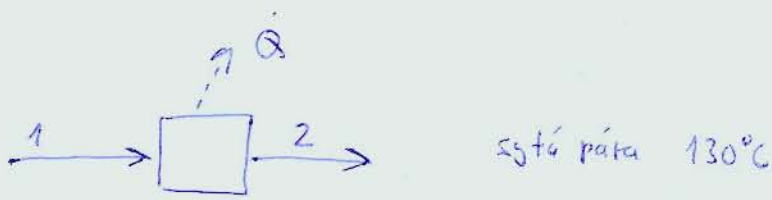


8-3



$$\dot{Q} = 5800 \text{ W}$$

$$\dot{m}_1 = ?$$

$$\dot{m}_1 = \dot{m}_2 = \dot{m}_p$$

$$\dot{m}_1 h_1 = \dot{m}_2 h_2 + \dot{Q}$$

① pára, 130°C

$$\dot{m}_p (h_1 - h_2) = \dot{Q}$$

② kondenzát, 130°C

$\dot{m}_p$

$$h_1 - h_2 = h(130^\circ\text{C}, \text{pára}) - h(130^\circ\text{C}, \text{voda}) = \Delta h_{2v}(130^\circ\text{C})$$

$$2720,4 \cdot 10^3 \quad 596,41 \cdot 10^3 \quad 2174 \cdot 10^3 \text{ J/kg}$$

$$a) \quad \dot{m}_p = \frac{\dot{Q}}{h_1 - h_2} = \frac{\dot{Q}}{2044 \text{ kJ/kg}} = \frac{5800}{2174 \cdot 10^3} = 0,002668 \text{ kg/s} \Rightarrow 9,6 \text{ kg/hod}$$

b) suchnost 0,94

$$\dot{m}_1 = \dot{m}_2 = \dot{m}_p \quad \dot{m}_1 h_1 = \dot{m}_2 h_2 + \dot{Q}$$

$$\dot{m}_p = \dot{Q} / (h_1 - h_2)$$

① 0,94  $\frac{\text{kg}-\text{g}}{\text{kg}}$  plyu

0,06  $\frac{\text{kg}-\text{l}}{\text{kg}}$  kapalina

$$h_1 = \overbrace{0,94}^w \cdot h(130^\circ\text{C}, \text{plyu}) + \overbrace{0,06}^{1-w} \cdot h(130^\circ\text{C}, \text{voda})$$

$$h_2 = h(130^\circ\text{C}, \text{voda})$$

$$h_1 - h_2 = w \cdot h(130^\circ, \text{g}) + (1-w) h(130^\circ, \text{l}) - h(130^\circ, \text{l})$$

$$= w h(130^\circ, \text{g}) - w \cdot h(130^\circ, \text{l}) =$$

$$= w \cdot (h(130^\circ, \text{g}) - h(130^\circ, \text{l})) = w \cdot \Delta h_{2v}$$

$$h_1 - h_2 = 0,94 \cdot 2174 \cdot 10^3 \text{ J/kg}$$

$$\dot{m}_p = \frac{5800}{0,94 \cdot 2174 \cdot 10^3} = 0,002838 \text{ kg/s} \Rightarrow 10,22 \text{ kg/hod}$$