# Introduction of new functions of Blank Nesting in DF52

NOTE: This document is intending to introduce the new functions of Blank Nesting in DF 5.2. This is a brief description. The more detailed description about those new functions will be added in to the *User s Manual* of eta/DYNAFORM 5.2.
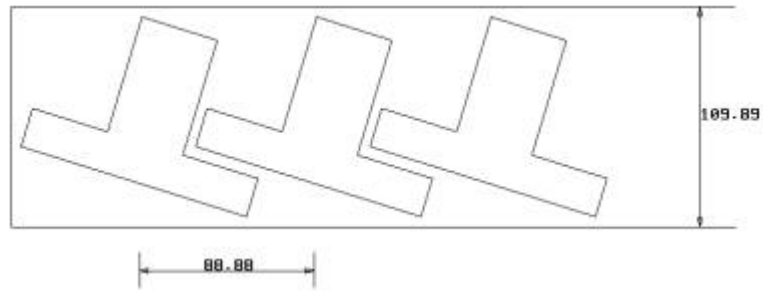
Blank Nesting

This function enables the user to nest the blank in the strip. You can visit this function by clicking the **BSE->Development->Blank Nesting.**
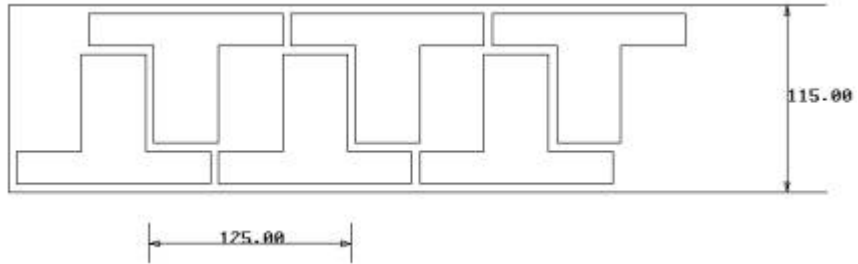
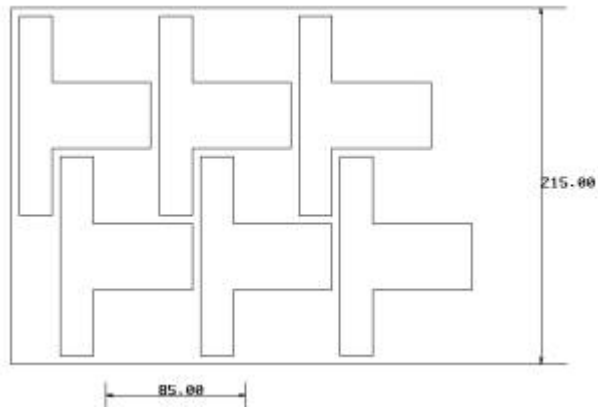The dialog window is shown in Figure below.
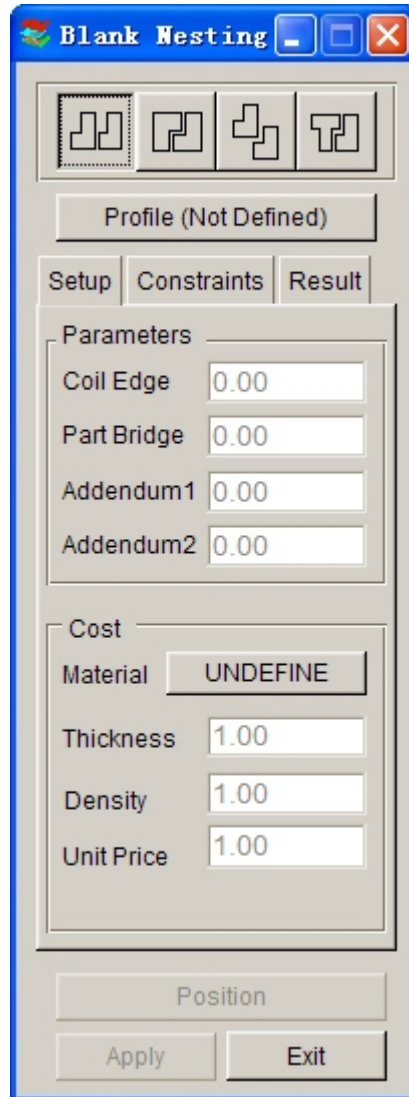
There are four types of BLANK NESTING: One-up Nesting, Two-pair Nesting, Two-up Nesting and Two different blanks. An example of blank nesting is shown in Figure 7.3.7. A detailed description of each function is given in the following section.
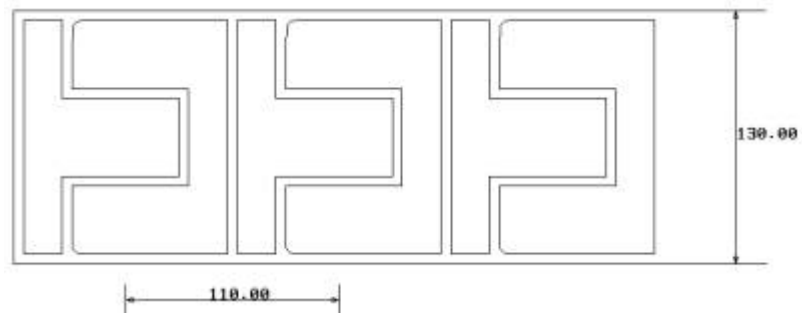
a) One-up Nesting

