

$$\bar{F}_P = 1,15 \times 7,5 = 8,625 \text{ kN}$$

$$R_A \times 3a - P \times 2a - 2P \times a = 0$$

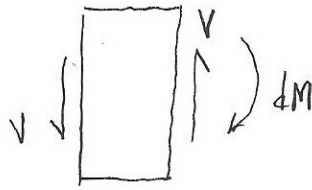
$$R_A = \frac{4P}{3} \quad R_B = \frac{5P}{3}$$

$$\text{verif.} - P \times a - 2P \times 2a + \frac{5P}{3} \times 3a = 0 //$$

o último terço da viga apresenta a maior força cortante.

$$V = -\frac{5P}{3} = -250 \text{ kN}$$

Espessamento A_1



$$\begin{aligned} \bar{S}_1 &= (4b \times 2e') \times 2b \\ &= 4b \times \frac{5}{16} e \times 2b = 5eb^2 \\ &= 1350 \text{ cm}^3 \end{aligned}$$

$$q \times A_1 = 2 \bar{F}_P \quad \text{onde} \quad q = \frac{V \bar{S}_1}{I_y}$$

$$\frac{250 \times 5eb^2}{\frac{130}{3} \cancel{eb^2}} \times A_1 = 2 \times 8,625 \Rightarrow \frac{375}{13 \times 15} A_1 = 17,25$$

$$A_1 = 9,0 \text{ cm} \quad \leftarrow$$

Espessamento A_2

$$S_2 = 2be \times 1,5b + 2be \times b = 5eb^2$$

$$q \times A_2 = 4 \bar{F}_P \Rightarrow \frac{250 \times 5eb^2}{\frac{130}{3} \cancel{eb^2}} A_2 = \frac{375}{4} \times 8,625$$

$$A_2 = 17,9 \text{ cm} \quad \leftarrow$$

