

## ΤΥΠΟΛΟΓΙΟ

$$F_{fr} = \mu \cdot R_N , \quad F_{fr} = F \cdot \frac{\mu}{\eta \mu \alpha} ,$$

$$F_{fr} = \mu \cdot W , \quad M_{tfr} = F_{fr} \cdot \frac{D}{2} , \quad P = M_{tfr} \cdot \omega \\ \omega = \frac{2\pi}{60} \cdot n , \quad r_m = \frac{r_1 + r_2}{2}$$

$$\eta \mu \beta = \frac{R - r}{O_1 O_2} , \quad \eta \mu \beta = \frac{R + r}{O_1 O_2}$$

$$\theta_1 = 180^\circ - 2\beta , \quad \theta_2 = 180^\circ + 2\beta , \quad \theta_1 = \theta_2 = 180^\circ + 2\beta$$

$$L = \theta_1 \cdot r + \theta_2 \cdot R + 2 \cdot O_1 O_2 \cdot \sin \beta , \quad \theta_{rad} = \frac{2\pi}{360^\circ} \cdot \theta^\circ$$

$$F_{fr} = F_1 - F_2 , \quad F_1 = F_2 \cdot e^{\mu \theta} , \quad e = 2,718$$

$$P = F_{fr} \cdot U , \quad U = \omega \cdot R' , \quad \omega = \frac{2\pi}{60} \cdot n , \quad R' = r + \frac{h}{2}$$

$$\sum M = 0 , \quad \sum F_x = 0 , \quad \sum F_y = 0$$

$$\sigma = \frac{F}{A} , \quad \varepsilon = \frac{\Delta \ell}{\ell} , \quad \sigma = \varepsilon \cdot E , \quad \Delta \ell = \frac{F \cdot \ell}{A \cdot E}$$

$$\sigma_{\varepsilon\pi} = \frac{\sigma_{\theta\rho}}{v} , \quad \tau = \frac{F}{A} , \quad \tau_{\varepsilon\pi} = 0,85 \cdot \sigma_{\varepsilon\pi} , \quad \tau = \gamma \cdot G$$

$$I_{xx} = \frac{b \cdot h^3}{12} , \quad I_{xx} = I_{yy} = \frac{\pi \cdot D^4}{64}$$

$$I_{x'x'} = I_{xx} + A \cdot d^2$$

$$J = \frac{\pi \cdot D^4}{32} , \quad J = \frac{\pi}{32} \cdot (D^4 - d^4)$$

Το τυπολόγιο συνεχίζεται στην επόμενη σελίδα.

$$\frac{\sigma_{\text{bmax}}}{y_{\text{max}}} = \frac{M_{\text{bmax}}}{I_{xx}} = \frac{E}{R}$$

$$\frac{\tau}{r} = \frac{M_t}{J} = \frac{\theta \cdot G}{\ell}, \quad \theta_{\text{rad}} = \frac{2\pi}{360^\circ} \cdot \theta^\circ, \quad \omega = \frac{2\pi}{60} \cdot n$$

$$P = \rho \cdot g \cdot h, \quad m = \rho \cdot V, \quad w = \rho \cdot g, \quad \rho = \rho_{\sigma_k} \cdot \rho_{\text{vapoú}}$$

$$P = \frac{F}{A}, \quad P = \frac{F_1}{A_1} = \frac{F_2}{A_2}, \quad V_1 = V_2, \quad s_1 \cdot A_1 = s_2 \cdot A_2$$

$$W_1 = W_2, \quad s_1 \cdot F_1 = s_2 \cdot F_2$$

$$A_1 \cdot u_1 = A_2 \cdot u_2 = \Sigma \tau \alpha \theta \varepsilon \rho \delta$$

$$P_1 + \rho \cdot g \cdot h_1 + \frac{1}{2} \cdot \rho \cdot u_1^2 = P_2 + \rho \cdot g \cdot h_2 + \frac{1}{2} \cdot \rho \cdot u_2^2 = \Sigma \tau \alpha \theta \varepsilon \rho \delta$$

$$\frac{P_1}{\rho \cdot g} + h_1 + \frac{u_1^2}{2 \cdot g} = \frac{P_2}{\rho \cdot g} + h_2 + \frac{u_2^2}{2 \cdot g} = \Sigma \tau \alpha \theta \varepsilon \rho \delta$$

$$Q = \frac{V}{t}, \quad Q = A \cdot u, \quad Q = A \cdot \frac{s}{t} \quad Q = m \cdot c \cdot \Delta \theta$$

$$d_f = d - 2(m + c) = d - 2,5m$$

$$m = \frac{p}{\pi} = \frac{d}{z} = \frac{d_a}{z+2} \quad p = m \pi = \frac{\pi d}{z} = \frac{\pi d_a}{z+2} \quad z = \frac{d}{m} = \frac{\pi d}{p} = \frac{d_a - 2m}{m}$$

$$d = mz = \frac{pz}{\pi} = d_a - 2m \quad d_a = d + 2m = m(z+2) \quad c = 0,25 \cdot m$$

$$h = 2m + c = 2,25 \cdot m \quad h_a = m \quad s = \frac{p}{2} = \frac{m\pi}{2} = 1,5708m$$

$$a = \frac{d_1 + d_2}{2} = \frac{m(z_1 + z_2)}{2}$$

$$Q = A \cdot U \cdot \Delta T, \quad U = \frac{1}{\frac{1}{\alpha_1} + \frac{\delta}{K} + \frac{1}{\alpha_2}}$$