Sedimentation Equations

Bernoulli and Navier Stokes Equations | Control Volume Equations | Dimensional Analysis Equations | Equations | Flocculation Equations
Flow Measurement Equations | Open Channel Flow Equations | Pipe Flow Equations | Process Controller equations | Sedimentation Equations
Statics Equations | Using Confluence - Tips and Tricks

$$V_t = \sqrt{\frac{4}{3}\frac{gd}{C_d}\frac{(\rho_p - \rho_w)}{\rho_w}}$$ terminal velocity sphere

$$v_c = \frac{v_{up}}{\left[1 + \frac{L_{lamella}}{lamella_{spacing}}\cos(\alpha)\sin(\alpha)\right]}$$ sedimentation - critical velocity

$$N_{lamella} = floor\left(\frac{L_{settle} - channel_{width}}{\frac{lamella_{spacing}}{\sin(\alpha)}}\right)$$ sedimentation - number of lamella

$$V_{up} = V_t(1 + \frac{L}{w}\sin\alpha\cos\alpha)$$ sedimentation - upflow velocity

$$n_{lam} = \frac{Q}{V_{up}wb}$$ sedimentation - number of lamellas