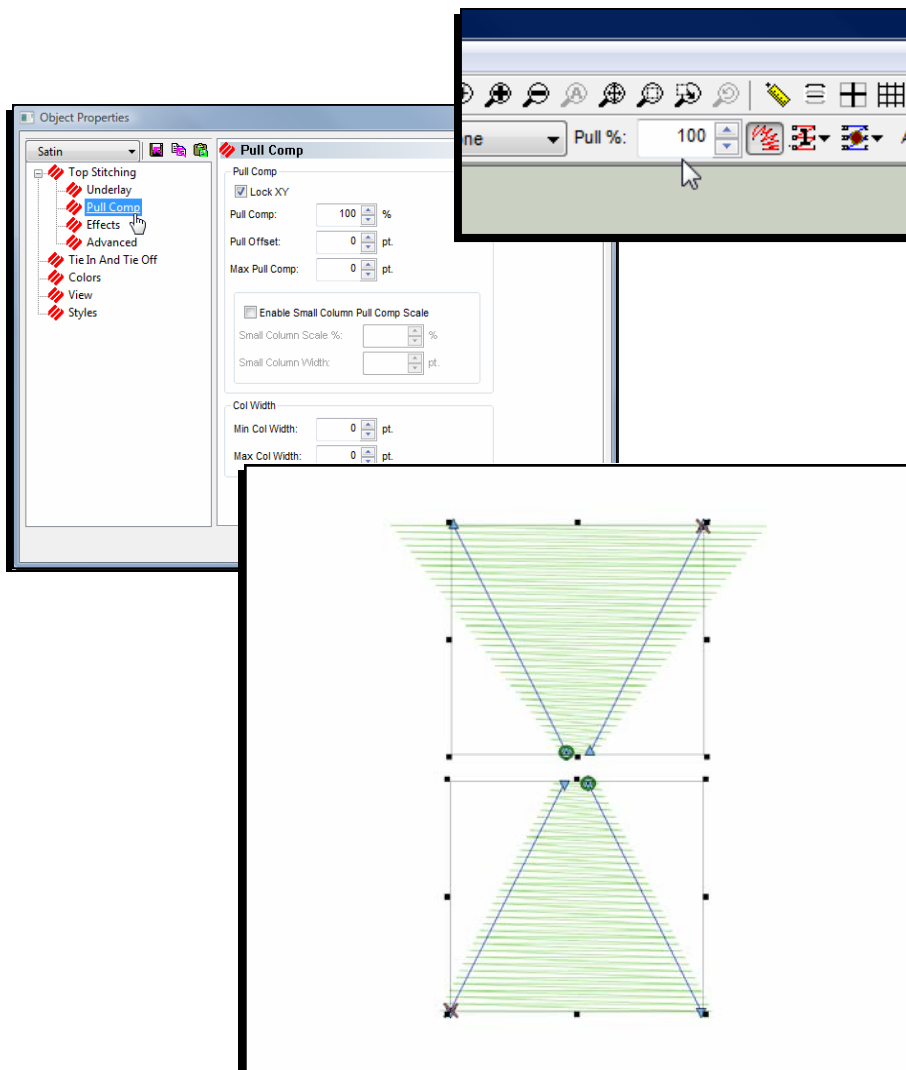


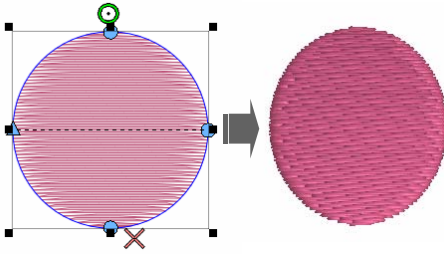
Pull Compensation

DesignShop V9 Quick Reference Guide

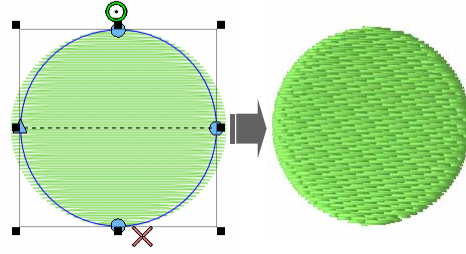


Enabling Pull Compensation

Using pull compensation is a way to compensate for the pull of stitches on a material. If you were to digitize a circle and then sew it out, you may notice that your circle looks more like an oval. As stitches are sewn, they pull in. The distortion of your shape is dependant on the stitch direction of the element.

