Shape to rotate about the z axis to form the extremity of Pim's toroid.

z(r) = + SQRT((1 - ((r-10750)^2)/10750^2))*9770^2)

$$z(r) = \sqrt{(1 - (\frac{(r-10750)^2}{10750^2}) * 9770^2}$$

let

$$u = \frac{r}{10750} - 1$$

So that

$$z(u) = (1 - u^2)^{\frac{1}{2}} * 9770$$

$$\frac{dz}{du} = \frac{9770}{2}(1 - u^2) * (-2u)$$

$$\frac{dz}{du} = -9770 * u * (1 - u^2)$$

$$\frac{du}{dr} = \frac{1}{10750}$$

By the chain rule

$$\frac{dz}{dr} = \frac{dz}{du}\frac{du}{dr}$$

$$\frac{dz}{dr} = -\frac{9770}{10750} * (\frac{r}{10750} - 1)*(1-(\frac{r}{10750} - 1)^2)$$

Solved at the boundary between the ellipse and the inside vortex, r = 9750mm

$$\frac{dz}{dr} = 0.083811418$$

No units as it is a 2D spatial slope.
This looks like it will match the sketchup model reading. I am not checking sketchup for the sake of it, I am finding position and gradient parameters for the vortex 2D equation to later nest into the 3D spiral helix equation.