b) Two-pair Nesting

c) Two-up Nesting

d) Two different blanks

Figure 1 Blank Nesting

A detailed description of each function is given in the following section.

One-up Nesting

The ONE-UP NESTING function enables the user to generate the nesting result with one line. The dialog window is shown in Figure 2.
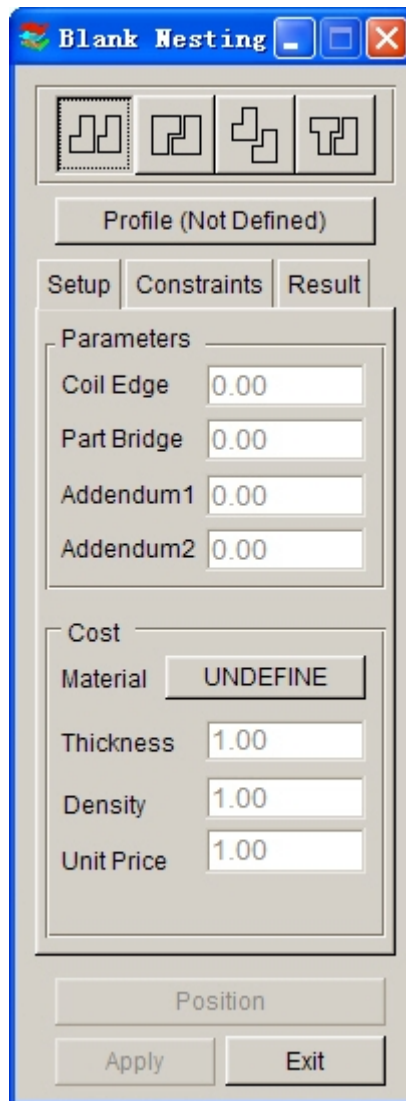

Figure 2 One-up Nesting

- **Profile(Not Defined)**

  Click the **Profile (Not Defined)** button in Figure 7.3.8, and the program will display the Select Line menu to prompt the user to select lines, as shown in Fig 3.
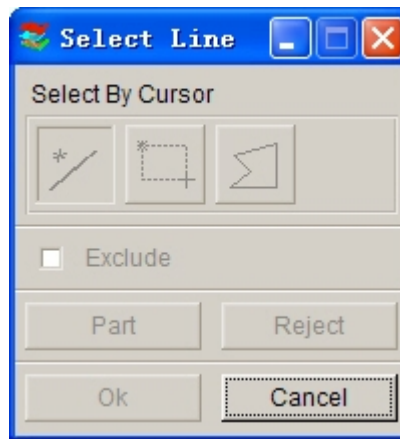

Figure 3 Select Line

If the profile is selected, the button name will be set to Profile.

Step

Coil Edge, Part Bridge and Addendum1 in setup parameters are used to control the gaps of blank nesting, as shown in Figure 4

- **Coil Edge**

Coil edge allows user to define the gap between part and strip edge.

- **Part Edge**

Part Edge allows user to define the gap between parts.

- **Addendum1**

Addendum1 allows user to expand the part.

ameters

The Cost group enables the user to input the parameters so that the program can give the probable cost of the strip. Those parameters include Materials, Thickness, Density and Unit Price.

