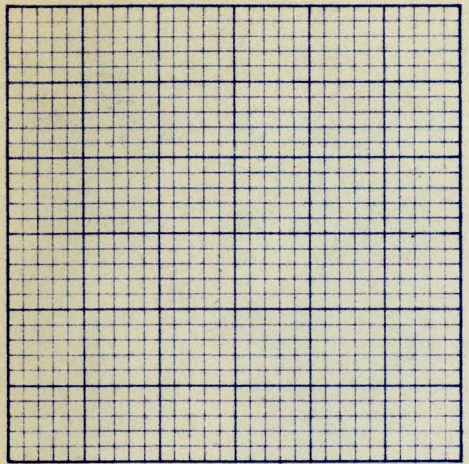


111,2

277.723/10
Frontón Recoletos

Flexión ó compresión simple.
Elemento Sección 44



$l = \dots$ mts. $e = \dots$ cm.
 $M = 62000$ cm.kg. $f = \dots$ cm.
 $N = \dots$ kg. $r = \dots$ cm.
 $T = \dots$ kg. $t = 2 \phi 15 \times 1,25 = 4,5$ cm.
 $a = 19 \times 15 \times 1,25 = 19$ cm. $u = \dots$ cm.
 $b = 19$ cm. $v = \dots$ cm.
 $c = 20$ cm. $w = \dots$ cm.
 $d = \dots$ cm. $o = \dots$ cm.
 $m = 7$ cm. $s = \dots$ cm.

Profundidad del eje neutro = $g = 6,6$ cms.

$+\frac{a}{2} = 19$	g^2	$+\left(\frac{a-b}{2} - \frac{2f}{3}\right) 2e =$	g	$-\left(\frac{a-b}{2} - \frac{2f}{3}\right) e^2 =$	$= 0$
$-\left(\frac{a-b}{2} - \frac{2f}{3}\right) =$		$+mu$		$-mur$	
		$+mt$	$= 32$	$-mtc$	$= 640$
	$9,5 g^2$		$22 g$		$640 = 0$

Momento de inercia = cm ⁴	Sección virtual = cm ²	Momento de inercia total = cm ⁴
$+\frac{a}{3} g^3 = 1800$	$+bd =$	$+\frac{bd^3}{12} =$
$+mu(g-r)^2 =$	$+\frac{\pi d^2}{4} =$	$+\frac{\pi d^4}{64} =$
$+mt(c-g)^2 = 5800$	$+(u+t)m =$	$+(u+t)m\left(\frac{d}{2} - r\right)^2 =$
$-\left(\frac{a-b}{3} - \frac{f}{2}\right)(g-e)^2 =$		

$i = 4,6$ cm

$n =$

$I =$

$H_1 = \frac{N}{n} = \dots$ kg/cm ²	$B = \frac{T}{j\left(\frac{y}{3} + w\sqrt{\frac{2}{3}}\right)} = \dots$ kg/cm ²	$C = \frac{T}{jB} = \dots$ kg/cm ²
$H_2 = \frac{Mg}{i} = 54$ kg/cm ²	$C' = \left(1 + \frac{en}{I}\right) = \dots$	$t = t' - \frac{N}{A} = \dots$ cm ²
$j = \frac{M}{At} = \dots$ cm.	$A = m \frac{M(g-c)}{i} = 770$ kg/cm ²	$H_3 = \frac{N}{n} C' = \dots$ kg/cm ²

$r_n = \dots$ cm. $v_z = \dots$ cm.² $s_z = \dots$ cm. $H_4 = \frac{N}{\pi r_n(r_n + 90 \frac{v_z}{s_z}) + 15(t+u)} = \dots$ kg/cm²

Condición: $\pi r_n(r_n + 90 \frac{v_z}{s_z}) + 15(t+u) \geq 2bd$

Observaciones: Se toma la sección aumentada en $\frac{\cos 30^\circ}{0,70} = 1,25$

$k^2 = 19,1$
 $k^3 = \frac{19,1 \times 100 \times 1,25}{100} = 2386$