

$$F_{opw} = Vol \cdot \rho = m_l$$

$$\text{Vol} = \text{vol0} + \frac{1}{4} \cdot \pi \cdot d^2 \cdot h$$

$$F = \left(\text{vol}0 + \frac{1}{4} \cdot \pi \cdot d^2 \cdot h \right) \cdot \rho = m1 = 0$$

$$\left(\text{vol0} + \frac{1}{4} \cdot \pi \cdot d^2 \cdot h \right) \cdot \rho = m1$$

$$h = \frac{4 \cdot (m1 - \rho \cdot vol0)}{\pi \cdot \rho \cdot d^2} \quad \text{or} \quad \rho = \frac{m1}{\frac{\pi \cdot h \cdot d^2}{4} + vol0}$$

$$h = \frac{4 \cdot (m1 - \rho \cdot vol0)}{\pi \cdot d^2}$$

$$\text{vol0} := 28 \qquad d := 0.75$$

$$h(\rho, m1) := \frac{4 \cdot (m1 - \rho \cdot vol0)}{\pi \cdot \rho \cdot d^2}$$

$$m1 := 28 \qquad \rho1 := 1.000 \qquad \rho2 := 1.150$$

$$h(\rho_1, m_1) = 0 \qquad h(\rho_2, m_1) = -8.267$$

$$\rho := 1, 1.001 \dots 1.15$$

