معادلات نظم الري بالرش ٤٣٨ هزر (صفر ١٤٢٩هـ)

$$Taw = (\theta_{FC} - \theta_{WP}) \times B_d \times D_{rz}$$

$$Taw = Taw\ mm/m \times D_{rz}$$

$$Dn = Taw * Mad$$

$$F = \frac{1}{m+1} + \frac{1}{2N} + \frac{\sqrt{m-1}}{6N^2}$$

$$II = \frac{D_n}{ET_c} \qquad D_g = \frac{D_n}{E_i} \qquad T_i = \frac{D_g}{R_a}$$

$$R_a = \frac{Q_{SP}}{S_S \times S_L}$$

$$Q_S = \frac{D_g \times A_i}{T_i}$$

$$H_f = 1.22 \times 10^{10} \times L \times \left(\frac{Q_L}{C_{HW}}\right)^{1.852} \times d^{-4.87} \times F$$

$$H_f = f \times \frac{L}{d} \times \frac{V^2}{2g} \times F$$

$$n_{set} = \frac{T_{day}}{T_i} \qquad N_{set} = n_{set} \times N_d$$

$$H_L = H_{sp} + 0.75 H_f + H_r \pm 0.5 \Delta H_z$$

$$h_L = 1.1 H_f \pm \Delta H_z$$

$$H_L = H_e + 1.1 H_f \pm \Delta Hz$$

$$H_L = H_{sp} + 0.63 H_f + H_r \pm 0.5 \Delta H_z$$

$$h_L \le 0.20 H_{sp}$$

$$Q_{sp} = 0.00111\ Cd.d^2.P_{sp}^{0.5}$$

$$TDH = H_L + H_{f_m} + H_{f_{min}} + TSH + H_{f_{mis}}$$

$$L = S_{s1} + S_s(N_{sp} - 1)$$

$$H_i = H_n + H_{fi \to n} + \Delta H_{zi \to n} + H_{vi \to n}$$

$$H_{f2} = H_{f1}\left(\frac{d1}{d2}\right)^n \qquad V = \frac{4Q}{3.14\ d^2}$$

$$H_r = \frac{Q_L^2}{2gA_p^2} \exp\left(\frac{9.2 Q_{sp}}{Q_L}\right)$$

$$d = \sqrt{\frac{4Q}{3.14V}} = \sqrt{\frac{2Q}{3.14}}$$

$$H_{vi} = \frac{V_i^2}{2g} \qquad W_P = \frac{Q_s * TDH}{102}$$

$$H_P = \frac{W_P}{E_P} \qquad H_{Pm} = \frac{H_P}{E_m}$$

$$Cu = \left[1 - \frac{\sum |X_i - \bar{X}|}{N \times \bar{X}}\right] \times 100$$

$$E_a = \frac{D_n}{D_g} \times 100 \qquad D_u = \frac{d}{\bar{X}} \times 100$$

$$PELQ = \frac{d}{D_g} \times 100$$

$$E = \frac{D_g - \bar{X}}{D_g} \times 100 = 100 - E_a$$

$$V = \frac{2 \times 3.14 \times R_L}{T_{rev}} \qquad T_w = \frac{T_{rev} \cdot D_w}{2\pi r}$$

$$N_{rev} = \frac{D_g}{d_g} = \frac{T_i}{T_{rev}}$$

$$\frac{V_2}{V_1} = \frac{X_2}{X_1}$$

$$R = R_L + L_o + r_a = L + r_a$$

$$R_g = R_L + L_o + r_{ag} = L + r_{ag}$$

$$\frac{d_{g2}}{d_{g1}} = \frac{X_1}{X_2} \qquad \frac{T_{rev\,2}}{T_{rev\,1}} = \frac{X_1}{X_2}$$

$$d_{sp} = 30.46 \sqrt{\frac{Q_{sp}}{\sqrt{P_{sp}}}}$$

$$R_g = R\left(\frac{Q_t}{Q_s}\right)^{0.5} = R\left(\frac{Q_s + Q_g}{Q_s}\right)^{0.5}$$

$$Q_t = \frac{D_g \times A_t}{T_i} \qquad N_{rev} = \frac{T_i}{T_{rev}}$$

$$V_1 = \frac{2 \times 3.14 \times R_L}{T_{rev}}$$

$$d_g(rev) = \frac{D_g}{N_{rev}} \qquad Q_r = Q_s\left(1 - \frac{r^2}{R^2}\right)$$

$$(R_a)_{sp} = \frac{Q_s \cdot r_{sp}}{R^2 \cdot r_w}$$

$$V_2 = \frac{2 \times r_a}{T_w} = \frac{D_w}{T_w}$$

$$Q_r = Q_t\left(1 - \frac{r^2}{Rg^2}\right) \qquad Q_g = Q_t\left(1 - \frac{L^2}{Rg^2}\right)$$

