

Calculate ref static column P_w :

$$\Delta P = \frac{3(37.5 \text{ GH})}{I_w + 4I_1 + I_2}$$

$$37.5 \text{ GH} = 290,655$$

$$I_w = 102.239$$

$$I_1 = 107.193$$

$$I_2 = 111.284$$

$$\Delta P = \frac{871,965}{642.295} = 1357.6$$

$$P_w = P_s - \Delta P$$

$$= 6026.7 - 1357.6 = 4669.10$$

$$P_w^2 = 21,800.5 \text{ thousand}$$

$$P_w = 4669.10$$