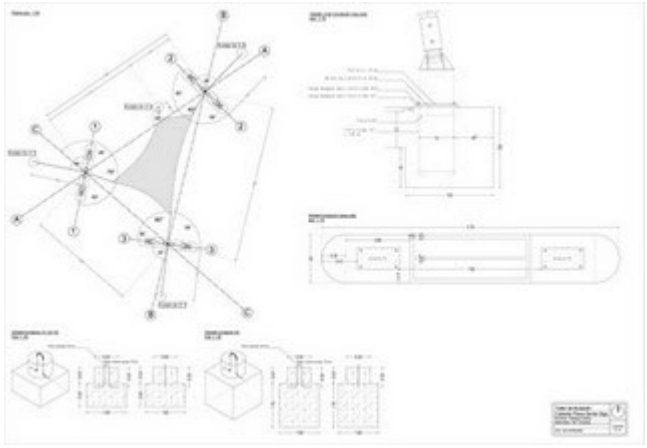
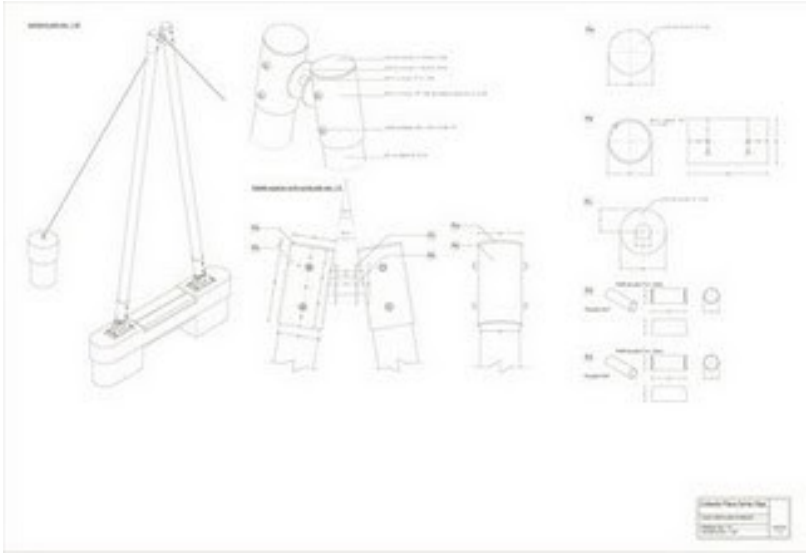
FUNDACIONES ESPECIALES

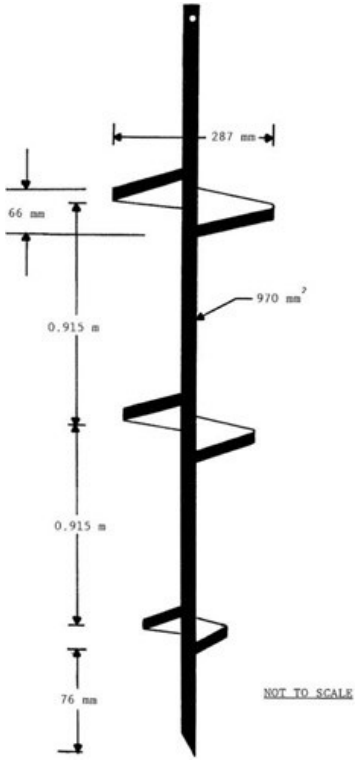
- Fundaciones de Tensoestructuras
- Fundaciones de estructuras en arco
- Ejemplos de diseño

