Flow Controller 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

Moment about the hinge pin for a float valve

$$(\Delta h_{FCV} A_{float} \rho g) L_{float\ lever\ arm} = (\rho g \Delta h_{tank} A_{orifice}) L_{valve\ lever\ arm}$$ Flow controller moment balance

ratio of change of water level in the stock tank to change of water level in the flow controller

$$\frac{\Delta h_{tank}}{\Delta h_{FCV}} = \frac{d_{float}^2}{d_{orifice}^2} \frac{L_{float\ lever\ arm}}{L_{valve\ lever\ arm}}$$ Float valve attenuation