49. We use the Bernoulli equation: $p_\ell + \frac{1}{2}\rho v_\ell^2 = p_u + \frac{1}{2}\rho v_u^2$, where p_ℓ is the pressure at the lower surface, p_u is the pressure at the upper surface, v_ℓ is the air speed at the lower surface, v_u is the air speed at the upper surface, and ρ is the density of air. The two tubes of flow are essentially at the same altitude. We want to solve for v_u such that $p_\ell - p_u = 900\,\text{Pa}$. That is,

$$v_u = \sqrt{\frac{2(p_\ell - p_u)}{\rho} + v_\ell^2} = \sqrt{\frac{2(900\,\text{Pa})}{1.30\,\text{kg/m}^3} + (110\,\text{m/s})^2} = 116\ \text{m/s}\ .$$