Determining Stirrup Placement

For an AFO With Tibial Torsion

- Draw a line across the width of the paper 1" from the bottom (baseline)
- Locate the midpoint of the baseline and draw a line perpendicular to it about 4" high (centerline)

- Find the ankle M-L measurement on the orthometry form
- Divide this measurement in half and mark the result on either side of the center line
- Draw perpendicular lines 4" high on these marks (left and right side lines)
- Connect these two marks with a line (tibial torsion line)
- Place a mark on the center line ¼" from the baseline
- Using a protractor, establish the toe-in/toe-out line on the baseline 1/2"-3/4" from the medial side line
- Note: Toe-out line will lean laterally; toe-in line will lean medially

Place the shoe with the heel removed on the diagram so that:
- the medial border of the shoe is parallel to the toe-in/out line
- the back of the heel is on the 1/4" line
- The heel section is centered within the medial and lateral side lines
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- Mark the edges of the sole where the torsion line crosses

- Remove the shoe from the diagram and turn it over so that the sole faces you
- Transfer the marks on the sides of the sole to the bottom of the sole
- Connect the marks with a straight line (stirrup positioning line)

- Place the stirrup on the shoe so that the posterior edge of the stirrup is on the positioning line
- Trace the outline of the stirrup on the sole
- Determine where the holes in the tongue are to be drilled, mark and center punch them

- Bend the tongue of the stirrup to conform to the curve of the sole leaving a clearance of 3/16" to 1/8" at the anterior most point
- Drill all holes in the stirrup using an appropriately-sized drill for a #8 rivet
- Countersink all holes on bottom of the stirrup
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- Place the stirrup back on the shoe and mark the locations of the holes on the sole
- Drill one 3/16" hole in the sole and place a rivet through this hole from the inside out to position the stirrup
- Drill the remaining holes using the stirrup as a guide placing a rivet through each hole after drilling

You are now ready to rivet the stirrup to the shoe.