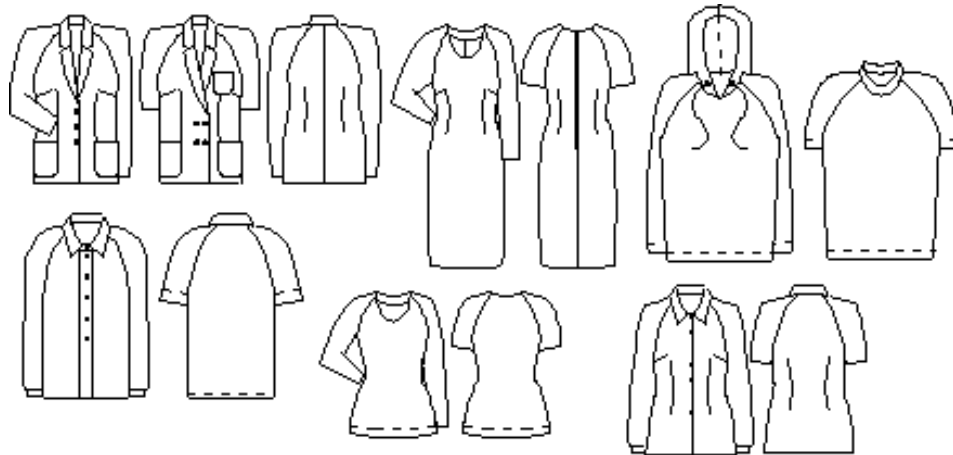# PatternMaker Software
Women's Raglan Garment Collection
Designer: Leena Lähteenmäki

INTRODUCTION

Welcome to the PatternMaker Women's Raglan Collection! This macro collection contains the same ladies' top garments as are included in the Women's Vol. 1 macro collection but with raglan sleeves.

TAKING YOUR MEASUREMENTS

The Women's Raglan collection is based on the Scandinavian pattern drafting system, and uses the same measurements as other PatternMaker womens' macros. Use the measuring chart and instructions that are included with this macro package. Do not try to use measurements from some other measuring system.

If you have already set up a personal measurement table, you can use it in these macros (see the Help file under "Measurement Table" for details on how to do this), or you can type in measurements as the macro is run.

RUNNING A MACRO

When you first start the PatternMaker program, you will see a blank drawing area. To run a macro from the Women's Raglan Collection, select the MACRO command from the File menu, or click on the icon which has the word MAC. (Users of PatternMaker Basic should select OPEN from the File menu, or click the OPEN icon.)

A dialog box will ask you to select a file. Each macro is a separate file in your PatternMaker directory. The file names in this collection are:

- RBlouse
- RBodice
- RDress
- RJacket
- RPullover
- RShirt

Click on the name of the file, and then click "OK". It may take a few seconds for PatternMaker to load the macro.

You will now see a series of dialog boxes which ask questions and offer choices. To continue through the macro, use your mouse to click on one of the options. If you click "Cancel," the macro will abort and you will be returned to the drawing screen. Also, be aware that you cannot move backwards through the options. You may wish to write down which options you choose.

After selecting the garment options, you will enter your measurements. An "Open File" dialog box will open. If you have already set up a personal measurement table, select it now. Otherwise, click the "Cancel" button.

The macro will then prompt you to enter measurements manually. Most of the macros have two dialog boxes for measurements.

GARMENT NOTES
Blouse:
Fitted blouse with bust and waist darts. Two-piece collar, button-up front.
- 3 ease categories
- 2 collar styles
- Long or short sleeves
- Shoulder pads yes/no

Dress:
Jewel-neck sheath dress with bust and waist darts
- 3 ease categories
- Long or short sleeves
- Shoulder pads yes/no

Jacket:
Fitted jacket with bust and waist darts
- 3 ease categories
- Single-breasted or double-breasted
- Long or short sleeves
- 3 lapel height options
- 4 pocket shape options
- Shoulder pads yes/no

Pullover:
Close-fit pullover top
- 3 ease categories
- Long or short sleeves

Shirt/T-shirt:
Shirt: Men's-style shirt with two-piece collar and button-up front.
T-shirt: Loose-fit pullover top with hood (optional: erase hood and cut ribbing for neckline). Suitable for ribbed-knit collar and cuffs.
- 4 ease categories
- Bust darts or unfitted (no darts)
- 2 sleeve styles
- Long or short sleeves

GARMENT EASE
The Shirt/T-shirt macro has 4 ease options. The three first ease options are for normal shirt and T-shirt: normal, minimum and maximum. The last ease option (jacket/sweater maximum) is for loose casual jackets and sweaters. For a jacket, use the shirt model and for a sweater the T-shirt model. If you want to sew a jacket with hood, run both model options and erase all the T-shirt pattern pieces except the hood.

