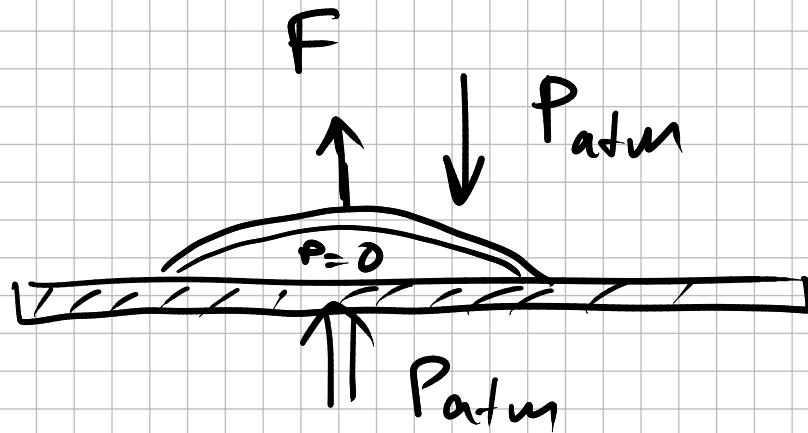
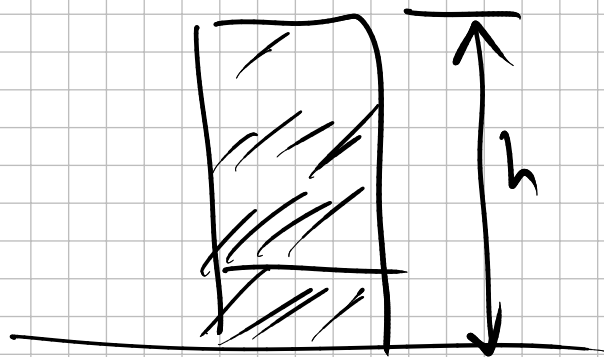


