Consider the column cross-section shown with $f'_c = 28$ and $f_y = 420$ which is bent about its strong axis. This column is subjected to a service load of 1000 kN, maximum live load of 1000 kN, dead load moment of 150 kN.m, and live load moment of 200 kN.m.

a) Find the required column reinforcement for the condition that the full live load acts.
Design the circular column shown subjected to applied load

\( P_u = 4200 \text{ kN} \) and \( M_u = 650 \text{ kN.m} \) by selecting column section

diameter \( h \) and reinforcement. Use relatively high proportion of
longitudinal steel \( (\rho_g = 0.04) \). Let \( f'_c = 28 \text{ MPa} \) and \( f_y = 420 \text{ MPa} \).
Bending is about the strong axis.