



二面せん断
鋼板挿入

$$E-I \quad c = 1$$

$$E-III \quad c = \sqrt{2 + \frac{8}{3} \gamma \left(\frac{d}{l}\right)^2} - 1$$

$$E-IV \quad c = \frac{d}{l} \sqrt{\frac{8}{3} \gamma}$$

$$\gamma = \frac{F}{F_e}$$

$$F_e = 23.4 \text{ N/mm}^2, \quad F = 235 \text{ N/mm}^2, \quad l/2 = 105, \quad d = 16$$

$$\rightarrow c = \begin{cases} 1.0 \\ \sqrt{2 + \frac{8}{3} \cdot \frac{235}{23.4} \cdot \left(\frac{12}{105 \times 2}\right)^2} - 1 = 0.4448 \\ \frac{12}{105 \times 2} \sqrt{\frac{8}{3} \cdot \frac{235}{23.4}} = 0.2957 \end{cases}$$

$$\therefore P_y = c F_e d l = 0.2957 \cdot 23.4 \cdot 12 \cdot 105 \cdot 2 = 17.43 \text{ kN}$$

$$\therefore P_y / 2 = 8.72 \text{ kN}$$