



**1. Vérifier les dispositions constructives sur la cornière.**

- $e_1 = 30 \text{ mm} > 1.2 \cdot d_0 = 1.2 \cdot 13 = 16 \text{ mm}$
- $e_2 = 25 \text{ mm} > 1.2 \cdot d_0 = 16 \text{ mm}$
- $p_1 = 60 \text{ mm} > 2.2 \cdot d_0 = 29 \text{ mm}$   
 $< \min(14t ; 200) = \min(14 \cdot 5 ; 200) = 70 \text{ mm}$

**2. Vérifier la résistance en traction de la cornière.**

Critère EC3-1.1-§6.2.3 – Résistance en traction

$$\frac{N_{Ed}}{N_{t,Rd}} \leq 1$$

$N_{Ed} = 45.00 \text{ kN}$

$N_{t,Rd} = \min[N_{pl,Rd}; N_{u,Rd}] = 92.79 \text{ kN}$

$N_{pl,Rd} = \frac{A \cdot f_y}{\gamma_{M0}} = \frac{4.80 \cdot 10^{-4} \cdot 275 \cdot 10^3}{1} = 132.00 \text{ kN}$

$N_{u,Rd} = \frac{\beta_2 \cdot A_{net} \cdot f_u}{\gamma_{M2}} = \frac{0.65 \cdot 4.15 \cdot 10^{-4} \cdot 430 \cdot 10^3}{1.25} = 92.79 \text{ kN}$

$\beta_2 : 2.5 \cdot d_0 = 2.5 \cdot 13 = 32.5 < 60 < 5 \cdot d_0 = 5 \cdot 13 = 65 \rightarrow \beta_2 = 0.4 + \frac{0.3}{2.5 \cdot 13} \cdot (60 - 2.5 \cdot 13) = 0.65$

$A_{net} = 4.80 - (1.3 \cdot 0.5) = 4.15 \text{ cm}^2$

$\frac{N_{Ed}}{N_{t,Rd}} = \frac{45.00}{92.79} = 0.48 < 1 \rightarrow \text{vérifié}$