

Energy balance

Engineering Fluid Mechanics

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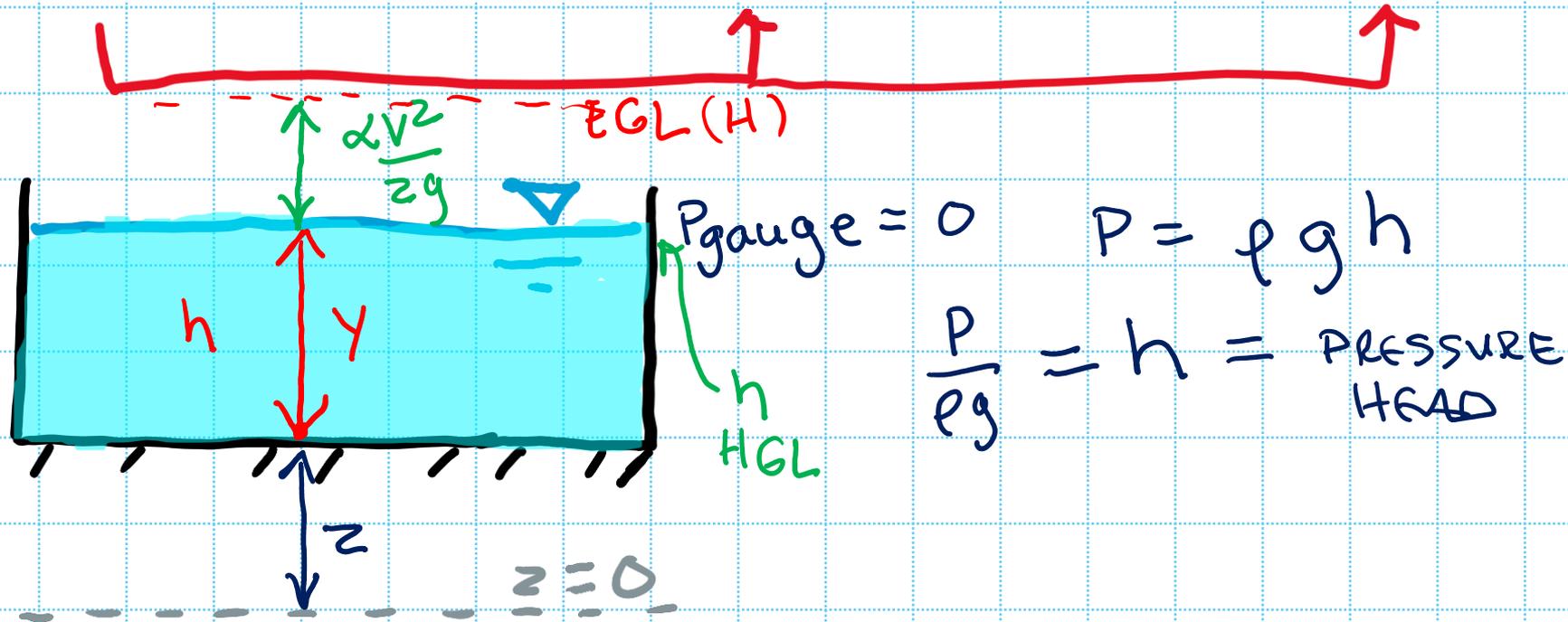
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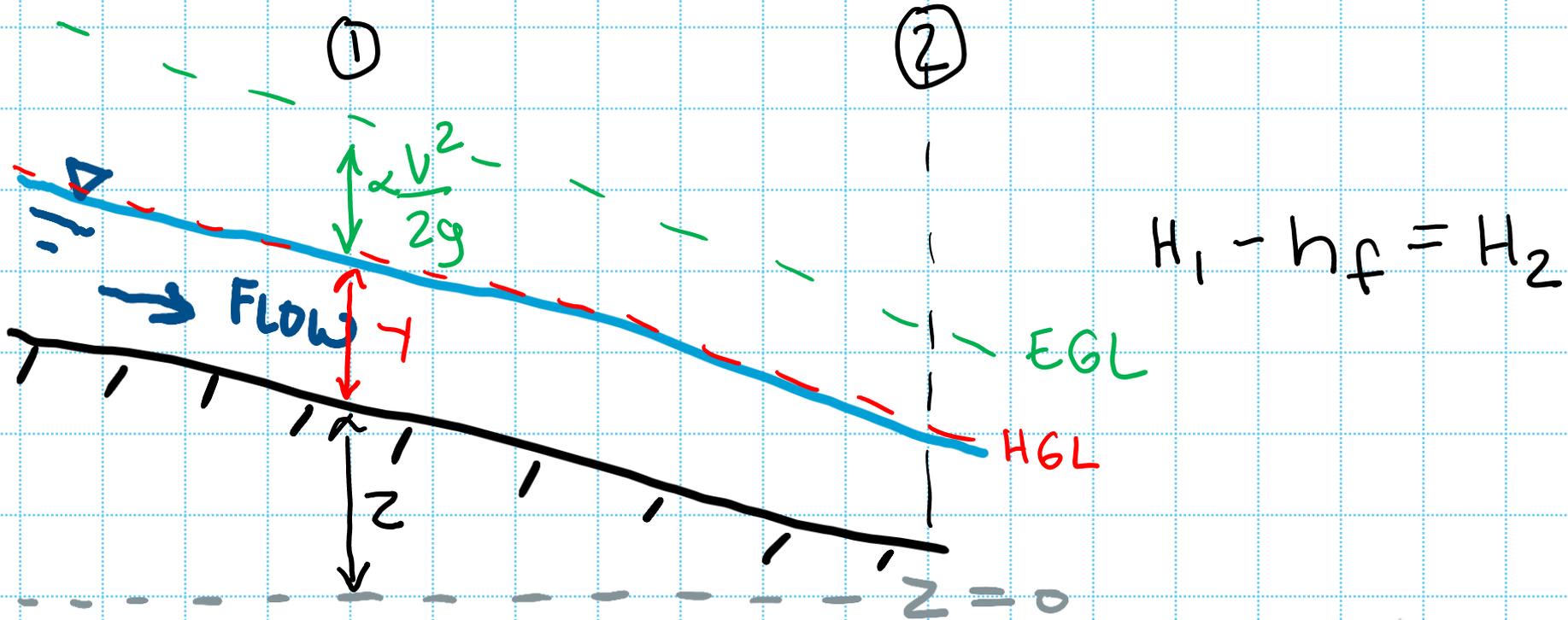
$$\text{TOTAL HEAD (H)} = \frac{P}{\rho g} + \frac{\alpha V^2}{2g} + z$$

HYDRAULIC HEAD PRESSURE HEAD VELOCITY HEAD ELEVATION HEAD



Hydraulic and energy grade line

$$\gamma_1 + \alpha \frac{v_1^2}{2g} + z_1 - h_f = \gamma_2 + \alpha \frac{v_2^2}{2g} + z_2$$



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