



Standard Gravity 9.81 m/s^2
 g Factor 1

Force (F_x) = $100 * 1 * 9.81$ 981 N
 Force (F_y) = $100 * 1 * 9.81$ 981 N
 Force (F_z) = $100 * 1 * 9.81$ 981 N

Calculation(x)

Direct Shear (x) = $F_x / 4$ 245.25 N
 Moment(x) = $F_x * 200$ 196200 N.mm

Tension(x) = $\text{Moment}(x) / (2 * 100)$ 981 N

Calculation(y)

Moment(y) = $F_y * 30$ 29430 N.mm

Tension (y) = $\text{Moment}(y) / (2 * 100)$ 147.15 N

Direct Tension(y) = $F_y / 4$ 245.25 N

Calculation(z)

Moment(z) = $F_z * 200$ 196200 N.mm

Tension(z) = $\text{Moment}(z) / (2 * 100)$ 981 N

Direct Shear (z) = $F_z / 4$ 245.25 N