



Amplitude Calculations

Select vibrator driver size by using these calculations for amplitude

Amplitude equation- non-metric

$$A = \frac{2 \times EM}{VM}$$

EM = Eccentric moment in in-lbs
VM = Vibrating mass lbs
A = Amplitude in inches

VM - Vibrating Mass includes the following:

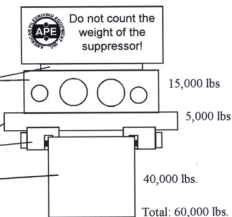
The vibrating mass is the sum of all the weights in vibration:

$$VM = B + C + D$$

B: Vibrating mass (dynamic weight) of vibratory gearbox & motors and inner suppressor housing plus:

C: Clamping device including all plates or beams and clamps plus:

D: Casing weight or pile weight



Note: Calculate casing weight using the following formula:

OD (outside diameter) less wall thickness times wall thickness times 10.69 = lbs per foot. Take lbs per foot and multiply by total length of pile.

OD - wall thickness X wall thickness X 10.69 = lbs per foot

Example for vibro shown above:

$$2 \times 13,000 = 26,000 / 60,000 = .433 \text{ inches of amplitude}$$

Please go to larger vibro if amplitude is less than 0.125

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