PATTERNS
As with all patterns drafted with PatternMaker macros, you have to remember that they are drafted according to your own measurements. So they may not look like the patterns you have been used to. Most significantly, the direction of the front shoulder very much depends on the ratio of your front and back heights. If you have a

prominent bust, your front shoulder may be steeper than you have seen in the patterns drafted according to standard measurements.

Here you have the patterns of three real ladies. There are the patterns of the basic bodice with normal sleeves and with raglan sleeves drafted on top of one another. You can see how different the patterns look:
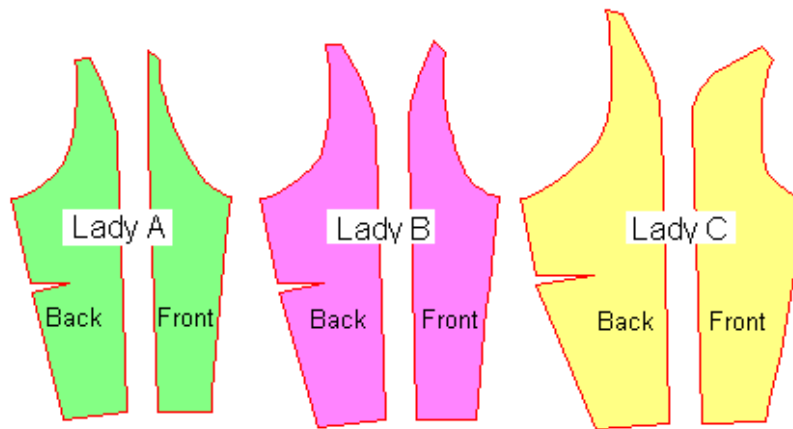
Lady A has a very steep front shoulder which also makes her raglan sleeve head very narrow at the front. Lady C has a completely different figure; her front shoulder is more or less horizontal (it will slope downwards when the bust dart is sewn) and her raglan front sleeve head is much wider.

In the raglan sleeve design there has been added space at armpit to give the arm more space to move. That's why the raglan sleeve is wider at the armpit than the normal sleeve.

The patterns of Lady B look more like the raglan patterns you have seen but the back sleeve is wider than the front sleeve. Look at the above picture where the raglan sleeve has been drafted on top of the normal sleeve to verify that the sleeves are identical, only the armpit of the raglan sleeve has been lowered and made wider.

SEWING THE GARMENTS

For sewing instructions for this collection, please refer to a good sewing text, or use the instructions for the Women's Vol. 1 Collection, provided in PDF format on the PatternMaker installation CD or available online at:
www.leenas.com

ALTERATIONS
Altering the shoulder shape
If there is too much room in the raglan sleeve shoulders even if you have not chosen the shoulder pad option, try the garment on and pin the desired shoulder shape. Then re-sew the shoulder seam.

Altering the design with help of other PatternMaker macros

If you want to draft a different kind of collar for your shirt, T-shirt or jacket, use the collars macros which comes free with all PatternMaker program versions.

If you want to alter the design of a raglan garment, use other PatternMaker macros as a guide. For example, let's presume you want to draft patterns for a jacket with a shawl collar and raglan sleeves.

In the raglan jacket macro there is not an option for shawl collar, but in the super jacket macro there is. Run the macros on top of each other. Trace and add the shawl collar to the raglan jacket shell and sleeve as in the drawing above. Please be sure to use the same ease in both macros. This way you can combine any two macros.

PatternMaker Software
Measuring for Women's Macros

1. neck circumference
2. bust circumference
3. waist circumference
4. abdomen circumference
5. hip circumference
6. bust span
7. bust height
8. waist height
9. back length
10. back width
11. shoulder
12. waist-abdomen
13. waist-hip
14. biceps
15. wrist circumference
16. overarm
17. outside seam
18. crotch depth

