

U4-4

$$S_f = 2.65 \text{ m}^2 \quad \Delta p = \text{konst.} \quad q_F^2 + 2q_F q_H - 2k_F \tau_F = 0$$

$$\tau_F = 1 \text{ hwd}$$

$$V_F = ?$$

matj kalkul's

$$S_f' = 0.085 \text{ m}^2$$

$$\tau_{F1}' = 8.60 \text{ s}$$

$$\tau_{F2}' = 18.60 \text{ s}$$

$$q_{F1}' = \frac{30 \cdot 10^{-3}}{0.085} = 0.3529 \text{ m}$$

$$V_{F1}' = 30 \cdot 10^{-3} \text{ m}^3$$

$$V_{F2}' = 60 \cdot 10^{-3} \text{ m}^3$$

$$q_{F2}' = \frac{60 \cdot 10^{-3}}{0.085} = 0.7059 \text{ m}$$

$$(0.3529)^2 + 2 \cdot 0.3529 \cdot q_H - 2k_F \cdot 8.60 = 0 \quad /: 8$$

$$(0.7059)^2 + 2 \cdot 0.7059 \cdot q_H - 2k_F \cdot 18.60 = 0 \quad /: (18)$$

$$-0.012069 + 0.009792 q_H = 0 \Rightarrow q_H = 1.233$$

$$q_H = 1.2373$$

$$k_F = 0.001036$$

$$k_F = 0.0010394$$

veljig kalkul's:

$$q_F^2 + 2q_F \cdot 1.2373 - 2 \cdot 0.001036 \cdot 7600 = 0$$

$$q_F^2 + 2.4746 q_F - 9.1972 = 0$$

$$q_{F2} = \frac{-2.4746 + \sqrt{2.4746^2 + 4 \cdot 9.1972}}{2} = 2.091 \text{ m} \quad 1.7651 \text{ m}$$

$$V_F = q_F \cdot S_f = 2.65 \cdot 2.091 = 5.541 \text{ m}^3$$