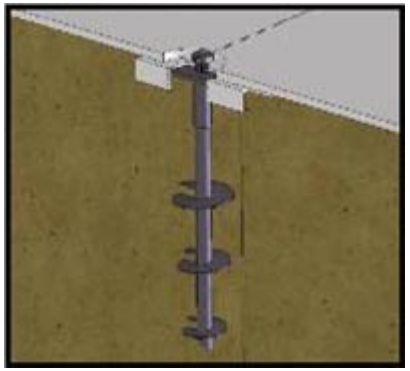
Fundaciones Tensoestructuras



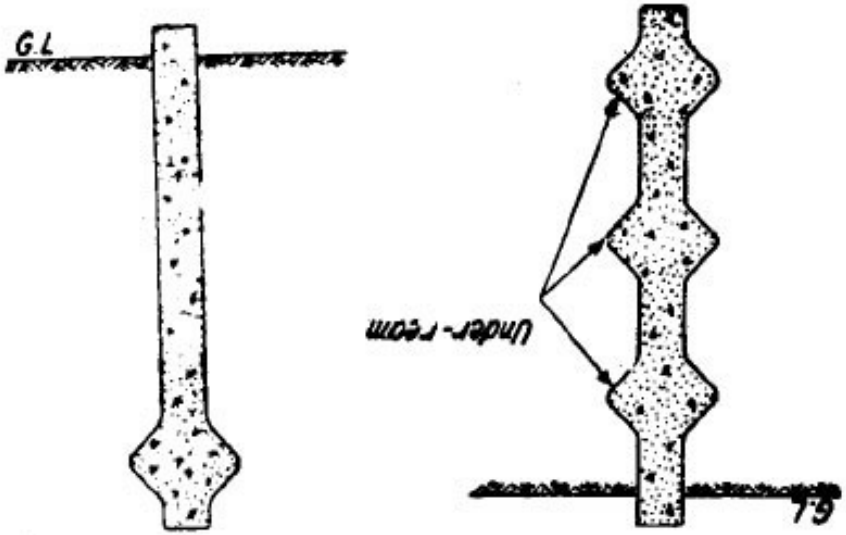


Tipos de anclajes



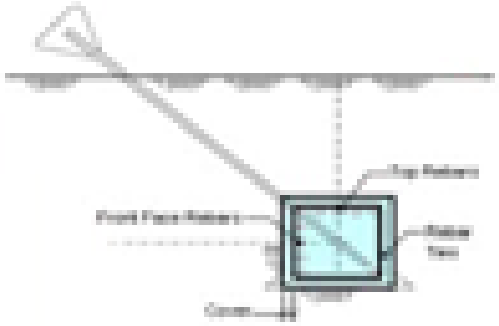


Tipos de anclajes



(a) Single-bulb cast *in-situ* pile

