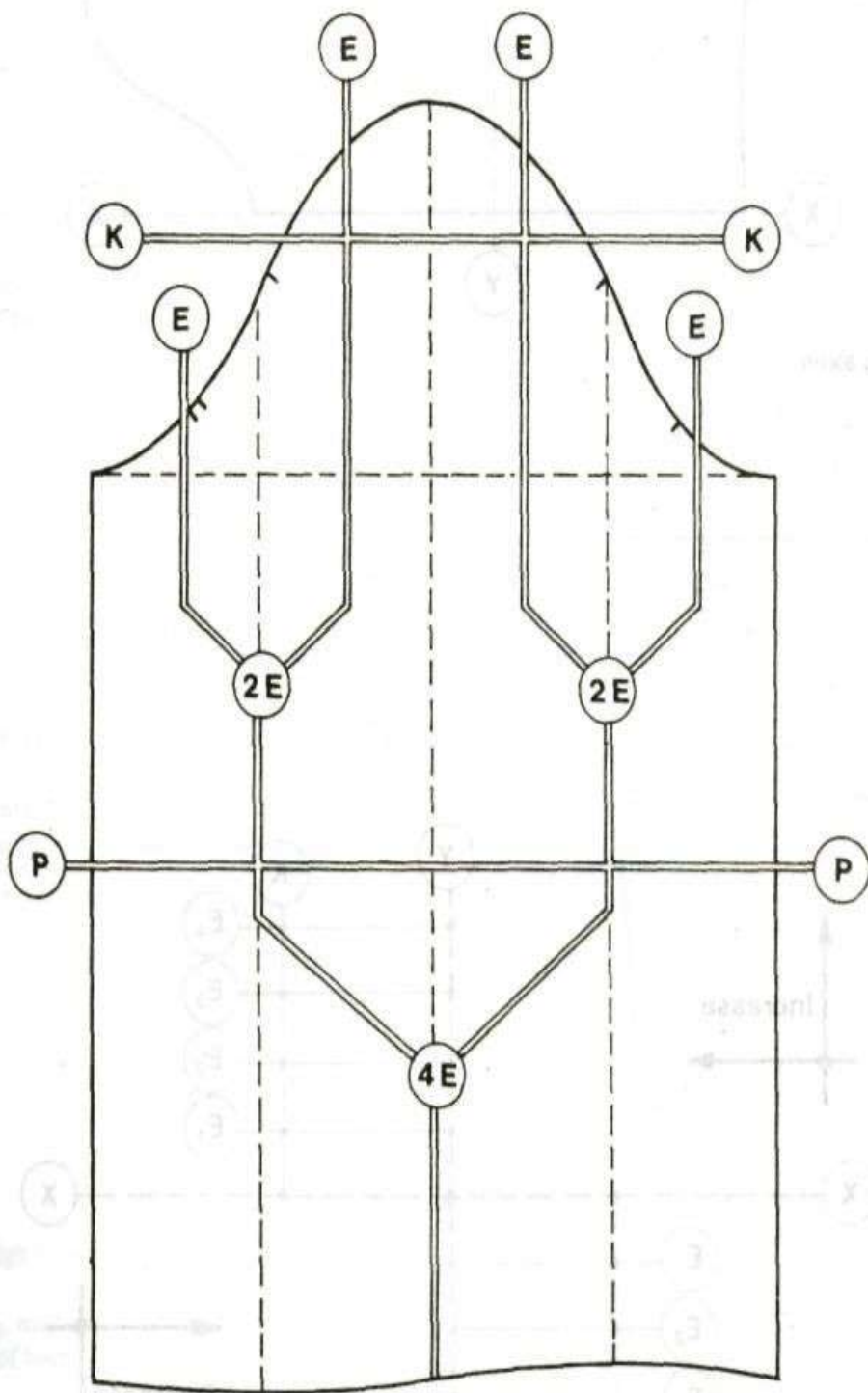
This grade is the key to all of the other sleeve grades demonstrated in this section, and as such should be I thoroughly understood.



