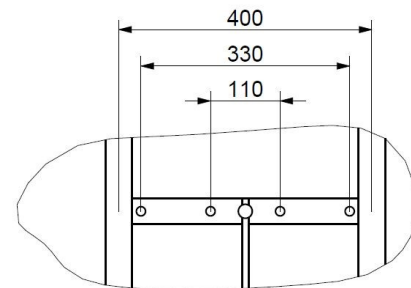
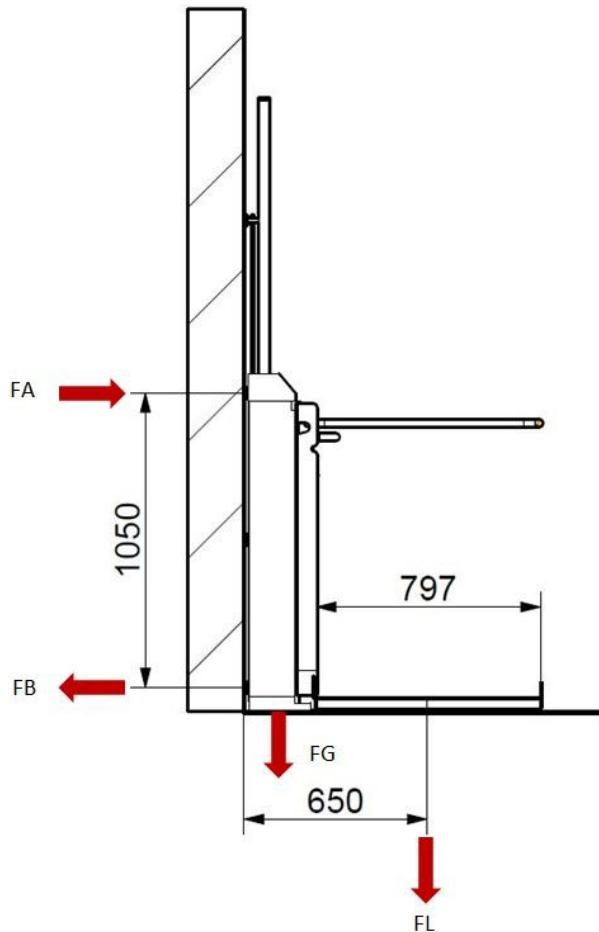


## Calculation of the pull out forces on the masonry

Mit PTC Max



|                         |   |
|-------------------------|---|
| $L_a := 660 \text{ mm}$ | distance to center platform             |
| $X := 1050 \text{ mm}$  | distance between brackets               |
| $L_g := 193 \text{ mm}$ | distance to center of gravity lift unit |
| $FG := 150 \text{ kg}$  | weight of the lift unit                 |
| $FL := 225 \text{ kg}$  | loading capacity                        |

# Masonry

Version V1.1

$$F_A := \frac{FG \cdot g \cdot L_g + FL \cdot g \cdot L_a}{X}$$

$$F_A = 1657 \text{ N}$$

pull out force over each bracket

$$F_{Anker} := \frac{F_A}{2}$$

$$F_{Anker} = 828.662 \text{ N}$$

pull out force of each anchor (static)

$$F_{qAnker} := 0 \text{ N}$$

vertical force of each anchor

Initiation of the vertical forces through the drive rail into the ground

$$K_A := 1.1$$

application factor electro drive

$$K_{Fang} := 2$$

application factor safety brake

$$F_{Anker.dyn} := F_{Anker} \cdot K_A \cdot K_{Fang}$$

$$F_{Anker.dyn} = 1823 \text{ N}$$

pull out force of each anchor (dynamic)