(b) Multi-bulb piles



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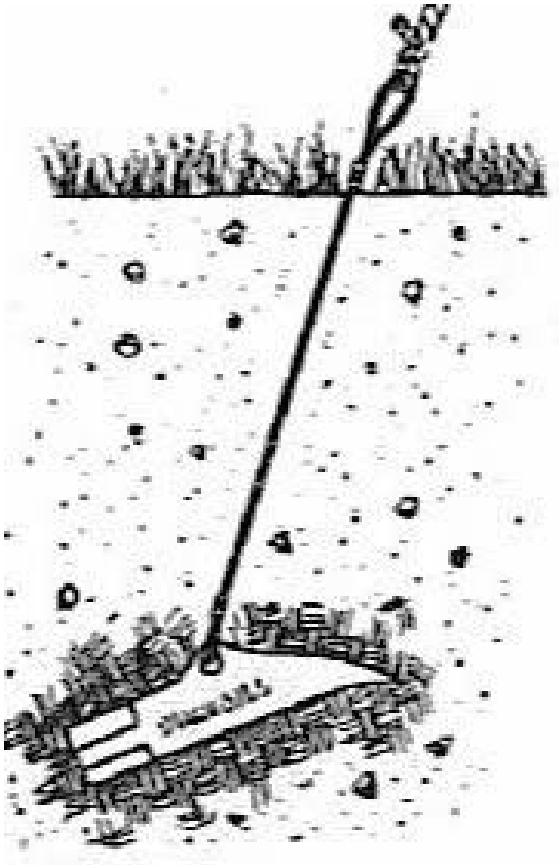
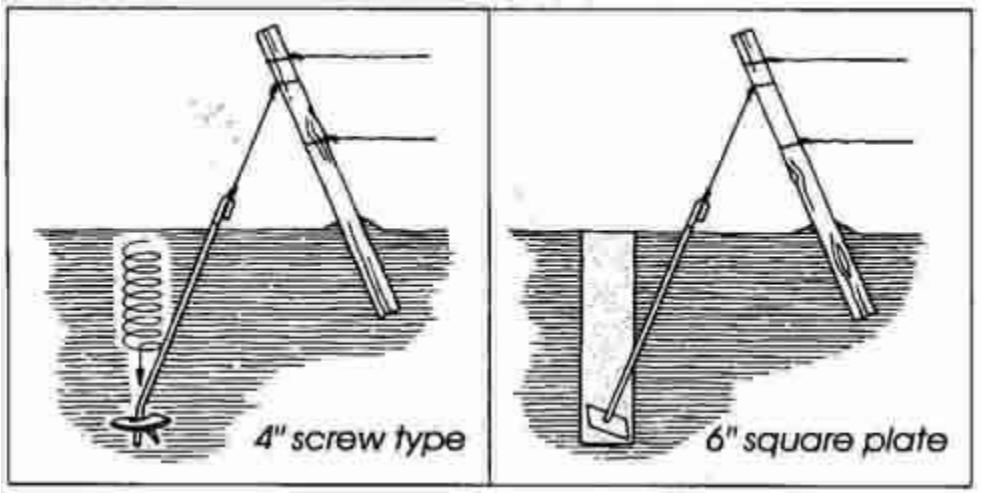
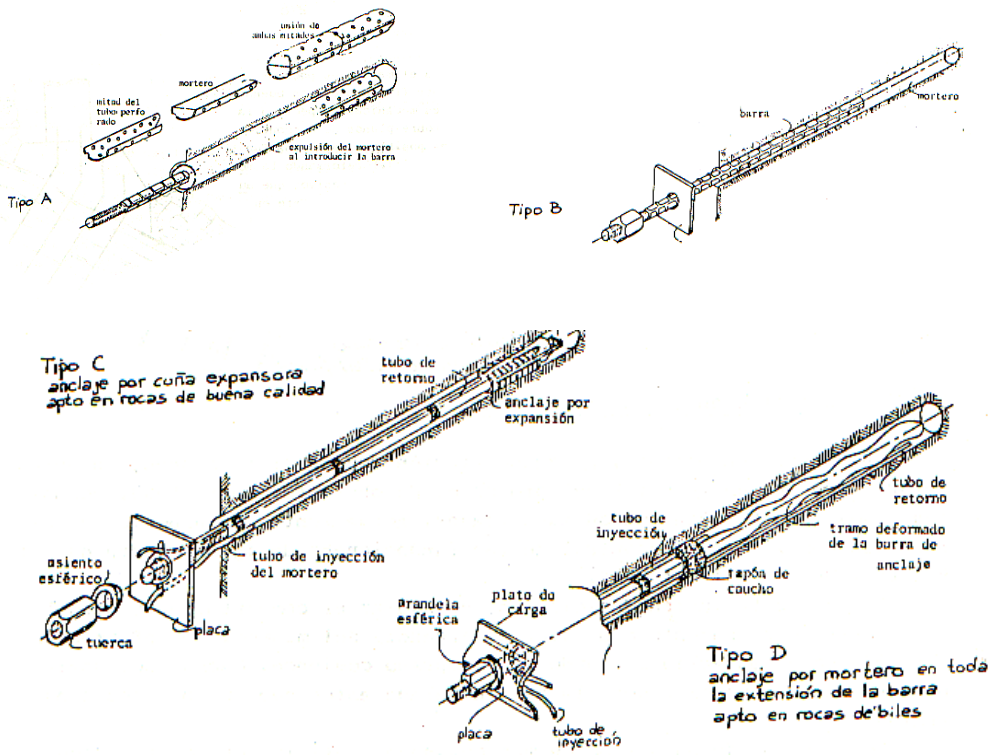
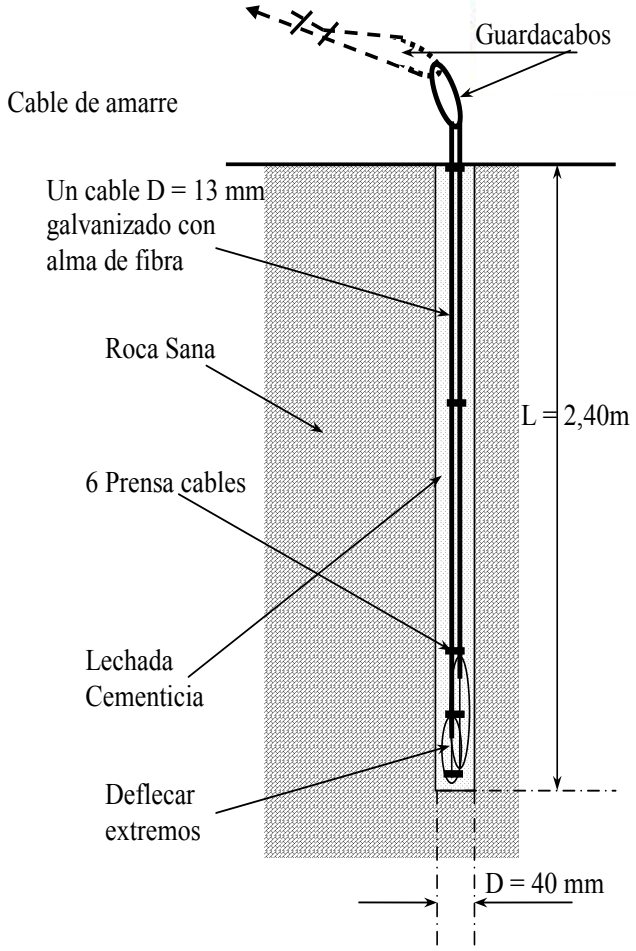