Top and under sleeve relationships

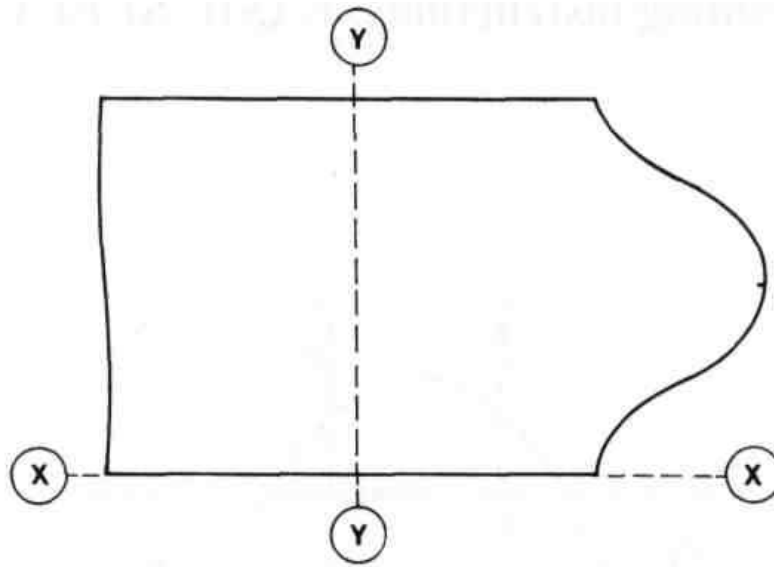
Fig.11.29

Grading Instructions: BASIC SLEEVE



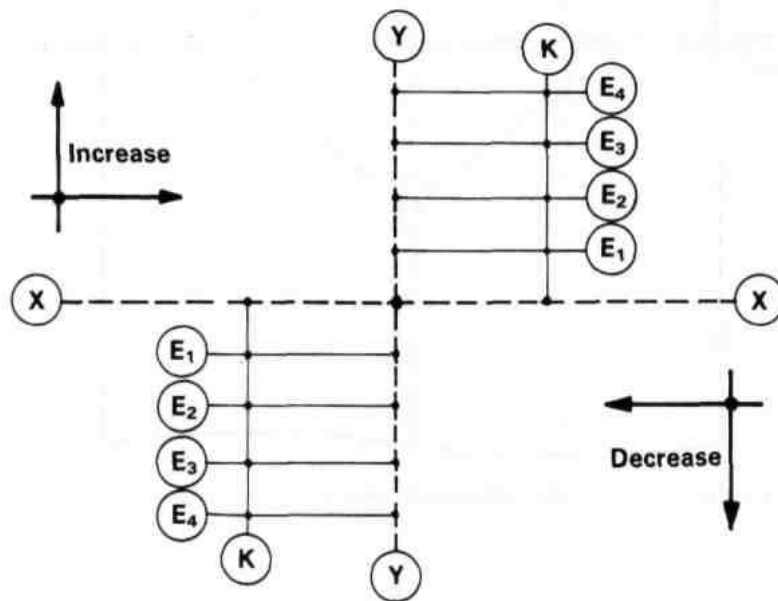
Grading increments for one-piece straight sleeve

Fig.11.30



Grading axes

11.31



Increment net

Fig.11.32

Stage 1: align pattern on X and Y axes (Fig. 11.33)

- Mark front seam
- Mark starts of sleeve head and hem line.

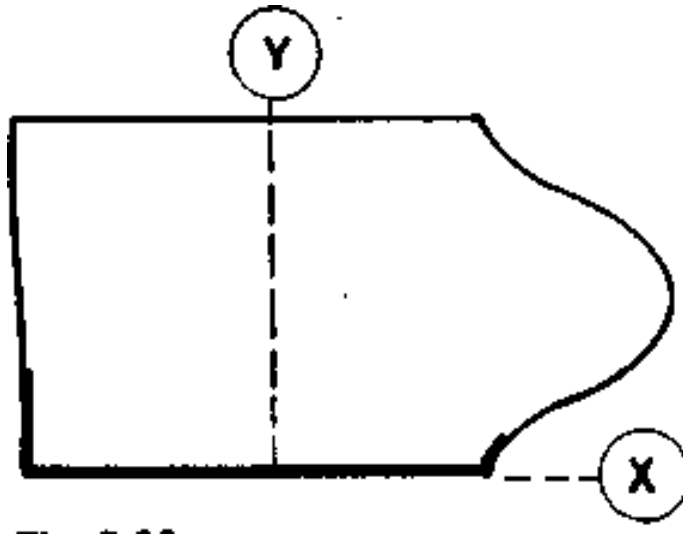


Fig.11.33

Stage2: remain on Y axis (Fig. 11.34)

- Move to E
- Mark front section of head
- Mark part of hem.

