

3-2

$$d = 0,23 \text{ m}$$

$$v = ?$$

$$\nu = 9,5 \cdot 10^{-5} \text{ m}^2/\text{s}$$

$$\dot{V} = ?$$

laminární tok

$$\nu = \frac{\eta}{\rho}$$

$$Re = \frac{\rho \cdot d \cdot v}{\eta} = \frac{v \cdot d}{\nu}$$

$$Re = 2300 \text{ (max. } Re \text{ pro laminární proudění)}$$

$$v = \frac{Re \cdot \nu}{d} = \frac{2300 \cdot 9,5 \cdot 10^{-5}}{0,23} = \underline{\underline{0,95 \text{ m/s}}}$$

$$\dot{V} = v \cdot \frac{\pi d^2}{4} = 0,95 \cdot \frac{\pi \cdot 0,23^2}{4} = \underline{\underline{0,03947 \frac{\text{m}^3}{\text{s}}}} = \underline{\underline{2368 \frac{\text{l}}{\text{min}}}}$$