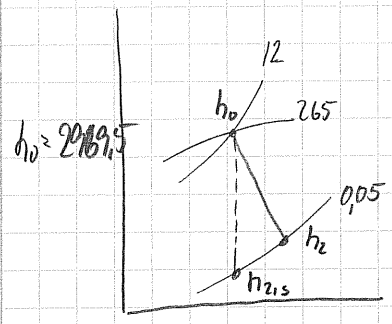
$G_d = 5150$ kg/h

23



$$P_{kb} = \frac{P_{gen}}{\eta_g} = \frac{754}{0,94} = 802,1 \text{ kW}$$

$$h_2 = h_0 - (h_0 - h_{2is}) \cdot \eta_{is}$$

$$h_2 = 2969,5 - (2969,5 - 2100) \cdot 0,68 = 2378,2 \text{ kJ/kg}$$

$$\eta_m = \frac{P_{kb}}{G_d (h_0 - h_2)} = \frac{802,1}{\frac{5150}{3600} \cdot (2969,5 - 2378,2)} = \frac{802,1}{845,8}$$

23,2 $\eta_m = 0,948$

23,1 $P_i = G_d \cdot (h_0 - h_2) = \frac{5150}{3600} \cdot (2969,5 - 2378,2) = 845,8$ kW

23.3 $\eta_{is\,kb} = \eta_{is} \cdot \eta_m = 0,68 \cdot 0,948 = 0,645$

(alt) $\eta_{is.kb} = \frac{P_{kb}}{P_{is}} = \frac{P_{kb}}{G_d \cdot (h_0 - h_{is})} = \frac{802,1}{\frac{5150}{3600} \cdot (2969,5 - 2100)} = 0,645$