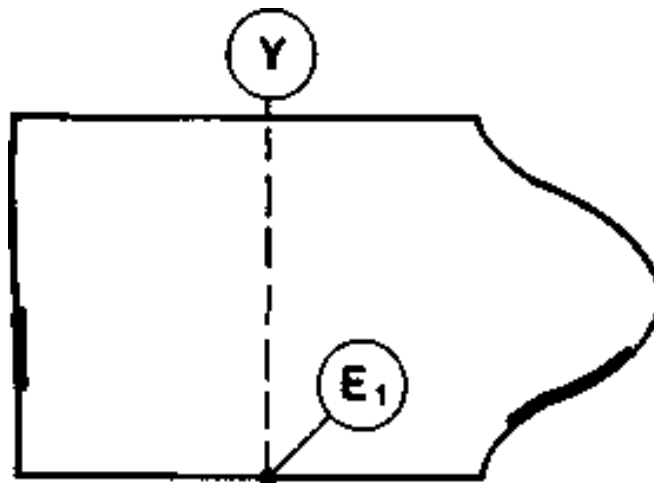


Fig.11.34

Stage 3: align Y axis of pattern on relevant K line (Fig.11.35)

- Move to E_2 mark head section and centre nip
- Mark hem to centre.

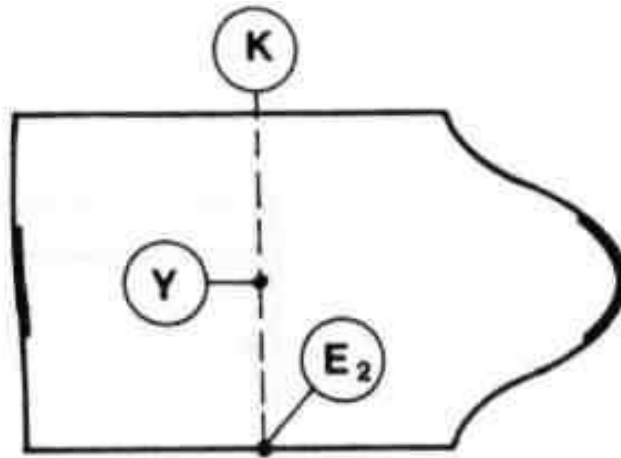


Fig.11.35

Stage 4: re-align Y axes of pattern and paper (Fig. 11.36)

- Move to E_3 , mark back section of head
- Mark part of hem.

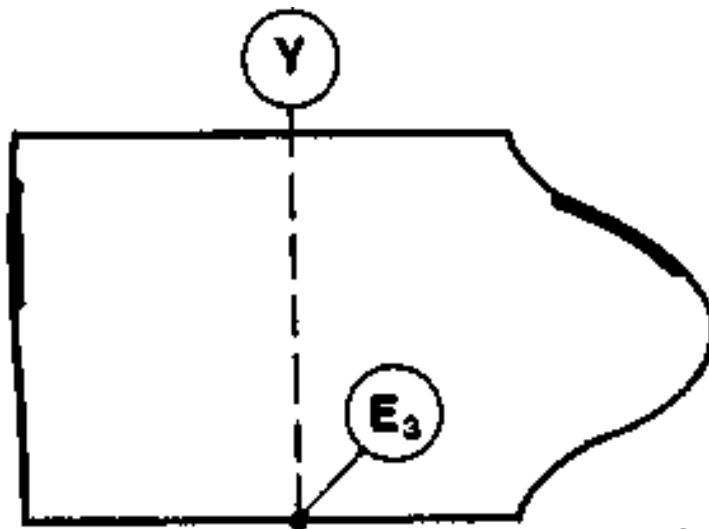


Fig.11.36

Stage 5: remain on Y axis (Fig. 11.37)

- Move to E_4
- Complete back section
- Mark back seam
- Complete hem.

