The inside diameters of the larger portions of the horizontal pipe depicted in Figure P9.47 are 2.50 cm. Water flows to the right at a rate of $1.80 \times 10^{-4}$ m$^3$/s. Determine the inside diameter of the constriction.

P1 is pressure at red dot
P2 is pressure at blue dot
What are P1 and P2?

1. $P_{\text{atm}}$ and $P_{\text{atm}}$
2. $P_{\text{atm}} + \rho gh_1$ and $P_{\text{atm}} + \rho gh_2$
3. $\rho gh_1$ and $\rho gh_2$