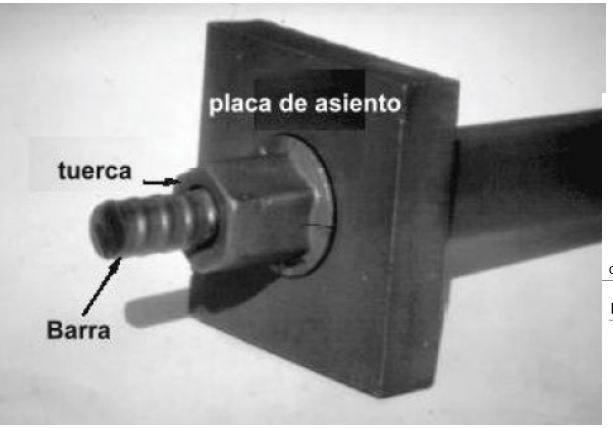


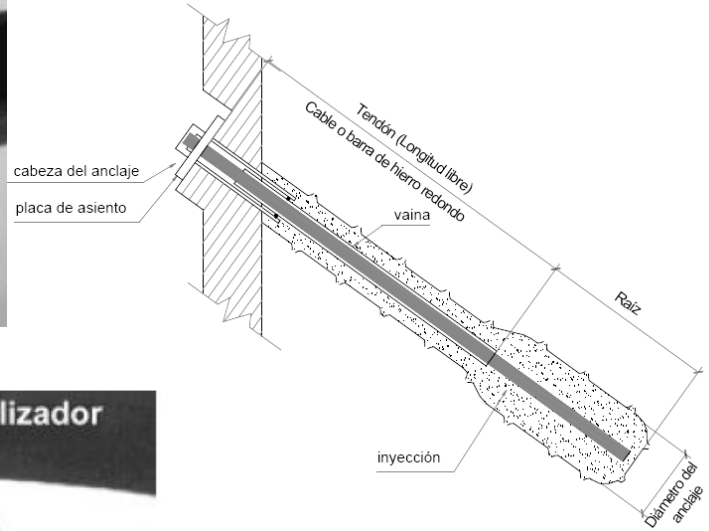
Tipos de anclajes

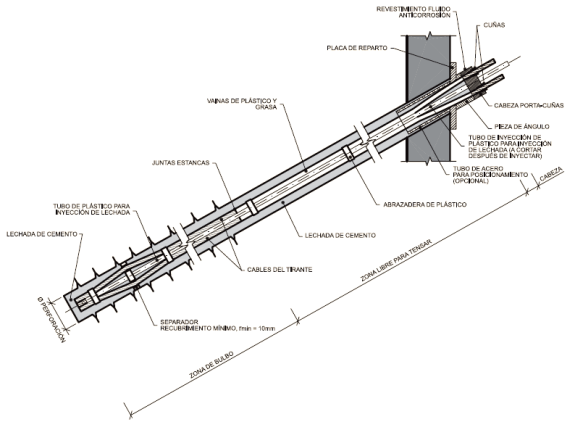


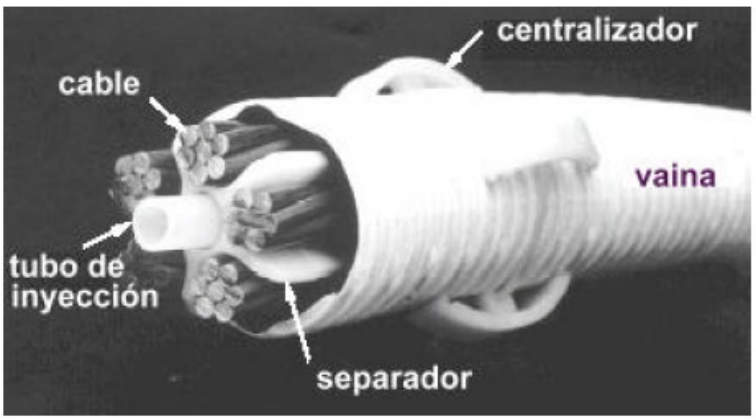


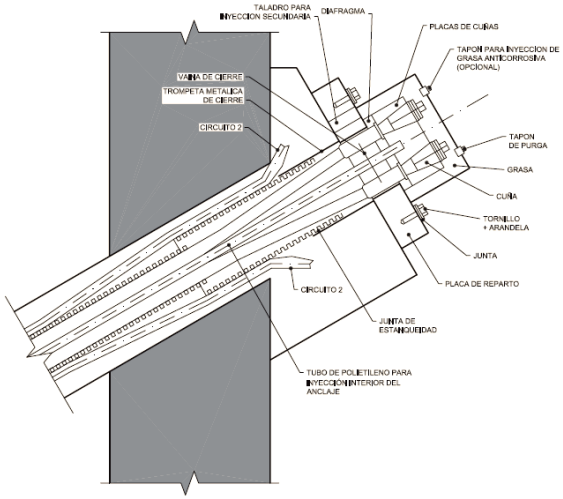
Tipos de puesta en carga











Longitud del Bulbo

Bulbos sin inyectar

$$l_b = \left(Fs.T_i\right) / \left(\pi.d.\tau_{max}\right)$$