Constraints

This function enables the user to constrain the blank nesting by giving the Dimension and Angle. as shown in Figure 5
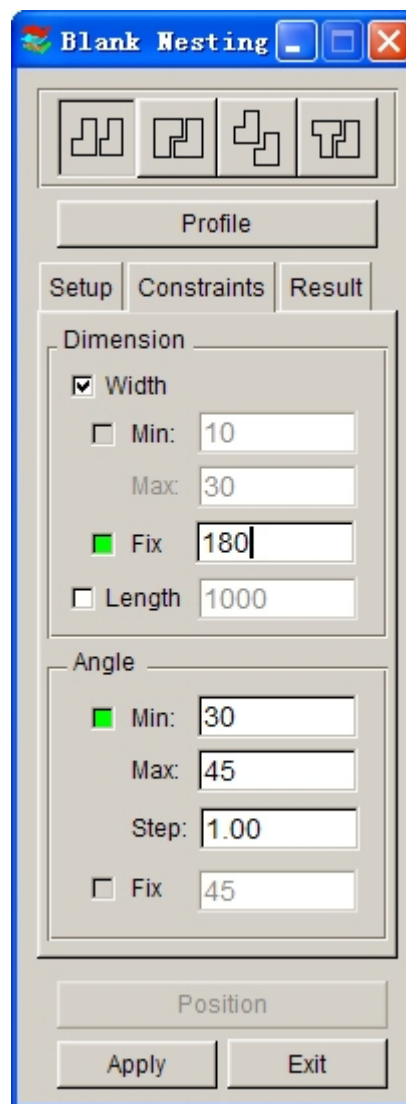
Figure 5 Constraints

- **Width**

The float width between Min and Max or Fix width can be the width constraint.

- **Length**

The Fix Length can be the length constraint.

Angle

The float angle between Min and Max or Fix angle can be the angle constraint.

- **Apply**

Click the **Apply** button in Figure 5, and the program will run the blank nesting and show result as shown in Figure 6 and Figure 7.
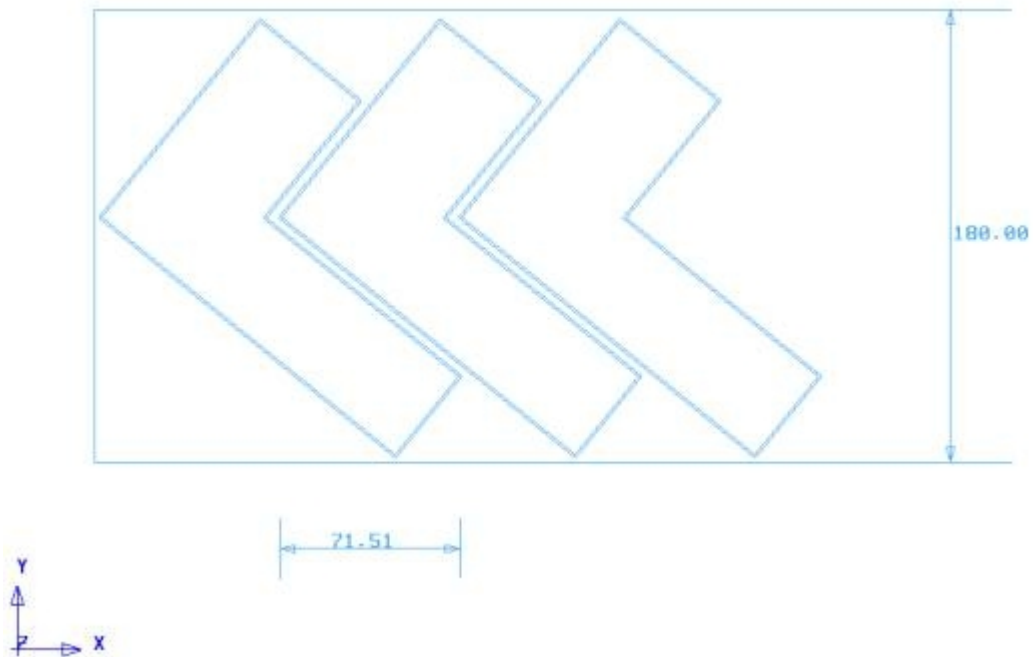

