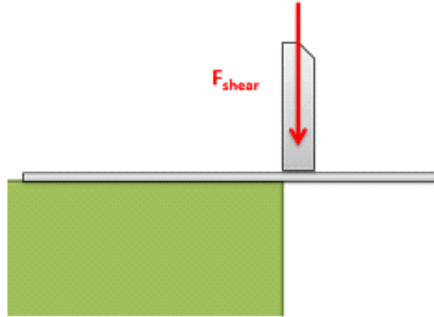


Problem 2

You are using a sheet metal shear to cut a 30cm long strip of 1mm thick aluminum. Assuming a shear strength of 207 MPa, what is the required force of the blade on the metal?



Public Domain Image by PH2 D. Vukovich

$$\tau = \frac{V}{A}$$

$$207 \times 10^6 \frac{\text{N}}{\text{m}^2} = \frac{V}{(.3\text{m})(.001\text{m})}$$

$$\boxed{V = 62.1 \text{ kN}}$$

this is quite large