New! *ANECALC* Help Guide

ANECALC is a tool developed by American & Efird (A&E) to assist in estimating the **amount of thread consumed** in a sewn product. This information can then be used to calculate the **Thread Cost per Garment** and the **estimated number of cones** you will need for a quantity of sewn products you are planning on producing.

You do not need to have any special software on your computer because *ANECALC* was developed using Microsoft® Excel® spreadsheets.

The *ANECALC* workbook has Sheets shown as Tabs at the bottom used for the following:

INSTRUCTIONS tab on how to use the program.

New! **ISO STITCHES** for identifying the correct stitch type.

New! **WORKSHEET** tab and **THREAD COST** Tabs have been combined so you can see everything on one spreadsheet. This also allows you to copy the entire worksheet to compare thread cost using other thread combinations.

mm to Inches tab that helps you convert fractions of an inch to millimeters.

STARTING A NEW *ANECALC* SPREAD SHEET

- To begin a new *ANECALC* spreadsheet, you can either use an existing Apparel Guidelines *ANECALC* spreadsheet for a similar garment and modify it for the garment you are doing the analysis on; or you can decide to begin from scratch with a new Spreadsheet.

WHEN STARTING FROM SCRATCH

- When you are starting from scratch with a new Spreadsheet, ilt is important that you select the correct spreadsheet for the weight of the fabric being used in the garment. There are three basic *ANECALC* spreadsheets:

Light Weight	2 to 4 oz weight fabrics
Medium Weight	5 – 8 oz weight fabrics
Heavy Weight	9 – 15 oz weight fabrics

The Weight of fabric determines the ratio of Needle to Bottom thread on the Thread Consumption Table that is used to estimate the amount of thread consumed.

- For each sewing operation on the garment, list the name of the sewing operation, what ISO Stitch Type is being used, how many rows of ISO Stitch there are, the Stitches Per Inch (SPI), and the length of the seam.

AVERAGE SEAM THICKNESS

- At the top of each *ANECALC* spreadsheet is a cell for the average thickness of the seam in millimeters. This is based on

SELECTING THE ISO STITCH TYPE

- If you are not family with the ISO 4915 stitch numbers, you can look them up on the ISO4915 Tab below.
- For many stitches you must first measure the needle spacing or seam width before selection the stitch.

(Ex. 504 -1/8" – 3 Thd Overedge).

- It is important to select the correct ISO 4915 stitch because this will determine the amount of thread consumed in making the seam.

NUMBER OF ROWS OF STITCH

- Refers to the number of rows of ISO stitch used to make the seam. This does NOT refer to the number of needles or the number of pieces (i.e., pockets, etc.) being sewn, BUT the number of rows of the ISO stitch you selected in the previous column to make the seam.
- For example, a 406 stitch is a two needle bottom coverstitch. This two needle stitch type makes only one row of stitch. Rule: whenever the needles are connected with thread on either the top or bottom side of the seam, one row of stitch is being produced.
- On the other hand, when you twin needle topstitch a pocket with a 301 Lockstitch, then two independent rows of lockstitch are being used.

SPI

- SPI refers to Stitches Per Inch and is the measurement of the number of links of thread between needle holes in one inch.
- For example, a typical number of stitches per inch on denim would be 8 spi. See A&E's technical bulletin on *Selecting the Proper Stitches Per Inch* can be found on A&E's website.

LENGTH OF SEAM

- The length of seam is the measurement of the seam length including seam margins but does not include chain-off.
- A&E has *ANECALC* spreadsheets available in either inches & yards or centimeters & metres. The selection of the proper sheet is normally dependent upon the international location and what measurement system is used for the cone put-ups. To convert from meters to yards multiply times .91. To convert from meters to yards divide by .91.
- In the Americas., a typical cone of thread is wound on a 6,000 yard put-up. In Europe or Asia, a typical cone is wound on a 5,000 metre put-up.

Many sewing operations have mirror components on each side of the garment. A right and left cuff, a right and left pocket, etc.