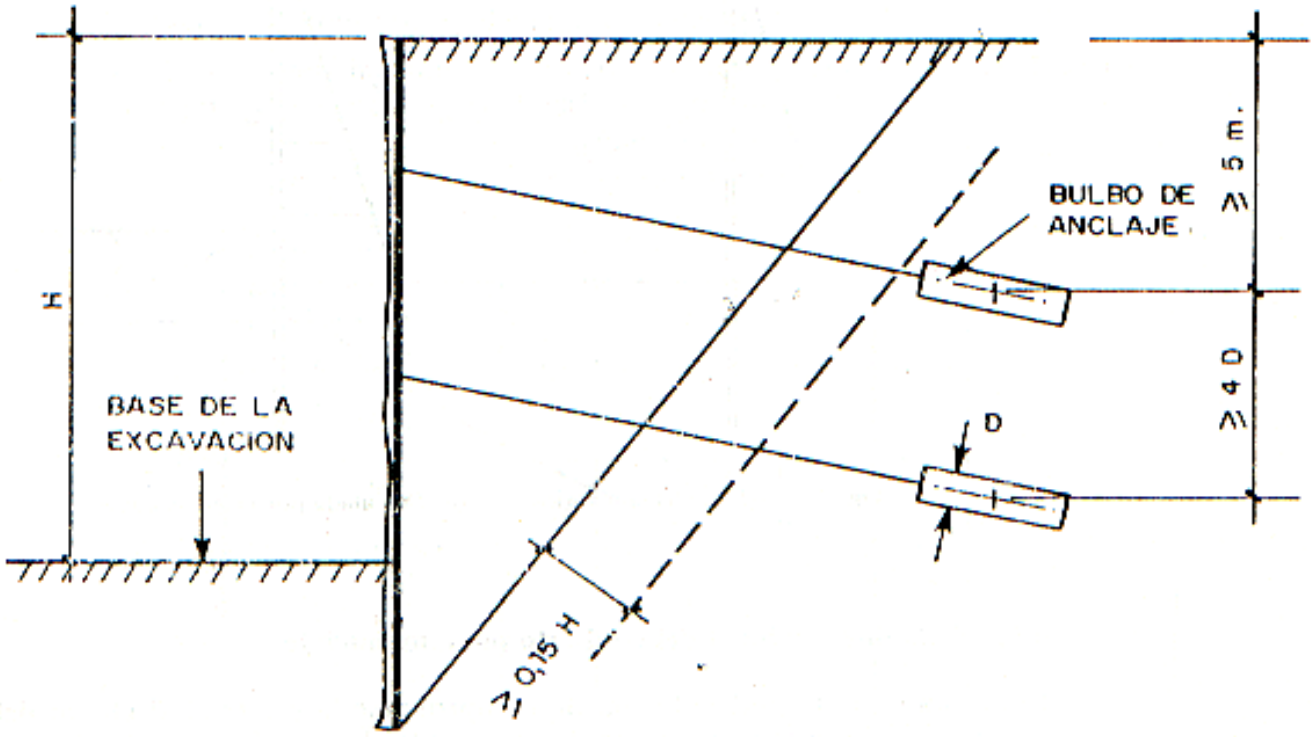
$$\tau_{max} = \psi \sqrt{q_u}$$

Bulbos inyectados

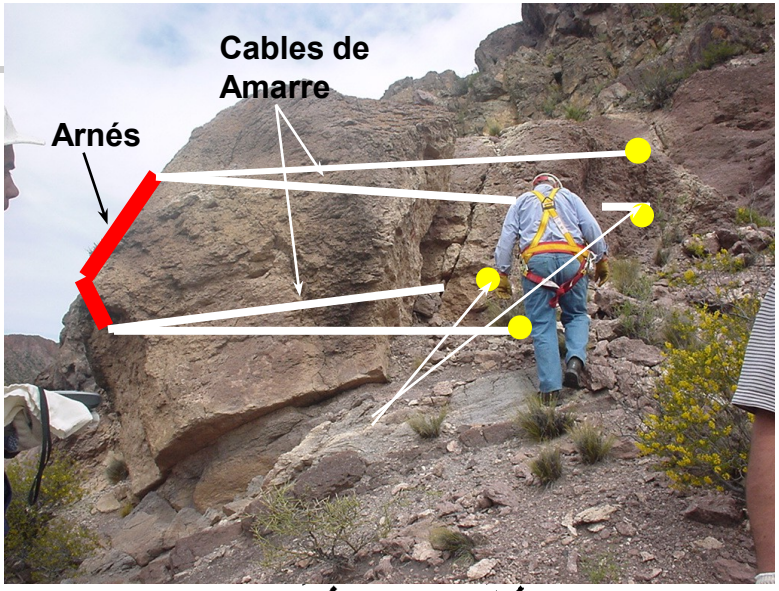
$$l_b = \left(Fs.T_i\right) / \left(\pi.d_s.q_{ad}\right)$$

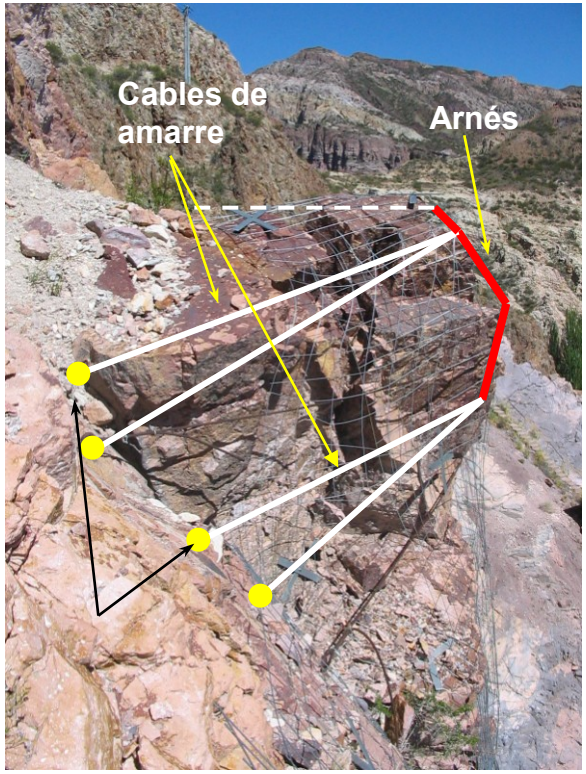
ds = α . d ; α = 1,1 (iny. en una etapa) ; α = 1,2 (iny. en múlt. etapas)

