



Square Foot Calculation Basics

Area of squares or rectangular walls.

When finding the surface area of a flat wall structure, use the formula **A=wl**



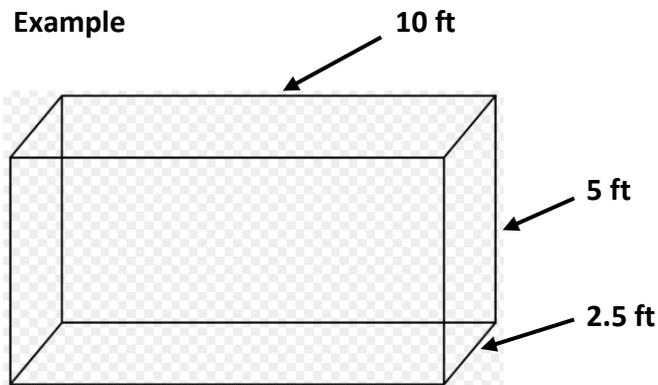
Example

Let's say that "w" is equal to 4 feet and "l" is equal to 8 feet.

A = 4 x 8 would give is a total area of 32 sqft.

To find the square footage of a flat wall structure, take the width and length of all of the different surfaces, find their surface area with the formula above, and then add all of the values together.

Example



In this example you have
Two sections that are 10 x 5
Two sections that are 10 x 2.5
Two sections that are 5 x 2.5
This translates
mathematically to
A = 2lh + 2wl + 2hw
A = 175 sqft



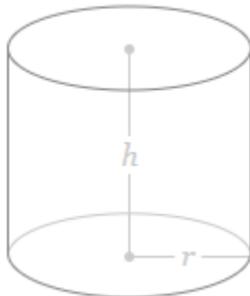
Area of a cylinder.

When finding the surface area of a cylindrical structure such as a manhole use the basic formula $A = 2\pi rh + 2\pi r^2$. When expanded out this equation would read as

- Area = $2 \times 3.14 \times \text{radius} \times \text{height} + 2 \times 3.14 \times \text{radius}^{\text{Squared}}$.

Please note. The formula assumes that the cylinder has a flat bottom and top. Mathematical adjustment will need to be made to more accurately calculate the square footage of a cylindrical manhole, a pipeline, a lift station, etc. The formula above is a baseline calculation and will not reflect anomalies like the channel, cone reductions, and chimneys.

Example



In this example, let us say that the height of the cylinder is 26 feet and the radius is 8 feet.

$$A = 2\pi 8 \times 26 + 2\pi 8^2$$

$$A = 1709.03 \text{ sqft}$$

Once you have the square footage of the structure, plug that number into the SprayWall Pounds Need Calculation and you will have the number of cycles of the spray machine needed. Note: After an accurate square foot calculation is made, it is important to add a percentage increase to account for test plates, overspray, and other issues. Most often this is 10% to 15%.