Measure bust height (7) and waist height (8) around neck (double) and divide by 2.
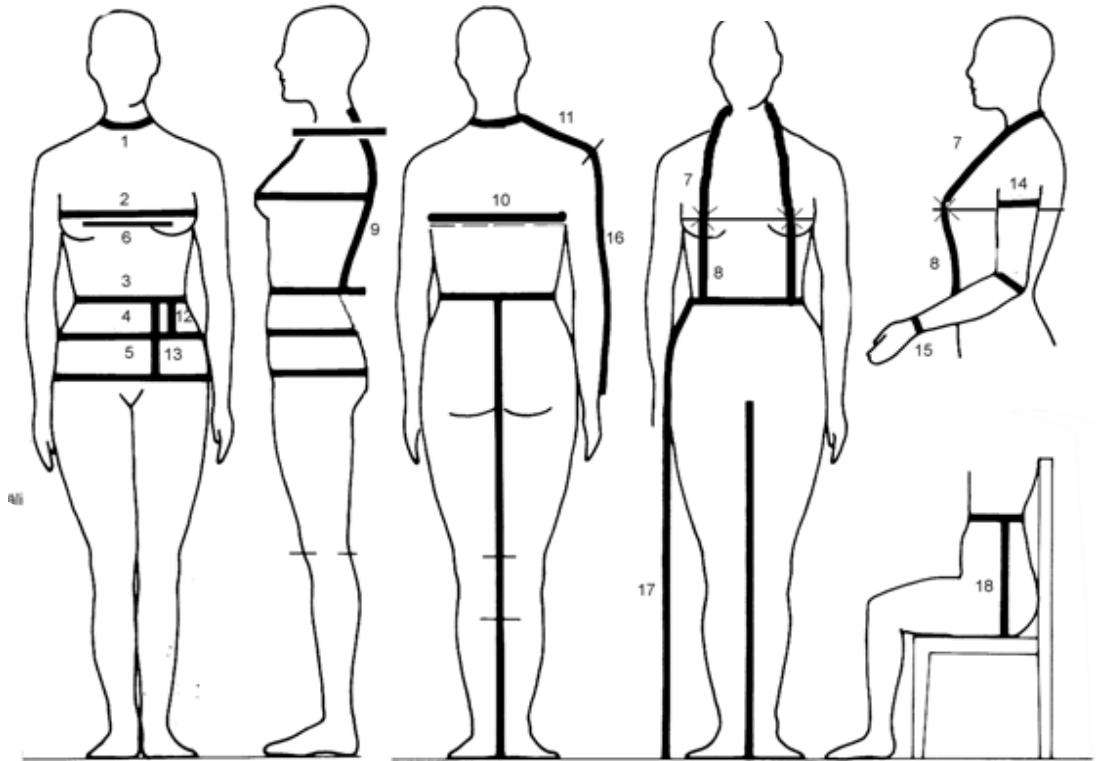
Following are the instructions on how to measure for PatternMaker women's macros.

Don't try to take the measurements yourself. Ask someone else to take them. Stand straight but relaxed when you are being measured. You will receive the best results if the measurements are taken over underwear.

Place 1-inch wide elastic bands around your waist and hip. Search carefully for the correct places of these elastic bands. Keep these elastic bands on their places during the whole measuring process. Hip elastic is fastened on the level where hip circumference is maximum. Examine whether it is on your buttocks (7-8 inches/18-20 cm below the waist) or on top of your thighs (10-12 inches/25-30 cm below the waist). Measurements are taken from the bottoms of the bands.

Except for pants' cuff circumference and skirt/dress length, all measurements are body measurements. DO NOT ADD ANY EASE to the measurements. The program does it for you.

DO NOT TIGHTEN MEASURING TAPE.
Please, refer to the picture related to this measuring form.

BE ESPECIALLY CAREFUL WHEN TAKING THE **MEASUREMENTS WRITTEN IN CAPITAL LETTERS**.
They are crucial for good fitting patterns. After having taken all the measurements, take these important measurements once again.

You can use either centimeters or inches. Give inches in fractions.

PatternMaker Software
Women's Measuring Chart

Name: _____   **Date:** _____

1	Neck Circumference: Measure around lowest part of neck, at the base	
2	Bust Circumference: Marked with elastic. Measure around the fullest part of the bust, keeping the tape high at the back	
3	Waist Circumference: Measure waist at the elastic tape	
4	Abdomen Circumference: Measured on the level where abdomen circumference is maximum	
5	Hip Circumference: Measured over the largest part of your bottom/thighs (at elastic)	
6	Bust Span: Horizontal distance between bust apexes (also called bust bridge). Measured along bust elastic.	
7	Bust Height: Measure from center of back neck over shoulder to apex of one breast	
8	**WAIST HEIGHT:** Measure from center of back neck over shoulder to breast apex and from there vertically to lower edge of waist elastic. To be sure to get right measurements, take this and bust height as a link around neck (=double) and divide the result by 2 (see picture).	
9	**BACK LENGTH:** Measure from center of back neck to lower edge of waist elastic	
10	**BACK WIDTH:** hang your arms relaxed on your sides. The measurement is taken horizontally between shoulder blades (i.e. from sleeve seam to sleeve seam), from and to the point where your arm meets your body (but not to armpit) about 4" (10 cms) from neck downwards.	
11	Shoulder length: Measure from neck to shoulder tip. Shoulder tip is found when you raise your arm to horizontal position and feel where there is hollow/pit between shoulder and arm bones. Hold your arm horizontal, if necessary, to find this point.	
12	Waist-Abdomen: Measure vertically from lower edge of waist elastic to lower edge of abdomen elastic. Measure at front center.	
13	Waist-Hip: Measure vertically from lower edge of waist elastic to lower edge of hip elastic. Measure at the side.	
14	Biceps circumference: Measure at widest point of upper arm.	
15	Wrist circumference: Measure over wrist bone	
16	Overarm: Arm length from shoulder tip (as described above) to wrist. Bend arm slightly and measure over outside of elbow.	
17	Outside seam: Measure from waist over the outside curvature of the hip to the desired cuff length.	
18	**CROTCH DEPTH:** Sit on *unpadded* bench or chair. Measure vertically from waist elastic to chair level on both sides, and use the longer measurement. Measure in a straight line, not along the outside hip curve. (Crotch depth can also be measured from a pair of old, well fitting pants.) Crotch depth is the difference between outside and inside length of pants.	
	Desired cuff circumference, not ankle circumference	
	Desired jacket length from waist elastic to hem	
	Desired skirt /dress length from waist elastic to hem	