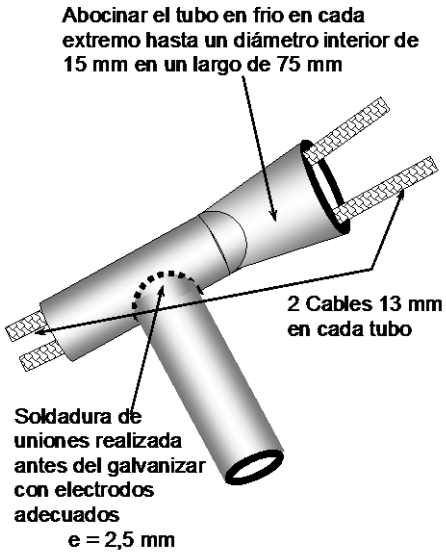
Estimación de profundidad de anclajes



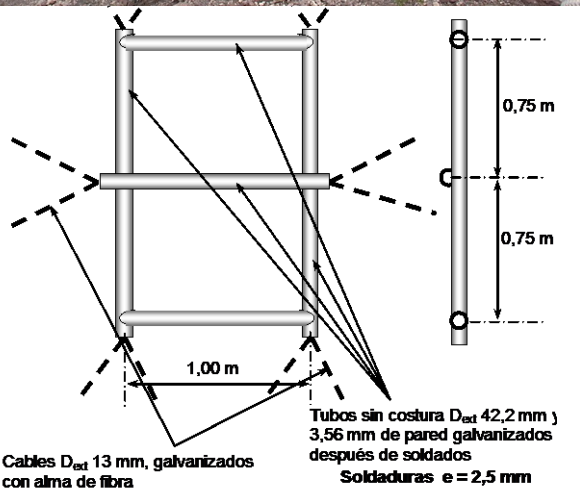
Anclajes de Bloques de Roca







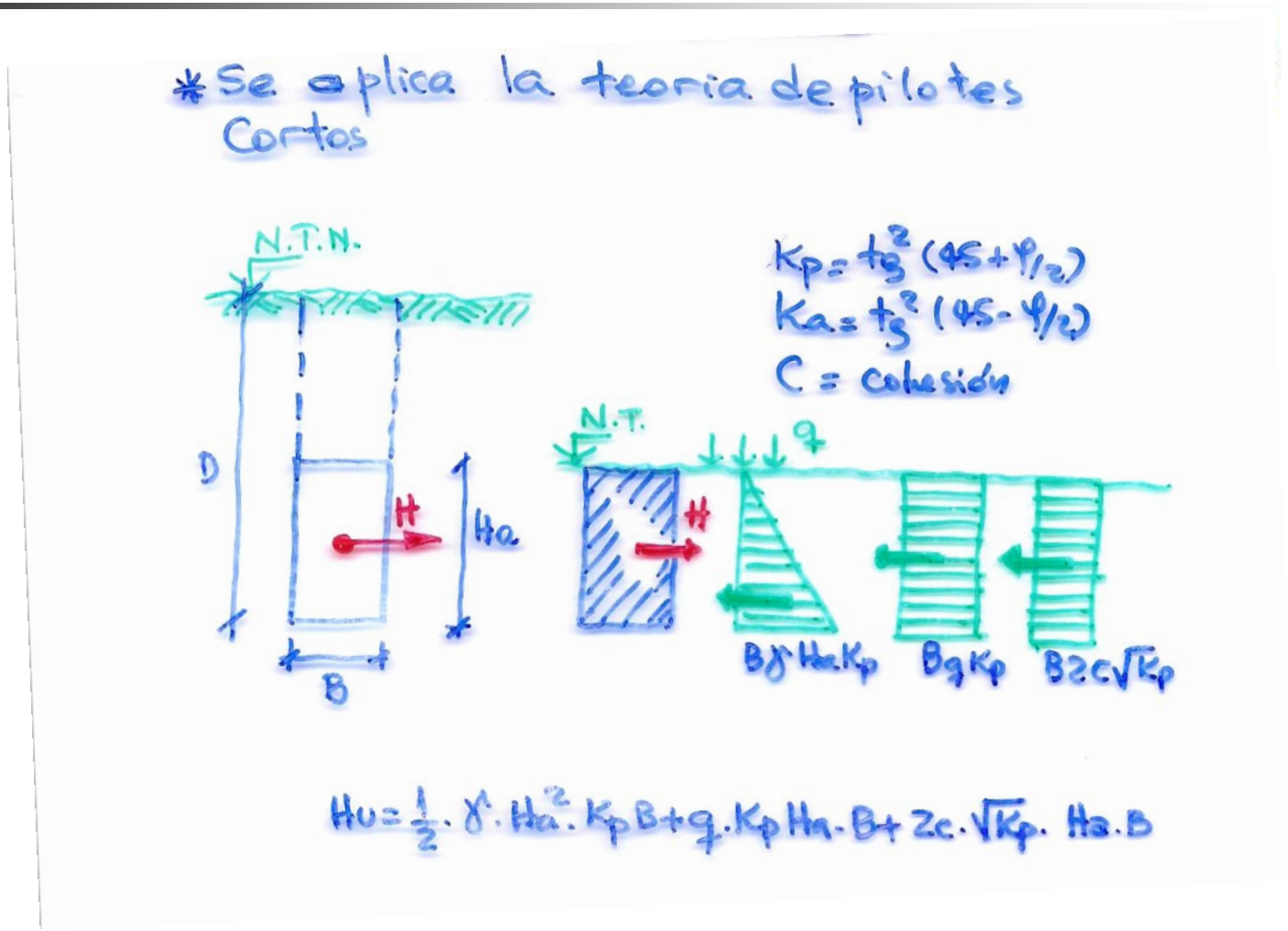
DETALLE DE SOLDADURA Y ABOCINADO DE TUBOS