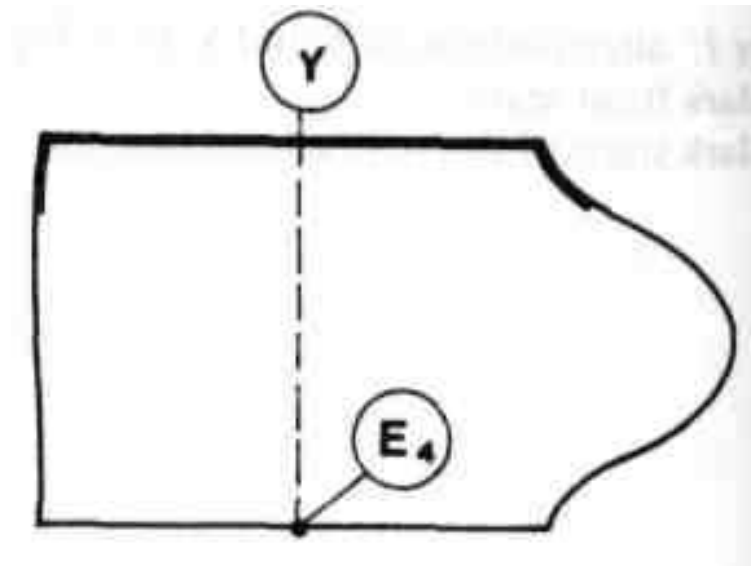


Fig.11.37

Stage 6: Use the pattern to (Fig.11.38)

- Blend head to front section
- Blend head to back section.

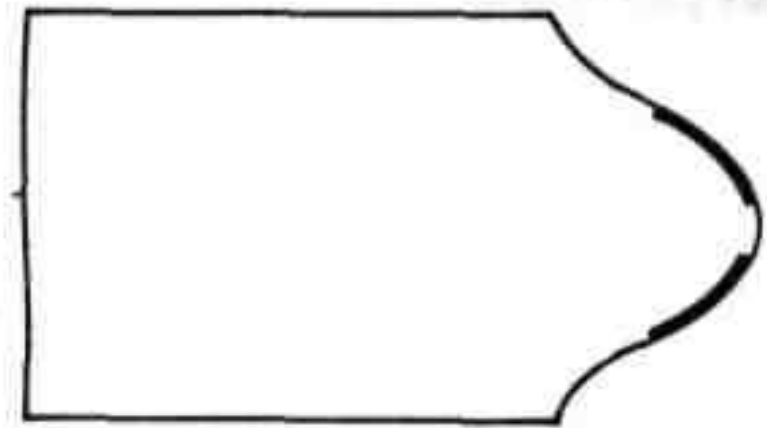
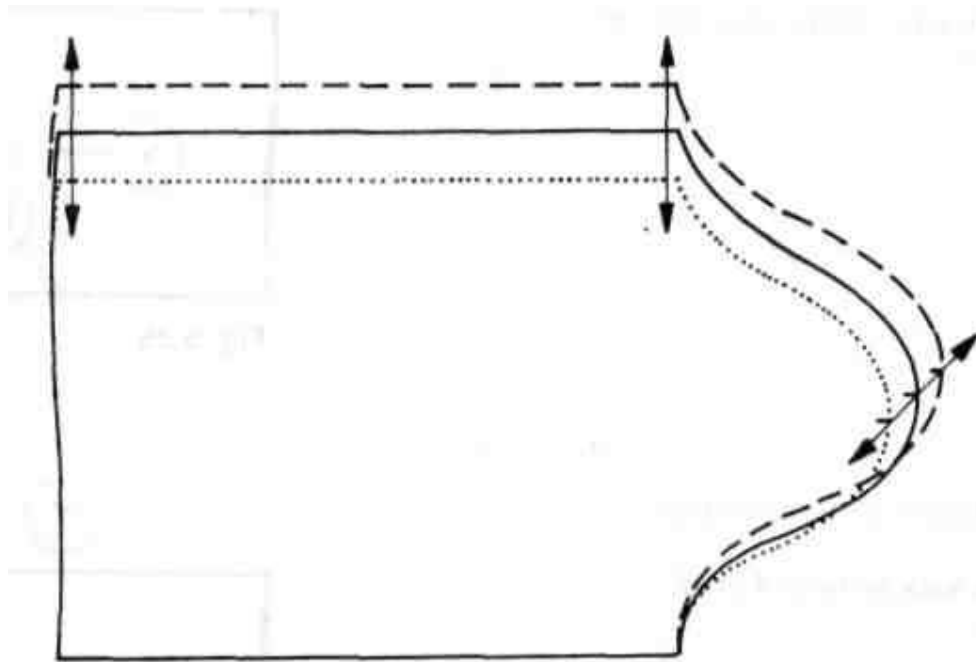


