

Trecho  $AC^-$ :  $0 \leq x_1 \leq 1$

$$N = +H_A$$

$$N = +150 \text{ kN}$$

$$V = +V_A$$

$$V = +13,75 \text{ kN (Monótono)}$$

$$M = +V_A \cdot x_1$$

$$= +13,75 \cdot x_1$$

$$\begin{cases} x_1 = 0 \rightarrow M = 0 \\ x_1 = 1 \rightarrow M = 13,75 \text{ kNm} \end{cases}$$

Trecho  $BD^+$ :  $0 \leq x_2 \leq 2$

$$N = 0$$

$$V = -V_B$$

$$V = -1,25 \text{ kN (Anti Monótono)}$$

$$M = +V_B \cdot x_2$$

$$= 1,25 x_2$$

$$\begin{cases} x_2 = 0 \rightarrow 0 \\ x_2 = 2 \rightarrow 2,50 \text{ kNm} \end{cases}$$

Trecho  $C^+D^-$ :  $0 \leq x_3 \leq 1$

$$N = +H_A$$

$$N = +150 \text{ kN}$$

$$V = +V_A - P_1$$

$$V = +13,75 - 15,0$$

$$V = -1,25 \text{ kN}$$

$$M = V_A (x_3 + 1) - P_1 (x_3)$$

$$\begin{cases} x_3 = 0 \rightarrow 13,75 \\ x_3 = 1 \rightarrow 27,5 - 15,0 \\ = 12,5 \text{ kNm} \end{cases}$$