



The three princesses of Saxony, Lucas Cranach the Elder, 1535



The Preaching of St John the Baptist (detail), Bacchiacca, 1520

Elizabeth I The Hampden Portrait, Steven van der Meulen, 1563



## Types of Pleats

Knife - lay flat, very forgiving, may require inversion or box at center back or front



Box - more even and symmetrical than knife pleats, requires more precision, easy to pad out.



Either of these simple styles can be stacked or padded to create more fullness.

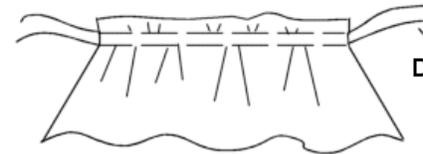
Roll - Helpful for pleating large amounts of fabric down to small bands, creates roundness at top of the pleat.



Cartridge - Primarily used in 16th century tailoring, can help with bumping out the top of the pleat for a more exaggerated look.



Gathering - Not really pleats, but helpful and useful, gathering stitches are pulled tight and then the resulting fabric is stitched down into place. This makes gathering a little more imprecise than pleats. It just depends what kind of look you are going for.



## How to Pleat (Knife, Box, Roll)

nota bene: This is **A** way to pleat, not the only way.

In order to get even pleats throughout the pleated area, we will use the same method for three different styles of pleating. We will use a process of halving both sections of fabric (non-pleated and pleated) into a more manageable section before pleating. For ease of explanation I will use a skirt pleated into a waistband as an example. Take measurements of both your skirt fabric (the item to be pleated) and the waistband (the smaller item that has something pleated TO it). Mark (marker, pin, chalk) your half and quarter measurements on your waistband and skirt. If the skirt fabric is quite large, mark eighth and sixteenth also. You may also choose to make all marks down to one inch sections of your waistband. But be careful not to confuse all the marks later in your process.

Pin (with pins perpendicular to the waistband) the left and right sides of the skirt to the left and right sides of your waistband. Pin the middles together.

Continue matching midpoints of the skirt and waistband until you have either a) a small enough amount of fabric that you are able to work with it OR b) not enough room left on the waist band to actually fit in any pleats or additional pins. This step will change depending on how full your eventual skirt will be and what type of pleats you are utilizing. Roll pleats require enough room for each roll whereas knife and box pleats can change their size depending on the amount of room that you have. Stacking can also help if you do not have a lot of room remaining in your waistband.

Once the entire skirt is pleated and pinned to the waist band, sew the pleats down to the waistband. Then turn the waistband up and there you have your pleats! You can use this method for any type of pleating, the "waistband" can be the smaller item that something is being pleated TO or it can be a scrap piece of fabric that gets removed or cut down after sewing the pleats in place.

### Advanced: Cartridge Pleats

Cartridge pleats are done differently from those above. They are primarily used on two finished pieces. As in the example, we would have a finished skirt and a finished bodice or waistband. The benefit of cartridge pleating is that you can pleat more and heavier fabric into a small waistband since you are not trying to turn the pleats at all.

The skirt is marked along the pleated side at regular intervals. This is most easily accomplished with a clear ruler and pen or marking utensil. The length between your dots will determine the depth of your pleats so it may vary from item to item. But you should be consistent throughout your piece. For skirts and heavier items to be pleated, mark a second set of dots approximately 2" down from the first set. This will create a second draw line for stability and strength. Using a long piece (at least 5" longer than half the finished pleating will be) of heavy thread or upholstery thread, stitch along the dots, going down on one dot and up on the next. You will want to start in the very middle of your fabric and working to the outsides. This will mean the pleating is done in two passes and will help with fit if needed. You may need to draw the fabric together in order to get each half done in one pass.

Once your skirt is all drawn together with the stitches (both rows), tie off your thread. You will then whip stitch the top of each pleat to the waistband along the outer edge of the pleats. When you're done the resulting pleats "pop" out from the waistband.

Cartridge Pleating Resources:

[http://www.renaissancetailor.com/demos\\_cartridgepleating.htm](http://www.renaissancetailor.com/demos_cartridgepleating.htm)

<http://www.elizabethancostume.net/cartpleat/>

<http://www.extremecostuming.com/articles/cartridgepleating101.html>

Images from: <http://www.elizabethancostume.net/pleats/> and

[http://www.craftandfabriclinks.com/sewingbook/sewbk6\\_pg3.html](http://www.craftandfabriclinks.com/sewingbook/sewbk6_pg3.html)