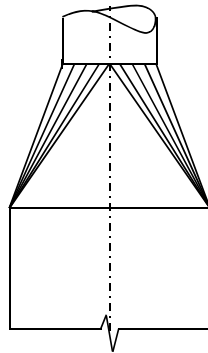


International Association of Heat and Frost Insulators and Asbestos Workers



Square to Round



Step 1: Draw the actual size of the square object including insulation, and divide into 4 equal parts. Label the center line A-A, and the baseline B-B.

Step 2: Set your dividers for $\frac{1}{2}$ of the outside diameter of the pipe insulation and draw the circle in the center of the square.

Divide a quarter of the circle into 4 equal segments.

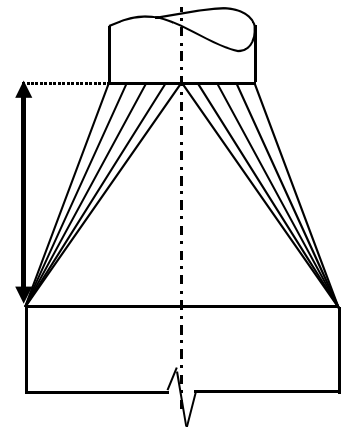
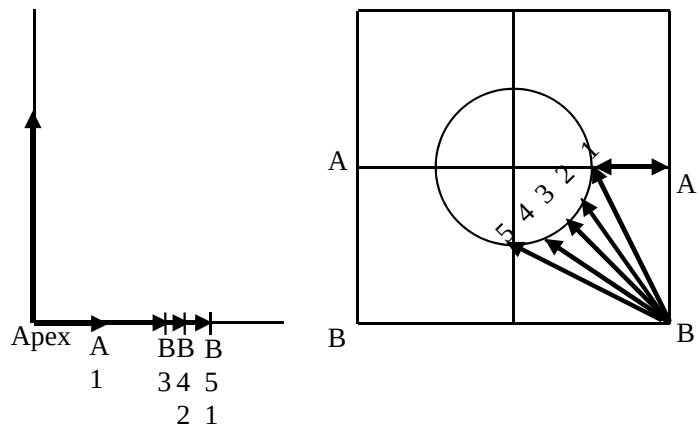
Step 3: Number 1 through 5. Connect the Point B to each of the numbers. Draw a right angle next to the first drawing.

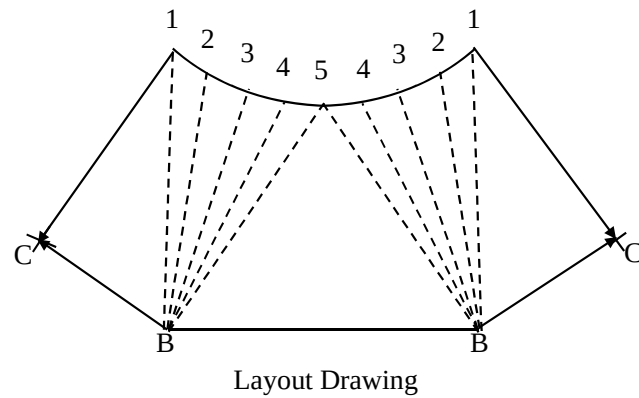
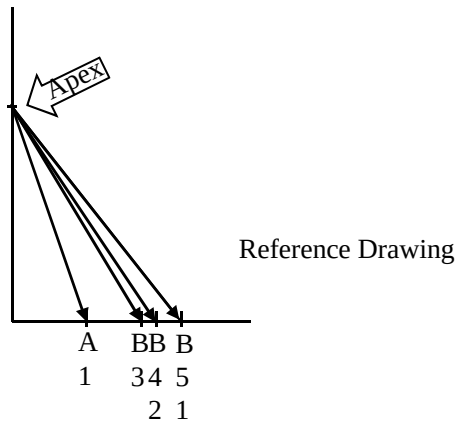
Step 4: Set your dividers from the Point B to the #1. Since the round is coming out of the center, the #5 will be the same distance. Mark this measurement from the apex of the right angle along the baseline of the right angle #5 and #1.

Step 5: From the same corner, set your dividers to the #2 and the #4. Again, since the round is coming out of the center, the #2 and #4 will also be equal. Mark this measurement from the apex of the right angle along the baseline of the right angle #4 and #2.. Do the same for the #3.

Step 6: Set your dividers from A to #1. Mark this measurement from the apex of the right angle.

Step 7: Using the true height of the square to round transition and transfer this measurement to the rise of the right angle. This becomes the apex for the divider settings for the layout. Using a straightedge draw reference lines.





Step 8: Draw line B-B the width of one of the sides of the square.

- a) Set dividers from the apex to #5 on the reference drawing and swing an arc from each end of line B to establish point #5 on the layout drawing.
- b) Set dividers for 1/16 of the pipe insulation circumference and swing an arc to the right and left of point #5.
- c) Set dividers from the apex to #4 on the reference drawing and swing an arc from each end of Line B to establish point #4 on the layout drawing.
- d) Continue to establish points B-3, B-2, and B-1.

Step 9: On the reference drawing set dividers from the apex to A-1.

On the layout drawing swing an arc from each point #1.

Set dividers for $\frac{1}{2}$ of the side measurement of the square and swing an arc from each end of line B-B to establish point C.

Connect point B to point C to #1 on both sides. This is half of the transition.

Step 10: Add the necessary side laps, end laps to attach to the square, and notches to attach to the round. The other side will be the same with the exception of the safety edges replacing the side laps.

