## Measuring Arched Openings for Stretch Formed Metal

## For half-circle or for "eyebrow" openings:



1. Determine at what points the curve begins and ends. These points are called the tangent points (or straight-line points). Measure the distance between these points ideally with a laser measurer. This distance is called the chord. If the opening is a complete half-circle $\left(180^{\circ}\right)$, this distance will also be the diameter and half of this is your radius.
2. From the exact center of the chord, measure straight up to the top of the arc. Do NOT include any straight leg. This distance is called the rise (or height). If the rise is one half of the chord, then you have a complete half circle or $180^{\circ}$. See "Notes" below for a comment on inside vs. outside measurements.
3. If straight legs are required, measure from the tangent point (where the curve ends) down to the lowest point needed.

## For Gothic openings:



1. Hang a plumb bob from the point of the Gothic opening.
2. Determine at what point along the side that the curve begins. This tangent point acts as the top of an arc that begins at the top of the pointed opening and extends through this tangent point and continues as an imaginary line until it intersects with the plumb line coming straight down from the upper point. This distance on the plumb line between these points is the chord.
3. The distance from the center of the chord (on the plumb line) measured horizontally to the beginning of the curve (or tangent point) is the rise.
4. If there are straight legs, measure from the tangent point (where the curve ends) straight down to the bottom of the piece.

## NOTES:

-The rise, the chord and straight legs (if needed) are the only measurements Southern Stretch Forming needs to determine the arc length and provide you with a quote. We can also work with the chord and radius if your drawing provides this information.
-The above procedure gives us the outside dimensions so we will deduct the width of the material you are using to determine the inside radius. If using an inside dimension, use inside dimensions throughout, i.e. be consistent and advise which you are using. -We will assume standard cut-length material (24') unless you tell us otherwise.