Fig.11.38



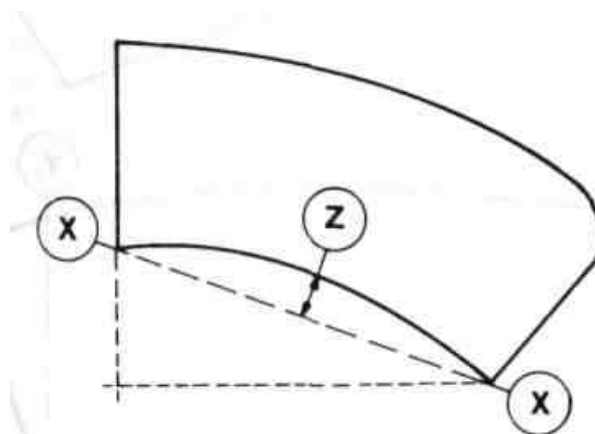
Grade of Basic Sleeve

THE BASIC COLLAR

The grading increments for this component are derived directly from the back and front neck base sections of the body and they are applied to the collar length as follows:

- Increment F: for the front neck length
- Increment F: for the back neck length

Thus for each size, the length of the basic collar changes by the amount of $2F$.

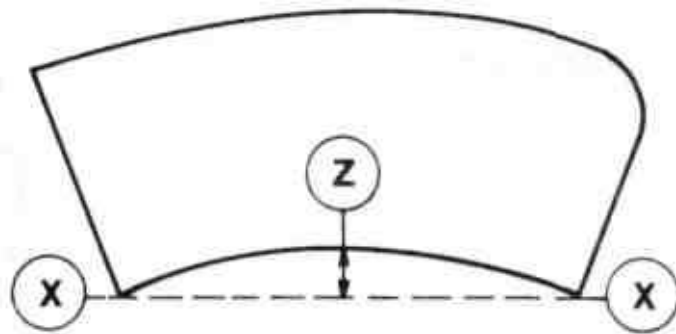


A. Collar construction (Distance Z)

Fig.11.39

The X axis for this grade comes from the construction systems generally used for this type of collar and this method ensures that the neck seam curvature remains unchanged

