

where P is the pressure, ρ is the fluid density, v is the fluid velocity, g is the acceleration due to gravity, and h is the height above a reference plane.

Reynolds Number:

$$Re = (\rho v d) / \mu$$

where Re is the Reynolds number, ρ is the fluid density, v is the fluid velocity, d is the characteristic length, and μ is the dynamic viscosity.

Darcy-Weisbach Equation:

$$\Delta P = f(L/D)(\rho v^2/2)$$

where ΔP is the pressure drop, f is the Darcy friction factor, L is the length of the pipe, D is the diameter of the pipe, ρ is the fluid density, and v is the fluid velocity.

These are just a few examples of formulas used in thermal engineering. Depending on the specific problem or application, there may be additional formulas and equations that need to be considered.

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