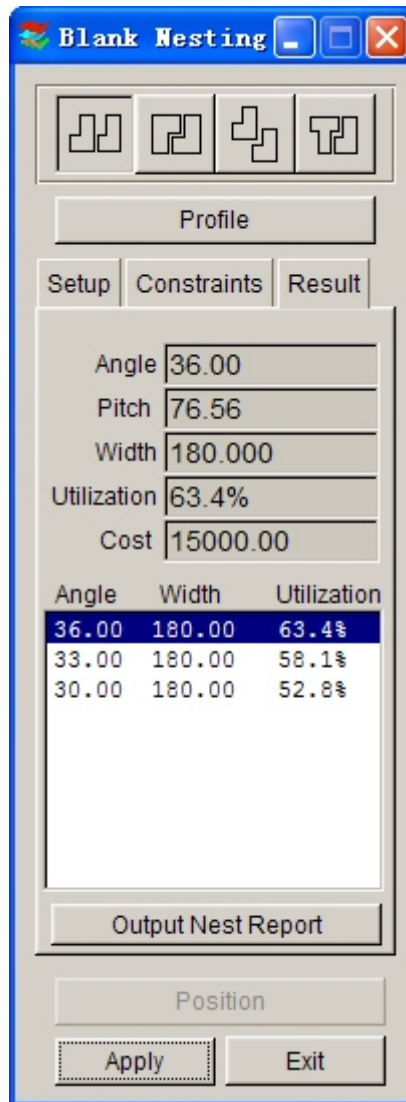Figure 6 The result of One-up Nesting

Figure 7 Result of Blank Nesting

The program will give the user all the available schemes that meets the giving constrain. User can click the mouse on the result list and the selected scheme will highlight and the corresponding constrain are displaying on the text box above the window including Angle, Pitch, Width, Utilization, Cost. As shown in Figure 7 there are three schemes for user to select.

- **Output Nest Report**

This function enable the user to output the result as a *.htm file.

Two-Pair Nesting, Two-Pair Nesting and Two Different Blanks

The TWO-PAIR NESTING function enables the user to generate the nesting result with two pair nesting blanks with their orientation is opposite. The setting of Setup and Constraint in this function is similar with that in the One-up Nesting. But the Position button below the Blanking Nesting window is active after selecting the profile. This button enables the user to adjust the relative position of the two blanks. Clicks this button and the program will pop up the Auto Position window as Figure 8 shown.
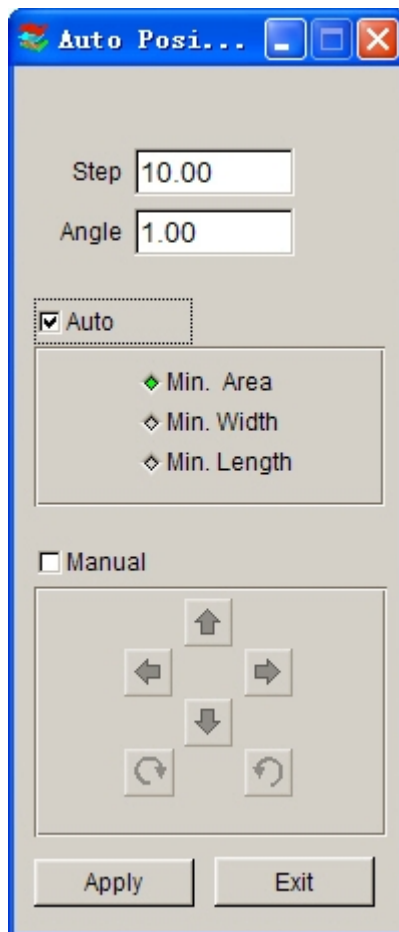
Figure Auto Position

● **Step**

This option enables the user to set the increment of translation. When the user adjust the position of the blank through Manual pressing the translation button, the blank will translate an increment value once the user click translation button one time.

● **Angle**

This option enables the user to set the increment of rotation. When the user adjust the position of the blank through Manual pressing the rotation button, the blank will rotate an increment angle once the user click rotation button one time.

● **Auto**

This option enables the user to position the nesting blank automatically through selecting the anticipate result.

Min. Area

The program will position the nesting blank with the minimal area of the strip.

Min. Width

The program will position the nesting blank with the minimal width of the strip.

Min. Length

The program will position the nesting blank with the minimal length of the strip.

- **Manual**

This option enables the user to position the nesting blank manually through translating and/or rotating the nesting blank. There are six buttons on the Manual group. The user can press one of the buttons.

Enable the user to up-translate an increment (the Value in the Step text box).

Enable the user to down-translate an increment.

Enable the user right-translate an increment.

Enable the user to left-translate an increment.

Enable the user to clockwise-rotate an increment angle (the Value in the Angle text box).

Enable the user to anti-clockwise-rotate an increment angle.

Click Apply button to get the position result.

Click Exit button to exit this window.

Two-Up Nesting

The TWO-UP NESTING function enables the user to generate the nesting result with two up nesting blanks with their orientation is accordant. The setting of Setup and Constraint in this function is similar with that in the Two-Pair Nesting.

Two Different Blanks

The TWO-DIFFERENT BLANKS NESTING function enables the user to generate the nesting result with two different blanks. The user can adjust the orientation and the relative position of them. The setting of Setup and Constraint in this function is similar with that in the Two-Pair Nesting except that the user must select two profiles before doing this operation.