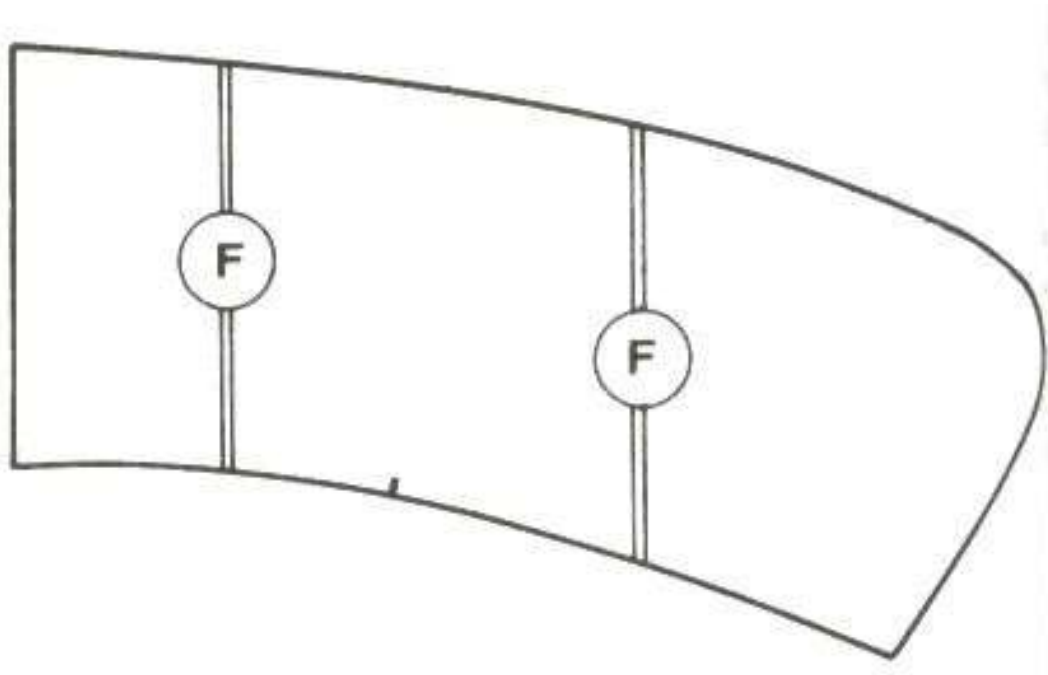
throughout the grading. This is an important principle because the distance Z (Fig.11.39) controls the stand and fall of the collar.



