

$$S_{2ACn}(y_{br}) := 2 \cdot \int_{-(h-y_G)}^{H+y_G} y \cdot \left(\sqrt{R^2 - (y-y_G)^2} - r \right) dy + 2 \cdot \int_{-y_{br}}^{-(h-y_G)} y \cdot \left(\sqrt{R^2 - (|y|+y_G)^2} - r + \frac{|y| - (h-y_G)}{\tan(30 \text{ } \textcolor{blue}{deg})} \right) dy$$