

[Opmerkingen:](#) Zie §4.6, blz. 165 t/m 166

[Antwoord:](#)

$$b \geq 240 \text{ mm}$$

[Toelichting:](#)

$$M_{\max} = M_{\text{veld}} = 100 \text{ kNm}$$

$$\sigma_{\max} = \frac{M_{\max}}{W} \leq \bar{\sigma} = 10 \text{ N/mm}^2$$

$$W = \frac{1}{6}bh^2 \geq \frac{M_{\max}}{\bar{\sigma}}$$

Kies h zo groot mogelijk, dus $h = 500 \text{ mm}$

$$b \geq \frac{6M_{\max}}{h^2\bar{\sigma}} = \frac{6 \times (100 \times 10^6 \text{ Nmm})}{(500 \text{ mm})^2 (10 \text{ N/mm}^2)} = 240 \text{ mm}$$