B. Grading axis (Distance Z)

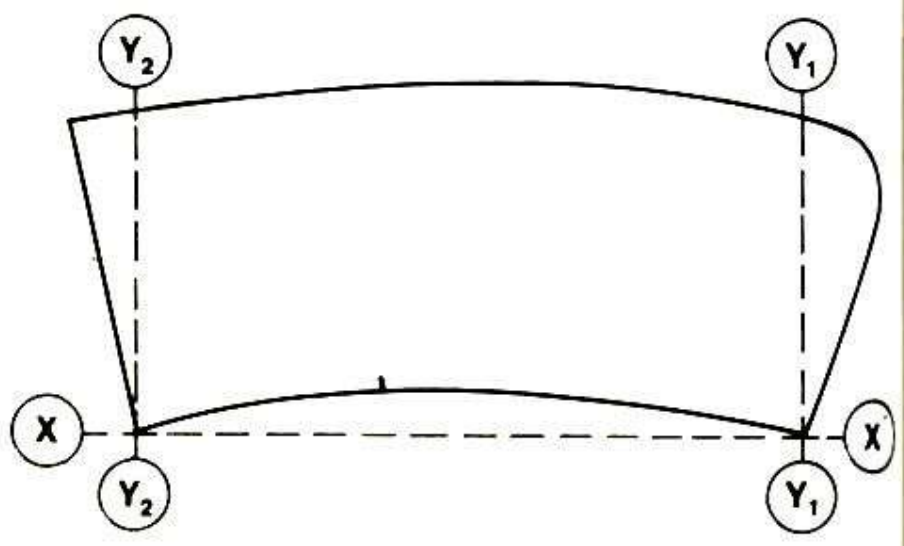
Fig.11.39

GRADING INSTRUCTIONS: THE BASIC COLLAR

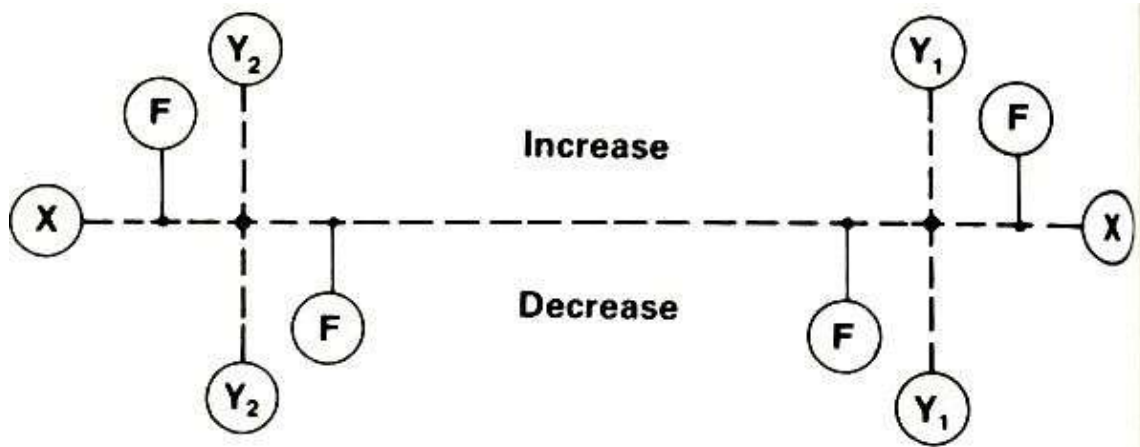


Grading increments for basic collar

Fig.11.40



Grading axes
Fig.11.41



Increment net
Fig.11.42

Stage I: align pattern to (Fig.11.43)

- Xaxis
- Y_1 and Y_2 (upper or lower)
- Mark centre sections of neck seam and outside edge
- Mark shoulder seam nip

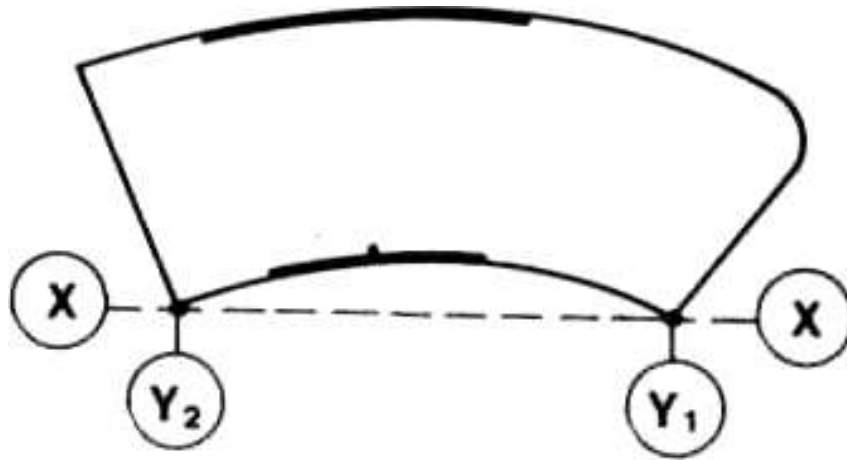


Fig.11.43

Stage2: remain on X axis (Fig. 11.44)

- Move centre back to F
- Mark centre back, part of neck seam and outside edge.

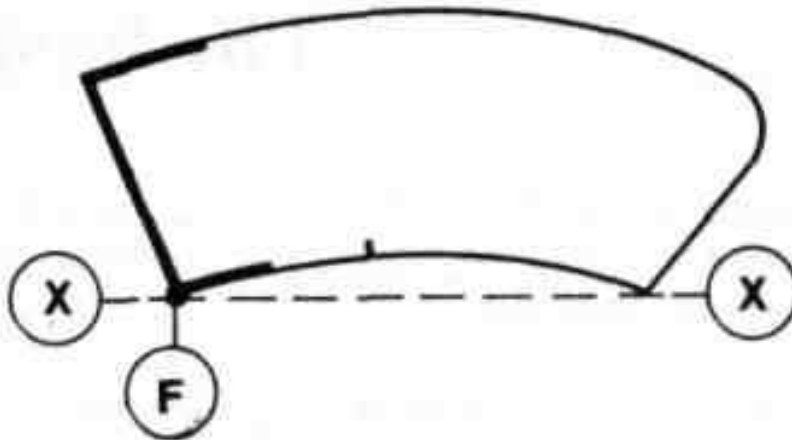


Fig.11.44

Stage3: remain on X axis (Fig. 11.45)

- Move collar front to F
- Mark front, part of neck seam and edge.

