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$$m_H = m_0 \left(1 - \exp \frac{C_1 (\dots)}{L} \right) \quad (1)$$

 C_1 - L - C_1 L m_N m_0

$$= -42,6^0, \quad = 0 = 20^0 \quad C_1 = 2,64 \text{---}; L = 448 \text{---};$$

$$\frac{m_H}{m_0} = 1 - e^{\frac{2,64(-42,6-20)}{448}} = 0,31$$

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$$m_H = \frac{2(\dots)}{L} \sqrt{\frac{\lambda_{\Pi} C_{\Pi} \rho}{\pi}} \cdot F_1 \bar{t} \quad (2)$$

 λ , ρ - ρ

$F_1 -$

$$F_1 = F_1, t -$$

$$: 625^2, = 1$$

$$, \lambda = 1,5 \frac{m}{0}; x = 6,5 \cdot 10^{-7} \frac{m^2}{s}; t = 60$$

$$\rho = \frac{\lambda}{x}; \lambda \quad \rho = \frac{\lambda^2}{x}$$

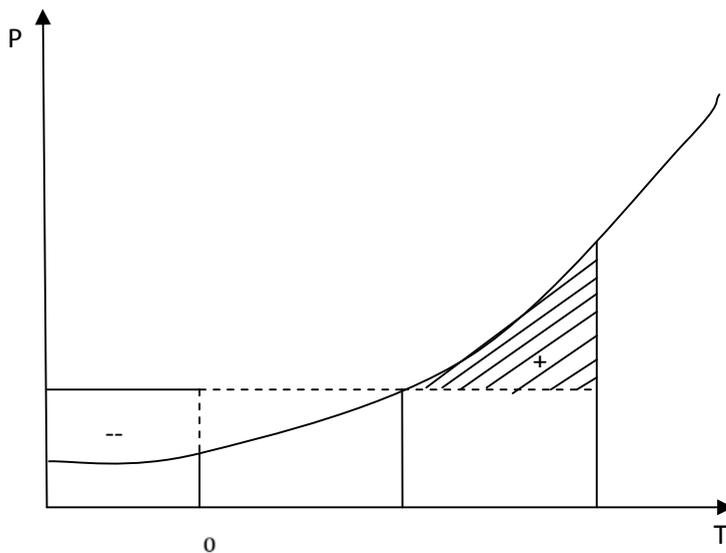
$$m = \frac{2[20 - (-42,6)]}{448000} \frac{1,5}{\sqrt{\pi \cdot 6,5 \cdot 10^{-7}}} \cdot (625 + 4 \cdot 25 \cdot 1) \cdot \overline{3600} = 12752$$

$$\frac{12752}{725} = 16,96 \frac{m}{s}$$

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t	10	20	30	40	60
m	5206	7361,3	9017	10412	12752

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$$dm = 8,1 \cdot 10^{-6} \cdot \overline{MP}_H(T_{(t)}) \cdot F dt \quad (3)$$

P_H

8,1

$$\frac{8,1 \cdot 760}{101,3} = 60,77,$$

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t_1

:

$$= 65^\circ$$

$$m_0 = 50, \quad = 195^\circ, \quad \approx 170,$$

$$\rho_{65^\circ} = 0,785 \text{ / M}^3, \quad T_{\text{HPB}} = 35^\circ. \quad C_1 = 0,52; \quad C_2 = 0,38;$$

:

$$\theta < -20^\circ \quad \rho = 0,04$$

$$-20 < \theta < 0^\circ \quad \rho = 0,26$$

$$0 < \theta < 20^\circ \quad \rho = 0,6$$

$$20^\circ < \theta \quad \rho = 0,1$$

$$65^\circ \quad 35^\circ$$

$$= 35^\circ$$

=const.

$$= - = Q \quad (4)$$

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Q

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Q

$$=C_1 (\quad) \cdot m_0; \quad =C_1 (\quad) \cdot m + C_1 m (\quad) + L \times m_n$$

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-
 $m_0 -$, $m -$, C_1 $C_1 -$ t, < ,
< , $m_n -$, C_1 $C_1 -$

L-

(4)

$$C_1 (\quad) m_0 - C_1 m_n (\quad) - L \times m = |Q| \quad (5)$$

(2)

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55° ,

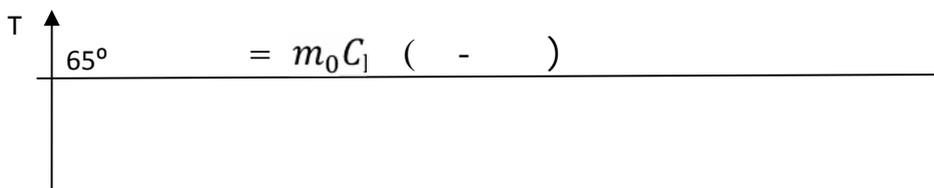
$$: F = \frac{50 \cdot 20}{0,785} = 1274 \quad ^2$$

