

Calculation

3mm hole

$$\text{Area} = \pi(1.5)^2 = 7.06858\text{mm}$$

$$\text{Area} = 2.6 \times 2.6 = 6.76\text{mm}$$

$$\text{Area} = 3 \times 3 = 9\text{mm}$$

$$\text{Speed} = 0.333\text{g/s}$$

$$60\text{s} = 180\text{g}$$

$$\text{Space} = 69 \times 21 \times 90 = 130410\text{mm}^3$$

Trial 1

$$\text{Weight} = 21 - 13 = 8\text{g}$$

$$\text{Time} = 27\text{s}$$

$$\text{Speed} = 0.296\text{g/s}$$

Trial 2

$$\text{Weight} = 24 - 13 = 11\text{g}$$

$$\text{Time} = 36\text{s}$$

$$\text{Speed} = 0.306\text{g/s}$$

Trial 3

$$\text{Weight} = 19 - 13 = 6\text{g}$$

$$\text{Time} = 19\text{s}$$

$$\text{Speed} = 0.316\text{g/s}$$