

Example 4.3

Determine time necessary for the filtration of 50 m^3 of slurry in a plate and frame filter press with 25 frames of dimension $1 \text{ m} \times 1 \text{ m} \times 0.035 \text{ m}$. Pump characteristics are provided on a separate plot.

Other Information:

$$\alpha = 1.069 \times 10^{11} \text{ m/kg}$$

$$R_M = 6.462 \times 10^{10} / \text{m}$$

$$\mu = 0.001 \text{ N/m}^2$$

$$\rho_C = 10.037 \text{ kg/m}^3$$

$$\gamma = 0.0116 \text{ m}^3 \text{ cake formed/m}^3 \text{ filtrate}$$