

[Remarks:](#) See §4.6, pages 168 till 170

[Answers:](#)

1. IPE 400; $\sigma_{\max} = 138 \text{ N/mm}^2$
2. IPE 270; $\sigma_{\max} = 157 \text{ N/mm}^2$
3. IPE 360; $\sigma_{\max} = 149 \text{ N/mm}^2$
4. IPE 300; $\sigma_{\max} = 144 \text{ N/mm}^2$
5. IPE 330; $\sigma_{\max} = 140 \text{ N/mm}^2$

[Explanation:](#)

1. $M_{\max} = 160 \text{ kNm}$
2. $M_{\max} = 67,5 \text{ kNm}$
3. $M_{\max} = M_{\text{span}} = 135 \text{ kNm}$
4. $M_{\max} = M_{\text{support point}} = 80 \text{ kNm}$
5. $M_{\max} = M_{\text{support point}} = 100 \text{ kNm}$