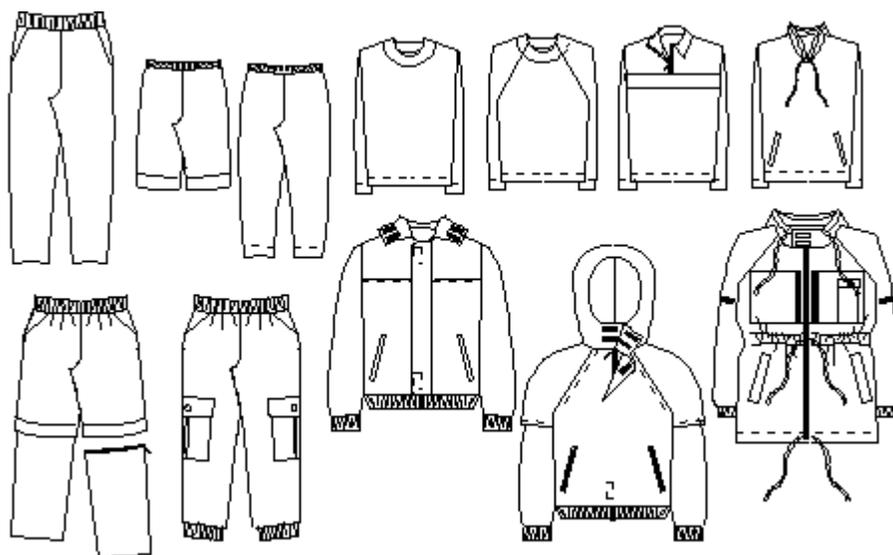


PatternMaker Software

Men's/Women's Outerwear Collection

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INTRODUCTION

Welcome to the PatternMaker Outerwear Collection! This macro collection contains two individual macros: jacket and trousers, each with many style options to choose from.

TAKING YOUR MEASUREMENTS

The Outerwear collection is based on the Scandinavian pattern drafting system, and uses some of the same measurements as other PatternMaker men's' and women's' 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. Since outerwear garments are designed to fit more loosely, only a few of the usual measurements are needed.

This macro also offers a set of standardized measurements in sizes XS – 4XL. Measurements are as follows:

Measurements	XS	S	M	L	XL	2XL	3XL	4XL
Chest circumference	33.1	36.2	39.4	42.5	45.7	48.8	52.0	55.1
Hip circumference	33.9	37.0	40.2	43.3	46.5	49.6	52.8	55.9
Waist circumference	26.4	29.5	32.7	35.8	39.0	42.1	45.3	48.4
Waist height (women only)	20.1	20.7	21.3	22.0	22.6	23.2	23.9	24.5
Back width	14.2	15.0	15.7	16.5	17.3	18.1	18.9	19.7
Back length	17.0	17.3	17.6	18.0	18.3	18.6	18.9	19.2
Neck circumference	14.6	15.4	16.1	16.9	17.7	18.5	19.3	20.1
Arm length	24.8	25.2	25.6	26.0	26.4	26.8	27.2	27.6
Pants outside length	30.3	31.1	31.9	32.7	33.5	34.3	35.0	35.8
Crotch height	40.7	41.9	43.1	44.3	45.5	46.7	47.8	49.0
Wrist circumference	6.3	6.6	6.9	7.2	7.6	7.9	8.2	8.5

RUNNING A MACRO

When you first start the PatternMaker program, you will see a blank drawing area. To run a macro from the Outerwear 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:

- outerwear_jacket
- outerwear_trousers

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.

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

Note: We always recommend that you make a muslin to test the fit of any new garment.

outerwear_jacket.mac:

Three shirts, four jackets, with options:

- 3 ease categories
- Set-in or raglan sleeves
- 3 collar styles
- 3 hood options

outerwear_trousers.mac:

Leggings, one- or two-piece sport pants; detachable leg option. You can specify the outside seam length, to make shorts or pants of any length.

- 3 ease categories
- 5 pocket styles
- 2 leg widths

ELASTIC FABRICS

If you use elastic fabric for the garment, make your size selection according to garment type and use the SCALE and RESIZE commands to adjust the patterns to account for the stretching in the fabric. The leggings option automatically asks for fabric scaling factors, but you can also apply scaling to other garments after the pattern is on the screen.

To determine the scaling factors for a particular fabric, stretch the fabric and measure its elasticity. Fold a piece of fabric in half and stretch it separately in height and width along a ruler. "Height" is the direction that will be vertical when you put the pattern on the fabric, and "width" is the horizontal direction. Measure both the unstretched and stretched width and height of the fabric. The Scaling Factor needed is calculated by dividing the measurement of the unstretched fabric by the measurement of the stretched fabric. Stretch moderately, as the fabric would stretch on your body.

