



Exercise 01:

Determine the equivalent straight anchorage length for a tension bar of an interior beam resting on an edge column.

Given:

Steel: HA20 ; $f_c = 500$ MPa

Concrete cover: $c = 3$ cm ; Hook angle = 120° ; Length $l_1 = 8\varnothing$; Column section: $25 \text{ cm} \times 25 \text{ cm}$

Exercise 02 :

Calculate the required length l_1 to ensure the full anchorage of a HA16 bar in a beam resting at each end on a reinforced concrete wall.

Given:

$f_{c28} = 30$ MPa ; $f_c = 500$ MPa ; $\gamma_s = 1.5$; Concrete cover = 2.5 cm ; Hook angle = 135° ; Wall thickness = 18 cm

Exercise 03 :

Determine the straight anchorage length for a bar of grade FeE400 and diameter $\varnothing = 16$ mm with **fc28 = 25 MPa**.

Then recalculate for a 180° hooked anchorage

Exercise 04 :

Determine the straight anchorage length of a bar with diameter $\varnothing$ in FeE 215, 235, 400, and 500 steel for concrete with a compressive strength:

$f_{c28} = 20, 25, 30$ et 40 Mpa

----- End of the Series -----

