

Generelt til opg 15 og 17

15) Anvend tabeller når temp er over 100°C

Middeltemperatur difference:

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

17) Vacuum måler er justeret for
 $760 \text{ mm Hg} = 1 \text{ At}$

$$1 \text{ bar} = 750 \text{ mm Hg.}$$

$$P_{\text{korrd}} = \frac{H_{\text{barom.}} - 760 \cdot x}{750} \text{ [Bar]}$$

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

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

$$h_x = h' + (x \cdot r) \Rightarrow x = \frac{2552 - 566,4}{2163} = \underline{\underline{0,92}}$$

15.2

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

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

17.1 Vacuummeteren es justiert für 760 mm Hg = 1 AT.

$$p_{\text{mond}} = \frac{770 - 760 \cdot 0,95}{750} = 0,064 \text{ bar}$$

$$p_{\text{mond}} = p_{\text{luft}} + p_{\text{m}} \Rightarrow p_{\text{luft}} = 0,064 - 0,027 = \underline{\underline{0,037 \text{ bar}}}$$

$$17.2 \quad \frac{755 - 760 \cdot x}{750} = 0,064 \Rightarrow x = 0,930 = \underline{\underline{93,0\%}}$$