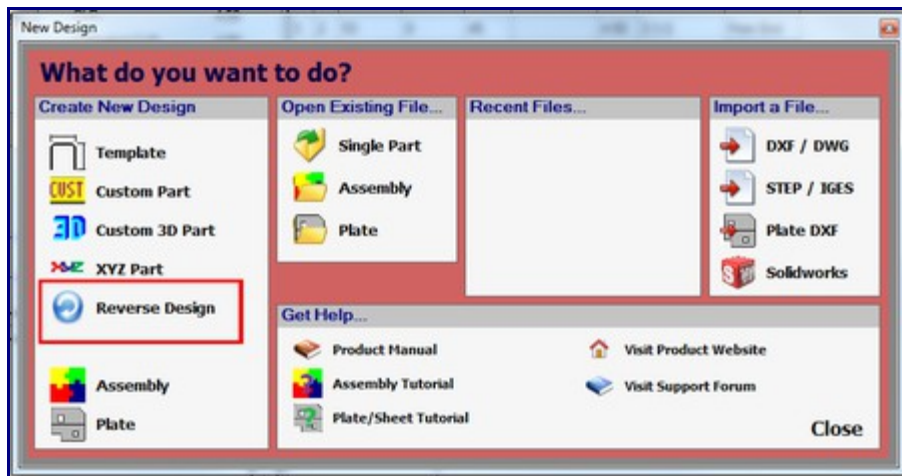# Reverse Design

Custom Item: Reverse Design

Description

The purpose the Reverse Design interface is to have a way to re-create a part by entering in a part's lengths, rotation amounts, and angles of the parts bends or by entering the information from a setup sheet. The Reverse Design interface has a more customizable length and rotation settings. See Settings tab --> LRA Settings: Reverse Design - Length and Reverse Design - Rotation to adjust or Tools menu - Options - Design Settings: Reverse Design - Length and Reverse Design - Rotation to set the defaults for Reverse Design.

How-To

Selection
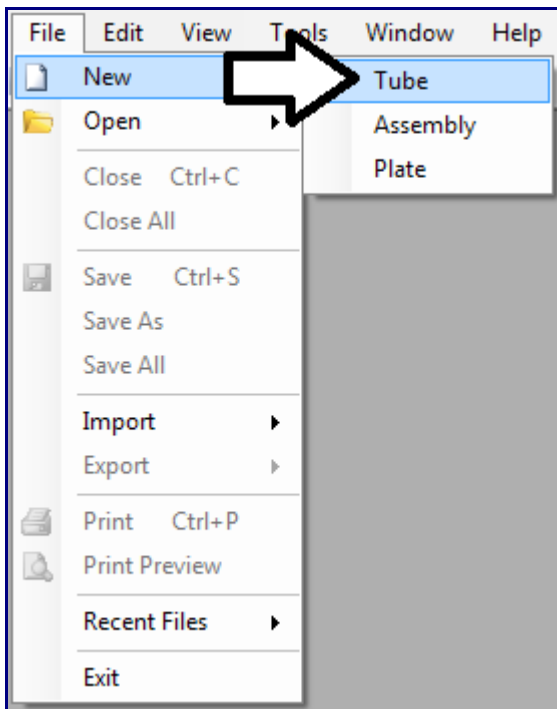
To create a reverse design, select the 'Reverse Design' option in the New Design menu that shows up when Bend Tech first starts up. This same menu can be will also be displayed when 'Tube' is chosen under 'New' in the 'File' menu or when the blank page icon (New Part) at the top of the page below the main menu bar is clicked.

Design

Once 'Reverse Design' has been selected, a new Reverse Design part design window will open. If a default die and material have not been set, a die and material must be chosen before designing the part. If necessary, choose a material and die in the Die and Material tab. Once a die and material are

selected, the Reverse Design part design section will appear.

The number of bends can be chosen from the 'Number of Bends:' drop down menu by clicking it and selecting a bend amount. Up to 50 bends can be added to a part. To the right of the design coordinates, a list of every bend will be shown along with the end length.

To change the starting angle of the part, enter a value in the 'Start Angle:' field.

Check the box next to 'Refresh on Keystroke' to have the 3D part display and results table updated immediately when changes are made in the part design section. Check the box next to 'Verification Points' to have blue points displayed on the part's starting point, the center of each bend, and on the end point in the 3D part display. Check the box next to 'Display Dimensions' to display the part dimensions on the part in the 3D part display.

To manually refresh the 3D part display and results table, click the 'Refresh Part' button.

To add a custom centerline radius, click the 'Add Custom CLR' button. Enter a value and click 'OK'. Doing this will add the entered value to the die drop down menus as 'Custom - (Entered Value)'. This will basically act as a die with only the CLR value.

Below all these options, the length, rotation, and angle values can be entered for each part's bend and the end length. To add a length, rotation, angle, or end value, just enter a number into any of the fields. Each bend will have a 'Die' drop down menu. Different dies can be selected for each bend by either clicking any of the 'Die' drop down menus and selecting a die/Custom CLR or by using the Detailed Die List. A bend must be selected before viewing the die list. To select a bend, click in any of the bend's LRA fields. Click the 'Detailed Die List' button to view the full die list. Once the die list is open, a die can be selected and added to the chosen bend. Click on a die to select and click the 'Select' button to apply it to the bend.