

COMPROBACIÓN PREDIMENSIONADO (BARRAS CERCHA)

DOBLE L 100X100 (e=8mm)

$N_d = 288\text{KN}$

$$A_{nec} = \frac{N_d}{f_{yd}} = \frac{288 \cdot 10^3}{261,9} = 1099,66\text{mm}^2$$

$A_{real} = 2 \cdot 1550 = 3100\text{mm}^2$

$A_{real} > A_{nec} \longrightarrow \text{Cumple.}$

L 60X60 (e=10mm)

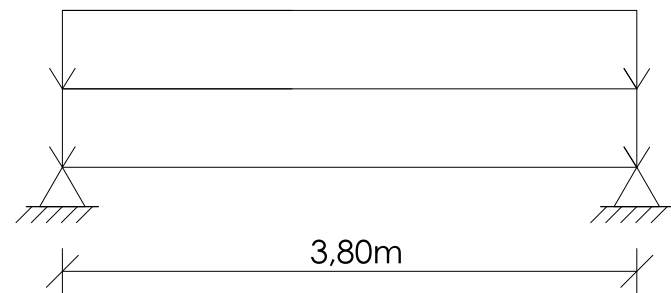
$N_d = 254\text{KN}$

$$A_{nec} = \frac{N_d}{f_{yd}} = \frac{254 \cdot 10^3}{261,9} = 969,8\text{mm}^2$$

$A_{real} = 1110\text{mm}^2$

$A_{real} > A_{nec} \longrightarrow \text{Cumple.}$

COMPROBACIÓN PREDIMENSIONADO (CORREAS)



$G = 0,356 \cdot 1,57 = ,56 \text{ KN/m}$
 $Q = 2 \cdot 1,57 = 3,14 \text{ KN/m}$
 $q_{total} = 1,35 \cdot 0,56 + 1,5 \cdot 3,14\text{KN/m} = 5,47\text{KN/m}$
$$M_{m\acute{a}x} = \frac{qL^2}{8} = \frac{5,47 \cdot (3,80)^2}{8} = 9,9\text{KNm}$$

luz = 3,80m
ámbito = 1,57m

$$W_{el\ nec} = \frac{M_d}{f_{yd}} = \frac{9,9}{261,9} \cdot 10^6 = 37,8 \cdot 10^3 \text{ mm}^3$$

$W_{el\ real} = 16,20 \cdot 10^3 \text{ mm}^3 \longrightarrow \text{No cumple.}$

Da un cuadradillo 60x60 (e=5mm).

Miramos tablas. $\longrightarrow$ Menor perfil que cumple: cuadradillo 90 :3.