What is Bend Location Offset?

Bend Location Offset is the distance between where the bend truly starts in the die and the position on the die or bender where you desire to line up the bend mark locations on the material. As an example, many users will use the end of the die to line up the bend mark location. In this case the bend does not start at the end of the die, but maybe .750 of inch into it.

The Bend Location Offset moves the bend line marks up or down the tube. The direction is determined by the value. If the first leg of tube is too long than the value needs to be a negative number by the amount off and if it is too short the value is a positive number by the amount off.

If you know where your bend starts and are using a mark on the die or using a CNC machine, determining Bend Location Offset will be unnecessary.

Use the following procedure to determine the Bend Location Offset:

Select or cut a piece of material that will allow you to make a 90 degree bend. Place a mark a couple of inches down the tube (we are going to use 4 in our example). Line this mark on the tube to the position on the die or bender you would like to use as your position indicator (examples: end of the die, strap, screw, etc…). Bend the part creating a 90 degree bend when completed Measure the outside length of the leg (this is the one with the mark on it).

Formula: Bend Location Offset = CLR + Mark Location + (1/2 of the OD) - leg length

Example: Bend Location Offset = 6.25 + 4.0 + .875 - 1.875 = -.75

Notes:

- OD is the Outside Material Diameter
- The CLR is the value determined earlier in the manual in Step 1.
- The Mark Location is the distance from the end of the tube to the mark
- The leg length is measured similar to either legs in Step 2 earlier in this manual

Important: If your bender is a ROTARY COMPRESSION such as the JD2 Model 4, the Hossfeld bender or as described in Step 3 earlier in the manual then the sign needs to be reversed. So this means in our example of –.75 the correct value will be .75