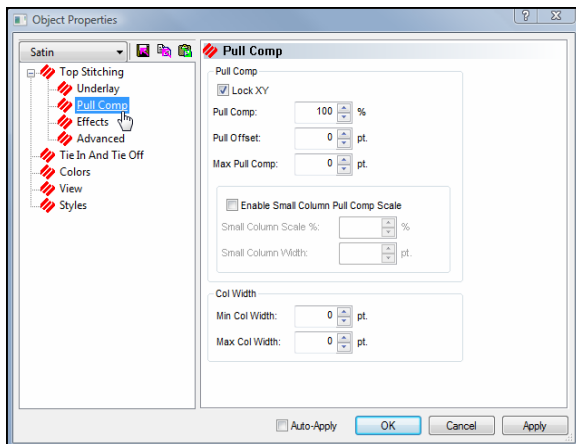


If you digitize a circle, you may have an oval on the sewout. Depending on the type of material you are sewing, you may need to add some pull comp.



As you add pull comp to the digitized design, the stitch lines are extended to compensate for the pull of the stitches. The digitized circle with the added pull comp will sew out as a circle.

When an element or an input tool is selected, you can add or change the pull compensation using the percentage on the Dynamic Properties Bar. If it is already open, you could also use the Object Properties window to access more options.



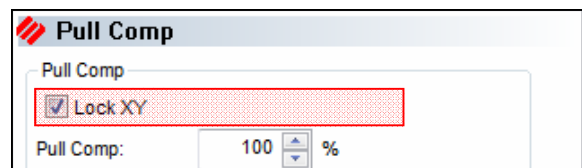
* Pull Comp on the dynamic properties bar

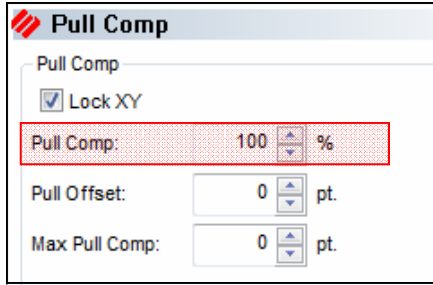
The dynamic properties bar only has access to pull comp. If you want to use pull offset instead, you'll need to use the object properties window.

Pull Comp Options (In Object Properties)

Lock XY

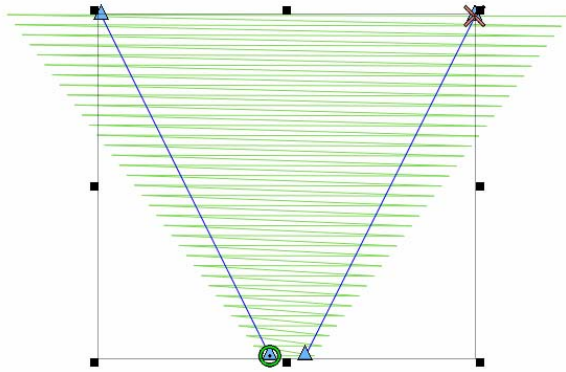
- Locking XY keeps both the horizontal and the vertical pull comp equal.



