



Here are the simple calculations for determining Gun Stroke:

$$\text{Gun Spacing} = \frac{\text{Maximum Part Height} + \text{Overstroke} + \text{Understroke}}{\text{Number of Guns per Side}}$$

$$\text{Gun Stroke} = \text{Gun Spacing} - (\text{minus}) \text{Effective Pattern Height}$$

Overstroke / Understroke = Approximately $\frac{1}{2}$ the depth of the product, up to a maximum of 12"

Effective Pattern Height (based on ITW Gema equipment) = Approximately 5" for a Rotary Oscillator and 3" for Reciprocators or HD Oscillators

These are examples of the formulas with figures plugged in based on:

- 2 guns per side
- A part size of 30" high x 3" deep
- An Effective Pattern Height of a horizontal fan spray pattern of 3"

$$\text{Gun Spacing} = \frac{30" + 1.5" + 1.5"}{2} = 16.5" \text{ (vertical distance between guns)}$$

$$\text{Gun Stroke} = 16.5" - 3" = 13.5" \text{ (gun stroke or travel distance from point A to point B)}$$

ITW Gema

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