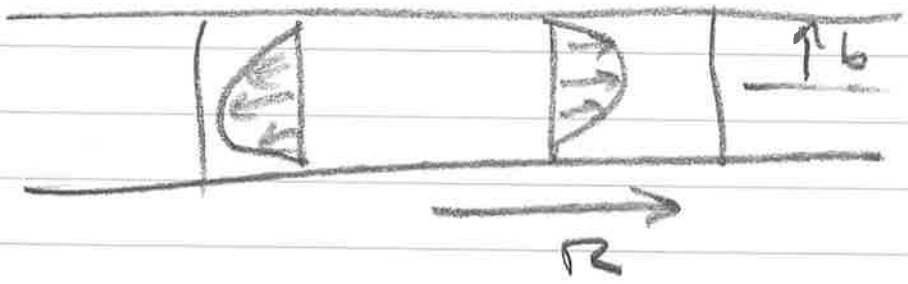

$\dot{\gamma} \sim \frac{U}{b}$ $\quad \Delta \sim \dot{\gamma} a^2 \phi \times f(\phi)$

$\hookrightarrow \sim O(1)$ for 45% Susp.

$\therefore t_\Delta \sim \frac{b^2}{\dot{\gamma} a^2}$ $\quad R \sim U t_\Delta$

$\therefore R \sim \frac{b^2}{\dot{\gamma} a^2} U \sim \frac{b^3}{a^2}$

Now $V_0 \sim 2b\pi R^2$

$\therefore b \sim \frac{V_0}{2\pi R^2}$

so $R \sim \frac{\left(\frac{V_0}{2\pi R^2}\right)^3}{a^2}$

or $R^7 \sim \frac{V_0^3}{(2\pi)^3 a^2}$, $R \sim \left(\frac{V_0^3}{(2\pi)^3 a^2}\right)^{1/7}$

$V_0 = 5\,ml$ $\quad a = 0.0025\,cm$ $\quad \therefore R \sim \underline{5\,cm}$