VER DETALLE DE ABOCINADO DE TUBOS

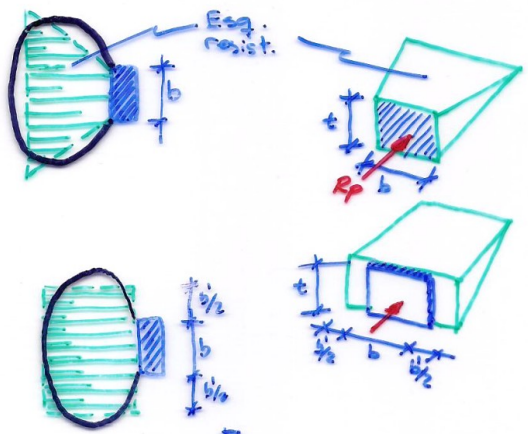
Anclajes ya colocados

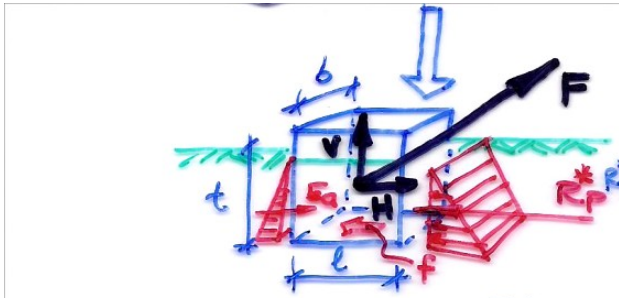
Anclajes por Pilotes Cortos



Anclajes por Bloques

- ESQUEMAS RESISTENTES





- FORMULACIONES

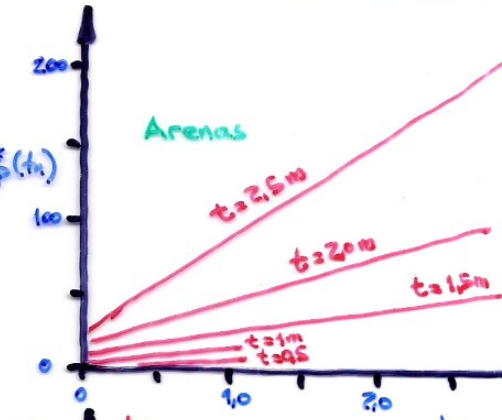
1) $V < \gamma_{H^2O} \times l \times t \times b$

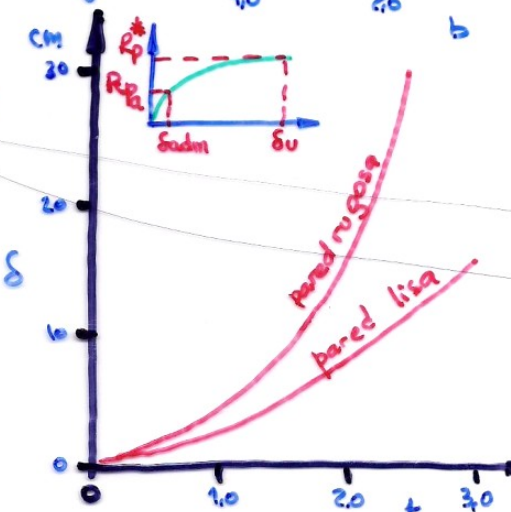
2) $H + Ea < Rp + \underbrace{f \times l \times b}_{\cong 0\ (V \cong W)}$

$Rp = f(R_p^*, \delta)$; $R_p^* \cong 0{,}75\, Rp$

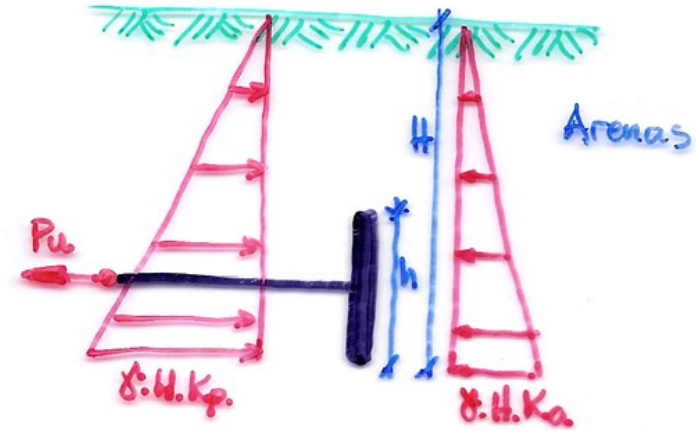
$R_{padm} \cong 0{,}75 \cdot \alpha_R \cdot R_p \cdot b(1 + \xi\, t/b)$

