



$$\alpha = \frac{0.2}{1.3} \quad S_1 = 850 \text{ kg/m}^3$$

$$\alpha = 0.65 \text{ m} \quad S_2 = 1000 \text{ kg/m}^3$$

$$P_2 = S_2 \cdot g \cdot (\Pi_1 - Z_2) = 10.84 \text{ kPa}$$

$$\Pi_2 = \frac{P_2}{S_2 \cdot g} + Z_2 = 1.75 \text{ m}$$

$$\Omega_1' = 1.1 \times 0.65 = 0.715 \text{ m}^2$$

$$\Omega_1'' = 0.65 \times 0.65 \times \frac{1}{2} = 0.211 \text{ m}^2$$

$$\Omega_2 = (1.3) \times \frac{1}{2} = 0.845 \text{ m}^2$$

$$Z_{T_1}' = \frac{1}{3} \times 0.65 = 0.217 \text{ m}$$

$$Z_{T_1}'' = \frac{1}{2} \times 0.65 = 0.323 \text{ m}$$

$$Z_{T_2} = 0.65 + \frac{1}{3} \times 1.3 = 1.083 \text{ m}$$

$$P_R = \rho \cdot g \cdot L \cdot \Omega$$

$$P_{R_1} = \rho_1 \cdot g \cdot L \cdot \Omega_1$$

$$P_{R_1} = 1000 \times 9.81 \times 1 \times 0.926$$

$$P_{R_1} = 9.084 \text{ kN} \quad \checkmark$$

$$P_{R_2} = \rho_2 \cdot g \cdot L \cdot \Omega_2$$

$$P_{R_2} = 850 \times 9.81 \times 1 \times 0.845$$

$$P_{R_2} = 7.046 \text{ kN} \quad \checkmark$$

$$Z_{T_1} = \frac{Z_{T_1}' \cdot \Omega_1' + Z_{T_1}'' \cdot \Omega_1''}{\Omega_1' + \Omega_1''} = \frac{0.217 \times 0.715 + 0.323 \times 0.211}{0.715 + 0.211}$$

$$Z_{T_1} = 0.3 \text{ m} \quad \Omega_1 = \Omega_1' + \Omega_1'' = 0.926 \text{ m}^2$$

$$P_R = P_{R_1} + P_{R_2} = 16.13 \text{ kN}$$

$$Z_v = \frac{P_{R_1} \cdot Z_{T_1} + P_{R_2} \cdot Z_{T_2}}{P_{R_1} + P_{R_2}} = \frac{9.084 \cdot 0.3 + 7.046 \cdot 1.083}{16.13}$$

$$Z_v = 0.642 \text{ m}$$