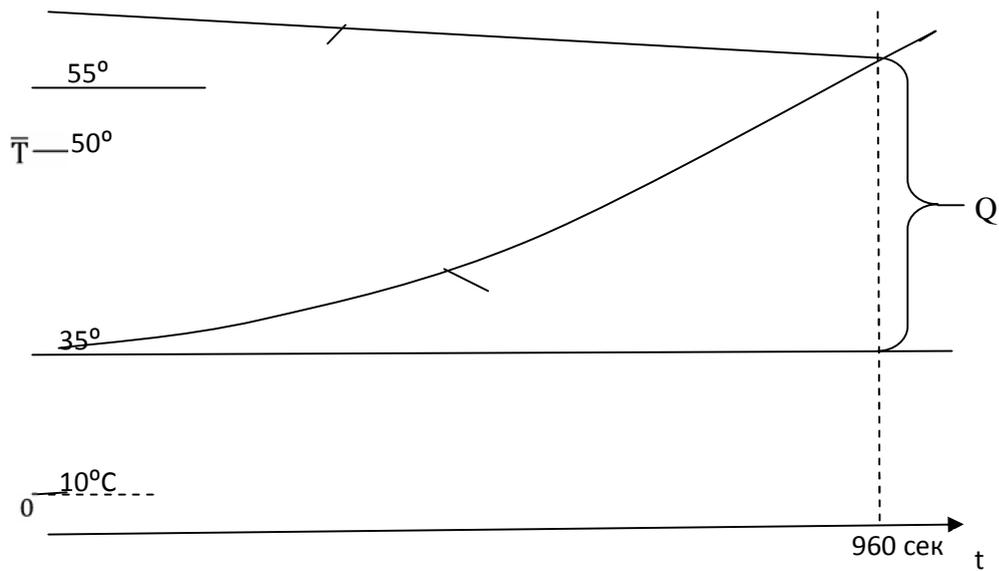
$$: L = \frac{(8,75 + 4,57 \lg \quad)}{M} = \frac{[8,75 + 4,57 \lg 468]}{170} = 57,7 \text{---}$$

=55°

$$P_H = 760 \exp \left\{ \frac{57,7 \times 170}{2} \left(\frac{1}{468} - \frac{1}{328} \right) \right\} = 8,67 \quad \text{Hg.}$$

$$m_n = 8,1 \cdot 10^{-6} \cdot \overline{170} \cdot 8,67 \cdot 1274 \cdot t = 1,17t \quad t$$





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$$=C_1 m (\bar{T} - T_0) + Lm = 1,17t(0,38 \cdot 15 + 57,7) = 74,2t$$

$$=C_1 \cdot m_0 (\bar{T} - T_0) = 0,52 \cdot 50000 \cdot 30 = 780000$$

$$|Q| = 2(T_1 - T_0) \sqrt{\frac{\lambda_{\text{II}} C_{\text{II}} \rho_{\text{II}}}{\pi}} \frac{F_0 F_K}{F_0} \cdot \bar{t} \quad (6)$$

$$\lambda_{\text{II}} = 1 \frac{\text{m}}{\text{s}}; \rho_{\text{II}} = 1380 \text{ } \frac{\text{kg}}{\text{m}^3}, C_{\text{II}} = 800 \text{ } \frac{\text{J}}{\text{kg} \cdot \text{K}}$$

$$\frac{F_K}{F_0} = 1,3$$

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(6)

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Q

$$|Q| = \frac{2(55-10)}{4,2 \cdot 1000} \sqrt{\frac{1 \cdot 1380 \cdot 800}{3,14}} \cdot 1,3 \cdot 1274 \bar{t} = 21044 \bar{t}$$

$$T_0 = 10^\circ\text{C}$$

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(5)

$$7,8 \cdot 10^5 = 2,1 \cdot 10^4 \bar{t} + 74,2t \quad (7)$$

$$1,05 \cdot 10^4 = t + 283,0 \bar{t}$$

$$\sqrt{t_{1,2}} = \frac{-283,0 \pm \sqrt{283,0^2 + 4 \cdot 10512}}{2} = 31,2 \quad -0,5$$

$$t = 960 \quad .$$

:

$$m = 1,17 \times 960 = 1123,2$$

$$C_i = 0,08 \frac{m}{3} \quad ,$$

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$$h = \frac{1123,2}{0,08 \cdot 1274} \quad 11$$

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$$3,0 \quad ,$$

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$$V_0 = \frac{m}{0,08^3} = F \cdot h \quad (7)$$

$$U_b \sim \frac{\bar{F} \times h}{t} \sim \bar{F} \quad (7)$$

$$V_1 = \bar{F} \cdot h \cdot U \cdot t \quad (8)$$

$$V_1 > 2V_0 \quad (7) \quad (8)$$

:

$$U > \frac{2 \cdot \bar{F}}{t} = \frac{2 \cdot 1274}{960} = 0,036 \text{ —}$$

:

$$= 65^\circ \quad 16 \quad = 35^\circ \quad 1123,2 \quad \sim 3$$

16

$$16 \quad 16 \quad 16$$

$$U_b > 0,05 \text{ — ,}$$