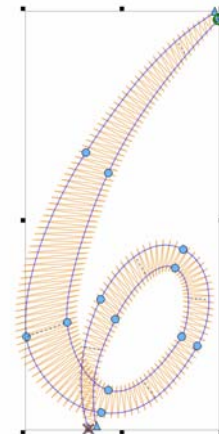
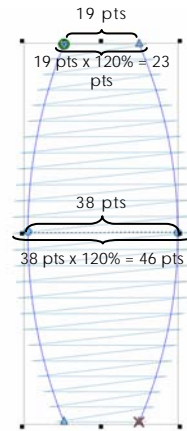


Pull Comp

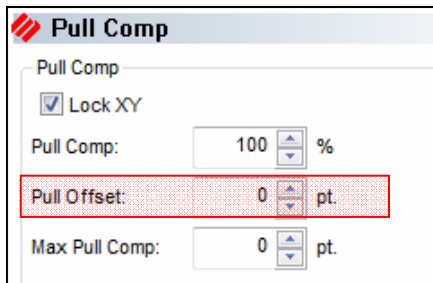
- Multiplies the stitch lines in an element by the specified percentage, extending them past the wireframe edge.
- Affects wider areas faster than thinner areas
- Used to compensate for the pull of stitches



Because Pull Comp uses percentages, it affects the wider areas much more quickly than the thinner areas.

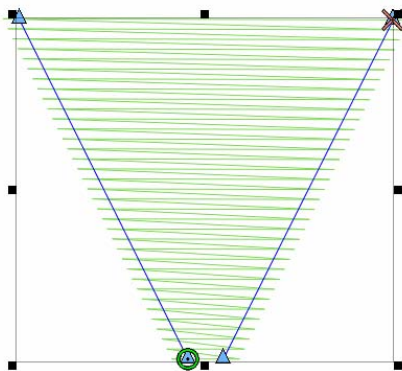


Using Pull Comp on smaller lettering that changes widths can cause the larger areas to expand into each other while doing little to assist the thinner areas.

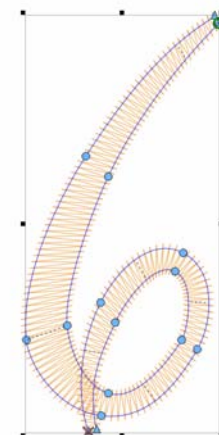
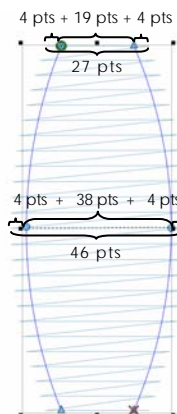


Pull Offset

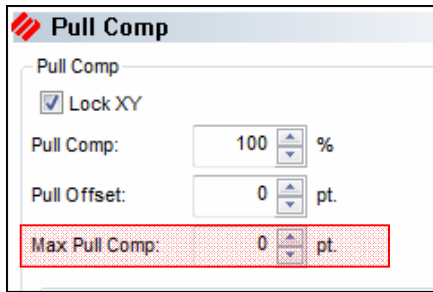
- Extends the stitch lines of an element by adding the specified amount to each side
- Affects all stitch lines evenly
- Adding a few points of Pull Offset can help smaller lettering and thin columns sew a bit more smoothly.



Because Pull Offset adds points to each side, it affects all stitch lines evenly.



Using Pull Offset on smaller lettering that changes widths can ease thread breaks and help visibility without smashing the wider area of letters together.



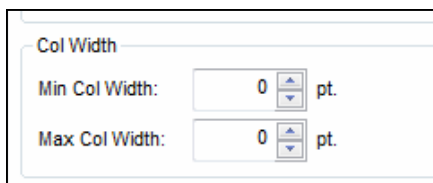
Max Pull Comp

- Specified Maximum value for pull comp.
- Prevents pull comp from getting too wide on areas with large line length when pull percentage amount is specified.



Small Column Pull Comp Scale

- Defaults to off.
- Adjusts smaller areas of elements differently than larger ones.
- Small Column Scale %
 - Adds additional pull compensation for smaller areas of elements
- Small Column Width
 - A small column is defined by any element width falling below this value.



Column Width

- Min Col Width
 - If a digitized stitch line falls short of this value, it will be extended to meet this length. No stitch lengths will fall below this value.
 - This can sometimes be used to help reduce thread breaks from having stitches that are short than the width of a needle.
- Max Col Width
 - If a stitch line width exceeds this value, it will be adjusted to fit this length.