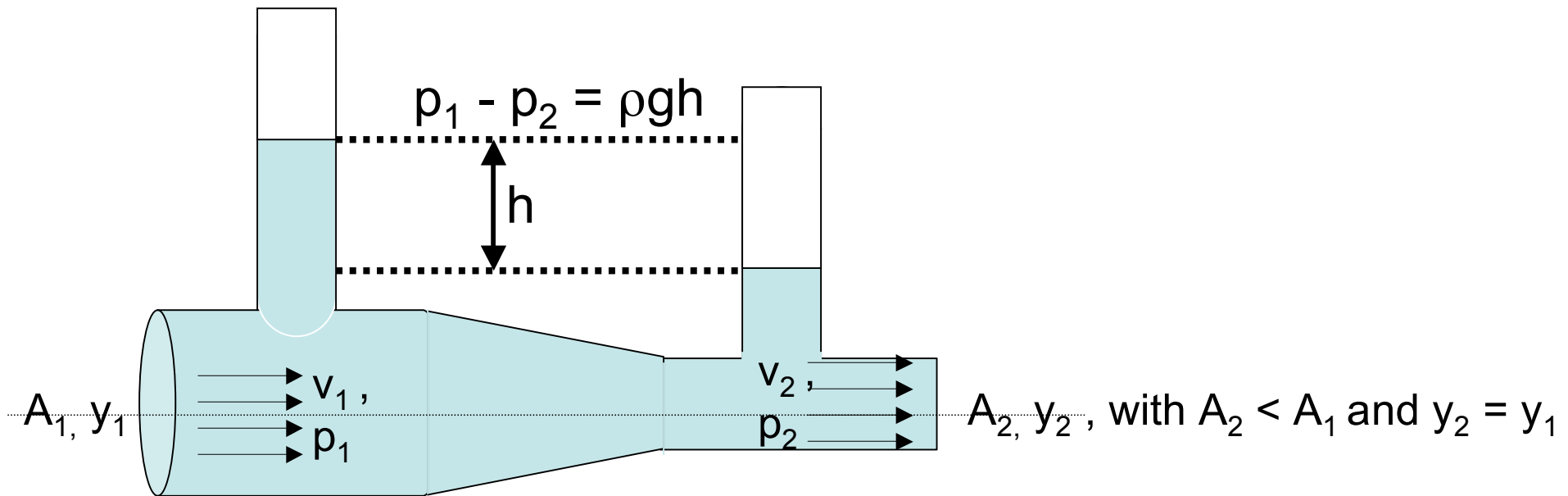


Bernoulli's Law for the Venturi Tube



Bernoulli's Law (with $y_2 = y_1$)
$$p_1 + (\rho v_1^2)/2 = p_2 + (\rho v_2^2)/2$$

Continuity Equation
$$A_1 v_1 = A_2 v_2$$

Combining Two Equations (substitute for $v_1 = [A_2/A_1]v_2$):

$$v_2^2 = A_1^2 [2(p_1 - p_2)/\rho(A_1^2 - A_2^2)] = A_1^2 [2gh/(A_1^2 - A_2^2)]$$

and
$$v_1^2 = A_2^2 [2gh/(A_1^2 - A_2^2)]$$