



a) max flow rate Q (m^3/s) keeping flow laminar

$$Re_{crit} = 2300 = \frac{\rho u_{\infty} L_{char}}{\mu}$$

$$\rightarrow u = \frac{\mu Re}{\rho L_{char}} \quad L_{char} = D_h = 4 \frac{A_c}{P_{wet}}$$