$\xi \cong 0{,}3$ $\qquad \alpha_R = \frac{R_{padm}}{R_p^*} \cong 0{,}5$



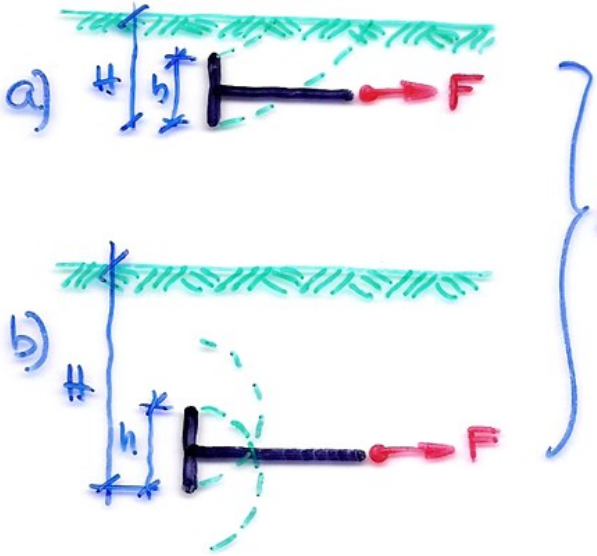


Anclajes por Placas



$$P_u = B.(P_p - P_a) + \frac{1}{3} K_o \gamma (\sqrt{K_p} + \sqrt{K_a}) H^3 / s$$

para H/h entre 1,5 y 2



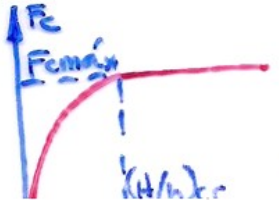
Caso b)

$$P_u = 9 B h c \left[0{,}825 + 0{,}175 \left(\frac{h}{B}\right)\right]$$

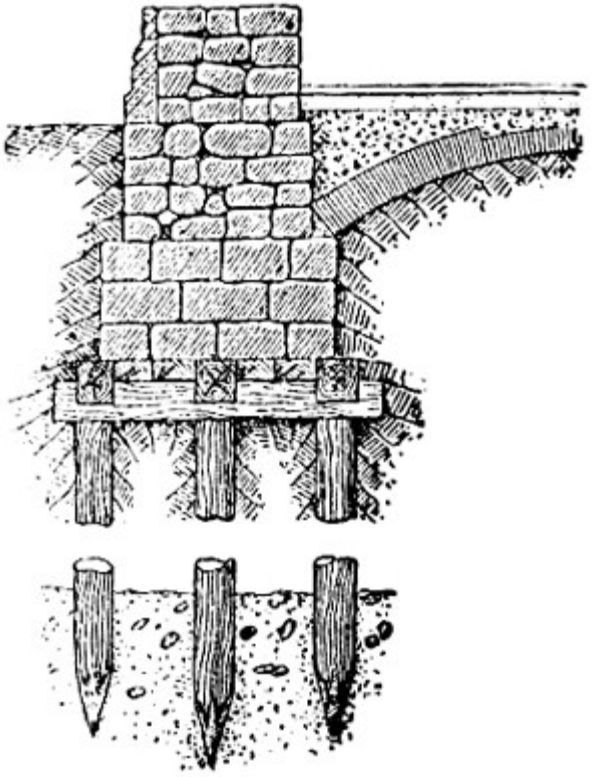
Caso a)

$$P_u = F_c . B . h . c$$

$$F_c = f(H/h)_{cr}$$



Fundaciones de Arcos



Fundaciones de Arcos

Fundaciones de Arcos

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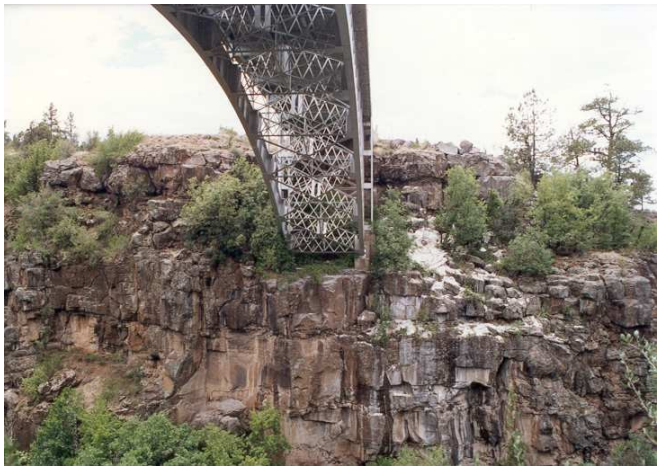

MUCHAS GRACIAS……

Ing. Civil Roberto Terzariol