Example:

If the unstretched width and height of the fabric is 40 cm and the stretched width of the fabric is 50 cm and height 45 cm:

Horizontal Scaling Factor is $40/50=0.8$ and
Vertical Scaling Factor is $40/45 = 0.9$

In other words, if the fabric stretches 20%, the scaling factor is 0.8.

It is better to use scaling for elastic garments than to try to figure out which smaller size to choose. Select your regular size and scale the patterns according to the fabric elasticity.

SEWING INSTRUCTIONS

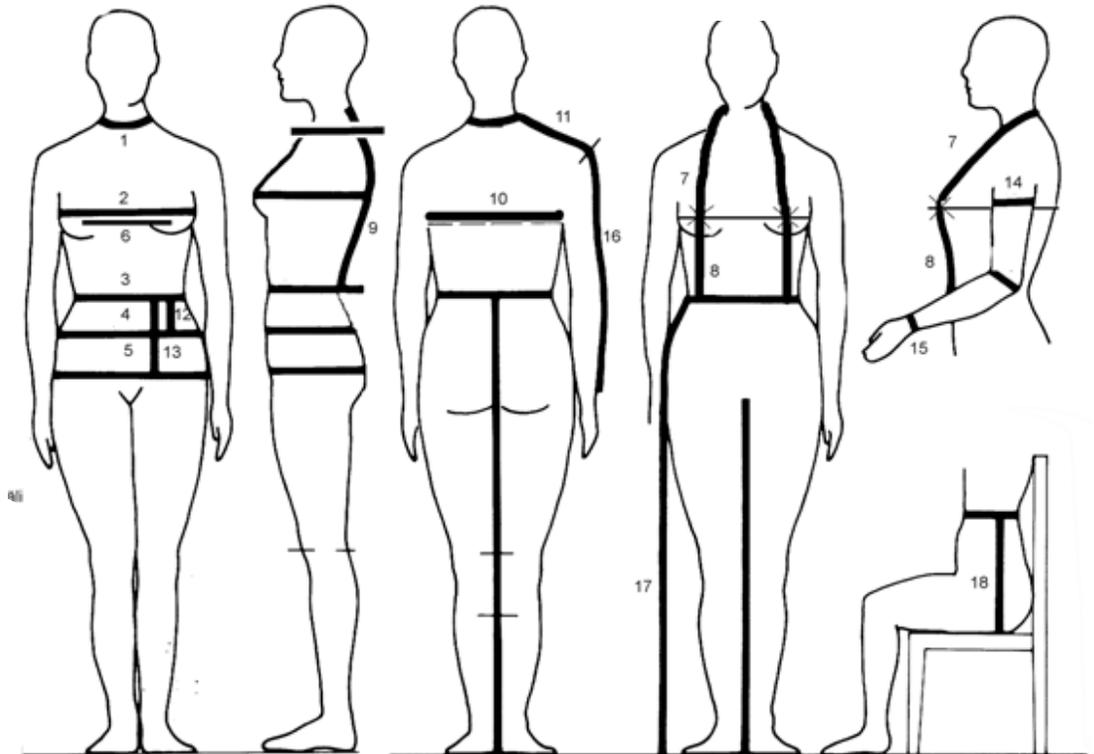
For sewing instructions, refer to a sewing text or the instructions for the PatternMaker Men's or Women's Garment Collections (included in PDF format on the PatternMaker CD, or available online at www.patternmaker.com)

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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.