Atmospheric pressure

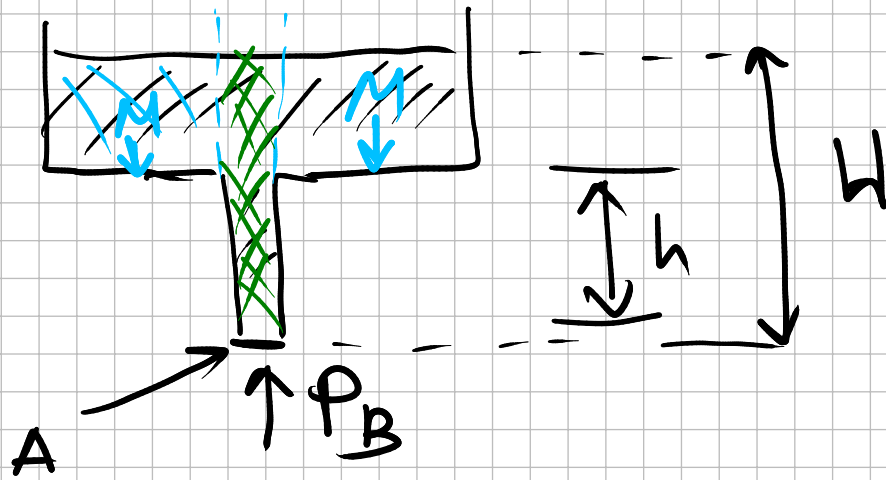


Pressure in fluids



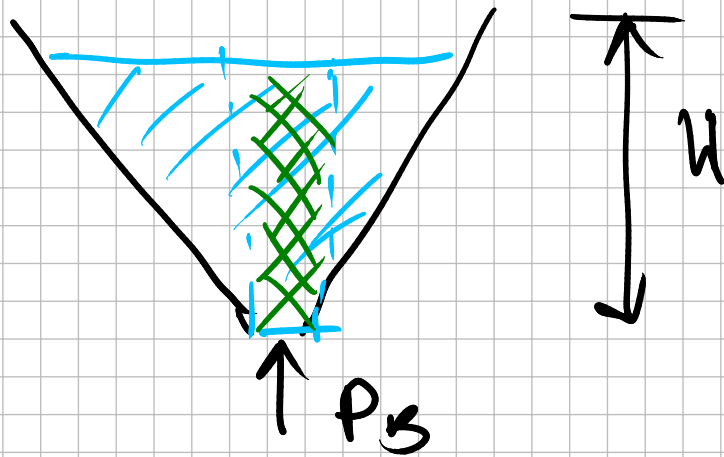
$$P = \rho g h$$

$$dP = -\rho g dh$$

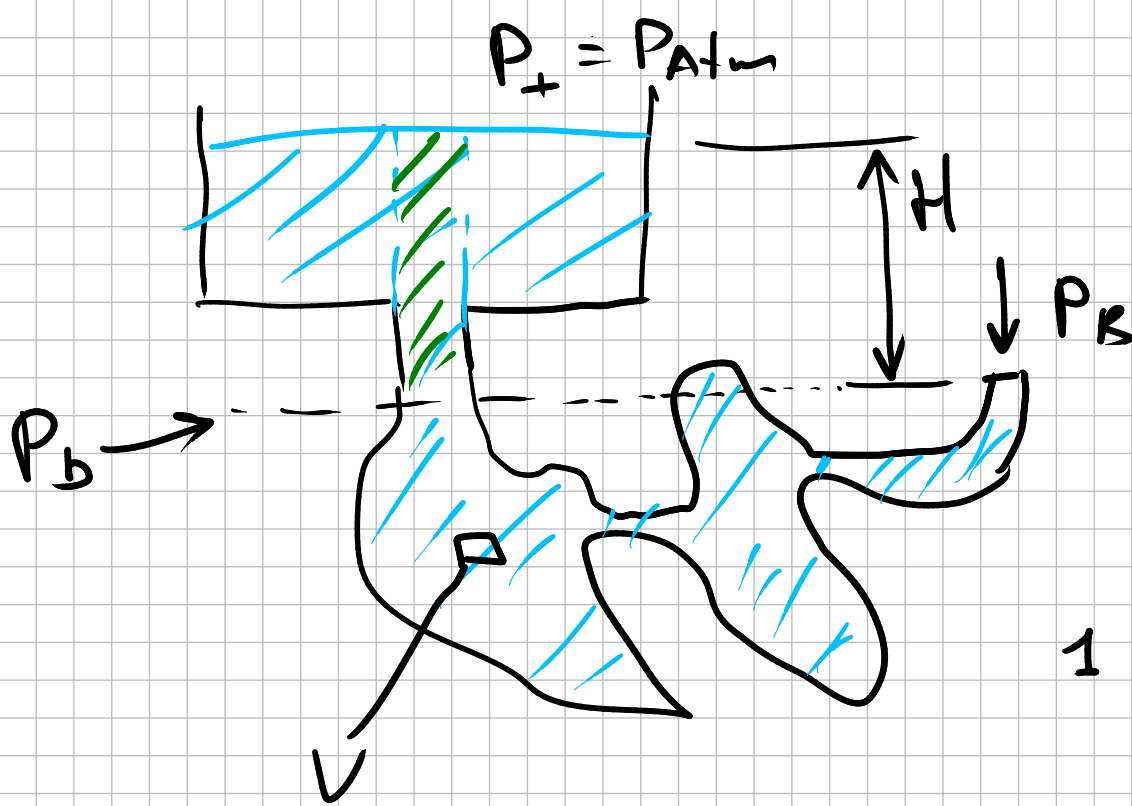


$$P_B = \rho g H + P_{Atm}$$

$$F_B = P_B \cdot A = W_{above} + \rho_c g A h$$



$$P_B = \rho g H + P_{Atm}$$



$$P_B - P_{top} = \rho g H$$

//
 P_{atm}

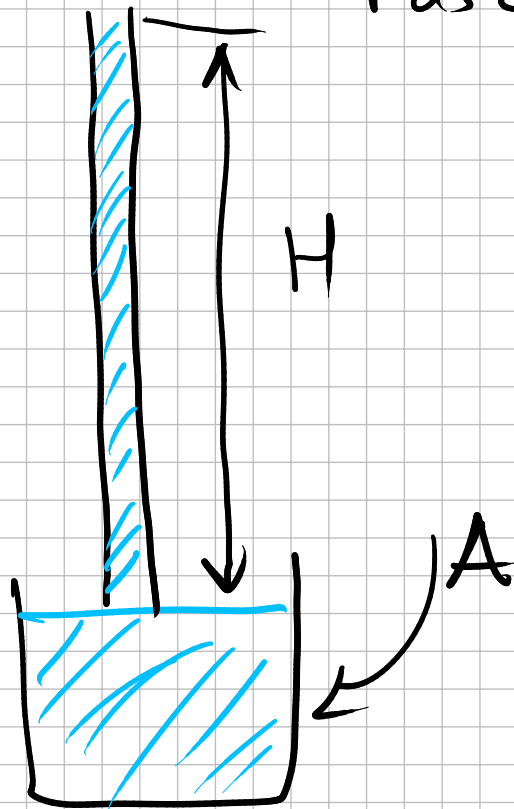
Hydrostatic equilibrium

Pascal principle:

1 For a small volume V pressure is the same on all sides

2 If pressure changed by ΔP somewhere than the same pressure change is felt everywhere

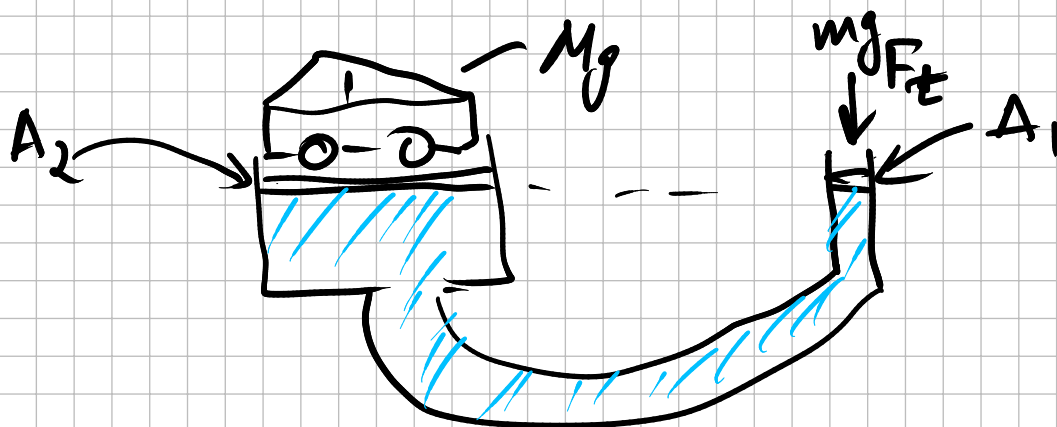
Pascal's Barrel



$$\Delta P = \rho g H$$

$$\Delta P = \rho g H \cdot A$$

Hydraulic Press / lift



$$\Delta P = \frac{Mg}{A_2} = \frac{F_t}{A_1}$$

$$F_t = \frac{A_1}{A_2} Mg \Rightarrow m = \frac{A_1}{A_2} M$$

Power Breaks

