

Stålets skjærkapasitet i dyblene:

$$A_{sp} := 561 \text{ mm}^2 \quad \gamma_{m2} := 1.25$$

$$\text{For M30:} \quad f_{4.8_u} := 400 \quad f_{8.8_u} := 800$$

$$V_{4.8_{Rd.s}} := 0.5 \cdot \frac{(f_{4.8_u} \cdot 0.9)}{\gamma_{m2}} \frac{N}{\text{mm}^2} \cdot A_{sp} = 80.784 \text{ kN}$$

$$V_{8.8_{Rd.s}} := 0.6 \cdot \frac{(f_{8.8_u} \cdot 0.9)}{\gamma_{m2}} \frac{N}{\text{mm}^2} \cdot A_{sp} = 193.882 \text{ kN}$$

Skjærkapasitet i stålet er ok for M30 4.8 og 8.8. Verdier for andre dimensjoner hentes fra tabell B 19.7.1 og B 19.7.2 for å finne optimal størrelse.

Resultant i største påkjenning:

Akse A:

$$V_{150_{A.maks}} := \sqrt{(50.79 \text{ kN})^2 + (12.13 \text{ kN})^2} = 52.218 \text{ kN}$$

$$V_{200_{A.maks}} := \sqrt{(50.79 \text{ kN})^2 + (13.39 \text{ kN})^2} = 52.525 \text{ kN}$$

Akse B mot A:

$$V_{150_{B.A.maks}} := \sqrt{(50.79 \text{ kN})^2 + (0 \text{ kN})^2} = 50.79 \text{ kN}$$

$$V_{200_{B.A.maks}} := \sqrt{(50.79 \text{ kN})^2 + (0 \text{ kN})^2} = 50.79 \text{ kN}$$

Akse B mot C:

$$V_{150_{B.C.maks}} := \sqrt{(50.79 \text{ kN})^2 + (13.23 \text{ kN})^2} = 52.485 \text{ kN}$$

$$V_{200_{B.C.maks}} := \sqrt{(50.79 \text{ kN})^2 + (14.61 \text{ kN})^2} = 52.85 \text{ kN}$$

Akse C:

$$V_{150_{C.maks}} := \sqrt{(50.79 \text{ kN})^2 + (25.36 \text{ kN})^2} = 56.769 \text{ kN}$$

$$V_{200_{C.maks}} := \sqrt{(50.79 \text{ kN})^2 + (28 \text{ kN})^2} = 57.997 \text{ kN}$$