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Women's Measuring Chart

Name: _____

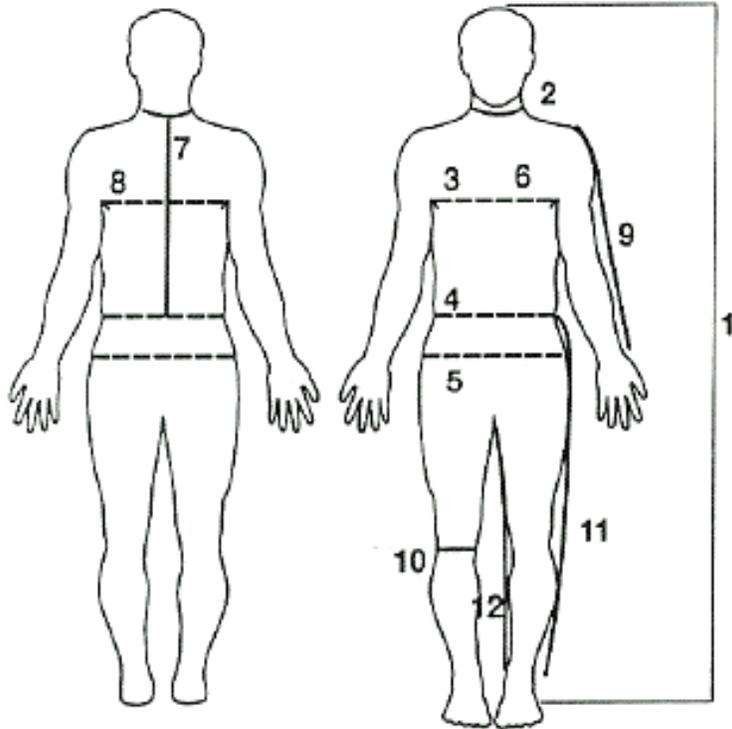
Date: _____

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 <i>unpadded</i> 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	

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Measuring for Men's Garments

1. body height
2. neck circumference
3. chest circumference
4. waist circumference
5. hip circumference
6. chest width (Front Width)
7. back length
8. back width
9. sleeve length
10. knee circumference
11. outside seam length
12. inside seam length



Following are the instructions on how to measure for PatternMaker men's macros.

You will need three pieces of elastic or heavy twill tape, a measuring tape, and another person to read the measuring tape, if you are the subject. Don't try to take the measurements yourself, because bending over to read the tape will distort the measurements. Stand straight but relaxed when you are being measured. You will receive the best results if the measurements are taken over underwear. Take measurements accurate to the nearest $\frac{1}{4}$ inch or $\frac{1}{2}$ centimeter.

Place 1" (3 cm) wide elastic bands around the chest, waist and hip. Search carefully for the correct places of these elastic bands. Waist elastic should be at the natural waistline for shirt, jacket, and vest macros. For the pants macro only, the waist elastic should lie around the point where you want your pants' waistband to fit. For all other patterns, be sure that the elastic is level from front to back. Hip elastic goes around the points where your hip circumference is maximum (these may not be the points that look largest in profile).

It is **IMPORTANT** to use the elastic bands throughout all measuring. **ALL VERTICAL MEASUREMENTS ARE TAKEN FROM AND TO THE LOWER EDGE OF ELASTIC BANDS.** Don't remove the elastic until all necessary measurements have been taken.

Except for pants' and sleeve cuff circumference and jacket length, you should use the actual body measurements. **DO NOT ADD ANY EASE** to the measurements, the program does it for you. **DO NOT TIGHTEN MEASURING TAPE.**

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

PatternMaker Software

Men's Measuring Chart

Name: _____

Date: _____

SHIRT AND JACKET		
1	Body Height: Measure the full height of the subject.	
2	Neck Circumference: Measure around lowest part of neck, at the base.	
3	Chest Circumference: Marked with elastic. Measure around the fullest part of the chest, under armpits, keeping the tape high at the back.	
4	Waist Circumference: Measure waist at elastic.	
5	Hip Circumference: Measured over the largest part of the subject's bottom/thighs at elastic.	
6	Chest Width: Measure across chest at widest point from sleeve seam to sleeve seam. Hold your arms relaxed at your sides. Measure at the points where the arms touch the body.	
7	Back Length: From bottom of back neck to back waist center. For the bottom of the neck, use the fifth vertebra (the one that makes a bump at the base of the neck).	
8	Back Width: Width across shoulder blades from sleeve seam to sleeve seam. Measure at widest point of back. Hold your arms relaxed at your sides. Measure at the points where the arms touch the body.	
9	Sleeve length: Measure from shoulder tip to wrist. Shoulder tip is where you can feel a gap between the shoulder and arm bones. Hold your arm horizontal, if necessary, to find the point. Hold arm slightly bent and measure over outside of elbow.	
	Jacket Length from Waist: From waist to desired length of jacket.	
	Jacket sleeve cuff circumference: Desired jacket sleeve cuff circumference; not needed for shirt	
PANTS		
4	Waist Circumference: Measure around the point where you want the pants' waistband to fit. This may be at a different level than for shirt and jacket. Some men want to wear pants below abdomen at front.	
10	Knee Circumference: Measured over the largest part of the subject's knee	
11	Outside Length: From bottom edge of waist elastic to desired cuff length. Measure over the outside curvature of the hip.	
12	Inside Length: Ask subject what inseam he usually buys, or measure from crotch to desired cuff length on an existing pair of pants.	
	Cuff Circumference: Desired circumference of pants' cuff. This is the actual circumference of the pants leg, not the ankle measurement.	