

34. Using Eq. 6-16, we solve for the area

$$A = \frac{2 m g}{C \rho v_t^2}$$

which illustrates the inverse proportionality between the area and the speed-squared. Thus, when we set up a ratio of areas – of the slower case to the faster case – we obtain

$$\frac{A_{\text{slow}}}{A_{\text{fast}}} = \left(\frac{310 \text{ km/h}}{160 \text{ km/h}} \right)^2 = 3.75 .$$