

Generelt til opg 15 og 17

15) Anvend tabeller når temp er over  $100^{\circ}\text{C}$

Middeltemperatur difference:

$$t_m = \left( \frac{120 + 90}{2} \right)$$

$$15.1 \quad Q_f = m_f \cdot (h_1 - h_2) = \frac{60000}{3600} \cdot (503,7 - 376,9) = 2113 \text{ kW}$$

$$Q_{\text{rel}} = m_d \cdot (h_x - h_a) \Rightarrow h_x = \frac{2113 \cdot 3600}{3800} + 550 = 2552 \text{ kJ/kg}$$

$$h_x = h' + (x \cdot r) \Rightarrow x = \frac{2552 - 561,4}{2163} = \underline{\underline{0,92}}$$

15.2

$$Q = A \cdot k \cdot \Delta t$$

$$k = \frac{Q}{A \cdot \Delta t} = \frac{2113000}{25 \cdot 133,5 - \left(\frac{120+30}{2}\right)} = \underline{\underline{2966 \frac{\text{W}}{\text{m}^2 \cdot \text{K}}}}$$