

$$21.1 \quad \eta_{iis} = \frac{h_o - h_x}{h_o - h_{x_{is}}} = \frac{3350 - 2895}{3350 - 2675} = \underline{\underline{0,674}}$$

$$P_{is} = \frac{P_g}{\eta_G \cdot \eta_m \cdot \eta_{iis}} = \frac{1400}{0,95 \cdot 0,92 \cdot 0,674} = 2376 \text{ kW}$$

$$P_{is} = \dot{m}_d \cdot (h_o - h_{x_{is}}) \Rightarrow$$

$$21.2 \quad \dot{m}_d = \frac{P_{is}}{h_o - h_{x_{is}}} = \frac{2376}{3350 - 2675} = \underline{\underline{3,52 \text{ kg/s}}}$$

$$21.3 \quad \eta_{is_{net}} = \eta_{iis} \cdot \eta_m \cdot \eta_G = 0,674 \cdot 0,92 \cdot 0,95 = \underline{\underline{0,589}}$$