$$D_w = 2.59 + 0.56 d_{noz} + 0.023 P_{sp}$$

$$H_f = H_v - (H_e + \Delta H_z + H_r + H_{rg})$$

$$Q_{sp} = \frac{Q_s}{R^2}\left[2r \times S_m - (S_1^2 - S_2^2)\right]$$

$$R_a = \frac{7200\ r\ Q_s}{R^2 \cdot D_w} \qquad R_{am} = \frac{4}{\pi} R_a$$

$$D_u = \frac{d_w}{D_w} \times 100$$

$$Q_{sp} = \frac{Q_s}{R^2}[2r \times S_s]$$

$$Q_g = \frac{3.14 \times R_g^2 \times D_g}{T_i}\left(1 - \frac{L^2}{Rg^2}\right)$$

$$R_{am} = \frac{4\ Q_s}{\pi \cdot R \cdot r_a}$$

$$H_f = 1.22 \times 10^{10} \times 0.548 \times L \times \left(\frac{Q_s}{C_{HW}}\right)^{1.852} \times d^{-4.87}$$

$$H_f = 1.22 \times 10^{10} \times 0.548 \times R_g \times \left(\frac{Q_t}{C_{HW}}\right)^{1.852} \times d^{-4.87} - 1.22 \times 10^{10} \times (R_g - L) \times \left(\frac{Q_g}{C_{HW}}\right)^{1.852} \times d^{-4.87}$$

$$h_{fg} = 1.22 \times 10^{10} \times (R_g - L) \times \left(\frac{Q_g}{C_{HW}}\right)^{1.852} \times d^{-4.87}$$

$$H_i = H_f\left[1 - 1.875\left(X - \frac{2X^3}{3} + \frac{X^5}{5}\right)\right] + H_e$$

$$H_i = H_v - H_f\left(X - \frac{2X^3}{3} + \frac{X^5}{5}\right) \pm \Delta H_z$$

$$Q_g = \frac{1}{0.93}\left[\left(L + \frac{r_{ag}}{2}\right) \times 2Q_t \frac{r_{ag}}{R_g^2}\right]$$

$$P_v = P_e + 1.1 P_f \pm \Delta P_z + P_{rg} + P_r$$

$$TDH = P_v + P_{fm} + P_d + P_s$$

$$H_a = H_v - H_f \pm 0.5 \Delta H_z$$

$$H_i = H_v - h_{fi} = H_e + (H_f - h_{fi})$$

$$\Delta H = H_f \pm \Delta H_z$$

$$R_a = \frac{\pi \cdot T_w \cdot R_{am}}{4 \cdot T_w} = \frac{\pi}{4} R_{am} \qquad R_a = \frac{d_g}{T_w}$$

$$T_w = \frac{D_w}{V} \qquad T_w = \frac{2.78 D_w \cdot D_g}{2\pi r C_g}$$

$$T_w = \frac{T_{rev} \cdot D_w}{2\pi R} \qquad R_{am} = \frac{4\ Q_t}{\pi \cdot R_g \cdot r_{ag}}$$

$$PELQ = \frac{d_w}{D_g} \times 100 \qquad E_a = \frac{D_w}{D_g} \times 100$$

$$E = \frac{D_g - D_w}{D_g} \times 100 \qquad D_g = \frac{T_{rev} \times Q_s}{A}$$

$$Q_{sp} = \frac{2rSQ_s}{R^2} \qquad T_w = \frac{4\ d_f}{\pi\ R_{am}}$$

$$H_P = \frac{TDH \times Q_S}{K \times E_P \times E_m} \qquad Q_f = \frac{V_f}{T_f}$$

$$E_W = \frac{P_v \times Q_s \times V}{D_g \times A \times 6 \times 10^5}$$

$$T_{ff} = t_1(0.577 + \ln N_{sp})$$

$$Q_f = \frac{W_f.A}{\rho.T_r.T_f} \qquad t_1 = \frac{a \cdot Ss}{Q_{sp}}$$

$$Q_f = \frac{W_f}{\rho.T_f} \qquad Q_f = \frac{C_f.Q_s}{y.\rho} \qquad W_f = \frac{W_{ef}.A}{y} \qquad W_d = \frac{C_f.Q_s}{y}$$

$$T_{ff} = \frac{A.R}{2Q_s}\ln\left(\frac{R+L}{R-L}\right) \qquad B = R \cdot \left[\frac{Q_t}{(Q_t - Q_g)}\right]^{0.5}$$

$$T_{ff} = \frac{A.R^2}{2B(Q_t - Q_g)}\ln\left(\frac{B+L}{B-L}\right) \qquad C_f = \frac{W_{ef}}{dg.T_r} = \frac{W_{ef}}{(dg)_f}$$