



AMPLITUDE DURING VIBRATION OF HAMMER + SHEETPILE:

$$\text{Amplitude} = \frac{2000 \times \text{Eccentric moment}}{\text{Dynamic weight incl. clamp} + \text{weight sheetpile}}$$

Example: FAV44-50 HD vibratory hammer + sheetpile (i.e. 2,000 kg)

$$\text{Amplitude} = \frac{2000 \times 50.70}{4680 + 2000} = 15\text{mm}$$

CENTRIFUGAL FORCE

$$\text{Centrifugal force} = 0.011 \times (\text{frequency})^2 \times \text{Eccentric moment}$$

Example: FAV44-50 HD vibratory hammer working with a frequency of 1600 vpm

$$\begin{aligned} \text{Centrifugal force} &= 0.011 \times 1600^2 \times 50.70 \\ &= 1427712 \text{ N} \\ &= 1427 \text{ kN} \end{aligned}$$