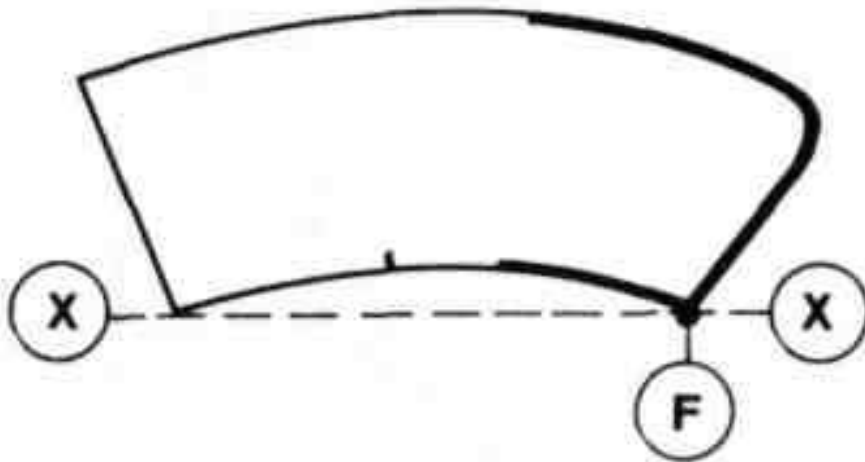


Fig.11.45

Stage 4: Use pattern to blend the neck seam and outside edge (Fig.11.46)

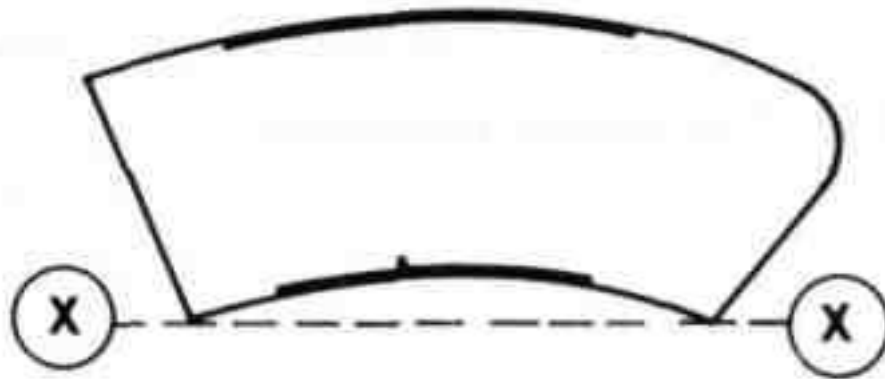
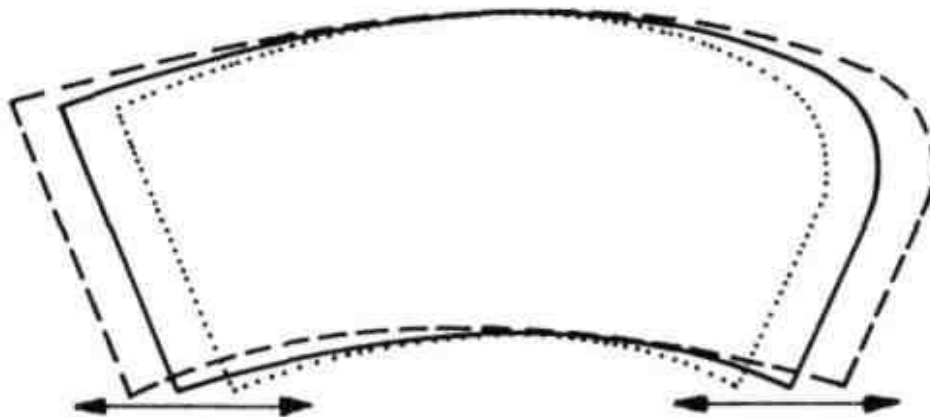


Fig.11.46



Grade of basic collar

LET US SUM UP

In this unit, we

- Discussed the Master grading for basic front, back, sleeve and collar.

LESSON END ACTIVITIES

- The distance students can have a practical experience by carrying out trails in master pattern grades.

POINTS FOR DISCUSSION

- Evaluate the master grading techniques by grading a particular garment style for different sizes.

REFERENCES

- Pattern Grading for Women's Clothes – The technology of sizing, Gerry Cooklin, Black Well science Ltd, London, 2004.

increment K