Important things to be taken into consideration when measuring

The most important measurements are the ones written in on the measuring chart in **BOLD CAPITAL LETTERS**: waist height, back length, back width, and pants' crotch depth.

If one of these four measurements is wrong, the result may be a distorted pattern and it is difficult to figure what measurement is wrong. If some other measurement is wrong, you get either a too-tight or a too-loose garment and you can easily see what measurement to correct and to what direction.
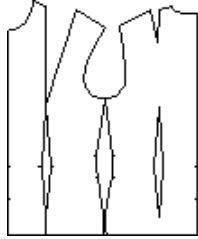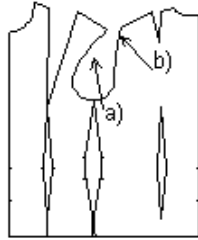

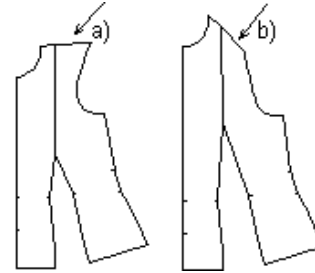Figure 3: normal sloper   Figure 2: back width wrong   Figure 1: waist height/back length wrong

Normally the pattern for basic sloper is more or less like Figure 1. Front and back shoulders slope downwards to shoulder tip. Armscyes curve inward. Back armscye can be rather straight but should never bulge outward.

If the pattern is like in Figure 2 -- i.e. front armscye curves strongly inward (a) and back armscye bulges outward (b), back width has been measured wrong and is too much. Measure back width anew.

Please note that this measuring error causes the garment to be too loose at back and too tight at front. Therefore the situation cannot be corrected by only reducing width of back piece. The pattern must be redrawn using the correct back width measurement.

If waist height in relation to back length is wrong (refer to Figure 3), the result is either a shoulder that slopes to wrong direction (a) or a shoulder which is too steep (b). If you measure waist height as instructed in PatternMaker measuring instructions i.e. double around back neck and divide the result by 2, there seldom is any error in waist height. Therefore the error usually is in back length.

If shoulder slopes in wrong direction (a), back length is too much and if shoulder is too steep (b), back length is too little. Change back length 2-3 cm in the needed direction and see if it is enough to correct the situation. If it looks good, you see to which point at neck back length has to be measured to be OK.

If the subject stands in a very upright, military position with bust out and abdomen in, also waist height may be too much. Please make sure that the subject stands in a relaxed position when she is being measured.

In some cases a steep shoulder may be due to the subject's body shape. This is the case if the subject has a very prominent bust. And conversely, if a subject has a very flat bust and/or a very round back, the shoulder can be rather straight.

Thus, there are cases, where the patterns are all right even if they look "odd". When the patterns are drawn according to a person's own measurements, they should not be compared with patterns drawn according to "normal" or "average" measurements. If you are not sure of the measurements taken, you have a very good and simple way to check them: sew a muslin with the basic bodice patterns. If it fits on the subject, you can be sure that all other garments sewn with PatternMaker macros will fit well.

If you get an error message:

        value out of range in line …
        coord (32,33,sqrt(op*op-oke*oke),-oke);

it means the measuring error is so drastic that the program is unable to draw the patterns at all. Front shoulder does not meet armscye line. Then either back length is too little or waist height too much. It may also be that shoulder length has some influence: shoulder length may be too short.

Also, in some other cases there may be reason for checking shoulder length measurement. If shoulder is too short, there will be a corner inward where front and back shoulder meet at shoulder tip and vice versa.